

2016

# Washington University School of Medicine bulletin, 2016-2017

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# About

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Washington University School of Medicine is a world leader in medical education, research and patient care. Its graduate programs in [medical education](#), [occupational therapy](#) and [physical therapy](#) are perennially ranked among the nation's best by *U.S. News & World Report*. Faculty lead a robust research enterprise, supported by \$352.3 million from the National Institutes of Health (NIH) in the fiscal year ending June 30, 2015. The school's physicians provide care for more than 430,000 children and adults each year, in partnership with nationally ranked [Barnes-Jewish Hospital](#) and [St. Louis Children's Hospital](#).

The Bulletin of Washington University School of Medicine represents the School's academic policies, services, and course and program offerings. For the most current information regarding academic programs and course descriptions and services available to students, please visit websites of the educational program of interest, accessible through the [Programs](#) section.

## University Mission

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Washington University's mission is to discover and disseminate knowledge, and protect the freedom of inquiry through research, teaching and learning.

Washington University creates an environment to encourage and support an ethos of wide-ranging exploration. Washington University's faculty and staff strive to enhance the lives and livelihoods of students, the people of the greater St. Louis community, the country, and the world.

Our goals are:

- to welcome students, faculty, and staff from all backgrounds to create an inclusive community that is welcoming, nurturing, and intellectually rigorous;
- to foster excellence in our teaching, research, scholarship, and service;
- to prepare students with attitudes, skills, and habits of lifelong learning and leadership thereby enabling them to be productive members of a global society; and
- to be an institution that excels by its accomplishments in our home community, St. Louis, as well as in the nation and the world.

To this end we intend:

- to judge ourselves by the most exacting standards;
- to attract people of great ability from diverse backgrounds;
- to encourage faculty and students to be bold, independent, and creative thinkers;
- to provide an exemplary, respectful, and responsive environment for living, teaching, learning, and working for present and future generations; and
- to focus on meaningful measurable results for all of our endeavors.

# WUSM Mission and Vision

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## Our mission

Washington University School of Medicine will lead in advancing human health

through the best clinical care, innovative research and the education of tomorrow's leaders in biomedicine in a culture that supports diversity, inclusion, critical thinking and creativity.

## Our vision

In leading the advancement of human health, Washington University School of Medicine will:

- cultivate excellence and collegiality within an inclusive community
- attract and develop a diverse, talented, academic workforce
- lead the revolution in biomedicine
- enhance our intellectual and technological environment to foster exceptionally creative research and education
- develop and maintain excellent clinical programs to provide outstanding care
- observe the highest standards of ethics, integrity and compassionate care
- apply advances in research and medicine to the betterment of the human condition locally and globally

Approved by Executive Faculty at their September 4, 2013, meeting

## History

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The education of physicians at Washington University began in 1891. Under an ordinance enacted April 14, 1891, establishing a Medical Department of Washington University, the St. Louis Medical College (an independent medical college in St. Louis)

was brought under the wing of the well-established University. The faculty of the college eagerly agreed to the union, stating "Most of the great medical schools of the world have always been integrant departments of universities, and the examples which America furnishes give added testimony to the fructifying influence of the contact of students and teachers of professional schools with the workers in universities." Eight years later, the Missouri Medical College (another independent college in the city) also joined Washington University, and thus the two most famous medical colleges in the city were merged with the University.

In 1909, Abraham Flexner began a survey of 155 medical schools in the United States and Canada for the Carnegie Foundation for the Advancement of Teaching. The survey created a national sensation. Some schools collapsed, others pooled their resources, while still others reorganized. The Medical School of Washington University did not escape criticism. In the report Flexner made to Henry Smith Pritchett, Ph.D., president of the Carnegie Foundation for the Advancement of Teaching and former professor of astronomy at Washington University, he said that one of two courses must be adopted: "The department must be either abolished or reorganized."

Dr. Pritchett mailed the report to Robert S. Brookings, a St. Louis merchant who was president of the Board of Directors of Washington University. Brookings was shocked and immediately went to New York to see Flexner, demanding proof that the conditions were as bad as described. Both returned to St. Louis and the two men went through the School. In less than two hours, Brookings was convinced that drastic action was necessary if the School was to be one of the foremost institutions of medical education and research. The meeting in 1909 of Brookings and Flexner was of unsurpassed significance in the history of the Washington University School of Medicine, for it led to the complete reorganization of the School and the establishment of the present Medical Center. Abraham Flexner inspired the dream of a model medical school; Robert Brookings accepted the challenge, and with the energy and vision which characterized all his enterprises, made the dream a reality.

No time was lost in making changes. The Bulletin of the Medical School for July 1910

made the following statement: "The Corporation of the University, becoming convinced that in no other direction could greater service be rendered than through a great, modern medical school, determined to reorganize the School and to place it in the front rank of American medical institutions. It has called to the heads of a number of leading departments the ablest men it could secure."

When Robert A. Barnes died in 1892, he left a will which directed the trustees of his estate to use \$840,000 for the erection and equipment of a hospital "for sick and injured persons, without distinction of creed, under the auspices of the Methodist Episcopal Church, South." Investigation by the trustees into the cost of building a modern hospital convinced them that the sum was not large enough to build an efficient, fireproof building, and they therefore invested the trust. By 1912 the value had increased to \$2 million, a sum which permitted the building of a hospital and left an endowment greater than the original fund.

At the same time the trustees were studying hospital construction, Robert Brookings was studying medical schools. It was apparent to everyone concerned that the two projects, the building of a medical school and the construction of a modern hospital, were so interrelated that the purpose of each would be more successfully fulfilled by an affiliation. A medical school would provide a highly trained staff and would assure the most modern methods and superior laboratory facilities for the hospital. A teaching hospital would give patients superior care and, at the same time, provide the essential clinical experience consistent with modern medical teaching methods.

In the spring of 1912, construction was begun on the medical school and hospital buildings which today form the nucleus of the present center. The laboratories were moved from their old quarters in downtown St. Louis into the new buildings on Euclid Avenue and Kingshighway Boulevard during the summer of 1914, and late in the fall of the same year the activities of the Washington University Hospital were transferred to Barnes Hospital. Concomitantly, the St. Louis Children's Hospital, then located on Jefferson Avenue, became affiliated with the School of Medicine and moved to its new quarters in the Medical Center.

On April 28, 29 and 30, 1915, exercises were held to celebrate the completion of this group of buildings designed to promote the practice, the teaching and the progress of medicine. The dedication ceremonies marked what Dr. William H. Welch of The Johns Hopkins University called "one of the most significant events in the history of medical education in America." Robert S. Brookings, the one man most responsible for the reorganization, voiced the hope that "our efforts will contribute, in some measure, to raising the standard of medical education in the West, and that we will add, through research activities, our fair quota to the sum of the world's knowledge of medicine." These prophetic words have been realized.

In the ensuing years, the Medical Center has continued to grow, and now its facilities are among the best in the world. With the increase in size of the physical plant there has come a substantial increase in the number of the faculty; the expansion has been made without compromise to the standards that marked the early development of the Medical Center. As a result, significant achievements in both research and clinical areas have been steadily recorded.

## Administration

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This section of the Bulletin presents major leadership bodies of Washington University, the School of Medicine, and Washington University Medical Center.

## Board of Trustees

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Please visit the [Board of Trustees](#) website for the list of current trustees and other information concerning the board.

## Emeritus Trustees

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Please visit the [Board of Trustees](#) website for the list of emeritus trustees and other information concerning the board.

## Officers of the University Administration

---

Mark S. Wrighton

*Chancellor*

H. Holden Thorp

*Provost and Executive Vice Chancellor for Academic Affairs*

David T. Blasingame

*Executive Vice Chancellor for Alumni and Development Programs*

Michael R. Cannon

*Executive Vice Chancellor and General Counsel*

Larry J. Shapiro

*Executive Vice Chancellor for Medical Affairs and Dean of the School of Medicine*



Henry S. Webber

*Executive Vice Chancellor for Administration*

John A. Berg

*Vice Chancellor for Admissions*

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*Vice Chancellor for Finance*

Jill D. Friedman

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*Vice Chancellor and Chief Information Officer*

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*Vice Chancellor for Research*

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*Vice Chancellor for Student Affairs*

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*Treasurer*

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*Chief Investment Officer*

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*University Librarian*

Ida H. Early  
*Secretary to the Board of Trustees*

## Officers of the School of Medicine

---

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*Chancellor*

David H. Perlmutter, MD  
*Executive Vice Chancellor for Medical Affairs and Dean; Chairman, Executive Faculty*

Jennifer K. Lodge, PhD  
*Vice Chancellor for Research and Associate Dean for Research*

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*Associate Vice Chancellor for Clinical Affairs and Chief Executive Officer, Faculty Practice Plan*

John Powers  
*Associate Vice Chancellor and Deputy General Counsel*

David M. Shearrer

*Associate Vice Chancellor for Medical and Alumni Development Programs*

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*Associate Vice Chancellor for Administration and Finance*

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*Associate Vice Chancellor and Associate Dean, Medical Public Affairs*

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*Assistant Vice Chancellor and Assistant Dean for Finance*

Lisa M. Braun

*Assistant Vice Chancellor and Chief Counsel*

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*Assistant Vice Chancellor and Executive Director of Medical Corporate and Foundation Relations*

Melissa Hopkins

*Assistant Vice Chancellor, Assistant Dean for Facilities Management*

Steven L. Leary

*Assistant Vice Chancellor for Veterinary Affairs and Director of the Division of Comparative Medicine*

Glenda K. Wiman

*Assistant Vice Chancellor and Assistant Dean of Special Programs*

Michael A. Kass, MD

*Senior Associate Dean for Human Research Protection*

Mary E. Klingensmith, MD

*Interim Senior Associate Dean for Education (9/5/2016)*

Michael M. Awad, MD, PhD

*Associate Dean for Medical Student Education*

Koong-Nah Chung, PhD

*Associate Dean for Medical Student Research and Assistant Dean for Admissions and Student Affairs*

Diana L. Gray, MD

*Associate Dean for Faculty Affairs*

Jonathan M. Green, MD

*Associate Dean for Human Studies*

Rebecca P. McAlister, MD

*Associate Dean for Graduate Medical Education*

Lisa M. Moscoso, MD, PhD

*Associate Dean for Student Affairs*

Valerie S. Ratts, MD

*Associate Dean for Admissions*

Will R. Ross, MD, MPH

*Associate Dean for Diversity*

Paul A. Schoening

*Associate Dean and Director of the Bernard Becker Medical Library*

Allyson R. Zazulia, MD

*Associate Dean for Continuing Medical Education*

Kathryn M. Diemer, MD

*Assistant Dean for Career Counseling*

Tom Evola

*Assistant Dean for Academic Affairs and Registrar*

Bridget O'Neal

*Assistant Dean and Director of Financial Aid*

Lisa H. Stevenson

*Assistant Dean for Admissions and Director of Diversity Programs*

Yi Zhang

*Assistant Dean for Clinical Trials and Executive Director of the Center for Clinical Studies*

Karen Winters, MD

*Director of the Student and Employee Health Services — Medical Campus*

Stephanie Brelsford

*Assistant Registrar*

# Board of Directors, Washington University Medical Center

---

David H. Perlmutter, MD

*President*

Michael A. DeHaven

*Secretary*

Mary Corcoran

*Treasurer*

Robert W. Cannon

Richard J. Liekweg

Joan Magruder

Richard J. Stanton

Henry S. Webber

# National Council

---

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*Chair*

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Robert G. Clark

David P. Conner

Peter B. Corr, PhD

George W. Couch III

Andrew B. Craig III

Joann L. Data, MD

Joseph M. Davie, MD, PhD

Robert C. Drews, MD

John P. Dubinsky

David C. Farrell

Daniel P. Getman, PhD

Jay A. Kaiser, MD

Lee C. Kling

Charles F. Knight

Arthur M. Krieg, MD

Steven H. Lipstein

Carol B. Loeb

Richard J. Mahoney

James S. McDonnell III

Walter L. Metcalfe Jr.

Marilyn Moffat, PhD

Patricia M. Nagel

William Neaves, PhD

Philip Needleman, PhD

Andrew E. Newman

Roger M. Perlmutter, MD, PhD

Gordon W. Philpott, MD

Allan H. Rappaport, MD, JD

Barbara J. Reynolds, MD

Pejman Salimpour, MD

Kelvin R. Westbrook

William P. Wiesmann, MD

Raymond H. Wittcoff

Roma Broida Wittcoff

Pamela Gallin Yablon, MD

## Officers and Committees of the Faculty

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This section of the Bulletin presents faculty committees, which govern various aspects of School of Medicine activities related to research, patient care and education. Their purpose is to help ensure that the school's activities are carried out in compliance with university policies as well as state and federal law.

## Executive Faculty

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### Voting members

David H. Perlmutter

*Executive Vice Chancellor for Medical Affairs and Dean; Chairman, Executive Faculty*

Stephen M. Beverley

Azad Bonni

Craig A. Buchman

John A. Cooper

Ralph G. Dacey Jr.

Timothy J. Eberlein

Alex S. Evers

Victoria J. Fraser

Dennis E. Hallahan

David M. Holtzman

George A. Macones

Todd P. Margolis

Jeffrey D. Milbrandt

Regis J. O'Keefe

David W. Piston

Gary A. Silverman

Lilianna Solnica-Krezel

Herbert W. Virgin

Richard L. Wahl

Charles F. Zorumski

Paul Bridgman

*Vice-Chair, ECFC*

Jennifer A. Dunn

*Voluntary Faculty Representative*

Mary E. Klingensmith

*Chair, ECFC*

## **Attending**

Mark S. Wrighton

*Chancellor*

*Ex officio*

Holden Thorp

*Provost*

*Ex officio*

## Faculty Council

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The Faculty Council consists of all full-time members of the faculty with the rank of professor, associate professor, assistant professor and those instructors who have been on the faculty for at least three years. The officers and executive committee are listed below. Their service ends in June of the year in parenthesis after their name.

### **Executive Committee of the Faculty Council (ECFC)**

#### ***Chair***

Mary E. Klingensmith, MD (2017)

#### ***Vice Chair***

Paul C. Bridgman, PhD (2017)

#### ***Vice-Chair Elect***

Dayna S. Early, MD (2017)

#### ***Clinical Representative to the Executive Committee of the Faculty Council***

Maria Q. Braggstrom, MD (2018)

Todd E. Druley, MD, PhD (2018)

Dayna S. Early, MD (2018)

Gregory H. Branham, MD (2019)

Mythili Srinivasan, MD, PhD (2019)

Linda M. Tsai, MD(2019)

***Preclinical Representative to the Executive Committee of the Faculty Council***

Kendall J. Blumer, PhD (2017)

Mike M. Mueckler, PhD (2018)

Joseph P. Vogel, PhD (2019)

***Research Track Representative to the Executive Committee of the Faculty Council***

Joseph W. Klaesner, PhD (2018)

Larissa B. Thackray, PhD (2019)

***Program or Division Representative to the Executive Committee of the Faculty Council***

Steven D. Taff, PhD (2018)

***Divisional Representative to Faculty Senate Council***

Scott Saunders, MD, PhD (2017)

Robert Mercer, PhD (2018)

***Elected Member of Practice Plan Board of Directors***

Ellen Lockhart, MD (2019)

Anitha Vijayan, MD (2019)

***Medical School Faculty Rights Committee***

Mary Klingensmith, MD (2017) Co-Chair

Paul Bridgman, PhD (2017) Co-Chair

Kim A. Carmichael, MD (2017-R)

Andrew Galakatos, MD (2017-R)

Gregory F. Wu, MD, PhD (2017-R)

Mauricio Lisker-Melman, MD (2019-A)

Lawrence B. Salkoff, PhD (2019-A)

Carla J. Weinheimer, MS (2019-A)

***Academic Freedom & Tenure Hearing Committee (University Committee)***

David B. Clifford, MD (2017 – R)

Steven Brody, MD (2017 – A)

Sarah England, PhD (2018 – R)

David Reichert, PhD (2018 – A)

*AdHoc ECFC Members*

Diana Gray, MD (Office of Faculty Affairs)

Tamara Doering, MD, PhD (Academic Women's Network)

## Animal Studies Committee

---

Dana Abendschein

*Chair*

Steven L. Leary

## Committee on the Academic and

# Professional Evaluation of Students

---

Linda J. Pike, PhD

*Chair*

Kari Allen, MD

Paul Bridgman, PhD

Steven Cheng, MD

Erika C. Crouch, MD, PhD

Tom Evola

Dehra Harris, MD

Henry Huang, PhD

Nigar Kirmani, MD

Robert W. Mercer, PhD

Casey Pruitt, MD

Deborah Rubin, MD

David Windus, MD

Michael Awad, MD, PhD

*Ex-Officio*

Mary E. Klingensmith, MD

*Ex-Officio*

Lisa M. Moscoso, MD, PhD

*Ex-Officio*

Valerie Ratts, MD

*Ex-Officio*

Will R. Ross, MD, MPH

*Ex-Officio*

Alison J. Whelan, MD

*Ex-Officio*

Karen Winters, MD

*Ex-Officio*

# Committee on Admissions

---

Valerie S. Ratts

*Chair*

Rebecca Aft

Natalia Akopyants

Kari Allen

Nancy Bartlett



Kevin Barton

Amy Bauernfeind

Rakhee Bhayani

Laura Bierut

Elisa Birnbaum

Thomas Blanke

Donald Bohnenkamp

Martin Boyer

Angela Brown

Bruce Bryan

Jonathan Byrd

Kirstin Campbell

Chesney Castleberry

Lewis Chase

Praveen Chenna

Camaryn Chrisman Robbins

Carrie Coughlin

Thomas Cox

Sharon Cresci

Sonika Dahiya

Jennifer DeLaney

Matthew Dobbs

W. Edwin Dodson

Maria Majella Doyle

Bettina Drake

Christopher Dy

Mayte Figueroa

Gretchen Foltz

Andrew Gallakatos

Marcie Garland

Joseph Gaut

Karen Gauvain

Alan Glass

Joel Goebel

Ramaswamy Govindan

Rosanna Gray-Swain

Russell Groener

Ann Gronowski

Andrea Hagemann

Ian Hagemann

Laura Hall

Anjum Hassan

Cynthia Herrick

Gary Hirshberg

Lori Holtz

Eva Hurst

Catherine Ifune

Aimee James

Michael Jarvis

Cylen Javidan-Nejad

Shannon Joerger

Sarah Keller

Seung Kim

Sandra Klein

Eric Knoche

Jamie Kondis

Lawrence Kotner

Daniel Kreisel

Cathy Krucylak

Gina LaRossa

Mark Levine

Rebecca Lobb

Latisha Love-Gregory

Susan Mackinnon

Robert Mahoney

James Marks

Mary Mason

Marcia McCabe

Gerald Medoff

Jerry Middleton

Marc Moon

Robert Moore

Brian Nussenbaum

M. Allison Ogden

Bridget O'Neal

F. Thomas Ott

William Owens

Yikyung Park

Laura Parks

Matt Parsons

Steve Plax

Greg Polites

Prabha Ranganathan

Valerie Ratts

Nanette Reed

Kenneth Remy

Marvin Rennard

Noor Riaz

Joan Riley

Will Ross

Cary Siegel

Sarah Stanage

Lisa Stevenson

Angele Theard

Adetunji Toriola

Linda Tsai

Alvin Wenneker

Andy White

Karen Winters

Fay Womer

Jennifer Yu

Darryl Zuckerman

# Committee on Fellowships and Awards

---

Jeff Miner

*Chair*

Sharon Cresci

Fanxin Long

# Committee on Student Financial Aid

---

Valerie S. Ratts

*Chair*

Tom Evola

Bridget O'Neal

Gregory Polites

# Conflicts of Interest Review Committee

---

Robert Gropler, MD

*Chair*

Laura Bierut, MD

Paul Bridgman, PhD

Nichole Mercier, PhD

*Ex officio*

Douglas Covey, PhD

David Curiel, MD, PhD

Jonathan Green, MD

Patty Hastings, JD

*Ex officio*

R. Edward Hogan, MD

Henry Huang, PhD

Jennifer Lodge, PhD

*Ex officio*



Denise McCartney

*Ex officio*

Peter Michelson, MD

D. Michael Nelson, MD, PhD

Brian Nussenbaum, MD

Daniel Ory, MD

Luis Sanchez, MD

Tim Schedl, PhD

Anshuman Sharma, MD

# Human Research Protection Office (HRPO)

---

**Washington University Institutional Review Boards**

**Executive chair, IRB**

Green, Jonathan, MD

*Associate Dean for Human Studies and Executive Chair of the IRB Washington University  
School of Medicine*

**Human Research Protection Office (HRPO)**

Jones, Martha, MA, CIP

*Executive Director*

Questions regarding committee membership should be directed to the Human Research Protection Office.

# Human Research Quality Assurance/Quality Improvement Committee

---

Edward M. Geltman

*Chair*

Beau Ances

Allan Doctor

Mae Gordon

Jonathan Green

Catherine Lang

Denise McCartney

Bettina Mittendorfer

Michael Strube

Patty Hastings

*Ex officio*

# Institutional Biological and Chemical Safety Committee

---

Michael Caparon, PhD

*Co-Chair*

Henry Huang, PhD

*Co-Chair*

Richard Buller, PhD

Michael Diamond, MD, PhD

Scott Handley, PhD

Barbara Joy Snider, MD, PhD

Bruce Backus, MS, PE

*Ex officio*

Kenneth Boschert, DVM

*Ex officio*

Susan Cook, PhD, CBSP

*Ex officio*

Brian Dieckgraefe, MD, PhD

*Ex officio*

Chad B. Faulkner, DVM, PhD

*Ex officio*

Teresa Simmons

*Alternate*

Mary Burke

*Public member*

Robert Koehler

*Public member*

Paul Mercurio

*Public member*

## MD/MA Program Committee

---

Deborah C. Rubin

*Chair*

Paul F. Austin

F. Sessions Cole

Daniel C. Link

Jay F. Piccirillo

Phillip I. Tarr

# Medical School Faculty Rights Committee

---

Mary Klingensmith, MD (2017) Co-Chair

Paul Bridgman, PhD (2017) Co-Chair

Kim A. Carmichael, MD (2017-R)

Andrew Galakatos, MD (2017-R)

Gregory F. Wu, MD, PhD (2017-R)

Mauricio Lisker-Melman, MD (2019-A)

Lawrence B. Salkoff, PhD (2019-A)

Carla J. Weinheimer, MS (2019-A)

# Medical Scientist Training Program Committee

---

Wayne M. Yokoyama

*Program Director*

Robyn S. Klein

*Program Co-Director*

Daniel S. Ory

*Associate Director*

Samuel I. Achilefu

Kyunghee Choi

Jianmin Cui

Aaron DiAntonio

Sarah England

Christina A. Gurnett

Phyllis I. Hanson

Timothy E. Holy

Petra A. Levin

Greg D. Longmore

# Radiation Safety Committee

---

Barry A. Siegel

*Chairman*

Buck E. Rogers

*Vice Chairman*

Susan M. Langhorst

*Radiation Safety Officer and Executive Secretary*

Bruce D. Backus

Perry W. Grigsby

Rojano Kashani

Andrew Johnstone

Trisha M. Lollo

Stephen M. Moerlein

David E. Reichert

Henry D. Royal

Lee G. Sobotka

John P. Wagoner

Laura Langton

*Alternate*

Steven B. Morris

*Alternate*

Sasa Mutic

*Alternate*

Reiko Oyama

*Alternate*

Sally J. Schwarz

*Alternate*

W. John Smith II

*Alternate*

# Radioactive Drug Research Committee

---

Barry A. Siegel, MD

*Chair*

Delphine L. Chen, MD

*Vice Chair*



Keith C. Fischer, MD

Edward M. Geltman, MD

*Ex officio*

Susan M. Langhorst, PhD

*Ex officio*

James L. Littlefield, MD

Karen D. McElvany, PhD

Stephen M. Moerlein, PhD, RPh

Marcus E. Raichle, MD

*Ex officio*

Sally Wagner Schwarz, RPh, MS

Yuan-Chuan Tai, PhD

Roger D. Yusen, MD

# Alvin J. Siteman Cancer Center Protocol Review and Monitoring Committee

---

Perry Grigsby

*Co-Chair*

Brad Kahl

Co-Chair

Joel Picus

*Co-Chair*

Julie Margenthaler

*Co-Chair*

Kristan Augustin

Jeff Bradley

Caroline Bumb

Sara Butler

Milan Chheda

Andrew Cluster

Traves Crabtree

Farrokh Dehdashti

Ryan Fields

Kathryn Fowler

Jennifer Frye

Karen Gauvain

Armin Ghobadi

Robert J. Hayashi

Richard Head

Lindsay Hladnik

Meagan Jacoby

Megan Janke

Sally Jones

A. Craig Lockhart

Esther Lu

Janelle Mann

Carolyn McCourt

Sarah Moehlmann

Russell Pachynski

John D. Pfeifer

Matthew Powell

Iskra Pusic

Cliff Robinson

Rizwan Romee

Mark Schroeder

Joshua Shimony

Rama Suresh

Benjamin Tan

Deborah Tesoro

Shana Thomas

Wade Thorstad

Tom Walsh

Andrea Wang-Gillam

Saiama Waqar

Lorri DeWitt

*Ad hoc*

Feng Gao

*Ad Hoc*

Lynne Lippmann

*Ad hoc*

Byron Peters

*Ad hoc*

Deborah Tesoro

*Ad hoc*

Chrisann Winslow

*Ad hoc*

Nancy L. Bartlett

*Ex officio*

Jeff M. Michalski

*Ex officio*

Jeffrey F. Moley

*Ex officio*

Stephen Ristvedt

*Ex officio*

Barry Siegel

*Ex officio*

# Alvin J. Siteman Cancer Center Quality Assurance and Safety Monitoring Committees

---

Nancy L. Bartlett

*Chair*

Christopher Arp

Maria Q. Baggstrom

Hiram Gay

Matthew G. Mutch

Michael J. Naughton

Siobhan Sutcliffe

## Faculty at a Glance

---

Washington University School of Medicine has one of the finest faculties of any medical school in the nation. Recognized for their distinguished achievements in original research, 13 faculty members are among the fellows of the prestigious National Academy of Sciences; 28 are members of the National Academy of Medicine. Eighteen Nobel laureates have been associated with the School of Medicine.

During fiscal year 2015, 142 members of the faculty held individual and/or institutional career development awards. Some individual faculty members may hold multiple awards:

- 89 from National Institutes of Health (including direct-pay and pass-through awards)
- 1 from Health Resources and Services Administration
- 1 from American Association for Cancer Research

- 3 from Alex's Lemonade Stand
- 3 from American Cancer Society
- 1 from American College of Rheumatology
- 2 from American College of Surgeons
- 1 from American Diabetes Association
- 1 from American Federation for Aging Research
- 1 from American Glaucoma Society
- 7 from American Heart Association
- 2 from American Society of Hematology
- 1 from American Society of Nephrology
- 1 from American Thoracic Society
- 1 from Anonymous
- 1 from Army
- 1 from Brain & Behavior Research Foundation
- 4 from Burroughs Wellcome Fund
- 1 from Cancer Research Foundation
- 1 from Central Society for Clinical Research
- 1 from Cerebral Palsy International Research Foundation
- 2 from Child Neurology Foundation
- 1 from Children's Discovery Institute
- 1 from Damon Runyon Cancer Research Foundation
- 1 from Department of Defense
- 1 from Department of Education (pass-through award)
- 1 from Dermatology Foundation

- 1 from Donor's Cure Foundation
- 5 from Doris Duke Charitable Foundation
- 1 from Ellison Medical Foundation
- 1 from Harrington Discovery Institute
- 1 from Josiah Macy, Jr. Foundation
- 1 from Leukemia and Lymphoma Society
- 1 from LUNgevity Foundation
- 1 from Lymphoma Research Foundation
- 1 from Muscular Dystrophy Foundation
- 1 from NephCure Foundation
- 1 from New York Stem Cell Foundation
- 1 from Prostate Cancer Foundation
- 2 from Research to Prevent Blindness
- 2 from Rheumatology Research Foundation
- 1 from Robert Wood Johnson Foundation
- 1 from Sarcoma Alliance for Research
- 1 from Society of Surgical Oncology
- 1 from St. Baldrick's Foundation
- 3 from Susan G. Komen Breast Cancer Foundation
- 1 from Thrasher Research Fund
- 1 from V Foundation
- 1 from Wellcome Trust (pass-through award)

The School of Medicine has 9 faculty members with Method to Extend Research in Time (MERIT) status, a special recognition given to only a few NIH grantees, which



provides long-term, uninterrupted financial support to investigators who have demonstrated superior achievement during previous research projects.

In 2016, the School employed 2,058 full-time, salaried faculty members in its 20 preclinical and clinical departments. The clinical departments are further strengthened by 1,377 voluntary and adjunct faculty members, a group of physicians who practice their medical specialties in St. Louis and are members of one or more of the staffs of the hospitals in the Washington University Medical Center.

## Student Body

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The School of Medicine attracts a student body of exceptional quality. The student body of the School of Medicine numbers approximately 600 medical students. Programs also are conducted for 700+ students who are pursuing graduate degrees in applied health behavior research, audiology and communication sciences, clinical investigation, occupational therapy, physical therapy, population health sciences, biostatistics, or genetic epidemiology. The Division of Biology and Biomedical Sciences has extensive graduate training programs for more than 500+ students seeking the Doctor of Philosophy degree in areas of Biochemistry; Computational and Systems Biology; Developmental, Regenerative and Stem Cell Biology; Evolution Ecology and Population Biology; Human and Statistical Genetics; Immunology; Molecular Biophysics; Molecular Cell Biology; Biochemistry; Molecular Genetics and Genomics; Molecular Microbiology and Microbial Pathogenesis; Neurosciences; and Plant Biology.

### The MD Program

The 2016 first year class consisted of 124 students selected from a pool of 4,441 applicants. The School is a national institution with 48 home states typically reported,

plus the District of Columbia and Puerto Rico and approximately 12 countries represented in the current enrollment.

In the academic year 2015-16, the School conferred the MD degree upon 92 individuals. Within the MD graduate population, one received the MD/MA degree, two students received the MD/MSCI degrees, 5 students received an MD/MPHS, and 19 students graduated with the MD/PhD degrees. Graduating students who participated in the 2016 National Resident Matching Program matched in programs recognized for high quality and selectivity. In the Alphabetical List of Students area of the Register of Students section, the graduates are listed by name, hometown, undergraduate and graduate schools attended and year of degree, type of postgraduate residency program, name of hospital and the city in which it is located.

## Teaching Facilities

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The 164-acre Washington University Medical Center, spread over portions of 17 city blocks, is located along the eastern edge of Forest Park in St. Louis. Along the western edge of the park is the 169-acre Danforth Campus of the university. All campuses (North, West, Danforth and Medical) are connected by the MetroLink light rail system. The Danforth Campus and the Medical Campus are also connected by the Washington University Gold MetroBus. Students, faculty and staff can access both of these modes of transport with a free U-Pass, obtained from the Transportation Office, along with their Washington University identification badge.

In addition, in the last decade, major renovations to existing buildings continue, with emphasis on research facilities. The Department of Ophthalmology remodeled their

wet labs and offices on the 1st, 10th, 11th and 12th floors of McMillan Hospital Building. The Department of Biochemistry and Molecular Biophysics renovated research labs on half of the second floor of the McDonnell Sciences Medical Building and created a chemistry-intensive open laboratory on the 2nd floor of the Cancer Research Building. Renovations to the Clinical Sciences Research Building (CSRB) were done to create space for the Center for the Study of Itch. A world-class zebrafish facility was built in the basement of the McDonnell Sciences Medical Building. Half of the 8th floor of the McDonnell Sciences Medical Building was overhauled into modern, open laboratories to create additional space for Anatomy and Neurobiology and Internal Medicine.

A major renovation of the Maternity Hospital was completed for the Department of Obstetrics, floors two through six are completely renovated into new office space for Obstetrics faculty and administration. The recently acquired building at 4533 Clayton Ave. has been renovated into office space for the departments of Anesthesiology, Radiology and Obstetrics. The sixth floor of the Bernard Becker Library has been overhauled to make way for the Center for the History of Medicine. The Taylor Avenue Building was purchased and renovations and relocations for Public Health Sciences, the Institute of Public Health and the Department of Medicine have been made. Floors three through five have been renovated for administration space in the Wohl Clinic. A new Cyclotron has been installed in an expansion of the East Building.

In addition, major maintenance projects continue to be done to keep existing buildings in good functional shape.

Ongoing improvements to the campus infrastructure are being made through the Public Realm Project, which is focused on landscape, street lighting and streetscape enhancements.

Unprecedented growth has occurred at the medical center over the past 15 years. At the School of Medicine alone during the past five years, almost \$270 million has been expended on capitalized infrastructure, renovation and new construction. Capital improvements and strategic purchases have added approximately 1.5 million square

feet of space to the medical school during this same period. In the most recent fiscal year, more than \$150 million of capitalized expenditures were made at the School.

In the last 15 years, School of Medicine expansion has included the Genome Sequencing Center (GSC) Data Center; the Northwest Tower; the school's first dedicated teaching facility, the Farrell Learning and Teaching Center; the Specialized Research Facility — East; the Southwest Tower/Charles F. Knight Emergency Center; the Center for Advanced Medicine; the McDonnell Pediatric Research Building; two parking garages; and the acquisition of the Central Institute for the Deaf buildings.

The **BJC Institute of Health at Washington University School of Medicine** (2009) was built to support the Washington University BioMed 21 initiative. Construction is now complete and consists of approximately 675,000 square feet. It is an eleven- and six-story building (the building is also structured to add an additional ten stories above the six story portion of the building). The top five floors, totaling 215,000 square feet, are wet labs to support the six research centers associated with BioMed 21 along with lab space for Pathology and Immunology, Obstetrics and Gynecology, and Pediatric Surgery. There is also a 30,000-square-foot vivarium in the lower level. BJC HealthCare occupies the first five floors, which houses dietary services, offices, pharmacy and clinical labs.

The **GSC Data Center** (2008) is a state-of-the art data center located across Newstead Avenue from its parent department in the 4444 Forest Park Building. A 14,000-square-foot building houses a 3,000-square-foot data room capable of populating 120 high-speed blade center racks and disk racks. This facility will allow the GSC to expand their research capability in the demanding world of sequencing grants and projects for years to come. A 16,500-square-foot expansion of this facility, supporting research, funded by an ARRA grant, was completed in 2012.

The eight-story **Northwest Tower** (2006) resides above the seven-level Children's Hospital Garage. This new 190,000-square-foot building provides faculty office space.

**The Farrell Learning and Teaching Center** (2005), a 110,000-square-foot, six-story

facility, located at the corner of Scott and Euclid avenues, is the home for all of the School of Medicine teaching labs; ER, patient room and OR simulation training rooms; small-group and seminar rooms; and all individual student study areas. A lecture hall, case-study hall and café are on the first floor of the building.

**The Specialized Research Facility — East** (2004) is a 56,000-square-foot barrier facility supporting several research study programs.

**The Center for Advanced Medicine** (2001), at the corner of Euclid and Forest Park avenues, is a shared facility between the school and BJC. This building brings all of the medical center's clinics together under one roof. The School of Medicine occupies 243,400 square feet in the Center for Advanced Medicine and 75,000 square feet on three floors in the new Southwest Tower. Located in the heart of the Center for Advanced Medicine is the 66,150-square-foot Alvin J. Siteman Cancer Center. The Siteman Cancer Center is the only NCI-designated comprehensive cancer center in the region.

**The McDonnell Pediatric Research Building** (2000) added 230,000 square feet of state-of-the-art research facilities — four and a half floors for the Department of Pediatrics, three floors for the Department of Molecular Microbiology, and one-half floor for the Department of Medicine — on the corner of Euclid Avenue and Children's Place. This building includes a Barnes & Noble bookstore with a coffee shop on the ground level.

The School of Medicine is divided into two segments. Clinical departments are predominantly located on the west side of the Medical Center, adjacent to hospital and patient areas. Preclinical departments are to the east. Research and instructional endeavors occupy the greater portion of the facilities, with more than 1.8 million gross square feet devoted to these activities. In the aggregate, the medical school occupies nearly 6 million gross square feet of space on this campus.

The focal point of the preclinical teaching activities is the **McDonnell Medical Sciences Building**, the center of activity for entering medical students. This building, with

300,000 square feet of research laboratories, was made possible by James Smith McDonnell III, a generous benefactor of Washington University. Rising nine floors above ground, it contains administrative offices and two lecture halls on the first floor. Three floors of wet lab space were completely renovated in the last five years. Offices and research laboratories for the seven basic science departments are located on the upper floors. Modern centralized animal quarters are housed in the basement.

**The North and South Buildings**, in which the work of several Nobel laureates has centered, have been renovated extensively. Along with the Cancer Research Building, they continue to provide space for laboratories, offices and some departmental facilities.

**The East Building** houses an MRI facility, a cyclotron, computer installations and other components of the Mallinckrodt Institute of Radiology. The East Building also houses several administrative office suites.

A network of pedestrian bridges provides the ability to move freely among the major facilities, enhancing the interaction of all medical center institutions and benefiting research and patient care.

Other facilities owned or operated by Washington University include:

The 45,160-gross-square-foot **Eric P. Newman Education Center** accommodates non-degree professional education for the medical center. The education center provides auditoriums, classrooms, meeting space and lecture halls to support and enhance a comprehensive education program.

The five-story **Biotechnology Center** supports laboratories for the departments of Psychiatry, Medicine, Neurology, and Mallinckrodt Institute of Radiology.

**McMillan Hospital Building** houses offices and research laboratories for the departments of Neurological Surgery, Neurology, Ophthalmology and Visual Sciences, and Otolaryngology.

**The Edward Mallinckrodt Institute of Radiology (MIR)** is internationally recognized for excellence in teaching, research and clinical services. Housed in its own 13-story building, MIR has satellite facilities in Barnes-Jewish Hospital, St. Louis Children's Hospital, the Clinical Sciences Research Building, the East Building, the Scott Avenue Imaging Center, the Center for Advanced Medicine, the Charles F. Knight Emergency Center and the South County Siteman Cancer Center. Services also are provided at Barnes-Jewish West County Hospital, Progress West Hospital, and Barnes-Jewish St. Peters Hospital and at the Washington University Orthopedics and Barnes-Jewish Hospital Outpatient Orthopedic Center.

With consolidation of psychiatric patient care services in the West Pavilion, the eight-story Renard Hospital provides additional office and laboratory space for the Department of Psychiatry.

**Maternity Hospital** provides offices for the departments of Obstetrics and Gynecology and Ophthalmology and Visual Sciences. A Perinatal Center and some Psychiatry clinical research are located in this building.

**The West Building** contains administrative offices and research laboratories for the Department of Pathology and Immunology and research labs for the Department of Medicine.

**Wohl Hospital Building** provides offices and laboratories for the Department of Medicine and the Department of Surgery.

**Wohl Clinic** The lower five floors contain the Chromalloy American Kidney Dialysis Center, space for translational research and faculty & administrative offices. The upper five floors are devoted to research facilities for several departments of the School of Medicine.

The 294,302-gross-square-foot building at **4444 Forest Park** houses administrative offices of various medical school departments plus the Program in Physical Therapy, the Program in Occupational Therapy and the Genome Sequencing Center, including

the new Center for Genomics and Human Genetics.

The **4511 Forest Park Medical Building** houses administrative offices and research labs for the Department of Radiation Oncology. The third-floor clinic and office area has recently been renovated into wet lab research space.

The 136,977-gross-square-foot, seven-story **East McDonnell Specialized Research Facility** is a maximum-barrier research facility to accommodate higher brain function research and transgenic studies.

The 10-story **Clinical Sciences Research Building (CSRB)**, 357,768 gross square feet and **North Tower Research Addition**, 201,349 gross square feet, consolidates medical school specialized research into one structure. The top three floors of the addition house wet lab research space.

The new **4515 McKinley Research Building** (2015) 215,755 gross square feet accommodates the consolidated Department of Genetics as well as new recruitments for the Center for Genomic Science, the Department of Medicine, and Regenerative Medicine. A Cellular Imaging Core is located in the basement and will draw people from across the School of Medicine and Danforth campuses. The building was designed with an open concept to encourage collaborative and interdisciplinary communications among researchers.

The **4488 Forest Park Parkway Building** houses, among other things, the recently completed administrative offices, and research labs for the Washington University Knight Alzheimer's Disease Research Center (ADRC). The ADRC is one of 29 centers funded or otherwise supported by the National Institute on Aging with the collective aim of facilitating advanced research on clinical, genetic, neuropathological, neuroanatomical, biomedical, psychosocial, and neuropsychological aspects of Alzheimer's disease and related brain disorders.

The second floor of the **Taylor Avenue Building (TAB)** was renovated in 2012 to create office and teaching space for the Division of Public Health Sciences in the Department



of Surgery. This renovation adds ten teaching rooms, each named for a pioneer in public health sciences who opened new fields, paths to study, or applied research to improve population health. The largest teaching space holds fifty people, and many of the rooms are equipped with state-of-the-art video conference technology. The rooms are used to support exceptional population health sciences and clinical research training through the Master of Population Health Sciences (MPHS) degree program<sup>†</sup> for clinicians, clinical doctorates, and medical/health services students. The space also accommodates professional meeting space for clinicians and researchers across Washington University campuses for groups including Siteman Cancer Center Prevention and Control, the Transdisciplinary Research on Energetics and Cancer Center (TREC@WUSTL), and for community partner events through the Program for the Elimination of Cancer Disparities (PECaD). Additional renovations were completed in 2015 to create space for Psychiatry research, including the Mindfulness Based Stress Reduction and Exercise projects. The space was designed to offer long-term flexibility for future research as priorities and grant funding changes.

The 2-story, 25,000 square foot **620 S. Taylor** building was completed in 2015. The ACTU, Weight Management, Neurology and Infectious Disease clinics occupy this space.

Founded in 1911, the **Bernard Becker Medical Library** is one of the oldest and most comprehensive medical libraries west of the Mississippi. The library serves as an information hub for the Washington University Medical Center and extends its services and resources to the global health science community.

Becker Medical Library's mission is to bring together resources, information and expertise to deliver innovative support for advancing discovery and improving human health. Among the resources it offers focusing on health and biological sciences are 6,783 full text e-journals; 21 specialized databases; and 41,028 e-books. Subject expertise and support comes from library divisions focusing on specific areas aligned with the school's mission.

The Translational Research Support Division of the library provides specialized

knowledge, customized programs and services, and unique information resources to support Washington University's broader goals of connecting basic research to patient care. The division includes a science support program to provide instruction, consultation services and support for specialized software and databases for the genomic and basic science research community. Its community outreach and health communication program focuses on ways to foster health literacy and seeks opportunities to partner with the School of Medicine; and medical center groups to improve the communication skills of our clinicians and researchers and enhance the creation and delivery of reliable and credible health information. The division also includes a scholarly communications program to support authors and researchers on a wide range of issues including publishing options, public access mandates, copyright and author rights, assessment of research impact and dissemination of research findings.

The Health Information Services Division offers a broad range of biomedical resources and training services to faculty teaching the next generation of health care leaders, to students learning evidence-based medical skills and to clinicians on the front lines providing quality patient care. This division works closely with the school's education programs in support of their curricula and the affiliated teaching hospitals to support evidence-based practice. Its librarians conduct complex literature reviews and collaborate closely with researchers on systematic reviews.

The Collection Management Services Division supports teaching, research and patient care by arranging access to the primary journals, databases and books which faculty require. Negotiating affordable contracts with a wide variety of publishers and making purchased resources discoverable through the library catalog and electronic portal ensure that basic information needs can be expediently fulfilled. Interlibrary loan services complement the library's own collection when necessary by obtaining materials from other libraries

Special Collections (Archives and Rare Books) is a unique and important unit of the library's resources. The Archives preserve and make accessible 905 archival collections, comprising institutional records, manuscripts, visual items and oral histories that

document the medical center's institutional history, ongoing progress and many significant contributions of its faculty. Among the manuscript collections are papers of William Beaumont, Joseph Erlanger, E.V. Cowdry, Evarts Graham and Carl Cori. There are nine distinct rare book collections containing 16,001 books available for scholarly use. These acclaimed collections include the Bernard Becker Collection in Ophthalmology and Optics, the CID-Max Goldstein Collection in Speech and Hearing, the H. Richard Tyler Collection in Neurology and the Robert E. Schlueter Paracelsus Collection of the St. Louis Medical Society.

The Bernard Becker Medical Library takes pride in providing the latest biomedical information and services to the Medical Center. For detailed information about the library's programs and services, visit <https://becker.wustl.edu>.

The library is open to the general public Monday through Friday, 7:30 a.m. to 6 p.m. Library hours for faculty, students and staff affiliated with Medical Center:

Monday-Thursday: 7:30 a.m. – midnight

Friday: 7:30 a.m. – 10 p.m.

Saturday: 9 a.m. – 6 p.m.

Sunday: 11 a.m. – 11 p.m.

**Telephone numbers:**

Circulation Services: (314) 362-7080

Information Services: (314) 362-7085

Interlibrary Loan: (314) 747-0029

Archives and Rare Books: (314) 362-4236

**Barnes-Jewish Hospital** has a premier reputation in patient care, medical education, research and community service, and is the adult teaching hospital of Washington University School of Medicine, which is ranked among the top medical schools in the country. The 9,573 Barnes-Jewish team members include professional nurses, technicians, service and support personnel, plus more than 1,534 physicians and 829 residents, interns and fellows. Barnes-Jewish is licensed for 1,315 beds and in 2014

had 53,397 inpatient admissions, along with 80,136 emergency department visits. In 2003, Barnes-Jewish Hospital was the first adult hospital in Missouri to earn Magnet recognition, the highest award given by the American Nurses Credentialing Center, and was redesignated in 2008 and 2013. Barnes-Jewish Hospital has been consistently ranked on the “Honor Roll” of Best Hospitals by U.S. News & World Report since 1993.

For 135 years, **St. Louis Children’s Hospital** has been at the forefront of pediatric medicine, with physicians, nurses and staff who dedicate their lives to the care of children. The hospital provides a full range of services to children and their families throughout its 300-mile service area, as well as to children from all fifty states and 80 countries around the world. Children’s Hospital offers comprehensive services in every pediatric medical and surgical specialty, including newborn medicine, cardiology, orthopedic surgery, neurosurgery and one of the nation’s largest pediatric transplant programs. St. Louis Children’s Hospital-Washington University is currently ranked in all 10 specialties on the U.S. News 2016-75 list of America’s Best Children’s Hospitals. St. Louis Children’s Hospital is one of only 100 hospitals worldwide to be designated as a Magnet hospital for nursing excellence by the American Nurses Credentialing Center® (ANCC), and has had that unique distinction since 2005.

St. Louis Children’s Hospital provides an array of community outreach services, including three pediatric mobile health vans, injury prevention programs, educational classes on parenting and child development, as well as patient and parent support groups. The hospital also operates a Family Resource Center, which provides free child health information services, a physician referral phone line, a mobile phone app called Kid Care, and a parenting blog, [www.childrensmomdocs.org](http://www.childrensmomdocs.org). For more information on accessing these, or any hospital services, visit [www.stlouischildrens.org](http://www.stlouischildrens.org).

**BJC HealthCare** is one of the largest nonprofit health care organizations in the United States, delivering services to residents primarily in the greater St. Louis, southern Illinois and mid-Missouri regions. BJC serves urban, suburban and rural communities and includes 12 hospitals and multiple community health locations. Services include inpatient and outpatient care, primary care, community health and wellness, workplace health, home health, community mental health, rehabilitation, long-term

care and hospice.

Through a collaboration among the Barnard Cancer Institute, Barnes-Jewish Hospital and Washington University, medically indigent patients with cancer or diseases of the skin receive care at no cost to them from Washington University physicians at the Alvin J. Siteman Cancer Center and Barnes-Jewish Hospital. **Barnard Hospital** also houses the Washington University Clinical Research Unit, part of the Institute for Clinical and Translational Sciences (ICTS) Center for Applied Research Sciences (CARS), a support center for Washington University clinical investigators.

**CID – Central Institute for the Deaf** is an internationally recognized center for deaf education that teaches children to listen, talk and read so they can attend general education schools in their communities with their hearing peers without the use of sign language. CID's mission includes the continued professional development of teachers of the deaf, speech-language pathologists, audiologists and other professionals who help children acquire speech and spoken language.

CID's acoustically enhanced "quiet school" features the Joanne Parrish Knight Family Center, serving children and their families from birth to 3. CID Anabeth and John Weil Early Childhood Center and Virginia J. Browning Primary School serve students ages 3 to 12. CID schoolchildren and their families have come from 48 U.S. states and 33 other countries.

CID services for professionals include continuing education e-courses and workshops, consulting services and in-service training for schools and school districts, and educational curricula that have been used to help children in all U.S. states and many countries throughout the world.

CID is financially independent from, but closely affiliated with, CID at Washington University School of Medicine, which continues to operate CID-developed adult clinic, research and academic programs that benefit children and adults with hearing loss. The university acquired these programs in September 2003 along with state-of-the-art facilities at the CID campus, 4560 Clayton Ave. with CID's entrance at 825 S. Taylor. CID

continues to provide faculty and practicum sites for the university's graduate degree programs in deaf education and audiology. CID teachers and pediatric audiologists continue to work closely with its speech and hearing scientists in studies involving children who are deaf and hard of hearing.

**The Alvin J. Siteman Cancer Center at Barnes-Jewish Hospital and Washington University School of Medicine** is designated by the National Cancer Institute as a Comprehensive Cancer Center, the only such center in Missouri. Siteman is world-renowned for its basic science, translational, and prevention and control research. Siteman enhances, promotes and supports interactions among cancer research efforts throughout the campus and has provided an organizational focus and stimulus for researchers to continue to produce cutting-edge institutional research.

The center holds nearly \$145 million in extramural funding for cancer research and supports seven research programs (Breast Cancer Research, Cell-to-Cell Communications in Cancer Hematopoietic Development and Malignancy, Oncologic Imaging, Prevention and Control, Solid Tumor Therapeutics Tumor Immunology). Siteman also provides 42011 shared resource facilities to its more than 250 research members. Shared resource facilities include: Center for Biomedical Informatics (CMBI); Siteman Biostatistics Shared Resource (SBSR); Siteman Flow Cytometry Core (SFC); Imaging Response Assessment Core (IRAC); Genome Technology Access Core (GTAC); Biologic Therapy Core Facility (BTCF); Proteomics Shared Resource; Small Animal Cancer Imaging (SACI); Immunomonitoring Laboratory (IML); Genome Engineering and iPSC Center (GEiC); and Tissue Procurement Core (TPC).

Siteman is integrated with The McDonnell Genome Institute at Washington University, the Institute for Public Health and the Mallinckrodt Institute of Radiology. In partnership with the community, Siteman's Program for the Elimination of Cancer Disparities (PECaD), addresses racial, ethnic, socioeconomic and other disparities in cancer awareness, screening, treatment and research.

Siteman offers a wide range of educational and training opportunities in cancer research, including seminars, conferences, retreats, a summer student program and a

pre/postdoctoral training program in cancer biology research.

For more information regarding Siteman's research programs, shared resources and educational opportunities, please visit [www.siteman.wustl.edu/research.aspx](http://www.siteman.wustl.edu/research.aspx).

A current listing of upcoming seminars is available at [www.sitemanseminars.wustl.edu](http://www.sitemanseminars.wustl.edu).

**Other hospitals.** The following hospitals and facilities also are associated with the School of Medicine, and Washington University physicians treat patients at these locations:

- [Barnes-Jewish West County Hospital](#)
- [Barnes-Jewish St. Peters Hospital](#)
- [Christian Hospital Northeast](#)
- [Missouri Baptist Medical Center](#)
- [Veterans Administration Medical Center](#)
- [Shriners Hospital for Children](#)
- [Parkland Health Center](#)
- [Progress West HealthCare Center](#)
- [Phelps County Regional Medical Center](#)
- [Southeast Missouri Hospital](#)

## Research Activities

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Grants and contracts totaling more than \$531 million supported faculty research efforts at the School of Medicine during the fiscal year ending June 30, 2015. Substantial additional support was provided directly to faculty investigators by the Howard Hughes Medical Institute. Gifts and grants from private sources, including alumni, individuals, foundations, corporations and other organizations, totaled \$157 million.

During the Washington University fiscal year ending June 30, 2015, the School of Medicine received \$352.3 million from the National Institutes of Health. This amount includes direct-pay and pass-through awards.

### **The many firsts at the School of Medicine include:**

- Served as a major contributor of genome sequence data to the Human Genome Project, providing the foundation for personalized medicine.
- Developed a genetic test that detects whether an individual will develop a form of thyroid cancer and would benefit from thyroid removal — the first surgical prevention of cancer based on genetic test results.
- Developed screening tests used worldwide to diagnose Alzheimer's disease.
- Created the first positron emission tomography (PET) scanner, a device that images the brain at work.
- Helped pioneer the use of insulin to treat diabetes.
- Proposed the now-common practice of taking aspirin to help prevent heart attacks.
- Performed the world's first nerve transplant using nerve tissue from a cadaver donor.
- Developed a blood test that quickly and safely identifies whether a patient needs invasive treatment for a heart attack.
- Decoded the entire genome of a cancer patient and used the results to alter the course of treatment, which put the cancer into remission.



- Demonstrated that severely malnourished children given antibiotics along with a therapeutic peanut butter based food are far more likely to recover and survive than children who only receive the therapeutic food.

#### Ongoing research includes:

- Participating in the National Children's Study, the largest U.S. study of child and human health ever conducted.
- Seeking new ways to diagnose and treat stroke as part of a national network of state-of-the-art stroke treatment centers.
- Decoding the genomes of hundreds of cancer patients and their tumors to understand the genetic roots of the disease and to find better treatments.
- Leading an international research collaboration to study inherited forms of Alzheimer's disease and one of the first clinical trials to evaluate whether the disease can be prevented before memory loss and dementia develop.
- Developing and using nanoparticles for molecular imaging and targeted drug delivery for cancer and heart, lung and vascular diseases.
- Mapping the major circuits in the human brain to understand normal brain function and connectivity errors involved in alcoholism, autism and schizophrenia.
- Exploring the links that connect obesity and malnutrition to the community of microbes that live in the gut.
- Searching for clues in the brain and spinal cord to help physicians diagnose Alzheimer's disease before symptoms develop.
- Leading research, teaching and community engagement to improve population health through Washington University's Institute for Public Health.
- Investigating changes to the brain in soldiers exposed to roadside blasts and athletes who have suffered repeated concussions to understand their long-term mental and physical consequences.

- Exploring the genetic influences at play in alcohol, smoking and drug addiction.
- Leading research to improve care for heart failure and cardiovascular disease, including clinical trials to evaluate mechanical assist devices and studies to look at the link between diabetes and aggressive heart disease.

## BioMed 21

Launched in 2003, BioMed 21 creates a multidisciplinary and translational-research imperative for basic scientists and clinician-researchers from many medical disciplines.

BioMed 21 reorganizes the life sciences at Washington University to address the biggest questions about disease: their origins, how they affect us and how we can cure them. Its goal is to reshape the university culture to rapidly convert the knowledge of the genetic blueprint of human beings into effective, individualized treatments.

To successfully make those discoveries and develop those therapies, BioMed 21 advances on many fronts:

It aims to collect and dedicate resources, including NIH support and gifts from friends and supporters. Recent grants include:

- \$50 million grant to enhance clinical and translational research
- \$14 million in two grants for neuroscience research
- \$16 million grant for nanomedicine research

It defines new spaces to house promising research and educational programs, including:

- 240,000 square feet of new research space in the new BJC Institute of Health at Washington University School of Medicine in the center of the medical campus
- the Farrell Learning and Teaching Center, an important teaching component of BioMed 21

- a 40,000-gross-square-foot facility designed to spur development of mouse models for human diseases
- a 16,000-square-foot data center to meet the massive computing needs of The Genome Center
- 15,000 square feet of space added to the previously established Center for Genome Sciences & Systems Biology to support new investigators

In addition to the Center for Sciences & Systems Biology, it establishes five new Interdisciplinary Research Centers (IRCs) housed in the BJC Institute of Health at Washington University School of Medicine. The IRCs are central in promoting scientific and educational innovations across school boundaries. IRCs have the primary goal of promoting innovative interdisciplinary, inter-departmental research and education in the biological and medical sciences. The mission of the IRCs is to assemble talented faculty and students to address key and emerging scientific problems, and to understand fundamental biological processes with broad implications for human health.

- The BRIGHT Institute (Bridging Research with Imaging, Genomics and High-Throughput)
- Center for the Investigation of Membrane Excitability Disorders — The EXCITE Center
- Center for Women's Infectious Disease Research (cWIDR)  
Diabetic Cardiovascular Disease Center (DCDC)
- Hope Center Program on Protein Aggregation and Neurodegeneration (HPAN)

See [biomed21.wustl.edu](http://biomed21.wustl.edu) to learn more.

## Research training

The School of Medicine offers many degree programs focused on research training. Please visit the [Programs](#) section or the links below for more information.

## **Combined degrees**

Doctor of Medicine/Doctor of Philosophy (MD/PhD)

Doctor of Medicine/Master of Arts (MD/MA)

Doctor of Medicine/Master of Science in Clinical Investigation (MD/MSCI)

## **Doctor of philosophy programs**

Biomedical Sciences

Audiology and Communication Sciences

Occupational Therapy

Physical Therapy

## **Masters degree programs**

Master of Science in Applied Health Behavior Research

Master of Population Health Sciences

## **Postdoctoral research training**

Postdoctoral research fellowships

## **Medical student research opportunities**

Summer Research Program

Year-long research activities

# Medical Alumni and Development

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**Medical Alumni and Development Programs** works with individuals and organizations to secure the human and financial resources necessary to help the School of Medicine achieve and maintain excellence in research, teaching and patient care.

## Washington University Medical Center Alumni Association

The Washington University Medical Center Alumni Association WUMCAA was organized more than 60 years ago to foster a continuing spirit of fellowship among graduates, and to maintain and enhance the tradition of excellence of the School of Medicine. Membership is free and provided to graduates and former house staff of the medical center.

The association complements the goals and purposes of the School of Medicine through a variety of programs for its members and current students. Involvement in these activities also provides the opportunity to continue the relationships begun as students and to develop rewarding professional associations.

## Student-alumni programs

The Office of Medical Alumni and Development Programs and the WUMC Alumni Association assist students in a variety of ways. The association makes a substantial financial commitment each year to support 16 Distinguished Alumni Scholars. These promising medical students receive full-tuition, four-year scholarships in honor of great teachers and mentors who were also alumni of the School of Medicine. The association also provides an activity fund for both the first- and second-year classes and sponsors a reception for the graduating class, their families and faculty.

In addition, the association provides financial support to a number of student-initiated

community service activities, including a variety of health-education programs in public schools and clinics.

Medical Alumni and Development coordinates an alumni resource bank that arranges more formal contacts between alumni and students. Alumni volunteers host students who wish to spend time with a practicing physician, provide information to help students choose a specialty, serve as preceptors for clerkships and electives, and provide overnight lodging to fourth-year students going on residency interviews.

## **Reunions and other events**

The School of Medicine's Reunion is held in May for medical classes who return at five-year intervals, beginning with the class observing its 10th year following graduation and continuing through the class celebrating its 55th reunion and all emeritus alumni (all classes beyond their 55th reunion). The reunion schedule includes a scientific program, social events, tours of the medical center and the presentation of Alumni Achievement, Faculty Achievement, Resident/Fellow Alumni Achievement and Distinguished Service awards. Award recipients are chosen on the basis of personal accomplishment, professional achievement and/or service to the School of Medicine. Members of the graduating class are special guests at the awards banquet and are officially welcomed into the Alumni Association.

The Alumni Office sponsors special alumni activities in selected cities across the United States. Volunteers from each area assist in sponsoring these events, which help alumni stay abreast of the educational and research activities at the School of Medicine. The Alumni Office also compiles class newsletters for selected classes, including recent graduates and Emeritus alumni.

## **Alumni support**

Supporting their school generously is a tradition for a large percentage of alumni of the medical school and the health professions programs. Each year alumni and friends make gifts to the Annual Fund, which supports the medical school's departments,

divisions and health care professional programs, as well as scholarships and low-interest loan programs for students. Alumni also designate gifts for special purposes within the medical school, including specific research, education and training programs.

During the 1977-78 school year, the Executive Council of the Washington University Medical Center Alumni Association voted to establish the Alumni Endowed Professorship Program. The first alumni professorship was awarded in 1982. Ten professorships have been created thus far.

## Schools of Washington University

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All schools are located on the Danforth Campus at One Brookings Drive, St. Louis, Mo., 63130, except the School of Medicine, which is at 660 S. Euclid Ave., St. Louis, Mo., 63110. A University-sponsored shuttle bus travels between the Danforth Campus and the Medical Center at regular intervals.

### Arts & Sciences

- College of Arts & Sciences
- Graduate School of Arts & Sciences
- University College

### Sam Fox School of Design & Visual Arts

- College of Architecture
- Graduate School of Architecture & Urban Design

- College of Art
- Graduate School of Art

Olin Business School

School of Engineering & Applied Science

School of Law

School of Medicine

George Warren Brown School of Social Work

## Programs

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Washington University offers some of the nation's finest degree programs in medicine, biomedical research, allied health and public health. An outstanding education from the School provides graduates with solid opportunities for highly sought-after residencies and fellowships, engaging and challenging research endeavors, and successful, rewarding careers in medicine and related fields.

The Bulletin of the School of Medicine provides an overview of the courses, curriculum and faculty of each degree program. For complete information, please visit the program websites, accessible via the links at left.



# MD Programs

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Washington University School of Medicine offers several programs and combined degree programs:

- Doctor of Medicine (four-year program)
- Doctor of Medicine (five-year program)
- Doctor of Medicine and Master of Arts
- Doctor of Medicine and Master of Science in Clinical Investigation
- Doctor of Medicine and Master of Population Health Sciences
- Doctor of Medicine and Master of Public Health
- Doctor of Medicine and Doctor of Philosophy (MSTP)

## Doctor of medicine

By conferring the MD degree, the University certifies that the student is competent to undertake a career as a doctor of medicine. It certifies further that, in addition to medical knowledge and skills, the graduate possesses qualities of personality — compassion, emotional stability and a responsible attitude — essential to an effective professional life.

## Four-year program

A course of medical education for the MD degree ordinarily consists of a minimum of four years of study. Students recommended for the Doctor of Medicine degree must be of good moral character, they must have completed an entire academic course of instruction as matriculated medical students, they must have passed all required subjects or the equivalent and have received satisfactory grades in the work of the full academic course, and they must have discharged all current indebtedness to the University. The School requires that students take the USMLE Step 1 and Step 2 (CS

and CK) examinations. All students must take and pass the School's Comprehensive Clinical Examination (CCX) prior to graduation.

At the end of the final academic year, students who have fulfilled these requirements will be eligible for the MD degree.

### **Five-year program**

In addition to the regular four-year program leading to the MD degree and the MD/MA degree program, students are permitted to spend one additional year in an academic program in a medical or medically related field. In exceptional circumstances, a further additional year may be permitted. The student may receive a stipend but may not be considered an employee of the University. The program must be arranged with an academic adviser and is subject to the approval of the Associate Dean for Medical Student Research. The Student Research Opportunities brochure provides additional important information about participating in this program. Students enrolled in the five-year program must maintain coverage through Student Health while in St. Louis.

### **Doctor of medicine and master of arts**

The objective of the MD/MA program is to provide one full year of individual, full-time, in-depth research experience for medical students in preparation for a career in academic medicine. Program participants absent themselves from medical school and spend 12 months working on basic biomedical research or hypothesis-driven clinical research in the lab of a faculty member. Degree requirements include a presentation before a research advisory committee, submission of a publication-quality manuscript and participation in a research ethics seminar.

No academic credit toward the MD degree will be given, but research may be continued as senior elective for credit. Fellowship stipends and other support are available through the Howard Hughes Medical Institute (basic science research), National Institute of Diabetes and Digestive and Kidney Diseases (GI, hepatology, endocrinology, nutrition, nephrology and hematology research), and the Clinical

Research Training Center – Predoctoral Program (clinical research). Students unable to qualify for one of these awards may also apply for Institutional Funding. Funding amounts may vary, and some of these sources have deadlines in early January. Please contact the MD/MA program administrator at (314) 362-7190 or visit the website at <http://mamd.wustl.edu> for details.

## **Doctor of medicine and master of science in clinical investigation**

The School of Medicine offers a combined MD/MSCI program. Please visit the [MSCI](#) section of this site for more information.

## **Doctor of medicine and master of population health sciences**

The School of Medicine offers a combined MD/MPHS program. Please visit [MPHS section of the Bulletin](#) for more information.

## **Doctor of medicine and master of public health**

The School of Medicine offers a combined MD/MPH program. Please visit the [MPH section of the Bulletin](#) for more information.

## **Doctor of medicine and doctor of philosophy (MSTP)**

Washington University offers a combined MD/PhD degree program that draws on the resources of the Graduate School of Arts & Sciences, the School of Engineering and the School of Medicine under the auspices of the Medical Scientist Training Program (MSTP). The purpose of the program is to train individuals in medicine and biomedical research to prepare them for careers as physician scientists. The program was inaugurated in 1969 and is one of the oldest and largest in the country. The program, normally completed in seven or eight years, has been highly successful; more than 80 percent of those who have completed postgraduate training are actively involved in research programs at leading institutions.

All students in the program receive financial support in the form of stipends (currently \$29,500 per year), health coverage, disability and life insurance, and full tuition remission for both the MD and PhD phases of training.

Only students who have spent the equivalent of at least two years or four semesters in laboratory research should apply to the Medical Scientist Training Program. Applicants must meet the requirements for admission to both the School of Medicine and the graduate program of their choice. The Graduate Record Examination is not required. Students planning to concentrate in disciplines related to the chemical or physical sciences should have completed mathematics through calculus, physics and physical chemistry, and advanced organic chemistry. A course in differential equations also is recommended. For those students whose major interests are in the more biological aspects of medical science, the quantitative requirements for chemistry are less extensive, but a strong background in mathematics, chemistry and physics is still important. Although most individuals enter the program as first-year students, applications will be accepted from students in their first or second year at this medical school. The program matriculates approximately 25 new students each year, which represents one-fifth of the entering medical school class.

The program consists of three parts: 1) two years of an enhanced medical curriculum, 2) at least three years of original research toward a thesis to satisfy the requirements for the PhD degree, and 3) at least 15 months of clinical training based on a student's career goals. Both degrees are awarded upon the completion of the program.

While the Medical Scientist Training Program includes all medical courses required for the MD degree, it incorporates a high degree of flexibility for individuals through a wide range of electives and graduate courses, some of which may be taken during the first year of the medical curriculum. Every effort is made to individualize each student's curriculum based on previous background and current interests. The medical and PhD curricula are integrated, which permits students to take PhD course work in lieu of certain medical school course work. In this way, students may substantially meet the course work requirements of the PhD program during the first two medical school years.

The MSTP Committee monitors the performance of each student, and a high scholastic standing as well as a commitment to research is expected.

Students normally spend between three and five years in doctoral studies satisfying the following requirements:

1. Completion of required graduate course work;
2. Successful performance in qualifying examinations;
3. Execution of original research suitable for a dissertation;
4. Defense of the thesis; and
5. Completion of a teaching assistantship.

The PhD degree may be obtained in the Program in Biomedical Engineering, the Division of Biology and Biomedical Sciences or in other research-oriented departments such as Anthropology or Physics. The largest contingent of MSTP students is trained under the auspices of the Division of Biology and Biomedical Sciences. The division, now in its 44<sup>th</sup> year, is a leader in interdisciplinary biomedical education. Member departments of the division include all clinical and preclinical departments of the medical school, as well as the Departments of Biology and Chemistry. These departments jointly provide training in the following interdisciplinary programs:

- Biochemistry
- Computational and Molecular Biophysics
- Computational and Systems Biology
- Developmental, Regenerative and Stem Cell Biology
- Evolution, Ecology and Population Biology
- Human and Statistical Genetics
- Immunology
- Molecular Cell Biology

- Molecular Genetics and Genomics
- Molecular Microbiology and Microbial Pathogenesis
- Neurosciences
- Plant Biology

The MSTP also permits students to undertake doctoral studies in other disciplines, provided that the resulting thesis is a rigorous, hypothesis-based body of work that is medically relevant.

A series of weekly seminars featuring physician scientists is held for MD/PhD students. These seminars are aimed at stimulating student interest in clinical medicine, increasing awareness of major research problems in clinical medicine and exposing students to diverse career paths in academic medicine.

MD/PhD students attend an annual weekend retreat during which students present their research. The retreat also features discussions led by experts on topics selected by students.

To keep students in the PhD phase of training up to date on their clinical skills, monthly opportunities are offered for clinical interactions. Students are matched individually with a clinical mentor in the specialty of their choice. These interactions include going on rounds and attending conferences.

A two-week non-graded tutorial for MD/PhD students facilitates their transition into the clinical phase of training.

MSTP students are required to complete a minimum of 15 months of clinical training. Opportunities exist to meet part of the requirement while engaged in PhD training. Students may opt to extend clinical training up to 22 months. The intensive clinical training is the last formal requirement for the MD degree.

Application Procedure: Individuals interested in applying to the Medical Scientist

Training Program must complete the MD-PhD section on the AMCAS and the Washington University School of Medicine secondary application. The MSTP requires letters of recommendation from the applicant's research mentor(s).

Individuals wishing additional information about the program may contact:

Medical Scientist Training Program  
Washington University School of Medicine  
Campus Box 8226  
660 S. Euclid Ave.  
St. Louis, MO 63110-1093  
(800) 852-4625  
[www.mstp.wustl.edu](http://www.mstp.wustl.edu)

## Learning Objectives

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### **Washington University School of Medicine medical student competency-based learning objectives**

**Washington University School of Medicine** provides students with a supportive, stimulating and challenging environment in which to acquire a thorough foundation in scientific medicine and develop skills and professional attitudes necessary for the practice of medicine at the highest possible level of excellence. In addition, the medical school fosters a commitment to collegiality, respect of individuality, community involvement and leadership through many extracurricular organizations and activities supported by the school. The educational program is designed to ensure that each student will demonstrate the following:

# **I. Medical knowledge**

Medical students must demonstrate knowledge of core concepts and principles of human biology and genetics, the scientific foundations of medicine and the causations, epidemiology, diagnosis and treatment of diseases in individuals and diverse populations.

MK-1 Demonstrate knowledge of normal human structure and function at the molecular, genetic, cellular, tissue, organ-system and whole-body level in growth, development, and health maintenance.

MK-2 Describe the basic mechanisms involved in the causation and treatment of human disease and their influence on clinical presentation and therapy.

MK-3 Demonstrate knowledge of the epidemiology of common diseases.

MK-4 Demonstrate knowledge of the impact of ethnicity and culture, socioeconomic factors, and other social factors on health, disease, and individual patient approaches to health care.

MK-5 Describe the basic scientific and ethical principles of clinical and translational research.

# **II. Patient care**

Medical students must demonstrate the ability to provide appropriate patient care in a multidisciplinary setting for the promotion of health and treatment of health problems across the human life span.

PC-1 Obtain appropriate medical histories that include psychosocial and behavioral factors that influence health.

PC-2 Perform accurate physical examinations.



PC-3 Perform basic procedures necessary for the practice of medicine.

PC-4 Apply the scientific method to the practice of medicine including the processes of problem identification, data collection, hypothesis formulation, and the application of deductive reasoning to problem solving, clinical reasoning, and decision-making.

PC-5 Integrate collected clinical information, including history, physical examination, and relevant laboratory, radiologic, and other studies, to develop and carry out with supervision, appropriate, individualized diagnostic and treatment plans for patients across the broad spectrum of acute and chronic conditions.

PC-6 Perform basic risk assessments and formulate plans to promote patient wellness across the human lifespan.

PC-7 Counsel and educate patients and their families based upon consideration of patient lifestyle, culture, concomitant medical conditions, psychosocial, and socioeconomic factors.

### **III. Interpersonal and communication skills**

Medical students must demonstrate their ability to communicate effectively with members of the medical community and with patients and their families from all socioeconomic and cultural backgrounds. (ED-10)

ICS-1 Demonstrate respectful and effective verbal and non-verbal interpersonal communication skills with patients.

ICS-2 Discuss diagnostic and treatment options in a manner that will facilitate the participation of patients and their families in shared decision-making.

ICS-3 Communicate effectively with members, including both physician and non-physician professionals, of the health care team.

ICS-4 Maintain accurate and thorough medical records and written documents.

## **IV. Professionalism**

Medical students must demonstrate a commitment to professional responsibilities, adherence to ethical behaviors, and sensitivity to patients of diverse backgrounds.

PROF-1 Maintain a professionally appropriate demeanor, exhibit high standards of professional integrity, and demonstrate an awareness of potential conflicts of interest.

PROF-2 Apply legal and ethical principles governing the physician-patient relationship to interactions with patients and their families.

PROF-3 Act in the patient's best interest and serve as a patient advocate.

PROF-4 Work collaboratively and effectively in interprofessional teams.

PROF-5 Treat all patients and patients' family members respectfully and compassionately with respect for privacy.

## **V. Systems-based practice**

Medical students must demonstrate an awareness of the larger context and system of health care and its impact on patients and the practice of medicine.

SBP-1 Demonstrate a knowledge of the U.S. health care delivery system, including the impact of financing, health policy, and the regulatory structure on health care.

SBP-2 Describe how health care disparities impact access and delivery of medical care for individuals and describe strategies for addressing these disparities.

SBP-3 Recognize the need for cost awareness and the role of risk benefit analysis in patient and population-based care.

SBP-4 Define patient safety and quality improvement, and discuss strategies to maximize the safety and quality of patient care.

## VI. Practice-based learning and improvement

Medical students must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve their patient care skills based on external feedback and self-evaluation.

PBLI-1 Demonstrate the skills needed for life-long learning including the ability to identify and address personal strengths and weaknesses to incorporate formative feedback, and to self-assess knowledge and performance to develop a self-improvement plan.

PBLI-2 Apply an evidence-based approach to medical practice through selecting, appraising, and utilizing evidence from scientific studies related to clinical questions and patients' health problems.

PBLI-3 Participate in the education of peers and other members of the health care team.

PBLI-4 Identify and address biases (both personal and in others) that may impact health care delivery.

## Curriculum

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The curriculum is an evolving product of prolonged and continuing study, by both faculty and students, of the present and probable future course of medical science and medical practice, and of the ways in which medical education can be kept abreast of this course. Our students enter medical school with diverse backgrounds and interests and upon graduation undertake a wide variety of careers. The curriculum provides the basic knowledge and skills essential for their further professional

development. Modern medical education can no longer hope to be comprehensive; it must be selective. Yet students must develop facility in the understanding and use of several related technical languages: those of anatomy, chemistry, physiology and clinical medicine. They must share responsibility for the care of the patient. They also must learn how these areas of endeavor are interrelated, how the organization and needs of society influence the methods of providing medical care, and how new knowledge is acquired and old knowledge re-evaluated.

The curriculum includes a core experience based upon a sequence of courses that introduces students to the many domains and disciplines of medicine. The principles, methods of investigation, problems and opportunities in each of the major disciplines of medical science and medical practice are presented in such a way as to help students select the career best suited to their abilities and goals.

In the final year of the medical school curriculum, the required elective program helps students to decide where major interests lie. It also enables them to benefit from the wide range of specialized knowledge and skills found in the faculty and lays the foundation for lifelong learning and application of principles. The elective program permits students to select, according to their desires, the areas they wish to explore or to study in depth.

Visit [Learning Objectives](#) for information about the Competency-Based Learning Objectives of the medical degree program.

## **Description of undergraduate medical education program by year**

### **First year**

The first-year curriculum focuses on the acquisition of a core knowledge of human biology, as well as on an introduction to the essentials of good patient care. Diversity among matriculants in undergraduate background and in approaches to learning is recognized and fostered. The courses are graded Pass/Fail, and a variety of didactic

means are made available including lectures, small groups, extensive course syllabi, clinical correlations and an online learning management system. The Practice of Medicine I course uses regular patient interactions and integrative cases to teach students to skillfully interview and examine patients, as well as the fundamentals of bioethics, health promotion/disease prevention, biostatistics and epidemiology. An optional summer research program between the first and second year provides an opportunity for students to explore various areas of basic science or clinical research.

## **Second year**

The second-year curriculum is focused on human pathophysiology and pathology. Through lectures, small group discussions, laboratory exercises and independent study, students acquire broad, detailed knowledge of mechanisms of disease pathogenesis, clinopathological relationships and fundamental principles of therapy. The Practice of Medicine II course continues students' introduction to the fundamentals of patient care and emphasizes organizing and interpreting clinical information to form a problem list, differential diagnosis and treatment plan. Students also learn how to accurately document and concisely present clinical information. Supervised clinical experiences and small group discussions further engender development of the professional attitudes and high ethical standards required for the third-year clinical clerkships.

## **Third year**

The overall goal of the third year is implementation of fundamental interactive clinical skills necessary for the practice of medicine at the highest possible level of excellence. Students achieve this goal by participating in intensive, closely supervised training experiences in the core clinical clerkships involving inpatient and ambulatory settings and interactions with patients who present a spectrum of emergent, urgent, routine and chronic clinical problems. Through these experiences, students exhibit growth and maturation in their abilities to take medical histories, perform complete physical examinations, synthesize findings into a diagnosis, formulate treatment plans and document and present information in a concise, logical and organized fashion. During

the clinical clerkships, students learn to use the biomedical literature and other educational resources in the service of their patients and in self-directed learning. Students also use their personal experiences and rapidly expanding knowledge of human behavior and ethnic, cultural, socioeconomic and other social factors to develop their own personal standards of compassionate, respectful and ethical behavior in the practice of medicine.

## **Fourth year**

The overall goals of the fourth year are to consolidate, enhance and refine the basic clinical skills developed during the clinical clerkships and to explore specialty areas within the field of medicine. This is accomplished by providing each student with optimal preparation for selecting and pursuing graduate medical education opportunities in his/her chosen field of medical practice and/or research. Students may select from a broad array of clinical rotations and research experiences and may arrange extramural experiences. Fourth year is also an opportunity to synthesize the learning from third year in preparation for clinical residency. Towards this end, students are required to complete a Capstone course prior to graduation.

# **Courses and Course Directors**

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## **2016-17**

### **First year**

First-year courses are taught during the 39-week academic year.

M80 502 WU Medical Plunge

Will Ross, MD, MPH

M75 501 Physiology

Robert Mercer, PhD

M05 502A Histology and Cell Biology

Paul C. Bridgman, PhD

M05 501B The Human Body: Anatomy, Embryology, Imaging

Glenn C. Conroy, PhD

M30 523 Immunology

Andrey S. Shaw, MD

M30 511 Medical Genetics

Sabrina Nunez, PhD

M30 526 Microbes and Pathogenesis

Henry V. Huang, PhD

Scott J. Hultgren, PhD

M15 502 Molecular Foundations of Medicine

Linda J. Pike, PhD

M35 554 Neural Sciences

David C. Van Essen, PhD

Timothy E. Holy, PhD

M25 507 The Practice of Medicine I

Timothy Yau, MD

- Clinical Skills

Alan Glass, MD

- Ethics and Health Policy

Richard Brasington, MD

- Community and Public Health

Aimee S. James, PhD, MPH

- Interpreting Illness

Colleen Wallace, MD

- Communication Skills

Dehra Glueck, MD/ Alan Glass, MD

- Clinical Epidemiology & Evidence Based Medicine

Jay Piccirillo, MD

M70 500 Principles of Pharmacology

Simon Haroutounian, PhD, MSc

## First-year selectives

The Selective Program provides first-year medical students with opportunities for enrichment and in-depth focus on areas beyond the core curriculum. All first year medical students are required to take and successfully complete at least four 10-hour Selective courses with a maximum number of six. Students must enroll in a minimum of one selective in humanities, one in the basic sciences, and one in a clinical area. They must also choose one additional selective from the clinical or basic science category.

### Selective category descriptions:

**Basic:** Content or experience primarily deals with issues of cell biology, physiology, pathophysiology of diseases, and scientific and statistical methods.

**Clinical:** Content or experience primarily related to patient care in the inpatient or outpatient setting, communications, public or global health, palliative care or health care policy.

**Humanities:** Content or experience primarily deals with ethics, medicine as the subject of literature or the arts, or the history of medicine.



M04 General Selectives

Michael M. Awad, MD, PhD

M04 Medical Humanities

Colleen Wallace, MD

**Examples of selective offerings from last year include:**

598H Advanced Interdisciplinary Bioethics Seminar-Ethical Issues in Human  
Reproduction

582 Alzheimer's Disease in the Clinic and the Lab

5881 Analysis of Clinical Data

520H Art and Medicine

587Z Beyond the Diagnosis: Social Perspectives on Mental Health

537 Cardiovascular Control Mechanisms

587V Clin Anat & Physio Sherlock Holmes' Way

587X Clinical Challenges in Health Literacy & Health Communication

5017 Clinical Correlations in Neurosciences

5351 Complementary and Alternative Medicine

530 Contemporary Molecular Immunology

500C Developmental Biology and Disease

538H Doctors on Film

5302 Frontiers in Leukemia

586H Health and Human Rights

5885 Health Street: Hands-On Comm Based Res-I

587L International Health

5878 Introduction to Clinical Neurosurgery

587W Introduction to Dentistry and Oral Medicine

5013 Introduction to Emergency Medicine-I

5016 Introduction to Emergency Medicine-II

581H Introduction to Medical Anthropology

587S Introduction to Newborn Medicine

524H Major Religious Traditions  
5009 Medical Spanish  
5061 Medicine of Laughter  
5667 Microcirculation  
588H Music and Medicine  
5875 Olin Grand Rounds  
516H Patient, Physician and Drama  
582H Philosophy of Medicine  
587A Physician as Health Protector and Patient Advocate  
587N Public Health  
587U Saturday Neighborhood Clinic  
587T SPOTS (Sun Protection Outreach Teaching by Medical Students)  
587D Students Teaching AIDS to Students (STATS)  
528H Terminal Illness and Death  
580H The Healer's Art  
5876 Topics in Orthopaedic Surgery  
533 Tropical Medicine  
5863 Underserved Areas: Urban, Rural, Abroad

## **Second year**

Second-year courses are taught during the 36-week academic year.

### **Course no./course title**

M25 611B Cardiovascular Disease

Dana R. Abendschein, PhD

Justin Sadhu, MD

M25 614 Dermatology

David Sheinbein, MD

M35 632 Diseases of the Nervous System

Allyson Zazulia, MD

M55 660B Clinical Topics in Otolaryngology

Joseph Bradley, MD

M25 615A Endocrinology and Metabolism

William E. Clutter, MD

M25 620A Gastrointestinal and Liver Diseases/Nutrition

Deborah C. Rubin, MD

M25 625A Hematology and Oncology

Meagan Jacoby, MD, PhD

Eric Knoche, MD

M25 605A Infectious Diseases

Nigar Kirmani, MD

Steven Lawrence, MD

M45 635B Obstetrics/Gynecology

Kenan Omurtag, MD

M60 665 Pathology

Erika C. Crouch, PhD, MD

M65 640A Physicians, Patients & Society: Pediatrics

Amanda Emke, MD

Erika Hayes, MD

M25 607 The Practice of Medicine II

Megan Wren, MD

- Clinical Skills

Alan Glass, MD

- Ethics and Health Policy

Richard Brasington, MD

- Community and Public Health

Aimee S. James, PhD, MPH

- Interpreting Illness

Colleen Wallace, MD

- Medicine Patient Sessions

Alan Glass, MD

- Neurology Patient Sessions

Allyson Zazulia, MD

- Ophthalmology

Colin McClelland, MD

- Communication Skills

Dehra Glueck, MD

- Radiology

Catherine Appleton, MD

- Clinical Epidemiology & Evidence Based Medicine

Jay Piccirillo, MD

M85 676A Diseases of the Nervous System: Psychiatry

Marcie Garland, MD

M25 612B Pulmonary Diseases

Adrian Shifren, MD

M25 613B Renal and Genitourinary Diseases

Steven Cheng, MD

M25 606A Rheumatology

Richard D. Brasington, Jr., MD

**Third year**

Clinical clerkship (third) year is a 48-week academic year.

## **Course no./course title**

### **Required Clerkships:**

#### **M95 790 Integrated Surgical Disciplines Clerkship (12 weeks)**

John Kirby, MD

Eleanor Drew, MD

#### **M25 710 Medicine Clerkship (12 weeks)**

Thomas M. De Fer, MD

#### **M35 720 Neurology Clerkship (4 weeks)**

Robert Naismith, MD

#### **M45 730 Obstetrics/Gynecology Clerkship (6 weeks)**

Tammy Sonn, MD

#### **M65 760 Pediatrics Clerkship (6 weeks)**

Michele Marie Estabrook, MD

Colleen Wallace, MD

#### **M25 707 The Practice of Medicine III**

Timothy Yau, MD

#### **M85 770 Psychiatry Clerkship (4 weeks)**

Brendan O'Connor, MD

### **Selective clerkships: (choice of one block)**

#### **M25 714 Ambulatory: Emergency Medicine Clerkship (4 weeks)**

Mark Levine, MD

**M26 712 Ambulatory: Family Medicine Clerkship (4 weeks)**

Kirsten Brandt, MD

**M85 771 Ambulatory: Psychiatry for Generalists Clerkship (4 weeks)**

Fay Y. Womer, MD

**M90 701 General Radiology Clerkship (4 weeks)**

Matthew Parsons, MD

Michael Friedman, MD

**M25 740 Dermatology Clerkship (4 weeks)**

Lynn Cornelius, MD

**M25 750 Geriatrics Clerkship (4 weeks)**

Ellen Binder, MD

**M60 702 Laboratory Medicine Clerkship (4 weeks)**

Mitchell Scott, MD

**M25 730 Physical Medicine and Rehabilitation Clerkship (4 weeks)**

Neringa Juknis, MD

**M90 740 Radiation Oncology Clerkship (4 weeks)**

Jeffrey Olson, MD, PhD

**M60 750 Surgical Pathology Clerkship (4 weeks)**

Samir El-Mofty, DMD, MS, PhD

## **Fourth year**

Fourth year is a 44-week academic year.

**M80 849 01 Capstone Course**

Gina LaRossa, MD

To qualify for the Doctor of Medicine degree at Washington University School of Medicine, fourth-year students are required to participate in a minimum of 32 weeks of electives (full-time clinical or research courses) and a required four-week Capstone course. Twenty weeks of the minimum required time for the elective year must be taken exclusively in residence in the Washington University School of Medicine elective course program. A complete listing of fourth-year elective offerings at Washington University School of Medicine is available through the Office of the Associate Dean for Medical Student Education. Students may participate in clinical electives of four weeks duration. If a student takes a research elective, that elective must be of at least six weeks duration.

A maximum of 12 weeks of credit is allowed for full-time elective coursework taken at other academic institutions. These may be clinical or research electives. Students desiring credit for work to be done at other institutions must petition the Associate Dean for Medical Student Education. Absolutely no credit will be granted for electives undertaken prior to approval from the appropriate administrative committees.

Credit may be given for elective work done at any point in the standard four-year Doctor of Medicine degree program as long as participation conforms to current elective guidelines, and a) the student is a duly registered, full-time student for a minimum of three years and nine months, including scheduled vacation time, and tuition is paid for four complete academic years; or b) if transferring into the third-year class, the student is a duly registered, full-time student for a minimum of 22 months and tuition is paid for two complete academic years.

Students are encouraged to take lecture-seminar elective courses, but such offerings are optional. Clock hours for the year total 1,386 (36 weeks). Remuneration for work done while participating in electives for credit is prohibited.

## **Course Descriptions by Department**

### **Anesthesiology**

Biochemistry and Molecular Biophysics

Cell Biology and Physiology

Developmental Biology

Genetics

Medicine

Molecular Microbiology

Neurology

Neuroscience

Neurosurgery

Obstetrics and Gynecology

Ophthalmology and Visual Sciences

Orthopaedic Surgery

Otolaryngology

Pathology and Immunology

Pediatrics

Psychiatry

Radiation Oncology



Radiology

Surgery

# Interdisciplinary and Capstone Courses

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## **M80 899 Medical Student Education Special Study**

Instructor(s): Michael Awad, MD, PhD, FACS

Location: Office of Medical Student Education, Becker Medical Library

Elective Contact: Melanie Smigielski, 314-747-3854, [smigielskim@wusm.wustl.edu](mailto:smigielskim@wusm.wustl.edu)

Other Information: Students should contact Melanie Smigielski to schedule this four-week Special Study Elective.

Enrollment limit per period: 1

This course is a student-designed project under the direction of the Associate Dean for Medical Student Education, Michael Awad, MD, PhD, FACS. It is intended for students who are interested in medical education as an aspect of their future career. The overarching goals are to introduce students to the principles of curriculum development. These principles will then be applied to the review and improvement of the current WUSM medical student curriculum.

Potential topics include: how students learn at WUSM, literature review of emerging technologies, collaborating with a course master for curriculum development and/or

syllabus review. The end product will depend on the nature of the project but potentially the development of a white paper or revised curriculum/course materials. All students will present their work in poster format during the annual spring Office of Medical Student Education's Med Ed Day.

Student time distribution:

Major teaching responsibility: Michael Awad, MD, PhD, FACS

Patients seen/weekly: N/A

On call/weekend responsibility: N/A

## **M80 849 Fourth Year Capstone**

Instructor(s): Gina LaRossa, MD.

Elective Contact: Gina LaRossa, MD.

Other Information: Additional details will be provided at a later date.

Enrollment limit per period: 65

Valid start weeks for this 4-week course are Weeks 33 and 37

**The Fourth Year Capstone Course is highly structured and is schedule sensitive. In order to provide students with the absolute best experience possible, students are REQUIRED to attend ALL sessions.** In general the morning sessions will start at 8:00 a.m. and run until approximately 12 noon. Afternoon sessions will generally run from 1:00 p.m. until about 5:00 p.m. The afternoons are hands-on activities which are faculty/staff intensive.

By the end of this four-week course, students should be able to demonstrate improved cognitive and clinical skills needed to enter the internship year of graduate medical training. The target group for this course is primarily students entering clinical residency training positions. As outlined in the course objectives, topics to be covered include acute clinical problems commonly faced on the inpatient service or emergency room, review of key diagnostic testing, basic procedural skills and patient and family communications regarding informed consent and end-of-life issues. Coursework will

be divided between self-study, didactic and small group discussions and “hands-on” skills practice and simulation. Parts of the course will be tailored to individuals entering internal medicine, pediatrics and surgical disciplines. Students will be assessed by performance on simulation exercises and a written exam.

### **Learning Objectives:**

By the end of this course:

1. The student will be able to respond to common acute patient problems as tested with simulation by rapidly assessing the patient, requesting relevant information from the patient, medical record, and nursing staff, generate a differential diagnosis and order appropriate diagnostic testing and initial treatment for the problem.
2. Demonstrate competence in a set of designated technical skills commonly needed in residency including basic suturing, chest tubes, central line, thoracentesis, and IV placement.
3. Demonstrate the ability to interpret diagnostic tests, such as chest- x-ray and EKG, commonly used for initial evaluation of acute medical problems.
4. Demonstrate and discuss the key elements of obtaining informed consent, dealing with difficult patient and family situations, end-of-life issues, and pain management.

Alternative clinical skills sessions will be offered on an ad hoc basis for students. These will be available in March and April depending on demand and faculty availability. These will not be “for credit”.

Student time distribution: N/A

Major teaching responsibility: N/A

Patients seen/weekly: N/A

On call/weekend responsibility: None.

## M80 851 The Business of Medicine

Instructor(s): William A. Peck, MD, 314-935-9108; Daniel Moon, MD, MS, MBA; Joshua Saef, MD

Location: Washington University Center for Health Policy

Elective Contact: Connie Mushill, 314-935-9108, and Daniel Moon, MD, MS, MBA, moond@wudosis.wustl.edu

Other Information: Farrell Learning and Teaching Center, Room TBD

Enrollment limit per period: 60

This course will be offered in Weeks 41-42 only.

This two-week, interactive course enhances medical students' "Healthcare System Literacy", i.e. their understanding of how the healthcare system is structured, financed, operated, and regulated. They will learn how clinical decisions and options are tied to market forces, business structures, and health policy. From clinical practice management issues up to 'big picture' views of healthcare, the course modules help prepare students for the challenges they will face in their own practices as well as for leadership roles in improving patient care on a large scale. The course will be a blend of case-method sessions, targeted mini-lectures, expert panels, and field trips; all designed to invite student participation and engagement with representatives from a broad spectrum of the healthcare industry.

### Course Objectives

The primary purpose of this course is to equip future physicians with a functional awareness of the market forces influencing patient care and to prepare them for an active role in healthcare delivery improvement.

By the end of the course, students should be able to:

- Understand the Healthcare System, outlining key institutions, corporations, and individual players.
- -Analyze the basic 'nuts & bolts' of operating a medical practice across the most

prevalent models of practice organization, e.g., how physicians get paid, key cost drivers, and pros/cons of different models.

- -Connect physicians' clinical decisions to a hospital's financial bottom line.
- -See healthcare insurance issues and reform from the patient perspective.
- -Follow how emerging science and technology innovations progress from the bench to the bedside.
- -Recognize how a medical degree can be utilized across a variety of career paths.
- -Prepare for common personal finance challenges and milestones facing young physicians.

### Grading & Evaluation

The course will be graded on a Pass/Fail basis. There is no final exam.

The following criteria will be applied to the final grade:

- Participation during class discussion.
- Students are expected to have read cases and/or pre-reading in order to take advantage of the expert speakers and case protagonists in attendance.
- Assigned question formation and 'warm calls'. Students will be assigned specific modules for which they are expected to prepare questions for the speaker and other modules where they will have a greater likelihood on being called upon to participate in the discussion.
- Self-assessment – At the end of the course, students will submit a piece describing personal takeaways and key learnings.
- Course evaluation – Student must complete a final survey on the course, rating specific modules and speakers.
- Attendance – Given the importance of class interaction, absences are excused only at the organizers' discretion.

Student time distribution: Conferences/Lectures/Field Trips/Reading 100%

Major teaching responsibility: Coursemaster, course organizers and case protagonists

Patients seen/weekly: 0

On call/weekend responsibility: None

## **M04 582 01 Alzheimer's Disease in the Clinic and in the Lab**

Instructors: John C. Morris, MD, and other faculty affiliated with the Knight Alzheimer's Disease Research Center, Department of Neurology. For information, contact Jennifer Phillips at 286-2882 or [phillipsj@abraxas.wustl.edu](mailto:phillipsj@abraxas.wustl.edu).

Alzheimer's disease (AD) affects more than 5 million Americans, and will increase substantially as our population ages. Of the top 10 causes of death in the United States, AD is the only disease without any way to prevent, cure or slow the progression. The cost of caring for AD patients has been estimated at over \$172 billion annually, and the human toll on patients and family members can be devastating. Patients and families turn to primary care and specialist physicians (e.g., neurologists, psychiatrists, geriatricians) for answers to their plight. The good news for physicians is that research on AD is moving at a rapid pace. Exciting advances in our understanding of AD etiology, early diagnosis and treatment are changing the landscape of dementia care.

Students in this course are offered a dynamic and interactive overview of the most exciting areas of AD clinical and science research from one of the top Alzheimer's disease research centers in the world. Find out how amyloid plaques and other AD-related abnormalities form in the brain and new discoveries about their possible reversal! The course includes lecture and student presentation components, plus opportunities to observe patients and families in an active neurology memory disorder clinic, participate in neuropathology evaluations of demented individuals, experience and administer psychometric evaluation tools and interact with investigators from the fields of molecular genetics, cell biology and neuropathology.

## **M35 851 Clinical Aspects of Aging and Dementia**

Instructor(s): Joy Snider, MD, PhD, and John C. Morris, MD

Location: Knight Alzheimer's Disease Research Center (ADRC), 4488 Forest Park Ave.  
(two-story brick building at intersection with Taylor)

Elective Contact: Jennifer Phillips, MPA (coordinator), 314-286-2882,  
[phillipsj@wustl.edu](mailto:phillipsj@wustl.edu).

Other Information: Please contact Jennifer Phillips to discuss what type of elective experience you would like to have.

Enrollment limit per period: 1

Valid start weeks for 4-week blocks are: Weeks 9, 13, 17, 21, 33, 37 and 41.

This elective provides the opportunity to learn about clinical research and clinical care in health brain aging and dementia. Students should contact Dr. Morris or Dr. Snider to discuss this, as this elective is customized based on student interests. This can be a two-week or four-week elective. Students can gain proficiency in interviewing techniques and in the neurologic examination of the geriatric patient, and be introduced to neuropsychology, neuropathology, biomarkers, neuroimaging, genetics, and other biomedical procedures important in the diagnostic evaluation of older adults. The Knight ADRC is an interdisciplinary group, so students have the opportunity to interact with physicians, nurse clinicians, psychologists, and social workers, and to explore the neuropsychology, neuropathology, biomarkers, neuroimaging, genetics, and other biomedical procedures used in the diagnosis of dementing disorders such as Alzheimer's disease, dementia with Lewy bodies, frontotemporal dementias, cerebrovascular disorders, and affective disorders.

Student time distribution: Varies based on student interest: a typical distribution would be Research and Clinical Patient Evaluation 80%, Conferences/Lectures 20%, Subspecialty Care 100%

Major teaching responsibility: Attending neurologists, psychiatrists, and geriatricians involved in the evaluation of memory and aging

Patients seen/weekly: 6-12

On call/weekend responsibility: None

# Course Evaluations

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Systematic course evaluation is performed for each year of the curriculum by faculty peers, teaching faculty and students. This system permits problem identification, ensures timeliness of feedback, promotes discussion of new teaching methodologies, allows curriculum inventory, recommends changes in course offerings and provides better integration of the curriculum. These reviews are guided through the Preclinical Curriculum Committee and the Clinical Curriculum Committee.

The [Office of Medical Student Education](#) (OMSE) oversees the course evaluation system. The collected data are forwarded to the respective course masters, the Committee on Medical Education and the Academic Affairs Committee.

# Program for Humanities in Medicine

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The Program for Humanities in Medicine is a University-wide program directed by Dr. Colleen Wallace and dedicated to providing students with a broadened exposure to areas other than the biological sciences during their medical education. The mission of the program is to generate an appreciation of the relationship of human experience, culture, institutions and values to medicine and thereby help to educate professionals who will apply that understanding to their activities as practicing physicians, researchers, educators, and medical administrators. This program is an enhancement of an already strong curriculum to prepare medical students to pursue their



professional careers more effectively. It takes a major role in the Practice of Medicine course integrated over the first three years of medical school. In addition, all students take one to two Humanities Selectives during their first year, and several electives are offered during the fourth year for interested students as well.

## Courses

M80 541 TOPICS IN MEDICINE/MEDICAL HUMANITIES

Instructor: Colleen Wallace, MD, 454-6299

This is a required course for the first year of medical school. Students select topics of interest for in-depth study initiated by discussions in a small-group seminar format. Development of topics includes input from a broad range of disciplines, including sociology, philosophy, music, literature, ethics, history, and communications. Selectives are offered as a menu of mini-courses, each consisting of five 2-hour or six 1.5-hour sessions with a faculty member devoted to an individual subject. Each student must select one course from the menu, and may choose a second course if desired.

# MD Academic Calendar

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## 2016

### June

17 Friday: Clinic orientation for new third-year students.

20 Monday: Academic year begins for third- and fourth-year classes.

24 Friday: Deadline for registration and initial payment of tuition for the third- and

fourth-year classes.

## **July**

3 Sunday: Independence Day holiday begins at 5 p.m.

4 Monday: Independence Day observance.

## **August**

1 Monday: Orientation, registration, matriculation and initial fee payment for the first-year class.

2 Tuesday: Academic year begins for the first-year class.

15 Monday: Academic year begins for the second-year class.

19 Friday: Deadline for registration and initial payment of tuition for the second-year class.

## **September**

4 Sunday: Labor Day holiday begins at 5 p.m.

5 Monday: Labor Day observance.

## **November**

23 Wednesday: Thanksgiving Day holiday begins at 5 p.m.

24 Thursday: Thanksgiving Day observance.

25 Friday: Holiday for all classes.

## **December**

16 Friday: Winter recess begins at 5 p.m. for all classes.

## **2017**

### **January**

3 Tuesday: Classes resume for all students.

6 Friday: Deadline for payment of the balance of tuition for all classes.

15 Sunday: Martin Luther King Jr. Day holiday begins at 5 p.m.

16 Monday: Martin Luther King Jr. Day observance.

### **March**

24 Friday: Spring break begins at 5 p.m. for first- and second-year classes.

30 Thursday: Spring break begins at 5 p.m. for third- and fourth-year classes.

### **April**

3 Monday: Classes resume for all students.

### **May**

7 Sunday: Academic year ends at 5 p.m. for graduating students.

12 Friday: Academic year ends at 5 p.m. for the second-year class.

19 Friday: Commencement

26 Friday: Academic year ends at 5 p.m. for the first-year class.

28 Sunday: Memorial Day holiday begins at 5 p.m.

29 Monday: Memorial Day observance.

## **June**

2 Friday: Academic year and clinical clerkships end at 5 p.m. for students in clinical clerkships.

Please note: Beginning and ending dates of each academic term will be published with individual class schedules.

## **Schedule of Clerkship and Elective Intervals 2016-2017**

Final examinations for clinical clerkships are administered at the end of each clerkship. Exact date, time and location are announced by the course master.

### **Weeks/Dates**

1-4: June 20, 2016 – July 17, 2016

5-8: July 18, 2016 – Aug. 14, 2016

9-12: Aug. 15, 2016 – Sept. 11, 2016

13-16: Sept. 12, 2016 – Oct. 9, 2016

17-20: Oct. 10, 2016 – Nov. 6, 2016

21-24: Nov. 7, 2016 – Dec. 4, 2016

25-28: Dec. 5, 2016 – Jan. 15, 2017

(Winter recess 5 p.m. December 16, 2016 –  
January 2, 2017)

29-32: Jan. 16, 2017 – Feb. 12, 2017

33-36: Feb. 13, 2017 – March 12, 2017

37-40: March 13, 2017 – April 9, 2017

41-44: April 10, 2017 – May 7, 2017

45-48: May 8, 2017 – June 2, 2017\*

\*Clinical clerkships end June 2, 2017.

## Lectureships and Visiting Professorships

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Several established lectureships enable the School to bring to the Medical Center each year distinguished guests who contribute significantly to the richness of student life.

**Ben T. Abelson Memorial Lectureship in Pediatrics.** Established by Mrs. Ben T. (Ann) Abelson, the first lecture was held on January 8, 1988.

**Dr. Adolfo & Fanny Rizzo Endowed Lectureship.** Established in 2015 by Dr. Adolfo and Fanny Rizzo to support child psychiatry.

**Harry Alexander Visiting Professorship Endowment Fund.** Established in 1964 by former house staff and friends of Dr. Harry Alexander to provide an annual visiting professor in the Department of Medicine.

**Michael Beardslee Memorial Lectureship.** Established in 2015 by friends and colleagues to honor Dr. Michael Beardslee and recognize his extraordinary impact on cardiology.

**Dr. David C. Beebe Lectureship Endowment Fund.** Established in 2015 by colleagues, students, and friends in memory of Dr. David Beebe, who held the Janet and Bernard Becker Professorship in Ophthalmology and Visual Sciences.

**Daniel R. Biello Memorial Lectureship.** Established in 1986 by friends, students and colleagues of Dr. Daniel R. Biello to provide an annual lectureship devoted to advances in radiology and nuclear medicine.

**George H. and Ethel Ronzoni Bishop Fund and Lectureship.** Supported by funds made available by friends interested in the advancement of neurology.

**Bohigian Lectureship in Ophthalmic History and Visual Sciences.** Established in 2010 by Dr. and Mrs. George Bohigian to focus on the history of ophthalmology and visual science.

**Dr. John P. Boineau Memorial Lectureship.** Established to honor one of the giants in the field of cardiac electrophysiology, Dr. John P. Boineau, who died in 2011. The lectureship was created to bring to Washington University internationally recognized speakers whose careers have been focused on either surgical or medical therapies related to the treatment of cardiac arrhythmias.

**Dr. William "Grif" Bowen Endowed Lectureship.** Established in 2014 through gifts from colleagues and friends to honor Dr. Bowen, a distinguished primary care physician and a faculty member in the Department of Internal Medicine.

**Estelle Brodman Lectureship Fund.** Established in 1981 by friends and colleagues of Dr. Brodman in honor of her distinguished contributions to the School of Medicine.

**The James Barrett Brown Visiting Professorship.** Created in 1969 by patients, friends, colleagues and former students to honor Dr. Brown.

**Thomas Burford Lectureship.** Founded in 1971 by friends of Dr. Burford.

**H. Marvin Camel Annual Lecture in Gynecologic Oncology.** Established in 1999 by family, friends and colleagues to honor Dr. H. Marvin Camel's retirement.

**Glover H. Copher Research Fund.** Founded in 1971 with endowment provided by Dr. Copher and friends.

**Carl and Gerty Cori Visiting Professorship.** Established in 1985 in honor of Nobel Laureates Carl and Gerty Cori by the Edward Mallinckrodt, Jr. Foundation, colleagues, faculty and former students.

**Dr. William S. Coxe Memorial Lectureship Fund.** Established by colleagues and friends in memory of Dr. William S. Coxe, a highly-esteemed Washington University neurosurgeon who died in 2012. The lectureship was created to bring to the School of Medicine internationally recognized speakers whose careers have been focused on neurological surgery.

**Philip E. Cryer, MD Lectureship.** Established in 2015 by colleagues, students, and friends to honor the career of Dr. Philip Cryer, Professor Emeritus and former Director of the Division of Endocrinology, Diabetes and Metabolism and the second Irene E. and Michael M. Karl Professor of Endocrinology and Metabolism in Medicine.

**Philip R. Dodge, MD Visiting Lectureship.** Established in 1987 by friends and colleagues to provide an annual lectureship in the Department of Pediatrics.

**The Professor and Dean Jay M. Enoch and Rebekah Enoch Endowed Lecture on**

**Vision Science in Ophthalmology.** Established in 2005 in gratitude to Dr. Bernard Becker. The lecture is meant to keep faculty abreast of new and emerging developments in Ophthalmology.

**Joseph Erlanger Lectureship.** Established in 1989 by the Department of Cell Biology and Physiology to honor Dr. Erlanger.

**I. Jerome Flance Endowed Visiting Professorship.** Established in 1977 by former students and friends of Dr. Flance to provide annually a visiting professor in the Division of Pulmonary Diseases.

**Julia Hudson Freund Oncology Lecture.** Established in 1982 by S.E. Freund in memory of his wife to provide a visiting lectureship in clinical oncology in the Division of Oncology. This was endowed in 2002 by the Harry and Flora D. Freund Memorial Foundation.

**Harvey A. and Dorismae Hacker Friedman Lecture on Aging.** Established in 2001 to honor the Friedmans for their instrumental role in helping to create the Center for Aging and for their ongoing leadership and support.

**Edwin F. Gildea, Jr. Endowed Lectureship Fund.** Established in 1978 by friends, colleagues and former students of Dr. Gildea.

**Joseph J. Gitt Visiting Professorship.** Established in 1971 by his family and friends to honor Dr. Gitt.

**Sidney Goldring Lectures.** Established in 1992 upon the death of Dr. Sidney Goldring, who was the founder of the Division of Pediatric Cardiology.

**Graham Colloquium.** A gift from Mr. and Mrs. Evarts Graham, Jr., in 1963 to encourage opportunities for students to expand their views on social, philosophical, artistic and political topics.



**Evarts A. Graham Lectureship.** Established in 1985 by the Washington University Alumni of the Phi Beta Pi medical fraternity to honor the memory of Dr. Evarts A. Graham.

**Samuel B. Guze Lectureship.** Established in 1990 by friends and colleagues to honor Dr. Guze.

**Carl Gayler Harford Lectureship.** Established in 1977 by the family of one of Dr. Harford's patients in gratitude for his contributions to teaching clinical medicine and virology.

**Alexis F. Hartmann, Sr. Lectureship Fund.** Established in 1960 by friends interested in pediatrics to provide an annual lecture in Dr. Hartmann's honor.

**Alex H. Kaplan Visiting Professorship/Lectureship.** Established in 1986 by Dr. and Mrs. Alex H. Kaplan to support a visiting psychoanalyst.

**Michael M. and Irene E. Karl Lectureship in General Internal Medicine.** Created in 1983 by Mr. and Mrs. Meyer Kopolow to provide an annual lectureship in honor of Drs. Michael and Irene Karl.

**The Michael A. Kass, MD Endowed Lectureship Fund.** Established in 2005 by the Horncrest Foundation, in honor of Dr. Michael A. Kass, HS73 and head of the Department of Ophthalmology.

**Jack and Barry Kayes Lectureship in Ophthalmology and Visual Sciences.** Established in 2001 by Dr. Jack and Mrs. Barry Kayes to endow a lectureship in the Department of Ophthalmology and Visual Sciences.

**The Charles Kilo, MD Lectureship.** Established in 1998 by Mrs. Ola H. Blodgett to pay tribute to the expert and compassionate care provided by Dr. Charles Kilo.

**David M. Kipnis Lectureship.** Established in 1998 to provide an annual lecture in

honor of Dr. Kipnis.

**Rosalind Kornfeld Endowed Memorial Lectureship.** Established in memory of Dr. Rosalind Kornfeld, a faculty member for 35 years, who died in 2007. She was very involved in promoting the careers of women faculty and was a founding member and first president of the Women's Academic Network. The fund was features lectures by outstanding women scientists.

**Korsmeyer, Stanley Memorial Lectureship.** Established by colleagues, family and friends in 2005 in memory of Dr. Stanley J. Korsmeyer, a renowned cancer cell researcher and former Washington University School of Medicine faculty member.

**The Kroc Visiting Lectureship Program.** Established in 1985 by The Kroc Foundation in honor of Ray A. and Robert L. Kroc.

**Paul E. Lacy Lecture and Kilo Foundation Award.** Established in 1987 by The Kilo Diabetes and Vascular Research Foundation in honor of Dr. Lacy's many contributions to pathology and diabetes research, and to recognize his collaboration over the years with the co-founders of The Kilo Foundation.

**Landau Lectureship Fund.** This lectureship was established in 1995 by friends, family and colleagues of Dr. Landau.

**Irwin Levy Memorial Fund.** Supports the Dr. Irwin Levy Visiting Lectureship in Neurology, which was established in 1978 by Mr. and Mrs. Meyer Kopolow.

**Oliver H. Lowry Lectureship Fund.** Established in 1978 by friends, colleagues and former students of Dr. Lowry.

**H. Relton McCarroll Visiting Professorship in Orthopaedic Surgery Fund.** Created in 1972 by patients, friends, colleagues and former students in honor of Dr. McCarroll.

**Edward Massie Lectureship Fund.** Established in 1981 by Edward J. Simon, MD,

Bernard Shanker and other grateful colleagues and patients.

**G. Leland Melson II Lectureship Fund.** Established in 1993 in memory of Dr. Melson by his friends and colleagues.

**J. Neal and Lois Middelkamp Lectureship Fund.** Established in 2001 by Dr. J. Neal and Lois Middelkamp to support a pediatric lectureship in infectious diseases and advances in pediatric education for medical students, residents and pediatricians, all life-long interests of Dr. Middelkamp.

**Dr. and Mrs. William B. Mill, Jr. Lectureship.** Established in 2001 in the Department of Radiation Oncology by Dr. and Mrs. William B. Mill, Jr. This was given in recognition of the career accomplishments of Carlos A. Perez, MD, and the impact he had on the professional development of Dr. Mill.

**Carl V. Moore Lectureship in Medicine.** Established in 1973 by friends and patients of Dr. Carl V. Moore.

**Carl A. Moyer Visiting Professorship of Surgery.** Established in 1978 by The Harry Freund Memorial Foundation to support an annual lecture in honor of Dr. Moyer's contribution to surgery.

**National Kidney Foundation — Saulo Klahr, MD Lectureship.** Established in 1991 by the Kidney Foundation to honor Dr. Klahr, past president of the National Kidney Foundation and the John E. and Adaline Simon Professor and Vice Chair of the Department of Medicine at Washington University.

**Joseph H. Ogura Endowed Lectureship Fund.** Established in 1977 by friends and colleagues of Dr. Ogura as a tribute to his numerous scientific accomplishments and contributions to the School of Medicine and graduate medical education, and his commitment to patient care.

**Charles W. Parker Lecture in Allergy & Immunology.** Established in 2014 by friends

and colleagues of Dr. Parker to honor his legacy as a pioneer in the field of allergy and immunology and as a dedicated educator.

**Carlos A. Perez Endowed Lectureship in Oncology.** Established in 2002 in the Department of Radiation Oncology by Dr. Perez's friends, colleagues and current and former trainees in grateful recognition for his inspiration, guidance and leadership.

**Petrie, Dr. Roy H. Lectureship.** Established in 2000 with gifts from various donors in memory of Roy H. Petrie, MD.

**Rose and Samuel Pollock Surgical Lectureship.** Established in 1976 by Dr. Joseph H. Pollock in memory of his parents.

**Probstein Oncology Visiting Lectureship.** Established in 1985 by Mr. and Mrs. Norman K. Probstein in appreciation of professional services provided by William Fair, MD, former head of the urology division of the Department of Surgery, and Carlos Perez, MD, professor emeritus of radiology and head of radiation oncology at the medical center's Mallinckrodt Institute of Radiology.

**James A. Purdy Endowed Lectureship.** Established by Elekta Oncology Systems, Ltd. in 2002 to honor Dr. James Purdy for his contributions to the field of Radiation Oncology.

**Eli Robins Lectureship in Psychiatry.** Established in 1977 by friends, colleagues and former students of Dr. Robins.

**The Peggy Sansone Memorial Lectureship.** Created in 2002 by Anthony F. Sansone, Jr. and the Peggy Sansone Special Angel Foundation to promote the exchange of ideas and scientific information on the topic of depression and the role of spirituality in personality development, happiness and mental health. The lecture is a memorial to Mr. Sansone's wife, Peggy Sansone.

**Julio V. Santiago Fund, Department of Pediatrics.** Established in 1999 by the Department of Pediatrics as a lasting tribute to Julio V. Santiago, MD, for his long-

standing contributions to the areas of diabetes, endocrinology and metabolism.

**Rena Schechter Memorial Lectureship in Cancer Research in the Department of Medicine.** Established in 1996 by Dr. Samuel E. Schechter to create a lectureship in cancer research in memory of his wife, Rena Schechter.

**Dr. Alexander & Helena Schonfeld Lectureship in Medicine Fund.** This lectureship was established in 1994 by Mrs. Helena Schonfeld, in honor of her son, Gustav Schonfeld, Professor of Medicine at Washington University School of Medicine.

**Henry G. Schwartz Lectureship Fund.** Created in 1983 by former residents and colleagues from the neurosurgery department to honor Dr. Schwartz.

**Wendell G. Scott Lectureship Fund.** Established in 1972 by friends and colleagues of Dr. Wendell G. Scott.

**Major G. Seelig Lectureship.** Established in 1948 in the field of surgery by friends of Dr. and Mrs. Seelig.

**Philip A. Shaffer Lecture Fund.** Founded in 1957 by friends of Dr. Shaffer in recognition of his accomplishments in biochemistry.

**Earl E. & Wilma Shepard Orthopedics/Otolaryngology Memorial Lecture Series.** Established in 1994 through a bequest by Dr. and Mrs. Shephard.

**Frank O. Shobe Lectureship.** Established in 1986 by friends of Dr. Shobe to honor him as a physician and teacher.

**Donald C. Shreffler Memorial Lectureship.** Established in 1995 by Mrs. Donald C. Shreffler as a memorial to her husband.

**Eduardo Slatopolsky Lectureship Fund.** Established in 1988 by Mr. and Mrs. William Wolff in honor of Dr. Slatopolsky's 25-year association with the School.

**The Karl and Sue Smith Lecture in Pediatrics.** Established in 2007 by Dr. Carl Smith, School of Medicine Professor of Pediatrics, with a focus on pediatric lab medicine.

**Dr. Burton P. Sobel Memorial Lectureship.** Established in 2013 through gifts from faculty and alumni of the Cardiovascular Division in memory of Dr. Sobel, past director of the division whose revolutionary work in the care of acute coronary syndromes laid the groundwork for ongoing discoveries and outstanding patient care.

**Spector Lectureship Endowment.** Established in 2015 by the Department of Otolaryngology and by colleagues and students as a tribute to Dr. J. Gershon Spector's 44 years of service and the spirit of exploration and collaboration he exemplifies. The lecture will bring to campus internationally recognized speakers whose work focuses on the biology of the head and neck and oncologic research.

**C. Ronald Stephen Lectureship and Clinical Research.** Established in 1986 by former students, residents, faculty and friends in honor of Dr. Stephen, first Head of the Department of Anesthesiology.

**The Sterling Visiting Professorship.** Established in 1986 to honor Ernst Zander, MD, former medical director of Sterling Drug, Inc.

**Arthur W. Stickle, MD Lectureship Fund.** Established by Arthur and Emily Stickle in 1995 with their generous gift in recognition of Dr. Stickle's medical training in the Department of Ophthalmology and Visual Sciences and his special professional contribution to the field of pediatric ophthalmology.

**The Strunk Family Lectureship in Asthma.** Established in 2005 by Dr. Robert C. Strunk and his family to provide lectures in the area of pediatric asthma.

**Dr. Richard A. and Elizabeth Henby Sutter Visiting Professorship.** Established in 1985 by Dr. and Mrs. Sutter to encourage opportunities for students, faculty, other physicians and the St. Louis community to expand the understanding and practice of occupational medicine.

**Dr. Jessie L. Ternberg Pediatric Surgery Visiting Lectureship Fund.**

Made possible from a fund established in 1977 by Mr. Meyer Kopolow to honor Dr. Ternberg.

**Robert J. Terry Endowment for the Advancement of an Appreciation of Gross Anatomy.**

Established by alumni and Charles S. Terry, his son, respectively, "for the purpose of fostering greater appreciation of the study of anatomy."

**Don L. Thurston Memorial Lectureship.** Established in 1988 by his wife, Dr. Jean Holowach Thurston, and his colleagues and friends, the lectureship is devoted to the history of biomedical advances.

**Leonard J. Tolmach Lectureship.** Established in 1995, this lectureship was endowed by friends and colleagues to honor the legacy of Dr. Tolmach. The lecture theme is radiation biology in clinical radiation oncology.

**Dr. Mildred Trotter Lectureship Fund.** Established in 1975 by friends and former students of Mildred Trotter to bring a distinguished woman scientist to the School of Medicine each year.

**Rudolph A. Tuteur Pulmonary Lectureship.** This lectureship is endowed by family, friends, patients and colleagues of the Tuteur family to memorialize Rudolph A. Tuteur. The goal of this annual fall event is to promote further understanding of problems associated with chronic pulmonary disease from which he suffered.

**Todd Wasserman Endowed Visiting Lectureship.** Established in 2004 by Dr. Wasserman and funded by MedImmune, Inc. and friends and colleagues of Dr. Wasserman.

# Primary Care Summer Preceptorships

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Since 1996 the school has sponsored a primary care preceptorship program for students during the summer between their first and second years of classes. Students select a preceptor in internal medicine, pediatrics or family practice and spend up to eight weeks observing that physician's clinical practice. A stipend is provided to the student. Although many of the preceptors are in St. Louis, others, particularly alumni, are located in cities throughout the country.

## Student Research Fellowships

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Student research is an important part of the educational program. Fellowships in basic science or clinical areas will be awarded each year to selected students who undertake research projects under the direction of faculty members. Research allows students to discover firsthand the problems and rewards of obtaining and assessing new information, thus adding another dimension to their experience as investigators.

Most students take the opportunity for research during the summer after their first year of classes. All research must be conducted at the School of Medicine. Students will be awarded a fellowship for the 2.5-month program.

Inquiries should be made to:

Koong-Nah Chung, PhD

Associate Dean for Medical Student Research

Director of the Office of Medical Student Research

Washington University School of Medicine



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660 S. Euclid Ave.

St. Louis, MO 63110(314) 362-6844

[chungk@wustl.edu](mailto:chungk@wustl.edu)

# Advising

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Student academic advising occurs within two broad programs.

1. **Advising:** First-year students are assigned to academic societies upon matriculation. Each academic society has an Advisory Dean. This advisory dean meets with all 1<sup>st</sup> and 2<sup>nd</sup> year students individually in the 1<sup>st</sup> and 2<sup>nd</sup> year. In addition, advisory deans will meet with their students in small groups several times throughout the year. Advisory Deans meet and discuss with their students how to succeed in medical school, the opportunities and challenges they may face as a medical student, career paths and how to select among them.
2. **Career Advisers:** As they prepare for their final year of medical school, students have the opportunity to select a career adviser from a list of faculty in the field in which the student plans to seek a residency appointment. The career advisers have responsibility for reviewing the student's choice for fourth-year electives and making appropriate recommendations for the structure and content of the elective year. In addition, at the beginning of their final year of medical school, students are required to meet with the Assistant Dean for Career Counseling in preparation for writing their Medical Student Performance Evaluation (MSPE or Dean's Letter). At this meeting and throughout their final year, the assistant dean discusses the student's long-term educational and career goals, helps choose residency programs that meet these goals, reviews their residency application

and personal statement, and supports construction of their program rank list. The Assistant Dean for Career Counseling is also available to students at any point in their medical school career to provide individual counseling in planning for choosing a specialty, as well as the residency application and match process. For more information visit the Career Counseling Office website and the Postgraduate Training section of the Bulletin.

In addition to the advising programs described, students seek informal advising from faculty with whom they have had contact, either through classroom work, research or clerkships. Students also have faculty contact through membership in the academic societies. Many of the specialty specific student interests groups and other student run programs provide opportunities for clinical shadowing and informal advising.

## Alpha Omega Alpha

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**Alpha Omega Alpha** is a national medical honor society. Members are selected by a standing AOA committee during the final year of medical school. Selection is based upon academic performance during the first three years, in addition to other qualities such as leadership. Approximately one-sixth of the class is elected to AOA.

Students elected to AOA are honored at an awards dinner during the final year and at a special AOA lecture.

## Awards and Prizes

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Washington University School of Medicine publicly recognizes and rewards at two annual events outstanding scholarship, research accomplishments and community service of individual students. In December, the Student Awards Luncheon acknowledges academic excellence earned during the first three years of study. As part of the festive commencement activities in May, graduates are recognized for meritorious research and clinical achievements accomplished during their medical school careers.

**Morris Alex, MD Prize.** Awarded each year to the medical student who is outstanding among his or her peers in the second-year Practice of Medicine course. The November 2015 recipient: Lindsay Burton

**Alpha Omega Alpha Book Prize.** Awarded to a member of the graduating class who has performed outstandingly for the entire medical course. The May 2016 recipient: Jeffrey Alan Gluckstein

**American Academy of Neurology Medical Student Prize for Excellence in Neurology.** Awarded to a member of the graduating class for excellence in clinical neurology and outstanding personal qualities of integrity, compassion and leadership. The May 2016 recipient: Jeffrey Alan Gluckstein.

**American College of Physicians Michael M. Karl, MD Book Award.** Presented annually to a member of the graduating class committed to a career in internal medicine, in recognition of highest achievement in the field of internal medicine. The May 2016 recipient: Ryan Brent Day.

**American College of Physicians Award for Excellence in Physical Diagnosis.** Given to a student annually for outstanding performance in the second-year Practice of Medicine course. The November 2015 recipient: Julia Lange.

**American College of Physicians Clerkship Award.** Established in 1992 to be awarded to a student completing the third year of study with meritorious achievement in the

Internal Medicine Clinical Clerkship. The November 2015 recipient: Sophia Li.

**American Medical Women's Association Glasgow-Rubin Memorial Award.** Presented to the woman graduating first in her class.

**American Medical Women's Association Glasgow-Rubin Memorial Achievement Citations.** Presented to women medical students graduating in the top 10 percent of their class. The May 2016 recipients: Caroline Rose Fischer, Brianna Rachel Fram, Celina Rose Jacobi, Johanna Rose Kaufman, Katherin Eliza Leckie, Cherise Meyerson, Gina Nicole Sacks, Ema Zubovic.

**The Ruth Bebermeyer Award.** Established in 2001 by the WUMCAA executive council to honor Ruth Bebermeyer for her many years of dedicated service to WUMCAA (1990-2000) and to the students of the School of Medicine. The award is given to "a student who has shown extraordinary kindness and sensitivity to the needs of others," whether those others be fellow students, patients or just people in general. The November 2015 recipient: Bayan Jalalizadeh.

**Alexander Berg Prize.** Awarded to the student presenting the best results in research in molecular microbiology. The May 2016 recipients: Sarah Elizabeth Greene, Jane Wadsworth Symington.

**The James and Philip Brasington Memorial Prize.** Awarded to a medical school student who has demonstrated excellent preclinical and clinical academic performance in psychiatry and who has the potential to make significant contributions to the field. The May 2016 recipient: Celina Rose Jacobi.

**Jacques J. Bronfenbrenner Award.** Provided by Dr. Bronfenbrenner's students in memory of his inspiration as a teacher and a scientist, and awarded to the member of the graduating class who, as judged by the Department of Medicine, has done the most outstanding work in infectious diseases or related fields. The May 2016 recipient: Punit Akshaya Vachharajani.

**Dr. Richard S. Brookings and Robert Carter Medical School Prizes.** Provided through a bequest of Robert S. Brookings to recognize academic and personal achievements, including but not limited to exemplary academic performance, leadership, community service and research. The November 2015 Dr. Richard S. Brookings recipients: Miranda Lindburg, Cherise Meyerson, and Johnny Zhao. The May 2016 Dr. Richard S. Brookings recipient: Jeffrey Alan Gluckstein. The November 2015 Robert Carter recipients: Jeffrey Gluckstein, Celina Jacobi, and Jonathan Weese. The May 2016 Robert Carter recipient: Sam Qiancheng Sun.

**Dr. Harvey Butcher Prize in Surgery.** Awarded annually in memory of Dr. Harvey Butcher to the members of the graduating class who, as judged by the Department of Surgery, show the greatest promise for general surgery. The May 2016 recipient: Katherine Carol Altheide Ott.

**Kehar S. Chouke and George Gill Prize in Anatomy.** Awarded annually to a first-year medical student who has demonstrated superior scholarship in Human Anatomy. The November 2015 recipient: Arthur Sletten.

**Class of 2001 Award.** Established by the Class of 2001 as its gift to the medical school. Awards are to be given to third-year medical students in recognition of outstanding performance in the areas of community service and student group activities in the first two years of medical school. The November 2015 recipients: Harleen Grewal and Jessica Holttum.

**Class of 2003 Award.** Dedicated to the memory of three classmates who died in a car accident, and is awarded to a first-year student recognized by peers as being selfless, exceptionally kind to others and dedicated to the highest standards in medicine, traits for which these classmates will be remembered. The November 2015 recipients: Seren Gedallovich and Radhika Jain.

**Carl F. and Gerty T. Cori Prize in Biochemistry.** Awarded at the end of the first year to the class member who has demonstrated superior scholarship in Biochemistry. The November 2015 recipient: Lingling Huang.

**Edmund V. Cowdry Prize in Histology.** Established in 1969 to honor Dr. Cowdry; awarded to a medical student in the first-year class who has performed meritoriously in Microscopic Anatomy. The November 2015 recipient: Lingling Huang.

**Antoinette Frances Dames Award in Cell Biology and Physiology.** Awarded annually to members of the first-year class who have demonstrated superior scholarship in these fields. The November 2015 recipient: Lingling Huang.

**Elisabeth L. Demonchaux Prize in Pediatrics.** Established in 1985, the prize is awarded annually to a graduating student who has done outstanding work in pediatrics. The May 2016 recipient: Paul Edward George.

**Steven Dresler Prize.** Awarded to a graduating student who has demonstrated a commitment to promoting social good, civil rights and civil liberties through social action and volunteerism. The November 2015 recipient: Miriam Ben Abdallah.

**Dr. William Ellis Award.** Established in 1990 by Dr. Ellis and awarded to a senior student in recognition of meritorious research in ophthalmology. The May 2016 recipient: Michel Muzi Sun.

**The Endocrine Society Medical Student Achievement Award.** Recognizing a graduating medical student who has shown special achievement and interest in the general field of endocrinology. The May 2016 recipient: Sophia Mengting Li.

**The Family Health Foundation of Missouri Scholarship Award.** Awarded to the top graduating student entering the specialty of family medicine. The May 2016 recipient: Brian Andrew Bouchard.

**George F. Gill Prize in Pediatrics.** Awarded to a member of the graduating class who has demonstrated superior scholarship in pediatrics. The May 2016 recipient: Jane Wadsworth Symington.

**Alfred Goldman Book Prize in Diseases of the Chest.** Created in 1972 as an annual

award to be given to a student selected by the faculty for outstanding clinical work or research in diseases of the chest or pulmonary physiology. The May 2016 recipient: Lawrence Nathaniel Philip Benjamin.

**Max and Evelyn Grand Prize.** Established in 1985 by Dr. M. Gilbert Grand, the prize is awarded annually to a member of the graduating class for excellence in ophthalmic research or clinical ophthalmology. The May 2016 recipient: Owen Qi.

**Peter Halstead Hudgens Award.** Established by Dr. Richard W. Hudgens in memory of his son, this award recognizes a graduating student for excellence in research and clinical psychiatry. The May 2016 recipient: Emily Hunt Olfson.

**.R. R. Hannas Award for Excellence in Emergency Medicine.** Offered annually by the Missouri Chapter of the American College of Emergency Physicians for exceptional performance in emergency medicine. The May 2016 recipient: Daniel Seth Greenstein.

**Nathan Edward Hellman, MD, PhD, Memorial Award.** Recognizes a second-year student selected through a vote of fellow classmates. The recipient is distinguished as a student with a strong track record of accomplishments and an interest in academic medicine, and whose humanism, collegiality, humor and compassion are an inspiration to members of the class. The November 2015 recipient: Michael Snavely.

**Herrmann Prize.** Created by Dr. Paul Herrmann (MD 1961) and his wife, Susan, to recognize a student who is considered a thoughtful and sensitive communicator in the clinical arena and whose listening and communication skills every patient hopes their physician will possess. The November 2015 recipient: Brian Bouchard.

**Dr. John Esben Kirk Scholastic Award.** Established in 1975 and awarded to a graduating student of high scholastic standing. The May 2016 recipient: Cherise Meyerson.

**Rosalind Kornfeld Student Leadership Award.** Presented to a woman or women in the graduating class who has or have demonstrated outstanding leadership in service

to or advancement of women in the community. The May 2016 recipient: Lauren Therese Josiah Martin.

**Louis and Dorothy Kovitz Senior Prize in Surgery.** Senior award in surgery recognizing members of the graduating class who have shown the most outstanding ability, zeal and interest in surgical problems. The May 2015 recipient: Robert Warren DesPain.

**Wallace Leibner Award.** Established in 1988 in memory of Dr. Leibner, the award is given to the member of the graduating class who has not only demonstrated excellence in diagnosis and therapeutics, but also an understanding of human nature and needs, and an active nurturing of both patient and family. The May 2016 recipient: Paul Joseph Scheel III.

**Irwin Levy Prize in Neurology and Neurological Surgery.** Established in 1980 by friends of Dr. Levy as a tribute to his commitment to clinical teaching. Provides a prize for the student who presents the best performance in the neurology and neurological surgery clerkships. The November 2015 recipient: Josiah Gerdts.

**Edward Massie Prize for Excellence in Cardiology.** Awarded to the member of the graduating class, selected by the director of the Division of Cardiovascular Disease in the Department of Medicine, who has done the most outstanding clinical or basic research work in the field of cardiovascular disease. The May 2016 recipient: Andrew Scott Perry.

**Howard A. McCordock Book Prize in Pathology.** Awarded at the end of the second year to a member of that class for general excellence in pathology. The November 2015 recipient: Rose Tang.

**McGraw-Hill/Lange Medical Student Book Award.** Awarded annually to medical students for high scholastic standing. The November 2015 recipients: Brianna Fram and Caroline Fischer.

**Medical Center Alumni Scholarship Fund Prize.** Given annually to students who have



shown excellence in their work during the preceding year. The November 2015 recipient: Johanna Kaufman.

**Medical Fund Society Prize in Medicine.** One prize awarded annually to a graduating student who has excelled in the study of internal medicine. The May 2016 recipient: Daniel Scott Feng.

**Medical Fund Society Prize in Surgery.** One prize awarded annually to a graduating student who has excelled in the study of surgery. The May 2014 recipient: Charles Robert Hong.

**Merck Academic Excellence Award.** Given to three graduating medical students for scholastic achievement in medical studies. The May 2016 recipients: George Olen Denny, Jonathan Randolph Weese, Johnny Zhao.

**Missouri State Medical Association Award.** Presented annually to honor School of Medicine graduates for outstanding achievement in the study of medicine. The May 2016 recipients: Johanna Rose Kaufman, Brianna Rachel Fram.

**The Missouri State Medical Association Student Scholarships.** Awarded annually to first-year medical students who graduated from Missouri high schools in recognition of their high undergraduate academic achievement. The November 2015 recipients: Radhika Jain, Nicholas Karlow, Shamaita Majumdar, Alexander Markov, Kunal Mathur, Michael Rizzo Jr., Derek Schloemann and Alec Wright.

**Dr. Helen E. Nash Academic Achievement Award.** Given annually to a student who has exhibited to an unusual degree the qualities of industry, perseverance, determination and enthusiasm. The prize is given in honor of Dr. Helen Nash, a pediatrician noted in the St. Louis community for her commitment to excellence, tireless advocacy on behalf of children and endless enthusiasm for the field of medicine. The November 2015 recipient: Lauren Martin.

**The Dr. Philip Needleman Pharmacology Prize.** Established by his family in 1989 to

honor Dr. Needleman, who was chairman of the Department of Pharmacology from 1976-89. This annual award is given to a member of the graduating class for outstanding research in pharmacology. The May 2015 Recipient: Kirk Kohwa Hou.

**The Doctor James L. O'Leary Neuroscience Prize.** Awarded annually to a student who demonstrates the best accomplishment in the Neuroscience course. The November 2015 recipient: Lauren Broestl.

**The Roy R. Peterson Prize in Anatomy.** Awarded for outstanding performance in the Human Anatomy course in recognition of Dr. Peterson's many contributions as a teacher in the School of Medicine. The November 2015 recipient: Lauren Broestl.

**The Richard and Mildred Poletsky Education Fund.** Established in 1995 by the family of Mr. Richard Poletsky, an alumnus of Washington University. A prize is awarded annually to a professional student in the health sciences whose interest is in research on dementia and care of demented patients.

**The Dr. Frank O. Richards Medical Student Scholarship Prizes.** Provided by African-American alumni and friends of Washington University School of Medicine. The prizes embrace diversity efforts and are awarded in recognition of achievements in the first and second year of the curriculum. The November 2015 recipients: Abiye Ibiebele and Ana Rivera.

**Dr. Philip Rosenblatt Award in Pathology.** Given to a senior medical student for distinguished performance during an elective in pathology or laboratory medicine. The May 2016 recipient: Cherise Meyerson.

**Dr. William A. Rubenstein Award in Medicine.** Awarded to a fourth year student who shows a serious interest in pursuing a career in internal medicine and who demonstrates the exceptional qualities of a gifted physician, including compassion, caring, and the pursuit of scientific knowledge. The November 2015 recipient: David Qualls.

**St. Louis Pediatric Society Senior Prize.** Presented to the senior student showing the greatest promise in clinical pediatrics. The May 2016 recipient: Johanna Rose Kaufman.

**David F. Silbert Outstanding Teaching Assistant Award.** Established in memory of Dr. David Silbert, it is awarded to a teaching assistant in a medical school course in recognition of a commitment to teaching. The November 2015 recipient: Damien Abreu.

**John R. Smith Memorial Fund Award.** Created in 1982, it is awarded to a medical student who has done meritorious clinical and/or research work in the Division of Cardiovascular Disease within the Department of Medicine. The May 2016 recipient: Natalia Brito Rivera.

**Dr. Margaret G. Smith Award.** Given to a woman medical student for outstanding achievement in the first two years of medical school. The November 2015 recipient: Alyssa Kronen.

**Society for Academic Emergency Medicine Excellence in Emergency Medicine Award.** Based on demonstrated excellence in the specialty of emergency medicine, it is awarded to a senior medical student at Commencement. The May 2016 recipient: Daniel Saul Brenner.

**Samuel D. Soule Award in Obstetrics and Gynecology.** Presented to a member of the fourth-year class for meritorious achievement in either basic or clinical investigation in obstetrics and gynecology. The May 2016 recipient: Ann Catherine Frisse.

**Jessie L. Ternberg Award.** Presented to a woman graduating from the School of Medicine who best exemplifies Dr. Ternberg's indomitable spirit of determination, perseverance and dedication to her patients. The November 2015 recipient: Lindsey Moses.

**Washington University Internal Medicine Club Research Award.** Awarded to the

member of the graduating class who has done the most significant research in any area of internal medicine. The May 2016 recipient: Matthew James Crisp.

**Washington University Summer Research Prize.** The award recognizes students for meritorious research in the Summer Research Fellowship Program at Washington University School of Medicine. The November 2015 recipients: Joshua Page and Aaron Zuckerman.

**Samson F. Wennerman Prize in Surgery.** Donated by his wife, Zelda E. Wennerman, and awarded annually to the fourth-year student who has demonstrated promise in the field of surgery. The May 2015 recipient: Faye Hwa-Young Yu.

**Doris P. and Harry I. Wexler Fund.** Established in 1998 by a bequest from Mrs. Wexler, the prize is awarded annually for research in multiple sclerosis and in alternate years research in eye disease. The May 2014 recipient: Cynthia Lee Montana.

**The Park J. White, MD Prize.** Created in 1992 in honor of the centennial of the birth of Dr. White, who was a distinguished pediatrician, social activist and pioneer teacher of medical ethics. He introduced the first course on medical ethics to students in 1927. The prize is awarded to students for outstanding performance in the ethics elective offered by the Program for the Humanities in Medicine. The May 2016 recipient:  
Brian Andrew Bouchard.

**Hugh M. Wilson Award in Radiology.** Given annually to a graduating medical student in recognition of outstanding work in radiology-related subjects, either clinical or basic science. The May 2016 recipient: Francis Deng.

**The Wynder Prize in Preventive Medicine.** An annual prize established in 1994 and awarded to senior medical students who have done the best research in preventive medicine. The May 2016 recipient Paul Edward George.

**James Henry Yalem Prize in Dermatology.** Established by Charles Yalem in memory of his son and awarded annually to members of the fourth-year class for outstanding

work in dermatology. The May 2016 recipient George Olen Denny.

# Liability Insurance

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Washington University provides general liability insurance for all students or practicums while participating in required clinical experiences. In addition, Washington University voluntarily provides a defense and indemnification benefit for matriculated students who are candidates for the MD degree at the School of Medicine (WUSM).

The benefit is provided to WUSM students for defense and indemnification of claims arising out of activities which are part of academic programs and only while a student is acting in his or her capacity as a medical student enrolled in the undergraduate medical program at the School of Medicine. This policy is subject to terms, conditions, limitations and exclusions, and each request for defense/indemnification will be decided on a case-by-case basis at the sole discretion of the university.

Defense/indemnification will not be provided for any criminal acts, acts committed while under the influence, acts in violation of law, or where the injury or damage resulted from intentional malicious conduct or wrongdoing, or in the event that the action or proceeding is brought by or on behalf of Washington University. This indemnification does not cover any liability which is insured elsewhere, but it may be in excess of any amount payable under any other such insurance.

## Reporting an incident

Any incident, either actual or alleged involving patient injury which could lead to a claim, which you have knowledge of must be reported immediately to the Risk Management Office of the School of Medicine, (314) 362-6956.

## For more information

If you have any questions about Washington University's professional liability program, please feel free to call the Risk Management Office.

# Student Constitution and Bylaws

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## Article I:

Name, Purpose, and Membership

A. The name of this organization shall be the Medical Student Government of The Washington University School of Medicine.

B. The purpose of the Medical Student Government shall be the advancement of student interests and welfare to achieve excellence in academic pursuits and professional interactions.

C. The Medical Student Government shall represent all students pursuing a medical degree who are in good standing with the University.

## Article II:

Class Officers

A. **Offices:** Each Class shall elect the following officers: President, Medical Education Representative (MER), Representative to the Organization of Student Representatives (OSR Rep) of the Association of American Medical Colleges (AAMC), Representative to the Graduate-Professional Council (GPC Rep), and a Social Chair/Committee.

**B. Duties:** Each class officer shall have specific responsibilities:

1. **President:** Each class shall elect one President. This person shall serve as the official spokesperson for the class in dealings with the Student Government and with the University. The President shall disseminate information regarding medical student affairs and activities. The President shall have oversight and approve of all moneys spent by the Social Chair/Committee. The President shall perform any and all duties that are unique to the class represented.
2. **MER:** The MER shall represent the class at all meetings of the MERs and Curriculum Evaluation Committee and serve as a liaison between students and faculty on curricular matters. The MER shall poll the class as needed regarding course evaluations and selection of recipients for the various Faculty Awards presented each year.
3. **OSR Rep:** The OSR Rep shall keep class members up to date with news from the OSR and from the AAMC. The OSR Rep shall represent the University at regional and national meetings of the OSR under an agreement with the University.
4. **GPC Rep:** The GPC representatives shall represent the School of Medicine at GPC meetings and shall inform the GPC of issues affecting the School of Medicine, learn about issues affecting other schools, discuss and find solutions to problems affecting the whole graduate and professional student population, and plan and advertise social activities that foster communication between all graduate and professional students. The Reps shall be the liaison to the other programs within the School of Medicine, as well as to the rest of the University community. In addition, the four Reps will divide the responsibilities of serving on the Professional and Graduate Students Coordinating Committee (ProGrads), the Medical Campus Committee (temporarily named), and other inter-school/division committees as needed. Specifically in regards to the Health Professional Student Leadership Council

(HPSLC), two of the four GPC representatives will serve as voting members on HPSLC. One of these voting members must be the 1st or 2nd year GPC representative. The selection of MSG's voting members on HPSLC must be made before the end of the sixth week of first-semester classes in the academic year.

**5. Social Chair/Committee:** The Social Chair/Committee shall organize social functions for class members and interact with other Social Chairs/Committees to organize social functions with other classes and within the University community. The Social Chair/Committee shall consult and obtain approval from the class President for all moneys spent on such functions.

**C. Elections:** An Election Official designated by the Student Government shall be responsible for the organization and execution of all elections held for offices specified under the Constitution, including President, MER, OSR, GPC, and social chair. Elections shall be held for each of the class officer positions according to the following format:

**1. Voting Eligibility:** All students who will be a member of the class during the term for which the elected officers will serve will be eligible to vote in the election. Efforts should be made by the appointed election official to extend the opportunity to vote to students who will be entering their respective classes in the upcoming year, including but not limited to the large number of MD/PhD students returning for their clinical clerkships.

**a. First and second year offices:** A member of the class will be considered to be an individual who is currently planning on taking the MD course of study for the upcoming year.

**b. Third and fourth year offices:** A member of the class will be considered to be an individual who is planning on taking the MD course of study anytime during the upcoming two years, including any individual planning to pursue an MA degree for one year after either the second or third year of medical school.



**2. Nominations:** Nominations for each office shall be held starting at least one week prior to the election and ending no later than three days prior to the election. Nominations shall be submitted in writing to the Election Official. Any student eligible to run for office may nominate him/herself or another medical student in good standing. Candidates must have the firm intention of carrying out all the duties and obligations of the office for the entire term.

**3. Candidate Eligibility:** All students who will be a member of the class during the term for which the elected officers will serve, as defined in Article II.C.1, will be eligible to be nominated for election except as described below:

**a. President:** The class president does not need to be taking the same course of study as the classmates he or she represents. Any individual who meets the criteria defined in Article II.C.1 will be eligible to serve.

**b. MER**

**i. Third year MER:** Due to the duties of the third year MER, it is essential that the third year MER be an individual who is currently taking the MD course of study with the rest of his or her classmates.

**ii. Fourth year MER:** The fourth year MER rep does not need to be taking the same course of study as the classmates he or she represents. Any individual who meets the criteria defined in Article II.C.1 will be eligible to serve.

**c. OSR Rep:** An OSR rep does not need to be taking the same course of study as the classmates he or she represents. Any individual who meets the criteria defined in Article II.C.1 will be eligible to serve.

**d. GPC Rep:** A GPC rep does not need to be taking the same course of study as the classmates he or she represents. Any individual who

meets the criteria defined in Article II.C.1 will be eligible to serve.

**e. Off-Campus Students:** Students who have chosen to pursue a course of study that results in his or her not being in Saint Louis will not be eligible to retain or be nominated for a position. This exclusion does not apply to students who will off-site temporarily for an away rotation.

**4. Elections and Terms:** All terms shall begin upon election. Regular elections shall be held according to the following schedule:

**a. First Year:** Elections shall be held within three to six weeks of the beginning of the first-semester classes. Each position carries a term of one academic year.

**b. Second Year:** Elections shall be held within six weeks prior to the completion of the first academic year. Each position carries a term of one academic year.

**c. Third and Fourth Year:** Elections shall be held within six weeks prior to the completion of the second academic year. Each position carries a term of two academic years.

**5. Class Officer Balloting:** To be elected a candidate must receive a simple majority (greater than 50 percent) of the votes cast for that particular office by at least a quorum of one-half of the eligible voters. Write-in candidates shall be allowed on this ballot. Absentee ballots shall be allowed if they are given in writing to the Election Official prior to the day of election. Ballot counting shall be the responsibility of the Election Official under the observation of a witness agreeable to all candidates.

**6. Class Officer Runoff Procedures:** If no candidate receives a simple majority for a particular position, a runoff between the top two candidates shall be

held within three days of the initial election. Write-in candidates will not be allowed on this ballot. To be elected a candidate must receive the most votes cast for that particular office by at least a quorum of one-half of the eligible voters.

**7. Social Chair Election Procedure:** Social chair elections will be conducted in conjunction with MSG class officer elections. A maximum of four social chairs can be elected into office. Candidates do not have to receive a majority of votes to be elected into office. All other MSG election procedures apply.

**8. Appeals:** All decisions are made by the Election Official during the election period. Appeals may be made by a candidate in writing to the Chair of the Medical Student Government and will be reviewed and ruled on by a group consisting of the current President, MER, OSR, and GPC from each of the four classes; the decisions of this group will be considered final.

**9. Vacant Offices:** If any office is vacated before its set term, an election will be held for that office using the procedures outlined above within three weeks of the vacancy. If a current class officer runs for the vacated office, that officer must vacate the post he/she occupies.

**10. Removal from Office:** In the unfortunate event that a class officer is not fulfilling his/her obligations and duties, MSG by a two-thirds majority of a quorum of one-half may vote to recommend that an officer be removed from office to the class that elected the officer. A vote of recall shall then be held within one week. If a three-fourths majority of a quorum of two-thirds of a class votes to recall the officer, the officer shall be removed from office. An election for vacant office shall then be held.

**D. MD/PhD Research Students:** There shall be two Representatives of the MD/PhD students who are outside the core medical curriculum. These Representatives shall be selected by a method chosen by the Medical Scientist Training Program (MSTP.) In addition, these individuals shall be full voting members of the MSG. Each

Representative shall serve a two-year term, with elections for one Representative each summer, so the terms of the two Representatives overlap by one year.

**E. Technology Liaison:** The responsibilities of the class appointed Technology Liaison include serving as the representative to the administration regarding the availability and utilization of technology and addressing related class concerns. In addition, the Technology Liaison will work with Instructional Technologies and Library Systems (ITLS) to provide new services and assist the MER with technology-related education initiatives. One Technology Liaison will be appointed for each medical school class after the class-wide elections have taken place. After a call for applications from the class, the four (4) elected MSG members of that class review each application and select the Technology Liaison by consensus. The term of the Technology Liaison will be the same as the elected officials of that class.

## **Article III:**

The Medical Student Government

**A. Membership:** The Student Government shall consist of the President, the MER, the OSR Rep, and the GPC Rep from each of the four classes, as well as two representatives of MD/PhD Students.

**1. Additional voting members:** Any student who has served on MSG for a minimum of two years and is no longer eligible to serve as a class representative due to departure from the traditional four-year MD curriculum may remain on MSG as a voting member in an advisory role. All students will only be eligible to serve as a voting member for up to five total years.

**2. Non-voting members:** In addition, the Student Government may offer a non-voting position to a duly elected representative of any student group which is recognized nationally, regionally or within the Medical School so long as such a group is open to all medical students without discrimination and that such a group is not in conflict with the goals of the Student Government.

**B. Purpose and Responsibilities:** The Student Government shall carry out the business of the Student Government pursuant to the goals stated in Article I. The purpose of the Student Government shall be to represent and promote the interests and concerns of the medical student body through activities including but not limited to:

1. Forming and representing official student body opinions for interaction with the University, its Administration and other groups associated with medical education.

2. Serving as a forum for interaction between student groups.

3. Serving as a forum for student-initiated curricular review and reform in the pursuit of academic excellence.

4. Promoting interaction among the School of Medicine students, faculty and administration, and with the wider University community.

5. Establishing a funding mechanism and budget with the associated collection and disbursements of funds for activities pursuant to goals stated in Article I.

6. Organizing elections for class officers and any other official representative of the student body at large.

7. Exercising any such additional authority as may be granted to it by the School of Medicine or by other organizations, so long as such authority is consistent with the purposes stated in Article I.

8. Posting agenda of all meetings for public reference.

Formulating all rules and bylaws necessary for the Student Government to carry out the responsibilities and powers granted through this constitution.

Such rules and bylaws shall require a simple majority of a quorum of two-thirds of the voting Student Government members.

9. The Student Government shall meet regularly and at intervals of no more than six weeks.

10. Representatives from the various student groups sitting on the Student Government shall keep the Student Government informed of all activities associated with their posts in the form of a written brief to be presented at the Student Government meeting as appropriate for their group's activities.

**C. Student Government Offices:** There shall be a Student Government Chair and Vice-Chair elected from the voting members of the Student Government. Election shall require a simple majority of the voting Student Government. The election shall be held within six weeks prior to the completion of the academic year. The terms of these offices shall be one academic year.

1. **Student Government Chair:** The Student Government Chair shall preside at all meetings of the Student Government and have specific responsibilities:

2. The Chair shall serve as official representative and spokesperson for the Student Government to the University, its Administration, and to other groups associated with medical education.

3. The Chair shall be responsible to ensure the duties of the Student Government are carried out efficiently and in a timely manner.

4. The Chair shall report the names of the Class Officers to the Dean, and post such a list for public reference.

5. The Chair shall be responsible for overseeing and maintaining records and to set the agenda for such meetings in written form for distribution to Student Government members prior to each meeting.

6. The MSG shall be responsible for overseeing and maintaining records of all financial transactions of the Student Government. The second-year class

president shall regularly update the Student Government on its financial standing, and must make all financial records available to any medical student, member of the Administration, or to any official of the University. All transactions shall require the signatures of the Chair and the Vice-Chair.

7. The Chair shall be empowered to call for standing and ad hoc committees to evaluate and make recommendations about specific areas of concern to the Student Government, the School of Medicine and its students. MSG shall appoint these committees.

8. The Chair shall be empowered to designate another Student Government member to take on one or more of his/her duties.

## **Article IV:**

### Ratification and Amendments

A. In 1993 this Constitution was ratified by a 2/3 majority of a quorum of one-half of the student body pursuing a medical degree.

B. This Constitution can be amended by either a 2/3 majority of a quorum of one-half of the students in their first, second, and third years, or by a unanimous vote of the elected members of the Medical Student Government.

# Applied Health Behavior Research

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The Master of Science in Applied Health Behavior Research (MS AHBR) addresses the science of health behavior and applies it to the development and evaluation of programs and research studies in clinical and community settings. The AHBR graduate

programs are offered through the Washington University School of Medicine and sponsored by the Clinical Research Training Center and the Institute of Clinical and Translational Sciences.

The MS is a 33-unit, multidisciplinary program that focuses on the applied skills required for the development, management and evaluation of health behavior programs and research studies in academic, clinical, and community settings. Students choose one of two concentrations:

1) Health Education, Program Planning and Evaluation – designed for individuals to develop, manage, and evaluate health programs in clinical or community settings; coursework focuses on health behavior theory, program planning, program evaluation, health education and program management

2) Health Behavior Research – designed for individuals to develop theoretical knowledge and gain practical research experience in order to pursue careers in a variety of health related fields and/or manage research studies in clinical settings; coursework focuses on health behavior theory, research methodology, analytic methods, and research project management.

Health Behavior Research, 1-Year/Research Intensive Option – designed to be completed in three semesters and includes nine credit hours of mentored research; provides hands-on training for pre-health students interested in medical and health-related fields; offers practical experience for students planning a gap year prior to medical school as well as opportunities to fulfill specific medical school core competencies and enhance medical school applications.

The MS AHBR degree can be pursued on a part-time or full-time basis. All courses are held during the late afternoon or evening to accommodate working professionals. Applications are reviewed on a rolling basis and coursework is typically completed in two to three years.

The Graduate Certificate in Health Behavior Planning and Evaluation is also offered. This 15-unit program features a curriculum focused on key applied and theoretical



concepts in health behavior, as well as the processes needed for managing program development and evaluation activities in clinical and community settings.

## **Admissions information**

Please visit the [Applied Health Behavior Research](#) website for complete admissions information.

# Applied Health Behavior Research Faculty

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## **Director**

**Amy McQueen, PhD**

University of Houston, 2002 (Research Assistant Professor, Division of General Medical Sciences)

## **Program manager**

**Pamela G. Struttman, MA**

Webster University, 1989 (Clinical Research Training Center, Division of General Medical Sciences)

## **Instructors**

**Patricia A. Cavazos-Rehg, PhD**

State University of New York, Buffalo, 2004 (Research Instructor, Department of Psychiatry)

**Melissa Chapnick, RD, MS, MPH**

Saint Louis University, 2015 (Clinical Research Study Assistant, Department of Obstetrics & Gynecology, Division of Clinical Research)

**Robert C. Culverhouse, PhD**

Washington University, 1998 (Research Assistant Professor of Biostatistics, Department of Internal Medicine)

**Michael Elliott, PhD**

Ohio State University School of Public Health, 2001 (Assistant Professor, College of Public Health and Social Justice, Saint Louis University)

**Donna B. Jeffe, PhD**

Washington University, 1993 (Research Assistant Professor, Division of General Medical Sciences, Departments of Internal Medicine and Pediatrics)

**Amy McQueen, PhD**

University of Houston, 2002 (Research Assistant Professor, Division of General Medical Sciences)

**Maria Perez, MA**

University of Missouri, 2004 (Research Patient Coordinator, Division of General Medical Sciences)

**Donald R. Rickert, PhD**

Saint Louis University, 1984 (Professor, St. Louis College of Pharmacy)

**Enbal Shacham, PhD**

Indiana University, 2006 (Assistant Professor, College of Public Health and Social Justice, Saint Louis University)

# Audiology and Communication Sciences

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The Program in Audiology and Communication Sciences (PACS) provides training and graduate programs in the fields of clinical audiology, deaf education, and speech and hearing sciences. Established at Central Institute for the Deaf (CID) in 1914, the training programs are now a member of a consortium of programs known as CID at Washington University School of Medicine, which also includes affiliated clinical services and research programs operated by the Department of Otolaryngology.

## **Doctor of audiology (AuD)**

The Doctor of Audiology (AuD) program is a four-year course of study that prepares students as independent clinical audiologists. Established in 1947, the program is among the oldest and most prestigious of its kind. Today, its curriculum serves as a national model, immersing students in academic course work, clinical experiences and research opportunities. A Pediatric Audiology Specialization is available to qualified students admitted to the program.

The audiology program is accredited by the American Speech-Language-Hearing Association (ASHA) and the Accreditation Commission for Audiology Education (ACAE). Graduates are eligible for national certification by ASHA.

## **Master of science in deaf education (MSDE)**

The Master of Science in Deaf Education (MSDE) program is a two-year course of study that prepares students as teachers of the deaf and hard of hearing. With its origins going back to 1914, the program is recognized internationally as one of the most prestigious of its kind in the world. The program's intensive curriculum, emphasis on immersion in practice teaching and experienced faculty attract students nationally from a wide variety of backgrounds.

The deaf education program is accredited by the State of Missouri's Department of Elementary and Secondary Education (DESE) and the Council on Education of the Deaf (CED). Graduates of the program are eligible for teacher certification in the State of Missouri (Deaf/Hearing Impaired, Birth-Grade 12) and for national certification by CED.

## **Doctor of philosophy (PhD) in speech and hearing sciences**

The PhD program prepares students for academic and research careers in speech and hearing sciences. Established in 1947, the program is dedicated to fostering scientific inquiry in speech and hearing sciences and related disciplines. The program is administered through [the Graduate School at Washington University in St. Louis](#).

## **Minor in speech and hearing sciences**

The Minor in Speech and Hearing Sciences is designed for current undergraduate students interested in exploring topics related to human communication. Course work provides an overview of the fields of hearing, deafness, language and speech, with opportunities to explore related topics in more depth. This minor is especially valuable for students in fields such as psychology, education, philosophy-neuroscience-psychology (PNP) and linguistics, but has broad applicability for many fields of study. Course work completed as part of this minor can also be used to fulfill prerequisites for graduate studies in audiology, deaf education and speech-language pathology.

## **Further information**

Further information, including complete admissions details and full program descriptions, may be obtained by contacting:

Washington University School of Medicine  
Program in Audiology and Communication Sciences  
Campus Box 8042  
660 S. Euclid Ave.  
St. Louis, MO 63110

Phone: (314) 747-0104

Fax: (314) 747-0105

Email: [pacs@wustl.edu](mailto:pacs@wustl.edu)

Web: [pacs.wustl.edu](http://pacs.wustl.edu)

# Audiology and Communication Sciences Faculty

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## Professors (joint)

**Craig A. Buchman, MD**

University of Florida, 1990

**Richard A. Chole, MD, PhD**

University of Minnesota, 1977

**William W. Clark, PhD**

Program Director

University of Michigan, 1975

**Jill B. Firszt, PhD**

University of Illinois, 1998

**Nancy Tye Murray, PhD**

University of Iowa, 1984

**Michael Valente, PhD**

University of Illinois, 1975

**Mark E. Warchol, PhD**

Northwestern University, 1989

## **Associate professors (joint)**

**Lisa S. Davidson, PhD**

Washington University, 2003

**Heather J. Hayes, PhD**

Director of Deaf Education Studies

Washington University, 2009

**Keiko Hirose, MD**

Harvard Medical School, 1993

**Johanna G. Nicholas, PhD**

Washington University, 1990

**Kevin K. Ohlemiller, PhD**

Northwestern University, 1990

**L. Maureen Valente, PhD**

*Director of Audiology Studies*

Washington University, 2005

## **Assistant professors (joint)**

**Brian T. Faddis, PhD**

University of California-Davis, 1994

**Roanne K. Karzon, PhD**

Washington University, 1982

**Lisa G. Potts, PhD**

Washington University, 2006

**Rosalie M. Uchanski, PhD**

Massachusetts Institute of Technology, 1988

## **Instructors**

**Lynda C. Berkowitz, MSSH**

Washington University, 1983

**Carl D. Bohl, DSc**

University of Cincinnati, 1973

**Christine M. Clark, MAEd**

Maryville University, 1999

**Christine H. Gustus, MSSH**

Washington University, 1975

**E. Tracy Mishler, AuD**

Arizona School of Health Sciences, 2007

**Mary A. Shortal, MAEd**

Washington University, 1976

**Karen S. Stein, MAEd**

Washington University, 1974

## **Lecturers**

**Carol E. Bergmann, AuD**

Arizona School of Health Sciences, 2003

**Amy L. Birath, AuD**

University of Memphis, 2007

**Greta M. Bohnenkamp, MS**

Vanderbilt University, 2005

**Jamie H. Cadieux, AuD**

Washington University, 2006

**Amanda L. Dunaway, MSDE**

Washington University, 2006

**Elizabeth A. Elliott, MAT**

Webster University, 2004

**Lauren Felton, AuD**

Washington University, 2006

**Dave A. Harris, PhD**

University of Cincinnati, 2005

**Dorina Kallogjeri, MD**

Tirana University School of Medicine, 1997

**Christina M. Koehler, MSSH**

Washington University, 2000

**Barbara A. Lanfer, MAEd**

University of Missouri-St. Louis, 1998

**Kenneth E. Marciniak, AuD**

University of Iowa, 2010

**Robert J. Mareing, AuD**



Pennsylvania College of Optometry, 2003

**James D. Miller, PhD**

Indiana University, 1957

**Jean S. Moog, MS**

Washington University, 1964

**Dorie L. Noll, MSDE**

Washington University, 2007

**Kimberly K. Ott, MS**

Southern Illinois University – Edwardsville, 1981

**Kay R. Park, AuD**

A.T. Still University, 2007

**Judy L. Peterein, AuD**

Salus University, 2009

**Justine L. Preston, MA**

Washington University, 2006

**Belinda Sinks, AuD**

Salus University, 2007

**Brent P. Spehar, PhD**

Washington University, 2005

**Ellen R. White, MAEd, MSSH**

Washington University, 2003

**Professor emeritus**

Ira J. Hirsh, PhD

David P. Pascoe, PhD

# Biology and Biomedical Sciences

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The Division of Biology and Biomedical Sciences (DBBS), organized in 1973, is a consortium of university departments that together provide interdisciplinary training for full-time doctoral students. This unique organization was formed because of the realization that research and training in modern biology transcend the limits of departmental structure. The faculty consists of members of seven preclinical departments in the School of Medicine: Anatomy and Neurobiology, Biochemistry and Molecular Biophysics, Cell Biology and Physiology, Genetics, Molecular Microbiology, Pathology and Immunology, and Developmental Biology; 11 clinical departments: Anesthesiology, Medicine, Neurological Surgery, Neurology, Obstetrics and Gynecology, Ophthalmology and Visual Sciences, Orthopaedic Surgery, Otolaryngology, Pediatrics, Psychiatry, Radiation Oncology, Radiology and Surgery; the Department of Biology; the Departments of Chemistry and Psychology in the School of Arts & Sciences; and the Departments of Computer Science and Biomedical Engineering in the School of Engineering & Applied Science. More than 450 faculty are affiliated with one or more of 12 broad training programs: Biochemistry; Computational and Molecular Biophysics; Computational and Systems Biology; Developmental, Regenerative and Stem Cell Biology; Evolution, Ecology and Population Biology; Human and Statistical Genetics; Immunology; Molecular Cell Biology; Molecular Genetics and Genomics; Molecular Microbiology and Microbial Pathogenesis; Neurosciences; and Microbial Biosciences. Faculty in these programs take responsibility for all divisional activities, including recruiting, admissions, advising and research training. In addition, many divisional courses and seminars are offered by the participating faculty.

Currently, more than 650 graduate students are enrolled in the division, including approximately 200 students pursuing both the PhD and the MD through the Medical Scientist Training Program (see Degree Programs area of Admissions and Educational Programs section.) Requirements for the PhD include a series of courses tailored to a student's background and interests, qualifying examinations, execution of laboratory research and defense of a dissertation generated through original scientific investigation. Although students enter the division through an affiliation with one of the 12 programs, it is possible for a student to transfer to another program as interests evolve. During the first year, advisers are appointed to assist students in selecting courses and seminars, as well as to help them in choosing three laboratory rotations in which they will spend several months becoming acquainted with a particular area of scientific research. Most students choose a research adviser by the end of the first year.

Applications for admission to the PhD programs of the division are due December 1 for matriculation the following fall. Admission is based on demonstrated ability, future promise and the number of positions currently available. Applicants should have completed rigorous undergraduate training in biology, chemistry, physics, psychology, computer science, engineering or related fields at a high level of scholastic achievement. It is required that each applicant take the aptitude test of the Graduate Record Examination (GRE). Additional information and application for admission to the PhD programs may be obtained from our website at [dbbs.wustl.edu](http://dbbs.wustl.edu) or by writing to the Director of Admissions, Washington University School of Medicine, Campus Box 8226, 660 S. Euclid Ave., St. Louis, MO 63110-1093 (email: [dbbsphdadmissions@wusm.wustl.edu](mailto:dbbsphdadmissions@wusm.wustl.edu)). Students who wish to pursue both the PhD and MD degrees must apply to the Medical Scientist Training Program (see Degree Programs area of Admissions and Educational Programs section of this website.)

Students admitted to the graduate programs are guaranteed full stipend and tuition support contingent upon satisfactory performance. The stipend for the 2016-17 academic year will be \$29,500 annually. Tuition remission is provided to all students, and life, disability and health care also is provided by the Medical Center Student

Health Service. The division provides support for its PhD students from several sources, including federally funded training grants provided by the National Institutes of Health.

## Admissions information

Please visit the [Division of Biology and Biomedical Sciences](#) website for admissions information.

# Biology and Biomedical Sciences Courses

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The following graduate courses are offered by the Division of Biology and Biomedical Sciences, and they are available both to PhD and MD students who meet the prerequisites for the appropriate course. Those courses particularly relevant to a given department are cross-listed under the department in this Bulletin.

### L41 (BIO) 501 THE HUMAN BODY: ANATOMY, EMBRYOLOGY, AND IMAGING

For full description, see Department of Anatomy and Neurobiology's M05 501A Human Anatomy and Development.

### L41 (BIO) 5011 ETHICS AND RESEARCH SCIENCE

Instructors: Staff, Division of Biology and Biomedical Sciences, 362-3365

Exploration of ethical issues which research scientists encounter in their professional activities. Topics will include, but are not limited to: student-mentor relationships, allegations of fraud, collaborators' rights and responsibilities, conflicts of interest, confidentiality, publications. Case study and scenario presentations will provide focus for discussions. Prereq, open to DBBS graduate students engaged in research. Six 90

minute sessions. Credit: 1 unit.

#### L41 (BIO) 5014 BIOTECH INDUSTRY INNOVATORS

Instructor: Erwin H. Peters, PhD, 862-4867

The Basics of Bio-Entrepreneurship, investigates issues and choices that inventors / scientists encounter when they are considering the applications and commercialization of early stage scientific discoveries. This course is intended for anyone interested in working in the biotechnology, pharmaceutical, medical device, or life-sciences industries as a founder, scientist, entrepreneur, manager, consultant, or investor. It focuses, through case studies and lectures, on the issues and decision processes that researchers and their business partners typically face when considering how a discovery might best be moved from academia to successful commercialization. Credit: 3 units. Same as B63 MGT 500U.

#### L41 (BIO) 502 GENERAL PHYSIOLOGY

Instructor: Robert Mercer, PhD, 362-6924

This course applies the fundamental physiological mechanisms of cell biology to the functions of the major organ systems of the body, namely, the cardiovascular, renal, respiratory, gastrointestinal and endocrine systems. The course is intended primarily for first-year medical students. The Physiology and Microscopic Anatomy courses are closely coordinated within the same schedule. Course continues into the spring semester with a different schedule. Prerequisites: Bio 5061 or the equivalent and permission of course director. Credit: 6 units.

#### L41 (BIO) 5053 IMMUNOBIOLOGY I

Instructor: Takeshi Egawa, 314-747-2516

Immunobiology I and II are a series of two courses taught by the faculty members of the Immunology Program. These courses cover in-depth modern immunology and are based on Janeway's Immunobiology 8th Edition textbook. In Immunobiology I, the topics include: basic concepts in immunology, innate immunity: the first lines of defense, the induce responses of innate immunity, antigen recognition by B-cell and T-cell receptors, the generation of lymphocyte antigen receptors, antigen presentation to T lymphocytes and signaling through immune system receptors. In Immunobiology II

the topics include: the development and survival of lymphocytes, T cell-mediated immunity, the humoral immune response, dynamics of adaptive immunity, the mucosal immune system, failures of host defense mechanisms, allergy and allergic diseases, autoimmunity and transplantation, and manipulation of the immune response. These courses are open to graduate students. Advanced undergraduate students may take these courses upon permission of the coursemaster. Prerequisite: DBBS students and advanced undergraduates with permission. Credit 4 units.

#### L41 (BIO) 5054 IMMUNOBIOLOGY II

Instructor: Chyi-Song Hsieh, MD,PhD, 485-4485; Eugene Oltz, PhD, 362-5515

Immunobiology is a continuation of Immunobiology I (Bio 5053) taught by the faculty members of the Immunology Program and consists of two sections. In the first section, selected topics are covered in depth that were introduced in Immunobiology I. These include cytokine signaling, DC subsets, tumor immunology, evolution of the immune response, Fc Receptors, alloreactivity, mucosal immunity, inhibitory receptors, vaccines, lymphoorganogenesis and immunopathogenesis. The second section involves Molecular mechanisms of disease (formerly Bio 5261) and will cover human diseases that appear to have an immunological basis. In addition to lectures and evaluation of recent clinical and relevant basic immunology literature, an emphasis will be placed on direct encounters with patients and pathologic material when feasible, providing students with a human aspect to discussions of immune pathogenesis. Diseases covered will include rheumatoid arthritis, allergy, lupus, multiple sclerosis, diabetes, immunodeficiencies, complement diseases and hemophagocytic lymphohistiocytosis. Prereq: DBBS students and Immunobiology I. Credit: 4 units.

#### L41 (BIO) 5068 FUNDAMENTALS OF MOLECULAR CELL BIOLOGY

Instructor: Robert Mercer, PhD, 362-6924

This is a core course for incoming graduate students in Cell and Molecular Biology programs to learn about research and experimental strategies used to dissect molecular mechanisms that underlie cell structure and function, including techniques of protein biochemistry. Enrolling students should have backgrounds in cell biology and biochemistry, such as courses comparable to L41 BIO 334 and L41 BIO 4501. The

format is two lectures and one small group discussion section per week. Discussion section focuses on original research articles. Same as M15 5068 and M04 5068. Same as E62 BME 5068. Credit: 4 units.

#### L41 (BIO) 5075 FUNDAMENTALS OF BIOSTATISTICS FOR GRADUATE STUDENTS

Instructor: Zachary Pincus, PhD, 747-5520

This course is designed for first-year DBBS students who have had little to no prior experience in programming or statistics. The course will cover common statistical practices and concepts in the life sciences, such as error bars, summary statistics, probability and distributions, and hypothesis testing. The class will also teach students basic programming skills for statistical computation, enabling them to retrieve and analyze small and large data sets from online databases and other sources. Credit:1 unit.

#### L41 (Bio) 5077 PHARMACEUTICAL RESEARCH AND DEVELOPMENT: CASE STUDIES

Instructor: Kinch, 262-9805

The course will provide an overview of the history of pharmaceutical research and development activities, with emphasis upon understanding a blend of the scientific, public health, regulatory and business decisions that have shaped the pharmaceutical industry over the past eight decades. Particular emphasis will be placed on understanding how past trends have raised questions about the sustainability of the enterprise. Although no prerequisites are formally required, the course will blend basic understanding of scientific and medical terminology with an understanding of the commercial and policy decision-making processes that govern the pharmaceutical and biotechnology enterprises. Credit: 2 units.

#### L41 (BIO) 5084 MOLECULAR MOTORS AND SINGLE MOLECULE TECHNIQUES

Instructor: Michael Greenberg, PhD, 362-8670

Molecular motors in the cell harness chemical energy to generate mechanical work in a host of processes including cell motility, DNA replication and repair, cell division, transcriptional regulation, and intracellular transport. The purpose of this course is to discuss recent advances in the field of molecular motors. Special emphasis will be placed on understanding and critically evaluating single molecule studies. The course

will consist of both journal club presentations and small group discussions. Credit: 2 units.

#### L41 (BIO) 5123 EXPERIMENTAL HEMATOPOIESIS JOURNAL CLUB

Instructor: Daniel C. Link, MD, 362-8771

Journal club in which papers that describe significant advances in the field of experimental hematopoiesis are discussed. Students are expected to present one paper per semester and attend the weekly (1 hour) session. No prerequisites. Credit: 1 unit.

#### L41 (BIO) 5128 CELL BIOLOGY OF EXTRACELLULAR MATRIX JOURNAL CLUB

Instructor: Jeff Miner, PhD, 362-8235

This journal club covers a broad range of topics current interest, including the fields of biochemistry, molecular biology, cell biology and developmental biology. Speakers give a brief background to introduce the topic and then focus on one-two papers from the current literature. Presentations are given by students, faculty and postdoctorates. Students receive one credit for regular participation and for making one presentation. Credit: 1 unit.

#### L41 (BIO) 5137 ION CHANNELS JOURNAL CLUB

Instructor: Colin G. Nichols, PhD, 362-6630

Weekly presentations of recent papers on mechanisms of ion channel function and membrane excitability, as well as the role of channel defects in human and model diseases, with lively group discussions the norm! Once per semester, each participant will choose a paper and present it to the group. Credit: 1 unit.

#### L41 (BIO) 5138 JOURNAL CLUB FOR THE MOLECULAR MECHANISM OF AGING

Instructor: Shin-ichiro Imai, MD, PhD, 362-7228

Why do we age? What causes aging? How is our life span determined? This journal club will address such fundamental but challenging questions of aging and longevity. Recent studies on aging and longevity are now unveiling regulatory mechanisms of the complex biological phenomenon. We'll cover the latest progress in this exciting field and stimulate discussions on a variety of topics including aging-related diseases. One



hour of paper presentation or research talk and discussion per every two weeks.

Prerequisite: Basic knowledge of molecular biology and genetics of model organisms, such as yeast, *C. elegans*, *Drosophila* and mouse. Registered students are expected to have at least one presentation for 1 unit credit. Credit: 1 unit.

#### L41 (BIO) 5139 SEMINAR IN IMAGING SCIENCE AND ENGINEERING

Instructor: Joseph O'Sullivan, PhD, 935-4173

This seminar course consists of a series of tutorial lectures on Imaging Science and Engineering with emphasis on applications of imaging technology. Students are exposed to a variety of imaging applications that vary depending on the semester, but may include multispectral remote sensing, astronomical imaging, microscopic imaging, ultrasound imaging and tomographic imaging. Guest lecturers come from several parts of the university. This course is required of all students in the Imaging Science and Engineering program; the only requirement is attendance. This course is graded Pass/Fail. Prerequisite: Admission to Imaging Science and Engineering Program. Same as E35 ESE 596. Credit: 1

#### L41 (BIO) 5146 PRINCIPLES AND APPLICATIONS OF BIOLOGICAL IMAGING

Instructors: Adam Bauer, 362-6942; David Reichert, PhD, 362-9940, Joshua Shimony, PhD, 362-5950

Principles and Applications of Biological Imaging will introduce the interdisciplinary nature of the imaging sciences and conduct a comprehensive survey of the array of interrelated topics that define biological imaging. The course will cover the basics of the optical, magnetic resonance, CT, SPECT and PET imaging modalities, and microscopy, while focusing on applications of imaging to different disease states, such as oncology, neurology, cardiology and pulmonary diseases. Prereqs. One year each of Biology, Chemistry, Physics and Calculus. Credit: 3 units.

#### L41 (BIO) 5148 METABOLISM JOURNAL CLUB

Instructors: Daniel Ory, MD, 362-8737, Jean Schaffer, MD, 362-8717

The purpose of the Metabolism Journal Club is to introduce the graduate students to advanced topics spanning the biochemistry, cell biology and genetics of cellular and whole body metabolism. Under the guidance of the course directors (Drs. Ory and

Schaffer), students will select recent topical articles for discussion in the weekly journal club. Students will be expected to provide a succinct introduction to the topic and lead discussion of the data presented in the journal article. Students will be evaluated on the basis of their presentation and their participation in the seminar throughout the semester. Prereqs: Successful completion of Fundamentals of Molecular Cell Biology (Bio 5068) and Nucleic Acids and Protein Biosynthesis (Bio 548). Credit: 1 unit.

#### L41 (BIO) 5151 RNA BIOLOGY JOURNAL CLUB

Instructors: Daniel Ory, MD, 362-8737, Jean Schaffer, MD, 362-8717

The purpose of the RNA Biology Journal Club is to introduce the graduate students to advanced topics spanning the bioinformatics, biochemistry, cell biology and genetics of RNA biology. Under the guidance of the course directors (Drs. Ory and Schaffer), students will select recent topical articles for discussion in the weekly journal club. Students will be expected to provide a succinct introduction to the topic and lead discussion of the data presented in the journal article. Students will be evaluated on the basis of their presentation and their participation in the seminar throughout the semester. Prerequisites: Successful completion of Fundamentals of Molecular Cell Biology (Bio 5068) and Nucleic Acids and Protein Biosynthesis (Bio 548) or permission of instructors. Credit: 1 unit.

#### L41 (BIO) 5152 DEVELOPMENT, REGENERATION AND STEM CELL BIOLOGY JOURNAL CLUB

Instructor: Craig Micchelli, PhD, 362-7036

Focuses on developing a dialog around current topics in developmental and regenerative biology at the molecular, cellular and systems levels. Credit: 1 unit.

#### L41 (BIO) 5171 MEDICAL IMMUNOLOGY

Instructor: Andrey S. Shaw, MD, 362-4614

An introduction to basic concepts in immunology and immunopathology. Lectures focus on antigen-antibody interactions, immunoglobulin structure and genetics, the cellular basis of the immune response and immune regulation, T cell effector mechanisms, the inflammatory response, complement, the positive and negative roles of hypersensitivity, and immune deficiency. Prerequisite: some background in

biochemistry and genetics helpful. Restricted to medical students only except in unusual circumstances, with permission of coursemaster. Offered during the first half of the second medical semester. Three-four lecture hours a week, two (2) two-hour lab periods, four (4) one-hour clinical discussion groups. Credit: variable, maximum 3 units.

#### L41 (BIO) 5191 PATHOBIOLOGY OF HUMAN DISEASE STATES

Instructors: Audrey Odom, MD, PhD, 747-2370; Thomas Fehniger, MD, PhD, 747-1385

Three human disease states will be discussed in detail. Topics will include background clinical and epidemiological information, followed by a detailed examination of the molecular and cellular events that underlie the disease state. Examples of pertinent topics include Alzheimer's disease, AIDS, leukemia, cystic fibrosis, sickle cell anemia, diabetes, etc. Prerequisite: Must be a Markey Pathway student and have HIPAA training. Credit: 2 units.

#### L41 (BIO) 5192 CANCER BIOLOGY JOURNAL CLUB

Instructor: Ron Bose, PhD, 747-9308

This journal club covers current papers in molecular oncology, cancer genetics and contemporary molecular biology. Presentations will be given by students, post-docs and faculty, then discussed. Credit: 1 unit.

#### L41 (BIO) 5196 SPECIAL EMPHASIS PATHWAY IN CANCER BIOLOGY

Instructor: David Wilson, MD, PhD, 286-2834

This course is designed to present pre- and postdoctoral trainees with an organized educational format to explore major contemporary topics in cancer biology. The elective will provide an integrated view of cancer research including basic science, translational science, and clinical investigation. Approximately 60 minutes will be devoted to a didactic presentation by a faculty member with interaction by the participants. The remaining 30 minutes will be used to discuss a pivotal research paper from this field, preselected by the faculty member. Outside reading (30-60 min/week) will be required. Credit: 2 unit.

#### L41 (BIO) 5217 SPECIAL TOPICS IN MICROBIAL PATHOGENESIS

Instructors: Michael Caparon, PhD, 362-1485, Tamara Doering, MD, PhD, 747-5597, Amanda Lewis, MD, PhD, 286-0016

Primarily for graduate and MSTP students, this course is centered on critical evaluation of current scientific literature, which is used as a basis for discussion and grant writing, supplemented with sessions on experimental methodology. Paper discussions will involve oral presentation and discussion of current research articles on pathogenic microorganisms (bacteria, fungi, parasites, and viruses) and the cellular and molecular basis of host-pathogen interactions. Emphasis will be placed on understanding methods, critical evaluation of data, and design of future experiments for the articles covered. Students are expected to prepare all articles, to participate actively in all discussions, and to lead one or more discussions during the semester. The grant writing aspect of the course will focus on defining identifying key unanswered questions from the literature, formulating hypotheses for testing, defining Specific Aims, and developing a research plan. Students will submit specific aims based on current literature, receive critiques from faculty members, and develop a NIH-style proposal to investigate them. Students will participate in class discussions and a mock study section to evaluate proposals. Prereq, completion of the MMMP advanced elective, Bio 5392 Molecular Microbiology & Pathogenesis or permission of the coursemaster. Class meets twice per week for 1.5 hours each. Credit 2 units.

#### L41 (BIO) 5224 MOLECULAR, CELL AND ORGAN SYSTEMS

Instructor: Kendall Blumer, PhD, 362-1668

This course will introduce PhD and MSTP students to fundamental problems in cell and molecular biology at the systems level. The course is divided into five themes: 1) microbial systems; 2) organ development and repair; 3) cardiovascular system and disease; 4) tumor and host systems; and 5) metabolic systems and disease. Topics within each theme highlight current research concepts, questions, approaches and findings at the molecular, cellular and physiological levels. Students will write an original research grant proposal on a topic of their choosing in one of the five themes. Students will critique proposals anonymously in an NIH-like study section.

Prerequisites: Fundamentals of Molecular Cell Biology and Nucleic Acids and Protein Synthesis. Credit: 3 units.

#### L41 (BIO) 5235 GENETICS JOURNAL CLUB

Instructor: Heather Lawson, PhD, 362-7269

This journal club will be focused on the Genetics Department seminar series. Students will present one or a few recent papers by the seminar speaker scheduled for that week. Students will provide a brief written evaluation (on a form that will be provided) of their peers' presentations, and the faculty advisors will meet with each student after the presentation to provide feedback. Credit: 1 unit.

#### L41 (BIO) 5255 EXPERIMENTAL SKELETAL BIOLOGY JOURNAL CLUB

Instructor: Steven Teitelbaum, MD, 454-8463

The journal club, which meets weekly, focuses on cellular and molecular biology of the skeleton. Emphasis is placed on gaining insights into normal skeletal homeostasis as well as systemic disorders of bone. Papers presented for review are selected from the most competitive journals. Participants are encouraged to "think outside of the box" and discuss novel molecular discoveries that may impact bone cell function.

Prerequisite: Permission of instructor. Credit: 1 unit.

#### L41 (BIO) 5272 ADVANCED TOPICS IN IMMUNOLOGY

Instructors: Paul Allen, PhD, 362-8758; Eugene Oltz, PhD, 362-5515

This course uses a journal club format to discuss contemporary issues in the cell and molecular biology of the immune system. Discussions focus on the use of current approaches to analyze the cellular and molecular basis of immunity. Topics include mechanisms of antigenic specificity, diversity, cell communication, differentiation, activation and effector activity. Prerequisite: L41 (Bio) 5051 and permission of instructor. Credit: 2 units. This is referenced in the Department of Pathology and Immunology.

#### L41 (BIO) 5284 CURRENT RESEARCH IN CHROMATIN, EPIGENETICS AND NUCLEAR ORGANIZATION

Instructors: Douglas L. Chalker, PhD, 935-8838; Sarah Elgin, PhD, 935-5348

This journal club considers papers from the current literature on chromatin structure and function, with an emphasis on regulation of transcription, epigenetics and genomics. Presentations are given by students, postdocs and faculty, with discussion

by all. Students enrolled for credit are expected to attend regularly, and to present a minimum of one paper during the term, with consultation and critique from the faculty. Credit 1 unit.

#### L41 (BIO) 5285 FUNDAMENTALS OF MAMMALIAN GENETICS

Instructor: Patrick Jay, MD, PhD, 362-2174

This course aims to provide both biologists and those with mathematical backgrounds with a basis in mammalian genetics. The course will include the following modules: Nucleic acid biochemistry; Gene and chromosome organization; Intro to Human Genetics; Mutations and DNA repair; Cancer Genetics; Genomic methodologies; Biochemical genetics; Murine Genetics; Epigenetics; Neurodegenerative diseases; Mitochondrial disorders; Pharmacogenetics; Intro to human population genetics; Applications of modern human genetics; Intro to web-based informatics tools for molecular genetics. One of the required courses in the Quantitative Human Statistical Genetics graduate program. Credit: 3 units.

#### L41 (BIO) 5303 PROTEIN NMR JOURNAL CLUB

Instructor:TBA-362-3364

This journal club covers the recent literature on protein NMR with a focus on using NMR to study protein function, NMR dynamics, and novel methods that expand the range of systems accessible to solution NMR studies. Students, postdocs and faculty discuss a recent paper and present background information on the relevant technical aspects of NMR. Students receive 1 credit for participation and presenting one paper. Credit: 1 unit.

#### L41 (BIO) 5311 DYNAMICS IN MESOSCOPIC MOLECULAR SYSTEMS

Instructor: Elliot Elson, PhD, 362-3346

This course will provide a background in the theory of the dynamics of mesoscopic systems and introduction to methods for measuring the dynamics of these systems. It will include measurement methods, some of which are in common use and others that have only recently been introduced. This course would be useful for biophysics students and others that are interested in molecular processes and mechanisms in small systems such as cells. Prerequisite: Physical Chemistry. Credit: 3 units.

#### L41 (BIO) 5312 MACROMOLECULAR INTERACTIONS

Instructor: Timothy M. Lohman, PhD, 362-4393

This course will cover equilibria, kinetics and mechanisms of macromolecular interactions from a quantitative perspective. Thermodynamics, multiple binding equilibria (binding polynomials), linkage phenomena, cooperativity, allostery, macromolecular assembly, enzyme catalysis and mechanism, steady-state and pre-steady state kinetics, and isotope effects. Modern methods of computer analysis using nonlinear least squares fitting and simulation to analyze binding isotherms and full kinetic time courses is emphasized. Prerequisite: Physical Chemistry, Biochemistry, Calculus and Organic Chemistry. Three class hours per week. Credit: 3 units.

#### L41 (BIO) 5314 MOLECULAR BIOPHYSICS GRADUATE SEMINAR

Instructor: Kathleen B. Hall, PhD, 362-4196

Student presentation of molecular biophysics topic. Second-year students present from literature; senior students give formal research seminar. Attendance required for all molecular biophysics students. Credit: 1 unit.

#### L41 (BIO) 5319 MOLECULAR FOUNDATIONS OF MEDICINE

Instructor: Linda J. Pike, PhD, 362-9502

This course will cover fundamental aspects of biochemistry and cell biology from a medical perspective. The course begins with a treatment of protein structure and the function of proteins in the cytoskeleton and cell motility. The principles of enzyme kinetics and regulation are then discussed and basic pathways for the synthesis and metabolism of carbohydrates and lipids are introduced. This leads in to a discussion of membrane structure and the function cellular organelles in biological processes including energy production, protein degradation and protein trafficking. Prereq: Two semesters of organic chemistry. Coursemaster approval is required. Please note: This course is given on the medical school schedule and so it begins 8 days before the grad school schedule. Credit: 3 units.

#### L41 (BIO) 5328 STRUCTURAL BIOLOGY JOURNAL CLUB

Instructor: Thomas Brett, PhD, 747-0018

Multi-laboratory research colloquia for DBBS graduate students focused on structural

biology and complementary biophysical techniques. Course credit requires student presentation for credit. Credit: 1 unit.

#### L41 5336 BIOLCOMPUTATIONAL BIOPHYSICS JOURNAL CLUB

Instructor: Gregory Bowman, PhD, 362-7433

This course covers a combination of classic and recent publications on computational methods for studying biomolecules. Students participating for credit will be required to present at least once. Credit: 1 unit.

#### L41 (BIO) 5352 DEVELOPMENTAL BIOLOGY

Instructor: Kerry Kornfeld, MD, PhD, 747-1480

Analysis of a selected set of key processes in development, such as pattern formation, cell-cell signaling, morphogenesis, etc. The focus is on molecular approaches applied to important model systems, but framed in classical concepts. The discussion section provides instruction in presenting a journal club and writing a research proposal. Prereqs, Molecular Cell Biology (Bio 5068) and Nucleic Acids (548). Credit: 3 units.

#### L41 (BIO) 5357 CHEMISTRY AND PHYSICS OF BIOMOLECULES

Instructor: Paul Schlesinger, MD, PhD, 362-2223

This course covers three major types of biomolecular structure: proteins, nucleic acids and membranes. Basic structural chemistry is presented, as well as biophysical techniques used to probe each type of structure. Selected topics include: protein folding, protein design, X-ray crystallography, NMR spectroscopy, nucleic acid bending and supercoiling, nucleic acid:protein interactions, RNA folding, membrane organization, fluidity, permeability and transport, and membrane channels. Weekly discussion section will cover problem sets and present current research papers. One of the required courses for the Biochemistry and for the Molecular Biophysics graduate programs. Prerequisites: prior coursework in Biochemistry and in Physical Chemistry is recommended, but not required. Credit: 3 units.

#### L41 (BIO) 5358 BIOCHEMICAL AND BIOPHYSICAL INVESTIGATIONS OF INFECTIOUS DISEASES JOURNAL CLUB

Instructor: Jeffrey Henderson, MD PhD, 747-0240



Biochemical and biophysical approaches continue to advance as powerful approaches to understand human disease processes. This journal club covers recent papers in which these approaches address aspects of infectious diseases or inflammation. Students enrolling for credit will be expected to participate in weekly presentations and to present 1-2 papers along with accompanying background. Prereqs: Graduate standing in DBBS; prior introductory coursework in biochemistry, physical chemistry, or Chemistry and Physics of Biomolecules (Bio 5357); coursework in microbiology or immunology is not required. Credit: 1 unit.

#### L41 (BIO) 5392 MOLECULAR MICROBIOLOGY AND PATHOGENESIS

Instructor: Joseph Vogel, PhD, 747-1029

Course is devoted to studying microorganisms, particularly those that cause disease, with an emphasis on the molecular interactions between pathogens and hosts. First third of the course focuses on virology, second third on bacteriology and the last third on eukaryotic pathogens. Prereq, first semester core curriculum for Programs in Cell and Molecular Biology. Credit: 3 units. This is referenced in the Department of Molecular Microbiology.

#### L41 (BIO) 5397 CURRENT LITERATURE IN MICROBIOLOGY

Instructor: David Sibley, PhD, 362-8839

Presentations by students on a broad range of topics of current interest in microbiology. The course will emphasize presentations and discussion skills. Credit requires attendance and participation at all sessions and one presentation. Credit 1 unit.

#### L41 (BIO) 5412 TROPICAL AND MOLECULAR PARASITOLOGY

Instructor: L. David Sibley, PhD, 362-8873

Graduate-level seminar course focusing on current scientific literature in molecular parasitology. The journal club will meet biweekly during the Fall and Spring semesters. Students will attend both semesters in order to receive one credit. The seminar series will run jointly with a research conference in Tropical and Molecular Parasitology. Outside speakers will be invited for the seminar series to emphasize important developments in tropical medicine and molecular parasitology. In advance of the

invited speakers, topics will focus on their previous research publications. Prerequisite: L41 (BIO) 5392 Molecular Microbiology and Pathogenesis. Credit 0.5 unit.

#### L41 (BIO) 5417 HEMATOLOGY/ONCOLOGY JOURNAL CLUB

Instructor: Monita Wilson, PhD, 362-8839

This journal club covers a broad range of topics of current interest, including the fields of biochemistry, molecular biology, cell biology, developmental biology and immunology. Speakers usually give a brief background to introduce the topic and then focus on one or two papers from the current literature. Presentations are given by graduate students, post-doctorates and faculty. Each attendee presents two to three times per year. Participants are expected to attend all the sessions. This journal club was formed in 1966. Credit: 1 unit.

#### L41 (BIO) 5425 IMMUNOLOGY OF INFECTIOUS DISEASES JOURNAL CLUB

Instructor: Shabaana Khader, PhD, 286-1590

The goal of this Journal Club (JC) is to provide 2nd year students in MMMP program a platform to discuss new and emerging concepts on mechanisms by which host immune responses mediate protection against infectious diseases. This exercise will also enable the student who attend the fundamental Immunology course to apply their knowledge to understand the basis for immunology of infectious diseases. The format will include faculty who will select cutting-edge papers and head the discussion during the JC session. Credit: 1 unit.

#### L41 (BIO) 5426 ID GATEWAY: TRANSLATIONAL AND PUBLIC HEALTH ASPECTS OF BASIC INFECTIOUS DISEASE RESEARCH

Instructors: S. Celeste Morley, MD, PhD, 286-2136; Robyn Klein, MD, PhD, 286-2140

This course provides an opportunity for students, postdoctoral fellows, infectious disease fellows and faculty to explore issues at the interface between patient care, public health and basic research in the area of microbial pathogenesis. Prerequisites: Application and L41 (BIO) 5392 or M30 526, or permission of instructor. Credit: 2 units.

#### L41 (BIO) 5445 DNA METABOLISM JOURNAL CLUB

Instructor: Roberto Galletto, PHD, 362-4368

Presentation of current research papers in DNA replication, DNA repair and DNA recombination, with an emphasis on basic biochemical and biophysical approaches. Credit: 1 unit.

#### L41 (BIO) 5466 CURRENT TOPICS IN BIOCHEMISTRY

Instructor: Kathleen B. Hall, PhD, 362-4196

Special topics course offered every other week involving the discussion of research papers covering a broad range of topics in the field of biochemistry. Papers selected from the primary literature will be presented and discussed by students with guidance from the instructor. Emphasis will be placed on papers that illustrate the application of chemical approaches to important biological processes. Designed primarily for first- and second-year graduate students in the Biochemistry Ph.D. program. Prereqs: coursemaster permission. Credit: 0.5 unit.

#### L41 (BIO) 5468 CARDIOVASCULAR BIOPHYSICS JOURNAL CLUB

Instructor: Sándor J. Kovács, PhD, MD, 454-7660

This journal club is intended for beginning graduate students, advanced undergraduates and MSTP students with a background in the quantitative sciences (engineering, physics, math, chemistry, etc.). The subjects covered are inherently multidisciplinary. We will review landmark and recent publications in quantitative cardiovascular physiology, mathematical modeling of physiologic systems and related topics such as chaos theory and nonlinear dynamics of biological systems. Familiarity with calculus, differential equations and basic engineering/thermodynamic principles is assumed. Knowledge of anatomy/physiology is optional. Same as E72 BME 5911. Credit: 1 unit.

#### L41 (BIO) 548 NUCLEIC ACIDS AND PROTEIN BIOSYNTHESIS

Instructor: Eric Galburt, PhD, 362-5201

Fundamental aspects of structure, biosynthesis and function of nucleic acids and the biosynthesis of proteins. Emphasis on mechanisms involved in the biosynthetic processes and the regulation thereof. Prerequisite: L41 (Bio) 3371, 451, Chem 481 or equivalent or permission of instructor. This is referenced in the Department of Biochemistry and Molecular Biophysics. Credit: 3 units.

## L41 (BIO) 5483 HUMAN LINKAGE AND ASSOCIATION ANALYSIS

Instructor: John P. Rice, PhD, 286-2572

Basic Genetic concepts: meiosis, inheritance, Hardy-Weinberg Equilibrium, Linkage, segregation analysis; Linkage analysis: definition, crossing over, map functions, phase, LOD scores, penetrance, phenocopies, liability classes, multi-point analysis, non-parametric analysis (sibpairs and pedigrees), quantitative trait analysis, determination of power for mendelian and complex trait analysis; Linkage Disequilibrium analyses: allelic association (case control designs and family based studies), QQ and Manhattan plots, whole genome association analysis; population stratification; Quantitative Trait Analysis: measured genotypes and variance components. Hands-on computer lab experience doing parametric linkage analysis with the program LINKAGE, model free linkage analyses with Genehunter and Merlin, power computations with SLINK, quantitative trait analyses with SOLAR, LD computations with Haploview and WGAVIEWER, and family-based and case-control association analyses with PLINK and SAS. The methods and exercises are coordinated with the lectures and students are expected to understand underlying assumptions and limitations and the basic calculations performed by these computer programs. Auditors will not have access to the computer lab sessions. Prereq: M21-515 Fundamentals of Genetic Epidemiology. For details, to register and to receive the required permission of the Coursemaster contact the GEMS Program Manager (pa@wubios.wustl.edu or telephone 362-1052). Credit: 2 units. Same as M21 GEMS 5483.

## L41 (BIO) 5484 GENETICS AND DEVELOPMENT OF C. ELEGANS JOURNAL CLUB

Instructor: Tim Schedl, PhD, 362-6162

Students will present a research paper (or present their current thesis research) and the appropriate background material. Credit: 1 unit.

## L41 (BIO) 5487 GENETICS AND GENOMICS OF DISEASE

Instructor: Tim Schedl, PhD, 362-6162, Christina Gurnett, MD, PhD, 286-2789, John Welch, MD, PhD, 362-2626

The course will cover the use of genomic and genetic information in the diagnosis and treatment of disease, with an emphasis on current practice and existing gaps to be

filled to achieve precision medicine. Areas of discussion include: bioinformatics methods; assessment of pathogenicity; use and curation of disease variant databases; discovery of incidental findings; genomics applications in Mendelian disease, complex traits, cancer, pharmacogenomics, and infectious disease; design of clinical trials with genetic data; ethical and policy issues. Prerequisites: Genomics (Bio 5488), Advanced Genetics (Bio 5491), or Fundamentals of Mammalian Genetics (Bio 5285) or equivalent (permission from instructor). Credit: 2 unit.

#### L41 (BIO) 5488 GENOMICS

Instructors: Ting Wang, PhD, 286-0865; Donald Conrad, PhD, 362-4379

This course is designed for beginning students who want to become familiar with the basic concepts and applications of genomics. The course covers a wide range of topics including how genomes are mapped and sequenced as well as the latest computational and experimental techniques for predicting genes, splice sites, and promoter elements. High throughput techniques for ascribing function to DNA, RNA, and protein sequences including microarrays, mass spectrometry, interspecies genome comparisons and genome-wide knock-out collections will also be discussed. Finally, the use of genomic techniques and resources for studies of human disease will be discussed. A heavy emphasis will be put on students acquiring the basic skills needed to navigate databases that archive sequence data, expression data and other types of genome-wide data. Through problem sets the students will learn to manipulate and analyze the large data sets that accompany genomic analyses by writing simple computer scripts. While students will become sophisticated users of computational tools and databases, programming and the theory behind it are covered elsewhere, in Michael Brent's class, Bio 5495 Computational Molecular Biology. Because of limited space in our teaching lab, enrollment for lab credit will be limited to 24 students. Priority will be given to students in the DBBS program. Others interested in the course may enroll for the lectures only. If you have previous experience in computer programming, we ask that you do not enroll for the laboratory credit. Prereqs, Molecular Cell Biology (Bio 5068), Nucleic Acids (Bio 548) or by permission of instructor. To enroll in just the lecture section, register for 3 credits. To enroll in both the lecture and lab sections, register for 4 credits. Credit: 3 or 4 units.

#### L41 (BIO) 5489 HUMAN GENETICS JOURNAL CLUB

Instructor: Nancy Saccone, PhD, 747-3263

In this biweekly journal club on Human Genetics we will present and discuss current cutting-edge papers in human and mammalian molecular genetics. Students learn presentation skills, how to critique a paper and how to interact with a very active and critical audience. Prerequisites: Any person interested in the current state of the art in Human Genetics may attend this course. It is a requirement that all students wishing to earn credit in this course must present a 1.5-hour journal club talk and must regularly attend and participate in the journal club throughout the year. Credit: 0.5 units

#### L41 (BIO) 5491 ADVANCED GENETICS

Instructor: Tim Schedl, PhD, 362-6162

Fundamental aspects of organismal genetics with emphasis on experimental studies that have contributed to the molecular analysis of complex biological problems. Examples drawn from bacteria, yeast, nematodes, fruit flies and mammalian systems. Prerequisite: graduate standing or permission of instructor. This is cross-listed in the Department of Genetics. Credit: 3 units.

#### L41(BIO) 5495 COMPUTATIONAL MOLECULAR BIOLOGY

Instructor: Michael Brent, PhD, 286-0210

This course is a survey of algorithms and mathematical methods in biological sequence analysis (with a strong emphasis on probabilistic methods) and systems biology. Sequence analysis topics include introduction to probability, probabilistic inference in missing data problems, hidden Markov models (HMMs), profile HMMs, sequence alignment, and identification of transcription-factor binding sites. Systems biology topics include discovery of gene regulatory networks, quantitative modeling of gene regulatory networks, synthetic biology, and (in some years) quantitative modeling of metabolism. Prereqs: CSE131 or CSE501N. Same as home course E81 CSE 587A. Credit: 3 units.

#### L41 (BIO) 5496 SEMINAR IN COMPUTATIONAL MOLECULAR BIOLOGY

Instructor: Jeremy Buhler, PhD, 935-6180, Gary D. Stormo, PhD, 747-5534

Students present current research papers and the appropriate background material in the field of computational biology. \*\*Arts and Sciences students must take this course for credit; Engineering students must take this course Pass/Fail.\*\* Same as E81 CSE 7801. Credit: 1 unit.

#### L41 (BIO) 5499 CANCER INFORMATICS JOURNAL CLUB

Instructor: Obi Griffith, PhD, 747-9248.

This journal club will explore current topics in cancer informatics. Current literature will be reviewed for advanced cancer genome analysis methods, statistics, algorithms, tools, databases, and other informatics resources. Credit: 1 unit.

#### L41 (BIO) 550 MEDICAL GENETICS

Instructor: Susan Dutcher, PhD, 362-2765

A significant portion of the first-year course in basic medical genetics devoted to human and clinical genetics, with emphasis on how genomic information will transform the practice of medicine. Topics covered include population genetics, molecular basis of mutations; human functional genomics; mouse models of human disease; pharmacogenomics; metabolic defects. Lectures, small group discussions, patient information session. Prerequisite: an introductory genetics course and permission of the instructor. This is cross-listed in the Department of Genetics as M30 511 Medical Genetics. Credit: 2 units.

#### L41 (BIO) 5501 THE BIOLOGY AND PATHOLOGY OF THE VISUAL SYSTEM

Instructor: Didier Hodzic, PhD, 362-7037

The purpose of the course is to provide a fascinating view of vertebrate eye development, anatomy, physiology and pathology. Topics to be covered include the molecules that control eye formation, ocular stem cells, the physiology of transparency, hereditary ocular diseases, phototransduction, the neurobiology of the retina and central visual pathways, age-related eye diseases, and many others. The course is open to all second year graduates students and above. Ophthalmology residents and postdocs with an interest in vision are strongly encouraged to attend. Credit: 3 units.

## L41 (BIO) 5505 INDEPENDENT STUDY IN FUNDAMENTALS OF MOLECULAR AND MICROBIAL GENETICS

Instructor: James Skeath, PhD, 362-0535

This literature-based course will introduce students to seminal and current studies in molecular and microbial genetics. Students will read and present a minimum of 12 landmark papers that helped shape our understanding of molecular and microbial genetics. Emphasis will be placed on students' ability to comprehend and explain these studies via chalk talks. All presentations will be given by students. Prereqs: L41 5491 Advanced Genetics and permission from instructor. Credit: 2 units.

## L41 (BIO) 5507 GENOME ENGINEERING METHODS AND APPLICATIONS

Instructor: Jeffery Milbrandt, MD, PhD, 362-4651.

This course will cover the basic principles of genome engineering with emphasis on Cas9/CRISPR technology. It will consist of discussion sessions in which students will present assigned manuscripts followed by a general discussion of the topic directed by the instructor. The course will cover the mechanisms of genome editing using host DNA repair systems, the function of Cas9, and how Cas9 can be harnessed to introduce defined mutations into almost any genome. The use of Cas9 to activate or repress genes, alter chromatin modifications, and the application of these Cas9 systems to conducting genome-scale screens in mammalian cells as well as its use in studying cell fate will be highlighted. Finally, we will study how Cas9 methodologies can be used to introduce disease-associated variants into pluripotent stem cells (e.g. iPSCs) that can be differentiated into disease-relevant cell for use in functional genomic studies. 1 unit.

## L41 (BIO) 5512 Diseases of Membrane Transport & Excitability

Instructor: Robert Mercer, PhD, 362-6924

Classes will consider the molecular basis of the disease as well as animal models and current clinical studies. Addressing studies from the level of basic biophysical and molecular properties of the underlying ion channels/transporters, to the cellular defects, to organ and animal outcomes and therapies, which will encourage and force students to develop their ability to integrate understanding at multiple levels. Students



will be introduced to emerging ideas in clinical diagnosis, management and treatment, when appropriate, clinical specialists will allow student participants to directly observe and participate in the clinical experience. Prerequisites: Bio 5068 Fundamentals of Molecular Cell Biology. Credit: 2 units.

#### L41 (BIO) 554 NEURAL SCIENCES

For full description, see the Department of Anatomy and Neurobiology, M35 554 Neural Sciences.

#### L41 (BIO) 5565 ORAL PRESENTATION OF SCIENTIFIC DATA

Instructor: Staff, Neurosciences Program, 362-7189

Practical course on how to prepare and present scientific data to an audience.

Prerequisite: first-year neuroscience program courses. Meets once a week for 90 minutes. Credit: 1 unit.

#### L41 (BIO) 5571 CELLULAR NEUROBIOLOGY

Instructor: Paul Taghert, PhD, 362-3641

This course will present a fully integrated overview of nerve cell structure, function and development at the molecular and cellular level. Broad topics to be covered include gene structure and regulation in the nervous system, quantitative analysis of voltage- and chemically-gated ion channels, presynaptic and postsynaptic mechanisms of chemical neurotransmission, sensory transduction, neurogenesis and migration, axon guidance and synapse formation. Two lectures plus one hour of discussion per week for 14 weeks. There will be three exams, as well as homework problems and summaries of discussion papers. Prerequisite: graduate standing or permission of the instructor. Credit: 4 units.

#### L41 (BIO) 5619 ADVANCED COGNITIVE, COMPUTATIONAL AND SYSTEMS NEUROSCIENCE

Instructor: Todd Braver, PhD, 935-5143

This course will develop critical thinking and analysis skills with regard to topics in Cognitive, Computational and Systems Neuroscience. Course format will be a series of modules composed of intensive, faculty-led case studies on interdisciplinary topics at

the intersection of psychology, computation and neuroscience. The goal will be to highlight the benefits of integrative, interdisciplinary approaches, by delving into a small set of topics from a variety of perspectives, rather than providing a survey-level introduction to a broader set of topic areas. Modules will involve a combination of lectures and student-led discussion groups, with students further expected to complete a multidisciplinary integrative final review paper. Case-study topics will vary somewhat from year to year, but are likely to include some of the following: temporal coding as a mechanism for information processing, coordinate transformations in sensory-motor integration, mechanisms of cognitive control, motor control strategies including application to neural prosthetics, and memory systems in health and disease. Credit: 3 units. Same as L33 Psych 519.

#### L41 (BIO) 5622 COGNITIVE, COMPUTATIONAL AND SYSTEMS NEUROSCIENCE PROJECT BUILDING

Instructor: Deanne M. Barch, PhD, 935-8729

The goal of this course is to help students in the CCSN Pathway develop the critical thinking skills necessary to develop and implement high-quality, interdisciplinary research projects. Throughout the course of the semester, students will develop a research plan in their chosen area of interest. The plan will be developed in consultation with at least two faculty members (from at least two different subdisciplines within the pathway) as well as the other students and faculty participating in the course. The culmination of this course will be for each student to produce an NIH-style grant proposal on the research project of their choosing. For most students, this will serve either as their thesis proposal or a solid precursor to the thesis proposal. The course will be designed to help facilitate the development of such a research plan through didactic work, class presentations, class discussion, and constructive feedback on written work. The course will begin with a review of written examples of outstanding research proposals, primarily in the form of grant submissions similar to those that the students are expected to develop (i.e., NRSA style proposals, R03 proposals). Review of these proposals will serve as a stimulus to promote discussion about the critical elements of good research proposals and designs in different areas. Each student will be expected to give three presentations

throughout the semester that will provide opportunities to receive constructive feedback on the development and implementation of research aims. The first presentation (toward the beginning of the semester) will involve presentation of the student's general topic of interest and preliminary formulation of research questions. Feedback will emphasize ways to focus and develop the research hypotheses into well-formulated questions and experiments. The second presentation will involve a more detailed presentation of specific research questions (along the lines of NIH-style Specific Aims) and an initial outline of research methods. The final presentation will involve a fuller presentation of research questions and proposed methods. Feedback, didactic work and group discussion throughout the semester will include guidance on critical components of the development of a research plan, including how to perform literature searches, formulate testable hypotheses, write critical literature summaries and design experiments and analyses. The course will meet once a week, with faculty members from different tracks within the pathway present at each meeting. This will allow students to receive feedback from several perspectives. Prerequisite: Member of CCSN Pathway, permission of instructor. Credit: 3 units. Same as L33 Psych 5191.

#### L41 (BIO) 5646 NEUROSCIENCES PROGRAM 1ST YEAR FUNDAMENTALS

Instructors: Paul Shaw, PhD, 362-2703; Lawrence Snyder, MD, PhD, 747-3530; John Pruett, MD, PhD, 747-6751

This course will provide a two-part introduction to Neuroscience Research fundamentals. Namely, it will introduce elementary statistical analysis for Neuroscience research and an introduction for grant-writing to support Neuroscience-related research. Prereq, limited to first year neuroscience students. Credit: 0.5 units.

#### L41 (BIO) 5651 NEURAL SYSTEMS

Instructor: Lawrence Snyder, MD, PhD, 747-3530

The course will consist of lectures and discussions of the sensory, motor and integrative systems of the brain and spinal cord, together with a weekly lab. The lectures will present aspects of most neural systems and will be given by faculty members who have specific expertise on each topic. The discussions will include faculty-led group discussions and papers presented and discussed by students. The

labs will include human brain dissections, examination of histological slides, physiological recordings, behavioral methods, computational modeling and functional neural imaging. Credit: 6 units.

#### L41 (BIO) 5657 BIOLOGICAL NEURAL COMPUTATION

Instructor: Baranidharan Raman, PhD , 935-8538

This course will consider the computations performed by the biological nervous system with a particular focus on neural circuits and population-level encoding/decoding. Topics include, Hodgkin-Huxley equations, phase-plane analysis, reduction of Hodgkin-Huxley equations, models of neural circuits, plasticity and learning, and pattern recognition & machine learning algorithms for analyzing neural data. Note: Graduate students in psychology or neuroscience who are in the Cognitive, Computational, and Systems Neuroscience curriculum pathway may register in L41 5657 for three credits. For non-BME majors, conceptual understanding, and selection/application of right neural data analysis technique will be stressed. Hence homework assignments/examinations for the two sections will be different, however all students are required to participate in a semester long independent project as part of the course. Calculus, Differential Equations, Basic Probability and Linear Algebra. Undergraduates need permission of the instructor. Prerequisites: Permission from the instructor. Credit: 3 units. Same as E62 BME 572.

#### L41 (BIO) 5663 NEUROBIOLOGY OF DISEASE

Instructor: Conrad Wehl, MD, PhD, 362-6981

This is an advanced graduate course on the pathology of nervous system disorders. This course is primarily intended to acquaint Neuroscience graduate students with a spectrum of neurological diseases, and to consider how advanced neuroscientific approaches may be applied to promoting recovery in the brain. Topics will be presented by Washington University faculty members and include: neurooncology, stroke, retinal disease, perinatal brain injury, neurodegenerative disorders, neuroinflammation, epilepsy, and psychiatric disorders. The class will meet for 2 hours each week. Each session will be led by a faculty guest with expertise in a specific neurological or psychiatric disease. In the first hour, the speaker will discuss clinical

manifestations and pathophysiology. Where possible, the clinical presentation will be supplemented with a patient demonstration or videotape. After a 30-minute break for pizza and soda, the second hour will follow a journal club format. Two or three students will review current papers assigned by the speaker or course director. This course is offered in alternate years. Prereq: Introductory neuroscience course at the graduate or medical school level. Credit: 2 units.

#### L41 (BIO) 5678 CLOCKSCLUB

Instructors: Erik Herzog, PhD, 935-8635; Paul Taghert, PhD, 362-3641

Clocksclub focuses on recent advances in the study of biological timing including sleep and circadian rhythms. Participants discuss new publications and data on the molecules, cells and circuits underlying daily rhythms and their synchronization to the local environment. Students registered for this journal club will lead a discussion once during the semester. Prereqs: BIO 2970 or permission of instructor. Credit: 1 unit.

#### L41 (BIO) 5702 CURRENT APPROACHES IN PLANT RESEARCH

Instructor: Plant Biology Program; 362-3364

This course is designed to introduce graduate students to contemporary approaches and paradigms in plant biology. The course includes lectures, in-class discussions of primary literature and hands-on exploration of computational genomic and phylogenetic tools. Evaluations include short papers, quizzes, and oral presentations. Over the semester, each student works on conceptualizing and writing a short NIH-format research proposal. Particular emphasis is given to the articulation of specific aims and the design of experiments. Students provide feedback to their classmates on their oral presentations and on their specific aims in a review panel. Prereq: Bio 5703 or permission of the instructor. Credit: 4 units.

#### L41 (BIO) 5703 EXPERIMENTAL DESIGN AND ANALYSIS IN BIOLOGICAL RESEARCH

Instructor: Plant Biology Program ; 362-3364

In-depth exploration of landmark and current papers in genetics, molecular and cell biology, with an emphasis on prokaryotes and eukaryotic microbes. Class discussions will center on such key discoveries as the chemical nature of genetic material, the genetic code, oxygen producing light-spectrum, cell-cell signaling, transcriptional

regulation, the random nature of mutation, and cell cycle regulation. Emphasis will be placed on what makes a good question or hypothesis, expedient ways to address scientific problems, and creative thinking. The last third of the course will consist of student-run seminars on selected topics to increase proficiency in the synthesis of new material and public presentation skills. Credit: 2 units.

#### L41 (BIO) 5723 SEMINAR IN PLANT AND MICROBIAL BIOSCIENCE

Instructor: Staff, Plant Biology Program, 362-3364

This course emphasizing presentation skill and critical analysis counts towards the PMB Graduate Program's journal club course requirement. Students will be responsible for dividing and presenting 30 current research publications selected by the course masters. In addition to assembling brief PowerPoint presentations providing background and significance for their assigned articles, students are expected to provide classmates with a 1 page primer and short list of relevant references 2 units.

#### L41 (BIO) 580 SEMINAR IN POPULATION BIOLOGY

Instructor: Staff, Evolution, Ecology and Population Biology, 362-3364

This weekly seminar, covering different topics each semester, should be taken by graduate students in the program. Prerequisite: graduate standing or permission of the instructors. Credit: variable; 2 or 3 units.

#### L41 (BIO) 582 ETHNOBIOLOGY JOURNAL CLUB

Instructors: Gayle Fritz, PhD, 935-8588; Jan Slick, PhD, 577-5165

Students in this journal club will meet weekly with ethnobotanists, ethnozoologists and ecologists from various St. Louis institutions (including Washington University, University of Missouri-St. Louis, Saint Louis University and the Missouri Botanical Garden) to discuss recent publications and ongoing research. Enrolled students will attend the journal club every week, and once per semester will choose a paper and lead the discussion. Credit: 1 unit. Same as home course L48 Anthro 560.

#### L41 (BIO) 585 SEMINAR IN FLORISTIC TAXONOMY

Instructor: Peter Hoch, PhD, 577-5175

This weekly seminar provides an introduction to/overview of Plants, each semester progressively covering orders and families in a sequence derived from the Angiosperm Phylogeny Website (<http://www.mobot.org/MOBOT/Research/APweb/welcome.html>); in Spring 2014, the seminar will finish the monocots and begin the eudicots. Weekly presentations include a summary of all relevant information (molecular, chemical, anatomical, embryological, morphological, ecological, geographical, historical/paleontological, etc.) about the plant group under consideration, review of the classification/phylogeny of the group, examination of fresh and/or preserved specimens, and discussion of relationships, human uses, and other relevant aspects of the biology of that group. Credit will be contingent on one (or two) seminar presentation(s) per student, regular attendance and active participation in group discussions. Credit: 1 unit.

#### L41 (BIO) 5862 SEMINAR ON PROFESSIONAL DEVELOPMENT FOR GRADUATE STUDENTS IN ECOLOGY, EVOLUTION & POPULATION BIOLOGY

Instructor: Eleanor Pardini, PhD, 935-4884

This is a weekly discussion seminar course in which advanced graduate students and postdocs in STEM will discuss the practices of scientific teaching and basic professional development skills. Topics covered will include scientific teaching, active learning, assessment driven instruction, creation inclusive classrooms, preparing for job interviews, preparing grant proposals, and balancing family and work. There will be several panel discussions with invited speakers on a range of potential career options to STEM PhDs. Students will prepare or revise their professional portfolio materials over the course of the semester. The course is open to all DBBS graduate students and is required for GAANN fellows. Prereq: Graduate student status in the DBBS or permission of instructor. Credit: 1 unit.

#### L41 (BIO) 590 RESEARCH

Instructors: Staff, Division of Biology and Biomedical Sciences, 362-3365

Credit to be arranged. Research is listed as 900-level course in each department.

#### L41 (BIO) 5902 INTRO TO THE SCHOLARSHIP OF TEACHING AND LEARNING

Instructor: Denise Leonard, 935-6142;

In this course, students will be introduced to the fundamentals of the Scholarship of Teaching and Learning (SoTL), including the practice of developing, reflecting on, and evaluating teaching methods to improve student learning. The scholarship of teaching and learning incorporates knowledge from educational and cognitive-psychology research, and it leads to the dissemination of new knowledge to a broad audience of educators. Students will learn to articulate questions about classroom teaching that can be addressed in a SoTL research project. Working from these questions, students will develop research hypotheses; design an evaluative plan; describe specific research methods (including the type of data to be collected); write an IRB application; understand how to analyze the data relative to the hypotheses. By the end of this course, students will have designed a research plan for a SoTL project. Same as U29 Bio 4902. Credit: 1 unit. Same as U29 Bio 4902.

#### L41 (BIO) 5911 SEMINAR IN BIOLOGY AND BIOMEDICAL SCIENCES

Instructors: Staff, Division of Biology and Biomedical Sciences, 362-3365

These seminars cover the recent literature in various areas not included in other courses, or in more depth than other courses. Credit to be arranged.

#### L41 (BIO) 5913 BIOLOGICAL SYSTEMS ENGINEERING

Instructor: Kristen Naegle, PhD, 935-7665

This project-based (MATLAB) class will introduce several current techniques for systems-level measurement of molecules and a set of computational techniques for inferring biological meaning from such experiments. Several molecular types and measurement techniques will be covered. How to determine the quality of measurements will lay the groundwork for understanding a new measurement technique. From there, computational topics will include dimensionality reduction techniques, correlations between measurements and outcomes, and network modeling and inference. A working knowledge of molecular biology, differential equations, linear algebra, and statistics is required. Credits: 3 units.

#### L41 (BIO) 5915 TEACHING PRACTICE IN BIOLOGY AND BIOMEDICAL SCIENCES

Instructor: John H. Russell, PhD, 362-2558

Students serve as teaching assistants for undergraduate and graduate-level courses.



Faculty-supervised activities include lecture preparation and presentation, leading discussion and problem-solving sessions and laboratory instruction. Prerequisite: restricted to graduate students in the Division of Biology and Biomedical Sciences. Credit: 1 unit.

#### L41 (BIO) 5922 ENTERING MENTORING

Instructor: Kathryn Miller, PhD, 935-7305

This course is a series of facilitated discussions aimed at developing and improving mentoring skills for those involved in supervising undergraduate research experiences. It is designed for postdocs and graduate students who are or will be 'bench mentors' for undergraduates doing Bio 500 and/or Summer Research. Participants will receive "Entering Mentoring" materials, including articles and worksheets to facilitate mentoring interactions with their mentee, plus several resource books relevant to mentoring. They will develop a mentoring philosophy statement, work on specific assignments designed to improve their relationship with their mentee and share their present and past experiences as mentors and mentees. Bench mentors will be eligible for a travel award to help defray expenses for attending a meeting with their mentee, if that student wins one of the HHMI SURF travel awards (4-5 awarded annually) or is otherwise being supported to present at a scientific meeting. Prereq: open to graduate students and postdocs, with priority for those who plan to mentor undergraduates in summer research experiences. Graduate students and postdocs do NOT need to be mentoring a student at the time of the course; it is open to all with an interest in mentoring now or in the future. Note: The sessions will be held either at the beginning of the day or the end of the day at the Danforth campus. Once registration closes, an email will be sent to those registered to poll for the best days & times. Credit: 1 unit. Same as U29 Bio 492.

## Biomedical Engineering

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Modern biomedical engineers face a far different world than those trained even two decades ago.

Explosive advances in our ability to probe and understand molecular and cellular processes and their interconnections now make it imperative that the powers of engineering be brought to bear at ever smaller as well as at system wide levels. This will not only produce new discoveries at the most fundamental levels but also accelerate the translation of these discoveries into practical applications.

Our vision is that future leaders and lasting impact will arise from successfully integrating engineering concepts and approaches across molecular to whole body levels. Moreover, those also trained to integrate the analytical, modeling and systems approaches of engineering to the complex and, sometimes overwhelming, descriptive details of biology will be uniquely positioned to address new and exciting opportunities. We are committed to educating and training the next generation of biomedical engineers with this vision in mind.

At Washington University, world-class biological, engineering and medical research — along with top-notch, state-of-the-art health care — are closely intertwined. For more than 50 years, collaborations between the School of Medicine and the School of Engineering & Applied Science have led to major advances in many areas including: positron emission tomography, medical applications of ultrasound, application of computers to hearing research and development of heart valve flow simulators. Since the establishment of the Department of Biomedical Engineering in 1997, this atmosphere of collaboration and collegiality between the two schools has been further strengthened and expanded, leading to an exceptional degree of synergy that is one of our hallmarks. All of our core faculty have been hired since 1997 and comprise a young, dynamic and still-expanding group.

The core faculty, together with over 70 affiliated faculty from other departments form a network of mentors dedicated to training the next generation of biomedical engineers. Our goal is to educate students in an interdisciplinary manner so that they can effectively collaborate with physicians, biologists and other life scientists to build

their careers. Students can elect to perform their research with any member of the network. The commitment and diverse talent of these faculty provide a vast array of choices to enable students to refine their unique quantitative and analytical engineering skills and apply them to relevant biomedical problems. As a result, our graduates are well-equipped to work in multidisciplinary teams tackling cutting-edge and high impact problems of modern biomedical engineering

## Admissions Information

Please visit the [Biomedical Engineering website](#) for admissions information.

# Biomedical Engineering Courses

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BME 471 Bioelectric Phenomena

BME 4904 Interfaces and Attachments in Natural and Engineered Structures

BME 501 Graduate Seminar

BME 503A Cell and Organ Systems Biology

BME 506 Seminar in Imaging Science and Engineering

BME 507 Radiological Physics and Dosimetry

BME 524 Tissue Engineering

BME 530A Molecular Cell Biology for Engineers

BME 537 Computational Molecular Biology

BME 538 Cell Signal Transduction

BME 550 Numerical Methods for Computational Modeling in Biomedicine

BME 559 Intermediate Biomechanics

BME 5565 Mechanobiology of Cells and Matrices

BME 5610 Protein Structure and Dynamics

BME 564 Orthopaedic Biomechanics-Cartilage & Tendon

BME 565 Biosolid Mechanics  
BME 568 Cardiovascular Dynamics  
BME 572 Biological Neural Computation  
BME 574 Quantitative Bioelectricity and Cardiac Excitation  
BME 575 Molecular Basis of Bioelectrical Excitation  
BME 5771 Biomedical Product Development  
BME 5772 Biomedical Business Development  
BME 589 Biological Imaging Technology  
BME 5901 Integrative Cardiac Electrophysiology\*  
BME 5902 Cellular Neurophysiology  
BME 5903 Physical Methods for Biomedical Scientists  
BME 5907 Advanced Concepts in Image Science  
BME 5911 Cardiovascular Biophysics Journal Club  
BME 5913 Molecular Systems Biology: Computation & Measurements for  
Understanding Cell Physiology and Disease  
BME 593 Computational Methods for Inverse Problems  
BME 594 Ultrasound Imaging

For additional related courses, see the [courses of the School of Engineering & Applied Science](#).

# Department of Biomedical Engineering Faculty

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## **Professor and chair of department**

**Steven C. George, MD, PhD**

University of Missouri, Columbia (MD), 1991

University of Washington (PhD), 1995

## **Professor emeritis**

**Salvatore P. Sutera, PhD**

California Institute of Technology, 1960

## **Full-time professors**

**Mark Anastasio, PhD**

The University of Chicago, 2001

**Jianmin Cui, PhD**

State University of New York Stony Brook, 1992

**Daniel W. Moran, PhD**

Arizona State University, 1994

**Rohit V. Pappu, PhD**

Tufts University, 1996

**Yoram Rudy, PhD**

Case Western Reserve University, 1978

**Lori A. Setton, PhD**

Columbia University, 1993

**Larry A. Taber, PhD**

Stanford University, 1979

Frank Chi-Pong Yin, PhD, MD

University of California, San Diego, 1970; MD, 1973

Quing Zhu, PhD

University of Pennsylvania, 1992

## **Full-time associate professors**

Dennis L. Barbour, MD, PhD

The Johns Hopkins University, 2003

Vitaly Klyachko, PhD

University of Wisconsin, 2002

Baranidharan Raman, PhD

Texas A & M University, 2005

Jin-Yu Shao, PhD

Duke University, 1997

Kurt A. Thoroughman, PhD

The Johns Hopkins University, 1999

## **Full-time assistant professors**

Jan Bieschke, PhD

Max-Planck-Institute for Biophysical Chemistry, 2000

Hong Chen, PhD

University of Washington – Seattle, 2011

Kristen Naegle, PhD

Massachusetts Institute of Technology, 2009

Jonathan Silva, PhD

Washington University in St. Louis, 2008

## **Graduate group**

Samuel Achilefu, PhD

University of Nancy, France, 1991

Hongyu An, DSc

Washington University in St. Louis, 2001

Beau Ances, MD, PhD

University of Pennsylvania, 2001

Maxim Artyomov, PhD

Massachusetts Institute of Technology, 2009

Martha Bagnall, PhD

University of California, San Diego, 2008

Deanna Barch, PhD

University of Illinois at Urbana-Champaign, 1993

Philip V. Bayly, PhD

Duke University, 1993

Gregory Bowman, PhD

Stanford University, 2010

Michael R. Brent, PhD

Massachusetts Institute of Technology, 1991

Paul C. Bridgman, PhD

Purdue University, 1980

David Brody, MD, PhD  
Johns Hopkins School of Medicine, 2000

Michael Bruchas, PhD  
Creighton University, 2004

Andreas H. Burkhalter, PhD  
University of Zurich, 1977

Shantanu Chakrabartty, PhD  
The Johns Hopkins University, 2004

Delphine Chen, MD, PhD  
Washington University School of Medicine, 1999

ShiNung Ching, PhD  
University of Michigan, 2009

Barak Cohen, PhD

Maurizio Corbetta, MD  
University of Pavia School of Medicine, Italy, 1985

Joseph Culver, PhD  
University of Pennsylvania, 1987

Gautam Dantas, PhD  
University of Washington, 2005

Aaron DiAntonio, MD, PhD  
Stanford University (MD/PhD), 1995

Anthony French, MD, PhD



University of Illinois, Urbana-Champaign, 1995; MD, 1996

Guy Genin, PhD

Harvard University, 1996

Michael Greenberg, PhD

Farshid Guilak, PhD

Columbia University, 1991

James Havranek, PhD

Stanford University, 2003

Tim Holy, PhD

Princeton University, 1997

James Huettnner, PhD

Harvard University, 1987

Daniel Kerschensteiner, MD

Max-Planck Institute for Experimental Medicine, Gttingen, Germany, 2004

Sándor J. Kovács, PhD, MD

California Institute of Technology, 1977; MD, University of Miami, 1979

Spencer Lake, PhD

University of Pennsylvania, 2009

Gregory M. Lanza, PhD

University of Georgia, 1981

Jin-Moo Lee, MD, PhD

Cornell University Medical College, 1993

Eric Leuthardt, MD  
University of Pennsylvania, 1999

Matthew Lew, PhD  
Stanford University, 2015

H. Harold Li, PhD  
Friedrich-Alexander-Universitat Erlangen-Nurnberg, 2001

Christopher Lingle, PhD  
University of Oregon, 1979

Timothy Lohman, PhD  
University of Wisconsin, Madison, 1977

Christopher A. Maher, PhD  
Cold Spring Harbor Laboratory and Stony Brook University, 2006

Garland R. Marshall, PhD  
Rockefeller University, 1966

Audrey McAlinden, PhD  
University of London, Imperial College Medical School, 1998

Robert P. Mecham, PhD  
Boston University, 1976

Gretchen Meyer, PhD  
University of California, San Diego, 2011

Jeffrey Milbrandt, MD, PhD  
Washington University in St. Louis, 1978; PhD University of Virginia, Charlottesville,  
1983

Jeffrey Millman, PhD

Massachusetts Institute of Technology, 2011

Robi Mitra, PhD

Massachusetts Institute of Technology, 2000

Ilya Monosov, PhD

Brown University, 2010

Arye Nehorai, PhD

Stanford University, 1983

Jeanne Nerbonne, PhD

Georgetown University, 1978

Colin G. Nichols, PhD

Leeds University, 1985

Joseph A. O'Sullivan, PhD

University of Notre Dame, 1986

Camillo Padoa-Schioppa, PhD

Massachusetts Institute of Technology, 2002

Parag J. Parikh, MD

Washington University, 2001

Amit Pathak, PhD

University of California, Santa Barbara, 2008

Steven E. Petersen, PhD

California Institute of Technology, 1982

Zachary Pincus, PhD  
Stanford University, 2007

David Piston, PhD  
University of Illinois, Urbana, 1989

Jay W. Ponder, PhD  
Harvard University, 1984

Zachary Ray, MD  
University of Iowa College of Medicine, 2004

Stacey Rentschler, MD, PhD  
Mount Sinai School of Medicine, MD 2004, PhD 2002

Linda Sandell, PhD  
Northwestern University, 1980

Vijay Sharma, PhD

Kooresh Isaac Shoghi  
Univeristy of California, Los Angeles, 2005

Matthew J. Silva, PhD  
Massachusetts Institute of Technology, 1996

Lawrence H. Snyder, MD, PhD  
University of Rochester, 1992

Sheng-Kwei (Victor) Song, PhD  
Washington University in St. Louis, 1990

S. Joshua Swamidass, MD/PhD

University of California, Irvine, 2009

Yuan-Chuan Tai, PhD

University of California, Los Angeles, 1998

Simon Tang, PhD

Rensselaer Polytechnic Institute, 2007

David C. Van Essen, PhD

Harvard University, 1971

Jessica Wagenseil, DSc

Washington University in St. Louis, 2003

Yong Wang, PhD

Washington University in St. Louis, 2009

Xiaowei Wang, PhD

Tufts University Medical School, 2000

Samuel A. Wickline, MD

University of Hawaii, 1980

Pamela Woodard, MD

Duke University School of Medicine, 1990

Hani Zaher, PhD

Simon Fraser University, 2007

Tiezhi Zhang, PhD

University of Wisconsin-Madison, 2004

Jie Zheng

University of Cincinnati, 1994

## Supporting faculty

R. Martin Arthur, PhD

University of Pennsylvania, 1968

Thomas Conturo, MD, PhD

Vanderbilt University, 1989

Elliot L. Elson, PhD

Stanford University, 1966

William A. Frazier III, PhD

Washington University, 1973

Eric Galburt, PhD

University of Washington, 2002

Robert J. Gropler, MD

University of Cincinnati, 1981

Dennis Hallahan, MD

Rush University, 1984

Joseph W. Klaesner, PhD

Vanderbilt University, 1995

Michael K. Pasque, MD

University of Oklahoma, 1978

William D. Richard, PhD

University of Missouri-Rolla, 1988

Richard Scheussler, PhD  
Clemson University, 1977

Lilianna (Lila) Solnica-Krezel, PhD  
University of Wisconsin-Madison, 1991

Alan R. Templeton, PhD  
University of Michigan, 1972

M. Victor Wickerhauser, PhD  
Yale University, 1985

## Biostatistics

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The Division of Biostatistics engages in research, biostatistical consultation and training activities. Interested students may pursue intensive studies through the Master of Science in Biostatistics, a Master of Science in Genetic Epidemiology (for Post-Docs only), a Certificate in Genetic Epidemiology, or individual courses offered by the division. Research activities include several independent lines of research as well as numerous collaborative projects with various departments of the medical school. Biostatistical consultation represents an important activity of the division, providing expertise in both theoretical and applied areas. The Division participates actively in a post-doctoral training through a T32 Post-Doctoral training grant in Genetic Epidemiology.

Research activities of the Division span a wide range of topics dealing with a number of disease areas and provide research opportunities at both theoretical and applied levels. Several research projects involve close interaction and collaboration with a

number of research groups at the Washington University Medical Center. Independent research programs of the Division deal with genetic epidemiology of cardiovascular and metabolic diseases, bioinformatics and statistical issues in imaging sciences and Alzheimer's disease. A number of theoretical and applied problems are addressed, including nature-nurture resolution and identification of the genetic basis of risk factor domains such as lipids, obesity, blood pressure and hypertension, and insulin resistance and diabetes; exploration of gene-gene and gene-environment interactions; and multivariate associations among multiple risk factors.

Current and recent collaborative research projects include: a coordinating center for a multicenter study to assess the genetic basis of response to exercise training (HERITAGE); a coordinating center for a multicenter study on the effectiveness of a weight loss treatment implemented in primary care; a coordinating center for a multicenter NETWORK study on the genetics of hypertension (HyperGEN), and the Family Blood Pressure Program (FBPP); coordinating centers for a multicenter study to assess the genetic basis of response to intervention through incorporation of gene-environment interactions (Gensalt); the coordinating center for the PRIDE program with the goal of mentoring junior faculty in underrepresented minorities and/or faculty with disabilities into independent research careers in biomedical sciences; the coordinating center for the Data Analysis and Coordinating Center (DACC) which tracks the education and careers of people who have participated in the NHGRI Diversity Action Plan (DAP) and NHGRI T-32s that concentrate on genomics and genetics; important collaborative studies through support roles as biostatistics cores on the Washington University Institute of Clinical and Translational Sciences, the Alzheimer's Disease Research Center, the Adult Children's Study, Healthy Aging and Senile Dementia (HASD), The Dominantly Inherited Alzheimer Network (DIAN), the Alvin J. Siteman Cancer Center, the Silent Infarct Transfusion Study, the Optimization of Chemotherapy for Control and Elimination of Onchocerciasis, the Washington University Spotrias Center, the Washington University Intellectual & Developmental Disabilities Research Center and Childhood Obesity Treatment. We also have a significant role on studies that focus on lung transplants, asthma, COPD, pediatric heart and ischemic heart disease and on several epidemiological research projects



developing methods for increasing public awareness and utilization of measures that are known to decrease the likelihood of developing heart disease and for encouraging behaviors that will improve prognosis following a heart attack.

The Division provides consultation through the Washington University Institute of Clinical and Translational Sciences (ICTS), the Washington University Intellectual & Developmental Disabilities Research Center, and the Biostatistics Consulting Service in a wide range of areas including the statistical design of experiments and clinical trials, protocol development, database management, analysis of data and interpretation of results. Some of the areas of special strength and expertise include cardiovascular biostatistics, computing and statistical packages. The Division is well-equipped to provide assistance at the stage of preparing grant applications, including careful discussions of study design, sample size calculations, randomization schemes, computer resources and data analysis.

One of the Division's specialties is statistical genetics/genetic epidemiology. We host and participate in a postdoctoral T32 training grant in this area. Statistical genetics is the scientific discipline that deals with an analysis of the familial distribution of traits, with a view to understanding any possible genetic basis. However, one cannot study genes except as they are expressed in people living in certain environments, and one cannot study environmental factors except as they affect people who have certain genotypes. Statistical genetics is a unique interdisciplinary field that seeks to understand both the genetic and environmental factors and how they interact to produce various diseases and traits in humans. These studies are carried out in relatively large samples of participants in relevant populations, thus, the population history and dynamics often come into play. Population dynamics alter the frequency and distribution of both genetic and environmental factors, and thus, their net effect on the phenotype of interest. Some population characteristics also can be exploited for the purposes of gene discovery and mapping because the history has affected the genomic structure in a way that specific genotypes associated with disease can be identified.

Human diseases have been the focal point of these studies, and recent efforts are

directed toward complex disorders such as coronary heart disease, hypertension, diabetes, obesity, cancer, atopy and allergies, and neurological and psychiatric disorders, to name a few. It is commonly thought that an understanding of the genetic underpinnings of such disorders will revolutionize medicine in the 21st century, enabling better preventive measures, diagnosis, prognosis and novel treatments. Given progress in the Human Genome Project, in computing power and in the creation of powerful statistical methods of analysis, we are poised to shepherd this revolution. It is an exciting time in science, and opportunities for careers in statistical genetics/genetic epidemiology abound.

## NIH sponsored training programs

The PRIDE Summer Institute in Cardiovascular Genetics and Epidemiology (CGE) with a focus on Cardiovascular and other Heart, Lung, Blood and Sleep Disorders: An all-expense-paid summer institute continues in the summer of 2017 with funding from the NHLBI. The goal is to mentor junior faculty in underrepresented minorities and/or faculty with disabilities into independent research careers in biomedical sciences. For further information, visit the website at <http://www.biostat.wustl.edu/pridege/> or contact the program administrator at [biostat-pride-cge@email.wustl.edu](mailto:biostat-pride-cge@email.wustl.edu)

The Division holds a Post-Doctoral T32 training grant in cardiovascular genetic epidemiology from the NIH. This training grant is available to PhDs and MDs with a background in quantitative sciences, cardiovascular sciences or experience in statistical genetics and genetic epidemiology. Candidates must be a US citizen or permanent resident to be eligible. For more information see our website at <https://biostatistics.wustl.edu/training/pages/post-doctraininggrant.aspx>, contact the Program Administrator at (314) 362-3697 or send email to [post-doc-search@wubios.wustl.edu](mailto:post-doc-search@wubios.wustl.edu)

## Graduate studies

The Division of Biostatistics sponsors a Master of Science in Biostatistics (MSIBS), a Master of Science in Genetic Epidemiology (GEMS; for Post-Doctoral students only)

and a Certificate in Genetic Epidemiology. The Division had sponsored the GEMS program from 2002 – 2012. In 2012 the GEMS program was streamlined as a Post-Doctoral degree program in addition to integrating some of the curriculum into the MSIBS program. Masters students who wish to have the GEMS type of training should look into the Statistical Genetic pathway of the MSIBS program.

## **Master of Science in Biostatistics (MSIBS)**

This 18-month program offers excellent training in biostatistics and statistical genetics for students who earned undergraduate or higher degrees with majors in mathematics, statistics, computer science, biomedical engineering or other related major. It prepares graduates for rewarding employment in academia and industry and for further graduate studies.

## **Academic calendar**

The MSIBS program begins approximately July 1 each year with preparatory workshops, followed by intensive summer semester courses. For the fall and spring courses, the MSIBS program follows the calendar of the College of Arts & Sciences. See the current MSIBS calendar at <https://biostatistics.wustl.edu>.

## **Location**

The Program is currently located in the Division of Biostatistics, on the third floor of Shriners Building (706 S. Euclid Ave. at Clayton Road), Rooms 3301-3312. At the end of January 2017, the Division of Biostatistics, including the Program, will be moving to the Bernard Becker Library 5<sup>th</sup> floor (660 S. Euclid Ave.).

## **Further information**

See our web site, <https://biostatistics.wustl.edu>, contact the Program Manager at (314) 362-1384, send email to [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or write to:

MSIBS Program

Division of Biostatistics  
Campus Box 8067  
660 S. Euclid Ave.  
St. Louis, MO 63110-1093  
Telephone: (314) 362-1384  
Fax: (314) 362-2693

## Biostatistics Courses

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### M21 503 STATISTICAL COMPUTING WITH SAS®

Department: Division of Biostatistics

Course masters: Karen Schwander

Credit hours: 2 units

Frequency: Every summer

Intensive hands-on summer training in SAS® during nine full weekdays. Students will learn how to use the SAS® system for handling, managing and analyzing data.

Instruction is provided in the use of the SAS® programming language, procedures, macros and SAS® SQL. The course will include exercises using existing programs written by SAS® experts. Instruction manual and computer lab will be provided. This course meets the prerequisite for M21 560 Biostatistics I offered in fall. The registration/grade option of "Audit" is not available.

Participants are required to participate in the Computing/Unix Workshop offered free of charge immediately prior to this course in early July.

For details, to register and to obtain the required permission of the course master, contact the MSIBS Program Manager: [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

## M21 506 R PRIMER

Department: Division of Biostatistics

Course master: Yun Ju Sung

Credit hours: 2 units

Frequency: Every summer

This is an introduction to the R Statistical Environment for new users. R is “a freely available language and environment for statistical computing and graphics which provides a wide variety of statistical and graphical techniques: linear and nonlinear modeling, statistical tests, time series analysis, classification, clustering, etc. The goal is to give students a set of tools to perform statistical analysis in medicine, biology, or epidemiology. At the conclusion of this primer, students will: be able to manipulate and analyze data, write basic models, understand the R environment for using packages, and create standard or customized graphics. This primer assumes some knowledge of basic statistics as taught in a first semester undergraduate or graduate sequence. Topics should include: probability, cross-tabulation, basic statistical summaries, and linear regression in either scalar or matrix form.

For details, to register and to obtain the required permission of the course master, contact the MSIBS Program Manager: [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

## M21 515 FUNDAMENTALS OF GENETIC EPIDEMIOLOGY

Department: Division of Biostatistics

Course masters: Treva Rice and Yun Ju Sung

Credit hours: 3 units

Frequency: Every summer

Intensive two-week summer course. Lectures cover causes of phenotypic variation, familial resemblance and heritability, Hardy-Weinberg Equilibrium, ascertainment, study designs and basic concepts in genetic segregation, linkage and association. The computer laboratory portion is designed as hands-on practice of fundamental concepts. Students will gain practical experience with various genetics computer programs (e.g., SOLAR, MERLIN, QTDT and PLINK). Auditors will not have access to the computer lab sessions.

Participants are strongly encouraged to participate in the computing/UNIX Workshop offered free of charge prior to this course in early July. For details, to register and to obtain the required permission of the course master, contact the MSIBS Program Manager: [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

## M21 550 INTRODUCTION TO BIOINFORMATICS

Department: Division of Biostatistics

Course master: C.Charles Gu, Co-Coursemaster: Jingqin (Rosy) Luo

Credit hours: 3 units

Frequency: Every summer

Intensive two-week summer course designed to provide broad exposure to the basic concepts, methodology and application of bioinformatics to solve biomedical problems. Specifically, students will learn the basics of online genomic databases and database mining tools and will acquire understanding of mathematical algorithms in genome sequence analysis (alignment analysis, gene finding/predicting), gene expression microarray (genechip) analysis, and the impact of recent developments such as protein microarrays or whole-genome DNA chips for genome-wide association studies. Students will also take computer labs and learn basics of bioinformatics tools and databases (BLAST/WUBLAST, Prospector, etc.), practice basics of R/Bioconductor programming, and apply specialized R packages to solve bioinformatics problems pertinent to real medical research of human diseases. Auditors will not have access to the computer lab sessions.

Participants are strongly encouraged to participate in the computing/UNIX Workshop offered free of charge prior to this course in early July. Prerequisite: M21 506, R Primer.

For details, to register and to obtain the required permission of the course master, contact the MSIBS Program Manager: [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

## M21 5483 HUMAN LINKAGE AND ASSOCIATION ANALYSIS

Department: Department of Genetics

Course master: John Rice

Credit hours: 3 units

Frequency: Every fall

Basic genetic concepts: meiosis, inheritance, Hardy-Weinberg Equilibrium, linkage, segregation analysis; Linkage analysis: definition, crossing over, map functions, phase, LOD scores, penetrance, phenocopies, liability classes, multipoint analysis, non-parametric analysis (sibpairs and pedigrees), quantitative trait analysis, determination of power for mendelian and complex trait analysis; linkage disequilibrium analyses: allelic association (case control designs and family based studies), QQ and Manhattan plots, whole genome association analysis; population stratification; quantitative trait analysis; measured genotypes and variance components. Hands-on computer lab experience doing parametric linkage analysis with the program LINKAGE, model free linkage analyses with Genehunter and Merlin, power computations with SLINK, quantitative trait analyses with SOLAR, LD computations with Haploview and WGAViewer, and family-based and case-control association analyses with PLINK and SAS. The methods and exercises are coordinated with the lectures, and students are expected to understand underlying assumptions and limitations and the basic calculations performed by these computer programs. Auditors will not have access to the computer lab sessions. Prerequisite: M21 515 Fundamentals of Genetic Epidemiology. Cross-listed as L41 5483.

For details, to register and to obtain the required permission of the course master, contact the MSIBS Program Manager: [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

## M21 560 BIOSTATISTICS I

Department: Division of Biostatistics

Course masters: Kenneth Schechtman and Kathryn Trinkaus

Credit hours: 3 units

Frequency: Every fall (ending mid-October)

This course is designed for students who want to develop a working knowledge of basic methods in biostatistics. The course is focused on biostatistical and epidemiological concepts and on practical hints and hands-on approaches to data

analysis rather than on details of the theoretical methods. We will cover basic concepts in hypothesis testing, will introduce students to several of the most widely used probability distributions, and will discuss classical statistical methods that include t-tests, chi-square tests, regression analysis, and analysis of variance. Both in-class examples and homework assignments will involve extensive use of SAS. Prerequisite: M21 503, Statistical Computing with SAS®, or student must have good practical experience with SAS®.

For details, to register and/or to obtain the required permission of the Course Master, contact the MSIBS Program Manager: [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

## M21 570 BIOSTATISTICS II

Department: Division of Biostatistics

Course masters: Kenneth Schechtman and Kathryn Trinkaus

Credit hours: 3 units

Frequency: Every fall (from mid-October to mid-December)

This course is designed for students who have taken Biostatistics I or the equivalent and who want to extend their knowledge of biostatistical applications to more modern and more advanced methods. Biostatistical methods to be discussed include logistic and Poisson regression, survival analysis, Cox regression analysis, and several methods for analyzing longitudinal data. Students will be introduced to modern topics that include statistical genetics and bioinformatics. The course will also discuss clinical trial design, the practicalities of sample size and power computation and meta analysis, and will ask students to read journal articles with a view towards encouraging a critical reading of the medical literature. Both in-class examples and homework assignments will involve extensive use of SAS. Prerequisite: M21 560, Biostatistics I or its equivalent as judged by the course masters.

For details, to register, and/or to obtain the required permission of the course master, contact the MSIBS Program Manager: [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.



## M21 617 STUDY DESIGN AND CLINICAL TRIALS

Department: Division of Biostatistics

Course masters: Jingxia (Esther) Liu

Credit hours: 3 units

Frequency: Every spring

The course will focus on statistical and epidemiological concepts of study design and clinical trials. Topics include: different phases of clinical trials, various types of medical studies (observational studies, retrospective studies, adaptive designs, and comparative effectiveness research), and power analysis. Study management and ethical issues are also addressed. Students will be expected to do homework and to practice power analysis during lab sessions. Prerequisites: M21 560 Biostatistics I and M21 570 Biostatistics II. Permission of the course master required.

For details, to register, and/or to obtain the required permission of the course master, contact the MSIBS Program Manager: [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

## M21 512 ETHICS FOR BIOSTATISTICS

Department: Division of Biostatistics

Course master: Alison Antes

Credit hours: 3 units

Frequency: Every spring

This course prepares biostatisticians to analyze and address ethical and professional issues in the practice of biostatistics across the range of professional roles and responsibilities of a biostatistician. The primary goals are for biostatisticians to recognize complex situational dynamics and ethical issues in their work and to develop professional and ethical problem-solving skills. The course specifically examines ethical challenges related to research design, data collection, data management, ownership, security, and sharing, data analysis and interpretation, and data reporting and provides practical guidance on these issues. The course also examines fundamentals of the broader research environment in which biostatisticians work, including principles of ethics in human subjects and animal research, regulatory

and compliance issues in biomedical research, publication and authorship, and collaboration in science. By the conclusion of the course, participants will understand the ethical and regulatory context of biomedical research; identify ethical issues, including situational dynamics that serve to foster or hinder research integrity, in the design and conduct of research and the management, analysis, and reporting of data; and utilize strategies that facilitate ethical problem-solving and professionalism.

For details, to register, and/or to obtain the required permission of the course master, contact the MSIBS Program Manager: [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

### M21 618 SURVIVAL ANALYSIS

Department: Division of Biostatistics

Course masters: Ling Chen

Credit hours: 3 units

Frequency: Every spring

This course will cover the basic applied and theoretical aspects of models to analyze time-to-event data. Basic concepts will be introduced including the hazard function, survival function, right censoring, and the Cox-proportional hazards (PH) model with fixed and time dependent covariates. Additional topics will include regression diagnostics for survival models, the stratified PH model, additive hazards regression models and multivariate survival models. Prerequisites: Calculus I and II, M21-560 Biostatistics I and M21-570 Biostatistics II. Permission of the course master required.

For details, to register, and/or to obtain the required permission of the course master, contact the MSIBS Program Manager: [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

### M21 621 COMPUTATIONAL STATISTICAL GENETICS

Department: Division of Biostatistics

Course masters: Michael Province and Aldi Kraja

Credit hours: 3 units

Frequency: Every spring

This course covers the theory and application of both classical and advanced algorithms for estimating parameters and testing genomic hypotheses connecting genotype to phenotype. Students learn the key methods by writing their own program to do (simplified) linkage analysis in pedigrees in SAS for a simulated dataset provided by the coursemaster. Topics covered in the course include Maximum Likelihood theory for pedigrees and unrelated individuals, Maximization routines such as Newton-Raphson and the E-M Algorithm, Path analysis, Variance components, Mixed model algorithms, the Elston-Stewart and Lander-Green Algorithms, Simulated Annealing and the Metropolis Hastings algorithm, Bayesian and MCMC methods, Hidden Markov Models, Coalescent Theory, Haplotyping Algorithms, Genetic Imputation Algorithms, Permutation/Randomization Tests, classification and Data Mining Algorithms, Population Stratification and Admixture Mapping Methods, Loss of Heterozygosity models, Gene Networks, Copy Number Variation methods, Multiple comparisons corrections and Power and Monte-carlo simulation experiments. Course not available to auditors. Prerequisites: M21 5483 Human Linkage & Association, M21 560 Biostatistics I, and M21 570 Biostatistics II or, with permission

For details, to register, and/or to obtain the required permission of the course master, contact the MSIBS Program Manager: [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

## M21 600 MENTORED RESEARCH

Department: Division of Biostatistics

Course masters: DC Rao and Chengjie Xiong

Credit hours: 6 units

Frequency: Every spring, summer and fall

Student undertakes supervised research in a mentor's lab. The goal is to acquire important research skills as well as good writing and presentation skills. The student finds a mentor who is willing to work with him/her and they together identify a research topic. A written thesis based on the research, prepared in the format of an actual scientific publication, must be submitted and presented to a select audience. The course masters will organize a few meetings throughout to facilitate the whole

process. The course masters will determine the grade (pass/fail) in consultation with the mentors. Permission of the Course Masters is required.

For details, to register, and/or to obtain the required permission of the course master, contact the MSIBS Program Manager: [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

## M21 630 INTERNSHIP

Department: Division of Biostatistics

Course masters: D.C. Rao and J. Philip Miller

Credit hours: 3 or 6 units

Frequency: Every summer

The primary goal of the Internship program is for all students to acquire critical professional experience so that they will be well prepared to enter the job market upon graduation. This provides an opportunity for students to test-drive the job market, develop contacts, build marketable skills and perceive likes and dislikes in the chosen field. Students are required to spend a total of 440 hours in the laboratories of their chosen mentors. One of two types of projects may be pursued as part of the Internship experience. A student may elect to pursue a "Data Analysis Project" involving data management and extensive analyses of data which may lead to a publication-quality manuscript (possibly earning co-authorship for the student). Alternatively, a student may choose a highly focused research-oriented project and carry out "Mentored Research" by working closely with the mentor. In this case, the student will assist the mentor by preparing a publication-quality manuscript as part of the Internship. In either case, as part of the Internship requirements, each student will submit a one-page abstract of the work performed as part of the internship and will give a 5-minute presentation of the Internship experience. Internship presentations will be scheduled in late summer. The grade for each student will be determined in consultation with the mentor. Internships will be facilitated and coordinated by an Internship Committee consisting of professors J. Philip Miller & D.C. Rao (Co-Chairs), Ken Schechtman and Chengjie Xiong. Available to Master of Science in Biostatistics (MSIBS) students only.

# Biostatistics Faculty

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**Amber Salter Albright, PHD, MPH** Assistant Professor of Biostatistics (primary appointment)

**Assistant Professor of Neurology**

PHD University of Alabama-Birmingham 2015

MPH University of North Texas Health 2005

**Ling Chen, MPH, PHD** Assistant Professor of Biostatistics (primary appointment)

**Assistant Professor of Medicine**

BS Beijing Medical University 1996

MPH University of South Carolina 2003

PHD University of Missouri Columbia 2009

**Robert Culverhouse, PHD, MA** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Biostatistics**

PHD Washington Univ in St. Louis 1998

MA University of California Berkeley 1987

BA Vanderbilt University 1983

**Lisa De Las Fuentes, MD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Biostatistics**

MD University of Texas Southwest 1996

BA Stanford University 1991

**Feng Gao, PHD** Associate Professor of Surgery (Public Health Science) (primary appointment)

**Associate Professor of Biostatistics**

**Associate Professor of Medicine**

PHD Emory University 2003

**Mae Etsuko Gordon, MS, PHD** Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Biostatistics**

MS Univ of Wisconsin Madison 1970

PHD Univ of Wisconsin Madison 1979

BA Portland State University 1967

**Chi Gu, PHD** Associate Professor of Biostatistics (primary appointment)

**Associate Professor of Genetics**

BS Nanjing Medical University 1982

PHD Washington Univ in St. Louis 1992

**Esther Jiaxin Lu, PHD, MS** Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

**Assistant Professor of Biostatistics**

PHD Medical College of Wisconsin 2007

MS National Univ of Singapore 2002

BS Nankai University 1997

**Jingqin Luo, PHD, MS** Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

**Assistant Professor of Biostatistics**

**Assistant Professor of Medicine**

PHD Duke University 2006

MS Renmin University of China 2001

MS1 Duke University 2003

BS Renmin University of China 1998

**J. Philip Miller** Professor of Biostatistics (primary appointment)

**Professor of Medicine**

**Tenure Held At-Large in the Medical School**

BA Washington Univ in St. Louis 1965

**Jay Francis Piccirillo** Professor of Otolaryngology (primary appointment)

**Vice Chairman for Research, Dept of Otolaryngology**

**Professor of Medicine**

**Professor of Occupational Therapy**

**Professor of Biostatistics**

BA University of Vermont 1979

**Michael A Province, MA** Professor of Genetics (primary appointment)

**Professor of Biostatistics**

BA University of Dallas 1973

MA Washington Univ in St. Louis 1979

**Dabeeru C Rao, PHD, MS** Professor of Biostatistics (primary appointment)

**Professor of Biostatistics in Genetics**

**Director of the Division of Biostatistics**

**Tenure Held At-Large in the Medical School**

**Professor of Biostatistics in Psychiatry**

**Professor of Mathematics**

BS Indian Statistical Institute 1967

PHD Indian Statistical Institute 1971

MS Indian Statistical Institute 1968

**John P Rice, MA, PHD** Professor of Mathematics in Psychiatry (primary appointment)

**Professor of Biostatistics**

**Professor of Genetics**

BA Cornell University 1969

MA Washington Univ in St. Louis 1972

PHD Washington Univ in St. Louis 1975

**Treva Kay Rice, MA** Professor of Biostatistics (primary appointment)

**Professor of Psychiatry**

BS University of Texas Arlington 1981

MA University of Colorado Boulder 1984

**Nancy L. Saccone, PHD, MS** Associate Professor of Genetics (primary appointment)

**Associate Professor of Biostatistics**

PHD Brown University 1993

MS Brown University 1990

**Kenneth B Schechtman, MS, MA, PHD** Associate Professor of Biostatistics (primary appointment)

**Associate Professor of Medicine**

**Tenure Held At-Large in the Medical School**

BS City University of New York 1967  
MS Purdue University 1971  
MA Washington Univ in St. Louis 1978  
PHD Washington Univ in St. Louis 1978  
Yun Ju Sung **Associate Professor of Biostatistics** (primary appointment)  
**Associate Professor of Psychiatry**  
Guoqiao Wang, MA **Assistant Professor of Biostatistics** (primary appointment)  
MA University of Alabama-Tuscaloo 2010  
Ting Wang, PHD, MS **Associate Professor of Genetics** (primary appointment)  
**Associate Professor of Computer Science and Engineering**  
**Associate Professor of Biostatistics**  
BS School Not Listed 1997  
PHD Washington Univ in St. Louis 2006  
MS Washington Univ in St. Louis 2001  
Chengjie Xiong, PHD, MS **Professor of Biostatistics** (primary appointment)  
**Professor of Neurology**  
**Professor of Mathematics**  
PHD Kansas State University 1997  
BS Xinjiang University 1983  
MS Peking University 1989  
Yan Yan, MHS, MD **Professor of Surgery (Public Health Sciences)** (primary appointment)  
**Professor of Biostatistics**  
MHS Johns Hopkins University 1995  
MD Nanjing Medical University 1983  
No entries found

# Master of Science in Clinical Investigation Program

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The Master of Science in Clinical Investigation (MSCI) Program provides high-quality, multidisciplinary training in clinical research to promote the successful career development of clinical investigators. It is designed as a one- to three-year full- or part-time degree program for young investigators committed to pursuing academic careers in clinical research. The unique program combines didactic coursework with mentored research and career development opportunities and provides students with the knowledge and tools to excel in the areas of clinical investigation most relevant to their

careers. The MSCI is available to postdoctoral scholars, junior faculty and predoctoral students enrolled in established clinical research training programs. The program is also available to other Washington University affiliated postdoctoral health sciences scholars. Postdoctoral scholars and junior faculty must be within the medicine and allied health professions, conducting clinical research at Washington University or with an affiliated program. Predoctoral students in medicine, psychology, the Division of Biology and Biomedical Sciences, social work, audiology, physical therapy, occupational therapy and related disciplines in the Graduate School of Arts & Sciences who have completed or are enrolled in the Predoctoral Interdisciplinary Clinical Research Training Program (PICRT) are also eligible. For further information, email [crtc@dom.wustl.edu](mailto:crtc@dom.wustl.edu), call 312-454-8936 or visit <http://crtc.wustl.edu>.

## Program requirements

The MSCI requires the following core curriculum in clinical investigation:

### M17 513 DESIGNING OUTCOMES AND CLINICAL RESEARCH

3 credits, Fall Semester, Wednesdays, 4:00 p.m. to 6:15 p.m., Brian Gage, MD, MSc, course master

This course includes lectures from faculty of Medicine, Surgery, Otolaryngology and Pediatrics. You will learn how to select a clinical research question, write a research protocol and execute a clinical study. Topics include subject selection, observational and experimental study design, sample size estimation, clinical measurements, questionnaires and data management. The course is designed for clinicians and health-care professionals who wish to conduct outcomes and patient-oriented clinical research. Students receive ongoing feedback as they incorporate research design concepts into their own research proposals. At the end of the course, students are required to submit a research protocol or a draft of a manuscript describing their research and pass the final exam. The course consists of lectures. Each student gives an oral presentation and presents a written paper or grant protocol for discussion and critique by faculty and other students.

OR



### M17 588 EPIDEMIOLOGY FOR CLINICAL RESEARCH

3 credits, Spring Semester, Wednesdays, 4:30 p.m. to 7:00 p.m., TBD, coursemaster

This course introduces principles of epidemiology as they apply to clinical research. The course provides basic tools used in descriptive and analytical epidemiology, which are crucial for making informed decisions in the care of patients. Critical thinking and scientific/analytic competencies are emphasized throughout the course.

### M17 510 ETHICAL AND LEGAL ISSUES IN CLINICAL RESEARCH

2 credits, Fall Semester, Mondays, 4:00 p.m. to 6:00 p.m., Stephanie Solomon, PhD, course master

This course prepares clinical researchers to critically evaluate ethical and regulatory issues in clinical research. The principal goal of this course is to prepare clinical researchers to identify ethical issues in clinical research and the situational factors that give rise to them, to identify ethics and compliance resources and to foster ethical problem-solving skills.

### M17 522 INTRODUCTION TO STATISTICS FOR CLINICAL INVESTIGATION

3 credits, Fall Semester, Thursdays, 4:30 p.m. to 7:00 p.m., Dorina Kallogjeri, MD, MPH, course master

This is a basic course in statistics with particular focus on the health sciences. It is taught in a user-friendly manner with emphasis on use of SPSS, statistical analysis software commonly used in clinical research. The course will teach basic statistical methods in which clinical researchers should have facility to execute their own analyses.

### M17 590 INTERMEDIATE METHODS FOR CLINICAL & OUTCOMES RESEARCH

3 credits, Spring Semester, Wednesdays, 4:30 p.m. to 7:00 p.m., Ann Marie Dale, PhD, course master

This course will focus on the application of epidemiologic principles and tools in clinical research, clinical issues and understanding the medical literature concerning these issues. Course content will go beyond basic applications to clinical research. The course provides scholars with clinical epidemiological tools, which are crucial for making informed decisions in the care of patients. Critical thinking and scientific and

analytic competencies are emphasized throughout the course. Prerequisite, M17-513 or M17-588.

#### M17 524 INTERMEDIATE STATISTICS FOR THE HEALTH SCIENCES

3 credits, Spring Semester, Thursdays, 4:00 p.m. to 6:30 p.m., Dorina Kallogjeri, MD, MPH, course master

This course is designed to build on skills developed in Introduction to Statistics for the Health Sciences and to foster basic expertise required to independently use common multivariate biostatistical methods to analyze clinical research data for peer-review presentation and publication.

#### M17 528 GRANTSMANSHIP

2 credits, Fall Semester, Tuesdays, 5:15 p.m. to 7:15 p.m., Jay Piccirillo, MD, Karen Dodson, MBA, course masters

Scholars create a focused research plan that incorporates well-formulated hypotheses, rationales, specific objectives and long-range research goals; organize and present a sound research plan that accurately reflects the ideas and directions of the proposed research activities; develop and justify a budget for the proposed research activities; avoid many common grant-writing mistakes; discuss the peer-review process in grant evaluation and formulate a grant proposal that is maximally compatible with that process. You must have a grant identified that you will be submitting for this course.

OR

#### M17 529 SCIENTIFIC WRITING AND PUBLISHING

2 credits, Spring Semester, Tuesdays, 5:15 p.m. to 7:15 p.m., Jay Piccirillo, MD, and Karen Dodson, MBA, course masters

The objective of this course is to teach the proper techniques of writing and publishing a biomedical manuscript. Writing a working title and structured abstract as well as hand drawing of figures and tables is covered. Publishing strategies are also discussed.

Scholars also:

- Conduct independent research under the tutelage of a mentorship committee (6-8 credits)
- Participate in an ongoing seminar series to present and discuss research as a work-in-progress (1 credit each semester, minimum of 4 semesters)
- Take elective course work related to their research interests (minimum 6 credits)
- Submit a final thesis consisting of a submitted manuscript or a biomedical entrepreneurial project

Advanced placement credit can be earned for past equivalent course work as determined on an individual basis. The MSCI is a 33-credit degree and typically takes two to three years to complete..

## **Tuition**

Tuition is \$1,250 per credit hour. Training grant or departmental funds, if available, may be used to cover tuition costs. However, some costs of the degree may be the responsibility of the scholar. Trainees currently enrolled in other medicine and allied health programs should contact the program director or program coordinator to discuss entry into the MSCI program. MSCI courses are eligible for the Washington University, Human Resources tuition assistance program for qualifying staff and faculty.

## **Location**

Most courses and seminars are taught during early evening hours in various locations on the Medical School campus.

## **Further information**

Further information, including complete admissions details and program descriptions, may be obtained from the Clinical Research Training Center website (<http://crtc.wustl.edu>) or through the following contacts:

Suzie Fragale

Program Coordinator – Curriculum and Evaluation

(314) 747-8936

[fragale@wustl.edu](mailto:fragale@wustl.edu)

Washington University in St. Louis

School of Medicine

Master of Science in Clinical Investigation Program

Campus Box 8051

660 S. Euclid Ave.

St. Louis, MO 63110

[crtc.wustl.edu](http://crtc.wustl.edu)

# Clinical Investigation Faculty

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## Program directors

**David K. Warren, MD, MPH**

Associate Professor of Medicine

Director, Master of Science in Clinical Investigation Program

Co-Director, Postdoctoral Program

Division of Infectious Diseases, Department of Medicine, Washington University School of Medicine

**Bradley A. Evanoff, MD, MPH**

Richard A. and Elizabeth Henby Sutter Professor of Occupational, Industrial and

Environmental Medicine

Chief, Division of General Medical Sciences, Department of Medicine

Director, Institute of Clinical and Translational Sciences

Division of General Medical Sciences, Department of Medicine, Washington University

School of Medicine

**Mario Castro, MD, MPH**

Professor of Medicine

Director, Office of Training Grants

Co-Director, Office of Faculty Management

Department of Medicine, Washington University School of Medicine

**Victoria J. Fraser, MD**

Chair, Department of Medicine

J. William Campbell Professor of Medicine

Director, Clinical Research Training Center, Career Development Award Program

Division of Infectious Diseases, Department of Medicine, Washington University School of Medicine

**Jane M. Garbutt, MBChB, MHSc**

Research Associate Professor of Medicine and of Pediatrics

Medical Director of Washington University Pediatric and Adolescent Ambulatory

Research Consortium (WU PAARC)

Director, Postdoctoral Program

Co-Director, Career Development Award Program

Co-Director, Master of Science in Clinical Investigation Program

Division of General Medical Sciences, Department of Medicine, Washington University

School of Medicine

**Jay F. Piccirillo, MD**

Professor of Otolaryngology

Director, Clinical Outcomes Research Office

Director, Predoctoral Interdisciplinary Clinical Research Training Program, and ASPIRE

Program

Department of Otolaryngology, Washington University School of Medicine

**Ana Maria Arbelaez Perez, MD**

Associate Professor of Pediatrics

Co-Director, Predoctoral Interdisciplinary Clinical Research Training Program

Department of Pediatrics, Division of Endocrinology & Diabetes, Washington University School of Medicine

**Susan L. Stark, PhD, OTR/L**

Assistant Professor of Occupational Therapy and of Neurology

Co-Director, Predoctoral Interdisciplinary Clinical Research Training Program

Program in Occupational Therapy, Washington University School of Medicine

## **Course masters**

**Karen L. Dodson, MBA** (Scientific Writing, Grantsmanship)

Adjunct Instructor, Department of Medicine; Director of Faculty Development and Academic Publishing Services, Office of Faculty Affairs, Washington University School of Medicine

**Brian F. Gage, MD, MSc** (Designing Outcomes and Clinical Research)

Associate Professor of Medicine, Division of General Medical Sciences, Department of Medicine, Washington University School of Medicine

**Dorina Kallogjeri, MD, MPH** (Introduction to Statistics for Clinical Investigation, Intermediate Statistics for the Health Sciences)

Research Statistician, Department of Otolaryngology, Washington University School of Medicine

**Leslie McIntosh, MPH, PhD** (Medical Data and Information Management)

Research Assistant Professor of Pathology and Immunology, Division of Laboratory and Genomic Medicine, Department of Pathology and Immunology, Washington

University in St. Louis

**Jay F. Piccirillo, MD** (Scientific Writing, Grantsmanship)

Professor of Otolaryngology

Director, Predoctoral Interdisciplinary Clinical Research Training Program and ASPIRE Program

Department of Otolaryngology, Washington University School of Medicine

**Rachel M. Presti, MD, PhD** (Bench Fundamentals of Translational Research)

Assistant Professor of Medicine, Division of Infectious Diseases, Department of Medicine, Washington University School of Medicine

**Stephanie Solomon, PhD** (Ethical and Legal Issues in Clinical Research)

Assistant Professor of Health Care Ethics

Albert Gnaegi Center for Healthcare Ethics

Saint Louis University

## **Instructors and guest lecturers**

**Thomas C. Bailey, MD**

Professor of Medicine, Division of Infectious Diseases, Department of Medicine, Washington University School of Medicine

**Laura J. Bierut, MD**

Professor of Psychiatry, Department of Psychiatry, Washington University School of Medicine

**Graham A. Colditz, MD, DrPH**

Niess-Gain Professor in the School of Medicine

Chief, Division of Public Health Sciences, Department of Surgery, Washington University School of Medicine

Associate Director, Prevention and Control, Siteman Cancer Center

Adjunct Professor, Community Health, Division of Epidemiology, Saint Louis University

School of Public Health

**Bettina F. Drake, PhD, MPH**

Assistant Professor of Surgery, Division of Public Health Sciences, Department of Surgery, Washington University School of Medicine

**Rebecca Dresser, JD**

Daniel Noyes Kirby Professor of Law and Professor of Ethics in Medicine, Washington University School of Law

**Jim Dubois, PhD, DSc**

Hubert Mader Endowed Chair and Director, Bander Center for Medical Business Ethics, Social Science Research Group and Center for Research Ethics and Integrity, Albert Gnaegi Center for Health Care Ethics, Saint Louis University

**Bradley A. Evanoff, MD, MPH**

Richard A. and Elizabeth Henby Sutter Professor of Occupational, Industrial and Environmental Medicine

Director, Institute of Clinical and Translational Sciences

Division of General Medical Sciences, Department of Medicine, Washington University School of Medicine

**Jane M. Garbutt, MB, ChB**

Associate Professor of Medicine and of Pediatrics

Medical Director of Washington University Pediatric and Adolescent Ambulatory Research Consortium (WU PAARC)

Director, Postdoctoral Program

Division of General Medical Sciences, Department of Medicine, Washington University School of Medicine

**Bijoy George**

Biomedical Informatics Program Manager, Department of Laboratory and Genomic Medicine, Washington University School of Medicine



**Jonathan M. Green, MD**

Associate Dean for Human Studies and Executive Chair of the Institutional Review Board (IRB), Washington University School of Medicine

**Snehil Gupta**

Bioinformaticist, Division of Laboratory and Genomic Medicine, Department of Pathology and Immunology, Washington University School of Medicine

**Christine M. Hoehner, PhD**

Assistant Professor, Department of Surgery, Washington University School of Medicine  
Dorina Kallogjeri, MD, MPH  
Research Statistician, Department of Otolaryngology, Washington University School of Medicine

**Marin H. Kollef, MD**

Golman Professor of Medicine, Division of Pulmonary and Critical Care Medicine, Department of Medicine, Washington University School of Medicine; Director, Medical Intensive Care Unit and Director, Respiratory Care Services, Barnes-Jewish Hospital

**Laura B. Langton, PhD**

Research Development Manager, Office of the Vice Chancellor for Research, Washington University School of Medicine

**Judith E. Lieu, MD**

Assistant Professor, Department of Otolaryngology, Washington University School of Medicine

**Mark J. Manary, MD**

Professor of Pediatrics, Division of Emergency Medicine, Department of Pediatrics, Washington University School of Medicine

**Timothy McBride, PhD**

Professor and Associate Dean for Public Health, George Warren Brown School of Social

Work, Washington University

**Jay R. McDonald, MD**

Assistant Professor of Medicine, Division of Infectious Diseases, Department of Medicine, Washington University School of Medicine

**Leslie D. McIntosh, PhD**

Research Instructor, Department of Pathology and Immunology, Washington University School of Medicine

**J. Phillip Miller**

Professor of Biostatistics, Division of Biostatistics, Washington University School of Medicine

**David A. Mulvihill**

Project Manager IS, Division of Laboratory and Genomic Medicine, Department of Pathology and Immunology, Washington University School of Medicine

**Peter Nagele, MD**

Assistant Professor of Anesthesiology, Department of Anesthesiology, Division of Clinical Research, Washington University School of Medicine

**Anthony O. Odibo, MD, MSCE**

Associate Professor of Obstetrics and Gynecology, Division of Maternal-Fetal Medicine and Ultrasound, Department of Obstetrics and Gynecology, Washington University School of Medicine

**Chijioke G. Ogbuka, MDiv, MA**

Pre-doctoral Fellow, Center for Clinical Research Ethics, Albert Gnaegi Center for Health Care Ethics, Saint Louis University

**Margaret A. Olsen, PhD, MPH**

Research Associate Professor of Medicine, Division of Infectious Diseases, Department

of Medicine, Washington University School of Medicine

**Diana L. Owyong**

Research Administrator, Department of Cell Biology and Physiology, Washington University School of Medicine

**Jay F. Piccirillo, MD**

Professor, Department of Otolaryngology

Director, Clinical Outcomes Research Office

Director, Predoctoral Interdisciplinary Clinical Research Training Program, Doris Duke Clinical Research Fellowship and ASPIRE program

Department of Otolaryngology, Washington University School of Medicine

**Fred W. Prior, PhD**

Lab Director, Electronic Radiology Lab

Research Associate Professor, Department of Radiology, Washington University School of Medicine

**Michael A. Province, PhD**

Professor of Genetics and Director, Division of Statistical Genetics, Department of Genetics, Washington University School of Medicine

**Erica K. Salter, PhD**

Instructor, Albert Gnaegi Center for Health Care Ethics, Saint Louis University

**Cathy C. Sarli**

Librarian, Washington University School of Medicine

**Stephanie Solomon, PhD**

Assistant Professor of Health Care Ethics, Albert Gnaegi Center for Health Care Ethics, Saint Louis University

**Kathryn M. Trinkaus**

Research Statistician, Department of Biostatistics, Washington University School of Medicine

**Mark A. Watson, MD, PhD**

Associate Professor of Pathology and Immunology, Division of Laboratory and Genomic Medicine, Department of Pathology and Immunology, Washington University School of Medicine

**Roger D. Yusen, MD, MPH**

Associate Professor of Medicine, Division of Pulmonary and Critical Care Medicine, Division of General Medical Sciences, Department of Medicine, Washington University School of Medicine

## More information

Please visit our website at <http://crtc.wustl.edu>, email [crtc@dom.wustl.edu](mailto:crtc@dom.wustl.edu), or write to:

Washington University in St. Louis School of Medicine  
Master of Science in Clinical Investigation Program  
Campus Box 8051  
660 S. Euclid Ave.  
St. Louis, MO 63110

# Doctor of Philosophy

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The Division of Biology and Biomedical Sciences (DBBS) at Washington University in St. Louis offers exceptional doctoral training at one of the nation's preeminent biomedical

research centers. The DBBS is organized into twelve academic programs, each representing a different scientific area.

Prospective students apply to the Division rather than to an individual program. Students are admitted into a specific program but may change their Program affiliation as their interests develop. Faculty members from 30 plus departments across the university contribute to the admission, teaching and research training of the Division's students. Each Program has its own steering committee to provide students with personal attention, guiding them and addressing their needs during the first years of training. Steering committee members are conversant with the broad range of opportunities available to the student pursuing a graduate degree at Washington University, and they work for a precise match of interest, aptitude, Program and course of study.

Each of the 12 Programs establishes its own requirements for earning the PhD degree, and progress toward the degree is monitored by the Program steering committee. The PhD degree is granted by Washington University's Graduate School of Arts and Sciences.

## Doctoral programs

- Biochemistry
- Computational and Molecular Biophysics
- Computational and Systems Biology
- Developmental, Regenerative and Stem Cell Biology
- Evolution, Ecology and Population Biology
- Human and Statistical Genetics
- Immunology
- Molecular Cell Biology
- Molecular Genetics and Genomics

- Molecular Microbiology and Microbial Pathogenesis
- Neurosciences
- Plant Biology

## For more information

For complete admissions details and program descriptions, visit the [DBBS website](#) or contact:

### Mailing address:

Division of Biology & Biomedical Science  
Washington University in St. Louis  
Campus Box 8226  
660 South Euclid Ave.  
St. Louis, MO 63110

### Physical location:

660 South Euclid Ave.  
Bernard Becker Medical Library, Fourth floor

### Main phone numbers:

Phone: (314) 747-0840  
Toll Free: (800) 852-9074  
Fax: (314) 362-3369

# Masters in Genetic Epidemiology (GEMS) for Post Doctoral Students

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The Division of Biostatistics now offers an option for those who have completed a doctoral degree (PhD, MD, or equivalent) to pursue a Post-Doctoral Master of Science in Genetic Epidemiology (GEMS) degree. The Division of Biostatistics includes world-renowned scientific leaders in their respective areas. D.C. Rao, PhD, Director of the Division of Biostatistics and the Program Director, is one of the founding fathers of the field. The 31-credit-hour program can be pursued either full time or part time but must be completed in within three years. See <https://biostatistics.wustl.edu/training/> for details about the GEMS and other programs.

The GEMS program for Post-Doctoral students has eight required courses, listed below, as well as two electives:

M21 503 STATISTICAL COMPUTING WITH SAS

M21 506 R PRIMER

M21 515 FUNDAMENTALS OF GENETIC EPIDEMIOLOGY

M21 550 INTRODUCTION TO BIOINFORMATICS

M21 5483 HUMAN LINKAGE AND ASSOCIATE ANALYSIS

M21 560 BIOSTATISTICS I

M21 512 ETHICS FOR BIOSTATISTICS

M21 610 MENTORED RESEARCH

## Prospective students

Anyone interested in pursuing the Post-Doctoral GEMS degree should contact the Program Manager at [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) in the Division of Biostatistics for information regarding the application process.

## Location

The Program is currently located in the Division of Biostatistics, on the third floor of Shriners Building (706 S. Euclid Ave. at Clayton Road), Rooms 3301-3312. At the end of January 2017, the Division of Biostatistics, including the Program, will be moving to the Bernard Becker Library 5<sup>th</sup> floor (660 S. Euclid Ave.).

## More information

See our website,

<http://biostatistics.wustl.edu/training/msibs/prospectivestudents/GEMS>, contact the Program Manager at (314) 362-1384, send email to [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or write to:

GEMS Post-Doctoral Program Division of Biostatistics

Campus Box 8067

660 S. Euclid Ave.

St. Louis, MO 63110-1093

Telephone: (314) 362-1384

Fax: (314) 362-2693

## Certificate in Genetic Epidemiology

The Certificate in Genetic Epidemiology training program provides a multidisciplinary educational opportunity for people who want to work at the dynamic nexus of genetics and medicine. There are growing needs for scientists with this training both in academia and industry. With the wealth of data from the Human Genome Project and the availability of powerful new computational approaches, abundant opportunities are now available to explore and characterize the interplay between genes and the environment that affect the biological processes that underlie disease.

The GEMS Certificate program is sponsored by the Division of Biostatistics and includes world-renowned scientific leaders in their respective areas. D.C. Rao, PhD, director of the Division of Biostatistics and the Program Director, is one of the founding fathers of the field. The 19-credit-hour program is designed to prepare students to work at the interface of genetics, biostatistics, epidemiology and computing. See <https://biostatistics.wustl.edu/training/msibs/pages> for details.

The Certificate in Genetic Epidemiology is earned after successful completion (with a minimum of a "B" average) of six core courses plus labs (19 credit hours) that are normally offered to master's candidates in Biostatistics. To earn the certificate, these



courses may be taken over one or two consecutive years:

- M21 503 STATISTICAL COMPUTING WITH SAS (summer)
- M21 506 R PRIMER (summer)
- M21 515 FUNDAMENTALS OF GENETIC EPIDEMIOLOGY (summer)
- M21 550 INTRODUCTION TO BIOINFORMATICS (summer)
- M21 560 BIOSTATISTICS I (fall)
- M21 570 BIOSTATISTICS II (fall)
- M21 5483 HUMAN LINKAGE AND ASSOCIATION (fall)

## **Prospective students**

Since genetic epidemiology is a multidisciplinary field, we expect applicants to come from a variety of backgrounds, but primarily those who have earned a terminal degree such as physician scientists and other clinical investigators, particularly postdoctoral fellows and people with terminal degrees in other (related) disciplines who seek to gain expertise in genetic epidemiology. All prospective students must provide evidence of basic skills in computer programming through course work, documented experience or by passing a proficiency exam. Promising candidates who do not meet all the prerequisites will work with the Program Director to take the appropriate courses or training to rectify weaknesses.

## **Location**

The Program is currently located in the Division of Biostatistics, on the third floor of Shriners Building (706 S. Euclid Ave. at Clayton Road), Rooms 3301-3312. At the end of January 2017, the Division of Biostatistics, including the Program, will be moving to the Bernard Becker Library 5<sup>th</sup> floor (660 S. Euclid Ave.).

## **Registration instructions**

All students will register with the Program Manager at [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu). Before registering, current Washington University students must obtain appropriate

consent from their division or department. Students outside of the program wishing to enroll in individual courses must contact the Program Manager.

## Academic calendar

The Certificate program begins approximately July 1 each year with preparatory workshops, followed by intensive summer semester courses. For the fall courses, the certificate program follows the calendar of the College of Arts & Sciences.

## Further information

For complete admissions details and program descriptions, please visit our website, <https://biostatistics.wustl.edu/training/msibs>, contact the Program Manager at (314) 362-1384, send email [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or write to:

MSIBS Program

Division of Biostatistics

Campus Box 8067

660 S. Euclid Ave.

St. Louis, MO 63110-1093

Telephone: (314) 362-1384

Fax: (314) 362-2693

# Genetic Epidemiology Courses

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M21 503 STATISTICAL COMPUTING WITH SAS® (Required for both Certificate and GEMS)

Department: Division of Biostatistics

Course master: Karen Schwander

Credit hours: 2 units

Frequency: Every summer

Intensive hands-on summer training in SAS® during nine full weekdays. Students will learn how to use the SAS® system for handling, managing and analyzing data.

Instruction is provided in the use of the SAS® programming language, procedures, macros and SAS® SQL. The course will include exercises using existing programs written by SAS® experts. Instruction manual and computer lab will be provided. This course meets the prerequisite for M21 560 Biostatistics I offered in fall. The registration/grade option of "Audit" is not available.

Participants are required to participate in the Computing/Unix Workshop offered free of charge immediately prior to this course in early July.

For details, to register and to obtain the required permission of the course master, contact the MSIBS Program Manager at [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

## M21 506 R PRIMER

Department: Division of Biostatistics

Course master: Yun Ju Sung

Credit hours: 2 units

Frequency: Every summer

This is an introduction to the R Statistical Environment. R is "a freely available language and environment for statistical computing and graphics which provides a wide variety of statistical and graphical techniques: linear and nonlinear modeling, statistical tests, time series analysis, classification, clustering, etc. The goal is to give students a set of tools to perform statistical analysis in medicine, biology, or epidemiology. At the conclusion of this primer, students will: be able to manipulate and analyze data, write basic models, understand the R environment for using packages, and create standard or customized graphics. This primer assumes some knowledge of basic statistics as taught in a first semester undergraduate or graduate sequence. Topics should include: probability, cross-tabulation, basic statistical summaries, and linear regression in

either scalar or matrix form.

## M21 515 FUNDAMENTALS OF GENETIC EPIDEMIOLOGY (Required for both Certificate and GEMS)

Department: Division of Biostatistics

Course masters: Treva Rice and Yun Ju Sung

Credit hours: 3 units

Frequency: Every summer

Intensive two-week summer course. Lectures cover causes of phenotypic variation, familial resemblance and heritability, Hardy-Weinberg Equilibrium, ascertainment, study designs and basic concepts in genetic segregation, linkage and association. The computer laboratory portion is designed as hands-on practice of fundamental concepts. Students will gain practical experience with various genetics computer programs (e.g., SOLAR, MERLIN, QTDT and PLINK). Auditors will not have access to the computer lab sessions.

Participants are strongly encouraged to participate in the computing/UNIX Workshop offered free of charge prior to this course in early July. For details, to register and to obtain the required permission of the course master, contact the MSIBS Program Manager at [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

## M21 550 INTRODUCTION TO BIOINFORMATICS (Required for both Certificate and GEMS)

Department: Division of Biostatistics

Course master: C. Charles Gu, Co-Coursemaster: Jingqin (Rosy) Luo

Credit hours: 3 units

Frequency: Every summer

Intensive two-week summer course designed to provide broad exposure to the basic concepts, methodology and application of bioinformatics to solve biomedical problems. Specifically, students will learn the basics of online genomic databases and database mining tools and will acquire understanding of mathematical algorithms in genome sequence analysis (alignment analysis, gene finding/predicting), gene expression microarray (genechip) analysis, and the impact of recent developments

such as protein microarrays or whole-genome DNA chips for genome-wide association studies. Students will also take computer labs and learn basics of bioinformatics tools and databases (BLAST/WUBLAST, Prospector, etc.), practice basics of R/Bioconductor programming, and apply specialized R packages to solve bioinformatics problems pertinent to real medical research of human diseases. Auditors will not have access to the computer lab sessions.

Participants are strongly encouraged to participate in the computing/UNIX Workshop offered free of charge prior to this course in early July. Prerequisite: M21 506, R Primer.

For details, to register and to obtain the required permission of the course master, contact the MSIBS Program Manager at [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

M21 5483 HUMAN LINKAGE AND ASSOCIATION ANALYSIS (Required for both Certificate and GEMS)

Department: Department of Genetics

Course master: John Rice

Credit hours: 3 units

Frequency: Every fall

Basic genetic concepts: meiosis, inheritance, Hardy-Weinberg Equilibrium, linkage, segregation analysis; linkage analysis: definition, crossing over, map functions, phase, LOD scores, penetrance, phenocopies, liability classes, multipoint analysis, non-parametric analysis (sibpairs and pedigrees), quantitative trait analysis, determination of power for Mendelian and complex trait analysis; linkage disequilibrium analyses: allelic association (case control designs and family based studies), QQ and Manhattan plots, whole-genome association analysis; population stratification; quantitative trait analysis; measured genotypes and variance components. Hands-on computer lab experience doing parametric linkage analysis with the program LINKAGE, model-free linkage analyses with Genehunter and Merlin, power computations with SLINK, quantitative trait analyses with SOLAR, LD computations with Haploview and WGAVIEWER, and family-based and case-control association analyses with PLINK and SAS. The methods and exercises are coordinated with the lectures, and students are

expected to understand underlying assumptions and limitations and the basic calculations performed by these computer programs. Auditors will not have access to the computer lab sessions. Prerequisite: M21 515 Fundamentals of Genetic Epidemiology. Cross-listed as L41 5483.

For details, to register and to obtain the required permission of the course master, contact the MSIBS Program Manager at [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

#### M21 560 BIOSTATISTICS I (Required for both Certificate and GEMS)

Department: Division of Biostatistics

Course masters: Kenneth Schechtman and Kathryn Trinkaus

Frequency: Every fall (ending mid-October)

This course is designed for students who want to develop a working knowledge of basic methods in biostatistics. The course is focused on biostatistical and epidemiological concepts and on practical hints and hands-on approaches to data analysis rather than on details of the theoretical methods. We will cover basic concepts in hypothesis testing, will introduce students to several of the most widely used probability distributions, and will discuss classical statistical methods that include t-tests, chi-square tests, regression analysis and analysis of variance. Both in-class examples and homework assignments will involve extensive use of SAS. Prerequisite: M21 503, Statistical Computing with SAS®, or student must have good practical experience with SAS®.

For details, to register and/or to obtain the required permission of the course master, contact the Program Manager at [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

#### M21 570 BIOSTATISTICS II (Required for Certificate)

Department: Division of Biostatistics

Course masters: Kenneth Schechtman and Kathryn Trinkaus

Credit hours: 3 units

Frequency: Every fall (from mid-October to mid-December)

This course is designed for students who have taken Biostatistics I or the equivalent and who want to extend their knowledge of biostatistical applications to more modern

and more advanced methods. Biostatistical methods to be discussed include logistic and Poisson regression, survival analysis, Cox regression analysis and several methods for analyzing longitudinal data. Students will be introduced to modern topics that include statistical genetics and bioinformatics. The course will also discuss clinical trial design, the practicalities of sample size and power computation and meta analysis, and will ask students to read journal articles with a view towards encouraging a critical reading of the medical literature. Both in-class examples and homework assignments will involve extensive use of SAS. Prerequisite: M21 560, Biostatistics I or its equivalent as judged by the course masters.

For details, to register, and/or to obtain the required permission of the course master, contact the Program Manager at [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

## M21 512 ETHICS FOR BIOSTATISTICS

Department: Division of Biostatistics

Course master: Alison Antes

Credit hours: 3 units

Frequency: Every spring

This course prepares biostatisticians to analyze and address ethical and professional issues in the practice of biostatistics across the range of professional roles and responsibilities of a biostatistician. The primary goals are for biostatisticians to recognize complex situational dynamics and ethical issues in their work and to develop professional and ethical problem-solving skills. The course specifically examines ethical challenges related to research design, data collection, data management, ownership, security, and sharing, data analysis and interpretation, and data reporting and provides practical guidance on these issues. The course also examines fundamentals of the broader research environment in which biostatisticians work, including principles of ethics in human subjects and animal research, regulatory and compliance issues in biomedical research, publication and authorship, and collaboration in science. By the conclusion of the course, participants will understand the ethical and regulatory context of biomedical research; identify ethical issues, including situational dynamics that serve to foster or hinder research integrity, in the

design and conduct of research and the management, analysis, and reporting of data; and utilize strategies that facilitate ethical problem-solving and professionalism.

For details, to register, and/or to obtain the required permission of the course master, contact the MSIBS Program Manager: [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

M21 600 MENTORED RESEARCH (Required for GEMS)

Department: Division of Biostatistics

Course masters: DC Rao and Chengjie Xiong

Credit hours: 6 units

Frequency: Every spring, summer and fall

Student undertakes supervised research in a mentor's lab. The goal is to acquire important research skills as well as good writing and presentation skills. The student finds a mentor who is willing to work with him/her and they together identify a research topic. A written thesis based on the research, prepared in the format of an actual scientific publication, must be submitted and presented to a select audience. The course masters will organize a few meetings throughout to facilitate the whole process. The course masters will determine the grade (pass/fail) in consultation with the mentors. Permission of the Course Masters is required. For details, to register and/or to obtain the required permission of the course master, contact the Program Manager at [biostat-msibs@email.wustl.edu](mailto:biostat-msibs@email.wustl.edu) or (314) 362-1384.

## Genetic Epidemiology Faculty

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**Jeffrey D Milbrandt, PHD, MD** James S McDonnell Professor of Genetics (primary appointment)  
Professor of Medicine  
Professor of Neurology  
Professor of Pathology and Immunology  
Head of the Department of Genetics



PHD University of Virginia 1983

MD Washington Univ in St. Louis 1978

BS Univ of Nebraska at Kearney 1974

Haley J Abell **Instructor in Genetics**

Ping An **Assistant Professor of Genetics** (primary appointment)

**Lucinda L. Antonacci-Fulton, MS** **Academic Rank held in Genetics** (primary appointment)

**Instructor in Genetics**

MS Southern Ill Univ Edwardsville 1992

BS Southern Ill Univ Edwardsville 1991

**Ruteja A. Barve, MS, PHD** **Instructor in Genetics** (primary appointment)

MS Washington Univ in St. Louis 2008

PHD Washington Univ in St. Louis 2014

BS University of Pune 1995

**John Rutledge Bermingham Jr, PHD** **Associate Professor of Genetics** (primary appointment)

BS Yale University 2016

PHD University of Colorado Boulder 2016

**Ingrid B Borecki, PHD, MS** **Adjunct Professor of Genetics** (primary appointment)

PHD University of Hawaii 1981

MS University of Hawaii 1980

BS University of Illinois 1977

**Paul F Cliften, MS, PHD** **Associate Professor of Genetics** (primary appointment)

MS Utah St University 1995

BS Utah St University 1992

PHD University of California 1999

**C. Robert Cloninger, MD** **Wallace Renard Professor of Psychiatry** (primary appointment)

**Professor of Psychiatry**

**Professor of Psychological & Brain Sciences**

**Professor of Genetics**

BA University of Texas Austin 1966

MD Washington Univ in St. Louis 1983

**Barak Alon Cohen** **Professor of Genetics** (primary appointment)

**Alvin Goldfarb** **Distinguished Professor of Computational Biology**

BS Cornell University 1992

Donald Franklin Conrad **Assistant Professor of Genetics** (primary appointment)

**Assistant Professor of Pathology and Immunology**

**Joseph C. Corbo, MD, PHD, AB** **Associate Professor of Pathology and Immunology** (primary appointment)

**Associate Professor of Genetics**

**Associate Professor of Ophthalmology and Visual Sciences**

MD University of California 1999

PHD University of California 1997

BS Stanford University 1990

AB Stanford University 1990

**Catherine E Cottrell, PHD** **Assistant Professor of Pathology and Immunology** (primary appointment)

**Assistant Professor of Genetics**

BS Ohio State University 2001

PHD Ohio State University 2007

**James P Crane, MD** Associate Vice Chancellor for Clinical Affairs (primary appointment)

Chief Executive Officer-Faculty Practice Plan

Professor of Obstetrics and Gynecology

Professor of Radiology

Associate Professor of Genetics

MD Indiana University Bloomington 1970

BS Indiana University Bloomington 1966

**Sharon Cresci, MD** Assistant Professor of Medicine (primary appointment)

Assistant Professor of Genetics

MD New York University 1986

BS State Univ of NY Binghamton 1982

**Seth Daniel Crosby, MD** Assistant Professor of Genetics (primary appointment)

MD University Texas San Antonio 1989

BS University of California 1984

**Li Ding, PHD** Associate Professor of Medicine (primary appointment)

Associate Professor of Genetics

PHD University of Utah 1998

**Joseph D Dougherty, PHD** Assistant Professor of Genetics (primary appointment)

Assistant Professor of Psychiatry

BS Truman State University 1999

PHD University of California 2005

**Todd Druley, MD, PHD** Assistant Professor of Pediatrics (primary appointment)

Assistant Professor of Genetics

Assistant Professor of Developmental Biology

MD University of Illinois Chicago 2002

BS University of Illinois 1994

PHD University of Illinois Chicago 2002

**Susan K. Dutcher, PHD** Professor of Genetics (primary appointment)

Professor of Cell Biology and Physiology

Interim Director of the McDonnell Genome Institute

PHD University of Washington 1980

BA Colorado College 1974

**Justin C. Fay, PHD** Associate Professor of Genetics (primary appointment)

PHD University of Chicago 2001

Mary F Feitosa Associate Professor of Genetics (primary appointment)

Robert S. Fulton Academic Rank held in Genetics (primary appointment)

Instructor in Genetics

**Narasimhan Gautam, MS, PHD** Professor of Anesthesiology (primary appointment)

Professor of Genetics

MS School Not Listed 1979

BS School Not Listed 1977

PHD University of Bombay 1985

**Matthew I Goldsmith, MD, MS** Associate Professor of Pediatrics (primary appointment)

Assistant Professor of Genetics

BS University of Toronto 1987

MD University of Toronto 1995

MS University of Toronto 1990

**Malachi Griffith, PHD** Academic Rank held in Genetics (primary appointment)

**Assistant Professor of Genetics**

PHD University of British Columbia 2010

BS University of Winnipeg 2002

BS1 University of Winnipeg 2002

**Obi Lee Griffith, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Genetics**

PHD British Columbia Open Univ 2008

**Chi Gu, PHD** Associate Professor of Biostatistics (primary appointment)

**Associate Professor of Genetics**

BS Nanjing Medical University 1982

PHD Washington Univ in St. Louis 1992

David H Gutmann **Donald O. Schnuck Family Professor of Neurology** (primary appointment)

**Professor of Genetics**

**Professor of Neurological Surgery**

**Professor of Pediatrics**

**Ira McCarthy Hall, PHD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Genetics**

**Associate Director of the Genome Center**

BS University of CA Berkeley 1998

PHD Cold Spring Harbor Laboratory 2003

Richard D Head **Associate Professor of Genetics** (primary appointment)

**Associate Professor of Pathology and Immunology**

**Andrew C Heath, PHD** Spencer T. Olin Professor of Psychology in Psychiatry (primary appointment)

**Associate Professor of Psychological & Brain Sciences**

**Professor of Genetics**

PHD Oxford University 1983

Patrick Y Jay **Associate Professor of Pediatrics** (primary appointment)

**Associate Professor of Genetics**

**Stephen L Johnson** Professor of Genetics (primary appointment)

BA Vanderbilt University 1983

**Sungsu Kim** Instructor in Genetics (primary appointment)

BS Korea University 2000

Aldi T Kraja **Associate Professor of Genetics** (primary appointment)

**David Ernfrid Larson, PHD** Academic Rank held in Genetics (primary appointment)

**Instructor in Genetics**

BS Indiana State University 2003

PHD Washington Univ in St. Louis 2007

**Heather A Lawson, PHD, MA** Assistant Professor of Genetics (primary appointment)

BA Univ of Wisconsin Milwaukee 2002

PHD Pennsylvania State University 2008

MA Pennsylvania State University 2004

**Timothy J Ley** Lewis T and Rosalind B Apple Professor of Medicine (primary appointment)

**Professor of Genetics**

BA Drake University 1974

**Huawen Lin** Instructor in Genetics (primary appointment)

BS School Not Listed 1998

**Jeffrey A Magee, PHD, MD** Assistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Genetics**

PHD Washington Univ in St. Louis 2005

MD Washington Univ in St. Louis 2005

**Xianrong Mao, MS**Instructor in Genetics (primary appointment)

MS Chinese Academy of Sciences 1996

**Elaine Rene Mardis, PHD**Adjunct Professor of Genetics (primary appointment)

BS University of Oklahoma 1984

PHD University of Oklahoma 1989

**James P Mc Carter, MD, PHD**Adjunct Professor of Genetics (primary appointment)

MD Washington Univ in St. Louis 1998

BA Princeton University 1989

PHD Washington Univ in St. Louis 1998

**Shondra Michelle Miller, PHD**Assistant Professor of Genetics (primary appointment)

PHD University of Texas Southwest 2008

BA University of Arkansas 2003

**Robi D. Mitra, PHD**Associate Professor of Genetics (primary appointment)

**Alvin Goldfarb** Distinguished Professor of Computational Biology

PHD Mass Inst of Technology (MIT) 2000

**Makedonka Mitreva, PHD, MS**Associate Professor of Medicine (primary appointment)

**Associate Professor of Genetics**

PHD Wageningen University 2001

MS University of Skopje - Macedon 1994

**Samantha A Morris, PHD**Assistant Professor of Developmental Biology (primary appointment)

**Assistant Professor of Genetics**

BS1 University of London 2002

PHD Cambridge University 2007

**Peter Nagele**Associate Professor of Anesthesiology (primary appointment)

**Associate Professor of Genetics**

**Zachary Scott Pincus**Assistant Professor of Genetics (primary appointment)

**Assistant Professor of Developmental Biology**

**Michael A Province, MA**Professor of Genetics (primary appointment)

**Professor of Biostatistics**

BA University of Dallas 1973

MA Washington Univ in St. Louis 1979

**Dabeeru C Rao, PHD, MS**Professor of Biostatistics (primary appointment)

**Professor of Biostatistics in Genetics**

**Director of the Division of Biostatistics**

**Tenure Held At-Large in the Medical School**

**Professor of Biostatistics in Psychiatry**

**Professor of Mathematics**

BS Indian Statistical Institute 1967

PHD Indian Statistical Institute 1971

MS Indian Statistical Institute 1968

**John P Rice, MA, PHD**Professor of Mathematics in Psychiatry (primary appointment)

**Professor of Biostatistics**

**Professor of Genetics**

BA Cornell University 1969

MA Washington Univ in St. Louis 1972

PHD Washington Univ in St. Louis 1975

**Elisha D.O. Roberson, PHD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Genetics**

BS Western Kentucky University 2004

PHD Johns Hopkins University 2009

**Nancy L. Saccone, PHD, MS**Associate Professor of Genetics (primary appointment)

**Associate Professor of Biostatistics**

PHD Brown University 1993

MS Brown University 1990

**Lawrence B Salkoff, PHD**Professor of Neuroscience (primary appointment)

**Professor of Genetics**

BA University of CA Los Angeles 1967

PHD University of CA Berkeley 1979

**Mark Steven Sands, PHD**Professor of Medicine (primary appointment)

**Professor of Genetics**

PHD State Univ of NY Stonybrook 1990

BS Rochester Institute of Techno 1980

**Yo Sasaki, PHD, MS**Assistant Professor of Genetics (primary appointment)

BS Tokyo U of Agric & Technology 1991

PHD Gunma University, Med School 1997

MS Tokyo U of Agric & Technology 1994

**Tim B Schedl, PHD**Professor of Genetics (primary appointment)

PHD Univ of Wisconsin Madison 1984

BA Lawrence University 1977

**Karen Seibert, MA**Professor of Anesthesiology (primary appointment)

**Professor of Pathology and Immunology**

**Professor of Genetics**

BS Northwestern University 1981

MA University of Toledo 1983

Cherilynn Maria Reynolds ShaddingAcademic Rank held in Genetics (primary appointment)

**Assistant Professor of Genetics**

**Alan Shiels, PHD**Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Genetics**

PHD University of London 1983

BS School Not Listed 1979

**James B Skeath, PHD**Professor of Genetics (primary appointment)

BA Haverford College 1988

PHD Univ of Wisconsin Madison 1993

**Nathan O. Stitzel**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Genetics**

BA1 Washington Univ in St. Louis 1998

**Gary D Stormo, PHD, MA**Professor of Genetics (primary appointment)

**Joseph Erlanger Professor**

**Professor of Computer Science**

**Professor of Biomedical Engineering**

PHD University of Colorado Boulder 1981

BS California Institute Technolo 1972

MA University of Colorado Boulder 1975

Matthew John Walter **Associate Professor of Medicine** (primary appointment)

**Associate Professor of Genetics**

**Ting Wang, PHD, MS** **Associate Professor of Genetics** (primary appointment)

**Associate Professor of Computer Science and Engineering**

**Associate Professor of Biostatistics**

BS School Not Listed 1997

PHD Washington Univ in St. Louis 2006

MS Washington Univ in St. Louis 2001

**Wesley Charles Warren, MS, PHD** **Academic Rank held in Genetics** (primary appointment)

**Associate Professor of Genetics**

MS Clemson University 1986

BS Oklahoma St University 1984

PHD University of Missouri 1990

Michael C Wendl **Academic Rank held in Genetics** (primary appointment)

**Assistant Professor of Genetics**

**Assistant Professor of Genetics**

**Assistant Professor of Mechanical Engineering & Materials Science**

**Assistant Professor of Mathematics**

**Assistant Professor of Genetics**

**Michael Aaron White, PHD, MS** **Assistant Professor of Genetics** (primary appointment)

BA Brigham Young University 2000

PHD University of Rochester 2006

MS University of Rochester 2004

**Michael Peter Whyte, MD** **Professor of Medicine** (primary appointment)

**Professor of Pediatrics**

**Professor of Genetics**

MD State University of New York 1972

BA New York University 1968

**Richard K Wilson, PHD** **Adjunct Professor of Genetics** (primary appointment)

BA Miami University 1981

PHD University of Oklahoma 1986

Mary Kaye Wojczynski **Assistant Professor of Genetics** (primary appointment)

**Hiroko Yano, PHD, MS** **Assistant Professor of Neurological Surgery** (primary appointment)

**Assistant Professor of Genetics**

**Assistant Professor of Neurology**

PHD University of Tokyo 1996

MS University of Tokyo 1993

BS Science University of Tokyo 1991

**Jinsheng Yu** **Instructor in Genetics** (primary appointment)

BS Tongji University 1984

No entries found

# Occupational Therapy

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The Program in Occupational Therapy prepares students for professional practice and through its research generates knowledge to address the issues facing individuals with disabilities, chronic diseases and developmental disabilities. Students are prepared as generalists but, in addition, can concentrate their studies for work in pediatrics, aging, rehabilitation, work and industry or social participation. The curriculum focuses on the dynamic interaction of the biological and psychological, environmental and occupational factors that enable persons to fulfill roles, and lead meaningful and productive lives. Students interact with leading physicians and scientists whose practice and science is contributing to better methods of treatment of persons with disabilities. In addition, students are linked with community agencies and leaders that are providing services to individuals with disabling conditions.

Undergraduate students in pre-medical, psychology, biology or anthropology will find that the program offers a means of applying their knowledge in a professional field. Applicants must hold a bachelor's degree or be a participant in an approved three-two program and have completed prerequisite courses from an accredited college or university. The Program in Occupational Therapy is accredited by the Accreditation Council for Occupational Therapy Education of the American Occupational Therapy Association. Graduates of the program will be eligible to sit for the national certification examination administered by the NBCOT. (Note: A felony conviction may affect a graduate's ability to sit for NBCOT certification examination or attain state licensure.)

## **Master of science in occupational therapy degree program**

The professional Master of Science in Occupational Therapy degree requires courses that develop the knowledge and skills necessary to practice occupational therapy. Each candidate for a Master of Science in Occupational Therapy degree must complete a minimum of 70 hours of course work, usually accomplished in five semesters of study

(two academic years and the intervening summer.) Six months of supervised clinical fieldwork (12 credits) is required to be completed within 12 months of completion of course work.

## **Doctor of occupational therapy degree program**

The Doctor of Occupational Therapy (OTD) is a degree providing students the opportunity to focus their occupational therapy studies in one of five areas of concentration: Productive Aging, Social Participation and the Environment, Rehabilitation, Work and Industry, and Pediatrics. The OTD requires seven semesters of study and three clinical placements for students entering professional practice. Postprofessional students enrolled in the OTD have varying program lengths based on prior degree and experience.

## **Fees**

Tuition and fieldwork fees (MSOT, full time) per semester: \$15,225 for first five semesters, \$7,612 per semester for last two semesters while on fieldwork.

Tuition and fieldwork fees (OTD, full-time): \$15,225 per semester first five semesters, \$15,721 per semester last two academic semesters, and \$7,612 for each semester student is on clinical fieldwork or apprenticeship.

Part-time tuition: \$1,225 per credit

## **More information**

Complete admissions information and a full description of degrees in Occupational Therapy are available from the office of the Program in Occupational Therapy:

Program in Occupational Therapy  
Washington University School of Medicine  
Campus Box 8505, 4444 Forest Park Ave.  
St. Louis, MO 63108-2212  
(314) 286-1600



(800) 279-3229

TDD: (314) 286-1651

[wuotinfo@wustl.edu](mailto:wuotinfo@wustl.edu)

Website: [ot.wustl.edu](http://ot.wustl.edu)

# Occupational Therapy Courses

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## OT 5023 THEORY AND FOUNDATIONS FOR OCCUPATIONAL THERAPY PRACTICE (3)

Students explore the knowledge, skills and attitudes of the professional occupational therapist through the study of occupation, participation and well-being, some of the core concepts of the profession. The course acquaints students with the profession's history, current health issues and emerging areas of practice. Students explore the relationship between occupation, development, culture and health at the person, organization and population levels. Students are introduced to the Occupational Therapy Practice Framework and the International Classification of Function. The theoretical foundation of practice is emphasized.

## OT 5225 FUNDAMENTALS OF HEALTH CARE AND PROFESSIONAL PRACTICE (3)

This course prepares students to manage the changing paradigms of practice that will be encountered over their career, with particular focus on bridging biomedical perspectives with narratives regarding organizational, community, and population health and well-being. Understanding the current continuum of care settings, professional team roles, and health policy sets the foundation for this course. Professional behavior and ethics will be introduced. Preparation of leadership skills and an entrepreneurial approach to practice will be introduced. Partnering with community agencies to meet the unmet needs of those we serve and to open up new potential markets will be explored.

### OT 5630 FUNDAMENTALS OF PROFESSIONAL COMMUNICATION (3)

The ability to communicate and work with individuals and groups are essential skills for an occupational therapist. Effective practitioners employ therapeutic use of self, activity analysis, behavioral management, and group leadership skills to effect change in those served. Concepts of self-management and basic tenets of learning theories will be explored and applied to various populations served. Occupational therapists must be able to meet the psychosocial needs of all clients across the continuum of care.

### OT 5452 FUNDAMENTALS OF EVIDENCE-BASED PRACTICE (3)

Through critical reading and analysis of professional scientific literature, students build a foundation for life-long learning and evidence-based clinical practice. Students will be introduced to measurement principles, learn qualitative and quantitative analysis, and apply concepts learned to designing single case studies for clients served. Evaluation is at the core of evidence based practice: Interactions with clients are dependent on the ability to measure therapeutic effect.

### OT 5315 TOOLBOX TO SUPPORT PROFESSIONAL PRACTICE (3)

This course serves as an introduction to the essential skills required of therapists in contemporary clinical practice. Students will be introduced to resources supporting professional practice and will learn and apply a variety of skills including transfers, documentation, goal-writing, common precautions, infection control, monitoring of vital signs, basic splinting techniques, chart reading, orientation to residential care environments, fundamentals of activity analysis, and searching relevant literature to facilitate evidence-based practice.

### OT 5120 CONTEMPORARY ISSUES IN OT PRACTICE I (1)

This first of a series of three seminar courses provides students with the opportunity to explore current, emerging, and future trends in OT practice. Students will utilize the most recent research and policy information to critically examine and discuss potential developments in OT practice, including new areas of practice such as habilitation and telemedicine, effects of legislation and novel technologies, and a focus on community and population health, participation, and well-being.

### OT 5782 NEUROSCIENCE PRINCIPLES OF PERFORMANCE I (3)

In this first of a two-course sequence, students learn how the brain and nervous system support the sensory, perceptual, cognitive, emotional, and physiological capacity of individuals as they perform activities of daily life. Emphasis is placed on sensory processing, motor processing, cognitive performance, learning and memory, and communication. Students will also learn about specific neurological conditions commonly encountered in clinical practice.

### OT 5762 BODY STRUCTURES SUPPORTING DAILY FUNCTION I (3)

Students engage in the study of the contribution of the structure, function, and development of body systems that support daily activity. This semester emphasizes anatomical systems and neuromusculoskeletal substrates for activity, joint integrity, strength and cardiopulmonary function.

### OT 5770 FUNDAMENTALS OF ASSESSMENT I (3)

The course runs concurrently with Body Structures Supporting Daily Function and Neuroscience Principles of Performance. In this first of a two-course sequence, students apply anatomical and kinesiological principles to occupational performance through assessment of anatomical structures and physiological health. Students learn how to identify sensory, cognitive, perceptual, and emotional performance capacities of individuals by focusing on neuroanatomical and neuro-physiological substrates of sensory, motor, arousal, cognitive, motivational and emotional systems. The students connect the neuroscience of the physiological, neurobehavioral, cognitive and psychological systems to the motor, process and communication performance skills and performance patterns that support occupational performance. Additionally, selected chronic diseases, disorders and conditions will be introduced. Etiology, pathology, clinical course, prognosis and medical management will inform the evaluation process as it impacts occupational performance. Students will build clinical reasoning for core OT practice skills including assessment of person, occupation and environment factors, activity analysis and activity gradation, observation, administering and interpreting assessments, building measurement models, and documenting the evaluation process. Evidence based practice is emphasized through

exploration of the scientific and medical literature. Students will apply measurement principles and skills in selection, administration and interpretation of assessments through case studies, laboratory and fieldwork or in-context experiences.

#### OT 5163 ENVIRONMENTAL FACTORS FACILITATING PERFORMANCE AND PARTICIPATION I (2)

In this first of a two-course sequence, students gain in-depth understanding of the psychological, social, political, physical, and cultural elements of the environment that influence occupational performance, participation, and health. Disability and chronic health conditions as consequences of environmental barriers and the relationship between the person and environments as both change across the life span will be discussed. Assessment and intervention strategies that promote health and maximize participation in daily activities will be examined in home, school, workplace, and other community settings. Students are provided with opportunities to practice and demonstrate skills acquired through community based experiences including a group community consultation project.

#### OT 5125 CONTEMPORARY ISSUES IN OT PRACTICE II (1)

This second of a series of three seminar courses provides students with the opportunity to explore current, emerging, and future trends in OT practice. Students will utilize the most recent research and policy information to critically examine and discuss potential developments in OT practice, including new areas of practice such as habilitation and telemedicine, effects of legislation and novel technologies, and a focus on community and population health, participation, and well-being.

#### OT 5610 FIELDWORK I (1)

This is the first course in a series that emphasizes the growth of the student as a professional. Students will build on the electronic professional portfolio developed in the fall semester and participate in self-directed learning experiences to enhance personal growth and professional competence. An intensive one week, 40 hour, supervised fieldwork experience in a clinical or community setting allows the student to practice the skills learned in the classroom.

OT 601 APPLIED CLINICAL RESEARCH I (3) is the first of a four course sequence offering the students opportunities to: 1) perform a systematic investigation, 2) develop a research project, and 3) perform testing and evaluation. The class is designed to develop or contribute to generalizable knowledge of occupational therapy or occupational performance. Activities that meet this definition include ongoing work in the laboratories of the faculty, controlled clinical trials, pilot studies to determine feasibility of future studies, demonstrations and community programs that may lead to new services or policy demonstrations. In the sequence, the student will work on his/her research project. The project will include collecting, processing, and analyzing data. The student will also begin to write about their work. Students may observe practitioners who work with the population related to their research projects.

OT 605 APPLIED CLINICAL PRACTICE I (3) is the first of a four course sequence offering students opportunities to: 1) enhance clinical skills, 2) support evidence based practice, 3) provide leadership opportunities, and 4) allow specialization in an area of clinical practice. The opportunities will present themselves by associating with clinics or other OT related facilities in the greater St. Louis area. The course is a self-directed learning experience under the guidance of an OT clinical faculty member and a community practitioner. The student will be guided by a clinical mentor and work on a clinical project related to the needs of the facility. A final report and presentation will be made and the end of the sequence.

#### OT 5783 NEUROSCIENCE PRINCIPLES OF PERFORMANCE II (1)

In this second of a two-course-sequence, students learn how the brain and nervous system support the sensory, perceptual, cognitive, emotional, and physiological capacity of individuals as they perform activities of daily life. Emphasis is placed on sensory processing, motor processing, cognitive performance, learning and memory, and communication. Students will also learn about specific neurological conditions commonly encountered in clinical practice.

#### OT 5763 BODY STRUCTURES SUPPORTING DAILY FUNCTION II (1)

Students examine the complexity of movement and the integration of functions that are necessary to enable participation in everyday activities. Biomechanical principles

are presented and applied to the body structures, allowing students to understand the kinesiological underpinnings of occupational performance.

#### OT 5771 FUNDAMENTALS OF ASSESSMENT II (2)

The course runs concurrently with Body Structures Supporting Daily Function and Neuroscience Principles of Performance. In this second of a two-course-sequence, students apply anatomical and kinesiological principles to occupational performance through assessment of anatomical structures and physiological health. Students learn how to identify sensory, cognitive, perceptual, and emotional performance capacities of individuals by focusing on neuroanatomical and neuro-physiological substrates of sensory, motor, arousal, cognitive, motivational and emotional systems. The students connect the neuroscience of the physiological, neurobehavioral, cognitive and psychological systems to the motor, process and communication performance skills and performance patterns that support occupational performance. Additionally, selected chronic diseases, disorders and conditions will be introduced. Etiology, pathology, clinical course, prognosis and medical management will inform the evaluation process as it impacts occupational performance. Students will build clinical reasoning for core OT practice skills including assessment of person, occupation and environment factors, activity analysis and activity gradation, observation, administering and interpreting assessments, building measurement models, and documenting the evaluation process. Evidence based practice is emphasized through exploration of the scientific and medical literature. Students will apply measurement principles and skills in selection, administration and interpretation of assessments through case studies, laboratory and fieldwork or in-context experiences.

#### OT 5164 ENVIRONMENTAL FACTORS FACILITATING PERFORMANCE AND PARTICIPATION II (1)

In this second of a two-course sequence, students gain in-depth understanding of the psychological, social, political, physical, and cultural elements of the environment that influence occupational performance, participation, and health. Disability and chronic health conditions as consequences of environmental barriers and the relationship between the person and environments as both change across the life span will be

discussed. Assessment and intervention strategies that promote health and maximize participation in daily activities will be examined in home, school, workplace, and other community settings. Students are provided with opportunities to practice and demonstrate skills acquired through community based experiences including a group community consultation project.

#### OT 5130 CONTEMPORARY ISSUES IN OT PRACTICE III (1)

This third of a series of three seminar courses provides students with the opportunity to explore current, emerging, and future trends in OT practice. Students will utilize the most recent research and policy information to critically examine and discuss potential developments in OT practice, including new areas of practice such as habilitation and telemedicine, effects of legislation and novel technologies, and a focus on community and population health, participation, and well-being.

OT 602 APPLIED CLINICAL RESEARCH II (2) is the second of a four course sequence offering the students opportunities to: 1) perform a systematic investigation, 2) develop a research project, and 3) perform testing and evaluation. The class is designed to develop or contribute to generalizable knowledge of occupational therapy or occupational performance. Activities that meet this definition include ongoing work in the laboratories of the faculty, controlled clinical trials, pilot studies to determine feasibility of future studies, demonstrations and community programs that may lead to new services or policy demonstrations. In the sequence, the student will work on his/her research project. The project will include collecting, processing, and analyzing data. The student will also begin to write about their work. Students may observe practitioners who work with the population related to their research projects.

OT 606 APPLIED CLINICAL PRACTICE II (2) is the second of a four course sequence offering students opportunities to: 1) enhance clinical skills, 2) support evidence based practice, 3) provide leadership opportunities, and 4) allow specialization in an area of clinical practice. The opportunities will present themselves by associating with clinics or other OT related facilities in the greater St. Louis area. The course is a self-directed learning experience under the guidance of an OT clinical faculty member and a community practitioner. The student will be guided by a clinical mentor and work on a

clinical project related to the needs of the facility. A final report and presentation will be made and the end of the sequence.

#### OT 5825 INTERVENTIONS SUPPORTING RECOVERY AND PARTICIPATION OF INDIVIDUALS WITH SENSORIMOTOR CHALLENGES (3)

Sensorimotor deficits and delays impact daily life and participation. Throughout this course, students will explore how to utilize assessment results to implement theory driven evidence-based treatment plans to improve occupational performance and participation in daily life. Lifespan and practice setting issues from birth to older adults will be addressed in relation to sensory and motor deficits and delays. Students will utilize a variety of hands on, case-based, and self-directed learning activities to develop clinical skills.

#### OT 5835 INTERVENTIONS SUPPORTING RECOVERY AND PARTICIPATION OF INDIVIDUALS WITH COGNITIVE AND LEARNING CHALLENGES (3)

This 3 credit course is designed to provide the foundation skills for evidence based intervention for individuals with cognitive impairment across the lifespan. Students will explore various intervention approaches and therapeutic techniques for individuals faced with cognitive challenges arising from developmental issues, injuries, and/or disease processes focused on increasing independence and participation in daily life activities. Lectures, case studies, lab experiences, and client treatments in the community will provide the foundation for the learning experiences. Related skills in documentation, goal setting, and ethical issues which may arise will be incorporated into classroom discussions and assignments.

#### OT 5380 HEALTH PROMOTION, PARTICIPATION AND WELLNESS FOR PERSONS WITH CHRONIC DISEASE (3)

The impact of chronic disease on daily participation affects health-related quality of life and well-being. Students will study health promotion and preventive individual and group models of service delivery for community-dwelling people. Using Healthy People 2020 topic areas, students will explore theory-driven, evidence-based health education solutions for consumers with chronic conditions to strengthen their community participation. Students will discover therapeutic interventions to empower



people to self-manage their conditions and connect with community resources for health promotion, prevention and wellness.

#### OT 5801 CASE BASED LEARNING I (2)

In this first course of a two semester sequence, students are engaged in learning experiences that includes divergent case method, inquiry learning, and problem-based learning. Using a self-directed learning process, clinical reasoning and group process skills, students explore practice problems and apply specific occupational therapy evaluations and intervention techniques for persons of all ages and disability categories. The context of cases are integrated with material covered concurrently in the Interventions courses and focus on direct clinical treatment interventions.

#### OT 5615 FIELDWORK I (1)

This is the second course in a series that emphasizes the growth of the student as a professional. Students will continue to build on their electronic professional portfolio and participate in self-directed learning experiences to enhance personal growth and professional competence. An intensive one week, 40 hour, supervised fieldwork experience in a clinical or community setting allows the student to practice the skills learned in the classroom.

OT 603 APPLIED CLINICAL RESEARCH III (3) is the third of a four course sequence offering the students opportunities to: 1) perform a systematic investigation, 2) develop a research project, and 3) perform testing and evaluation. The class is designed to develop or contribute to generalizable knowledge of occupational therapy or occupational performance. Activities that meet this definition include ongoing work in the laboratories of the faculty, controlled clinical trials, pilot studies to determine feasibility of future studies, demonstrations and community programs that may lead to new services or policy demonstrations. In the sequence, the student will work on his/her research project. The project will include collecting, processing, and analyzing data. The student will also begin to write about their work. Students may observe practitioners who work with the population related to their research projects.

OT 607 APPLIED CLINICAL PRACTICE III (3) is the third of a four course sequence

offering students opportunities to: 1) enhance clinical skills, 2) support evidence based practice, 3) provide leadership opportunities, and 4) allow specialization in an area of clinical practice. Students will have an opportunity to develop occupation-based programs for clinics or other community agencies in the St. Louis region. The course is a collaborative self-directed service learning experience under the guidance of an OT faculty member and a community partner. The student will be guided by the needs of the agency in helping to build the agency's capacity.

#### OT 5220 SUPPORTING PARTICIPATION WITH TECHNOLOGY AND ENVIRONMENTAL INTERVENTIONS (3)

This course introduces technology and environment related interventions to preserve, augment or improve social, emotional, physical and academic well being. Intervention strategies that promote health and maximize participation in daily activities for people with chronic conditions and disabilities will be examined in home, school, workplace, and community settings. The tools and interventions will include descriptions of special equipment (i.e. self-care tools and compensatory techniques), assistive technology devices (i.e. computer access, mobility devices, augmentative communication systems, environmental control units, vehicles adaptations and recreational equipment), and environment adaptations and modifications (i.e. universal design, home and work modifications). Lectures will focus on the ethical, legislative, funding, assessment and psychosocial issues. Labs will provide an opportunity for hands on learning experiences with a broad range of tools in context specific personal, community and organizational settings.

#### OT 5845 INTERVENTIONS SUPPORTING RECOVERY AND PARTICIPATION OF INDIVIDUALS WITH PSYCHOSOCIAL CHALLENGES(3)

#### OT 5285 PROMOTING POPULATION HEALTH THROUGH COMMUNITY PARTNERSHIPS (2)

This course offers a service learning experience through partnership with local community agencies to enhance population health. Mentored teams collaborate with personnel in community non-profit agencies. Students provide a capacity-building service through a needs assessment and a written program plan with an evaluation

component. The intent is to enhance sustainability of the organizations' programs. The target population served by the organization benefits from expansion and/or enhancement of services. Examples of programs include: parent education, youth skill development, worker health advocacy, neighborhood/ residential services, and employee/ volunteer programs.

#### OT 5093 MANAGEMENT IN A CHANGING PRACTICE ENVIRONMENT (3)

This course applies management and organizational principles to occupational therapy services in current and potential practice environments, and entrepreneurial opportunities. Through discussions with business professionals, and case studies, this course highlights organizational, managerial, marketing, financial, regulatory, and funding influences on the development, delivery and evaluation of OT practice. Business plans are developed through case studies. Fieldtrips and interactions with managers and corporate leaders allow students the opportunity for experiential learning.

#### OT 5802 CASE BASED LEARNING II (2)

In this second of a two-course sequence, students are engaged in a learning process that includes divergent case method, inquiry learning, self-directed learning, problem-based learning, clinical reasoning and group process skills. Students explore practice problems, and apply specific occupational therapy evaluations and intervention techniques for persons of all ages and disability categories within the context of cases integrated with material covered concurrently in the Interventions courses. The focus is on direct clinical treatment interventions. This is a small seminar class with 8-9 students and a faculty mentor.

#### OT 5620 PREPARATION FOR PROFESSIONAL PRACTICE (1)

This course emphasizes the growth of the student as a professional. Topics include the preparation for national certification and state requirements for credentialing, standards of practice, ethical behaviors and continuing competence. Students will prepare a personal marketing package and participate in self-directed learning experiences. Preparation for the students' fieldwork Level II and Apprenticeships will be emphasized in this course. Topics include the FWII evaluation process, completing

FWII prerequisites, communicating with FW Educators and other professionals.

OT 604 APPLIED CLINICAL RESEARCH IV (2) is the fourth of a four course sequence offering the students opportunities to: 1) perform a systematic investigation, 2) develop a research project, and 3) perform testing and evaluation. The class is designed to develop or contribute to generalizable knowledge of occupational therapy or occupational performance. Activities that meet this definition include ongoing work in the laboratories of the faculty, controlled clinical trials, pilot studies to determine feasibility of future studies, demonstrations and community programs that may lead to new services or policy demonstrations. In the sequence, the student will work on his/her research project. The project will include collecting, processing, and analyzing data. The student will also begin to write about their work. Students may observe practitioners who work with the population related to their research projects.

OT 608 APPLIED CLINICAL PRACTICE IV (2) is the fourth of a four course sequence offering students opportunities to: 1) enhance clinical skills, 2) support evidence based practice, 3) provide leadership opportunities, and 4) allow specialization in an area of clinical practice. The opportunities will present themselves by associating with clinics or other OT related facilities in the greater St. Louis area. The course is a self-directed learning experience under the guidance of an OT clinical faculty member and a community practitioner. The student will be guided by a clinical mentor and work on a clinical project related to the needs of the facility. A final report and presentation will be made and the end of the sequence.

#### M01 593A FIELDWORK II

Provides fieldwork experiences under the supervision of an occupational therapist. Students' participation includes in-depth experience in delivering occupational therapy services to clients including evaluation, treatment and intervention. Students have the opportunity to practice in a variety of clinical or community-based settings. During the fieldwork process, students are expected to assume increasing responsibilities related to patient or client care. The fieldwork experience is designed to promote clinical reasoning, professionalism and competency. Duration is 12 weeks.

## M01 593B FIELDWORK II

Provides a second fieldwork experience under the supervision of an occupational therapist. Students' participation includes in-depth experience in delivering occupational therapy services to clients including evaluation, treatment and intervention. Students have the opportunity to practice in a variety of clinical or community-based settings. Because this is the second of two fieldwork experiences, students are expected to build on their first fieldwork and assume increasing responsibilities related to patient or client care. The fieldwork experience is designed to progressively build competencies in clinical reasoning, professionalism and entry level skills. Duration is 12 weeks.

## M01 595 INDEPENDENT STUDY

Active participation in research activities with program faculty. A written plan of study agreed upon by faculty and student.

## **OTD Only Courses**

### M01 630 SEMINAR IN PROPOSAL DEVELOPMENT AND APPLIED CLINICAL RESEARCH

This course is designed to prepare the OTD student to write a research proposal supporting the identified direction of their clinical doctorate work under the supervision of their graduate faculty mentor. Using a seminar format, students will support each other in this endeavor. After a systematic review of interventions, proposals are developed that may lead to policy work that supports clinical services, development or piloting of clinical interventions, developing a program evaluation proposal, writing a business plan to support funding of research, or writing a grant. In all cases the student will refine a problem statement and will have a clear understanding of the research design and methods that will develop into the research proposal.

### M01 750 DIRECTED PRACTICE RESEARCH I

This is the first course in a series of three courses designed as an applied clinical experience or clinical research project under the guidance of a graduate faculty mentor. The focus of the project will be in productive aging. The project, over the

course of three semesters, will result in a scholarly paper. Students enter this course after they have completed OT630, the Proposal Seminar course.

#### M01 751 DIRECTED PRACTICE/RESEARCH II

Student will engage in applied clinical research under the guidance of a graduate faculty member. Topics will be in the area of specialization chosen by the student in consultation with the faculty member.

#### M01 752 DIRECTED PRACTICE/RESEARCH III

Student will engage in applied clinical research under the guidance of a graduate faculty member. Topics will be in the area of specialization chosen by the student in consultation with the faculty member.

#### M01 760A OT PRACTICE SEMINAR I

The seminar will focus on the World Health Organization's International Classification of Function, Health, and Disability. This class focuses on the relationship of person factors to occupation. Students engage in critical readings and discussion as they construct a model that will support their area of practice.

#### M01 760B OT PRACTICE SEMINAR II

The seminar will focus on World Health Organization's International Classification of Function, Health, and Disability. This class focuses on the relationship of environment to occupation. Students engage in critical readings and discussion as they construct a model that will support their area of practice.

#### M01 762 SEMINAR IN EDUCATION STRATEGIES

This seminar offers an opportunity for students to reflect on and examine concurrent occupational therapy teaching assistantship (TA) experiences. Attention is given to teaching and learning theories underlying practice, teaching tools and strategies, and situated and distributed learning. Activities will include critical reading, journaling, Washington University Teaching Center Workshops and shared critical incident reflection.

## M01 793C FIELDWORK III — APPRENTICESHIP

Provides a customized fieldwork experience specific to the doctoral pursuit of the student. Students may participate in research, policy, clinical practice, advocacy, teaching, etc. Students are expected to achieve specific goals established by the student and their doctoral chair. Duration is 12 weeks.

# Occupational Therapy Faculty

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**Parul Bakhshi** Assistant Professor of Occupational Therapy (primary appointment)  
Assistant Professor of Surgery (Public Health Sciences)

**Peggy Barco, MED** Assistant Professor of Occupational Therapy (primary appointment)  
Assistant Professor of Medicine

MED Washington Univ in St. Louis 1987

**M. Carolyn Baum, MA, PHD** Professor of Occupational Therapy (primary appointment)  
Professor of Neurology (Occupational Therapy)

**Elias Michael** Executive Director of the Program in Occupational Therapy

BS University of Kansas 1966

MA Webster University 1979

PHD Washington Univ in St. Louis 1993

**Christine R. Berg, MS, BSOT, PHD** Associate Professor of Occupational Therapy (primary appointment)

Associate Professor of Neurology

MS Boston University 1980

BSOT Tufts University 1976

PHD Washington Univ in St. Louis 1999

**Anjali Maruti Bhorade, MD** Associate Professor of Ophthalmology and Visual Sciences (primary appointment)

Associate Professor of Occupational Therapy

MD University of Chicago 1999

**Ellen F Binder, MD** Professor of Medicine (primary appointment)

Professor of Occupational Therapy

MD Washington Univ in St. Louis 1981

BA Davenport University 1977

**Marghuretta Dakota Bland, MS** Assistant Professor of Physical Therapy (primary appointment)

Assistant Professor of Neurology

Assistant Professor of Occupational Therapy

MS Washington Univ in St. Louis 2008

BS Canisius College 2004

**Alexandre Carter, PHD, MD** Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Occupational Therapy**

PHD Harvard University 2003

MD Harvard University 2003

**Ann Marie Dale, PHD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Occupational Therapy**

BS University of MO Columbia 1983

PHD Saint Louis University 2009

**Jeanenne M Dallas** Instructor in Occupational Therapy (primary appointment)

**Instructor in Neurology**

BS University of Central Arkansas 1979

**Jessica L Dashner, MS** Instructor in Occupational Therapy (primary appointment)

**Instructor in Neurology**

BS McKendree College 2000

MS Washington Univ in St. Louis 2002

**Michael N Diringer, MA, MD** Professor of Neurology (primary appointment)

**Professor of Anesthesiology**

**Professor of Occupational Therapy**

**Professor of Neurological Surgery**

MA University of Louisville 1978

MD University of Kentucky 1982

**Nico U. Dosenbach, MD, PHD** Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Pediatrics**

**Assistant Professor of Occupational Therapy**

BA Columbia University 2000

MD Washington Univ in St. Louis 2008

PHD Washington Univ in St. Louis 2008

**Alexander W Dromerick, MD** Adjunct Associate Professor of Neurology (primary appointment)

**Adjunct Associate Professor of Occupational Therapy**

**Adjunct Associate Professor of Physical Therapy**

BA University of Virginia 1980

MD University of Maryland 1986

**Dorothy F Edwards, PHD** Adjunct Associate Professor of Occupational Therapy

**Adjunct Associate Professor of Neurology**

PHD Washington Univ in St. Louis 1980

**Jack R. Engsborg, PHD, MS** Professor of Occupational Therapy (primary appointment)

**Professor of Neurological Surgery**

**Professor of Orthopaedic Surgery**

BS Univ of Wisconsin La Crosse 1973

PHD University of Iowa 1985

MS Univ of Wisconsin La Crosse 1978

MS1 Univ of Wisconsin La Crosse 1979

**Bradley A Evanoff, MD** Richard A and Elizabeth Henby Sutter Professor of Occupational, Industrial, and Environmental Medicine in Medicine (primary appointment)

**Professor of Occupational Therapy**

**Assistant Dean for Clinical and Translational Research**

BA Cornell University 1982



MD Washington Univ in St. Louis 1986

**Susan M Fitzpatrick, PHD** Adjunct Associate Professor of Neuroscience (primary appointment)

**Adjunct Associate Professor of Occupational Therapy**

BS St Johns University 1978

PHD Cornell University 1984

Linda Ann Hunt **Adjunct Associate Professor of Neurology**

**Adjunct Associate Professor of Occupational Therapy**

**Victoria Kaskutas, MHS** Associate Professor of Occupational Therapy (primary appointment)

**Associate Professor of Medicine**

BS University of Illinois 1980

MHS Washington Univ in St. Louis

**Allison A King, MD** Associate Professor of Occupational Therapy (primary appointment)

**Associate Professor of Pediatrics**

**Associate Professor of Pediatrics**

**Associate Professor of Education (Courtesy)**

**Associate Professor of Surgery (General Surgery)**

**Associate Professor of Medicine**

**Associate Professor of Medicine**

MD University of MO Columbia 1996

**Kathleen Marie Kniepmann, M PH, DED** Assistant Professor of Occupational Therapy (primary appointment)

**Assistant Professor of Neurology**

M PH Harvard University 1981

BA Washington Univ in St. Louis 1974

BS Washington Univ in St. Louis 1974

DED Harvard University 1980

**Catherine Eckels Lang, MS, PHD** Professor of Physical Therapy (primary appointment)

**Professor of Neurology**

**Professor of Occupational Therapy**

MS University of Vermont 1997

PHD Washington Univ in St. Louis 2001

BS University of Vermont 1993

**Huiping C Lieser, PHD, MA** Instructor in Occupational Therapy (primary appointment)

PHD Kansas State University 2001

MA Kansas State University 1994

**Susan E Mackinnon, MD** Sydney M., Jr. and Robert H. Shoenberg Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)

**Professor of Otolaryngology**

**Professor of Occupational Therapy**

BA Queens College 1971

MD Queen's University 1975

**Lauren Elizabeth Milton, PHD** Instructor in Occupational Therapy (Pending Dean's Approval) (primary appointment)

BS1 Saint Louis University 2001

PHD Washington Univ in St. Louis 2008

**Marian A Minor, PHD, M PH** Associate Professor of Occupational Therapy (primary appointment)

PHD University of Missouri 1989

BS University of Kansas 1965

M PH University of Missouri 1979

**Kerri A Morgan, PHD, MS**Assistant Professor of Occupational Therapy (primary appointment)

**Assistant Professor of Neurology**

PHD Washington Univ in St. Louis 2015

MS Washington Univ in St. Louis 1998

BA Texas Christian University 1996

**John Carl Morris, MD**Harvey A and Dorismae Hacker Friedman Distinguished Professor of Neurology (primary appointment)

**Professor of Physical Therapy**

**Professor of Pathology and Immunology**

**Professor of Occupational Therapy**

MD University of Rochester 1974

BA Ohio Wesleyan University 1970

**John Gail Neely, MD**Professor of Otolaryngology (primary appointment)

**Professor of Occupational Therapy**

BS University of Central Oklahom 1962

MD University of Oklahoma 1965

**Joel S Perlmutter, MD**Professor of Neurology (primary appointment)

**Professor of Radiology**

**Professor of Occupational Therapy**

**Professor of Neuroscience**

**Professor of Physical Therapy**

MD University of MO Columbia 1979

BA Princeton University 1975

**Monica S Perlmutter, OTD, MA, BSOT**Associate Professor of Occupational Therapy (primary appointment)

**Associate Professor of Ophthalmology and Visual Sciences**

OTD Washington Univ in St. Louis 2012

MA Washington Univ in St. Louis 1989

BSOT University of MO Columbia 1981

Benjamin Allen Philip**Instructor in Occupational Therapy** (primary appointment)

**Instructor in Neurology**

**Jay Francis Piccirillo**Professor of Otolaryngology (primary appointment)

**Vice Chairman for Research, Dept of Otolaryngology**

**Professor of Medicine**

**Professor of Occupational Therapy**

**Professor of Biostatistics**

BA University of Vermont 1979

**Roberta G Pineda, PHS, MHS**Assistant Professor of Occupational Therapy (primary appointment)

**Assistant Professor of Pediatrics**

PHS University of Florida 2006

MHS University of Florida 1994

**Stacy Lynn Smallfield, MS, MD**Assistant Professor of Occupational Therapy (Pending Executive Faculty Approval) (primary appointment)

BS Gustavus Adolphus College 1995

MS Washington Univ in St. Louis 1996

MD Nova Southeastern University 2007

**Susan L Stark, PHD, MS**Assistant Professor of Occupational Therapy (primary appointment)

**Assistant Professor of Neurology**

PHD University of MO Columbia 1998

BS Alma College 1988

MS Washington Univ in St. Louis 1989

**Steven D Taff, MS, PHD** Assistant Professor of Occupational Therapy (primary appointment)

**Assistant Professor of Medicine**

MS Washington Univ in St. Louis 1997

BS MO State U (formerly SW MO St) 1989

PHD University of MO St Louis 2005

**Erin Foster Voegtli, OTD** Assistant Professor of Occupational Therapy (primary appointment)

**Assistant Professor of Neurology**

**Assistant Professor of Psychiatry**

OTD Washington Univ in St. Louis 2005

BS Washington Univ in St. Louis 2003

Timothy J Wolf **Adjunct Assistant Professor of Occupational Therapy** (primary appointment)

Wing Kai Wong **Assistant Professor of Occupational Therapy** (primary appointment)

**Assistant Professor of Neurology**

No entries found

# Pharmacy Student Research Training Program

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A key academic institution in our biomedical and clinical health center environment is the St. Louis College of Pharmacy. It is one of the premier institutions in the country for the teaching and training of pharmacists. The College's extensive pharmaceutical sciences curriculum has generated interest by a number of their students in laboratory biomedical research. Students beyond their fourth year at St. Louis College of Pharmacy who demonstrate interest in science and research, and are recommended by the College faculty, will have an opportunity to complete 10- to 14-week fellowships in any of the laboratories at the School of Medicine. Students can, with consent of their advisors at the College of Pharmacy and the laboratory principal investigator, extend their stay. This joint research collaboration should encourage those students in the program to pursue graduate degrees in the Division of Biomedical Sciences at the School of Medicine.

# Physical Therapy

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Physical therapy is the science of human movement applied to rehabilitation, injury, fitness, injury prevention and overall health. Practicing in a variety of settings, physical therapists diagnose and treat movement dysfunction in patients with skill, competence and compassion. The Program in Physical Therapy is committed to providing students with excellent scientific and clinical education in an environment that strives to continually lead the industry in practice, research, innovation and advocacy of movement health.

The Program in Physical Therapy at the School of Medicine offers three formal curricula that collectively foster opportunities for lifelong learning and comprehensive career development.

## **The professional Doctor of Physical Therapy**

The professional curriculum is an intensive three-year experience leading to the degree of Doctor of Physical Therapy. The principle focus of this professional training is to develop scientific and clinical expertise in the diagnosis and treatment of movement-related conditions. By integrating biomedical and physical sciences and clinical education with behavioral and social sciences, this curriculum provides students with the scientific expertise, critical thinking skills and interpersonal communication necessary for effective clinical practice, comprehensive treatment design, patient advocacy, patient education and health promotion. Applicants for admission must have completed 1) a bachelor's degree at an accredited institution, and 2) prerequisite courses in biology, chemistry, physics, mathematics, anatomy, physiology, English, psychology, social sciences and humanities, 3) have a minimum math/science, core prerequisites and science GPA of 3.0 and 4) the Graduate Record

Examination.

## **Doctor of Philosophy in Movement Science**

The focus of the interdisciplinary doctoral program in movement science is to prepare future researchers and faculty members who can enhance the profession of physical therapy. Admission to this curriculum requires acceptable scores on the Graduate Record Examination, excellence in previous academic work and demonstrated beginning abilities in posing questions of importance to the study of movement.

The faculty members of the Program in Physical Therapy are committed to being leaders in discovering and transmitting new knowledge related to movement dysfunction, preparing clinicians to assume multiple roles in a complex health-care environment and fulfilling the service mission to society through active participation in humanistic, scientifically-based patient care. Students in all curricula are expected to participate actively in an environment that values integrity, initiative, creativity and the strong belief that physical therapy intervention promotes health. In these ways, all individuals associated with the Program in Physical Therapy may achieve their highest professional and personal potential.

### **Tuition**

Professional DPT curriculum: \$18,634 per semester

Doctoral curriculum: \$24,475 per semester

### **Further information**

Further information, including complete admissions instructions and program descriptions, may be obtained by direct correspondence with the Program in Physical Therapy:

Program in Physical Therapy  
Washington University School of Medicine  
Campus Box 8502

4444 Forest Park Avenue  
St. Louis, MO 63108-2212.  
Phone: (314) 286-1400  
Fax: (314) 286-1410  
Email: [ptprog@wustl.edu](mailto:ptprog@wustl.edu)  
Web site: [pt.wustl.edu](http://pt.wustl.edu)

# Physical Therapy Courses

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## Doctor of Physical Therapy degree

### Semester 1

#### M02 601 DIAGNOSIS AND EVIDENCE ANALYSIS IN PT I

Department: Program in Physical Therapy

Course Master: Nancy Bloom, PT, DPT, MSOT

Credit Hours: 2The program is located in the Division of Biostatistics, on the third floor of Shriners Building (706 S. Euclid Ave. at Clayton Road), Rooms 3301-3312.Includes processes required for effective clinical decision-making such as the use of models for classifying patient problems, decision trees, diagnostic classification systems, patient interviewing, health histories and outcome measures. Patient cases will be used to practice clinical decision-making skills. An introduction to basic research methods and systematic review of the literature.

#### M02 602 PROFESSIONAL ISSUES AND SKILL DEVELOPMENT I

Department: Program in Physical Therapy

Course Masters: Jennifer Stith, PT, PhD, LCSW, and Suzanne Cornbleet, PT, DPT

Credit Hours: 3

Semester: 1

An introduction to the profession of physical therapy, the APTA, professional behavior and clinical activities such as documentation and quality improvement. Includes ethics, legal issues and policies that guide professional behavior. Interpersonal skills and issues related to human diversity will be addressed. Students will complete a personal and family health history. Students will learn and practice using principles of patient teaching, negotiation and team building. Students will spend 80 hours at clinical sites.

#### M02 603 ESSENTIAL SKILLS IN PHYSICAL THERAPY I

Department: Program in Physical Therapy

Course Master: Susan Strecker, PT, DPT, and Judith Gelber, PT, DPT

Credit Hours: 4

Semester: 1

Beginning skills for patient management include using systems screening and reliable assessment of impairments including visual appraisal, vital signs, sensation, reflexes, pain, range of motion, muscle strength, infection control. Skill and safety in positioning, draping and managing wheelchairs and other equipment during patient-care activities such as walking and transfers will be developed.

#### M02 604 CELLS, SYSTEMS AND DISEASE I

Department: Program in Physical Therapy

Course Master: Ruth Clark, PT, PhD

Credit Hours: 4

Semester: 1

The first of a two-semester course, this course focuses on a comprehensive review of normal physiology of the organ systems: musculoskeletal, cardiovascular, respiratory, renal, gastrointestinal, endocrine, immune and digestive. Regulatory mechanisms to maintain homeostasis will be emphasized throughout the course. Students will be introduced to pharmacology and to the relevance of clinical laboratory values. Patient case studies will be used to integrate information. Introduction to the medical management will be provided for some diseases.

#### M02 605 NEUROSCIENCE

Department: Program in Physical Therapy

Course Master: Gammon Earhart, PT, PhD

Credit Hours: 3

Semester: 1

Focuses on the study of structures, organization and function of the nervous and muscular systems. Emphasis is on the sensory and motor systems involved in motor control and on basic knowledge required for clinical practice.

## M02 606 KINESIOLOGY I

Department: Program in Physical Therapy

Course Master: Marcie Harris Hayes, PT, DPT, MSCI, OCS

Credit Hours: 3

Semester: 1

An introduction to the analysis of normal human movement activities through the application of mechanical concepts including displacement, velocity, acceleration, force and torque. Emphasizes kinematic and kinetic concepts relevant to human movement and study of the structures involved in movement.

## Semester 2

### M02 610 CELLS, SYSTEMS AND DISEASE II

Department: Program in Physical Therapy

Course Master: Ruth Clark, PT, PhD

Credit Hours: 4

Semester: 2

A continuation of the first semester. Physicians will discuss medical management of selected diseases including the etiology, diagnosis, medical management and prognosis of medical diseases frequently encountered in the practice of physical therapy. Three areas of clinical competency will be emphasized through assigned readings and case studies: 1) screening for medical referral including emergent medical referral; 2) clinical decision skills pertaining to pathological implications of underlying disease processes and their relevance to guiding physical therapy intervention; 3) clinical decision skills pertaining to implications of medical



management and their relevance to guiding physical therapy activity and exercise prescription.

#### M02 611 HUMAN ANATOMY

Department: Program in Physical Therapy

Course Master: Stacy Tylka, PT, DPT, WCS, CLT

Credit Hours: 5

Semester: 2

Emphasis is on 1) musculoskeletal, neural and vascular systems of the extremities, head, neck and trunk, and 2) anatomical features relevant to current physical therapy practice. Lectures are complemented by student-performed dissection of human cadavers, instructor-prepared prosections and computer-assisted instruction.

#### M02 612 DIAGNOSIS AND EVIDENCE ANALYSIS IN PT II

Department: Program in Physical Therapy

Course Master: Barbara Norton, PT, PhD, FAPTA

Credit Hours: 2

Semester: 2

Continuation of research methods from the first semester. Includes descriptive, experimental and quasi-experimental research designs and statistics, hypothesis testing, continuation of measurement issues, hierarchy of credibility for rating research articles.

#### M02 613 KINESIOLOGY II

Department: Program in Physical Therapy

Course Master: Renee Ivens, PT, DPT, and Judith Gelber, PT, DPT

Credit Hours: 5

Semester: 2

Emphasizes principles of maturation and motor learning relative to the application of biomechanical principles to the analysis of human movement. Topics include developmental, anatomical, electromyographical and physiological elements of kinesiology with regard to individual joints and common functional activities such as gait and transitional movements.

## M02 614 DIAGNOSIS AND MANAGEMENT OF MUSCULOSKELETAL CONDITIONS IN PT I

Department: Program in Physical Therapy

Course Masters: Suzanne Cornbleet, PT, DPT, and Gregory Holtzman, PT, DPT

Credit Hours: 3

Semester: 2

Students will learn postural assessment and application of Movement Systems Balance. Analysis of functional activities, the essential components and compensatory strategies will prepare the student to begin to plan interventions for individuals with musculoskeletal problems. Skill in providing interventions of manual exercise, fitness training and functional mobility training will be developed. Cases will provide use of diagnostic systems relevant to musculoskeletal conditions.

## M02 615 PROFESSIONAL ISSUES AND SKILL DEVELOPMENT II

Department: Program in Physical Therapy

Course Master: Gregory Holtzman, PT, DPT

Credit Hours: 0.5

Semester: 2

Students will be assigned to part-time clinical experiences for 40 hours to allow practice of acquired skills in patient care, documentation and communication. Additional class time allows students to role play a clinical situation involving a patient examination and supervision by a clinical instructor.

## M02 691 and 691A CLINICAL EXPERIENCE I (8 WEEKS)

Department: Program in Physical Therapy

Course Master: Tamara Burlis, PT, DPT, CCS

Credit Hours: 4

Semester: 2

An eight-week, full-time clinical experience supervised by clinical faculty. Allows the student to practice evaluation and treatment skills acquired in the classroom and laboratory. Also emphasizes development of professional behaviors.

**Semester 3**

## M02 621 EXERCISE PHYSIOLOGY

Department: Program in Physical Therapy

Course Masters: Susan Racette, PhD, and David Sinacore, PT, PhD, FAPTA

Credit Hours: 3

Semester: 3

A study of the responses of various physiological systems to exercise. Includes application and integration of these systems to various diseases and to human performance. Content will be coordinated with Diagnosis and Management of Cardiopulmonary Conditions in PT.

## M02 622 DIAGNOSIS AND MANAGEMENT OF CARDIOPULMONARY CONDITIONS IN PT

Department: Program in Physical Therapy

Course Masters: Tamara Burlis, PT, DPT, CCS, and Ethel Frese, PT, DPT

Credit Hours: 3

Semester: 3

Students will learn to assess, diagnose and treat movement-related cardiopulmonary conditions. Treatment techniques will include exercise and conditioning, breathing techniques, postural drainage and percussion. Interpretation of laboratory tests and pharmacology will prepare students to work with patients safely. Case studies will prepare students for general practice.

## M02 623 ORTHOPEDIC MEDICINE

Department: Program in Physical Therapy

Course Master: Renee Ivens, PT, DPT

Credit Hours: 2

Semester: 3

Physician lectures will provide students with information on surgical and nonsurgical procedures and post-operative management of patients with orthopedic conditions. Physicians will discuss medical diagnosis, clinical signs and symptoms, and management of selected conditions to prepare the student to use this information in Diagnosis and Management of Musculoskeletal Conditions in PT II – III.

## M02 624 DIAGNOSIS AND MANAGEMENT OF MUSCULOSKELETAL CONDITIONS IN PT II

Department: Program in Physical Therapy

Course Masters: Mary Kate McDonnell, PT, DPT, OCS and Stacy Tylka, PT, DPT, WCS, CLT

Credit Hours: 3

Semester: 3

Students will acquire the skills needed to manage and prevent movement-related musculoskeletal problems of the spine, hip, knee and shoulder. Acute and post-acute care will be addressed. Integration of information from previous and concurrent courses will be stressed with emphasis on screening, examination, analysis of findings, diagnosis, design and implementation of intervention programs for patients with increasingly complex problems. Functional activities across the life span also will be addressed.

#### M02 625 NEUROLOGY MEDICINE

Department: Program in Physical Therapy

Course Master: Brendan Tanner, PT, DPT

Credit Hours: 2

Semester: 3

Physician lectures will provide students with information on the medical management of patients with neurological conditions. Physicians will discuss medical diagnosis, clinical signs and symptoms and their natural progression, and management of selected conditions to prepare the student to use this information in Diagnosis and Management of Neuromuscular Conditions in PT. Students attend class with occupational therapy students and work independently to meet the objectives of the course.

#### M02 627 ESSENTIAL CLINICAL SKILLS IN PT II

Department: Program in Physical Therapy

Course Masters: Tracy Spitznagle, PT, DPT, WCS and Gregory Holtzman, PT, DPT

Credit Hours: 3

Semester: 3

Skill in providing interventions including massage and mobilization and the application

of thermal, mechanical, hydro and electrotherapeutic modalities will be developed. Students will learn the basic indications for and prescription of adaptive equipment and wheelchairs.

#### M02 628 CASE INTEGRATION LAB I

Department: Program in Physical Therapy

Course Masters: Cheryl Caldwell, PT, DPT, CHT and Patricia McGee, PT, DPT, PCS

Credit Hours: 1

Semester: 3

Paper, video and live patient cases provided by faculty and students will be completed to provide practice in managing patients with varying movement-related diagnoses. Students participate in faculty-facilitated small groups to discuss their own patient cases and to develop skill in asking clinical questions, using the literature to support, practice and write a modified case report.

#### M02 629 DIAGNOSIS AND MANAGEMENT OF NEUROMUSCULAR CONDITIONS IN PT I

Department: Program in Physical Therapy

Course Masters: Beth Crowner, PT, DPT, NCS, MPPA, and Susan Strecker, PT, DPT

Credit Hours: 4

Semester: 3

Students will acquire the skills to examine patients with neuromuscular disorders. Emphasis will be on screening, selecting tests and measures, examination, determining impairments and functional loss, and making a movement system diagnosis. Students will practice examining both adult and pediatric patients. Content related to motor control and motor learning will be integrated into the course. Course content will be integrated with the concurrent Neurology Medicine course.

#### M02 692 and 692A CLINICAL EXPERIENCE II (8 WEEKS)

Department: Program in Physical Therapy

Course Master: Tamara Burlis, PT, DPT, CCS

Credit Hours: 4

Semester: 3

An eight-week, full-time clinical experience supervised by clinical faculty. Allows the

student to practice evaluation and treatment skills acquired in the classroom and laboratory. Also emphasizes development of professional behaviors.

## **Semester 4**

### **M02 626 MODERATORS OF HEALTH, WELLNESS AND REHABILITATION**

Department: Program in Physical Therapy

Course Master: Jennifer Stith, PT, PhD, LCSW

Credit Hours: 3

Semester: 4

Designed to explore individual attitudes toward health, illness, disability and death. Emphasizes the effect of these attitudes on individual goals, motivation, expectations, interpersonal relationships and exercise adherence. Investigates individual health attitudes, personal values, family interaction, stress management and concepts of wellness. Age-related issues will be addressed.

### **M02 635 PROFESSIONAL ISSUES AND SKILL DEVELOPMENT III**

Department: Program in Physical Therapy

Course Master: Jennifer Stith, PT, PhD, LCSW

Credit Hours: 3

Semester: 4

Focuses on clinical application of compliance and motivation principles. Peer teaching, communication, consultation skills, leadership skills, lobbying legislation, documentation and negotiation in the clinic will be practiced. Students will practice decision making, supervision and delegation. Students will prepare résumés and begin career planning.

### **M02 636 DIAGNOSIS AND MANAGEMENT OF GENERAL MEDICAL CONDITIONS IN PT**

Department: Program in Physical Therapy

Course Master: Tamara Burlis, PT, DPT, CCS and Traci Norris, PT

Credit Hours: 3

Semester: 4

Students will acquire the skills needed to manage movement-related problems in

patients with diabetes, burns, arthritis, wounds, amputation, obesity, oncological problems, incontinence, pregnancy, pain, genetic conditions and orthotic needs. Students will become familiar with care in both the neonatology unit and emergency room. Integration of information from previous and concurrent courses will be stressed with emphasis on screening, examination, analysis of findings, diagnosis, design and implementation of intervention programs for patients with increasingly complex problems. Functional activities across the life span will be addressed.

### M02 638 DIAGNOSIS AND MANAGEMENT OF MUSCULOSKELETAL CONDITIONS IN PT III

Department: Program in Physical Therapy

Course Master: Gregory Holtzman, PT, DPT

Credit Hours: 3

Semester: 4

Students will acquire the skills needed to manage and prevent movement-related musculoskeletal problems of the spine, neck, elbow, wrist and hand, ankle and foot. Integration of information from previous and concurrent courses will be stressed with emphasis on screening, examination, analysis of findings, diagnosis, design and implementation of intervention programs for acute and post-acute patients with increasingly complex problems. Functional activities across the life span will be addressed.

### M02 642 CASE INTEGRATION II

Department: Program in Physical Therapy

Course Masters: Nancy Bloom, PT, DPT, MSOT, and Tracy Spitznagle, PT, DPT, WCS

Credit Hours: 1

Semester: 4

Students will be updated on the use of movement-related diagnostic systems and hear a practice case from a faculty member. Using data on a patient studied during CE II, students will work in small groups with a faculty mentor to 1) orally present the case in five minutes using a rounds fashion; 2) develop a clinical question; 3) search the literature for 6-8 articles that will address the clinical question, summarizing the

articles and completing a systematic review using matrix method; and 4) complete a modified case report.

#### M02 643 DIAGNOSIS AND MANAGEMENT OF NEUROMUSCULAR CONDITIONS IN PT II

Department: Program in Physical Therapy

Course Masters: Beth Crowner, PT, DPT, NCS, MPPA, and Susan Strecker, PT, DPT

Credit Hours: 4

Semester: 4

Students will build on their skills for examining patients with neuromuscular disorders and diagnosing movement system dysfunction. Additional skills acquired will be designing and implementing intervention plans to address impairments and functional loss in patients of all ages. To aid in selecting appropriate interventions students will consider patient prognosis. Students will learn to prescribe wheelchairs and orthotics, fabricate splints, apply kinesiotape, and use a variety of medical equipment. Motor control and motor learning principles will be integrated into the course.

#### M02 693 and 693A CLINICAL EXPERIENCE III (10 WEEKS)

Department: Program in Physical Therapy

Course Master: Tamara Burlis, PT, DPT, CCS

Credit Hours: 5

Semester: Summer

A full-time clinical experience supervised by clinical faculty. Allows the student to practice evaluation and treatment skills acquired in the classroom and laboratory. Also emphasizes development of professional behaviors.

#### M02 694 and 694A CLINICAL EXPERIENCE IV (12 WEEKS)

Department: Program in Physical Therapy

Course Master: Tamara Burlis, PT, DPT, CCS

Credit Hours: 6

Semester: Fall

A full-time clinical experience supervised by clinical faculty. Allows the student to practice evaluation and treatment skills acquired in the classroom and laboratory. Also



emphasizes development of professional behaviors.

### M02 650 DIAGNOSIS AND EVIDENCE ANALYSIS IN PT III

Department: Program in Physical Therapy

Course Masters: Nancy Bloom, PT, DPT, MSOT, and Tracy Spitznagle, PT, DPT, WCS

Credit Hours: 3

Semester: 5

Students will prepare written case reports based on patients seen during their clinical experiences. Students will defend the use of diagnostic classifications and integrate the literature to support their case. Students will practice selecting appropriate outcome measures, designing clinical research questions, and using data to make decisions about individual and group treatment. Students will apply concepts of reliability and validity to assess their measurements.

### M02 651 ORGANIZATIONAL AND MANAGEMENT ISSUES

Department: Program in Physical Therapy

Course Master: Beth Crowner, PT, DPT, NCS, MPPA

Credit Hours: 3

Semester: 5

Dynamics of organizations and department will be discussed using case examples. Focuses on the knowledge and skills needed by physical therapists early in their careers. Principles of administration and management that enable the physical therapist to supervise supportive personnel, to understand fiscal issues including reimbursement and to recommend staffing schedules and patterns will be addressed. Students will learn marketing and public relations strategies.

### M02 652 ALTERNATIVE SKILLS AND PRACTICE ENVIRONMENTS

Department: Program in Physical Therapy

Course Master: Lynette Khoo-Summers, PT, DPT

Credit Hours: 3

Semester: 5

Physical therapy practice in work and community settings will be addressed. Special PT tests and the interpretation of other tests will be integrated into cases. Students also

will be introduced to care in the ER, issues related to genetics and genomics and the importance of changes in medical care to PT. A unit on ergonomics is included. Alternative medicine and alternative PT practice (using an evidence-based practice approach) will be studied. PT topics may include craniosacral therapy, pilates, tai-chi, functional stabilization, therapeutic horsemanship, muscle energy, magnets and others. Student will learn about chiropractic, acupuncture, functional capacity evaluation and focus more on chronic pain. Students will also explore recreational options for disabled populations.

#### M02 653 HEALTH, FITNESS AND PREVENTION

Department: Program in Physical Therapy

Course Master: Tamara Burlis, PT, DPT, CCS

Credit Hours: 3

Semester: 5

Emphasis will be on critiquing and designing fitness and wellness programs for well and special populations. Programs will focus on those for employee fitness, diabetes, arthritis, obesity and the elderly. Students will participate in and evaluate group treatments and recreational exercise. Use of exercise equipment will be addressed.

#### M02 654 CASE INTEGRATION LAB III

Department: Program in Physical Therapy

Course Masters: Mary Kate McDonnell, PT, DPT, OCS, and Suzanne Cornbleet, PT, DPT

Credit Hours: 3

Semester: 5

A variety of teaching methods, including rounds format, assessment centers and student presentations will enable students to integrate information from across the curriculum to complete complex case studies. Emphasis will be on pharmacology, other tests, moderators, establishing time frames and setting priorities for care. Age-related issues will be addressed.

#### M02 655 PROFESSIONAL ISSUES AND SKILL DEVELOPMENT IV

Department: Program in Physical Therapy

Course Master: Tamara Burlis, PT, DPT, CCS

Credit Hours: 4

Semester: 5

Focus will be on the professional skills students need to function in entry-level practice in a variety of settings. Students will study licensure, participate in lobbying and a mock House of Delegates. Skills in serving as an expert witness, a leader, peer instructor and clinical instruction will be developed. Students will be expected to participate in a service project and activities of the APTA. Cultural and race issues will be actively explored.

## **Courses – PhD in Movement Science Program**

L63 5110 INSTRUMENTATION THEORY AND APPLICATION I

Department: Movement Science

Course Master: Joe Klaesner, PhD

Credit Hours: 4

Semester: Fall

This course is designed for the student to have a greater understanding of computer hardware, software and the interaction between these two which makes the use of the computer so useful in research. Basic computer architecture and operating systems will be discussed in this class. The student will gain a basic understanding of software programming logic and structures. The student will use "C" to write several programs for the class. The students will also be exposed to software packages that may include LabView, Matlab, Visual-3D and Excel. The class is organized in a lecture/lab structure.

L63 5115 INSTRUMENTATION THEORY AND APPLICATION II

Department: Movement Science

Course Master: Joe Klaesner, PhD

Credit Hours: 3

Semester: Spring

The main goal of this class is to make students comfortable in the identification of data acquisition equipment that is appropriate for their chosen research area. Instrumentation II is an introduction to electrical components and circuits and their role in the function of laboratory instrumentation. The student will be exposed to

basic electronic design of filters, amplifiers and A/D sampling. Also included is exposure to selected pieces of laboratory instrumentation. The class is organized in a lecture/lab structure.

#### L63 5210 TEACHING PRACTICUM I

Department: Movement Science

Course Master: Ruth Clark, PT, PhD

Credit Hours: 2

Semester: Fall and Spring

The teaching practicum provides an opportunity for the doctoral student to engage in a focused and supervised classroom teaching experience. The student's teaching should be in a content area relevant to the student's area of interest. Students are expected to provide at least 6 hours of formal classroom instruction; to include a minimum of 4 hours of lecture presentation to an appropriate educational audience.

#### L63 5220 LAB PRACTICUM I

Department: Movement Science

Course Master: Faculty

Credit Hours: 1-2

Semester: Fall and Spring

Supervised and focused laboratory research experience. Development of a specific portion of ongoing research by generating a project proposal and pilot data. Culminates with the production of a written report on the project.

#### L63 5230 LAB PRACTICUM II

Department: Movement Science

Course Master: Faculty

Credit Hours: 1-2

Semester: Fall and Spring

Supervised and focused laboratory research experience. Development of a specific portion of ongoing research by generating a project proposal and pilot data. Culminates with the production of a written report on the project.

### L63 5410 MOVEMENT SCIENCE I: BIOENERGETICS

Department: Movement Science

Course Master: W. Todd Cade, PT, PhD

Credit Hours: 3

Semester: Spring

This didactic course is designed to provide a comprehensive examination of skeletal muscle bioenergetics: structure, function, physiologic regulation of substrate utilization and physiological/pathological adaptation (mutability) to external and internal stimuli. The course is designed to provide the student with a solid basis in muscle structure, function and physiology needed for high-level clinical care. Course content will include skeletal muscle histology, function of intracellular and extracellular muscle proteins, mechanisms of contraction, myogenesis, utilization of fuel substrates including hormonal control and the effects of exercise, mechanical properties of muscle and the response of muscle to training, disuse and selected pathologies.

### L63 5510 MOVEMENT SCIENCE II: BIOMECHANICS

Department: Movement Science

Course Master: Dequan Zou, DSc

Credit Hours: 3

Semester: Fall

The focus of this course will be upon understanding mechanical principles as they relate to the study of human movement. The course will use an integration of quantitative principles and published literature to explore methods to study biomechanics and also to learn how the human body responds to mechanical stimuli in healthy and selected disease conditions.

### L63 5610 MOVEMENT SCIENCE III: BIOCONTROL

Department: Movement Science

Course Master: Catherine Lang, PT, PhD

Credit Hours: 3

Semester: Fall

This goal of this course is to understand how the nervous system controls movement

and how human movement is affected after pathology to the nervous system. Each class session will consist of an introductory lecture followed by student-led discussions of selected papers. During the course, we will gain insight into how the enormous repertoire of human movements (e.g., gait, posture, voluntary hand movements) is controlled by a distributed motor system (e.g., spinal cord, basal ganglia, motor cortex), how pathology to the system alters movements and how various structures in the system may or may not be able to compensate for each other.

#### L63 5710 INDEPENDENT STUDY IN MOVEMENT SCIENCE

Department: Movement Science

Course Master: Faculty

Credit Hours: 1-6

Semester: Fall and Spring

Opportunity to pursue individual projects under supervision of a Movement Science faculty member.

#### L63 5720 RESEARCH IN MOVEMENT SCIENCE

Department: Movement Science

Course Master: Faculty

Credit Hours: 1-6

Semester: Fall and Spring

Opportunity to pursue non-dissertation research on an individual basis under the supervision and direction of a Movement Science faculty member.

#### L63 5730 READINGS IN MOVEMENT SCIENCE

Department: Movement Science

Course Master: Faculty

Credits 1-6

Semester: Fall and Spring

Opportunity to pursue individual work under the supervision and direction of an IPMS faculty member.

#### L63 5850 PROGRAM SEMINAR

Department: Movement Science

Course Master: Gammon Earhart, PT, PhD

Credit Hours: 1

Semester: Fall and Spring

Departmental seminar focused on review of current literature, scholarly presentation and the development of skills in developing and presenting grant proposals. Required for each of the first four semesters of enrollment in the Movement Science program.

#### M17 522 INTRODUCTION TO STATISTICS FOR THE HEALTH SCIENCES

Department: Clinical Investigation

Course Master: Sarah Boslaugh, PhD

Credit Hours: 3

Semester: Every Fall

This is a basic course in statistics with particular focus on the health sciences. It is taught in a user-friendly manner with emphasis on use of SPSS, statistical analysis software commonly used in clinical research. The course will teach basic statistical methods in which clinical researchers should have facility to execute their own analyses.

#### M17 524 INTERMEDIATE STATISTICS FOR THE HEALTH SCIENCES

Department: CRTC

Course Master: Sarah Boslaugh, PhD

Credit Hours: 3

Semester: Every Spring

This 15-week course is designed to build on skills developed in Introduction to Statistics for the Health Sciences and to foster basic expertise required to independently use common multivariate biostatistical methods to analyze clinical research data for peer-review presentation and publication.

#### M17 588 EPIDEMIOLOGY FOR CLINICAL RESEARCH

Department: CRTC

Course Master: Mario Schootman, PhD

Credit Hours: 3

Semester: Every Spring

This course introduces principles of epidemiology as they apply to clinical research. The course provides basic tools used in descriptive and analytical epidemiology, which are crucial for making informed decisions in the care of patients. Critical thinking and scientific/analytic competencies are emphasized throughout the course.

BIO 5011 ETHICS AND MEDICAL RESEARCH

Department: Division of Biology and Biomedical Sciences

Course Master: Robert Mercer, PhD

Credit Hours: 1

Semester: Spring

## Physical Therapy Faculty

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Amy J Bastian Adjunct Assistant Professor of Physical Therapy (primary appointment)

**Marghuretta Dakota Bland, MS** Assistant Professor of Physical Therapy (primary appointment)

Assistant Professor of Neurology

Assistant Professor of Occupational Therapy

MS Washington Univ in St. Louis 2008

BS Canisius College 2004

**Marybeth Brown, PHD, MA** Adjunct Associate Professor of Physical Therapy (primary appointment)

PHD University of Southern Calif 1984

BS Russell Sage College 1967

MA University of Southern Calif 1974

**Tamara Lavon Burlis** Associate Professor of Physical Therapy (primary appointment)

Associate Director for Clinical Education in Physical Therapy

Assistant Director of Professional Curriculum in Physical Therapy

Associate Professor of Medicine



BA Wartburg College 1988

BS Washington Univ in St. Louis 1988

**William Todd Cade, PHD, MS** Professor of Physical Therapy (primary appointment)

**Professor of Medicine**

**Associate Director of Postdoctoral Fellowships in Physical Therapy**

PHD University of Maryland 2002

MS University of Miami 1994

**Cheryl Ann Caldwell, DPT, MHS** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

BS University of Colorado Boulder 1976

DPT Washington Univ in St. Louis 2002

MHS Washington Univ in St. Louis 1988

**Billie Ruth Clark, PHD** Professor of Physical Therapy (primary appointment)

**Professor of Neurology**

BS Saint Louis University 1974

PHD Saint Louis University 1988

**Paul Kevin Commean** Assistant Professor of Radiology (primary appointment)

**Assistant Professor of Physical Therapy**

BS Georgia Tech 1982

**Suzanne Marie Cornbleet, MA, DPT** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

MA Washington Univ in St. Louis 1987

BS University of Colorado Boulder 1975

DPT Washington Univ in St. Louis 2003

**Beth Elaine Crouner, MS, DPT, BS PT, M PP** Associate Professor of Physical Therapy (primary appointment)

**Division Director of Clinical Practice in Physical Therapy**

**Associate Professor of Neurology**

MS Washington Univ in St. Louis 1989

DPT Washington Univ in St. Louis 2007

BS PT Washington Univ in St. Louis 1989

M PP University of MO St Louis 1997

**Sylvia Lin Czuppon** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Ryan Michael DeGeeter, DPT** Instructor in Physical Therapy (primary appointment)

**Instructor in Orthopaedic Surgery**

BS Ball State University 2007

DPT Washington Univ in St. Louis 2010

**Krikor T Dikranian, PHD, MD** Professor of Anatomy (primary appointment)

**Professor of Physical Therapy**

PHD Medical University - Sofia 1992

MD Medical University - Varna 1978

**Alexander W Dromerick, MD** Adjunct Associate Professor of Neurology (primary appointment)

**Adjunct Associate Professor of Occupational Therapy**

**Adjunct Associate Professor of Physical Therapy**

BA University of Virginia 1980

MD University of Maryland 1986

**Ryan Patrick Duncan, DPT, MS** Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Neurology**

DPT Washington Univ in St. Louis 2012

BS Maryville University 2007

MS Maryville University 2008

**Gammon Marie Earhart, MS, PHD** Professor of Physical Therapy (primary appointment)

**Professor of Neuroscience**

**Professor of Neurology**

**Associate Director of Movement Science PhD Program in Physical Therapy**

**Executive Director of the Program in Physical Therapy**

MS Beaver College 1996

BS Beaver College 1994

PHD Washington Univ in St. Louis 2000

**Julaine Marie Florence, DPT, MS** Professor of Neurology (primary appointment)

**Professor of Physical Therapy**

DPT Washington Univ in St. Louis 2002

MS Washington Univ in St. Louis 1983

BS Washington Univ in St. Louis 1975

**Michael Dennison Harris** Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Orthopaedic Surgery**

BS University of Utah 2007

**Mary Kent Hastings, MS, DPT** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

MS Washington Univ in St. Louis 1993

BS University of Illinois 1990

DPT Washington Univ in St. Louis 2002

**Marcie Harris Hayes, MS, DPT** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

BS Southwest Missouri St University 1994

MS Northwestern University 1996

DPT Washington Univ in St. Louis 2003

**Carey Lane Holleran, MS, PHD** Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Neurology**

MS Duquesne University 2004

BS Duquesne University 2003

PHD University of Indianapolis 2014

**Gregory William Holtzman, MS, DPT** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Associate Director of Clinical Practice in Physical Therapy**

BA Emory University 1995

MS Washington Univ in St. Louis 2001

DPT Washington Univ in St. Louis 2007

**Renee A. Ivens, DPT, MHS** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

BS Maryville University 1984

DPT Washington Univ in St. Louis 2006

MHS Washington Univ in St. Louis 1996

**Lynnette C Khoo-Summers, MS, DPT** Associate Professor of Physical Therapy (primary

appointment)

**Associate Professor of Orthopaedic Surgery**

MS Washington Univ in St. Louis 1998

DPT Washington Univ in St. Louis 2008

BA Colorado St University 1990

**Joseph W. Klaesner, PHD, MS** Professor of Physical Therapy (primary appointment)

**Professor of Radiology**

BS1 Marquette University 1987

BS Marquette University 1987

PHD Vanderbilt University 1995

MS Vanderbilt University 1993

**Catherine Eckels Lang, MS, PHD** Professor of Physical Therapy (primary appointment)

**Professor of Neurology**

**Professor of Occupational Therapy**

MS University of Vermont 1997

PHD Washington Univ in St. Louis 2001

BS University of Vermont 1993

**Vanessa Mae Lanier** Instructor in Physical Therapy (primary appointment)

**Instructor in Orthopaedic Surgery**

BS Washington Univ in St. Louis 2007

**Matthew J Matava, MD** Professor of Orthopaedic Surgery (primary appointment)

**Professor of Physical Therapy**

BA University of MO Kansas City 1986

MD University of MO Kansas City 1987

**Debra Ann McDonnell, MS, DPT, AS** Associate Professor of Emergency Medicine in Medicine (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Associate Professor of Physical Therapy**

BS Washington Univ in St. Louis 1990

MS Washington Univ in St. Louis 1990

DPT Washington Univ in St. Louis 2005

AS Oakton Community College 2000

**Mary Kate McDonnell, DPT, MHS** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Associate Director of Residencies and Fellowships in Physical Therapy**

BS Saint Louis University 1981

DPT Washington Univ in St. Louis 2003

MHS Washington Univ in St. Louis 1985

**Patricia Navarro McGee** Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Orthopaedic Surgery**

**Marie Elizabeth McNeely, PHD** Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Neurology**

BS Ohio Wesleyan University 2008

PHD Washington Univ in St. Louis 2012

**Gretchen Ann Meyer, PHD, MS** Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Neurology**

**Assistant Professor of Orthopaedic Surgery**

PHD University of CA San Diego 2011

BS Washington Univ in St. Louis 2004

MS Washington Univ in St. Louis 2004

**Jennifer Elaine Miller-Katsafanas, DPT, BBA** Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Obstetrics and Gynecology**

BA University of MO St Louis 1996

DPT Washington Univ in St. Louis 2012

BBA University of MO St Louis 1996

**John Carl Morris, MD** Harvey A and Dorismae Hacker Friedman Distinguished Professor of Neurology (primary appointment)

**Professor of Physical Therapy**

**Professor of Pathology and Immunology**

**Professor of Occupational Therapy**

MD University of Rochester 1974

BA Ohio Wesleyan University 1970

**Michael Jeffrey Mueller, PHD, MHS** Professor of Physical Therapy (primary appointment)

**Division Director of Research in Physical Therapy**

**Professor of Radiology**

PHD Washington Univ in St. Louis 1992

BS Washington Univ in St. Louis 1979

MHS Washington Univ in St. Louis 1984

**Barbara Jean Norton, MHS** Professor of Physical Therapy (primary appointment)

**Associate Director for Education Technology in Physical Therapy**

**Professor of Neurology**

MHS Washington Univ in St. Louis 1985

**Diana C. Parra Perez, MS, PHD** Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Surgery (Prevention and Control)**

MS Saint Louis University 2008

PHD Washington Univ in St. Louis 2013

BA Universidad del Rosario 2001

**Joel S Perlmutter, MD** Professor of Neurology (primary appointment)

**Professor of Radiology**

**Professor of Occupational Therapy**

**Professor of Neuroscience**

**Professor of Physical Therapy**

MD University of MO Columbia 1979

BA Princeton University 1975

**Susan B. Racette, PHD** Professor of Physical Therapy (primary appointment)

**Professor of Medicine**

PHD University of Chicago 1994

BS Bucknell University 1988

**Shirley Ann Sahrman, MA** Professor Emeritus of Physical Therapy (primary appointment)

**Prof Emeritus of Physical Therapy** (primary appointment)

BS Washington Univ in St. Louis 1958

MA Washington Univ in St. Louis 1971

**David R Sinacore, MHS, PHD** Professor of Physical Therapy (primary appointment)

**Professor of Medicine**

MHS Washington Univ in St. Louis 1983

PHD West Virginia University 1992

BS State University of New York 1979

**Nancy Bloom Smith, DPT** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

DPT Washington Univ in St. Louis 2002

BS Washington Univ in St. Louis 1984

BA University of Virginia 1976

**Theresa M Spitznagle, DPT, MHS** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Obstetrics and Gynecology**

DPT Washington Univ in St. Louis 2006

MHS Washington Univ in St. Louis 1994

BS Marquette University 1986

**Jennifer S Stith, MSW, MS, PHD** Professor of Physical Therapy (primary appointment)

**Associate Director of Professional Curriculum in Physical Therapy**

**Division Director for Education in Physical Therapy**

**Professor of Neurology**

BS University of California 1976

MSW Washington Univ in St. Louis 2006

MS University of Southern Calif 1979

PHD Washington Univ in St. Louis 1994

**Stacy Lynne Tylka, DPT, MS** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Associate Professor of Obstetrics and Gynecology**

BS Saint Louis University 2000

DPT Washington Univ in St. Louis 2009

MS Saint Louis University 2002

**Linda R Van Dillen, MS, PHD** Professor of Physical Therapy (primary appointment)

**Professor of Orthopaedic Surgery**

**Associate Director of Musculoskeletal Research in Physical Therapy**

MS Washington Univ in St. Louis 1985

BS University of Missouri 1979

PHD Washington Univ in St. Louis 1994

**Pamela M. Wendl, DPT** Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Orthopaedic Surgery**

BS North Park College 1991

DPT Washington Univ in St. Louis 2007

**Dequan Zou, D SC, MS, ME** Professor of Physical Therapy (primary appointment)

**Professor of Radiology**

BS Harbin Engineering University 1982

D SC Washington Univ in St. Louis 1993

MS Washington Univ in St. Louis 1991

ME Harbin Engineering University 1984

No entries found

# Population Health Sciences

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The Master of Population Health Sciences (MPHS), offered by the School of Medicine, is a 10-month degree program for clinicians, clinical doctorates, medical students and health sciences students seeking training in clinical research methods. The curriculum emphasizes the role of epidemiology and biostatistics in approaching clinical effectiveness and outcomes research for all medical specialties. The MPHS does not require a research thesis upon completion of the program. Instead, the program innovatively uses applied course work to focus on the long-term mastery of skills. Using topics relevant to their careers and interests, MPHS students practice the art of developing research study protocols, performing systematic reviews, designing epidemiologic studies and much more. Many students go on to produce award-winning research using their applied coursework and skills learned in the program. MPHS students deepen their learning by choosing one of four concentrations: Clinical Epidemiology, Health Services, Quantitative Methods or Psychiatric and Behavioral Health Sciences.

## Prospective students

Applicants should be in the process of completing a degree in a clinical training program at the doctoral level or should have completed such a degree. The pace of course work assumes students have familiarity with clinical medicine.

## Program format

The MPHS program is a full-time, 10-month format. A minimum of 12 credit hours is required for full-time student status, and the maximum course load is 18 credit hours per semester. Part-time study options are available.

## Core MPHS courses

Introduction to SAS for Clinical Research (M19 510)

Introductory Clinical Epidemiology

Applied Epidemiology

Introductory Biostatistics for Clinical Research

Intermediate Clinical Epidemiology

Ethics in Population and Clinical Health Research

Current Topics in Public Health (medical and health sciences students only)

Information on elective courses is available at [www.mphs.wustl.edu](http://www.mphs.wustl.edu)

## **MD/MPHS program**

The MD/MPHS provides medical students with an opportunity to supplement their clinical training and course work with a quantitative approach to population health science research. Students develop core skills in epidemiology and biostatistics, which can be applied to research in any clinical field, from primary to specialty care. The program is intended for medical students who plan to incorporate clinical or population health research into their clinical careers, including clinical effectiveness and outcomes research. The program is not restricted to Washington University medical students; students from other medical schools are encouraged to apply. The program combines the traditional medical school curriculum with one additional year of full-time study for the MPHS degree. This added year is typically taken after the second or third year of medical school.

## **Application deadlines**

For 2017 – 2018 academic year: January 13, 2017

Notification of students of admission decision: February 20, 2017

Commitment deadline: May 1, 2017

## **Further information**

The director of the MPHS program is Graham Colditz, MD, DrPH. Additional information can be obtained at <http://www.mphs.wustl.edu> or by emailing Joyce Linn, Program Coordinator, at [linnj@wudosis.wustl.edu](mailto:linnj@wudosis.wustl.edu).

# Population Health Sciences Faculty

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**Arpana Agrawal, PhD**

Assistant Professor, Department of Psychiatry

**Ross Brownson, PhD**

Professor, George Warren Brown School of Social Work

**Kathleen Bucholz, PhD**

Professor, Department of Psychiatry

**Su-Hsin Chang, PhD**

Assistant Professor, Division of Public Health Sciences, Department of Surgery

**Graham Colditz, MD, DrPH**

Niess-Gain Professor, Department of Surgery

**Benjamin Cooper, MPH**

Manager, Public Health Data & Training Center

**Bettina Drake, PhD, MPH**

Assistant Professor, Department of Surgery

**Sarah Gehlert, PhD**

E. Desmond Lee Professor, George Warren Brown School  
of Social Work

**Jeff Gill, PhD**



Professor, Division of Public Health Sciences, Department of Surgery

**Anne Glowinski, MD, MPE**

Associate Professor, Department of Psychiatry

**Melody Goodman, MS, PhD**

Assistant Professor, Division of Public Health Sciences, Department of Surgery

**Richard Griffey, MD, MPH**

Assistant Professor, Department of Internal Medicine

**Richard Grucza, PhD, MPE**

Associate Professor of Psychiatry, Department of Psychiatry

**Katy Henke, MA**

Media and Marketing Administrator, Division of Public Health Sciences

**Aimee James, MD, MPH**

Assistant Professor, Department of Surgery

**Allison King, MD, MPH**

Assistant Professor, Department of Occupational Therapy

**Mallory Leung, PhD, MSc**

Postdoctoral Research Associate, Division of Public Health Sciences, Department of Surgery

**Esther Liu, PhD**

Faculty, Institute of Clinical and Translational Sciences

**Ying Liu, MD, PhD**

Instructor, Division of Public Health Sciences

**Margaret Olsen, PhD, MPH**

Associate Professor, Department of Internal Medicine

**Amy Ostendorf**

Department of Surgery

**Mary Politi, PhD**

Assistant Professor, Department of Surgery

**Rumi Price, PhD, MPE**

Professor, Department of Psychiatry

**Enola Proctor, PhD**

George Warren Brown School of Social Work\

**Siobhan Sutcliffe, PhD**

Associate Professor, Division of Public Health Sciences, Department of Surgery

**Adetunji Toriola, MD, MPH, PhD**

Assistant Professor of Surgery

**Methodius Tuuli, MD, MPH**

Assistant Professor of Obstetrics and Gynecology

**Anke Winter, MD, MSc**

Assistant Professor of Surgery

**Yan Yan, MD, PhD**

Research Associate Professor, Division of Public Health Sciences

# Postgraduate Training

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## Residency training

Postgraduate residency training in an approved hospital is considered essential preparation for the practice of medicine. Most Washington University graduates serve three or more years of residency training, and many will gain additional experience as postdoctoral fellows.

To aid students in obtaining desirable residency appointments, an active counseling program is maintained. Students in their preclinical years can participate in a career counseling workshop in which they are given specific information about subspecialties. They are encouraged to look at their own interests, attributes and priorities and, with this information, begin to make decisions about the specialty best suited for them. In addition, small group conferences are held for students to meet with faculty members from a variety of the specialty divisions at Washington University to learn more about the fields that they are interested in.

During their third and fourth years, students interact closely with the Career Counseling Office, which provides them with individual counseling to help plan for the residency application process. Students receive general background information about the kinds of residencies available, special issues concerning certain extremely competitive residencies and help identifying faculty members for further assistance. The Career Counseling Office maintains a web site ([residency.wustl.edu](http://residency.wustl.edu)) where students can find information regarding 20 residency specialties. The number of U.S. seniors applying in the match each year has been steadily increasing. The match process continues to be competitive, and students must make their choices with considerable care. The School of Medicine participates in the National Resident Matching Program, which offers distinct advantages to applicants.

Results of these efforts have been consistently gratifying. The first-year post-graduate (PGY-1) residencies selected in the most recent residency matching (2016) are

identified in the Alphabetical List of Students in the Register of Students section of this web site.

The School of Medicine maintains an active interest in its graduates and is pleased to assist them in subsequent years as they seek more advanced training or staff appointments in the communities in which they settle.

## **Postdoctoral training**

Those departments that offer postdoctoral fellowships individualize such educational activity up to a maximum of 36 months of academic time. Such fellowships lead integrally to certification by the appropriate specialty and/or subspecialty boards of the American Medical Association.

## **Fellowship and other funds**

**Alexander and Gertrude Berg Fellowship Fund.** Created in 1952 through the bequest of Gertrude Berg to provide a fellowship in the Department of Molecular Microbiology.

**Glover H. Copher Fellow in Surgical Research.** Established in 1971 to support a postdoctoral fellow in surgery.

**William H. Danforth Loan Fund for Interns and Residents in Surgery.** Provides financial assistance in the form of loans for postdoctoral students in surgery.

**Ron and Hana Evens Fellowship.** Established in 2014 to support a Post-Doctoral Fellowship in the Mallinckrodt Institute of Radiology.

**Antonio Hernandez, Jr. Fellowship in Pediatric Cardiology.** Established in 1987 as a memorial to Dr. Hernandez.

**Leopold and Theresa Hofstatter Fellowship.** Established in 2000 from the estate of Leopold and Theresa Hofstatter to be used to support fellowships in neurological research.

**J. Albert Key Fellowship Fund.** Provides a stipend for a fellow in orthopaedic surgery.

**Louis and Dorothy Kovitz Fellowship Fund.** Established in 1970 by an alumnus and his wife to provide support for research by qualified residents or students interested in surgery, at the discretion of the Head of the Department of Surgery.

**Carol B. and Jerome T. Loeb Teaching Fellowships at the School of Medicine.** Established in 2004 to honor and thank St. Louis-area physicians with clinical excellence to encourage teaching that excellence to residents and students.

**Stephen I. Morse Fellowship.** Established in 1980 by Carl and Belle Morse in memory of their son; awarded to predoctoral or postdoctoral students pursuing research careers in microbiology, immunology and infectious diseases.

**William D. Owens Anesthesiology Research Fellowship.** Established in 2000 in honor of William D. Owens, MD. This fund will allow an individual to do a clinical or basic research fellowship for a two-year period.

**The Esther and Morton Wohlgemuth Foundation Fellowship.** Established to support a fellow in the Division of Cardiovascular Diseases.

## **Continuing medical education**

The study of medicine is a lifelong process with continuing medical education being an integral component of the continuum. Since 1973 the School of Medicine has supported this learning endeavor through the operation of the Continuing Medical Education (CME) Program. The Program's mission is to collaborate with teams of healthcare professionals and / or individual members of the healthcare team to provide opportunities for educational renewal and advancement in order to facilitate life-long learning, maintenance of professional competencies, and enhancement of knowledge and skills to improve performance, clinical care and patient outcomes.

Pursuant to this mission the objectives of the CME program include the following:

- Enable the acquisition of new knowledge and skills for the delivery of quality patient care
- Translate the results of research to clinical diagnosis and treatment for healthcare practitioners
- Apply educational approaches in support of continuous quality improvement and patient safety in health care delivery
- Integrate clinical outcome measures into the educational process
- Assist with adaptation to changing health care delivery environments
- Support faculty development as postgraduate medical educators and leaders
- Evaluate and refine educational activities

Each year more than 160 symposia and more than 180 recurring academic rounds and conferences as well as videos, monographs, and self-directed learning are provided with CME credit by this office. About 9,000 registrants attend these courses annually and receive more than 110,000 hours of instruction. CME-Online provides educational programs via the Internet. Since starting in 2000, the **CME online program** has grown to include more than 250 hours of available CME credit. The educational program is fully accredited by the Accreditation Council for Continuing Medical Education and provides credits to physicians pursuant to the Physician's Recognition Award of the American Medical Association, as well as various other types of state and specialty recertification and relicensure activities.

## Public Health

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The purpose of this joint degree is to train physicians in the knowledge and skills needed to recognize, analyze, and solve the key problems affecting the health of our community and society. The MPH degree offered through the Brown School is unique in that it prepares students to apply public health sciences and transdisciplinary approaches to problem solving for improving population health, especially in vulnerable communities. Courses involve learning systematic approaches to implement and sustain public health discoveries regionally, nationally and internationally. Both the Brown School and the Medical School are top-ranked academic centers making this joint degree an outstanding opportunity.

## **Prospective students**

Applicants should be in the third year of their medical school program. Prior to entering the MPH program, students should have taken courses (up to 11 credit hours) that count toward their MPH degree.

## **Program format**

Medical students will spend their fourth year in the MPH program. The MD/MPH curriculum is comprised of three full-time semesters of course work, (Summer, Fall, Spring) at the Brown School, followed by the MPH Practicum and Culminating Experience. Students will meet the 52 required credit hours with the 11 credits earned in the MD program, 40 credits at the Brown School, and 1 credit in either program.

## **Core MPH courses**

Cross-cutting Themes in Public Health

Epidemiology

Biostatistics

Environmental Health

Health Policy and Administration

Health Behavior and Health Promotion

## MD/MPH program

The MD/MPH provides medical students with an opportunity to supplement their clinical training with courses and experiences designed to create transdisciplinary competencies on how to improve population health. Students learn the basics of public health from the foundations courses. MD/MPH students also can choose from a wide variety of Transdisciplinary Problem Solving Courses (2 are required) and they will participate in small group public health discussions in Public Health Seminar. The faculty and staff at the Brown School will help guide students to relevant practicum experiences. When coursework and practicum are completed, MD/MPH students take a comprehensive case study exam that is the final MPH requirement (Culminating Experience). In addition to coursework at Brown, MD/MPH students also have an opportunity to apply for Masters Research Fellows program, allowing them to work on research projects during their MPH program.

### Application Deadlines for 2016-17 Academic Year

Applicants will apply through <https://sophasexpress.liaisoncas.com/>

Application deadline: December 15, 2015

Admission decisions sent: February 1, 2016

Commitment deadline: April 1, 2016

### Further Information

If you are interested in the MD/MPH program, please contact Amy Eyler, PhD, the Assistant Dean for Public Health at [aeyley@wustl.edu](mailto:aeyley@wustl.edu) or 314-935-0129. Additional information can be obtained at <https://mph.wustl.edu/> or by emailing [brownadmissions@wustl.edu](mailto:brownadmissions@wustl.edu)



# Admission

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Costs, admission requirements and application procedures vary from program to program. Please contact individual programs for more information.

## Standards for Satisfactory Academic Progress for Financial Aid Eligibility: Other School of Medicine Programs and Joint Degree Programs

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The following policy applies to students pursuing graduate/professional training in the following programs:

- Applied Health Behavior Research
- Audiology and Communications Sciences
- Biostatistics
- Clinical Investigation
- Genetic Epidemiology
- Occupational Therapy
- Physical Therapy
- Population Health Sciences

Federal law and regulations require that all students receiving financial assistance from Federal Title IV funds maintain satisfactory academic progress (SAP). This policy

presents the standards adopted by the Washington University School of Medicine and applies to all non-MD students.

The School of Medicine at Washington University in St. Louis evaluates SAP at the end of each semester for all non-MD students receiving financial aid. A student failing to meet the standards of progress as determined by the Committee on Academic and Professional Evaluation of Students (CAPES) shall be placed on financial aid probation and notified by CAPES and the Director of Financial Aid. While on probation the student may receive financial assistance for one semester, trimester, or equivalent period of time. At the conclusion of this period, the student must have achieved compliance with each standard. A student who does not achieve compliance and is not making SAP by the conclusion of the probationary period is suspended from federal aid eligibility. The Office of Student Financial Aid must notify a student of implementation of probationary status and/or suspension.

In order to be compliant in maintaining SAP, and thus eligible for financial aid, students must be satisfactorily progressing toward their academic objectives. Federal regulations require the following measurements for determining SAP: time frame and quantitative/qualitative requirements.

**Maximum Time Frame:**

To maintain eligibility you must complete your program by attempting no more than 150% of the credits required to complete your program. For example, if your program requires 120 credits to complete your degree, you must be able to complete the program by attempting no more than 180 credits. This includes credits attempted without financial aid. Specific information for each program may be found in each program's Handbook or Bulletin.

Periods of non-enrollment are NOT counted in the measurement of satisfactory academic progress but all periods of attendance, regardless of whether the student received Title IV aid, are counted.

If you reach a point where you cannot complete your program within the 150%

maximum, students become ineligible for aid.

**Quantitative/Qualitative Requirement:**

The minimum semester and cumulative GPAs needed to meet the SAP requirement are set by each program. The program's Bulletin or Handbook will help you determine your minimum GPA requirements.

If you are not achieving the minimum GPA requirements for your program at the end of each semester when the SAP review is performed, you are not considered to be making SAP.

**Financial Aid Warning:**

A student failing to meet the standards of progress as determined by their Program at the end of each semester will be placed on "financial aid warning" for the following term. At the end of that term, the student must be meeting SAP to receive financial aid for future semesters. Any student not meeting SAP at the end of the warning period will be suspended from future financial aid. The student will be eligible for aid when they achieve SAP or the student may appeal. Students who choose to appeal must state the reasons for failing to meet SAP (e.g. injury/illness of the student, death in the family or other special circumstance) and what has changed in the student's situation so that he or she can now make SAP. If the student successfully appeals, the student will be placed on financial aid probation and may receive financial assistance for one semester. At the conclusion of this period, the student must have achieved compliance with each standard or be progressing per their individual academic plan to receive additional aid. A student who does not achieve compliance with each standard by the conclusion of the probationary period is suspended from financial aid eligibility.

The Office of Student Financial Aid must notify a student of implementation of probationary status and/or suspension.

The Director of Student Financial Aid shall have primary responsibility for enforcement of this policy. The Office of Student Financial Aid shall ascertain at the time of each disbursement of funds and prior to certification of a financial aid application that the

student is in compliance with the policy.

# Financial Assistance — Graduate and Professional Programs

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The Ability to finance a graduate/professional education at Washington University School of Medicine does not influence the student selection process. As all students accepted for admission have proven scholastic ability, financial assistance is awarded solely on the basis of documented financial need which cannot be met by student and family resources.

Accepted students interested in applying for financial aid will receive electronic communication from the Financial Aid Office providing instructions for completing the FAFSA and additional forms necessary for a financial aid award to be determined. Everyone applying for financial aid must complete a Free Application for Federal Student Aid (FAFSA) and designate Washington University School of Medicine, School Code #G24620, as a recipient. Financial aid application documents and detailed instructions will be made available after January 1.

The financial aid application materials solicit information about the applicant and their spouse, if married, including a detailed description of resources and liabilities. The School expects the applicant to complete and submit the financial aid documents within two weeks from the date the applicant receives them. Specific items will always be outlined on your individual student portal, [Netpartnerstudent.wustl.edu](https://netpartnerstudent.wustl.edu), to which access is granted after students are accepted by their program and their information is forward to the Financial Aid Office.

Once all documentation has been received and evaluated, an award package is determined for that student. He or she will then be notified via email once the award is available to view online. All awards must be accepted online using the student portal. Financial aid awards are credited toward payment of tuition and fees on the student's WebSTAC account. If there is an excess of funds on a student's account after tuition and other charges, the Registrar's Office will issue a student refund check.

Students may reapply for financial assistance in succeeding years if they remain in good academic and personal standing, and if there is continued financial need. Awards made to a student may vary from year to year, depending upon the student's needs and upon the availability of funds. Students are responsible for filing applications for renewal of awards in the spring of each year.

The financial aid committee holds that students receiving assistance have an obligation to notify the committee in writing if their financial situation changes, for example, through employment or receipt of a scholarship not anticipated at the time the application was submitted.

All scholarship funding is awarded by a student's specific program and not through the Financial Aid Office. The Financial Aid Office applies all program scholarships to a student's financial aid award and awards Federal and Institutional program-specific loans when applicable.

## MD Program Admission

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Visit the [MD Admissions website](#) for full admissions information and to check the status of your application.

# Admission requirements for the study of medicine

Entrance requirements to the School of Medicine include:

1. Evidence of superior intellectual ability and scholastic achievement;
2. Completion of at least 90 semester hours of college courses in an approved college or university;
3. Completion of the Medical College Admission Test of the Association of American Medical Colleges; and
4. Evidence of character and integrity, a caring and compassionate attitude, scientific and humanitarian interests, effective communication skills, and motivation suitable for a career in medicine.

Chemistry, physics and mathematics provide the tools for modern biology, for medicine and for the biological basis of patient care. Thus, a firm grounding in these subjects is essential for the study of medical sciences. Entering students are expected to have accomplished at least the equivalent of one-year courses at the undergraduate level in physics and biology; mathematics through calculus, including integral equations and differential equations; and chemistry, including one year of general or inorganic chemistry and one year of organic chemistry. Course work in biochemistry is encouraged although not required. In addition one semester of biochemistry can be substituted for one semester of organic chemistry. Similarly, one semester of statistics can be substituted for one semester of calculus. In selected instances, one or more of these prerequisites may be waived by the Committee on Admissions, but applicants are strongly advised to pursue their interests in these and in other areas of science.

A major goal of undergraduate college work should be development of the intellectual talents of the individual. This often involves the pursuit of some area of knowledge in-depth, whether in the humanities, social sciences or natural sciences. At the same time, a diversity of background is encouraged in order to provide a necessary foundation for the development of cultural awareness, sensitivity and competence.

Specific courses, other than the few in the natural sciences, are not prerequisites because a great variety of courses and life experiences may prepare students for the many roles they may play in their medical careers.

## Application procedure

General information for prospective medical students and how to apply can be found on the [MD Admissions website](#).

Washington University School of Medicine participates in the American Medical College Application Service (AMCAS) of the Association of American Medical Colleges. AMCAS provides a centralized system for applying to any participating medical school with only one application and one set of official transcripts of academic work.

The AMCAS Application for Admission, common to all participating medical schools, is available online at <https://www.aamc.org/students/>. Applicants are urged to file their applications as early as possible.

Applicants to the first-year class must submit their AMCAS application no later than December 1 of the year prior to that in which they want to matriculate. On receipt of the application from AMCAS, the Office of Admissions contacts the applicant regarding the additional steps to be taken to complete the application. These include completing a supplemental application via the Internet at <http://wumsapply.wustl.edu>, submission of letters of recommendation and payment of a nonrefundable Application Service Fee of \$80. These materials must be received no later than December 31. Applicants can check the status of their application via the Internet at the <http://wumsapply.wustl.edu> web site. Once the application is complete, the Committee on Admissions evaluates it.

Selected applicants are invited for a personal interview, as well as a tour of the School of Medicine and the Washington University Medical Center. This visit provides extensive opportunities for the applicant to meet and talk with students and faculty members.

If an applicant is planning a trip to the St. Louis area, it is appropriate to contact us by email ([wumscoa@wustl.edu](mailto:wumscoa@wustl.edu)) to inquire if an interview has been authorized. The inquiry should be submitted at least three weeks in advance of the anticipated travel. The Office of Admissions is open weekdays from 8:30 a.m. to 5 p.m. Central Time.

Admission decisions are made by the Committee on Admissions on a rolling schedule beginning in early October. Applicants are notified as soon as a final decision has been made on their application, but by April 15, every applicant should be notified whether he or she is accepted, on the waiting list or not accepted.

Upon notification of acceptance for admission to the School, the applicant is required to file a Statement of Intent to Matriculate within two weeks. Three options are presented: 1) accept the offer of admission; 2) accept the offer of admission and request financial aid materials; or 3) decline the offer of admission. The School of Medicine abides by the traffic rules regarding application timelines as established by AMCAS. Accepted applicants who are non-compliant with AMCAS traffic rules and medical school deadlines may have their acceptance into the class rescinded.

After the applicant has been accepted, matriculation is contingent upon sustained superior academic performance as well as continued ethical, honest and mature deportment. Accepted applicants must report to the Registrar all institutional judicial or academic sanctions and/or legal actions in which he/she has been a party prior to matriculation at the School of Medicine. Accepted applicants must report all institutional judicial and academic charges and/or legal charges brought against them before matriculation at the School of Medicine where such charges could result in sanctions. Concealing or failing to report such sanctions and/or charges promptly and, more generally, failure to maintain high standards of moral and ethical behavior may result in rescission of acceptance or dismissal from the School of Medicine or revocation of the Doctor of Medicine degree.

## **Merit-based scholarships**

Please see the [Financial Assistance](#) section.



# Policy for International Students

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The admission decision at Washington University School of Medicine is based on academic and personal merit and not on the ability of the student to pay the costs of education. However, individuals who are not citizens of the United States of America or who do not hold U.S. Permanent Resident Visa status, including DACA students, are not eligible for financial aid due to regulations covering many programs used by the School to fund financial assistance. Therefore, in order for the School to complete the required documents which are necessary for issuance of a visa, the student must document, by a date and in a manner designated by the School, that the necessary amount of funds, as established by the School, is available to pay the costs of education (tuition and living expenses) for the anticipated period of enrollment, normally four years. Documentation of the required amount of financial resources may be by a letter of credit or by deposit of funds in an escrow account with a bank designated by the School.

## Background Checks and Screening for Controlled Substances

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Students entering the School of Medicine who will have contact with patients are required to have criminal background checks and screening for controlled substances (THC-cannabis, cocaine, opiate, amphetamine, PCP-phencyclidine) in order to qualify

for participation in patient care activities at Washington University School of Medicine-affiliated facilities. Drug screening usually will be conducted during student orientation prior to the start of classes. Incoming, prematriculant students, or visiting students will be disqualified to study at the School of Medicine if they do not consent to background checks, if they have significant positive findings on the background checks, or if they have illicit substances detected on drug screening without a bona fide medical indication. Disqualified prematriculant students and disqualified visiting students will be precluded from matriculation and will not be registered as students in the School of Medicine.

In addition, no final action will be taken on an application until the Admissions Committee has received satisfactory statement(s) ("Dean's Certification" form(s)) from each college or university at which the applicant has completed a program of study. The certification form(s) inquire whether the applicant was subject to disciplinary charges or actions and must be completed by institutional official(s) with access to the applicant's disciplinary records. The certification inquires about past, current, pending or future disciplinary charges or actions.

## Third-Year Class Transfer Program

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Each year, Washington University School of Medicine accepts a limited number of transfer students into its third-year class depending on the availability of positions. Transfer applications are accepted from well-qualified second-year students who are enrolled in good standing and eligible to continue in their LCME-accredited U.S. medical schools. Applicants must also have a compelling personal reason for requesting transfer and must have the full approval of the dean of their current school. Accepted students are required to successfully complete the USMLE Step 1 examination.

Transfer application forms for admittance into the third-year class are available after October 1 for the following academic year. The deadline for submission of applications is March 31. Those applicants selected for an interview will be invited to visit the Washington University Medical Center. Applicants will be notified of the decision of the Committee on Admissions by May 15 or when a position becomes available. Inquiries should be directed to:

Third-Year Class Transfer Program  
Washington University School of Medicine  
Campus Box 8077  
660 S. Euclid Ave.  
St. Louis, MO 63110-1093  
Phone: (314) 362-6844  
Fax: (314) 362-4658  
[wumscoa@wustl.edu](mailto:wumscoa@wustl.edu)

## Cost of Education

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For the first-year class matriculant, tuition and estimated expenses for the 2016-17 academic year are listed below. Students who enter in 2016 will benefit from a tuition stabilization plan, which provides that their annual tuition of \$60,798 will be constant for up to five consecutive years. The stabilized rate will expire five academic years after matriculation. Therefore, students whose medical education is interrupted for any reason for more than one year will be charged the rate of the class they rejoin. Appeals of this policy should be submitted in writing to the registrar. The items listed below provide an estimate of the expenses for a single student in the 39-week first-year class. The total of these figures suggests a basic minimum budget of approximately \$79,642. Allowances for entertainment, travel, clothing and other

miscellaneous items must be added to this estimate.

**Tuition** (includes Student Health Service and Microscope Lending Plan): \$60,798

**Books, supplies and instruments:** \$1,396

**Housing and food:** \$12,768

**Travel and personal:** \$4,680

## Registration, Payments, and Withdrawal & Refunds Policy

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The University billing system provides a central financial account against which most student expenses incurred at the University will be posted, including but not limited to tuition, housing charges, parking, library fines, etc. This policy, when referring to tuition and other charges, includes any and all charges posted to this account.

All payments of tuition and other University charges are due and payable on the dates specified in the published calendars of the programs in the School of Medicine. Failure of a student to register when required, and pay tuition and other charges incurred on or before the date specified in the published calendar, will result in a late fee of \$50 to be added to the amount due. The late fee will be imposed seven days after the due date if full payment has not been received. Tuition and other charges are usually payable twice a year, at the start of the academic year, and again at the middle of the academic year, as listed on the schedule on the academic calendar.

In addition to the \$50 late fee, any payment due from the student and not paid by the specified date will accrue interest at the current market rate in effect on the first business day of the month in which the payment is due. This fee will be imposed on any accounts not paid in full within 30 days of the due date. Any amount not paid

when due (plus accrued interest thereon) must be paid in full within three months of the due date to avoid potential suspension from classes.

If a student fails to make payments within three months of the original due date, the School will not release the student's academic record, grade reports or transcript, pending settlement of the unpaid account. A student who has not satisfied all of his/her delinquent financial obligations to Washington University (tuition, University housing, parking, etc.) one month before the end of the academic year will not be allowed to progress to the next academic year, nor can they be issued a diploma.

Federal financial aid funds for the next academic year cannot be disbursed until all prior year balances are paid in full.

Students who rely on financial aid funds to meet their obligations should submit their applications for processing according to application deadlines published by the Office of Financial Aid. Deadlines allow for receipt of financial aid funds by payment due dates if applications are filed by the deadline. The Office of Student Financial Aid will assist students with loan applications and financial planning upon request.

A student who withdraws or takes a leave of absence from the School will receive a pro rata refund of tuition and appropriate fees. The refund will be based on the ratio of the class days enrolled (from the first day of classes to the termination date) to the total number of class days in the term for which tuition and fees were paid. It is understood that the date on which a student formally notifies the Registrar's Office in writing of the decision to withdraw or take a leave of absence from the School of Medicine shall be regarded as the termination date, with no retroactive clause to be accepted. A prospective date will be accepted, however. If tuition and fees were paid entirely or in part by financial aid from the School, the refund will be applied first to the total repayment of the accounts from which financial aid was drawn, with any remaining refund balance given to the student. Financial aid received in excess of the costs of tuition and fees must be refunded by the student to the School on the same pro rata basis as calculated for the tuition refund outlined above – per "Return of Title IV" Federal guidelines. Any questions about these policies may be directed to either

the Office of the Registrar or Financial Aid.

## Standards for Satisfactory Academic Progress for Financial Aid Eligibility

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Please visit the Policies section for [Standards for Satisfactory Academic Progress for Financial Aid Eligibility: MD Students](#).

## Financial Assistance — Medical Students

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The ability to finance a medical education at Washington University does not influence the student selection process. As all students accepted for admission have proven scholastic ability, financial assistance is awarded solely on the basis of documented financial need which cannot be met by student and family resources. Students who consider themselves financially independent of their parents must arrange for loans to replace the amount of support parents are analyzed to have the potential to contribute. The School of Medicine's Office of Financial Aid (Box 8059) will assist students in making these arrangements.

In responding to the Admissions Committee's offer of admission, an accepted student may request financial aid application materials. The Financial Aid Office acknowledges the student's intent and provides instructions for completing the FAFSA. Everyone applying for financial aid must complete a Free Application for Federal Student Aid (FAFSA) and designate Washington University School of Medicine, School Code #G24620, as a recipient. Medical school financial aid application documents and detailed instructions will be made available after January 1.

The financial aid application materials solicit information about the applicant and parents, including a detailed description of resources and liabilities. If an applicant's parents are separated or divorced, the financial information is required from both biological parents (excluding income and assets of their spouse, if remarried). If the applicant is married, similar information is required of the spouse. The School expects the applicant to complete and submit the financial aid documents within two weeks from the date the applicant receives them. Official copies of both biological parents' individual U.S. Income Tax Returns and the applicant's official IRS transcripts complete the data required for financial aid consideration.

While "permanent residents" of the United States are eligible for most federal financial aid programs, need-based financial aid from Washington is only awarded if the applicant and both biological parents can provide official, audited documents with the same detailed information as provided on a U.S. income tax return. All information is held in strict confidence.

Financial aid awards are credited toward payment of tuition and fees. If there is an excess of funds on a student's account after tuition and other charges, the Registrar's Office will issue a refund check. The loan portion of an award will be funded through the resources of the School of Medicine or through the Federal Direct Loan program. Financial aid awards are made for a given academic year. Students may reapply for financial assistance in succeeding years if they remain in good academic and personal standing, and if there is continued financial need. Awards made to a student may vary from year to year, depending upon the student's needs and upon the availability of funds to the Committee. Students are responsible for filing applications for renewal of

awards in the spring of each year.

The committee holds that students receiving assistance have an obligation to notify the committee in writing if their financial situation changes, for example, through employment or receipt of a scholarship not anticipated at the time the application was submitted.

First- and second-year students are urged not to accept employment during the academic year. A number of fourth-year students find employment in hospitals within the Medical Center. The personnel office may provide assistance to students' spouses seeking employment.

## **Merit-based scholarships**

In 1978, the School of Medicine established a scholarship program that based selection on merit rather than financial need. As one of the first merit scholarship programs for medical students, the Distinguished Student Scholarship Program has recognized and rewarded academic excellence and personal achievement for 33 years. And, to honor outstanding alumni of Washington University, the Medical Center Alumni Association created in 1989 the Distinguished Alumni Scholarship Program. In 1998, the Barnes-Jewish Hospital Medical Staff Association committed to funding one full-tuition, four-year scholarship to a student in each entering class. Beginning with the 2002-2003 academic year, one additional "named" scholarship was made available through the generosity of a donor.

Most merit-based scholarships are awarded to students in the first-year class and are subject to annual renewal. Recipients of these scholarships are expected to maintain academic excellence. If a scholarship is not renewed, the student may file for financial aid from the School. For scholarship recipients who document financial need above the full-tuition scholarship, additional funds are available to provide support up to the total cost of education. Scholarship recipients may not concurrently participate in the School's Medical Scientist Training Program, the Armed Forces Health Professions Scholarship Program, or the National Health Service Corps Scholarship Program.



Now known collectively as the Distinguished Scholars Program, its aim is to attract and enroll the most outstanding students in the School of Medicine, thus enriching the scholarly environment and broadening the scope of learning for all students.

Scholarship recipients are selected on intelligence, character, personal accomplishments and goals, motivation for medicine, aptitude for science, leadership potential, communication skills and diversity of life experience. Scholarships awarded under this Program include the Barnes-Jewish Hospital Scholars, Danforth Scholars in Medicine, Distinguished Alumni Scholars (DAS), Distinguished Faculty Scholars (DFS), and Distinguished Student Scholars (DSS).

### **Barnes-Jewish Hospital Medical Staff Association Scholarship**

One full-tuition, four-year scholarship will be awarded to a student in each entering class beginning in 1999. Selection of the Barnes-Jewish Hospital Medical Staff Association Scholar is the same as for the Distinguished Student Scholarship.

### **Danforth Scholars in Medicine**

Named in honor of William H. and Elizabeth Gray Danforth, the chancellor and first lady of the University from 1971 to 1995, the Danforth Scholars Program is a tribute to their legacy of exemplary leadership and service.

### **Distinguished Alumni Scholarships**

Up to four full-tuition scholarships are awarded annually to members of the entering first-year class. The application procedure and selection process are the same as for the Distinguished Student Scholarships. Since 1989, Distinguished Alumni Scholarships have been named in honor of:

Leonard Bacharier, MD

Thomas Bailey, MD

Thomas Baranski, MD/PhD

Walter F. Benoist, MD

Leonard Berg, MD  
Grace E. Bergner, MD  
Laura Bierut, MD  
Ellen F. Binder, MD  
Stanley J. Birge, MD  
Eugene M. Bricker, MD  
Keith H. Bridwell, MD  
Angela Brown, MD  
Elmer B. Brown, MD  
J. William Campbell, MD  
David B. Clifford, MD  
C. Robert Cloninger, MD  
Jennifer W. Cole, MD  
John N. Constantino, MD  
Justin J. Cordonnier, MD  
Michael Crowder, MD, PhD  
Carlos Daughaday, MD  
John D. Davidson, MD  
Louis P. Dehner, MD  
Brian Dieckgraefe, MD, PHD  
Robert C. Drews, MD  
Bradley Evanoff, MD, MPH  
Ronald G. Evens, MD  
Lewis C. Fischbein, MD  
I.J. Flance, MD  
James W. Fleshman, MD  
James Forsen Jr., MD  
Bernard T. Garfinkel, MD  
Deborah J. Gersell, MD  
Jerome J. Gilden, MD  
Harvey S. Glazer, MD  
David Goldring, MD

Sidney Goldring, MD  
Samuel B. Guze, MD  
Paul O. Hagemann, MD  
Marc R. Hammerman, MD  
Alexis F. Hartmann, MD  
Alexis F. Hartmann Jr., MD  
John C. Herweg, MD  
Scott G. Hickman, MD  
Richard W. Hudgens, MD  
David Hunstad, MD  
Robert S. Karsh, MD  
John M. Kissane, MD  
Ira J. Kodner, MD  
Allan E. Kolker, MD  
Stuart A. Kornfeld, MD  
Lawrence M. Kotner Jr., MD  
Nicholas T. Kouchoukos, MD  
William M. Landau, MD  
Timothy J. Ley, MD  
Virgil Loeb, MD  
Maurice Lonsway, MD  
Robert H. Lund, MD  
Alan P. Lyss, MD  
Philip W. Majerus, MD  
Mark J. Manary, MD  
Paul R. Manske, MD  
Gerald Medoff, MD  
Paul A. Mennes, MD  
J. Neal Middelkamp, MD  
Benjamin Milder, MD  
Barbara S. Monsees, MD  
Carl V. Moore, MD

George E. Murphy, MD  
David G. Mutch, MD  
D. Michael Nelson, MD, PhD  
Robert C. Packman, MD  
Charles W. Parker, MD  
Mary L. Parker, MD  
Alan L. Pearlman, MD  
M. Alan Permutt, MD  
Frederick D. Peterson, MD  
Gordon W. Philpott, MD  
Gary A. Ratkin, MD  
Edward H. Reinhard, MD  
Fred C. Reynolds, MD  
William J. Ross, MD  
Will R. Ross, MD, MPH  
Joseph F. Ruwitch Jr., MD  
Llewellyn Sale Jr., MD  
George Sato, MD  
Bradley Schlaggar, MD/PhD  
Mark E. Frisse, MD  
Gustav Schonfeld, MD  
Clay F. Semenkovich, MD  
Hyman R. Senturia, MD  
Donald Sessions, MD  
Gary D. Shackelford, MD  
Penelope G. Shackelford, MD  
Larry Shapiro, MD  
Bernard L. Shore, MD  
Barry A. Siegel, MD  
Emily L. Smith, MD  
William F. Stenson, MD  
Arnold W. Strauss, MD

Robert A. Swarm, MD  
Steven L. Teitelbaum, MD  
Jessie L. Ternberg, PhD, MD  
Bradley T. Thach, MD  
Mildred Trotter, PhD  
Stanley Wald, MD  
Stuart Weiss, MD  
Alison J. Whelan, MD

### **Distinguished Alumni Scholarship Program honorees 2016-2017:**

R. Mark Grady, MD '89  
Judy C. Lieu, MD '92  
Lisa M. Moscoso, MD/PhD '98, HS '02  
Janice W. Semenkovich, MD '81

### **Distinguished Faculty Scholars**

The Distinguished Faculty Scholar Program provides merit-based scholarships (up to full-tuition for four years) to students who demonstrate their commitment to bringing diverse people together and to enhancing service to disadvantaged groups.

These awards are for students who have:

- Been recognized as scholars from groups that are historically underrepresented in medicine;
- Challenged themselves and excelled academically;
- Demonstrated leadership;
- Engaged in or shown a commitment to community service;
- Demonstrated their commitment to bringing diverse people together (as, for example, by having been involved in diversity initiatives in their schools or communities); and,

- Demonstrated a commitment to serving historically underprivileged populations, and/or demonstrated achievement and determination in the face of personal challenges.

## **Distinguished Student Scholarships**

Distinguished Student Scholarships are awarded annually (up to full-tuition for four years) to selected members of the entering first-year class based on meritorious academic and personal accomplishments. Final selection of scholarship recipients is made by a committee of the faculty based on demonstrated superior intellectual achievement as well as an assessment of the applicant's character, attitude, motivation and maturity.

## **Scholarship funds**

**Grace Bergner Abrams Scholarship.** Established in 1995 through the bequest of Dr. Grace Bergner Abrams, MD '43. Friends and patients also contributed to this endowed scholarship.

Helen M. Aff-Drum Scholarship Fund. Established in 1988 to provide scholarship support to financially deserving medical students.

**Anderson Student Scholarship.** Established through bequest in 2001 by Rolf L. Anderson, MD '62.

**Franz and Harriet I. Arzt Student Loan.** Established by the estate of Dr. and Mrs. Franz Arzt in 2013.

**Isak and Breine Ascher Scholarship Fund.** The late Dr. Eduard Ascher, MD, '42, established this scholarship through a trust to memorialize his parents, who were lost in the Holocaust during World War II. He chose Washington University School of Medicine because of their willingness to "give a chance" to an Austrian refugee.

**Arthur I. Auer MD1956 and Marian D. Auer, NU1955 Scholarship.** Established in 2012

by Dr. and Mrs. Auer to provide scholarship assistance to worthy students.

**Dr. William Monroe Baker Fund.** Established in 1988 under the will of Miss Lola Braxton in memory of Dr. Baker to provide scholarship assistance to worthy students.

**Barnes-Jewish Hospital Medical Staff Association Scholarship.** Established in 1998 by the Barnes-Jewish Hospital Medical Staff Association to provide financial assistance to students based on academic excellence.

**Floyd A. and Rita Sue Barnett Scholarship.** Established in 1994 from a trust agreement (1989) of Floyd and Rita Sue Barnett for scholarships for students who are academically well-qualified and financially deserving.

**Dr. Frederick Barry Scholarship.** Established in 2009 through the estate of Dr. Frederick Barry for medical student education.

**The Dr. Joseph A. and Helene H. Bauer Scholarship.** Created in 1987 by Dr. and Mrs. Joseph A. Bauer to provide scholarship support to academically well-qualified and financially deserving medical students.

**Edward Baumhardt Scholarship.** Established in 2014 through the estate Dr. Edward Earl Baumhardt.

**William L. Becker, MD Scholarships.** Established in 2012 by Dr. William Becker, MD '87 and awarded based on financial need.

**Albert G. Blanke, Jr. Endowed Scholarship.** Established by a generous gift in 1982, the fund provides scholarship assistance for deserving students in the School of Medicine.

**Dr. John A. Bowers Scholarship Fund.** Established through the estate of Dr. and Mrs. John Bowers. The scholarship is awarded based on need.

**Warren Bowersox, MD Scholarship Fund.** Established in 2005 by Mrs. Warren

Bowersox in memory of her husband, who was a member of the MD class of 1943, to support scholarships.

**Isabel Valle Brookings Scholarship.** Established in 1957 by Isabel Valle Brookings (Mrs. Robert S.) for scholarships and loans in the School of Medicine.

**The Seymour Brown, MD and Rose Tropp Brown Scholarship.** Established by the estate of Dr. Seymour and Mrs. Rose Tropp Brown.

**Jane Stewart and Robert S. Brua, MD Scholarship Fund.** Established in 1996 through the generosity of Dr. Brua.

**The Bruce Family Scholarship.** Established in 2012 by Robert and Suzanne Bruce to commemorate three generations of physicians: Helen L. Bruce, MD; her son, Robert M. Bruce, MD; and her grandson, Carl T. Bruce, Washington University School of Medicine, Class of 2015.

**Robert W. Butcher, MD Scholarship.** Established in 2012 by an anonymous donor.

**Ruth Elizabeth Calkins Scholarship Fund.** Established by Dr. Delevan Calkins in honor of his granddaughter.

**Dr. Richard Brookings and Mr. Robert Carter Medical School Scholarship.** Established through a bequest of Robert S. Brookings.

**Gilbert L. Chamberlain, MD Scholarship Fund.** Created in 1971 by Dr. Gilbert L. Chamberlain to be used to aid worthy students in acquiring their medical education.

**Cecil M. Charles – Nu Sigma Nu Medical Student Scholarship Fund.** Established by the Nu Sigma Nu Medical Fraternity in memory of Dr. Charles.

**Tien Hsin Cheng, MD Endowed Scholarship in Medicine.** Established in 2007 by Dr. Tien Hsin Cheng, MD '76, for deserving medical students with financial need.



**Dr. Kehar S. Chouke Loan.** Established by the estate of Dr. Kehar Singh Chouké.

**Class of 1945 Scholarship.** Established by the alumni from the Class of 1945 in honor of their 45th reunion.

**Class of 1954 Scholarship In Memory of Dan Nathans.** Established in 2000 by the alumni from the Class of 1954 in memory of their classmate, Daniel Nathans, who was awarded the Nobel Prize in Medicine in 1978. Members of the Nathans family also contributed to the establishment of the fund.

**Class of 1956 Scholarship.** Established in 1996 by members of the Class of 1956 in honor of their 40th reunion.

**Class of 1959 50th Reunion Scholarship.** Established in 2008 by members of the Class of 1959 in honor of their 50th reunion.

**Class of 1960 Scholarship.** Established in 2010 by the members of the Class of 1960 in honor of their 50th reunion.

**Class of 1961 Scholarship.** Established in 2001 by the members of the Class of 1961.

**Class of 1964 Scholarship.** Established in 1993 by the alumni from the Class of 1964 to support scholarships.

**Class of 1968 Scholarship.** Established in 1998 by the alumni from the Class of 1968 in honor of their 30th reunion to support student scholarships.

**Class of 1969 Scholarship.** Established in 1994 by members of the Class of 1969 in honor of their 25th reunion.

**Class of 1970 Scholarship.** Established in 1996 by members of the Class of 1970 in honor of their 25th reunion.

**Class of 1971 Scholarship.** Established in 1999 by members of the Class of 1971 in honor of their 25th reunion.

**Class of 1972 Scholarship.** Established in 1999 by members of the Class of 1972 in honor of their 25th reunion.

**Class of 1973 Scholarship.** Established in 2000 by members of the Class of 1973 in honor of their 25th reunion.

**Class of 1974 Scholarship in Honor of Dr. Jonathan Mann.** Established in 2002 by members of the Class of 1974 for their 25th reunion and to honor the memory of their classmate, Dr. Jonathan Mann, a pioneering AIDS researcher, who died in the Swissair Flight 111 accident in 1998.

**Class of 1975 Scholarship.** Established in 2000 by members of the Class of 1975 in honor of their 25th reunion.

**Class of 1976 Scholarship.** Established in 2000 by members of the Class of 1976 in honor of their 25th reunion.

**Class of 1977 Scholarship.** Established in 2002 by members of the Class of 1977 in honor of their 25th reunion.

**Class of 1978 Scholarship.** Established in 2002 by members of the Class of 1978 in honor of their 25th reunion.

**Class of 1979 Scholarship.** Established in 2003 by members of the Class of 1979 in honor of their 25th reunion.

**Class of 1980 Scholarship.** Established in 2004 by members of the Class of 1980 in honor of their 25th reunion.

**Class of 1981 Scholarship.** Established in 2005 by members of the Class of 1981 in

honor of their 25th reunion.

**Class of 1982 Scholarship.** Established in 2006 by members of the Class of 1982 in honor of their 25th reunion.

**Class of 1983 Scholarship.** Established in 2007 by members of the Class of 1983 in honor of their 25th reunion.

**Class of 1984 Scholarship.** Established in 2008 by members of the Class of 1984 in honor of their 25th reunion.

**Class of 1985 Scholarship.** Established in 2016 by members of the Class of 1985.

**Class of 1986 Scholarship.** Established in 2011 by members of the Class of 1986 in honor of their 25th reunion.

**Grace Strong Coburn Scholarship.** Created in 1962 through the bequest of Mrs. Grace Strong Coburn for scholarships in the School of Medicine.

**Jack W. Cole, MD Scholarship Fund.** Established in 2002 by Mrs. Ruth Kraft Cole, in memory of her late husband, a 1944 graduate of WUSM, and to recognize Dr. Cole's deep appreciation for the education he received. Preference will be given to a student pursuing a career in academic medicine.

**T. Griswold Comstock Scholarships.** Established under the will of Marilla E. Comstock for students who would otherwise be unable to obtain a medical education.

**Robert Emmet Connor Family Scholarship Fund.** Established in 2010 by Dr. Robert Connor in appreciation for the medical education he received at Washington University.

**Clark and Mildred Cox Scholarship for Women.** Established in 1998 with a donation from the Clark Cox Trust.

Arpad Csapo, MD Memorial Scholarship Fund. Established in 1982 by Elise Csapo in memory of her husband, and by his friends and colleagues to provide assistance for students who have shown promise in fields relating to reproductive medicine.

**William H. and Elizabeth Gray Danforth Scholars Program.** Established in 1998 in honor of Chancellor Danforth's retirement. The Scholarship recipients must demonstrate outstanding academic promise and a record of community service that reflects Dr. Danforth's values and actions.

**Harriet Arey and John D. Davidson Scholarship.** Established in 2000 by Harriet Arey and John D. Davidson for scholarships in the School of Medicine.

**Davie Family Endowed Scholarship.** Established by Joseph Davie, MD '68, and his family to support scholarships for deserving medical students.

**Paul H. and Ruth K. DeBruine Endowed Scholarship.** Established in 1994 by Dr. and Mrs. Paul DeBruine in honor of his 35th medical school reunion to provide scholarship support to academically well-qualified and financially deserving medical students.

**The Melvin DeHovitz Scholarship.** Established by the estate of Mr. DeHovitz in honor of his mother, Jeanette DeHovitz.

**Distinguished Alumni Scholarship.** These scholarships are made available by generous donations from our alumni. The Washington University Medical Center Alumni Association Executive Council names the scholarships for alumni each year to honor their outstanding contributions and leadership.

**Distinguished Faculty Scholarship.** These scholarships are for students who have challenged themselves and excelled academically, demonstrated leadership, engaged in or shown a commitment to community service, demonstrated their commitment to bringing diverse people together, and enhanced service to disadvantaged groups. In addition, it links each of the scholarship recipients with a faculty mentor who has contributed to the diversity of the medical school.

**Distinguished Student Scholarship.** These scholarships are awarded to students who are selected primarily on the basis of merit (demonstrated superior intellectual and personal achievements, and an assessment of the applicant's character, attitude, motivation, and maturity.)

**Dr. Charles Drabkin Scholarship.** Created in 1964 to provide financial assistance to medical students.

**Hazel B. Duncan Scholarship Fund.** Established in 2003 through the bequest of Hazel B. Duncan, NU '26.

**Eichner-Dominguez Family Scholarship.** Established in 2005 by Lora Eichner, MD '93, to make it easier for students to attend medical school.

**Dr. Howard Eisen and Dr. Judith Wolf Scholarship.** Established in 2013 by Dr. Howard Eisen and Dr. Judith Wolf, who both completed their residencies at Washington University School of Medicine. Provides support to medical students based on need or merit.

**Dr. and Mrs. Max Elliott Scholarship.** Established in 2000 by Dr. Elliott, MD '64, to assist medical students.

**Robert B. Fickel, DDS Scholarship Fund.** Established by a 1941 graduate of Washington University School of Dental Medicine.

**Carl Fisch Scholarship Fund.** Created in memory of Dr. Fisch by his daughter, Marguerite F. Blackmer. Provides support to students who demonstrate financial need.

**Flance Medical Scientist Traineeship.** Established in honor of faculty member and alumnus I. Jerome Flance, MD '35 by the Harry Edison Foundation for support of a student in the Medical Scientist Training Program.

**Ann Randolph Flipse, MD Scholarship in Medicine.** Established in 2007 by Dr. Ann

Randolph Flipse to support deserving medical students with a preference for students whose undergraduate degree was in English, history, philosophy, music, arts or a graduate degree in the humanities.

**George F. Gill Scholarship in Pediatrics.** Instituted in memory of a former clinical professor of pediatrics.

**Helen H. Glaser Scholarship for Women Medical Students.** Established in 1999 by Robert J. Glaser, M.D., emeritus trustee and former faculty member, in memory of his wife, Helen H. Glaser, MD '47.

**Anne T. and Carl Goetsch Scholarship.** This fund was established in 2003 through the bequest of Dr. Anne T. Goetsch, MD '41, HS44, and Dr. Carl Goetsch, HS '43, to support medical students.

**Norman M. and Eleanor H. Gross Scholarship Fund.** Established in 2001 through a bequest from Mr. Gross to provide financial assistance to qualified medical students.

**Paul H. and Lila L. Guttman Scholarship Fund.** Established in 1976 to provide financial assistance to qualified medical students.

**Paul O. and Nancy P. Hagemann Scholarship Fund.** Established by Dr. and Mrs. Hagemann to assist academically well-qualified students with documented financial need.

**Donald R. and Mary N. Harkness Family Scholarship.** Established in 2004 by Drs. Donald and Mary Harkness, both MD '58, in memory of their daughter, Laurel, MD '86.

**Lee B. and Virginia G. Harrison Scholarship.** Established in 1996 for scholarships for students who intend to pursue a career in internal medicine or family practice. Dr. Harrison was a 1927 graduate of the School of Medicine.

**Thomas James Hartford, Jr. Scholarship.** Established in 2008. Priority is given to a

medical student who is considering a career in health administration.

**Harvielle-Bailey Scholarship for Medicine or Surgery.** Established in 1970 under the will of Miss Isabel Bailey Harvielle as a memorial to Dr. Charles Poplin Harvielle and Dr. Steele Bailey, Jr., alumni of the School.

**Ronald C. and Nell W. Hertel Endowed Scholarship for the School of Medicine.**

Established in 1995 and endowed in 2005 in memory of Mrs. Nell Hertel to provide financial aid to medical students.

**Raymond F. Holden, Jr. and Gertrude K. Holden Scholarship.** Established in 2009 by the Estate of Dr. Raymond F. Holden, Jr., MD '33, to provide scholarship support to medical students.

**Allan O. and Doris M. Holtzman Scholarship.** Established by Dr. David and Mrs. Tracy Holtzman in honor of Dr. Holtzman's parents.

**Donald J. Horsh Scholarship.** Established in 1985 to honor Dr. Donald J. Horsh, former Associate Professor and Deputy Director for the Health Administration Program. Provides support to medical students.

**Dr. and Mrs. Charles Y. (Yueh-Gin Gung) Hu Scholarship.** Established in 2002 to provide a scholarship to medical students.

**Dr. Grace Huse Memorial Fund.** Provides scholarship awards for deserving Washington University medical students.

**Justan Icks Scholarship.** Established in 2008 by anonymous donor to support students with high academic achievement.

**Jackson Johnson Scholarship.** Provided through a bequest in 1930 from Jackson Johnson.

**Dr. Lorraine A. Johnsrud Scholarship.** Established in 1983 as a memorial to Lorraine from her classmates, friends, and family to assist deserving medical students in the funding of their medical expenses.

**Henry J. Kaiser Family Foundation – Medical Century Club Scholarship Endowment.** Following the foundation's generous gift in 1980 for medical student scholarships, the Medical Century Club accepted the challenge to raise new scholarship funds to match an additional gift from the foundation.

**Jay and Ronnie Kaiser Endowed Scholarship.** Established in 2004 by Dr. Jay Kaiser, MD '72, and Mrs. Ronnie Kaiser in appreciation of the financial aid Dr. Kaiser received as a student and to provide support for medical students.

**George D. Kettelkamp Scholarship.** Established in 1969 by Mrs. Kettelkamp in memory of her husband, an alumnus of the School of Medicine.

**M. Kenton King, MD Scholarship.** Created by the Executive Faculty to honor Dr. King at the time of his retirement in 1989 as Dean of the School of Medicine after having served in that position for 25 years.

**Saulo Klahr Endowed Scholarship.** Established in 2010 by Mrs. M. Carol Klahr in memory of her husband, Dr. Saulo Klahr, a WUSM professor of kidney disease for 46 years, to provide scholarship support to medical students.

**Ira J. Kodner Scholarship.** Established in 2014 to honor Dr. Ira Kodner, MD, Professor Emeritus of Surgery.

**Albert F. Koetter, MD Scholarship Fund.** Established in 1978 by Mrs. Stella Koetter Darrow in memory of her father, an alumnus and former faculty member of the School of Medicine.

**Nicholas T. Kouchoukos, MD '61 and Judith B. Kouchoukos Scholarship.** Established in 2011 by Dr. Nicholas T. and Mrs. Judith B. Kouchoukos, to provide scholarship



support to medical students.

**Helen Hoerr Kurtz Endowed Scholarship in the School of Medicine.** Established by the estate of Mrs. Helen Hoerr Kurtz.

**Anne L. Lehmann Scholarship Fund.** Established in 1983 to grant continued scholarship support to medical students.

**Life Insurance Medical Scholarship Fund.** Created in 1972 from residual funds in the Life Insurance Medical Research Fund. Scholarship support is now awarded to students in the MD degree program.

**Maude L. Lindsey Memorial Scholarships.** Created in 1976 to assist students in the School of Medicine.

**John R. Lionberger, Jr. Medical Scholarship Endowment Fund.** Created in 1982 by Dr. John R. Lionberger to be used to aid worthy students in acquiring their medical education.

**E.A. Marquard Memorial Student Scholarship.** Established in 1994 from the E. Alfred Marquard Memorial Student Loan Fund to provide scholarships for deserving medical students.

**Alma Mavis Scholarship.** Created in 1988 under the will of Alma Mavis to assist students intending to practice family medicine.

**Eliza McMillan Scholarship.** Provides assistance to young women in any of several schools of the University to secure an education.

**Medical Alumni Scholarship Fund.** Awarded on the basis of academic achievement and financial need.

**Edith and Martin Meltzer Scholarship.** Established in 2004 by the Meltzer Family

Foundation to honor Dr. Gerald Meltzer's MD '63, parents, who established the foundation.

**Dr. Charles Miller, Jr. and Florence Noland Miller Scholarship.** Established in 2014 to support medical students.

**Roy B. and Viola R. Miller Memorial Fund.** Created in 1963 through the bequest of Roy B. Miller to provide scholarships for medical students.

**The Warren S. and Dorothy J. Miller Scholarship Fund.** Established in 1982 through the bequest of Dorothy J. Miller to provide scholarships for any students engaged in studies leading to the degree of Doctor of Medicine.

**Joseph J. and Ernesta G. Mira Scholarship Fund.** Established in 1988 by Dr. and Mrs. Mira to provide assistance to students from the Alton, Illinois area. Available to others when there are no students from the Alton/Madison County area.

**George and Elizabeth Ann Neilson Scholarship.** Established by the estate of George and Elizabeth Neilson.

**David and Janine Nelson Scholarship in Medicine.** Established in 2011 by Dr. David Nelson, a 1963 graduate of Washington University School of Medicine, and his wife, Janine.

**Nancy S. Newlin, MD and Henry H. Newlin, JD Scholarship Fund.** Established by Dr. Newlin and her late husband.

**Norland Endowed Scholarship.** Established in 2015 by Dr. Charles C. Norland, a 1959 graduate of Washington University School of Medicine, and Mrs. Dorothy Norland.

**Mr. and Mrs. Spencer T. Olin Fellowships for Women.** Provides for annual financial support to female graduates of an undergraduate institution in the United States in any of several disciplines. Application deadline is February 1.

**Spencer T. and Ann W. Olin Medical Fellowships.** Created in an effort to help fill the continuing shortage of physicians who pursue careers in biomedical research, the awards are primarily for students in the Medical Scientist Training Program.

**Dr. Roy W. Osterkamp Memorial Scholarship Fund.** Established in 2003 by Mrs. Linda Osterkamp Desloge and Mrs. Lila Osterkamp Haberberger, in memory of their father, Dr. Roy W. Osterkamp, DE '36. Preference will be given to a student pursuing a career in a medical field related to dental medicine, such as maxillo-facial surgery. If no student shares this interest, it will be awarded based on need.

**F. Thomas Ott (MD '65) and Mary Miller Ott (MSN '68) Scholarship.** Established in 2010 by Dr. F. Thomas and Mrs. Mary Miller Ott to provide scholarship support to medical students.

**Dr. Sidney F. (Class of '29) and Dora K. Pakula Scholarship.** Established in 2001 by Dr. and Mrs. Lawrence C. Pakula in memory of Dr. Pakula's parents to support student scholarships.

**Mary Langston Parker Scholarship.** Established in 2014 by The Parker Family to honor Dr. Mary Langston Parker, MD53, Professor Emerita of Preventive Medicine and past director of Student Health Services.

**William B. Parker Scholarship.** Established in 1976 by the School of Medicine in honor of William B. Parker's 51 years of service.

**The Robert W. and Elise Hampton Parsons Scholarship Fund.** Established in 2014 by Dr. Robert W. Prasons, MD54, to support medical students.

**William A. Peck, MD Scholars in Medicine.** Established in 2002 to recognize Dr. Peck's 14 years of service to the Medical Center and Washington University community. University trustees, faculty, staff, alumni, and friends honored Dr. Peck with gifts to this scholarship.

**Peterson Group Scholarship.** Established in 2014 by Peterson Group to provide financial support to medical students.

**Philpott Family Scholarship.** Established in 1995 by the Philpott family to provide support for medical students with financial need and excellent academic achievement.

**Pi Beta Phi – Charles Ruggieri Scholarship Fund.** Established in 1985 by the Washington University Alumni of the Pi Beta Phi medical fraternity to honor Charles Ruggieri and to assist deserving medical students enrolled in Washington University School of Medicine with the funding of their medical education.

**The Virginia Keck, George M. (M.D. '32) and George K. (M.D. '64) Powell Medical Student Scholarship Fund.** Established in 1984 by Mrs. George M. Powell in grateful appreciation for the medical education provided to her husband and son by Washington University School of Medicine, which so positively affected the lives of the Powell families.

**Henry and Louise Reller Scholarship.** To be given to medical students in the name of the parents of Louise Reller.

**Gennaro Resta Scholarship.** Established in 2014 by Dr. Regina M. Resta (Class of 1985) and Dr. Michael A. Kolodziej (Class of 1984) to honor Dr. Resta's father.

**Lyman K. Richardson, MD Scholarship Fund.** Established in 1993 by Mrs. Ellen Richardson to provide scholarship support to medical students.

**John E. Rittmann Scholarship.** Established in 2015 by Dr. John E. Rittman, a 1962 graduate of Washington University School of Medicine.

**Samuel Jennings Roberts Scholarship Fund.** Created to provide scholarships for any students engaged in study leading to the degree of Doctor of Medicine.

**Robert Allen Roblee Scholarship Fund.** Established in 1948 through a gift of Mrs.

Joseph H. Roblee for students in the School of Medicine.

**Thomas W. and Elizabeth J. Rucker Scholarship Fund.** Created in 1956 through the bequest of Eugenia I. Rucker, in memory of her mother and father.

**J. Max Rukes Scholarship Fund.** Established in 1987, the fund provides scholarship support to deserving medical school students, with a preference for those who are interested in endocrinology.

**Joseph H. Scharf Scholarship Fund.** Provided in 1949 through the bequest of Dr. Joseph H. Scharf.

**Robert G. and Maxine W. Scheibe Scholarship.** Established in 1999 by Robert G. Scheibe, a 1960 Washington University graduate who also received his medical degree here in 1964 and his wife, Maxine, who is a 1966 graduate of the Washington University School of Nursing.

**William H. and Ella M. Schewe Scholarship.** Established to provide financial assistance to worthy students in the medical school.

**Dr. David Schlessinger Endowed Scholarship.** Created in 2006 by Dr. Dan Longo in honor of his mentor, Dr. Schlessinger, who was a Professor of Molecular Microbiology, Professor of Genetics and Professor of Microbiology at Washington University School of Medicine.

**Dr. Gustav and Mrs. Miriam Schonfeld Scholarship.** Established in 2010 by Dr. Gustav and Mrs. Miriam Schonfeld to support medical students. Dr. Schonfeld, MD60, was past chair of the Department of Internal Medicine and physician-in-chief at Barnes-Jewish Hospital.

**Edna Schrick, MD Scholarship Fund.** Established in 1992 by Dr. Schrick to provide scholarship support.

**Mordecai E. Schwartz Endowed Scholarship.** Established in 2006 by Dr. Mary R. Schwartz, Dr. David Cech and Alexander I. Schwartz in memory of their father, who was committed to the training of future physicians.

**Edward L. Schweich Scholarship.** Established in 2010 by Mr. and Mrs. Henry L. Schweich, in memory of Edward L. Schweich, for medical student scholarship support.

**Senior Merit Scholarship.** Established by an anonymous alumnus of the School of Medicine, it provides a scholarship to a senior student who has earned a distinguished record of academic and personal achievements during the first three years in the medical school.

**Charlie W. Shaeffer, Jr. Endowed Scholarship Fund.** Established in 2008 by Charlie Shaeffer (MD '64) and his wife, Claire, for medical students, based on academic merit and/or financial need.

**Dr. John B. Shapleigh Scholarship Fund.** Established in 1926 through the bequest of Dr. John B. Shapleigh and supplemented by contributions from Mrs. Shapleigh and Miss Margaret Shapleigh.

**Alexander Balridge Shaw Scholarship Fund.** Created in 1958 through the bequest of Roy A. Shaw in memory of his father, Dr. Alexander Balridge Shaw.

**William T. Shearer and Lynn Des Prez Diversity Scholarship.** Created by William T. Shearer, MD '70, and his wife, Lynn Des Prez. Scholarships are awarded with a preference for under-represented students.

**Dr. Edward Hiroshi Shigeoka Scholarship Fund.** Created in 1988 by Dorothy F. Shigeoka in memory of her husband, Dr. Edward Hiroshi Shigeoka, to help disadvantaged and deserving students pursue their careers in medicine.

**Ernie Simms Scholarship Fund.** Founded in 1984 by friends, colleagues and former students of Professor Simms in recognition of his contributions to scholarly research

and teaching in the Department of Microbiology and Immunology.

**Dr. and Mrs. Vergil N. Slee Endowed Scholarship Fund.** Established in 2012 through a bequest from 1941 graduate of the School of Medicine, Dr. Vergil N. Slee and his wife.

**Stanley B. Smith, MD Scholarship.** Established in 2001 in memory of Samuel and Dora Smith, Dr. Smith's parents, to support student scholarships.

**Dr. Dwight H. Stone Scholarship.** Established by Mr. Dwayne Stone in honor of his brother, Dr. Dwight H. Stone, a 1959 graduate of the School of Medicine.

**Beulah B. Strickling Scholarship Fund.** Established in 1960 with a bequest from Mrs. Beulah B. Strickling.

**Marleah Hammond Strominger Scholarship.** Established in 1971 by Donald Strominger, MD and supported by family and friends of Marleah Hammond Strominger. The recipient shall be a motivated student with need for financial assistance.

**Mary and Ernst Stuehrk Scholarship Fund.** Established in 1987 to assist medical students with documented financial need.

**Edwin H. and Virginia M. Terrill Scholarship Fund.** Established in 1964 with the bequest of Dr. Edwin H. Terrill, an alumnus.

**Betty L. Thompson Scholarship Endowment.** Established in 2001 by Anthony Thompson, in honor of his mother, Betty.

**Mildred Trotter Scholarship Fund.** For students with documented financial need, the fund was established in 1979 by Dr. and Mrs. Paul Guttman, and supplemented by former students of Dr. Trotter, as a tribute to her many years of teaching in the Department of Anatomy.

**Hiromu Tsuchiya Scholarship Fund.** Created to provide scholarships in the School of Medicine.

**Tuholske-Jonas-Tuholske Medical Scholarship Fund.** Established in 1974 by Rose T. Jonas in memory of her father, husband and brother. The recipient shall be a senior student preparing to enter the field of surgery, obstetrics and gynecology, or internal medicine.

**Cornelia Van Prooyen, MD Scholarship Fund.** Established in 1987, the fund provides scholarship support and other financial assistance to female medical students.

**George S. and Aspasia N. Vellios Scholarship.** Established by Frank Vellios, MD '46, in honor of his parents. Scholarships are awarded to deserving medical students with financial need.

**Louis H. Waltke and Marie Waltke Memorial Fund for Medical Education.** Created in 1984 to provide scholarships and fellowships at the School of Medicine.

**Dr. Robert A. Weiss Scholarship.** Established by Dr. and Mrs. Robert Weiss.

**George and Irene Wolf Medical Scholarship Fund.** Established by the donors to benefit students in the School of Medicine.

**Pamela F. Gallin Yablon, MD Scholarship.** Established in 2008 by Dr. Pamela F. Gallin Yablon and Mr. Leonard H. Yablon to support medical students.

**Dr. Mitchell and Elaine Yanow Scholarship Fund.** Established in 2002 by the children of Dr. and Mrs. Yanow to honor the memory of their parents and to provide support for deserving medical students.

**George Zografakis Memorial Scholarship Fund.** Created by the family and friends of Dr. Zografakis, a distinguished faculty member in the Department of Surgery.



## Loan funds

**Auer-Rosenfeld Memorial Loan Fund.** Established by Mrs. Elizabeth Auer to be used for educational loans to students.

**Dr. John C. Boetto Loan Fund.** Established in 1993 by a bequest from Mrs. Josephine D. Boetto as a memorial to her son to provide loans for deserving medical students.

**Otto W. Brandhorst Loan Fund.** Created in 1985 by the estate of Fern Crawford. This fund supports loans to students in the School of Medicine.

**Dr. Harold A. Budke Loan.** Established in 1998 to provide financial assistance to needy and deserving medical students.

**Harold A. Budke, MD, Loan Fund II.** Established in 2001 with a bequest from the estate of Etta Elise Wedemeyer to provide loans to needy and deserving female students who will practice family medicine, internal medicine or obstetrics-gynecology medicine.

**Class of 1947 Loan Fund.** Established in 1996 by members of the class of 1947 in honor of their 50th reunion.

**Jess K. Goldberg Memorial Loan Fund by Ophelia H. Kooden and Violet G. Sachs.** Created in 1970 to provide zero-interest loans for medical students in memory of the donors' brother who passed away while attending medical school.

**Health Professions Student Loan Fund.** Established by federal legislation for medical students with a demonstrated financial need. Loans are available for long terms at favorable rates.

**William Randolph Hearst Medical Scholars Loan Fund.** In 1989, the Hearst Foundation provided funding for a new and innovative loan program which provides interest-free loans to students in their last year of study.

**Ursula Hecker Loan Fund.** Established in 1967 by a bequest from Ursula Lee Hecker for the use and benefit of worthy, deserving and needy medical students.

**Kathy E. Holden Loan Fund.** Established by Mrs. Roland Holden and the Roland and Ruby Holden Foundation in honor of her granddaughter, Kathy E. Holden, and in recognition of W. Edwin Dodson, MD, to support loans to deserving medical students.

**Horncrest Foundation — School of Medicine Loan Fund.** In 1982, the trustees of the Horncrest Foundation approved a proposal on behalf of the School of Medicine to match up to a generous annual cap for five year loan funds solicited by the School. The campaign was extremely successful and now provides loan funds to students with documented financial need.

**W. K. Kellogg Foundation Loan Fund.** Provides financial assistance to medical students in need of such aid.

**Gustel and Edith H. Kiewitt Scholarship Loan Fund.** Provides loan funds for medical students.

**Medical Scholars Loan Program.** Established in 1985 by members of the William Greenleaf Eliot Society, this fund provides an interest-free source of long-term student loans. Annual contributions from alumni and friends support this perpetual and growing resource upon which current and future medical students will draw.

**George W. Merck Memorial Loan Fund.** Established in 1959 by The Merck Company Foundation, the original purpose of the loan was modified in 1983 to provide loans to graduating students which would help bridge the transition from student to resident physician.

**Edward F. Musgrave Loan Fund.** Established in 1981 by Mrs. Jeannette L. Musgrave. The fund supports medical student loans.

**Dr. Lloyd L. Penn and Goldie H. Penn Student Loan.** Dr. Penn, MD '33 established the

fund in 1977 to aid well-qualified and deserving students.

**Perkins Student Loan.** A federal program (formerly National Direct Student Loan) to provide loans to students with financial need. Permits repayment over an extended period at a favorable interest rate.

**Dr. William C. and Elva Pratt Loan Fund.** Established in 1982 for medical students with demonstrated financial need.

**G.H. Reinhardt Memorial Scholarship Loan Fund.** Established in 1947 through the bequest of G. H. Reinhardt.

**Aline Rixman Loan Fund.** Created in 1940 by William Rixman in memory of his wife, the fund is used to alleviate unexpected financial emergencies of medical students.

**James L. and Dorothy Rouner Loan Fund.** Established in 1997 by Dr. James and Mrs. Dorothy Rouner to be used for medical students pursuing a career in primary care—general internal medicine.

**Caroline O. Schlesinger Loan Fund.** Established in 1969 to provide financial support for medical students.

**School of Medicine Student Loan Fund.** Established to make loans to students with documented financial needs.

**Washington University Medical Center Alumni Association Loan Fund.** Provides emergency loans to medical students.

**The Alan A. and Edith L. Wolff Loan Fund.** Established in 1993 by Mrs. Edith L. Wolff to provide loans to students with demonstrated financial need who are in their final year of study for the Doctor of Medicine degree.

# Applied Health Behavior Research Admission

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Please visit the [Applied Health Behavior Research website](#) for admissions information.

Further information:

- [Financial Assistance](#)
- [Standards for Satisfactory Academic Progress for Financial Aid Eligibility](#)

# Audiology and Communication Sciences Admission

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Please visit the [Program in Audiology and Communication Sciences website](#) for admissions information.

Further information:

- [Financial Assistance](#)
- [Standards for Satisfactory Academic Progress for Financial Aid Eligibility](#)

# Biology and Biomedical Sciences Admission

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Please visit the [Division of Biology and Biomedical Sciences website](#) for admissions information.

# Biomedical Engineering Admission

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Please visit the [Biomedical Engineering website](#) for admissions information.

# Biostatistics Admission

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Please visit the [Division of Biostatistics website](#) for admissions information.

Further information:

- [Financial Assistance](#)
- [Standards for Satisfactory Academic Progress for Financial Aid Eligibility](#)

# Clinical Investigation Admission

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Please visit the [Clinical Research Training Center website](#) for admissions information.

Further information:

- [Financial Assistance](#)
- [Standards for Satisfactory Academic Progress for Financial Aid Eligibility](#)

# Doctor of Philosophy Admission

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Please visit the [Division of Biology and Biomedical Sciences website](#) for admissions information.

# Genetic Epidemiology Admission

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Please visit the [Division of Biostatistics website](#) for admissions information.

Further information:

- [Financial Assistance](#)
- [Standards for Satisfactory Academic Progress for Financial Aid Eligibility](#)

## Occupational Therapy Admission

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Please visit the [Program in Occupational Therapy website](#) for admissions information.

Further information:

- [Financial Assistance](#)
- [Standards for Satisfactory Academic Progress for Financial Aid Eligibility](#)

## Physical Therapy Admission

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Please visit the [Program in Physical Therapy website](#) for admissions information.

Further information:

- [Financial Assistance](#)

- [Standards for Satisfactory Academic Progress for Financial Aid Eligibility](#)

# Population Health Sciences Admission

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Please visit the [Master of Population Health Sciences website](#) for admissions information.

Further information:

- [Financial Assistance](#)
- [Standards for Satisfactory Academic Progress for Financial Aid Eligibility](#)

# Public Health

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Please visit the [Master of Public Health website](#) for admissions information.

# Student Life

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Students at Washington University of School of Medicine meet the highest academic standards and also possess many talents outside of their studies. With full support and encouragement from the School of Medicine, its students initiate and run a number of student organizations; their missions run the gamut from serving the community to professional development to pursuing personal interests in the arts. Students also participate in intramural sports and fully enjoy all that the city of St. Louis has to offer.

## Intramural Programs

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Students enrolled in Washington University School of Medicine enjoy an active and diverse Intramural (IM) Program. The IM Program offers students the opportunity to participate in a wide range of sports. Utilizing the state-of-the-art facilities in the University's Athletic Complex, medical students pursue personal athletic interests and enjoy interaction with students enrolled in both undergraduate and graduate degree programs. The IM Program provides an excellent opportunity to socialize with colleagues as well as other graduate students. Differences in curricular demands among participants are considered in scheduling games so that neither academic nor athletic goals are compromised.

The School has always made a strong showing in both the mixed and graduate school division.

For further information about intramural sports, visit the [Recreation](#) website.

# Student Groups

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Students at Washington University School of Medicine are active participants in medical student organizations on the local, state and national levels. The American Medical Student Association (AMSA), the Student National Medical Association (SNMA), the American Medical Women's Association (AMWA), the Asian-Pacific American Medical Students Association (APAMSA), the Medical Student Section of the American Medical Association (AMA-MSS), the Missouri State Medical Association (MSMA), the Organization of Student Representatives (OSR) in the Association of American Medical Colleges (AAMC) and the Student Organized Community Clinic (SOCC) provide forums for addressing the educational, social and political concerns of medical students. The School of Medicine supports student participation in these national organizations and provides partial funding for travel and other expenses on an annual basis. Medical Student Government (MSG) represents the student interests, supports social and educational activities and expands the perspectives of the future graduates of the medical school.

Visit the [Office of Medical Student Affairs](#) for a complete list of student groups.

# Academic Societies

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To foster communication between students and faculty, three academic societies — The Joseph Erlanger and Evarts Graham Society, The Carl and Gerty Cori Society, and The Oliver Lowry and Carl Moore Society — meet independently throughout the academic year to enjoy a social hour, dinner and conversation. The societies promote

a collegial environment for the medical school's diverse faculty and student body. Medball, held in March of each year, is hosted in part by the academic societies and provides a formal social evening with medical faculty and medical students.

For a complete list of academic societies, visit the [Office of Medical Student Affairs](#).

## Washington University Medical Center Housestaff Auxiliary (WUMCHA)

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WUMCHA, the Washington University Medical Center Housestaff Auxiliary (a department of Barnes-Jewish Hospital) is an organization made up of medical students, residents, fellows, attending physicians, as well as the spouses, partners and "significant others" of those affiliated with Washington University Medical Center, including Barnes-Jewish and St. Louis Children's hospitals, the School of Medicine and Mallinckrodt Institute of Radiology. The purpose of the organization is to provide friendship and social support among its members. In addition to sponsoring numerous recreational and educational activities, WUMCHA provides a welcome guide containing information about relocating to St. Louis and area attractions. Annual dues are \$35. Information about membership and applications can be obtained by contacting [wumchamembership@gmail.com](mailto:wumchamembership@gmail.com), or by visiting WUMCHA [online](#).

## Community Service Experience

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Participation in a host of community service projects nurtures students' altruistic nature and provides an alternative educational experience. University-sponsored, student-run, community-based service activities include the Perinatal Project, which provides information concerning well-baby care and prenatal care to women from lower socioeconomic groups.

Students Teaching AIDS to Students (STATS) allows trained medical students to provide sixth- and seventh-graders with information about AIDS. The combined efforts of medical students, faculty, middle school teachers, parents and speakers with AIDS have made STATS a very successful program. The Geriatrics Outreach Program helps prepare students for the challenges and rewards of working with older patients.

Pediatric Outreach Program (POP) matches children in the St. Louis area who are suffering from chronic illnesses and the siblings of these children with big brothers and big sisters from Washington University School of Medicine. Community CPR trains medical students to become instructors in CPR for the medical school curriculum and in the community of St. Louis.

The Mental Health Outreach Program (MHOP) works to increase the awareness of mental health issues among medical students and the general public. The Family Medicine Interest Group works with the local community by providing health screenings and nutritional classes. SPOTS (Sun Protection Outreach Teaching by Students) is piloted to teach middle school students about the dangers of skin cancer and how to protect themselves from the sun.

A newer group, the Public Health Interest Group (PHIG) is a student organization committed to partnering in the St. Louis community to include health screenings, nutrition outreach and public policy discussions. The Smoking Cessation Project works with the American Lung Association Freedom from Smoking Program and students are trained in counseling smoking cessation groups.

# Student Publications

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Students organize and spearhead several publications at the School of Medicine. The *Dis-Orientation Guide* is produced annually as a student-to-student guide to the curriculum and the city. *Hippocrene* is a literary magazine published once a year where you will find poetry, short stories, essays and photographs submitted by members of the WUSM community.

## St. Louis

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Situated at the confluence of two great North American rivers — the Mississippi and the Missouri — the St. Louis region has been a favored destination since Lewis & Clark began their historic westward “Corps of Discovery” here in 1804.

Today, the pioneers of St. Louis are the engineers, scientists, business leaders, educators, artists and other innovative and creative professionals who are working at the forefront of a multitude of fields and endeavors. Thanks in large part to Washington University, other regional universities and key Fortune 500 corporations, St. Louis has developed into a national hub for important research and business development, especially in the fields of biotechnology and plant science.

Consistently ranked among the nation’s most affordable and best places to live and raise a family, the St. Louis region offers many opportunities to watch or participate in a wide range of sports, recreational activities and cultural events. Not far from St. Louis’ urban core are the beautiful rolling hills of the Ozark Mountain region and outdoor activities such as hiking, canoeing and spelunking in some of Missouri’s more

than 6,000 caves.

## Cultural opportunities

New St. Louisans discover the rich cultural life here in theaters, galleries, museums and festivals. [The Saint Louis Symphony](#), among the finest in the nation, performs at historic Powell Hall. Symphony members bring their skills to the community through teaching and chamber concerts as well. In the downtown area, the rich St. Louis traditions in jazz, blues and ragtime music are continued in a number of lounges and clubs. [The Community Music School of Webster University](#) offers community music education to all ages, and [COCA](#) (Center of Creative Arts) is the largest multidisciplinary arts institution in the metropolitan area.

[The Opera Theatre of St. Louis](#) has been enormously successful, nationally and internationally, bringing English-language versions of the classics and presentation of contemporary operas to the stage. [The Repertory Theatre of St. Louis](#) has an extensive annual season, which includes experimental works and traditional dramas. The Stages St. Louis Theatre Co., [Kirkwood Theatre Guild](#), [West End Players Guild, Act. Inc.](#) and the [Saint Louis Black Repertory Company](#) enrich the dramatic offerings available in the immediate area. On campus, Edison Theatre offers the highest quality in national and international programs in theater, dance and music. For open-air summer entertainment, the [Shakespeare Festival of St. Louis](#) and [The Muny](#), both in Forest Park, are prime destinations.

Broadway comes to St. Louis at the [Fox Theatre](#), a renovation of a 1929 example of exotic cinema temple art. Galleries sprinkled throughout the area bring current visual arts to St. Louis, while antique shops remind us of the past. [The St. Louis International Film Festival](#) takes place every fall. Supplementing the standard movie fare available throughout the metropolitan area are two cinemas close to campus, the [Hi-Pointe](#) and the Tivoli, both offering excellent foreign and independent films.

When the [Saint Louis Art Museum](#) was built for the 1904 World's Fair, much of the Washington University collection was housed in it. Ties with the Art Museum remain

very close. Students in art and in business intern at the Art Museum, working in arts management and gallery organization. St. Louis also features [Laumeier Sculpture Park](#), which displays large-scale sculptures by artists of international renown.

St. Louis has two major history museums as well: the [Missouri History Museum](#) in Forest Park and the [Jefferson National Expansion Memorial](#) under the Gateway Arch.

## Recreation

For recreation, St. Louisans may use any of the numerous parks that dot the metropolitan area. In Forest Park, which lies between the two Washington University campuses, are the Art Museum, The Muny, Missouri History Museum, the [Saint Louis Zoo](#), municipal golf courses, tennis and handball courts, a skating rink, and acres of paths, picnic areas, gardens and wooded groves. [Tower Grove Park](#) is in south St. Louis, and adjacent is the [Missouri Botanical Garden](#), world famous for its research, collections and facilities.

Farther afield, St. Louis residents find outdoor adventure in the countryside beyond the city. In the Ozark Mountains, on the rivers of Missouri, on the lakes of neighboring Illinois, variety abounds. Camping, hiking, floating, rock climbing and caving are among the many possibilities within a few hours' drive of St. Louis. For those who like to sail, there is Carlyle Lake in Illinois. And for those with rod and reel, Missouri streams are made to order.

The Washington University Athletic Complex provides outstanding resources to athletes at every level of ability. Open to all members of the University community, it includes an eight-lane, 25-meter pool, two gymnasiums, weight rooms, racquetball courts, outdoor tennis courts and a track complex. Built on the site of the 1904 Olympic Games, this facility offers recreational opportunities year-round for students, faculty and staff.

For the spectator, St. Louis is a great sports town. For more than a century, it has hosted one of the oldest traditions in baseball — [the St. Louis Cardinals](#). Dizzy Dean

and the Gashouse Gang, Stan Musial, Lou Brock, Ozzie Smith and Mark McGwire are all part of Cardinal history. The current Busch Stadium opened in spring of 2006 and played host to the 2009 All-Star Game.

The St. Louis Blues hockey team moved here in 1967 and enjoys loyal fans. St. Louis also supports a number of semi-pro sports teams.

## Employment and university ties with St. Louis

St. Louis is a great place to work; job opportunities are varied and abundant. Many companies are distinguished for their excellent working conditions, and commuting is easier than in many other large cities.

Many major corporations are located here, as are a variety of retail, transportation and banking organizations. Among the top firms are Ameren, Boeing, Edward Jones, Emerson Electric, Enterprise Rent-a-Car and Express Scripts. Many support services have grown up around these corporations — including law, accounting, data processing, advertising, public relations and design firms, as well as photographic and audio-visual studios.

Employing more than 20,000 people, the Washington University Medical Center (WUMC) is made up of the [School of Medicine](#), the [Alvin J. Siteman Cancer Center](#), [Barnes-Jewish Hospital](#) and [St. Louis Children's Hospital](#). The medical center generates an annual economic impact of nearly \$4.3 billion for the St. Louis area, according to an economic model maintained by the St. Louis Regional Commerce and Growth Association.

[The John M. Olin School of Business](#) at Washington University enjoys a rich and varied partnership with the business community. As a laboratory for internship opportunities, entrepreneurship study, and student practicums offered through Olin's Center for Experiential Learning, St. Louis plays an integral role in the education of business students. In turn, Olin creates value for area businesses by matching top Olin talent with pivotal positions in their firms.



Similarly, the **School of Law** has close ties with the St. Louis legal community and, through its clinical program, offers internships in private and local government offices and in state and federal courts. In addition, the law school is fortunate in the active and interested role of the local bar associations in the development of the school's special programs.

**The George Warren Brown School of Social Work** also is linked in many ways to the St. Louis social work community. Students find practicum assignments throughout the area, and both students and faculty do research and consult with local agencies.

A strong partnership exists between technology-based businesses and industries in St. Louis and the **School of Engineering & Applied Science**. There is a network of more than 80 faculty members associated with Department of Biomedical Engineering, representing numerous divisions of the university, including many from the School of Medicine.

In addition to their ties to local business, both the Danforth Campus and the School of Medicine at Washington University are dedicated to the support of K-12 education. Students from the medical school participate in a variety of outreach programs, including Students Teaching AIDS to Students (STATS), designed to teach awareness and responsible behavior to junior high school students; the **Young Scientist Program**, an interactive learning experience that brings high school students to the medical center; and health and preventive programs on drug and sex education.

In short, Washington University enjoys a special relationship with St. Louis.

## **Interesting St. Louis-area facts**

St. Louis has many nicknames, including the "Gateway City," "Gateway to the West," "The Mound City," "St. Louie," "River City," and "The Lou."

There are more free, world-class attractions in St. Louis than any place in the nation outside of Washington, DC.

The **Saint Louis Zoo** was the first municipally supported zoo in the world and a pioneer in the use of open enclosures, placing animals in natural environments without bars.

Some of the world's favorite foods were popularized and introduced to a wide audience at the 1904 World's Fair in St. Louis. The ice cream cone, iced tea and hamburgers all became food favorites there. It is said that the fair was the first place where hot dogs met French's mustard.

The Eads Bridge over the Mississippi River, near the present site of the Gateway Arch, was the first arched steel truss bridge in the world. When it was first proposed, it was scoffed at as impossible to build. Completed in 1874, it is still in use today.

In 1904, the first World Olympics in the United States and the Western Hemisphere was held in St. Louis at Washington University's Francis Field.

**The Cathedral Basilica of St. Louis** contains the largest collection of mosaic art in the world.

In 1876, St. Louis hosted the first national political convention west of the Mississippi.

In 1927, a group of St. Louis businessmen gave financial backing to the first solo transatlantic flight from New York to Paris. The pilot was Charles Lindbergh and the plane was named "The Spirit of St. Louis."

St. Louis' McDonnell Douglas Corporation, now Boeing, designed and built the space capsule that carried the first men into space in the 1960s.

C.L. Grigg, a soft drink salesman, introduced a drink to St. Louisans in 1929 that would eventually become known as 7-Up.

# Services

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The School of Medicine is fully dedicated to providing an outstanding learning environment in which students are supported in meeting their individual professional goals. Services include:

**Office of Diversity Programs:** Offers programs and services to prepare medical students to become leaders in a global society

**The Office of Education:** Supports School of Medicine educational programs at all levels, including graduate, postgraduate and continuing medical education

**Office of Student Financial Planning:** Guides students through the process of understanding and applying for financial aid

**The Office of Medical Student Education:** Supports all aspects of medical student education for students, faculty and staff

**Office of Medical Student Affairs:** Provides support services in areas of physical and mental wellness, academics, mentoring and shadowing, and extracurricular activities

**Office of the Registrar:** Offers information about obtaining transcripts, access to student records, and tuition payment

**Protective Services:** Protects the Washington University School of Medicine campus and certain off-campus properties

**Transportation Services:** Offers campus parking passes, free passes for MetroLink and MetroBus, and access to shared WeCar services

**Student Health Services:** Provides quality medical care, including preventive services, for all students and their covered family members

## Financial Aid/Student Financial Planning

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For information on financial planning, please visit the [Office of Student Financial Planning website](#).

## Housing

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Those who come to St. Louis to be associated with Washington University School of Medicine find apartments, houses, condos, lofts, and short-term housing that range in price from \$700 to \$2,200 per month, all in the immediate area. [Apartment Referral Services](#), located on North Campus, maintains listings of housing appropriate for students, faculty and staff. For information, contact [Apartment Referral Services](#) at [ars@wustl.edu](mailto:ars@wustl.edu), Campus Box 1016, 700 Rosedale Ave., St. Louis, MO 63112 or (314) 935-5092. Visit both [Quadrangle Housing](#) and [Parallel Properties](#) for more information about Washington University-owned housing options.

### Olin Residence Hall

The Spencer T. Olin Residence Hall, at 4550 Scott Ave. at the Washington University Medical Center, has accommodations for approximately 144 single men and women

from all programs at the School of Medicine. The building was made possible by generous gifts from Spencer T. Olin, alumni and friends of the School of Medicine. Olin Hall is planned for the convenience of students in the medical or paramedical sciences and includes shared cooking facilities, a gymnasium, weight room and state-of-the-art workout facility, laundry room and penthouse with a recreational area and large-screen television with satellite system. Every effort is made to provide an atmosphere that not only aids residents in meeting their study obligations, but also recognizes their privileges as graduate students. We are dedicated to making your Washington University experience one that you will remember both in and outside the classroom by hosting events that spark your interest with community events. Our professional on-site staff is dedicated to serving your needs!

Phone: 314-362-3230 (normal business hours), 314-362-3100 (after hours)

Website: <http://facilities.med.wustl.edu/olin-residence-hall/>

Email: [olinresidence@wusm.wustl.edu](mailto:olinresidence@wusm.wustl.edu)

## Facilities

**Danforth Chapel:** Non-denominational chapel available for student use.

**Reber Library:** Available for student use for studying and leisure reading. DVD and book rental is also available for resident use. The library includes over 400 DVD's and more than 500 books for free rental.

**Student Lounge:** Available to all students for leisure and/or studying. The lounge is equipped with comfortable furniture and a large screen television with a state of the art satellite system. The multi-purpose room is available for music practice and small student or class gatherings.

**Penthouse:** The private 11th floor Penthouse offers striking views of the city and serves as a recreational area for students. Complete with ping pong, shuffleboard, and pool tables, along with a large screen television with satellite system, the Penthouse is a place to kick back and relax. The Penthouse is only available to Olin Students at this

time.

**Dining Facilities:** Dining facilities are located throughout campus. The Shell Cafe, is located just seconds from Olin Hall. The Shell Cafe, serves hot breakfast and lunch as well as snacks and drinks. Food trucks are also occasionally available just outside Olin's front door. Full kitchens are located on every other floor of Olin Hall and include an oven, stove, microwave, and ice maker.

**Additional Amenities:** Located on the ground floor is a large gymnasium perfect for a basketball or volleyball game with friends. Coin laundry is also available on site. The second floor has a state of the art work out facility reserved for medical school students.

## **Accommodations**

Room types available at Olin Hall are singles, large singles, and suites. Single rooms are 12-1/2' x 10' 4-1/2", Large Singles are 15' x 11' and Suites are two rooms consisting of one 10-1/2' X 10-1/2' and one 11' by 10-1/2'.

Each room is provided with an X-long twin bed, chest of drawers, built-in desk, desk chair, and study lamp. All rooms are air conditioned and have mini blinds for privacy. You will be required to provide your own sheets (extra- long twin 36" x 80"), pillow, blanket, towels, rug, fan, alarm clock, and anything else that will make your room feel more like home.

Single and large single rooms consist of a wash basin and medicine cabinet with common bathroom facilities on each floor. Suites consist of a bedroom, study room big enough for a couch or futon, and a private bathroom with full size tub shower, sink, and toilet.

Every other floor within the dorm contains a fully equipped kitchen for use by students. Students may bring a refrigerator (4-cubic feet or smaller), microwaves, and coffee pots for convenience in their rooms.

Network service is provided to the resident free of charge. Phone and cable are available at the student's expense.

## **Parking**

Parking for a limited number of cars, at a monthly or yearly fee, is available at the Clayton-Taylor garage located just east of the Olin Residence Hall. For more information, please contact the Facilities Service Center at 314-362-3100 or [wusmfacilities@wusm.wustl.edu](mailto:wusmfacilities@wusm.wustl.edu).

## **Rates for 2016-2017**

*School Year: August-Mid May (Nine months)*

### **Current Resident**

Single Room: \$5,193

Large Single: \$6,228

Solo Suite: \$7,569

### **12 month contract**

Single Room: \$6,672

(\$556 per month)

Large Single: \$8,040

(\$670 per month)

Solo Suite: \$9,768

(\$814 per month)

# Medical Student Carrels, Lockers and Mail

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## Medical student carrels

The **Farrell Learning and Teaching Center** (FLTC) offers study carrels at no cost for every first- and second-year student. The carrels are equipped with personal desk space, secure storage and data ports. Third-floor carrels and keys are distributed to all incoming medical students during 1st year orientation. Rising 2nd year students will receive new carrels on the 4th floor subsequent to an email notification at the end of their 1st year. (i.e., old keys from prior year will need to be returned.) A \$10 fee is assessed for lost keys..

## Lockers

Student lockers with combination padlocks are available for use on the third and fourth floors of the Farrell Learning and Teaching Center. Locker assignments are made by the **Registrar's Office** for a nominal fee to cover the cost of the padlock. Only padlocks issued by the Registrar's Office may be used. Students interested in being assigned a locker should email the Registrar's office.

## Postal mail

If the Office of Student Services or the Registrar's office receives postal mail for a medical student, the student will be notified via email about the delivery. First-class student postal mail sent to the School of Medicine for first- and second-year students will be put in student mailboxes located on the third and fourth floors of the FLTC. This can serve as a temporary mailing address until new students are settled in St. Louis. It is important that mail addressed and sent to the School of Medicine include both student name and year, as follows:



Jane Doe, WUMS I  
Washington University School of Medicine  
Campus Box 8077  
660 S. Euclid Ave.  
St. Louis, MO 63110-1093

# Voter Registration

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The [Gephardt Institute for Civic and Community Engagement](#) has partnered with [TurboVote](#) to offer online voter registration in all 50 states, including text and email reminders before elections. All members of the WashU community are encouraged to use this convenient service.

[TurboVote](#) handles online voter registration in all states that support it, and will facilitate paper registration in states that require it (they will mail you a completed form to sign and send in!). Once you sign into [TurboVote](#) (a free service), you may change your address and re-register in a new municipality at any time.

If you are already registered as a voter, you may sign in to request text and email reminders before elections.

## WashU Votes

[Washuvotes.wustl.edu](http://Washuvotes.wustl.edu) is the central hub for all things Election 2016 at Washington University in St. Louis. On the site, you will find a calendar of important dates and events related to the election, details about how to apply for funding of debate related programs, and important voter registration information. Like our [page on Facebook](#) to receive live updates about Election 2016 at WashU.

## Resources

For more information about selecting which state to register in or checking the status of your voter registration, please visit [washuvotes.wustl.edu/registration](https://washuvotes.wustl.edu/registration).

You may also register directly through the [Missouri Secretary of State website](#).

If you have any questions or would like to get involved with our voter engagement efforts, please email [washuvotes@wustl.edu](mailto:washuvotes@wustl.edu).

## Office of Diversity Programs

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For more information on diversity at the School of Medicine, please visit the [Office of Diversity Programs website](#).

## Office of Education

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For more information on education at the School of Medicine, please visit the [Office of Education website](#).

# Office of Medical Student Education

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For more information about medical student education, please visit the [Office of Medical Student Education website](#).

# Office of Medical Student Affairs

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For more information about medical student affairs, please visit the [Office of Medical Student Affairs website](#).

# Parking and Transportation (UPass and Enterprise CarShare)

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Hourly, daily and permit parking is available in the 2300-space School of Medicine Clayton Garage (corner of Clayton and Taylor avenues) and also in 800 WUSM spaces in the Duncan-Central Garage. Parking in patient or visitor spaces by faculty, staff or students is strictly prohibited at all times. Parkers must establish parking to park in the garages or lots during business hours Monday through Friday, 7 a.m. to 4 p.m.

Additional information, maps and fees are available the [Parking and Transportation](#) section of the Facilities Management Department website. Requests for parking information can be directed to the Facilities Integrated Service Center (FISC) on the First Floor of Olin Hall.

For those who occasionally drive to the medical school, you can purchase a Prepaid Exit Pass for the Clayton Garage. The exit pass can be purchased in advance at the FISC desk.

Shuttle service is available for transportation from one site to another within the Medical Campus in accordance with specific shuttle schedules. If additional information, maps or shuttle schedules are needed, please visit [the Facilities website](#).

Students living in the Central West End or Skinker/DeBaliviere neighborhood can ride the dedicated shuttle service during the evening hours. The brochure can be found [online](#).

If you are a registered full-time student of Washington University, Washington University School of Medicine, or a benefit-eligible employee of the same, you can register for a U-PASS [online](#). There is no charge for the U-PASS.

For those needing a car to run an errand or for overnight, we have a [car-sharing program](#). Simply print the agreement and within three to six business days after membership approval, you will be issued your personal key fob and customer PIN number. Then go online and reserve a time.

## Registrar's Office

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For more information about the Office of the Registrar or its services, please visit the [Office of the Registrar website](#).

# Security

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Security at the School of Medicine is the responsibility of [WUSM Protective Services](#). Uniformed Protective Services Officers are on duty 24 hours a day, seven days a week to provide for personal safety, reduce the opportunity for crime, apprehend law violators, provide crime prevention and awareness training and assist in enforcement of University rules and regulations. Armed Response Officers and unarmed Public Safety Officers are radio-dispatched. They respond immediately to telephone calls made to **(314) 362-4357**. Officers patrol the campus on foot, on bicycles and in marked mobile units. Contract Agency guards staff a few fixed posts to supplement the in-house officers.

The Medical School access control program makes the campus accessible after hours and on weekends. Faculty, staff and students are issued a photo identification badge that identifies the wearer as a member of the medical school community. The badge has a magnetic strip that activates the computerized door lock entrances to the School's buildings. These entrances have two-way intercoms for direct communication with Protective Services' Communications Officers, as do direct-ring telephones located outside selected campus buildings and "Code Blue" emergency telephones on surface parking lots and in the garages.

Each year Protective Services publishes a summary of statistical information concerning campus crime, as required by federal law, on the WUSM Facilities website. This information may be found under "[Campus Crime Statistics 2013-2014-2015](#)." A daily crime log, information on crime prevention tips and the many services and

programs provided by Protective Services also appear on the web. For a printed copy of the annual security report, contact Washington University School of Medicine, Protective Services Department, Campus Box 8207, 660 S. Euclid Ave., St. Louis, MO 63110, or by calling (314) 362-0460. You can also print out the report [online](#).

# Student Health Services

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**Director:** Karen S. Winters, MD

**Information/Appointments:** (314) 362-3523

**Billing/Benefits:** (314) 362-2346

For a complete description of benefits please visit the [Student Health Services](#) website.

The Student Health Service provides a complete service for full-time students registered in the School of Medicine. The WUSM Student Health Service provides preventative and therapeutic health benefits through a mandatory self-funded program of services available to all full time medical degree seeking students and their eligible dependents. The goal of the Student Health Service is to deliver efficient, accessible, high-quality essential medical care in order to prevent and treat health problems that may interfere with a student's education and professional goals while attending WUSM. The Student Health Service is under the direction of Karen S. Winters, MD. Benefits provided through this service include: ambulatory patient services, emergency services, ambulance services, hospitalization, maternity and newborn care, on and off campus mental health, including behavioral health treatment, prescription drugs, allergy services, physical therapy services, dermatology

services, rehabilitative and habilitative services and devices, laboratory service, x-rays, preventive and wellness services, and chronic disease management, vision and dental care, and pediatric services. Students also receive disability and life insurance. Most medical care will be provided at no cost, except for applicable deductibles or co-pays.

The Student Health Service is a multidisciplinary facility conveniently located on campus and dedicated to providing quality health care to WUSM students and their covered family members. The well-qualified staff consists of physicians, nurses, psychologists, and other medical support personnel. The Student Health Service offers easy access to medical and psychiatric care so that physical and emotional problems will not interfere with university life.

The Health Service is open Monday through Friday from 8:00 a.m. to 4:00 p.m. The Student Health Service is closed Saturday, Sundays and University holidays. Services are available by appointment at 4525 Scott Ave., Suite 3420. The Health Service offers an after-hour phone service monitored by Dr. Winters. Students may call 362-3526 after hours for non-urgent care.

There are no lifetime or annual limits on Essential Health Benefits that the Student or Covered Dependent may claim from Student Health Services. However, covered services that are Non-Essential Health Benefits are subject to a \$2,000,000 per person annual benefit limit on all benefits covered by Student Health Services. Once you have reached the annual benefit limit, you will be responsible for 100% of all Non-Essential Health Benefits. The responsibility of the Student Health Service for hospitalization and emergency care will end 30 days after an individual ceases to be an officially enrolled student.

The Health Service pre-screens every incoming student prior to their arrival at the School to ensure all federal requirements have been met regarding communicable diseases. Entering students are required to have a medical examination and tuberculosis testing within one year of matriculation and to provide proof of immunity to measles (rubeola), rubella and mumps, varicella, hepatitis B and a tetanus-diphtheria (tdap at least one dose required since 2005). The Health Service tracks all

immunizations during and prior to enrollment. Statements of Health for internships and practicums are provided.

## **Spouses, dependents**

Students may enroll their eligible dependents in the Student Health Service by paying an additional Student Health Service access fee. Students may enroll dependents into this program only at the following times: At the time the student enrolls in WUSM (at student matriculation), or within thirty-one (31) days of a Qualifying Event. If a student elects to enroll his or her eligible dependents at matriculation, coverage for dependents will become effective on the same date the covered student's benefits become effective, provided enrollment for the dependents occurs on or before the deadline. No enrollment for dependents is allowed after the deadline unless a Qualifying Event occurs. Dependent coverage terminates when the student's coverage terminates or when the dependent no longer meets the definition of a Dependent as described above, if earlier.

## **Dental care**

Benefits provided by Student Health Service for injury to a sound natural tooth only. Coverage for injury to a sound natural tooth is 100% of the first \$300 of expenses, and 80% of the balance, not to exceed \$1,000 as a result of any one accident. Student Health Services will provide a list of private dentists upon request.

In addition to the benefit provided by Student Health Service, all eligible full-time students registered in the medical and allied professional schools of the Medical Campus and their enrolled dependents will be covered by a prepaid dental plan through Assurant Employee Benefits Heritage. All full-time students are covered automatically, with the coverage premium paid for by WUSM Student Health Service. There are no enrollment forms for the student to complete. However, you will NOT officially have coverage until a participating dentist is selected. To select a participating dentist, you may call Assurant Customer Service at (800) 443-2995 or visit their web site at [www.assurantemployeebenefits.com](http://www.assurantemployeebenefits.com). You must select a participating general



dentist in Assurant's Heritage network before you can use your benefits. This plan is available to your family members as well for the yearly premium; see Student Health Benefit office for details.

## **Counseling services**

Students at the Medical Center may have concerns over poor concentration, ineffective study habits, anxiety over their performance, low self-esteem, relationships, grief or depression. The psychiatry and clinical psychology staff members are available to help students cope with these concerns. Initial evaluations are made at the Student Health Service. Subsequent care may be at the Medical Campus or a designated physician's office. Call 362-3523 for more information. All records are confidential and may not be reviewed by anyone without the student's written consent.

In addition, Student Health Service provides a Student Assistance Program (SAP) for all enrolled students and their immediate family members. This prepaid benefit is offered as a way to help our Students resolve issues that may have an impact upon their personal lives and their school performance.

The SAP provides confidential, professional assistance to full-time enrolled students and their family members to help resolve problems that are affecting their personal life or school performance. The program is managed by ENI, a nationally known professional consulting firm specializing in SAP services.

Students can contact ENI 24 hours a day, seven days a week to arrange a confidential appointment with an SAP specialist. SAP specialists have professional training and expertise in a wide range of issues such as academic problems, eating disorders, credit problems, adjusting to school, marriage and family problems, alcohol and drug abuse, emotional and psychological concerns, financial difficulties, stress and much more.

The SAP can be reached by calling (800) 327-2255 and selecting prompt #3.

## **Disability insurance**

All students are covered by group disability insurance. A student who is completely disabled for six consecutive months is eligible to receive \$500 per month benefit. Coverage increases to \$1,500 per month in the third year. Individual disability policies are issued to fourth-year students, increasing the total monthly benefit to \$2,000. Individual policies are portable, guaranteed issue and can be increased after graduation up to a maximum \$4,700 per month benefit. Call 362-2346 for more information.

## **Life insurance**

All eligible full-time students registered in the Washington University Medical School and allied professional schools are covered automatically, premium paid for by WUSM Student Health Service. An enrollment form listing your beneficiaries is required to complete enrollment. In brief, the term life insurance plan and AD&D plan for medical students and affiliated programs provided by Guardian is as follows: term life plan provides \$10,000 of term life insurance and the AD&D plan \$10,000 of accidental death and dismemberment protection. A detailed description of the plan is available at Student Health Services.

Upon graduation, you can convert the amount of your term life insurance to a participating whole life plan underwritten by Guardian.

# **The School of Medicine's official course catalog**

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The Bulletin of Washington University School of Medicine presents the academic policies, services, and course and degree program offerings of the school. It also includes academic calendars, leadership and directories for faculty, students and staff.

# Departments

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Washington University School of Medicine has 20 academic departments, all of which support the School's tripartite mission of conducting outstanding patient care, education and research. The School excels applying a multidisciplinary approach to all its endeavors, allowing faculty to easily cross administrative boundaries to address medicine's biggest challenges.

For more information about the faculty, please visit [Faculty at a Glance](#).

For more information about department research, please visit [Research Activities](#).

For more information about departmental educational activities, please visit the departmental links at left.

## Department of Anesthesiology

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Anesthesiology is a medical specialty encompassing a broad range of medical and scientific activities. The clinical practice of anesthesiology includes:

1. assessment of, consultation for and preparation of patients for anesthesia and surgery;
2. provision of insensibility to pain during surgical, obstetric, therapeutic and

diagnostic procedures;

3. monitoring and restoration of physiologic homeostasis during the perioperative period, as well as homeostasis in the critically ill or seriously injured patient;
4. diagnosis and treatment of painful syndromes; and
5. clinical management and teaching of cardiopulmonary resuscitation (CPR).

The realm of scientific investigation in anesthesiology also spans a broad range. Scientific efforts at the cellular and molecular levels are directed to understanding the molecular mechanisms of anesthesia and analgesia. Clinical research in anesthesia includes broad epidemiological approaches to identifying indicators of outcome as well as prospective clinical studies examining new technologies, anesthetic agents and methods.

The **Department of Anesthesiology** presents the student with the opportunity to:

1. acquire and apply pharmacologic knowledge related to anesthetic, narcotic, paralytic and sedative drugs and to drugs affecting the autonomic nervous system;
2. understand and apply the basic principles of airway management and mechanical ventilation;
3. understand and apply the principles of cardiopulmonary resuscitation;
4. understand and apply the technical skills and anatomic and pharmacologic knowledge used in performing regional nerve blocks;
5. learn and apply the fundamental principles of acute and chronic pain management; and
6. learn and apply the basic principles of critical care medicine.

Anesthesiology bridges the gap between basic science and clinical medicine. It provides experience in the clinical evaluation and management of patients, and in applied physiology and pharmacology. The Department of Anesthesiology offers

student experiences in the operating room, the intensive care unit, the pain clinic and the laboratory.

This clerkship introduces all of the basic aspects of anesthetic practice, including preoperative assessment, intraoperative anesthetic administration, placement and interpretation of invasive and noninvasive physiologic monitoring, airway management and regional anesthetic administration. Students taking this clerkship work one-on-one with attending anesthesiologists and are an integral part of the anesthetic care team. By the end of the clerkship, the student should be able to provide (under supervision) anesthesia for an uncomplicated surgical procedure. This rotation offers a unique opportunity for the student to work directly with attending physicians and to acquire fundamental skills (airway management, invasive monitoring, regional anesthesia) applicable to all aspects of acute medicine.

Students who have taken the anesthesia clerkship in the third year may elect to repeat this rotation in the fourth year. These students will be exposed to more complicated cases and techniques, and will be given increased responsibility for perioperative patient management. Students who have taken the clerkship in the third year also may elect to take an elective in the subspecialty areas of Cardiothoracic Anesthesiology, Pediatric Anesthesiology, Obstetric Anesthesiology or Anesthesia for Neurosurgery. Visit [Department of Anesthesiology Courses](#) for more information. Students taking these electives will be exposed to surgical cases of increased complexity requiring specialized invasive monitoring and anesthetic techniques.

Four-week electives are also offered in surgical critical care and cardiothoracic critical care. In these electives, the student is an integral part of the intensive care team. Students learn techniques of mechanical ventilation, hemodynamic monitoring, resuscitation and vasoactive drug treatment while managing all aspects of patients assigned to their care.

The clerkship in pain management offers the student the opportunity to participate in comprehensive, multidisciplinary management of acute, chronic and cancer pain problems. Students will be expected to assist in the care of both inpatients and

outpatients. Students will learn fundamental aspects of pain management, which should provide the knowledge with which to manage routine acute and cancer pain in their subsequent practice.

Special electives in basic science research as it applies to anesthesiology can be arranged with the principal investigators in the [Department of Anesthesiology](#), in the Anesthesiology Research Unit and the Washington University Pain Center under the direction of Rob Gereau, PhD or the Division of Clinical and Translational Research under the direction of Evan Kharasch, MD, PhD.

These laboratories focus on various aspects of molecular neurobiology, including ion channel structure and function; G-protein molecular biology; molecular mechanisms of volatile anesthetic action; genetics of anesthetic responsiveness; and the molecular, cellular and genetic basis of acute and chronic pain. Arrangements for these special electives are made through the specific investigators: Walter A. Boyle III, MD; Zhou-Feng Chen, PhD; Alex S. Evers, MD; Narasimhan Gautam, PhD; Richard S. Hotchkiss, MD; Christopher J. Lingle, PhD; Joseph H. Steinbach, PhD; Michael Bruchas, PhD; Yu-Qing Cao, PhD; or Robert W. Gereau, PhD. In addition, opportunities exist for clinical research in the Clinical Research Division, under the direction of Evan Kharasch, MD, PhD.

## For more information

Please visit the [Department of Anesthesiology website](#) for more information.

# MD Courses - Anesthesiology

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## Fourth year

## Electives

### M10 805 ANESTHESIOLOGY

Instructor(s): Jake Aubuchon, MD; Tracey Stevens, MD; and Thomas Cox, MD

Location: Barnes-Jewish Hospital, South Campus; Department of Anesthesiology, Third Floor

Elective Contact: Maurice Rackley, 314-362-2446

Other Information: Please contact the department student secretary, Maurice Rackley, 314-362-2446 prior to the elective for specific instructions. Students should meet in the Clinical Simulation Center, 3rd floor Barnes-Jewish Hospital Service Building, 8:30 a.m. first day of elective.

Enrollment limit per period: 2

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This clinical elective is designed to familiarize the student with basic aspects of anesthesiology practice. The primary teaching method is patient care in a clinical setting (one-on-one). The student will learn the basics of preoperative evaluation of surgical patients, the use of intraoperative monitoring in patient management and postoperative care. During the 4 week rotation, the student will learn airway management skills, practical perioperative fluid and electrolyte therapy, along with general and regional anesthetic techniques. As an integral part of the anesthesia care team, the student will participate actively in the anesthetic management of surgical patients. The student's specific requests to be assigned to certain types of cases will be honored as time and availability dictate. The rotation will include 3 clinical simulator sessions using a simulator mannequin for practical management of airway problems, resuscitation and trauma emergencies. By the end of the rotation, the student should be able to independently (under supervision) provide anesthesia for uncomplicated surgical procedures. NOTE: Presence and participation in the three Friday Simulator Sessions and the Presentation on the last day of the rotation are required to receive a grade. If there is a conflict with attendance, prior arrangements can be made to accommodate the student.

Student time distribution: Inpatient 85%, Conferences/Lectures 15%; Subspecialty Care

100%

Major teaching responsibility: Jake Aubuchon, MD

Patients seen/weekly: 15

On call/weekend responsibility: Medical students are required to take one call shift during their rotation, either in the main operating rooms or in the obstetrical suite any evening or weekend during the rotation.

### **M10 811 CARDIOTHORACIC ANESTHESIOLOGY**

Instructor(s): Rashmi Rathor, MD, 314-362-5111

Location: Barnes-Jewish Hospital, South Campus

Elective Contact: Lydia Swink, 314-362-1196

Other Information: Students should meet at the offices of the Division of Cardiothoracic Anesthesia, 3rd Floor Barnes-Jewish Service Building, 9:30 a.m. first day of elective.

Enrollment limit per period: 2

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This clinical elective offers practical experience in the perioperative assessment and management of surgical patients undergoing cardiothoracic procedures. The student, as an integral part of the cardiothoracic anesthesia team that is composed of faculty members, fellows and residents, will learn basic principles of airway management and lung ventilation, essential aspects of pharmacologic treatment of hemodynamic abnormalities and cardiac dysrhythmias, and management of intraoperative coagulation disturbances. Emphasis will be placed on the interpretation of intraoperative hemodynamic data, echocardiographic finding (TEE), and laboratory results. During this rotation, the student will also gain practical experience in endotracheal intubation as well as the placement of intravenous lines and invasive monitoring lines, including radial artery and pulmonary artery catheters. Students will learn how to use these parameters in clinical decision making during anesthesia. At the conclusion of the rotation, the student will have a better understanding of invasive monitoring and data interpretation, as well as a more systematic approach to the



management of intra- and post-operative hemodynamic, pulmonary and coagulation abnormalities. The students are expected to attend the didactic sessions of CTA and the Department of Anesthesiology. A presentation will be assigned.

Student time distribution: Inpatient 100%; Subspecialty Care 100%

Major teaching responsibility: Rashmi Rathor, MD

Patients seen/weekly: 15

On call/weekend responsibility: None

### **M10 812 PEDIATRIC ANESTHESIA**

Instructor(s): Kelly Chilson, MD; Gary Hirshberg, MD; Tessa King, MD; and David Murray, MD, 314-454-6215

Location: 5th Floor, St. Louis Children's Hospital

Elective Contact: Kelly Chilson, MD, 314-454-6215, John McAllister, MD

Other Information: Students should contact Samantha Gurney, 314-454-4572, one week prior to the start of the elective.

Enrollment limit per period: 3

Valid start weeks for 4-week blocks are: Weeks 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This clinical elective is designed to teach the theory and practice of pediatric anesthesiology and pain management. It features individualized instruction with faculty who specialize in the perioperative care of pediatric patients. The elective consists of four weeks of active participation with pediatric anesthesiologists at St. Louis Children's Hospital and St. Louis Shriners Hospital learning preanesthetic assessment, the performance of routine anesthetics (which includes instruction and practice in pediatric airway skills), learning other technical skills such as intravenous line placement and the management of post-anesthesia care and pain therapies. The final week may be tailored to meet the student's individual interests, needs and career goals. Possibilities include exposure to sedation and anesthesia for procedures outside of the operating rooms, and to subspecialties including cardiovascular anesthesia, neurosurgical anesthesia, and acute and chronic pediatric pain management. Students also will have an opportunity to learn the management of some common medical emergencies in the Clinical Simulation Center.

Student time distribution: Inpatient Surgery 5%, Outpatient Surgery 80%, Conferences/Lectures 15%; Subspecialty Care 100%

Major teaching responsibility: Attending, fellows and senior anesthesiology residents; students will generally spend most of each day with a single attending or senior anesthesiology trainee (fellow or resident).

Patients seen/weekly: 25

On call/weekend responsibility: None

### **M10 819 CARDIOTHORACIC CRITICAL CARE**

Instructor(s): Charl de Wet, MD, Course Master; Michael Avidan, MD; Keki Balsara, MD; Heidi Coco, DO; Julianne Donnelly, MD; Daniel Emmert, MD; TJ Graetz, MD;

Mohammad Helwani, MD; Faraz Masood, MD; Clare Ridley, MD, and Adnan Sadiq, MD

Location: Barnes-Jewish Hospital, Southwest Tower

Elective Contact: Maureen Arends, 314-747-4155

Other Information: Students should meet in the Cardiothoracic Intensive Care Unit, 5600 ICU, 5th Floor Southwest Tower Physician Workroom, 6:30 a.m. first day of elective.

Enrollment limit per period: 3

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This clinical elective offers practical experience in the postoperative management of cardiothoracic patients. The student will be fully integrated into the intensive care team and have the opportunity to contribute to the management of critically ill patients. Students will be afforded the opportunity to follow specific patients over the course of their stay on the ICU, during which time they will gain insight into holistic management of patients with multi-organ dysfunction. The CTICU environment is both challenging and exciting. Cardiorespiratory physiology and pharmacology will be demonstrated at the patients' bedside, an invaluable and unforgettable learning experience. Students will have numerous opportunities to learn and sometimes assist with procedures, such as central lines, chest tubes, bronchoscopy and pulmonary artery catheter insertion. Principles of management and resuscitation of hemodynamically unstable patients following surgery will be emphasized. Students

will also see and help manage patients on ventricular assist devices, ECMO and following heart and lung transplantation. At the conclusion of the rotation, the student will have a better understanding of shock, sepsis, multi-organ failure, organ system support and compassionate withdrawal of life support. In addition to bedside teaching, there will be informal teaching sessions on a wide variety of topics as well as teaching on interpreting cardiac echo exams. Students will be encouraged to present on their patient at morning ward rounds, during which constructive feedback and interactive teaching will occur. Students will present on a topic related to one of their patients at the end of the block.

Student time distribution: Inpatient 100%; Subspecialty Care 100%

Major teaching responsibility: CTICU attendings

Patients seen/weekly: 21

On call/weekend responsibility: During the 4-week rotation, you are asked to take a weekday call (day of your choice). You will come in at 4:00 p.m. and leave the next morning after you have presented your patients on morning rounds. In addition during the 4-weeks rotation, you are asked to take a weekend call (again your choice) Saturday or Sunday shift 6:00 a.m. to 7:00 p.m.

## **M10 820 CRITICAL CARE**

Instructor(s): Heidi Coco, DO, Course Master, 314-362-1196; Enyo Ablordeppey, MD; Chukwuma Apakama, MD; Walter Boyle, MD; Grant Bochicchio, MD; Sara Buckman, MD; Julianne Donnelly, MD; Eleanor Drew, MD; Anne Drewry, MD; Stephen Eaton, MD; Daniel Emmert, MD; Alex Evers, MD; Brian Fuller, MD; Thomas J. Graetz, MD; Mohammad Helwani, MD; Richard Hotchkiss, MD; Kareem Husain, MD; Obeid Ilahi, MD; Jacob Keeperman, MD; Paul Kerby, MD; Justin Knittel, MD; John Kirby, MD; John Mazuski, MD; Tiffany Osborn, MD; Christopher Palmer, MD; Patricia Penkoske, MD; Clare Ridley, MD; Adnan Sadiq, MD; Doug Schuerer, MD; William Symons, MD; Isaiah Turnbull, MD; Jessica Zenga, MD; Brian Wessman, MD

Location: Barnes-Jewish Hospital, South Campus

Elective Contact: Barbara McKinney, 314-747-3581

Other Information: Students should meet in the 4400 Surgical Intensive Care Unit, 4th Floor of Barnes-Jewish Hospital at 7:00 a.m. on the first day of the elective.

Enrollment limit per period: 4

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Students on this rotation are integral members of the multidisciplinary intensivist-led critical care team in the Surgical Intensive Care Unit (SICU). Students learn an organ systems-based approach for evaluation and management of critically ill and injured patients, and application of evidence-based principles in delivery of state-of-the-art critical care. Emphasis is placed on critical care knowledge and techniques used at the bedside in the clinical management of serious traumatic and surgical conditions.

Students become familiar with resuscitation and cardiopulmonary support, including methods for non-invasive and invasive hemodynamic monitoring, and techniques for airway management and pulmonary support in respiratory failure. Basic knowledge and skills in the management of neurologic injuries, liver and/or renal failure, and life-threatening infections in the surgical patient are also taught, as is the importance of treatments to alleviate anxiety and pain, maintain fluid and electrolyte balance, and provide adequate nutrition. Practical experience is gained in placement of vascular access devices, interpretation of laboratory data, and use of guidelines, protocols and quality assurance tools in the management of critically ill patients.

Student time distribution: Inpatient 80%, Conferences/Lectures 20%; Subspecialty Care 100%

Major teaching responsibility: ICU Attendings and Fellows

Patients seen/weekly: 50

On call/weekend responsibility: Variable

## **M10 821 PAIN MANAGEMENT**

Instructor(s): Folasade Oladapo, MD, 314-747-0202

Location: Barnes-Jewish Hospital, South Campus

Elective Contact: Folasade Oladapo, MD, 314-747-0202, [oladapof@anest.wustl.edu](mailto:oladapof@anest.wustl.edu)

Other Information: Students should report to 14th Floor CAM Building, 8:00 a.m. first

day of elective.

Enrollment limit per period: 1

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Acute pain is the most common symptom of medical illness and is ubiquitous after major surgery. Chronic pain is the leading cause of worker disability. Severe pain afflicts most people with advanced cancer. Learning the fundamentals of pharmacologic, interventional, and multidisciplinary pain management is important for all areas of clinical medicine. Rotation is based at Barnes-Jewish Hospital with focus adjusted to meet student's interest and career plans.

Student time distribution: Inpatient 30%, Outpatient 60%, Conferences/ Lectures 10%;  
Subspecialty Care 100%

Major teaching responsibility: Attendings

Patients seen/weekly: 70

On call/weekend responsibility: No on-call responsibility

## **M10 822 ANESTHESIA FOR NEUROSURGERY**

Instructor(s): René Tempelhoff, MD, 314-362-2330 and M. Angele Theard, MD, 314-362-1460

Location: Barnes-Jewish Hospital, South Campus

Elective Contact: René Tempelhoff, MD, 314-362-2330

Other Information: Students should meet on 3rd Floor Barnes-Jewish Hospital, South Campus, Department of Anesthesiology, 7:00 a.m. first day of elective. Enrollment limit per period: 1

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Students will help care for patients having challenging neurosurgical procedures. Students will become familiar with complex procedures, brain monitoring, cardiovascular support and airway management and will be exposed to all kinds of neurosurgical pathology. Student must be prepared to participate in the intricate anesthetic management of patients undergoing surgery in our novel intraoperative

MRI rooms. For those interested, clinical research projects are ongoing and student participation is encouraged.

Student time distribution: Inpatient 80%, Conferences/Lectures 20%; Subspecialty Care 100%

Major teaching responsibility: Attending, fellow, and senior resident

Patients seen/weekly: 8

On call/weekend responsibility: None

### **M10 823 OBSTETRICAL ANESTHESIA**

Instructor(s): Swarup Varaday, MD, 314-362-6252

Location: Barnes-Jewish Hospital, South Campus

Elective Contact: Swarup Varaday, MD, 314-362-6252 or 314-362-2628

Other Information: Students should report to 5400 Labor and Delivery, 7:00 a.m. first day of elective. Enrollment limit per period: 1

Valid start weeks for 2 or 4-week blocks are: Weeks 1, 3, 5, 7, 9, 11,13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, and 43.

The medical students will learn the different analgesia/anesthetic options for the labor patient. They will also learn how the physiological adaptations of pregnancy influence anesthetic management. They will be actively involved in the parturient's management, i.e., starting an IV, placement of spinal, epidural or CSE (combined spinal epidural) anesthetics. They will also attend the OB anesthesia conferences and interview patients in labor (with an OB anesthesia attending).

Student time distribution: Inpatient 90%, Conferences/Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attending, Senior Resident

Patients seen/weekly: 20

On call/weekend responsibility: None (optional)

# Faculty — Anesthesiology

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**Alex S Evers** Henry E Mallinckrodt Professor of Anesthesiology (primary appointment)  
Head of the Department of Anesthesiology

Professor of Developmental Biology

Professor of Medicine

BS Yale University 1974

**Enyo Ama Ablordeppey, M PH, MD** Assistant Professor of Anesthesiology (primary appointment)

Assistant Professor of Emergency Medicine in Medicine

M PH University of Pittsburgh 2007

MD University of Pittsburgh 2007

**Sirajuddin Agha** Assistant Professor of Anesthesiology (primary appointment)

**Gustav Akk, PHD** Assistant Professor of Anesthesiology (primary appointment)

BS Moscow State University 1991

PHD State Univ of NY Buffalo 1997

**Ream Al-Hasani, PHD** Instructor in Anesthesiology (primary appointment)

PHD University of Surrey 2009

**Umeshkumar Athiraman, MD** Instructor in Anesthesiology (Pending Dean's Approval) (primary appointment)

MD M.G.R. Medical University 2013

**Jacob D AuBuchon** Assistant Professor of Anesthesiology (primary appointment)

**Michael Simon Avidan, MBBCH** Professor of Anesthesiology (primary appointment)

Professor of Surgery (Cardiothoracic Surgery)

MBBCH University of the Witwatersra 1991

**Arbi Ben Abdallah, PHD** Assistant Professor of Anesthesiology (primary appointment)

PHD Washington Univ in St. Louis 2011

**George Richard Benzinger III, MD** Associate Professor of Anesthesiology (primary appointment)

MD University of Chicago 2000

**Adam J. Bloom, PHD** Assistant Professor of Psychiatry (primary appointment)

Assistant Professor of Anesthesiology

PHD Washington Univ in St. Louis 2006

**Laila M Bottros, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Ain Shams University 1977

**Michael M Bottros** Assistant Professor of Anesthesiology (primary appointment)

**Walter A Boyle III, MD** Professor of Anesthesiology (primary appointment)

Assistant Professor of Developmental Biology

Professor of Surgery (General Surgery)

MD University of CA San Francisco 1977

**Sarah Michelle Brown** Assistant Professor of Pediatrics (primary appointment)

Assistant Professor of Pathology and Immunology

Instructor in Anesthesiology

**Michael Raymond Bruchas, PHD** Associate Professor of Anesthesiology (primary appointment)

**Associate Professor of Neuroscience**

PHD Creighton University 2004

Yuqing Cao **Associate Professor of Anesthesiology** (primary appointment)

Laura Francesca Cavallone **Assoc Professor of Anesthesiology** (primary appointment)

Zhoufeng Chen **Professor of Anesthesiology** (primary appointment)

**Professor of Psychiatry**

**Professor of Developmental Biology**

Ziwei Chen, PHD, MS, MBBS **Assistant Professor of Anesthesiology** (primary appointment)

PHD Peking University 2001

MS Dalian Medical University 1998

MBBS Dalian Medical University 1995

Kelly Lynne Chilson, MD **Associate Professor of Anesthesiology** (primary appointment)

MD University of MO St Louis 1999

Heidi Atwell Coco, DOST **Assistant Professor of Anesthesiology** (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

BS Truman State University 2000

DOST Kirksville College of Osteopat 2005

Albert Murray Cohen, MD **Assistant Professor of Anesthesiology** (primary appointment)

MD Baylor University 1977

Zachary Robert Cohen, MD **Assistant Professor of Anesthesiology (Pending Executive Faculty Approval)** (primary appointment)

MD University of Illinois 2010

Douglas Floyd Covey, MA **Professor of Pharmacology in Developmental Biology** (primary appointment)

**Professor of Anesthesiology**

**Professor of Psychiatry**

BS Loyola College 1967

MA Johns Hopkins University 1969

Thomas E Cox, MD **Professor of Anesthesiology** (primary appointment)

BA Johns Hopkins University 1981

MD University of Virginia 1985

Sarah Marie Dance, MD **Instructor in Anesthesiology** (primary appointment)

MD Univ of Nebraska Med Center 2009

Bakul Dave, MD **Assistant Professor of Anesthesiology** (primary appointment)

MD1 University of Toledo 1997

MD BJ Medical College 1984

Victor G Davila-Roman, MD **Professor of Medicine** (primary appointment)

**Professor of Radiology**

**Professor of Anesthesiology**

MD University of Puerto Rico 1981

BS University of Puerto Rico 1977

Charl Johan De Wet **Associate Professor of Anesthesiology** (primary appointment)

**Associate Professor of Surgery (Cardiothoracic Surgery)**

George J Despotis **Associate Professor of Pathology and Immunology** (primary appointment)

**Associate Professor of Anesthesiology**

BA Greenville College 1981

Michael N Diringer, MA, MD **Professor of Neurology** (primary appointment)

**Professor of Anesthesiology**



**Professor of Occupational Therapy**

**Professor of Neurological Surgery**

MA University of Louisville 1978

MD University of Kentucky 1982

**Julianne Elizabeth Donnelly, MD** Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

MD University of Kansas 2009

**Anne Meredith Drewry, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Washington Univ in St. Louis 2006

**Julie Kosto Drobish, MD** Assistant Professor of Anesthesiology (Pending Executive Faculty Approval) (primary appointment)

BS Pennsylvania State University 2006

MD Washington Univ in St. Louis 2009

**Nicole Marie Durko, DOST** Assistant Professor of Anesthesiology (primary appointment)

DOST Midwestern University 2001

BS St Xavier University 1995

**Daniel Emmert, MD** Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

MD Saint Louis University 2005

**James J Fehr III** Professor of Anesthesiology (primary appointment)

**Professor of Pediatrics**

**Steven Edward Feit, MD** Assistant Professor of Anesthesiology (primary appointment)

MD University of MO Columbia 1982

BA Indiana State University 1978

**Beverly J. Field, PHD, B MUS** Associate Professor of Anesthesiology (primary appointment)

**Associate Professor of Psychiatry**

BA University of MO Columbia 1987

PHD Washington Univ in St. Louis 1993

B MUS Southern Illinois University 1972

**Mitchell Evan Fingerman, MD** Assistant Professor of Anesthesiology (primary appointment)

MD University of Connecticut 2004

**Rosemary Foster, MD** Instructor in Anesthesiology (Pending Dean's Approval) (primary appointment)

MD Saint Louis University 2013

**David Alan Friedman, MD** Assistant Professor of Anesthesiology (primary appointment)

BS University of Kansas 1981

MD University of Kansas 1985

**Brian M Fuller, MD** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

**Assistant Professor of Anesthesiology**

**Assistant Professor of Anesthesiology**

MD University of Alabama 2003

BA University of Alabama 1998

**Narasimhan Gautam, MS, PHD** Professor of Anesthesiology (primary appointment)

**Professor of Genetics**

MS School Not Listed 1979

BS School Not Listed 1977

PHD University of Bombay 1985

**Preeta George** Instructor in Anesthesiology (primary appointment)

**Robert W Gereau, PHDDr Seymour and Rose T Brown Professor of Anesthesiology** (primary appointment)

**Professor of Neuroscience**

PHD Emory University 1995

BS Southwest Missouri St University 1991

**Erin A GibbonsAssistant Professor of Anesthesiology** (primary appointment)

**Jason R Gillihan, MDAssistant Professor of Anesthesiology** (primary appointment)

MD Southern Illinois University 2006

**Yehuda Ginosar, MDProfessor of Anesthesiology** (primary appointment)

MD University of London 1986

**Thomas James Goblirsch, MDAssistant Professor of Anesthesiology** (primary appointment)

MD Loyola University Chicago 1985

BS University of Notre Dame 1980

**Judith P Golden, PHDAssistant Professor of Anesthesiology** (primary appointment)

PHD Saint Louis University 1994

BS Hofstra University 1984

**Vivian Maria Gonzalez-Perez, PHDInstructor in Anesthesiology** (primary appointment)

PHD University of Valparaiso 2009

**Thomas J Graetz, MDAssistant Professor of Anesthesiology** (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

MD Saint Louis University 2005

**Barry A Graff, MDAssistant Professor of Anesthesiology** (primary appointment)

BA Macmurray College 1973

MD Saint Louis University 1976

**Russell J.I. Groener, MBCHBAssociate Professor of Anesthesiology** (primary appointment)

MBCHB University of Cape Town 1983

**Anthony Herbert Guarino, MA, MDAssociate Professor of Anesthesiology** (primary appointment)

MA Yale University 1988

MD University of Maryland 1992

BA Yale University 1986

**Ryan C Guffey, MDAssistant Professor of Anesthesiology** (primary appointment)

MD Wayne State University 2007

**Duncan Lee Hamilton, MDInstructor in Anesthesiology** (primary appointment)

MD University of Nottingham 1992

**Edward B. Han, PHDAssistant Professor of Neuroscience** (primary appointment)

**Assistant Professor of Anesthesiology**

PHD University of CA San Diego 2004

BS Cornell University 1995

**Charles B Hantler, MA, MDProfessor of Anesthesiology** (primary appointment)

MA Davenport University 1973

MD Davenport University 1977

BS Davenport University 1971

**Simon Haroutounian, PHD, MAAssistant Professor of Anesthesiology** (primary appointment)

PHD Hebrew University 2011

MA Hebrew University 2005

**Jason M Held, PHDAssistant Professor of Medicine** (primary appointment)

**Assistant Professor of Anesthesiology**

PHD University of San Francisco 2006

BS Duke University 2001

**Daniel Luke Helsten, MD** Associate Professor of Anesthesiology (primary appointment)

MD University of Kentucky 2001

BS University of Kentucky 1997

**Mohammad Anas Helwani, MD** Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

MD Damascus University 1998

**Robert E Herold, MD** Assistant Professor of Anesthesiology (primary appointment)

BA Wabash College 1970

MD Washington Univ in St. Louis 1974

**Gary E Hirshberg, MD** Professor Emeritus of Anesthesiology (primary appointment)

BA Princeton University 1968

MD Hahnemann University 1972

**Richard S Hotchkiss** Professor of Anesthesiology (primary appointment)

**Professor of Surgery (General Surgery)**

**Professor of Developmental Biology**

**Professor of Medicine**

**Hawpeng Stephen Hsu, MS, MD** Assistant Professor of Anesthesiology (primary appointment)

BA Georgia St University 1991

MS Emory University 1993

MD Taipei Medical University 1983

**Hongzhen Hu, PHD** Associate Professor of Anesthesiology (primary appointment)

PHD Ohio State University 2004

**Rocco Hueneke** Assistant Professor of Anesthesiology (primary appointment)

**Catherine Ifune, MD, PHD** Associate Professor of Anesthesiology (primary appointment)

MD Washington Univ in St. Louis 1997

PHD Washington Univ in St. Louis 1990

BS California Institute Technolo 1985

**Susan Allison Ironstone, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Tel-Aviv University 2009

**Selma E.h.o. Ishag, PHD, MD** Assistant Professor of Anesthesiology (primary appointment)

PHD University of Khartoum 1996

MD University of Khartoum 1987

**Daniel Thomas Kane, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Washington Univ in St. Louis 1989

**Ivan M Kangrga, MD** Professor of Anesthesiology (primary appointment)

MD University of Belgrade 1982

**Menelaos Karanikolas, MD** Associate Professor of Anesthesiology (primary appointment)

MD Athens University Med School 1988

**Jacob Brian Keeperman, MD** Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Emergency Medicine in Medicine**

MD Loyola University Chicago 2006

**Rainer Kentner, MD** Assistant Professor of Anesthesiology (primary appointment)

MD University of Tuebingen 1987

**Paul William Kerby, MBBS** Assistant Professor of Anesthesiology (primary appointment)

BS King's College London 2001

MBBS King's College London 2004

**Nicholas Kessides, MD** Instructor in Anesthesiology (primary appointment)

MD University of Maryland 2010

**Evan David Kharasch, PHD**Russell and Mary Shelden Professor of Anesthesiology (primary appointment)

**Professor of Biochemistry and Molecular Biophysics**

PHD Northwestern University Med 1983

**Shahrdad Khodamoradi, MD**Assistant Professor of Anesthesiology (primary appointment)

MD Washington Univ in St. Louis 1990

**Brian Kim, MD**Assistant Professor of Medicine (Dermatology) (primary appointment)

**Assistant Professor of Anesthesiology**

**Assistant Professor of Pathology and Immunology**

MD University of Washington 2007

BS Haverford College 2001

**Tessa Marie King, MD**Assistant Professor of Anesthesiology (primary appointment)

MD University of Kansas 1997

MD1 University of Kansas 1997

BA School Not Listed 1993

Justin Knittel**Assistant Professor of Anesthesiology** (primary appointment)

Helga Komen**Instructor in Anesthesiology** (primary appointment)

**Joseph F Kras, DDENT, MD**Associate Professor of Anesthesiology (primary appointment)

DDENT Loyola University Chicago 1982

MD Hahnemann University 1991

**Catherine P Krucylak, MD**Assistant Professor of Anesthesiology (primary appointment)

BA Rutgers University 1982

MD U Medical-Dental Of New Jersey 1986

**Hing Hung H Lai, MD**Associate Professor of Surgery (Urologic Surgery) (primary appointment)

**Associate Professor of Anesthesiology**

MD Cornell University 1999

**Anand Lakshminarasimhachar, MBBS**Assistant Professor of Anesthesiology (primary appointment)

MBBS Bangalore University 1994

**Chakrapol Lattanand, MD**Assistant Professor of Anesthesiology (primary appointment)

MD Hahnemann University 2000

**Chris Cheng-Fu Lee, PHD, MD**Associate Professor of Anesthesiology (primary appointment)

PHD Beijing Medical University 1991

MD Hubei Medical University 1985

**Christopher J Lingle**Professor of Anesthesiology (primary appointment)

**Professor of Neuroscience**

BS University of Oregon 1972

**Qianjin Liu, MD, PHD**Assistant Professor of Anesthesiology (primary appointment)

MD Nanjing Medical University 1983

PHD Saint Louis University 1997

**Qin Liu, PHD**Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Ophthalmology and Visual Sciences**

PHD Chinese Academy of Sciences 2004

BS Wuhan University 1998

Ellen M Lockhart**Professor of Anesthesiology** (primary appointment)

**Vice Chairman of Anesthesiology**

**Tanying Mao, MD**Instructor in Anesthesiology (primary appointment)

MD Baylor College of Medicine 2010

**John D McAllister, MD** Professor of Anesthesiology (primary appointment)

**Professor of Pediatrics**

MD University of Manitoba 1980

BS University of Manitoba 1982

**Molly Ann McCormick** Assistant Professor of Anesthesiology (primary appointment)

**Heather McKenzie** Assistant Professor of Anesthesiology (primary appointment)

**Konrad Meissner, MBBS** Adjunct Instructor in Anesthesiology (primary appointment)

MBBS University of Leipzig 1998

**Sara Hargarten Mesick, MD** Instructor in Anesthesiology (Pending Dean's Approval) (primary appointment)

MD Washington Univ in St. Louis 2012

**Durga Prasanna Mohapatra, PHD** Associate Professor of Anesthesiology (primary appointment)

PHD University of Erlangen 2011

**Robert Paul Moore, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Washington Univ in St. Louis 2004

**Jose Moron-Concepcion, PHD** Associate Professor of Anesthesiology (primary appointment)

**Associate Professor of Neuroscience**

PHD University of Barcelona 1998

**Jeremiah J Morrissey, PHD** Professor of Anesthesiology (primary appointment)

PHD Saint Louis University 1974

BA Macmurray College 1969

**David J Murray, MD** Carol B. and Jerome T. Loeb Professor of Anesthesiology (primary appointment)

MD University of Saskatchewan 1978

BS University of Saskatchewan 1973

**Peter Nagele** Associate Professor of Anesthesiology (primary appointment)

**Associate Professor of Genetics**

**Joan M Niehoff, MD** Associate Professor of Anesthesiology (primary appointment)

MD University of MO Columbia 1982

BA University of MO Kansas City 1982

**Carl Helge Nielsen, MD** Professor of Anesthesiology (primary appointment)

MD University of Copenhagen 1979

**Daniel C Nieva, MD** Assistant Professor of Anesthesiology (primary appointment)

MD University of Iowa 2003

**Sydney Marie Nykiel-Bailey** Assistant Professor of Anesthesiology (primary appointment)

BS Saint Louis University 2001

**Patrick Ross O'Neill** Instructor in Anesthesiology (Pending Dean's Approval) (primary appointment)

**Folasade Oladapo, MD** Assistant Professor of Anesthesiology (primary appointment)

MD U Medical-Dental Of New Jersey 2008

**Ben Julian Palanca** Assistant Professor of Anesthesiology (primary appointment)

BS University of Washington 1997

**Chris M Palmer, MD** Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Emergency Medicine in Medicine**

BS Virginia Tech 2004

MD SUNY - Empire State College 2008

**Patricia A. Penkoske** Instructor in Anesthesiology (primary appointment)



BS Lindenwood University 1969

**Mitchell R Platin, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Kent St University 1987

**Adrienne Rae Poe, PHD** Instructor in Anesthesiology (Pending Dean's Approval) (primary appointment)

PHD Washington St University 2011

**Debra D Pulley, MD, MME** Associate Professor of Anesthesiology (primary appointment)

BS Vanderbilt University 1978

MD Saint Louis University 1987

MME University of MO Columbia 1982

**Carlos Angel Puyo, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Juan N Corpas School of Medici 1989

**Lesley Kathryn Rao, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Saint Louis University 2006

**Rashmi R Rathor, MD** Assistant Professor of Anesthesiology (primary appointment)

MD University of Illinois 2007

**Jebadurai Ratnaraj, MD** Assistant Professor of Anesthesiology (primary appointment)

MD1 Northrhein Westfalen Medical 1985

MD Madurai Kamaraj University 1979

**Eduardo Reina, MD** Instructor in Anesthesiology (Pending Dean's Approval) (primary appointment)

MD University of Illinois Chicago 2011

**Micheal Todd Rice, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Univ of Texas San Antonio 2002

**Clare H Ridley, MD** Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

MD Washington Univ in St. Louis 2008

BA Columbia College of Phy & Surg 2002

**Evan Ward Roller, MD** Assistant Professor of Anesthesiology (Pending Executive Faculty Approval) (primary appointment)

MD University of Cincinnati 2010

**Adnan Sadiq, MD** Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

MD Royal College of Surgeons 2001

BS State Univ of NY Buffalo 1996

**Angela K Saettele, MD** Assistant Professor of Anesthesiology (primary appointment)

BS Simpson College 2004

MD University of MO Columbia 2008

**Charles R Schrock, MD** Associate Professor of Anesthesiology (primary appointment)

MD University of MO Columbia 1991

James Serot Assistant Professor of Anesthesiology (primary appointment)

**Rajiv K Shah, MD** Assistant Professor of Anesthesiology (Pending Executive Faculty Approval) (primary appointment)

MD University of Rochester 2010

**Sonia Malhotra Shahrawat, MD** Instructor in Anesthesiology (primary appointment)

MD Bharati Vidyapeeth Med College 2000

BS Tufts University 2001

**Anshuman Sharma, MD** Professor of Anesthesiology (primary appointment)

MD Institute of Medical Science 1990

BA Government Medical College 1987

**Andrew John Shepherd, PHD**Instructor in Anesthesiology (primary appointment)

PHD University of Manchester 2006

**John Charles Spittler, MD**Assistant Professor of Anesthesiology (primary appointment)

BS University of MO Columbia 1998

MD University of MO Columbia 2003

Tracey Wagner StevensAssistant Professor of Anesthesiology (primary appointment)

Robert A SwarmProfessor of Anesthesiology (primary appointment)

Martha Zorko SzaboAssistant Professor of Anesthesiology (primary appointment)

**Rene Tempelhoff, MD**Professor of Anesthesiology (primary appointment)

**Professor of Neurological Surgery**

MD University of Lyon 1974

**Raghu P Terkonda, MD**Assistant Professor of Anesthesiology (primary appointment)

MD University of MO Columbia 1987

BS University of MO Columbia 1983

**Marie Angele Theard, MD**Assistant Professor of Anesthesiology (primary appointment)

MD University of Illinois 1989

**Andrea Vannucci, MD**Associate Professor of Anesthesiology (primary appointment)

MD University of Milan 1989

**Swarup Varaday, MBBS**Assistant Professor of Anesthesiology (primary appointment)

MBBS Andhra University 1989

**Gershon Ram Volotzky, MD**Assistant Professor of Anesthesiology (primary appointment)

MD Tel-Aviv University 1979

**Ashley Brooke Weinhold, MD**Instructor in Anesthesiology (primary appointment)

MD University of Arkansas 2011

**Timothy P Welch, MD**Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Pediatrics**

MD University of Cincinnati 2004

**Brian T Wessman, MD**Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Emergency Medicine in Medicine**

MD Commonwealth College 2005

BS College of William and Mary 2000

**Troy S Wildes, MD**Associate Professor of Anesthesiology (primary appointment)

BS Illinois Wesleyan University 1998

MD Washington Univ in St. Louis 2002

**Anke Christiane Winter, MD, MS**Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

**Assistant Professor of Anesthesiology**

MD RWTH Aachen University, 2006

MS Harvard University 2010

**Brett D Wolff, MD**Associate Professor of Anesthesiology (primary appointment)

BA Indiana University Bloomington 1981

MD Indiana University Bloomington 1985

**Xiaoming Xia, PHD**Assistant Professor of Anesthesiology (primary appointment)

BS Fudan University 1984

PHD Vollum Institute OHSU 1998

**Branden Edward Yee, MD**Assistant Professor of Anesthesiology (primary appointment)

BS Tufts University 2004

MD Tufts University 2008

**Xiaobin Yi, MD** Associate Professor of Anesthesiology (primary appointment)

MD Hunan Medical University 1985

**Alexander H Young, MD** Assistant Professor of Anesthesiology (primary appointment)

MD University of Arkansas 1990

BA University of Mississippi 1986

**Anna Rebecca Young** Assistant Professor of Anesthesiology (primary appointment)

**Paul Battista Zanaboni, PHD, MD** Associate Professor of Anesthesiology (primary appointment)

PHD Saint Louis University 1990

MD Saint Louis University 1992

**Jessica Ann Zenga, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Saint Louis University 2006

**Yu Zhou, PHD, MS** Instructor in Anesthesiology (primary appointment)

PHD State Univ of NY Buffalo 2005

MS Zhejiang Medical University 1999

BS Wuhan University 1996

No entries found

# Department of Biochemistry and Molecular Biophysics

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The faculty of the Department of Biochemistry and Molecular Biophysics perform research in a broad spectrum of biomedically relevant areas, including DNA and RNA structure and enzymology; protein folding, misfolding and aggregation; cellular mechanics, membrane receptor-mediated signaling, and hemostasis, thrombosis and vascular biology. The Department offers training opportunities at the crossroads of biochemistry, biophysics, systems biology, computational science and pharmacological sciences.

The Department's approaches to research often focus on understanding the energetics, structure and mechanisms of biological processes. Investigators employ a variety of experimental methods such as X-ray crystallography, NMR, optical spectroscopy, thermodynamics and rapid kinetics, in combination with computational



approaches, to unravel the molecular underpinnings of processes of relevance to health and disease. Novel single-molecule methods are providing new insight into the molecular details of enzyme mechanisms and macromolecule dynamics. High-throughput screening of chemical libraries and synthetic medicinal chemistry to develop small molecule probes of biological systems provide new avenues for translational research and the development of experimental therapeutics.

The faculty in the Department organize and teach basic science courses in the medical school curriculum, including The Molecular Foundations of Medicine course. In the graduate school curriculum, the faculty teach courses in Nucleic Acids and Protein Synthesis (Bio 548), Chemistry and Physics of Biological Molecules (Bio 5357), and Macromolecular Interactions (Bio 5312). The overarching theme of these courses is to understand the principles of the molecular interactions that underlie the biological process of health and disease. Students in the School of Medicine and the Graduate School of Arts & Sciences are eligible for these courses and may elect to pursue biomedical research under the direction of our faculty. A full listing of advanced courses topics can be found at [biochem.wustl.edu/studentinfo/courses](http://biochem.wustl.edu/studentinfo/courses).

## For more information

Please visit the [Department of Biochemistry and Molecular Biophysics website](#) for more information.

# MD Courses — Biochemistry and Molecular Biophysics

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## First year

## **M15 502 MOLECULAR FOUNDATIONS OF MEDICINE**

Instructor: Linda J. Pike, PhD, 362-9502

This course is designed primarily for medical students and will cover fundamental aspects of biochemistry and cell biology. The course begins with a treatment of protein structure and the principles of enzyme kinetics. This leads to a description of the basic pathways for the synthesis and metabolism of carbohydrates and lipids, with a focus on how the body maintains glucose homeostasis and provides energy under various metabolic stresses. This leads into a discussion of membrane structure and the function of cellular organelles in biological processes, culminating in the replication of DNA and the control of cell proliferation. Non-medical students should register under L41 (Bio) 5319. Please note that Molecular Foundations of Medicine runs on the medical school calendar and thus starts on August 16.

## **Fourth year**

### **Electives**

Descriptions of the elective courses are listed under the Division of Biology and Biomedical Sciences. In some instances, these courses are offered in alternate years. The faculty member in charge of the course should be contacted for specific times.

L41 (Bio) 5312 MACROMOLECULAR INTERACTIONS

L41 (Bio) 5318 DNA REPAIR

L41 (Bio) 5357 CHEMISTRY AND PHYSICS OF BIOLOGICAL MOLECULES

L41 (Bio) 548 NUCLEIC ACID AND PROTEIN BIOSYNTHESIS

Note — The number preceding the course title indicates that the course carries credit in the Graduate School of Arts & Sciences.

# Research — Biochemistry and Molecular Biophysics

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(M15 900)

Cross-listed with L41 (Bio) 590

Wayne M. Barnes, PhD

2nd Floor McDonnell Science Building

314-362-3351

We are developing a new way to sequence DNA, under the “\$1000 Genome Project”. This project involves the addition of experimental fluorescent probes to DNA polymerase, with the goal of watching a single molecule flicker as it copies DNA. Student involvement may be at the level of making mutations and purifying mutant enzymes, testing ways to prepare the templates, or testing observations of working molecules.

T7 RNA polymerase is used to express our proteins, and we have double and triple mutants of it that improve expression of problematic proteins, but we only have theory as to how they work better: we think they are slower, and that slower is better. Student involvement may be in constructing comparative strains that use the enzyme, and measuring the speed somehow, in vivo and in vitro.

Peter M. J. Burgers, PhD

1st Floor South Building

314-362-3872

Molecular biology of DNA replication, DNA damage response mechanisms, and DNA repair in eukaryotes.

Carl Frieden, PhD

2nd Floor McDonnell Science Building

314-362-3344

Investigation of apolipoproteins E as they relate to Alzheimer's Disease. Mechanisms of protein aggregation. Fibril formation and bacterial infections.

Eric A. Galburt, PhD

2nd Floor McDonnell Science Building

314-362-5201

Use of single-molecule biophysical techniques such as magnetic and optical trapping to study DNA transcription.

Roberto Galletto, PhD

2nd Floor McDonnell Science Building

314-362-4368

Mechanistic studies of DNA motor proteins and telomere binding proteins; single-molecule approaches.

Kathleen Hall, PhD

2nd Floor North Building

314-362-4196

RNA structure/function. RNA protein interactions. NMR spectroscopy.

Timothy M. Lohman, PhD

2nd Floor North Building

314-362-4393

Biophysical chemistry of proteins, nucleic acids and their mechanism of interaction. Mechanisms of DNA unwinding and translocation by helicases and SSB proteins.

Garland R. Marshall, PhD

2nd Floor Cancer Research Building, Center for Chemical Genomics

314-935-7911

Targeting Epigenetic Control in Pathology. A major concern regarding the use of therapeutics targeting the epigenetic control of gene expression is undesirable side effects, particularly those associated with fetal development. Despite the intense

interest in targeting histone deacetylases (HDACs, eleven zinc-based enzymes expressed in humans) for multiple therapeutic applications and the fact that two non-specific HDACIs are already FDA-approved in oncology, isoform-specific HDACIs are not available. Professor Marshall and his collaborators in Rome have a comprehensive program to develop isoform-specific inhibitors for applications for reversing HIV latency with Professor Lee Ratner for treatment of HIV, with Dr. Michael D. Onkin for treatment of uveal melanoma, and for potential antiparasitics with Professors Dan Goldberg, Eva Istvan, Makedonka Mitreva and Audrey Odom. Two uniquely specific inhibitors of HDAC6 have already been discovered in the Marshall lab in the past month.

The research involves bioinformatics to identify homologs of HDACs in parasites, molecular modeling to generate homology models of target proteins, virtual screening to identify potential inhibitors and bioassays to quantitate efficacy. Projects can be customized to fit individual preferences.

Linda Pike, PhD

1st Floor South Building

314-362-9502

Mechanism of EGF and ErbB receptor function. We use a combination of radioligand binding and molecular imaging via luciferase fragment complementation to study the interactions of ErbB family receptors. The goal is to gain insight into structure/function relationships within these receptors to better understand how to target them therapeutically.

Gregory Bowman, PhD

253C McDonnell Medical Sciences Building

314-352-7433

Systems Biophysics. We combine simulation and experiment to understand the conformational changes proteins undergo and how these changes allow information to flow, both within single proteins and within networks of interacting proteins. Two major application areas are (1) understanding hidden allosteric sites and the opportunities they present for drug design and (2) understanding the molecular

mechanisms of vision, especially the origins of inherited forms of blindness. To facilitate these applications, we also develop enhanced sampling algorithms for simulating long timescale dynamics of proteins and nucleic acids

## Faculty — Biochemistry and Molecular Biophysics

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**John A Cooper, PHD** Professor of Cell Biology and Physiology

Head of the Department of Biochemistry

Professor of Biochemistry and Molecular Biophysics

BS Brown University 1977

PHD Johns Hopkins University 1983

**Samuel I Achilefu, PHD** Michel M Ter-Pogossian Professor of Radiology (primary appointment)

Professor of Biochemistry and Molecular Biophysics

PHD University of Nancy I 1991

**Gaya K Amarasinghe, PHD** Associate Professor of Pathology and Immunology (primary appointment)

Associate Professor of Biochemistry and Molecular Biophysics

Associate Professor of Molecular Microbiology

PHD University of Maryland 2001

**Usha P Andley, MS** Professor of Ophthalmology and Visual Sciences (primary appointment)

Assistant Professor of Biochemistry and Molecular Biophysics

BS Delhi University 1970

MS Delhi University 1972

**Jacques Ulrich Baenziger, MD** Professor Emeritus of Biochemistry and Molecular Biophysics (primary appointment)

Prof Emeritus of Biochem & Molecular Biophysic (primary appointment)

MD Washington Univ in St. Louis 1975

BA New College of Florida 1969

**Wayne Morris Barnes, PHD** Associate Professor of Biochemistry and Molecular Biophysics (primary appointment)

BA University of CA Riverside 1969

PHD Univ of Wisconsin Madison 1974

**Gregory R. Bowman, PHD** Assistant Professor of Biochemistry and Molecular Biophysics (primary appointment)

BS Cornell University 2006

PHD Stanford University 2010

**Thomas J. Brett** Assistant Professor of Medicine (primary appointment)

Assistant Professor of Cell Biology and Physiology

Assistant Professor of Biochemistry and Molecular Biophysics

BS North Dakota State University 1992

**Peter M Burgers, PHD, MS** Marvin A. Brennecke Professor of Biological Chemistry (primary appointment)

PHD Leiden University 1977

MS Leiden University 1972

**Sudha Mahajan Cowsik, MS, PHD** Instructor in Biochemistry and Molecular Biophysics (primary appointment)

MS Panjab University 1970

PHD Institute of Medical Science 1976

BS Panjab University 1969

Allan Doctor **Professor of Pediatrics** (primary appointment)

**Associate Professor of Biochemistry and Molecular Biophysics**

Roland Ellwood Dolle **Associate Professor of Biochemistry and Molecular Biophysics** (primary appointment)

**Thomas E Ellenberger, DVM, PHD** Professor of Biochemistry and Molecular Biophysics (primary appointment)

**Chairman of the Executive Council of the Division of Biology and Biomedical Sciences**

DVM Iowa State University 1983

PHD Harvard University 1989

**Elliot L Elson, PHD** Emeritus Professor of Biochemistry and Molecular Biophysics (primary appointment)

**Prof Emeritus of Biochem & Molec Biophysics** (primary appointment)

PHD Stanford University 1966

BA Harvard University 1959

**William A Frazier III** Professor of Biochemistry and Molecular Biophysics (primary appointment)

**Professor of Cell Biology and Physiology**

**Professor of Biomedical Engineering**

BA Johns Hopkins University 1969

**Daved H Fremont, PHD** Professor of Pathology and Immunology (primary appointment)

**Professor of Biochemistry and Molecular Biophysics**

BS Univ of Wisconsin Madison 1986

PHD University of CA San Diego 1993

**Carl Frieden, PHD** Professor of Biochemistry and Molecular Biophysics (primary appointment)

BA Carleton College 1951

PHD Univ of Wisconsin Madison 1955

**Eric A Galburt, PHD** Assistant Professor of Biochemistry and Molecular Biophysics (primary appointment)

PHD University of Washington 2002

**Roberto Galletto, MS, PHD** Assistant Professor of Biochemistry and Molecular Biophysics (primary appointment)

MS University of Genova 1996

PHD University of Texas Galveston 2002

**Gregory I Goldberg, PHD** Professor of Medicine (Dermatology) (primary appointment)

**Professor of Biochemistry and Molecular Biophysics**

PHD Weizmann Institute of Science 1977

**Michael Jonathan Greenberg** Assistant Professor of Biochemistry and Molecular Biophysics (primary appointment)

**Kathleen Hall, PHD** Professor of Biochemistry and Molecular Biophysics (primary appointment)  
BS University of Minnesota 1974

PHD University of CA Berkeley 1985

**Kathryn Ming Hart** Instructor in Biochemistry and Molecular Biophysics (primary appointment)

**James J Havranek, PHD** Assistant Professor of Biochemistry and Molecular Biophysics (primary appointment)

PHD Stanford University 2008

**Maxenia Garcia Ilagan** Assistant Professor of Biochemistry and Molecular Biophysics (primary appointment)

**Assistant Professor of Developmental Biology**

**James W Janetka** Associate Professor of Biochemistry and Molecular Biophysics (primary appointment)

BS University of Illinois 1990

**Evan David Kharasch, PHD** Russell and Mary Shelden Professor of Anesthesiology (primary appointment)

**Professor of Biochemistry and Molecular Biophysics**

PHD Northwestern University Med 1983

**Stuart A Kornfeld** David C and Betty Farrell Professor of Medicine (primary appointment)

**Professor of Biochemistry and Molecular Biophysics**

BA Dartmouth College 1958

**Alexander Kozlov, MS, PHD** Instructor in Biochemistry and Molecular Biophysics (primary appointment)

MS Moscow State University 1983

PHD Moscow State University 1994

**Andrzej Modest Krezel, PHD, MS** Associate Professor of Biochemistry and Molecular Biophysics (Pending Executive Faculty Approval) (primary appointment)

PHD Univ of Wisconsin Madison 1991

MS University of Warsaw 1986

**Daisy W Leung, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

**Assistant Professor of Biochemistry and Molecular Biophysics**

PHD University of Texas Southwest 2005

BS Amherst College 1997

**Weikai Li, PHD, MS** Assistant Professor of Biochemistry and Molecular Biophysics (primary appointment)

PHD Yale University 2004

MS University of Tenn Chattanooga 1998

BS East China Univ of Sci & Tech 1993

**Timothy M Lohman** Brennecke Professor of Biophysics in Biochemistry and Molecular Biophysics (primary appointment)

BA Cornell University 1973

**Garland R Marshall** Professor of Biochemistry and Molecular Biophysics (primary appointment)

**Professor of Biomedical Engineering**

BS California Institute Technolo 1962

**Stephen M Moerlein, MA, PHARM D** Associate Professor of Radiology (primary appointment)

**Associate Professor of Biochemistry and Molecular Biophysics**

MA Washington Univ in St. Louis 1979



BS University of Illinois 1976

PHARMD University of Florida 2008

Joseph B Monahan **Adjunct Assistant Professor of Biochemistry and Molecular Biophysics**

(primary appointment)

**Michael D Onken, PHD** **Assistant Professor of Biochemistry and Molecular Biophysics** (primary appointment)

PHD Washington Univ in St. Louis 2000

BA Washington Univ in St. Louis 1990

**Linda J Pike, PHD** **Alumni Endowed Professor of Biochemistry and Molecular Biophysics** (primary appointment)

PHD Duke University 1980

BS University of Delaware 1975

**Katherine P Ponder, MD** **Professor of Medicine** (primary appointment)

**Professor of Biochemistry and Molecular Biophysics**

BS Stanford University 1979

MD Washington Univ in St. Louis 1983

**J. Evan Sadler, MD, PHD** **Professor of Medicine** (primary appointment)

**Professor of Biochemistry and Molecular Biophysics**

MD Duke University 1979

PHD Duke University 1978

Andrea Soranno **Assistant Professor Biochemistry and Molecular Biophysics (Pending Executive Faculty Approval)** (primary appointment)

**Niraj Harish Tolia, PHD** **Associate Professor of Molecular Microbiology** (primary appointment)

**Associate Professor of Biochemistry and Molecular Biophysics**

PHD Watson Sch of Biological Scien 2004

BS Imperial College 1999

**Gabriel Waksman, MS, PHD** **Adjunct Professor of Biochemistry and Molecular Biophysics** (primary appointment)

BS School Not Listed 1979

MS School Not Listed 1980

PHD School Not Listed 1982

**Katherine Anne Henzler Wildman, PHD** **Adjunct Associate Professor of Biochemistry and Molecular Biophysics** (primary appointment)

PHD University of Michigan 2003

No entries found

# Department of Cell Biology and Physiology

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Cell biology is one of the primary disciplines in medical research, influencing all areas of basic and clinical investigation. The future holds great opportunities in cell biology research due to inventories of the genes and proteins from which cells are built, new experimental techniques and various model organisms. Further discoveries about the cell biology of human genes will continue to translate into therapeutics. Also on the horizon is a better understanding of how proteins and sets of proteins (e.g., macromolecular complexes) are assembled and integrated to produce function.

The [Department of Cell Biology and Physiology](#) is ranked among the top 10 cell biology departments in the country, and the research carried out by its faculty covers a broad range of fields within cellular physiology and molecular cell biology. A unifying theme is the study of fundamental processes and their regulation. These cellular processes include genome maintenance, apoptosis, cell cycle control, dynamic cell motility, angiogenesis, signal transduction and membrane trafficking, presynaptic processes, prion protein misfolding, RNA metabolism, and the structure and function of ion channels. The department's research activities provide a foundation for studies in cancer biology, immunobiology, developmental biology, neurobiology and vascular biology. Its faculty use model organisms as well as human stem cells and a variety of techniques such as deep-etch electron and confocal microscopy to carry out their research. Cellular imaging is a particular strength of the department.

The [Department of Cell Biology and Physiology](#) oversees the [Cell and Organ Systems](#) course, which is designed to provide first-year medical students with a foundation for their further study of clinical and applied physiology. The Molecular Cell Biology course for first-year graduate students conveys an understanding of fundamental cell biology research strategies and principles. In addition, advanced courses open to medical and graduate students provide for more detailed study of specific areas of cell biology, physiology and cellular biophysics.

## For more information

Please visit the [Department of Cell Biology and Physiology website](#) for more information.

# MD Courses — Cell Biology and Physiology

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## First year

### **M75 503 CELL AND ORGAN SYSTEMS BIOLOGY**

Instructor: Robert W. Mercer, PhD, 362-6924

This course integrates and extends the basic principles of cell biology and physiology to the functions of the major organ systems of the body: muscle, cardiovascular, renal, respiratory, gastrointestinal and endocrine. Limited space is available for nonmedical students with instructor's permission. This course is cross-listed in the Department of Neuroscience.

## Selectives

### **M04 537 SIMULATIONS IN CARDIOVASCULAR PHYSIOLOGY**

Instructors: David Murray, MD, 747-2136; Robert Moore, MD, 747-2136

The purpose of this selective is to demonstrate and explore cardiovascular physiology and cardiovascular control mechanisms using high fidelity, full-size electromechanical mannequins. By simulating events such as arrhythmias, hemorrhage, myocardial infarction and heart failure, students will explore how altering chronotropism, preload, afterload and contractility lead to changes in blood pressure, heart rate, central venous pressures and cardiac output. The course includes five interactive simulation laboratory sessions. During these sessions at the Howard and Joyce Wood Simulation Center, simulations will be used to demonstrate how ECG, arterial, venous, ventricular and pulmonary capillary wedge pressures, cardiac output, stroke volume, heart rate,

systemic and pulmonary vascular resistance are measured and monitored in clinical practice. In these small-group sessions, students will explore how alterations in chronotropism, preload, inotropism and afterload lead to a variety of cardiovascular events. The sessions will also be used to demonstrate a variety of the cardiovascular control mechanisms such as the Frank-Starling response and baroreceptor-mediated reflex responses.

#### **M04 596 ION CHANNELS AND DISEASE**

Instructor: Colin G. Nichols, PhD, 362-6630

Ion channels are present in all cells and direct intracellular events by controlling the membrane electrical activity. Many widely used clinical drugs act by altering the behavior of ion channels, including epilepsy, diabetes, cardiac arrhythmias and cystic fibrosis. We will consider the basis of ion channel diseases and ion channel modulation therapies. Students will research a topic of choice in the library over two to three weeks and then present their findings to the whole class. After the initial course meeting, we will not meet formally for three weeks, and will then meet once per week for presentations.

## **Fourth year**

### **Electives**

Descriptions of the following courses may be found under Division of Biology and Biomedical Sciences.

L41 (Bio) 5062 CENTRAL QUESTIONS IN CELL BIOLOGY

L41 (Bio) 5068 FUNDAMENTALS OF MOLECULAR CELL BIOLOGY

L41 (Bio) 5122 CELL-MATRIX INTERACTIONS

L41 (Bio) 5132 CELL MOTILITY AND CYTOSKELETON JOURNAL CLUB

Note — The number preceding the course title indicates that the course carries credit in the Graduate School of Arts & Sciences. See course descriptions in the Graduate Programs section of this catalog.

# Research — Cell Biology and Physiology

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(M75 900)

Cross-listed with L41 (Bio) 590

Kendall J. Blumer, PhD

506 McDonnell Science Building

314-362-1668

Signaling mechanisms in cardiovascular and neurological disorders.

Sergej Djuranovic, PhD

514 McDonnell Science Building

314-362-9706

Molecular mechanisms of translational control. Research examines the cellular processes that are regulated by changes in RNA metabolism.

Phyllis I. Hanson, MD, PhD

4625 Cancer Research Building

314-747-4233

Study of protein-protein and protein-membrane interactions involved in neuronal and synaptic membrane trafficking using biochemical, biophysical, and cell biological techniques.

James E. Huettner, PhD

6600 Cancer Research Building

314-362-6628

Excitatory amino acid receptors and synaptic transmission in the central nervous

system; neural differentiation of embryonic stem cells.

Vitaly Klyachko, PhD

9405 BJC Institute of Health

314-362-5517

The mechanisms and regulation of neurotransmitter release at individual synapses; the functional roles of presynaptic processes in synaptic plasticity and information processing.

Robert P. Mecham, PhD

4606 Cancer Research Building

314-362-2254

Understanding the complex process of extracellular matrix assembly and organization, including studying the intracellular pathways used to transport matrix components to the cell surface and identifying helper or accessory proteins that facilitate trafficking and matrix assembly. Cell-matrix interactions in development and cellular mechanisms associated with connective tissue remodeling in vascular disease and heritable diseases of connective tissues.

Michael M. Mueckler, PhD

416 McDonnell Science Building

314-362-4160

Molecular biology of mammalian glucose transporters. Regulation of glucose transport by insulin and the mechanism of insulin signaling. Subcellular trafficking of the insulin-regulated glucose transporter. Structure and function relationships of glucose transporters. Mechanism of insertion of complex polytopic proteins into the rough endoplasmic reticulum membrane.

Colin G. Nichols, PhD

9405 BJC Institute of Health

314-362-6630

Ion channel biology. Multiple levels of analysis from the molecular basis of channel function to in vivo physiology and disease

David W. Piston, PhD

4912 South Building

314-362-9121

The intracellular and intercellular dynamics of cells within the islet of Langerhans play a key role in the regulation of blood glucose levels. The islet is made up of different cell types, but very little is known about the interplay between the different cell types and how this affects their secretion of various hormones. The islet  $\beta$ -cells secrete insulin in response to increased blood sugar, and also in response to neurotransmitters and hormones. Glucagon also plays a key role in blood glucose homeostasis, and it is secreted by the islet  $\alpha$ -cells. High glucose levels inhibit glucagon secretion from  $\alpha$ -cells within the islet, but not from dispersed  $\alpha$ -cells, but the mechanism underlying this phenomenon has not been defined. We use quantitative live cell microscopy to measure single cell parameters within intact islets held within microfluidic devices in order to expose them to spatially heterogeneous levels of various stimuli. The resulting data are fit using mathematical models of islet functional dynamics, which we are continually modifying to better fit the observed islet physiology.

Paul H. Schlesinger, MD, PhD

401 McDonnell Science Building

314-362-2223

Molecular mechanism of BCL-2 family protein function, intracellular channels, biophysics of lipids, proteins and their interaction in cells and nanotechnology.

Sheila A. Stewart, PhD

7610 BJC Institute of Health

314-362-7437

Delineation of the molecular mechanisms by which aged stromal cells contribute to tumorigenesis and the molecular mechanisms that ensure high fidelity telomere replication and genomic stability.

Heather L. True-Krob, PhD

413 McDonnell Science Building

314-362-3934

Biological consequences of yeast prions—in both their capacity to function as a novel epigenetic elements, and in their utility to serve as a tractable model for the analysis of protein misfolding and aggregation that occurs in several neurodegenerative disorders.

Zhongsheng You, PhD

514 McDonnell Science Building

314-362-9893

Studies of the cellular responses to DNA damage and their cancer relevance, focusing on the functional interplays between the DNA damage checkpoint, DNA repair and chromatin structure.

Peng Yuan, PhD

9608 BJC Institute of Health

314-747-3793

Structure and function of ion channels and transporters. Ion channels and transporters play essential roles in human physiology and disease. How do channels and transporters recognize their specific substrate ions? How do they respond to various stimuli including chemical ligand, temperature, membrane voltage, and mechanical force? How do they interact with the lipid membrane where they reside? To answer these fundamental questions, we use multidisciplinary approaches including X-ray crystallography, biochemistry, biophysics, and electrophysiology. Dysfunction of these membrane proteins could lead to a variety of diseases such as asthma, hypertension, cancer, heart failure, diabetes, chronic pain, and many more. The long-term goal is to provide detailed mechanistic understanding of ion channels and transporters, which will offer novel strategies for drug development and better treatment of diseases.



# Faculty — Cell Biology and Physiology

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**David William Piston, PHD, MS** Professor of Cell Biology and Physiology (primary appointment)  
**Head of the Department of Cell Biology and Physiology**

PHD University of Illinois 1989

BS Grinnell College 1984

MS University of Illinois 1985

**Dana Ray Abendschein, PHD** Associate Professor of Medicine (primary appointment)  
**Associate Professor of Cell Biology and Physiology**

PHD Purdue University 1978

BS State University of New York 1974

**Yousef Abu-Amer, MS** Professor of Orthopaedic Surgery (primary appointment)  
**Professor of Cell Biology and Physiology**

BS Hebrew University 1985

MS Hebrew University 1987

**Nada A Abumrad, PHD** Robert C Atkins Professor of Obesity Research in Medicine (primary appointment)  
**Professor of Cell Biology and Physiology**

BS American University of Beirut 1972

PHD State University of New York 1978

**Jeffrey Michael Arbeit, MD** Professor of Surgery (Urologic Surgery) (primary appointment)  
**Professor of Cell Biology and Physiology**

BS Boston University 1972

MD Rush University 1976

**Steven Bassnett, PHD** Professor of Ophthalmology and Visual Sciences (primary appointment)  
**Professor of Cell Biology and Physiology**

BS University of Wales 1982

PHD University of East Anglia 1987

**Carlos Bernal-Mizrachi, MD** Associate Professor of Medicine (primary appointment)  
**Associate Professor of Cell Biology and Physiology**

MD Universidad del Valle Med Sch 1990

**Kendall Jay Blumer, PHD** Professor of Cell Biology and Physiology (primary appointment)  
BA Rice University 1977

PHD Duke University 1986

**Ron Bose, PHD** Associate Professor of Medicine (primary appointment)  
**Associate Professor of Cell Biology and Physiology**

PHD Cornell University 1998

PHD1 Cornell University 1998

**Thomas J. Brett** Assistant Professor of Medicine (primary appointment)  
**Assistant Professor of Cell Biology and Physiology**

**Assistant Professor of Biochemistry and Molecular Biophysics**

BS North Dakota State University 1992

**Thomas J Broekelmann, MS** Instructor in Cell Biology and Physiology (primary appointment)  
MS University of MO St Louis 1982

BA University of MO St Louis 1977

**George John Broze Jr, MD** Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

**Professor of Pathology and Immunology**

MD University of Washington 1972

**Harold Burton, PHD** Professor of Neuroscience (primary appointment)

**Professor of Radiology**

**Professor of Biomedical Engineering**

**Professor of Cell Biology and Physiology**

PHD Univ of Wisconsin Madison 1968

BA University of Michigan 1964

**Anil Govind Cashikar, MS** Assistant Professor of Cell Biology and Physiology (primary appointment)

MS Madurai Kamaraj University 1991

BS Bangalore University 1989

**Feng Chen, PHD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Cell Biology and Physiology**

BS Fudan University 1991

PHD University of Utah 1998

**Roberto Civitelli, MD** Sydney M and Stella H Schoenberg Professor of Medicine (primary appointment)

**Professor of Orthopaedic Surgery**

**Professor of Cell Biology and Physiology**

BS University of Siena 1980

MD University of Siena 1980

**F. Sessions Cole, MD** Park J White, M.D. Professor of Pediatrics (primary appointment)

**Vice Chair of the Department of Pediatrics**

**Professor of Cell Biology and Physiology**

**Assistant Vice Chancellor for Children's Health, Washington University School of Medicine**

MD Yale University 1973

BA Amherst College 1969

**John A Cooper, PHD** Professor of Cell Biology and Physiology

**Head of the Department of Biochemistry**

**Professor of Biochemistry and Molecular Biophysics**

BS Brown University 1977

PHD Johns Hopkins University 1983

Clarissa S. Craft Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Cell Biology and Physiology**

**Brian J. DeBosch, PHD, MD** Assistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Cell Biology and Physiology**

PHD Washington Univ in St. Louis 2008

MD Washington Univ in St. Louis 2008

BS University of Michigan 2001

Panyue Deng Assistant Professor of Cell Biology and Physiology (primary appointment)

Abhinav Diwan Associate Professor of Medicine (primary appointment)

**Associate Professor of Cell Biology and Physiology**

**Sergej Djuranovic, PHD** Assistant Professor of Cell Biology and Physiology (primary appointment)

PHD University of Tübingen 2007

**Susan K. Dutcher, PhD** Professor of Genetics (primary appointment)

**Professor of Cell Biology and Physiology**

**Interim Director of the McDonnell Genome Institute**

PHD University of Washington 1980

BA Colorado College 1974

**Sarah K England, PhD** Professor of Obstetrics and Gynecology (primary appointment)

**Professor of Cell Biology and Physiology**

**Alan A and Edith L Wolff Professor of Medicine**

PHD Medical College of Wisconsin 1993

BA Carleton College 1988

**Roberta Faccio, PhD** Professor of Orthopaedic Surgery (primary appointment)

**Professor of Cell Biology and Physiology**

PHD University of Bari 2000

**Thomas W Ferkol, MD** Professor of Pediatrics (primary appointment)

**Professor of Cell Biology and Physiology**

**Alexis Hartmann MD Professor of Pediatrics**

MD Ohio State University 1985

BA Case Western Reserve Univ 1981

**James Alexander John Fitzpatrick, PhD** Associate Professor of Neuroscience (primary appointment)

**Associate Professor of Cell Biology and Physiology**

PHD University of Bristol 2003

**William A Frazier III** Professor of Biochemistry and Molecular Biophysics (primary appointment)

**Professor of Cell Biology and Physiology**

**Professor of Biomedical Engineering**

BA Johns Hopkins University 1969

**Subhadra C Gunawardana, PhD** Associate Professor of Cell Biology and Physiology (primary appointment)

PHD Cornell University 2002

**Dennis E Hallahan, MD** Professor of Radiation Oncology (primary appointment)

**Professor of Cell Biology and Physiology**

**Professor of Pathology and Immunology**

**Elizabeth H and James S McDonnell III Distinguished Professor of Medicine**

**Head of the Department of Radiation Oncology**

**Professor of Molecular Microbiology**

MD Rush University 1984

BS University of Illinois 1980

**Phyllis I Hanson, PhD** Professor of Cell Biology and Physiology (primary appointment)

**Gerty T Cori Professor**

PHD Stanford University 1993

BA Yale University 1985

**Didier Hodzic, PhD** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

**Assistant Professor of Cell Biology and Physiology**

BS University of Liege 1991

PHD University of Liege 1998

**Michael J Holtzman Selma and Herman Seldin Professor of Medicine** (primary appointment)

**Professor of Cell Biology and Physiology**

**Keith A Hruska, MD** Professor of Pediatrics (primary appointment)

**Professor of Cell Biology and Physiology**

**Professor of Medicine**

BS Creighton University 1965

MD Creighton University 1969

**Paul W. Hruz, PHD, MD** Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Cell Biology and Physiology**

PHD Medical College of Wisconsin 1993

MD Medical College of Wisconsin 1994

BS Marquette University 1987

**James E Huettner, PHD** Professor of Cell Biology and Physiology (primary appointment)

**Professor of Biomedical Engineering**

PHD Harvard University 1987

BS Indiana University 1980

BA Indiana University 1981

**Samuel Klein, MD, MS** Danforth Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

BA Brandeis University 1974

MD Temple University 1979

MS Mass Inst of Technology (MIT) 1984

**Vitaly A Klyachko, PHD, MS** Associate Professor of Cell Biology and Physiology (primary appointment)

**Associate Professor of Biomedical Engineering**

**Associate Professor of Neuroscience**

PHD Univ of Wisconsin Madison 2002

MS Moscow State University 1998

BS Moscow State University 1997

**Sandor J Kovacs, MD, MS, PHD** Professor of Medicine (primary appointment)

**Adjunct Professor of Physics**

**Professor of Biomedical Engineering**

**Professor of Cell Biology and Physiology**

MD University of Miami 1979

MS California Institute Technolo 1972

PHD California Institute Technolo 1977

BS Cornell University 1969

**Gregory D Longmore, MD, MS** Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

MD McGill University 1983

BS University of Western Ontario 1977

MS University of Toronto 1979

**Mohamed Mahjoub** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Cell Biology and Physiology**

**Elaine Michelle Majerus, MD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Cell Biology and Physiology**

BA Washington Univ in St. Louis 1986

MD Saint Louis University 1998

BS Washington Univ in St. Louis 1986

**Douglas L. Mann, MD** Tobias and Hortense Lewin Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

MD Temple University 1979

BA Lafayette College 1973

**Bess Adkins Marshall, MD** Professor of Pediatrics (primary appointment)

**Professor of Cell Biology and Physiology**

BS Vanderbilt University 1982

MD Vanderbilt University 1986

**Audrey McAlinden, PHD** Associate Professor of Orthopaedic Surgery (primary appointment)

**Associate Professor of Cell Biology and Physiology**

PHD University of London 1998

**Robert Paul Mecham, PHD** Alumni Endowed Professor of Cell Biology and Physiology (primary appointment)

**Professor of Medicine**

**Professor of Biomedical Engineering**

**Professor of Pediatrics**

PHD Boston University 1977

BS University of Utah 1973

**Robert W Mercer, PHD** Professor of Cell Biology and Physiology (primary appointment)

BA San Jose State University 1974

PHD Syracuse University 1980

**Jeffrey H Miner, PHD** Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

PHD California Institute Technolo 1991

**Kelle Harbert Moley** James Crane Professor of Obstetrics and Gynecology (primary appointment)

**Associate Professor of Cell Biology and Physiology**

**Vice Chairman for Basic Research, Department of Obstetrics and Gynecology**

BA Wellesley College 1984

**Mike Max Mueckler, PHD** Professor of Cell Biology and Physiology (primary appointment)

**Professor of Medicine**

BA Univ of Wisconsin Madison 1976

PHD Univ of Wisconsin Madison 1982

**Colin G Nichols, PHD** Professor of Cell Biology and Physiology (primary appointment)

**Carl F Cori Professor**

BS University of Leeds 1982

PHD University of Leeds 1985

**Daniel Scott Ory, MD** Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

**Alan A and Edith L Wolff Professor of Cardiology**

MD Harvard University 1986

BA Harvard University 1982

**Slavica Pavlovic Djuranovic, DIP, PHD** Instructor in Cell Biology and Physiology (primary appointment)

DIP UNIVERSITY OF BELGRADE 2001

BS UNIVERSITY OF BELGRADE 1999

PHD University of Tübingen 2006

**Helen Piwnica-Worms, PHD** Adjunct Professor of Cell Biology and Physiology (primary appointment)

BA St Olaf College 1979

PHD Duke University 1984

**Jasmina Profirovic, PHD** Adjunct Assistant Professor of Cell Biology and Physiology (primary appointment)

PHD University of Illinois Chicago 2005

BS University of Belgrade 1997

**Maria Sara Remedi, PHD, MS** Assistant Professor of Medicine (primary appointment)  
**Assistant Professor of Cell Biology and Physiology**

PHD University of Cordoba 1999

MS University of Cordoba 1989

BS University of Cordoba 1987

**Robyn Roth** Instructor in Cell Biology and Physiology (primary appointment)

BS MO State U (formerly SW MO St) 1979

**Monica Sala-Rabana** Instructor in Cell Biology and Physiology (primary appointment)

**Linda J Sandell, PHD, MS** Mildred B Simon Research Professor of Orthopaedic Surgery (primary appointment)

**Professor of Cell Biology and Physiology**

PHD Northwestern University 1980

MS University of Denver 1971

**Erica Lynn Scheller, DDENT** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Cell Biology and Physiology**

DDENT University of Michigan 2011

BS Michigan State University 2004

**Paul Henry Schlesinger, MD, PHD** Associate Professor of Cell Biology and Physiology (primary appointment)

MD University of Chicago 1970

PHD University of Chicago 1973

BS University of Illinois 1966

**Julie K Schwarz, MD, PHD** Associate Professor of Radiation Oncology (primary appointment)

**Associate Professor of Cell Biology and Physiology**

MD Washington Univ in St. Louis 2004

PHD Washington Univ in St. Louis 2004

**Clay F Semenkovich, MD** Irene E and Michael M Karl Professor of Endocrinology and Metabolism in Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

BA University of Virginia 1977

MD Washington Univ in St. Louis 1981

**Sheila Stewart-Wigglesworth, PHD** Professor of Cell Biology and Physiology (primary appointment)  
**Professor of Medicine**

BS University of Minnesota 1990

PHD University of CA Los Angeles 1996

**Steven M Strasberg, MD** Pruett Professor of Surgery (General Surgery) (primary appointment)

**Associate Professor of Cell Biology and Physiology**

MD University of Toronto 1963

**Xiong Su, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Cell Biology and Physiology**

PHD Washington Univ in St. Louis 2004

BS Beijing University 1998

**Robert W Thompson, MD** Professor of Surgery (General Surgery) (primary appointment)

**Professor of Cell Biology and Physiology**



### **Professor of Radiology**

BA Hope College 1979

MD University of Michigan 1983

**Robert R Townsend, MD, PHD, MS** Professor of Medicine (primary appointment)

### **Professor of Cell Biology and Physiology**

BS Centenary College 1972

MD Tulane University 1976

PHD Johns Hopkins University 1982

MS Tulane University 1976

Heather L. True **Professor of Cell Biology and Physiology** (primary appointment)

**Shizhen Wang, PHD** Instructor in Cell Biology and Physiology (primary appointment)

PHD Tsinghua University, China 2007

**Jason Dean Weber, PHD** Associate Professor of Medicine (primary appointment)

### **Associate Professor of Cell Biology and Physiology**

BS Bradley University 1993

PHD Saint Louis University 1997

**Katherine N Weilbaecher, MD** Professor of Medicine (primary appointment)

### **Professor of Pathology and Immunology**

### **Professor of Cell Biology and Physiology**

BA Harvard University 1987

MD Stanford University 1992

**Zhongsheng You, MS** Associate Professor of Cell Biology and Physiology (primary appointment)

### **Associate Professor of Medicine**

MS Shanghai Inst of Biochemistry 1997

BS Zhejiang Medical University 1994

Peng Yuan **Assistant Professor of Cell Biology and Physiology** (primary appointment)

**Haixia Zhang, MD, PHD** Assistant Professor of Cell Biology and Physiology (primary appointment)

MD Weifang Medical College 1998

PHD Chinese Academy of Med Science 2004

No entries found

## Department of Developmental Biology

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The principal research activities of the Department of Developmental Biology are focused on attaining a mechanistic understanding of animal development, encompassing the earliest cell fate specification and movement processes that shape the early embryo, organogenesis, stem cell biology and engineering, tissue homeostasis and repair, and aging. Students and postdoctoral fellows work closely

with faculty and staff on research projects and participate in weekly journal clubs and seminars at which recent literature and ongoing research are discussed.

The Developmental Biology Faculty employ a variety of model organisms and cell-based systems to answer key outstanding questions about the fundamental mechanisms of development and to apply this knowledge to pathogenic mechanisms leading to human birth defects and disease, and improve future therapies. We take a broad view of developmental biology, with our research groups studying diverse developmental processes including early embryogenesis, organogenesis, and aging, and applying multidisciplinary approaches that include forward and reverse genetics, epigenetics, molecular and chemical, and computational methods. Embryogenesis is a fascinating process during which a fertilized egg undergoes divisions to form a mass of pluripotent cells that signal to one another to establish embryonic polarity, diverse cell types, and organs, and that also undergo massive cell migrations and rearrangements to sculpt the embryonic body. Research is also carried out on the processes involved in tissue degeneration, repair and regeneration, the biology of embryonic and adult stem cells, and cellular reprogramming. It is a particularly opportune time for developmental biology research, as recent technological breakthroughs in both animal model systems and genomics afford insights into developmental processes at the epigenetic, genetic and molecular levels, and enable the monitoring of cell behaviors in vivo. We are discovering genes that are responsible for birth defects and defining connections between many adult human diseases and their origins during embryogenesis. The studies of stem cells, cellular reprogramming, and regeneration are bringing us closer to curing human diseases, repairing damaged organs, and extending the boundaries of aging.

Research in the Department occurs in a highly collegial atmosphere and involves interdisciplinary collaborations between the members of the department, as well as investigators from different departments and centers throughout the School of Medicine, as well as the College of Arts and Science, and the School of Engineering. Developmental Biology Faculty have leading roles in several research centers, including the [Center of Regenerative Medicine](#), the [Center for Membrane Excitability](#),



the [Cardiovascular Research Center](#), and the [Hope Center](#). The Department has a rich tradition of mentoring undergraduate, graduate and medical students, and postdoctoral fellows. We are committed to creating a research environment in which our trainees reach their maximal scientific potential and career goals, while addressing key outstanding questions and making important discoveries.

Please visit the [Department of Developmental Biology website](#) for more information.

## MD Courses — Developmental Biology

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### First year

#### Selective

##### **M04 500C DEVELOPMENTAL BIOLOGY AND DISEASE**

Instructor: Kerry Kornfeld, MD, PhD, 747-1480

This course presents discoveries arising from research in the broad field of developmental biology and focuses on how these discoveries are contributing to understanding, diagnosis and the treatment of human disease.

## Research — Developmental Biology

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### Fourth year

(M70 900)

Cross-listed with L41 (Bio) 590

Irving Boime, PhD

3rd Floor McDonnell Sciences Building

362-2556

Secretion, targeting and structure-function of the human placental and pituitary glycoprotein hormones.

Douglas F. Covey, PhD

3rd Floor McDonnell Sciences Building

362-1726

Medicinal chemistry of steroids.

Aaron DiAntonio, MD, PhD

6301, 4515 McKinley Research Building

362-9925

Neurodevelopment, neurodegeneration, and axon regeneration in *Drosophila* and mouse.

Gregory A. Grant, PhD

3rd Floor North Building

362-3367

Mechanism of allosteric regulation in enzymes.

Shin-Ichiro Imai, MD, PhD

Room 362A McDonnell Medical Sciences Building

362-7228

Molecular mechanisms of aging and longevity in mammals, particularly focusing on the tissue-specific functions of the mammalian NAD-dependent deacetylase Sirt1 and the physiological significance of systemic NAD biosynthesis mediated by Nampt (nicotinamide phosphoribosyltransferase) in an intimate connection between metabolism and aging.

Kerry Kornfeld, MD, PhD

3rd Floor Cancer Research Building

747-1480

Signal transduction during development. Zinc metabolism. Aging.

Kristen Kroll, PhD

Room 320, McDonnell Sciences Building

362-7045

Transcriptional networks that regulate the formation of neurons in early embryos and embryonic stem cells. Role of chromatin regulatory complexes in controlling pluripotency and differentiation.

Craig Micchelli, PhD

Room 328, McDonnell Sciences Building

362-7036

Our lab studies the regulation of stem cell biology in development, homeostasis, and disease.

Kelly Monk, PhD

360 McDonnell Sciences Building

362-3825

Mechanisms of myelin formation, demyelination, and remyelination in zebrafish and mouse.

Samantha Morris, PhD

3316, 4515 McKinley Research Building

747-8618

Stem Cell and Developmental Biology. Our research focuses on dissecting the gene regulatory networks that define cell identity, using the developing embryo and tissue regeneration as a guide to engineer fate in vitro.

Jeanne M. Nerbonne, PhD

9900 CSRB

362-2564

Structure, function and regulation of voltage-dependent ion channels in the cardiovascular and nervous systems. Regulation of membrane excitability in health and disease.

David M. Ornitz, MD, PhD

3rd Floor South Building

362-3908

Regulation of cardiovascular, lung, skeletal, and inner ear development, injury response, and regeneration by Fibroblast Growth Factors.

John H. Russell, PhD

3rd Floor McDonnell Sciences Building

362-2558

Mechanisms of lymphocyte-mediated inflammation and pathogenesis in the central nervous system.

Lila Solnica-Krezel, PhD

3911A South Building

362-8768

Genetic Regulation of Vertebrate Embryogenesis. Genetic mechanisms that regulate cell fates and movements during early vertebrate development using forward and reverse genetics in the zebrafish model and human embryonic stem cells.

Andrew Yoo, PhD

361E, McDonnell Sciences Building

362-1811

Cell fate control by microRNAs. Neuronal reprogramming to generate human neurons. Chromatin controlling factors and genetic pathways that regulate neurogenesis.

Zachary Pincus, PhD

5304, 4515 McKinley Research Building

747-5520

Inter-individual variability in aging and lifespan. Developmental origins of longevity and adult health. Quantitative microscope and image analysis of *C. elegans*.

## Faculty — Developmental Biology

---

**Lilianna Solnica-Krezel, MS** Professor of Developmental Biology (primary appointment)  
Head of the Department of Developmental Biology

**Alan A and Edith L Wolff** Professor of Developmental Biology  
MS Medical University of Warsaw 1985

**Rajendra Apte, PHD, MD** Paul A. Cibis Distinguished Professor of Ophthalmology and Visual Sciences (primary appointment)  
Professor of Developmental Biology  
Professor of Medicine

PHD University of Texas Southwest 1997  
MD University of Bombay 1993

**Thomas J Baranski, PHD, MD** Associate Professor of Medicine (primary appointment)  
Associate Professor of Developmental Biology

BS Univ of Wisconsin Madison 1985  
PHD Washington Univ in St. Louis 1992  
MD Washington Univ in St. Louis 1992

**Luis Francisco Zirnberger Batista, PHD** Assistant Professor of Medicine (primary appointment)  
Assistant Professor of Developmental Biology

BS University of SAO Paulo 2003  
PHD University of SAO Paulo 2008

**Irving Boime, PHD, MS** Professor of Developmental Biology (primary appointment)  
Professor of Reproductive Biology in Obstetrics and Gynecology

PHD Washington Univ in St. Louis 1970  
MS Purdue University 1966  
BS St Louis College of Pharmacy 1964

**Angela N Bowman, PHD** Assistant Professor of Developmental Biology (primary appointment)  
BA University of Pennsylvania 2006

PHD Stanford University 2012

**Walter A Boyle III, MD** Professor of Anesthesiology (primary appointment)

**Assistant Professor of Developmental Biology**

**Professor of Surgery (General Surgery)**

MD University of CA San Francisco 1977

**Shiming Chen, PHD** Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Developmental Biology**

BS Beijing University 1981

PHD State University of New York 1992

**Zhoufeng Chen** Professor of Anesthesiology (primary appointment)

**Professor of Psychiatry**

**Professor of Developmental Biology**

**Richard A Chole, MD, PHD** Professor of Otolaryngology (primary appointment)

**Professor of Developmental Biology**

**Professor of Audiology and Communication Sciences**

MD University of Southern Calif 1969

PHD University of Minnesota 1977

**Douglas Floyd Covey, MA** Professor of Pharmacology in Developmental Biology (primary appointment)

**Professor of Anesthesiology**

**Professor of Psychiatry**

BS Loyola College 1967

MA Johns Hopkins University 1969

**Nicholas O Davidson, MBBS** Professor of Medicine (primary appointment)

**Professor of Developmental Biology**

MBBS King's College London 1974

**Aaron DiAntonio, M PHIL** Professor of Developmental Biology (primary appointment)

**Alan A and Edith L Wolff** Professor of Developmental Biology

M PHIL Cambridge University 1989

BA Harvard University 1988

**Todd Druley, MD, PHD** Assistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Genetics**

**Assistant Professor of Developmental Biology**

MD University of Illinois Chicago 2002

BS University of Illinois 1994

PHD University of Illinois Chicago 2002

**Alex S Evers** Henry E Mallinckrodt Professor of Anesthesiology (primary appointment)

**Head of the Department of Anesthesiology**

**Professor of Developmental Biology**

**Professor of Medicine**

BS Yale University 1974

**George W Gokel, PHD** Adjunct Professor of Molecular Biology and Pharmacology (primary appointment)

PHD University of Southern Calif 1971

**Jeffrey I Gordon, MD** Professor of Pathology and Immunology (primary appointment)

**Dr Robert J Glaser** Distinguished University Professor

**Director of the Center for Genome Sciences**

**Professor of Medicine**

**Professor of Developmental Biology**

BA Oberlin College 1969

MD University of Chicago 1973

**Gregory Alan Grant, PHD** Professor of Biochemistry in Medicine (Dermatology) (primary appointment)

**Professor of Developmental Biology**

PHD Univ of Wisconsin Madison 1975

BS Iowa State University 1971

**Richard Warren Gross, PHD, AB, MD** Professor of Medicine (primary appointment)

**Professor of Developmental Biology**

**Professor of Chemistry**

PHD Washington Univ in St. Louis 1982

AB Columbia University 1972

MD New York University 1976

**Farshid Guilak, MS, MPH** Professor of Orthopaedic Surgery (primary appointment)

**Professor of Development Biology**

**Professor of Biomedical Engineering**

MS Rensselaer Poly Institute 1987

MPH Columbia University 1990

BS Rensselaer Poly Institute 1985

Charles A. Harris Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Developmental Biology**

**David Michael Holtzman, MD** Andrew B. and Gretchen P. Jones Professor of Neurology (primary appointment)

**Head of the Department of Neurology**

**Professor of Developmental Biology**

MD Northwestern University 1985

BS Northwestern University 1983

Richard S Hotchkiss Professor of Anesthesiology (primary appointment)

**Professor of Surgery (General Surgery)**

**Professor of Developmental Biology**

**Professor of Medicine**

Maxenia Garcia Ilagan Assistant Professor of Biochemistry and Molecular Biophysics (primary appointment)

**Assistant Professor of Developmental Biology**

Shin-Ichiro Imai Professor of Developmental Biology (primary appointment)

**Professor of Medicine**

**Charles Kaufman, PHD, MD** Assistant Professor of Medicine (Pending Executive Faculty Approval) (primary appointment)

**Assistant Professor of Developmental Biology**

PHD University of Chicago 2003

MD University of Chicago 2005

BA Washington Univ in St. Louis 1997

**Albert H Kim, MA, PHD, MD** Assistant Professor of Neurological Surgery (primary appointment)

**Assistant Professor of Neurology**

**Assistant Professor of Developmental Biology**

BA Harvard University 1994

MA Washington Univ in St. Louis 1999

PHD New York U. School of Medicine 2002

MD New York U. School of Medicine 2003

**Raphael Kopan, MS, PHD** Adjunct Professor of Developmental Biology (primary appointment)

MS Tel Aviv University 1984

PHD University of Chicago 1989

**Stephen K Kornfeld, PHD, MD** Professor of Developmental Biology (primary appointment)

PHD Stanford University 1991

MD Stanford University 1991

**Paul Thomas Kotzbauer** Associate Professor of Neurology (primary appointment)

**Associate Professor of Developmental Biology**

**Kristen Louise Kroll, PHD** Associate Professor of Developmental Biology (primary appointment)

PHD University of CA Berkeley 1994

BA Northwestern University 1988

**Kory J. Lavine, PHD, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Development Biology**

PHD Washington Univ in St. Louis 2008

BS University of Rochester 2001

MD Washington Univ in St. Louis 2008

**Yangjian Liu** Instructor in Developmental Biology (primary appointment)

**Fanxin Long, PHD** Professor of Orthopaedic Surgery (primary appointment)

**Professor of Developmental Biology**

**Professor of Medicine**

PHD Tufts University 1997

**Liang Ma, PHD** Associate Professor of Medicine (Dermatology) (primary appointment)

**Associate Professor of Developmental Biology**

PHD University of CA Los Angeles 1995

BA University of CA Berkeley 1989

**Craig Anthony Micchelli, PHD** Associate Professor of Developmental Biology (primary appointment)

PHD Univ of Wisconsin Madison 1999

BS Univ of Wisconsin Madison 1993

**Jason C Mills, MD, AB, PHD** Professor of Medicine (primary appointment)

**Professor of Developmental Biology**

**Professor of Pathology and Immunology**

MD University of Pennsylvania 1997

BA Washington Univ in St. Louis 1989

AB Washington Univ in St. Louis 1989

PHD University of Pennsylvania 1997

MD1 University of Pennsylvania 1997

**Kelly Renee Monk, PHD** Associate Professor of Developmental Biology (primary appointment)

PHD University of Cincinnati 2006

**Samantha A Morris, PHD** Assistant Professor of Developmental Biology (primary appointment)

**Assistant Professor of Genetics**

BS1 University of London 2002

PHD Cambridge University 2007

**Aubrey R Morrison, MBBS** Professor of Medicine (primary appointment)

**Professor of Developmental Biology**

MBBS University of London 1970

**Philip Needleman, PHD** Adjunct Professor of Molecular Biology and Pharmacology (primary appointment)



PHD University of Maryland 1964

**Jeanne M Nerbonne, PHD** Professor of Medicine (primary appointment)

**Alumni Endowed Professor of Molecular Biology and Pharmacology in Developmental Biology**

BS Framingham State College 1974

PHD Georgetown University 1978

**David M Ornitz, PHD, MD** Alumni Endowed Professor of Developmental Biology (primary appointment)

PHD University of Washington 1987

BS University of CA Davis 1981

MD University of Washington 1988

**Zachary Scott Pincus** Assistant Professor of Genetics (primary appointment)

**Assistant Professor of Developmental Biology**

**Stacey L. Rentschler, MS, PHD, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Developmental Biology**

MS Mount Sinai School of Medicine 2000

PHD Mount Sinai School of Medicine 2002

MD Mount Sinai School of Medicine 2004

**Deborah C Rubin, MD** Professor of Medicine (primary appointment)

**Professor of Developmental Biology**

MD Albert Einstein College of Med 1981

BS Mass Inst of Technology (MIT) 1977

**David Rudnick, MD** Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Developmental Biology**

BS University of Illinois 1987

MD Washington Univ in St. Louis 1994

**John Hall Russell** Professor of Developmental Biology (primary appointment)

**Associate Dean for Graduate Education for the Division of Biology and Biomedical Sciences**

BS Juniata College 1968

**Scott Saunders, PHD, MD** Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Developmental Biology**

PHD Stanford University 1990

MD Stanford University 1990

BS University of Minnesota 1983

**Jean E. Schaffer** Virginia Minnich Distinguished Professor of Medicine (primary appointment)

**Professor of Developmental Biology**

BA Harvard Radcliff 1982

**Laura Graves Schuettpelz, PHD** Assistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Developmental Biology**

PHD Northwestern University 2000

**Alan L Schwartz, PHD, MD** Alumni Endowed Professor of Pediatrics (primary appointment)

**Professor of Developmental Biology**

PHD Case Western Reserve Univ 1974

MD Case Western Reserve Univ 1976

**Diane S Sepich, PHD** Assistant Professor of Developmental Biology (primary appointment)

PHD University of Oregon 1994

BS University of San Diego 1981

**Jimann Shin** Instructor in Developmental Biology (primary appointment)

BS Kyung Pook National University 2002

**Thaddeus S. Stappenbeck, PHD, MD** Conan Professor of Laboratory and Genomic Medicine  
(primary appointment)

**Professor of Developmental Biology**

BA Northwestern University 1987

PHD Northwestern University 1994

MD Northwestern University 1995

**Christopher Michael Sturgeon, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Developmental Biology**

PHD University of British Columbia 2006

**David B Wilson, PHD** Professor of Pediatrics (primary appointment)

**Professor of Developmental Biology**

PHD Washington Univ in St. Louis 1986

**Yongjun Yin, PHD** Instructor in Developmental Biology (primary appointment)

PHD Hebrew University 2004

**Andrew Seungjo Yoo, PHD, MS** Assistant Professor of Developmental Biology (primary appointment)

PHD Columbia University 2005

BS McGill University 1995

MS University of British Columbia 1997

**Jun Yoshino, PHD, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Developmental Biology**

PHD Keio University 2004

MD Keio University 2000

**Bo Zhang** Assistant Professor of Developmental Biology (primary appointment)

BS Inner Mongolia University 2004

No entries found

# James S. McDonnell Department of Genetics

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The **Department of Genetics** is at the forefront of the rapidly developing field known as genomic (or personalized) medicine, in which genetic and epigenetic analysis coupled with clinical information enables treatments to be tailored specifically to the individual patient. The rapid evolution of sequencing technologies, genome engineering, automated cellular imaging and mass spectrometry methods to rapidly perform proteomic and metabolomics studies, coupled with powerful computational tools, is revolutionizing the biological sciences. Investigators in the department are developing

new methods of genomic analysis including technology and software, epigenomics and copy number variation as well as studies of disease pathways using model organisms, to identify and study genes responsible for human disease and treatment responses. The department supports a broad program of preclinical and graduate instruction in genetics, with research opportunities ranging from studies of transcriptional networks, population genetics, protein evolution, neurological disorders, developmental genetics, models of human disease, genome architecture, statistical genetics and computational biology, genome technologies, and infertility.

A significant portion of the first-year course in basic medical sciences is devoted to human and clinical genetics, with emphasis on how genomic information will transform the practice of medicine. This includes specialized selective courses in addition to the core genetic curriculum. Advanced training in clinical genetics and in genetic research is available from the faculty in the [Department of Genetics](#) and from geneticists with principal appointments in many other departments within the [School of Medicine](#).

Advanced courses and seminars are offered that focus on the genetics of complex disease, gene expression, genome engineering, induced pluripotent stem cells, single cell genomics, molecular genetics, genetic epidemiology, computational biology, developmental genetics, microbial genetics, cancer genetics and population and evolutionary genetics. Extraordinary opportunities for research training and experience are available in all of these areas and at all levels. The programs are tailored to meet the needs of medical students, graduate students and both MD and PhD postdoctoral fellows pursuing advanced training in biomedical research.

## For more information

Please visit the [Department of Genetics website](#) for more information.

# MD Courses — Genetics

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## First year

### M30 511 MEDICAL GENETICS

Instructor: Sabrina Nunez, PhD, [snunez@dom.wustl.edu](mailto:snunez@dom.wustl.edu), 747-0835

Medical genetics is both a science and a clinical area or specialty of medicine, and the boundary between research and clinical application is increasingly blurred. The pace in which genomic and epigenomic tools are being developed is unprecedented. And these tools result in continual conceptual advancements, which inevitably affect how we approach the study of disease risk, diagnosis and management in all areas of medicine, not just medical genetics. We are moving into a time when the interpretable data from the examination of individual genomes will be incorporated to all other clinical data to assess individual risks and guide clinical management and decision-making. This course is intended as the first step towards life-long training in medical genetics and genomics.

The course begins with a number of sessions devoted to basic principles of genetics. Drawing on this foundation we move on to discuss genomic and epigenomic tools and learn from leaders in their fields about the big questions in genetics and genomics (i.e. microbiome research, cancer genomics, current clinical uses of exome sequencing, etc.) and how the tools are being used to answer these questions. Students are exposed to the use of genetic and genomic databases and information resources; which will allow them to keep up with new information and critically appraise validity and clinical utility. We begin to discuss the implication of this shift to the “genomic era”, particularly regarding ethical aspects, regulatory aspects, equal access, healthcare costs and patient education. Clinical geneticists actively participate in the course and use a series of genetic disorders to help students apply their knowledge; focusing mainly on genetic etiology, pattern of inheritance, inheritance risk and molecular diagnostic testing. Frequent patient interviews further enhance the exposure to clinical genetics. Overall the course aims to enhance genetic and genomic literacy, which is an

essential first step in preparing students to participate in the multidisciplinary teams that effectively make cutting edge genetic and genomic research results accessible to patients.

This course is cross listed with L41 (Bio 550).

## **Fourth year**

### **Electives**

L41 (Bio) 5285 FUNDAMENTALS OF MAMMALIAN GENETICS

L41 (Bio) 5488 GENOMICS

L41 (Bio) 5491 ADVANCED GENETICS

L41 (Bio) 5495 COMPUTATIONAL MOLECULAR BIOLOGY

L41 (Bio) 5483 HUMAN LINKAGE AND ASSOCIATION ANALYSIS

### **Special topics courses/journal clubs**

For complete descriptions, see Division of Biology and Biomedical Sciences.

L41 (Bio) 5235 GENETICS JOURNAL CLUB

L41 (Bio) 5484 GENOMICS AND DEVELOPMENT OF C. ELEGANS JOURNAL CLUB

L41 (Bio) 5487 GENETICS AND GENOMICS OF MEDICINE

L41 (Bio) 5489 HUMAN GENETICS JOURNAL CLUB

L41 (Bio) 5496 SEMINAR IN COMPUTATIONAL MOLECULAR BIOLOGY

Note — The number preceding the course title indicates that the course carries credit in the Graduate School of Arts & Sciences.

# Research — Genetics

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(M20 900)

Cross-listed with L41 (Bio 590)

Barak Cohen, PhD

SMRB – Scott McKinley Research Building, room 4308

314-362-3674

Functional Genomics in Yeast. Gene regulatory networks, complex trait genetics, synthetic biology studies of cis-regulation.

Don Conrad, PhD

SMRB – Scott McKinley Research Building, room 6213

314-362-4379

Our group has a long-standing interest in developing new methods for characterizing the origin and functional impact of human genetic variation. Recently completed projects have covered the following topics: mapping of copy number variants, measurement of sex-specific mutation rate and variation in mutation rate among decomposing the relative impact of different types of mutation (SNPs, indels, CNVs, etc.) on gene expression variation and disease susceptibility. Currently, we have a number of active projects that address fundamental unsolved problems related to human reproduction. First (1) we are trying to unravel the genetic basis for a common form of male infertility, non-obstructive azoospermia, using oligonucleotide arrays and exome sequencing. The short-term goal of this project is to define causal mutations in the >400 cases in which we have access. Our ultimate goal is to provide an unbiased view of the genetic architecture of the disease and establish a definitive reference panel of causal mutations that clinicians can use to facilitate diagnosis of spermatogenic failure. Second (2) we are using sperm DNA from a longitudinal cohort of semen donors to study the processes of mutation and selection within the population of germ cells of individuals. There are a number of other potential projects

ranging from topics of medical relevance such as the biology of the placenta and maternal-fetal compatibility to more basic questions regarding genome biology and evolution. Training in this elective will be primarily computational, and can cover skills such as population genetic analysis, rare-variant association study methodology and other aspects of statistical genetics. However, parties interested in using other approaches to address the topics discussed here are welcome.

Joseph Dougherty, PhD

SMRB – Scott McKinley Research Building, room 6316

314-286-0752

Our laboratory utilizes a variety of techniques spanning from human molecular genetics and informatics to mouse behavioral neuroscience and neuroanatomy. We develop and employ mouse models of psychiatric disorder, particularly those that mimic genetic variations we've identified from human patient populations, with the goal of trying to understand the cellular and molecular underpinnings of these disorders.

Susan K. Dutcher, PhD

SMRB – Scott McKinley Research Building, room 5301

314-362-2765

Studies on the role of centrioles and basal bodies in ciliary signaling, assembly, and motility using molecular genetics, computational, and biochemical approaches.

Justin Fay, PhD

SMRB – Scott McKinley Research Building, room 4305

314-747-1808

Population and evolutionary genetics, evolution of gene regulation in yeast, human evolution.

Stephen L. Johnson, PhD

711 McDonnell Science Building

314-362-0362

Growth control and morphogenesis in vertebrate development. Focus on genes and

mechanisms affecting proportionate fin growth, fin regeneration and pigment stripe patterning in zebrafish.

Heather Lawson, PhD

SMRB – Scott McKinley Research Building, room 6312

This research focuses on molecular mechanisms underlying parent-of-origin effects on metabolic traits. Parent-of-origin effects are epigenetic phenomena that appear as phenotypic differences between reciprocal heterozygotes depending on the allelic parent of origin. Genomic imprinting is a parent-of-origin effect that results in two alleles at a locus being functionally non-equivalent. Imprinted genes can be important contributors to phenotypic variation and imprinting patterns can be complex. We integrate whole-genome sequence data with transcriptome data and correlate this with variation in multiple metabolic traits under different dietary conditions. This discovery research uses a mouse model and our two main goals are to 1) identify molecular patterns that may have predictive power and 2) translate these patterns to human data.

Elaine Mardis, PhD

Room 4122, 4444 Forest Park Building

314-286-1805

Technology development for second-generation DNA sequencing with an emphasis on methods and applications development. Non-human primate genomics.

Jeffrey Milbrandt, MD, PhD

SMRB – Scott McKinley Research Building, room 6306

314-362-4651

Studies of metabolic control of glial/axonal interactions necessary for proper nerve function. The use of high throughput genetic and pharmacologic screens using primary neurons and induced pluripotent stem cells to identify molecular mechanisms of axonal degeneration in neuropathy and neurodegenerative disease.

Rob Mitra, PhD

SMRB – Scott McKinley Research Building, room 4301



314-362-2751

Systems Biology and Technology Development. We are developing tools to make quantitative biological measurements and applying these tools to build mathematical models of biological processes.

Samantha Morris, PhD

SMRB – Scott McKinley Research Building, room 3316

314-747-8618, s.morris@wustl.edu

Engineering cell fate to generate clinically valuable cell populations: Stem Cell and Developmental Biology. Our research focuses on dissecting the gene regulatory networks that define cell identity, using the developing embryo and tissue regeneration as a guide to engineer fate in vitro. We apply insight from these analyses to generate clinically relevant populations by differentiating cells from a pluripotent state, or by directly converting cells between mature fates. We employ a combination of computational, single cell transcriptomics, cell and developmental biology approaches.

Zachary Pincus, PhD

SMRB – Scott McKinley Research Building, room 5304

314-747-5520

Inter-individual variability in aging and lifespan. Developmental origins of longevity and adult health. Quantitative microscope and image analysis of *C. elegans*.

Michael A. Province, PhD

Suite 6318, 4444 Forest Park Building

314-362-3616

Development and evaluation of novel statistical genetics methodology, especially as applied to genomic identification and validation of variants for human complex quantitative traits, such as heart disease, cancer, pulmonary function, diabetes, and human longevity.

Nancy L. Saccone, PhD

308 Biotechnology Building

314-747-3263

Statistical genetics and psychiatric genetics. Development and application of analysis methods for studying the genetics of human disease and complex traits.

Tim Schedl, PhD

SMRB – Scott McKinley Research Building, room 5305

314-362-6162

Germ cell development in the model organism *Caenorhabditis elegans*. The major focuses are: control of the decision to proliferate or enter the meiotic pathway, control and coordination of meiotic prophase progression and gametogenesis, and control of meiotic maturation and ovulation.

James Skeath, PhD

SMRB – Scott McKinley Research Building, room 6315

314-362-0535

Identification of the genes and the elucidation of the molecular mechanisms that regulate the early events of *Drosophila* central neurogenesis; illumination of the mechanisms that form, pattern and specify the individual identities of the progenitor cells of the *Drosophila* embryonic CNS.

Gary D. Stormo, PhD

SMRB – Scott McKinley Research Building, room 4208

314-747-5534

Computational biology of protein-DNA interactions, RNA folding, gene and promoter finding. Biochemical analysis of DNA-protein interactions and gene regulation.

Ting Wang, PhD

SMRB – Scott McKinley Research Building, room 5211

314-286-0865

We work in the general field of computational genomics and epigenomics. We study the evolution of human regulatory networks, with a focus on mobile elements (or transposable elements) and their impact on gene regulation, their genetic and epigenetic control, and their roles in human biology and diseases.

Richard K. Wilson, PhD

Room 4122, 4444 Forest Park Building

314-286-1804

Genome research. Large-scale DNA sequence analysis of genomes and expressed genes (cDNAs) from humans, non-human primates, mammals, invertebrates, plants and various bacterial species. Targeted genomic analysis of genes and regulatory elements in human cancers and other hereditary diseases. Development of novel technology for large-scale DNA sequence analysis and genetic analysis.

## Faculty — Genetics

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**Jeffrey D Milbrandt, PhD, MD** James S McDonnell Professor of Genetics (primary appointment)

Professor of Medicine

Professor of Neurology

Professor of Pathology and Immunology

Head of the Department of Genetics

PHD University of Virginia 1983

MD Washington Univ in St. Louis 1978

BS Univ of Nebraska at Kearney 1974

Haley J Abel Instructor in Genetics

Ping An Assistant Professor of Genetics (primary appointment)

**Lucinda L. Antonacci-Fulton, MS** Academic Rank held in Genetics (primary appointment)

Instructor in Genetics

MS Southern Ill Univ Edwardsville 1992

BS Southern Ill Univ Edwardsville 1991

**Ruteja A. Barve, MS, PHD** Instructor in Genetics (primary appointment)

MS Washington Univ in St. Louis 2008

PHD Washington Univ in St. Louis 2014

BS University of Pune 1995

**John Rutledge Bermingham Jr, PHD** Associate Professor of Genetics (primary appointment)

BS Yale University 2016

PHD University of Colorado Boulder 2016

**Ingrid B Borecki, PHD, MS** Adjunct Professor of Genetics (primary appointment)

PHD University of Hawaii 1981

MS University of Hawaii 1980

BS University of Illinois 1977

**Paul F Cliften, MS, PHD** Associate Professor of Genetics (primary appointment)

MS Utah St University 1995

BS Utah St University 1992

PHD University of California 1999

**C. Robert Cloninger, MD** Wallace Renard Professor of Psychiatry (primary appointment)

**Professor of Psychiatry**

**Professor of Psychological & Brain Sciences**

**Professor of Genetics**

BA University of Texas Austin 1966

MD Washington Univ in St. Louis 1983

**Barak Alon Cohen** Professor of Genetics (primary appointment)

**Alvin Goldfarb** Distinguished Professor of Computational Biology

BS Cornell University 1992

Donald Franklin Conrad Assistant Professor of Genetics (primary appointment)

**Assistant Professor of Pathology and Immunology**

**Joseph C. Corbo, MD, PHD, AB** Associate Professor of Pathology and Immunology (primary appointment)

**Associate Professor of Genetics**

**Associate Professor of Ophthalmology and Visual Sciences**

MD University of California 1999

PHD University of California 1997

BS Stanford University 1990

AB Stanford University 1990

**Catherine E Cottrell, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

**Assistant Professor of Genetics**

BS Ohio State University 2001

PHD Ohio State University 2007

**James P Crane, MD** Associate Vice Chancellor for Clinical Affairs (primary appointment)

**Chief Executive Officer-Faculty Practice Plan**

**Professor of Obstetrics and Gynecology**

**Professor of Radiology**

**Associate Professor of Genetics**

MD Indiana University Bloomington 1970

BS Indiana University Bloomington 1966

**Sharon Cresci, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Genetics**

MD New York University 1986

BS State Univ of NY Binghamton 1982

**Seth Daniel Crosby, MD** Assistant Professor of Genetics (primary appointment)

MD University Texas San Antonio 1989

BS University of California 1984

**Li Ding, PHD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Genetics**

PHD University of Utah 1998

**Joseph D Dougherty, PHD** Assistant Professor of Genetics (primary appointment)

**Assistant Professor of Psychiatry**

BS Truman State University 1999

PHD University of California 2005

**Todd Druley, MD, PHD** Assistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Genetics**

**Assistant Professor of Developmental Biology**

MD University of Illinois Chicago 2002

BS University of Illinois 1994

PHD University of Illinois Chicago 2002

**Susan K. Dutcher, PHD** Professor of Genetics (primary appointment)

**Professor of Cell Biology and Physiology**

**Interim Director of the McDonnell Genome Institute**

PHD University of Washington 1980

BA Colorado College 1974

**Justin C. Fay, PHD** Associate Professor of Genetics (primary appointment)

PHD University of Chicago 2001

Mary F Feitosa Associate Professor of Genetics (primary appointment)

Robert S. Fulton Academic Rank held in Genetics (primary appointment)

**Instructor in Genetics**

**Narasimhan Gautam, MS, PHD** Professor of Anesthesiology (primary appointment)

**Professor of Genetics**

MS School Not Listed 1979

BS School Not Listed 1977

PHD University of Bombay 1985

**Matthew I Goldsmith, MD, MS** Associate Professor of Pediatrics (primary appointment)

**Assistant Professor of Genetics**

BS University of Toronto 1987

MD University of Toronto 1995

MS University of Toronto 1990

**Malachi Griffith, PHD** Academic Rank held in Genetics (primary appointment)

**Assistant Professor of Genetics**

PHD University of British Columbia 2010

BS University of Winnipeg 2002

BS1 University of Winnipeg 2002

**Obi Lee Griffith, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Genetics**

PHD British Columbia Open Univ 2008

**Chi Gu, PHD** Associate Professor of Biostatistics (primary appointment)

**Associate Professor of Genetics**

BS Nanjing Medical University 1982

PHD Washington Univ in St. Louis 1992

David H Gutmann Donald O. Schnuck Family Professor of Neurology (primary appointment)

**Professor of Genetics**

**Professor of Neurological Surgery**

**Professor of Pediatrics**

**Ira McCarthy Hall, PHD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Genetics**

**Associate Director of the Genome Center**

BS University of CA Berkeley 1998

PHD Cold Spring Harbor Laboratory 2003

Richard D Head **Associate Professor of Genetics** (primary appointment)

**Associate Professor of Pathology and Immunology**

**Andrew C Heath, PHD** Spencer T. Olin Professor of Psychology in Psychiatry (primary appointment)

**Associate Professor of Psychological & Brain Sciences**

**Professor of Genetics**

PHD Oxford University 1983

Patrick Y Jay **Associate Professor of Pediatrics** (primary appointment)

**Associate Professor of Genetics**

**Stephen L Johnson** Professor of Genetics (primary appointment)

BA Vanderbilt University 1983

**Sungsu Kim** Instructor in Genetics (primary appointment)

BS Korea University 2000

Aldi T Kraja **Associate Professor of Genetics** (primary appointment)

**David Ernfrid Larson, PHD** Academic Rank held in Genetics (primary appointment)

**Instructor in Genetics**

BS Indiana State University 2003

PHD Washington Univ in St. Louis 2007

**Heather A Lawson, PHD, MA** Assistant Professor of Genetics (primary appointment)

BA Univ of Wisconsin Milwaukee 2002

PHD Pennsylvania State University 2008

MA Pennsylvania State University 2004

**Timothy J Ley** Lewis T and Rosalind B Apple Professor of Medicine (primary appointment)

**Professor of Genetics**

BA Drake University 1974

**Huawen Lin** Instructor in Genetics (primary appointment)

BS School Not Listed 1998

**Jeffrey A Magee, PHD, MD** Assistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Genetics**

PHD Washington Univ in St. Louis 2005

MD Washington Univ in St. Louis 2005

**Xianrong Mao, MS** Instructor in Genetics (primary appointment)

MS Chinese Academy of Sciences 1996

**Elaine Rene Mardis, PHD** Adjunct Professor of Genetics (primary appointment)

BS University of Oklahoma 1984

PHD University of Oklahoma 1989

**James P Mc Carter, MD, PHD** Adjunct Professor of Genetics (primary appointment)

MD Washington Univ in St. Louis 1998

BA Princeton University 1989

PHD Washington Univ in St. Louis 1998

**Shondra Michelle Miller, PHD** Assistant Professor of Genetics (primary appointment)

PHD University of Texas Southwest 2008

BA University of Arkansas 2003

**Robi D. Mitra, PHD** Associate Professor of Genetics (primary appointment)

**Alvin Goldfarb** Distinguished Professor of Computational Biology

PHD Mass Inst of Technology (MIT) 2000

**Makedonka Mitreva, PHD, MS** Associate Professor of Medicine (primary appointment)

**Associate Professor of Genetics**

PHD Wageningen University 2001

MS University of Skopje - Macedon 1994

**Samantha A Morris, PHD** Assistant Professor of Developmental Biology (primary appointment)

**Assistant Professor of Genetics**

BS1 University of London 2002

PHD Cambridge University 2007

Peter Nagele **Associate Professor of Anesthesiology** (primary appointment)

**Associate Professor of Genetics**

Zachary Scott Pincus **Assistant Professor of Genetics** (primary appointment)

**Assistant Professor of Developmental Biology**

**Michael A Province, MA** Professor of Genetics (primary appointment)

**Professor of Biostatistics**

BA University of Dallas 1973

MA Washington Univ in St. Louis 1979

**Dabeeru C Rao, PHD, MS** Professor of Biostatistics (primary appointment)

**Professor of Biostatistics in Genetics**

**Director of the Division of Biostatistics**

**Tenure Held At-Large in the Medical School**

**Professor of Biostatistics in Psychiatry**

**Professor of Mathematics**

BS Indian Statistical Institute 1967

PHD Indian Statistical Institute 1971

MS Indian Statistical Institute 1968

**John P Rice, MA, PHD** Professor of Mathematics in Psychiatry (primary appointment)

**Professor of Biostatistics**

**Professor of Genetics**

BA Cornell University 1969

MA Washington Univ in St. Louis 1972

PHD Washington Univ in St. Louis 1975

**Elisha D.O. Roberson, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Genetics**

BS Western Kentucky University 2004

PHD Johns Hopkins University 2009

**Nancy L. Saccone, PHD, MS** Associate Professor of Genetics (primary appointment)

**Associate Professor of Biostatistics**

PHD Brown University 1993

MS Brown University 1990

**Lawrence B Salkoff, PHD** Professor of Neuroscience (primary appointment)

**Professor of Genetics**

BA University of CA Los Angeles 1967

PHD University of CA Berkeley 1979

**Mark Steven Sands, PHD** Professor of Medicine (primary appointment)

**Professor of Genetics**

PHD State Univ of NY Stonybrook 1990

BS Rochester Institute of Techno 1980

**Yo Sasaki, PHD, MS**Assistant Professor of Genetics (primary appointment)

BS Tokyo U of Agric & Technology 1991

PHD Gunma University, Med School 1997

MS Tokyo U of Agric & Technology 1994

**Tim B Schedl, PHD**Professor of Genetics (primary appointment)

PHD Univ of Wisconsin Madison 1984

BA Lawrence University 1977

**Karen Seibert, MA**Professor of Anesthesiology (primary appointment)

**Professor of Pathology and Immunology**

**Professor of Genetics**

BS Northwestern University 1981

MA University of Toledo 1983

Cherilynn Maria Reynolds Shadding**Academic Rank held in Genetics** (primary appointment)

**Assistant Professor of Genetics**

**Alan Shiels, PHD**Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Genetics**

PHD University of London 1983

BS School Not Listed 1979

**James B Skeath, PHD**Professor of Genetics (primary appointment)

BA Haverford College 1988

PHD Univ of Wisconsin Madison 1993

**Nathan O. Stitzel**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Genetics**

BA1 Washington Univ in St. Louis 1998

**Gary D Stormo, PHD, MA**Professor of Genetics (primary appointment)

**Joseph Erlanger** Professor

**Professor of Computer Science**

**Professor of Biomedical Engineering**

PHD University of Colorado Boulder 1981

BS California Institute Technolo 1972

MA University of Colorado Boulder 1975

Matthew John Walter**Associate Professor of Medicine** (primary appointment)

**Associate Professor of Genetics**

**Ting Wang, PHD, MS**Associate Professor of Genetics (primary appointment)

**Associate Professor of Computer Science and Engineering**

**Associate Professor of Biostatistics**

BS School Not Listed 1997

PHD Washington Univ in St. Louis 2006

MS Washington Univ in St. Louis 2001

**Wesley Charles Warren, MS, PHD**Academic Rank held in Genetics (primary appointment)

**Associate Professor of Genetics**

MS Clemson University 1986

BS Oklahoma St University 1984

PHD University of Missouri 1990

Michael C Wendl**Academic Rank held in Genetics** (primary appointment)

**Assistant Professor of Genetics**

**Assistant Professor of Genetics**

**Assistant Professor of Mechanical Engineering & Materials Science**



**Assistant Professor of Mathematics**

**Assistant Professor of Genetics**

**Michael Aaron White, PHD, MS** Assistant Professor of Genetics (primary appointment)

BA Brigham Young University 2000

PHD University of Rochester 2006

MS University of Rochester 2004

**Michael Peter Whyte, MD** Professor of Medicine (primary appointment)

**Professor of Pediatrics**

**Professor of Genetics**

MD State University of New York 1972

BA New York University 1968

**Richard K Wilson, PHD** Adjunct Professor of Genetics (primary appointment)

BA Miami University 1981

PHD University of Oklahoma 1986

Mary Kaye Wojczynski Assistant Professor of Genetics (primary appointment)

**Hiroko Yano, PHD, MS** Assistant Professor of Neurological Surgery (primary appointment)

**Assistant Professor of Genetics**

**Assistant Professor of Neurology**

PHD University of Tokyo 1996

MS University of Tokyo 1993

BS Science University of Tokyo 1991

**Jinsheng Yu** Instructor in Genetics (primary appointment)

BS Tongji University 1984

No entries found

# John Milliken Department of Medicine

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The Department of Medicine's general medicine teaching services at Barnes-Jewish Hospital and the Veterans Administration Medical Center (St. Louis) are under the following directors:

## **Barnes-Jewish Hospital**

Victoria J. Fraser, MD, Chairman, Department of Medicine

## **Veterans Administration Medical Center**

Daniel P. Goodenberger, MD, Chief

In addition, for the purposes of clinical care, teaching and research, the Department of Medicine is divided into specialty divisions and sections at Barnes-Jewish Hospital under the following chiefs:

**Allergy and Immunology**

H. James Wedner, MD, Chief

**Bioorganic Chemistry and Molecular Pharmacology**

Richard W. Gross, MD, PhD, Chief

**Bone and Mineral Diseases**

Robert Civitelli, MD, Chief

**Cardiology/Cardiovascular Diseases**

Douglas L. Mann, MD, Chief

**Dermatology**

Lynn A. Cornelius, MD, Chief

**Endocrinology/Metabolism/Lipid Research**

Clay F. Semenkovich, MD, Chief

**Gastroenterology**

Nicholas O. Davidson, MD, Chief

**General Medical Sciences**

Bradley A. Evanoff, MD, MPH, Chief

**Geriatrics and Nutritional Science**

Samuel Klein, MD, Chief

**Hematology**

J. Evan Sadler, MD, PhD, Chief

## **Hospital Medicine**

Mark S. Thielke, MD, Chief

## **Infectious Diseases (Clinical)**

William G. Powderly, MD, Co-Chief

## **Infectious Diseases (Basic Science)**

Daniel E. Goldberg, MD, PhD, Co-Chief

## **Medical Education**

Melvin S. Blanchard, MD, Chief

## **Oncology**

John F. DiPersio, MD, PhD, Chief

## **Pulmonary and Critical Care Medicine**

Michael J. Holtzman, MD, Chief

## **Nephrology**

Benjamin Humphreys, MD, PhD, Chief

## **Rheumatology**

John P. Atkinson, MD, Chief

Instruction in Medicine is provided during all four years of the medical curriculum, beginning with The Practice of Medicine I in the first year. Teaching in the second year has two main objectives: the correlation of the basic sciences with clinical aspects of disease and training in the technical methods of physical examination and laboratory diagnosis. By the beginning of the third year, the student is ready for supervised clinical study of individual patients.

A clinical clerkship of 12 weeks, divided into three four-week periods, is served by third-year students on the medical services of the department. In the final year,

students may elect a subinternship in general medicine and a series of elective courses in the medical specialties.

Instruction in Medicine is provided during all four years of the medical curriculum, beginning with The Practice of Medicine I in the first year. Teaching in the second year has two main objectives: the correlation of the basic sciences with clinical aspects of disease and training in the technical methods of physical examination and laboratory diagnosis. By the beginning of the third year, the student is ready for supervised clinical study of individual patients.

A clinical clerkship of 12 weeks, divided into three four-week periods, is served by third-year students on the medical services of the department. In the final year, students may elect a subinternship in general medicine and a series of elective courses in the medical specialties.

## For more information

Please visit the [Department of Medicine website](#) for more information.

# MD Courses — Medicine

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## First year

### M25 507 THE PRACTICE OF MEDICINE I

Instructor: Tim Yau, MD

POM I is a large course which spans all 3 blocks of the first year. It is composed of three content areas:

- Clinical Skills

- Patient, Physician, and Society
- Scientific Basis of Clinical Medicine

Each of these three content areas has two or more sections, each run by a faculty section leader.

POM I employs a variety of teaching techniques, instructors and venues. This includes lecture, small group discussions, panel sessions, one-on-one hospital interviews, standardized patient sessions, a patient home visit, and visits to both a primary care office and a city clinic.

What are the educational goals of POM I?

Students will learn to:

1. Perform a complete history and physical examination with thoroughness, accuracy, sensitivity and compassion.
2. Communicate effectively, efficiently and compassionately with patients, families and other health professionals.
3. Describe and analyze the statistical methodology of clinical studies and apply the results to individuals and groups of patients.
4. Identify and investigate ethical, cultural, socioeconomic and political factors relevant to medical interactions.
5. Examine and analyze personal and professional competencies, limitations and behaviors.

How do we accomplish these goals?

1. Learning skills and techniques requires a cycle of steps: preparation, background reading, attempts at skill performance, analysis and reflection on performance, discussion of potential improvements, and successive performance of the skill with advancement to a new level of expertise.
2. The focus is on learning skills. You practice each skill, such as interviewing, in a

variety of venues and situations of varying complexity. This course is for learning about how to do things that you will use for taking care of patients and families.

3. You work in multiple learning environments.
  - a. Academic environments: Small group sessions for discussion, small group practice sessions, peer learning, small group presentations, individual and group writing assignments, and reflections on experiences are the preferred learning locations.
  - b. Clinical environments: Inpatient units with faculty and WUMS IV mentors, standardized patient experiences with videotape review, physicians' offices, patient's homes with and without home care professionals, and a city clinic.

## Selectives

### **M04 5009 MEDICAL SPANISH**

Instructor: Marcos Rothstein, MD, 286-0801

This course is designed to provide educational opportunities for people speaking at all levels of Spanish fluency. The classes will consist of basic grammar and the movie/book club/charlas (chats)/roundtables with physicians interspersed throughout the course. Students will learn medically relevant vocabulary, cultural sensitivity and fluency with the goal to improve treatment of the growing U.S. Latino population.

### **M04 520H ART AND MEDICINE M04 528H TERMINAL ILLNESS AND DEATH**

Instructor: Ellen F. Binder, MD, 314-286-2707, [ebinder@wustl.edu](mailto:ebinder@wustl.edu)

In this seminar we will examine such topics as: 1) psychological, social, and professional responses to terminal illness and death; 2) communicating bad news to patients; 3) grief and bereavement; 4) palliative care and physician-assisted suicide. Teaching sessions will include discussion of readings, interviews with practitioners and/or patients, and will rely heavily on student participation. Students are also required to spend a half-day making rounds with a BJC Hospice nurse.

### **M04 528H TERMINAL ILLNESS AND DEATH**

Instructor: Ellen F. Binder, MD, 314-286-2707, [ebinder@wustl.edu](mailto:ebinder@wustl.edu)

In this seminar we will examine such topics as: 1) psychological, social, and professional responses to terminal illness and death; 2) communicating bad news to patients; 3) grief and bereavement; 4) palliative care and physician-assisted suicide. Teaching sessions will include discussion of readings, interviews with practitioners and/or patients, and will rely heavily on student participation. Students are also required to spend a half-day making rounds with a BJC Hospice nurse.

#### **M04 5302 FRONTIERS IN LEUKEMIA**

Instructor: John Welch, [jwelch@dom.wustl.edu](mailto:jwelch@dom.wustl.edu)

Hematopoietic research is rapidly and in some cases dramatically changing the clinical management of patients with leukemia. Most notably, the development of imatinib, a drug specifically designed to inhibit the bcr-abl oncogene, has fundamentally altered the way we treat patients with chronic myelogenous leukemia (CML). The objective of this course is to introduce students to scientific investigation in hematopoiesis with an emphasis on leukemogenesis. We will focus on how research is advancing our understanding of the pathogenesis and treatment of this group of diseases. Specific topics will include CML and the development of imatinib and newer inhibitors, acute myelogenous leukemia, and the preleukemic syndromes severe congenital neutropenia and myelodysplasia. The faculty is all physician-scientists actively engaged in these areas of research. Students will be able to demonstrate the impact of molecular biology on the understanding of the pathogenesis of leukemia and its clinical management.

#### **M04 538H DOCTORS ON FILM**

Instructor: Thomas M. De Fer, MD, 747-4366

This course will explore the relevant social themes of films in which physicians and/or the medical profession are the main focus. There are countless portrayals of physicians in the cinema. There are also many films that deal extensively with various features of health care delivery. For good or for bad, viewers of these films outside our profession are strongly influenced by these portrayals. Common stereotypes are perpetuated. If it's in the movies, there must be some truth to it. Depictions of physicians and major medical themes have evolved with time and under the influence

of social and scientific developments. The course will investigate these depictions and themes using a selection of films (from the classic era to more modern films) to provoke thought and discussion. Some discussion of film craft is also included. Emphasis is given to older movies, 1940s to 1970s. Those not interested in film craft or classic films should consider these latter points very carefully. The essence of this selective is the collective group experience of watching the movies and the discussion that follows. Most of the films are not readily available for rental or purchase, and lending of the VHS tapes or DVDs is not practical. For these reasons, attendance at five of the six sessions is required (all students must attend the introductory session). Each session will run from 3:15 p.m. to 4:55 p.m. (1 hour and 40 minutes). Students will be able to:

1. Discuss the common themes in doctor movies
2. Discuss the evolution of these themes over time in the context of social and scientific developments
3. Discuss the various portrayals of physicians frequently seen in doctor movies
4. Discuss the effects of these themes and portrayals on patient expectations
5. Appreciate how an understanding of these portrayals and themes can be used to improve medical care

#### **M04 582H PHILOSOPHY OF MEDICINE**

Instructor: Stephen S. Lefrak, MD, 454-7116

Medicine is a complex enterprise that has a major impact on our society. As such it draws increasing attention from those within the health care professions as well as those outside medicine whose expertise may lie in law, social science, philosophy, policy, etc. Physicians, in addition to their clinical and research responsibilities, must become increasingly adept at interdisciplinary activities. It is never too early in a career to begin to examine "medical" concepts that are frequently employed without being clarified, thus hindering communication rather than solving problems. It is this clarification process that philosophy addresses. The very issues that philosophy has dwelled on throughout the centuries are the very ones that are critical for medicine; think of "death" or "personhood", for example. Also, whether medical concepts are "real" or "constructed" is important for both the disciplines of medicine and



philosophy. And dare we even mention such issues as the relationship between mind and body, notions of causality, how and what we mean when we “know something” and “free will”? This selective is looking for students who would be interested in beginning such a study with the goals of developing their own understanding as well as introducing it into the medical school curriculum in a formal way. The classical subdivisions of philosophy such as ontology (science of being, existence), epistemology (science of knowing), ethics (moral philosophy) and social philosophy may all serve to clarify important issues in medicine. For example, physicians focus on disease in many ways, yet are diseases descriptive realities or normative (value) concepts? The impact of which answer is accepted is felt throughout society? as what will be reimbursed as health care, what is enacted into policy and law (Americans with Disability Act), and to what the range of medicine is and where are its boundaries. The epistemology of medicine may also be somewhat unique. What physicians take as evidence and what we mean by causality may be very different than what is meant in other scientific disciplines. The terms used by physicians such as evidence, causality, explanation, hypothesis, theory, etc. should be critically analyzed by physicians. The impact of our understanding of this has great effect on our patients both in clinical care and what research is pursued and accepted. Of course, ethics plays an important role in medicine, but this course is focused on a philosophical analysis of the medical concepts and the constructs of medicine with emphasis on ontology and epistemology. Students will be able to:

1. Expound the “arguments” whether “philosophy of medicine” exists or is needed.
2. Thoughtfully discuss what “medicine” is and some of the legitimate “goals of medicine”.
3. Discuss some of the major domains of philosophy.
4. Become familiar with some of the major philosophical problems and methods.
5. Describe what metaphysics are.
6. Discuss the “concept of disease”.
7. Discuss what kind of activities clinical medicine and reasoning are.
8. Become familiar with the analysis of “scientific method” and how that model compares, fits with clinical medicine.
9. Discuss the method of medicine and compare it to other fields.

10. Think critically about what is required of a mechanistic explanation.
11. Think carefully about the nature of causal relevance.
12. Discuss the virtues and limits of reductive explanations and methods in neuroscience and physiology.
13. Understand the principles of evidence-based medicine.
14. Understand some individuals believe evidence-based medicine is not scientifically sound.
15. Understand the care of individual patients is complex, and rigid adherence to one model may not be sufficient.
16. Discuss the relationship between the metaphysics of medicine, the epistemology of clinical medicine and clinical ethics.
17. Attempt to adopt a unified outlook toward the commonly employed concepts of clinical medicine and their relationship to the patient, physicians and their interaction.
18. Proceed throughout their medical education and careers more aware of the impact of the views that are taken of “disease”, clinical judgment and ethical decision making.
19. Be familiar with the development of disease ontology.

#### **M04 524H MAJOR RELIGIOUS TRADITIONS AND HEALTH CARE**

Instructor: Chaplain William V. Trogdon, BCC, Director Spiritual Care Services, 314-609-8238

This course will introduce the students to the tenets of mainline world religions and how their beliefs and practices can best be considered in understanding the whole patient/family for treatment, planning and decision-making. Primary attention will be given to the five major world religions: Christian, Buddhist, Hindu, Jewish and Muslim faith traditions as well as others with particular considerations for health care. Special attention will be paid to end-of-life issues, decision-making and interpersonal dynamics. The students also will be introduced to a clinical model of understanding faith and spirituality within the context of health care. Students will be able to:

1. Be more comfortable considering patient/family religious/faith dynamics.
2. Understand the role of patient/family faith commitments in their healing, well-being and development.
3. Increase basic knowledge of tenets of mainline religions found in the United States

and how their beliefs/practices can best be considered in understanding the whole patient/family for treatment planning and decision-making.

#### **M04 588H MUSIC AND MEDICINE**

Instructor: Steven Cheng, MD, 362-7211 and David Windus, MD, 362-7211

Music and medicine reflect one another in several fascinating ways. During this selective, students will participate in six highly-interactive sessions that will include lively discussions, guest speakers and demonstrations. Students will discuss how music evokes certain characteristics of disease, suffering and illness; discuss how illnesses in musicians/composers and rock stars influences their work; understand the role of music in the healing process; and recognize medical problems that arise in performing artists. Students will also see first-hand how music can impact the elderly and ill during a performance at a local nursing home.

#### **M04 5875 OLIN GRAND ROUNDS: THE BUSINESS AND PRACTICE OF MEDICINE**

Instructors: Cynthia Wichelman, MD, FACEP, Associate Professor of Emergency Medicine, [wichelmc@wustl.edu](mailto:wichelmc@wustl.edu), and Bart Hamilton, PhD, Robert Brookings Distinguished Professor of Entrepreneurship

Grand Rounds at medical schools are forums for presenting new and challenging clinical problems and cases. The goal of Olin Grand Rounds is to focus on the challenges facing the business of medicine and consider possible solutions. The course provides a broad introduction to the current issues facing the health care sector, while integrating management tools and clinical knowledge. This fall semester course was first offered in 2006 and has become a popular course for premed and business undergraduates, as well as students in the MBA program. More medical students should take this class! The information is invaluable for any one pursuing a career in medicine or in the health care sector of business. In addition to several outstanding guest speakers, a number of business case study discussions are complemented with clinical patient presentations. Topics covered include clinical practice compensation distribution, concierge medicine, health care reform, ACA, health care systems comparison, hospital management, analysis of walk-in clinics (i.e., Walgreens, CVS), organ transplantation, research and development and marketing of

pharmaceuticals, sickle cell anemia and management of Medicaid and care to the underserved, the business of cosmetic surgery, and biotech startup methods used by local physician-entrepreneurs, to name a few. The course also includes a tour of Express Scripts.

August 29 – December 5, 2016. Monday Nights 6:15 PM – 9:15 PM.

#### **M04 5013 INTRODUCTION TO EMERGENCY MEDICINE I**

Instructor: Cynthia Wichelman, MD, FACEP, Associate Professor of Emergency Medicine, [wichelmc@wustl.edu](mailto:wichelmc@wustl.edu)

Over six sessions, we will review the physiology and clinical management of common emergencies: cardiovascular emergencies; trauma resuscitation and shock; environmental emergencies, such as high-altitude cerebral edema and snake bites; pediatric emergencies; gynecological and urological emergencies; and toxicological emergencies. Each session will include a lecture followed by case studies that highlight critical aspects of a patient's history, physical examination, laboratory and radiological studies, as well as procedural intervention and pharmacological treatment. Group participation is encouraged. This selective is intended to give students an exposure to emergency medicine. Students will become familiar with the methods used to evaluate and treat patients with medical emergencies in preparation for their clinical training.

October 25 – Nov. 29th, 2016. Tuesdays, 3:15 PM – 5PM.

#### **M04 5016 INTRODUCTION TO EMERGENCY MEDICINE II**

Instructor: Cynthia Wichelman, MD, FACEP, Associate Professor of Emergency Medicine, [wichelmc@wustl.edu](mailto:wichelmc@wustl.edu)

This class is a second session on emergency medicine (in response to student requests!) exploring topics not covered in the fall session. Although it would be beneficial to take the Introduction to Emergency Medicine I course offered in the fall, it is not a prerequisite for this class. Six sessions will review the physiology and clinical management of abdominal emergencies, obstetric emergencies, ophthalmic emergencies, endocrine emergencies, environmental emergencies such as lightning and hypothermia, plus a few neurologic emergencies, renal emergencies, orthopedic

emergencies and oncologic emergencies. Each session will include a lecture followed by case studies that highlight critical aspects of a patient's history, physical examination, laboratory and radiological studies, as well as procedural intervention and pharmacological treatment. Group participation is encouraged. This selective is intended to give students further exposure to emergency medicine. Students will become familiar with the methods used to evaluate and treat patients with medical and surgical emergencies in preparation for their clinical training and board preparation.

April 4 – May 9, 2016. Tuesdays, 3:15 PM – 5PM.

#### **M04 587L INTERNATIONAL HEALTH**

Instructor: Cynthia Wichelman, MD, FACEP, Associate Professor of Emergency Medicine, [wichelmc@wustl.edu](mailto:wichelmc@wustl.edu)

This course is an excellent opportunity to prepare for a summer abroad through FIHTM or for a fourth year away rotation. Speakers include WUSM faculty who have incorporated international healthcare in their practices — from surgery (e.g., ophthalmology, neurosurgery, ENT, ob/gyn), and anesthesiology, to emergency medicine and pediatrics, as well as give students an opportunity to hear from the Global Health faculty heroes at WUSM. Each lecture is followed by an interview with the speaker. The course will help you explore different avenues for adding an international component to your career and to learn which specialties may more readily lend themselves to this. Other topics include how to protect your health while abroad and the ethics of research in a global setting, and organizations such as Doctors Without Borders and ORBIS. WUSM II and IV students will also share their experiences administering health care and doing research abroad. This course, which consists of six sessions, was first introduced in 2004 and grew quickly. On the last day, students present for 10-15 mins. on a topic of their choice.

January 24 – February 28, 2016. Tuesdays, 3:15 PM – 5PM.

#### **M04 537 SIMULATIONS IN CARDIOVASCULAR PHYSIOLOGY**

Instructor: David Murray, MD, 747-2136

The purpose of this selective is to demonstrate cardiovascular physiologic principles

including control mechanisms using interactive patient simulators (computerized mannequins) to replicate common cardiovascular disease conditions and potential treatment modalities. Several clinical scenarios with case histories will be presented to small groups for interpretation and subsequent treatment, thereby providing the opportunity to explore alterations in preload, afterload, isotropism and chronotropism. During the selective clinical conditions associated with changes in these cardiovascular determinants as well as various cardiovascular control mechanisms will be explored through scenarios. Scenarios include shock, arrhythmias, congestive heart failure, myocardial infarction and some “unknowns”. Variables monitored in the patient simulator include ECG, arterial, venous, ventricular and capillary wedge pressures, cardiac output, stroke volume, heart rate, systemic and pulmonary vascular resistance and ventilation. A class-wide discussion and systematic review will follow the individual small group workshops to allow synthesis of all the material.

#### **M04 586H HEALTH AND HUMAN RIGHTS**

Instructor: Kim Carmichael, MD, 454-7116

There is a strong belief among many physicians that our responsibilities extend beyond our individual patients to our communities, countries and even to our entire world. This humanities selective is an excellent forum for interested students to actively learn and discuss the impact of human rights violations on health. Topics include reproductive and pediatric health rights, communication issues and interactions with interpreters. Each meeting will consist of a brief presentation and a discussion on the topic. There will be a different presenter for each topic. Readings will be provided. Students will be able to:

1. Explore human rights issues that are relevant to the health professions from both local and worldwide perspectives.
2. Describe the boundaries and challenges involved in solving human rights issues.
3. Describe strategies for the implementation of programs that address human rights issues.
4. Develop successful initiatives and interventions pertaining to health and human rights.

## **M04 587A PHYSICIAN AS HEALTH PROTECTOR AND PATIENT ADVOCATE**

Instructor: Steven I. Plax, MD, 994-0109

Investigation into clinical topics again will be offered. Last year's students did an educational program teaching our population how to read the nutrition information on products they were purchasing. For further information, students may call Dr. Plax at (314) 994-0109. The Office of Medical Student Education has copies of our medical handbooks and their supplements. This course is a component of the Health Protection and Education Service, which meets on the third Saturday of each month except December and July. Sessions are held in the University City Library, 6701 Delmar from 9 a.m. to 11:30 a.m. Students share the goals of the HPES.

1. To do multiple screening testing ranging from height, weight, body mass index, blood pressure, eye and vision evaluation, hearing tests by audiologist, skin and dental exam, blood sugar, hemoglobin, and cholesterol measurement, and EKGs.
2. Educate people in protecting their health — a trained historian records each individual's medical history — at conclusion of person's tests and recording of history, a one-on-one conference is held with a member of MD staff. Medical students participate in screenings and in history-taking and final conferences in telephone follow-up.

This is an opportunity for Washington University medical students to correlate the basic information gathered from first-year courses with their experience with our patients — and in-the-trenches participation in preventive medicine. Students actively participate in the screening and in history-taking (with trained historian) and in individual conferences between patients and physicians. Students may take part in statistical analysis of data and join in the production of another supplement as in preceding years.

## **M04 580H THE HEALER'S ART**

Instructor: Anna Lijowska, MD, 454-6148

The Healer's Art combines seed talks and experiential exercises in a large group setting along with small group experiential exercises. The course engages students in a discovery model of community of inquiry focusing on the meaning of physicianhood

and the practice of medicine. Faculty participate in the discovery model process on an equal footing with students as well as facilitating the process of the small groups. The course is designed to encourage medical students to trust the power of listening and presence to heal; formulate a personal, comfortable and compassionate response to loss; experience the healing power of grief; recognize that who they are is as important to the healing relationship as what they know; recognize awe and mystery in the daily practice of medicine; explore the concept of calling; write a personal mission statement; and explore the personal meaning of physicianhood. The Healer's Art facilitates students in clarifying, strengthening and making a personal commitment to medicine as their life's work. Students also have the opportunity to explore their personal values and commit to developing and preserving their personal values, such as service, harmlessness, compassion, altruism, self-care, equality, justice, respect and nurturing wholeness. There will be additional instructors for this course.

Students will be able to:

1. Make an active commitment to strengthening and preserving their humanity
2. Experience the effects of listening and being listened to generously and compassionately
3. Experience healing relationships with other students
4. Experience tools of self-remembering
5. Identify effective and ineffective behavioral responses to loss and grief
6. Identify when they first became aware of wanting to serve others
7. Articulate and strengthen a personal commitment to medicine as their life's work
8. Experience practicing physicians sharing their experiences of loss, grief, mystery, and awe in practicing medicine
9. Witness the unity of commitment to service that lies beneath the diversity of expertise and experience

## **Second year**

Teaching by the Department of Medicine is designed to: 1) prepare students for the transition from the preclinical sciences to the study of the sick patient at the bedside, 2) help them analyze the clinical manifestations of disease in terms of the responsible mechanisms and 3) introduce them to the techniques of examination that are used



regularly on all clinical services. This instruction is undertaken jointly with members of other clinical departments and is coordinated with subject matter presented by the Department of Pathology and Immunology.

The major areas of clinical medicine are presented in detail to illustrate the application of biochemical, physiological and anatomical information to the understanding of pathological states. Cardiovascular, renal, neurological, gastrointestinal, pulmonary, hematological, metabolic, nutritional and developmental diseases are discussed. Emphasis is placed on the use of fundamental information in approaching clinical problems as a way of thinking that prepares the student for a lifetime of medicine, during which new information will constantly be acquired.

## **M25 607 THE PRACTICE OF MEDICINE II**

Course Master: Megan E. Wren, MD, 286-3480

The goal of The Practice of Medicine (POM) course is to provide students with the knowledge, skills and attitudes essential to patient care regardless of specialty. POM II is a continuation of POM I and will continue to address various interfaces between patients, physicians and society and will also introduce the advanced physical exam and approaches to clinical thinking and decision-making. The sections of POM II include Clinical Skills, Case Development, Communication Skills, Ophthalmology, Radiology, Community and Public Health, Ethics and Health Policy Humanities, and Scientific Methods. The learning objectives for each section of POM II emphasize topics and skills used in all fields of medicine, and the majority of the course work will be taught in small groups or through clinical experiences. 89 clock hours.

## **M25 605A INFECTIOUS DISEASES AND MEDICAL MICROBIOLOGY**

Instructors: Nigar Kirmani, MD, 454-8276 and Steven Lawrence, MD

The infectious disease pathophysiology course emphasizes both organism-specific and organ-specific approaches to diseases caused by microbes. The course expands on material presented briefly in the first year concerning bacteria, viruses, fungi and parasites and their involvement in human disease. Mechanisms of disease production, clinical manifestations and therapy are discussed, along with public health

implications. In addition to lectures, small group case discussions enable students to apply the information they learn to clinical situations.

### **M25 606A RHEUMATOLOGY**

Instructor: Richard D. Brasington, Jr., MD, 454-7255

The rheumatology pathophysiology course begins with an overview of the approach to the patient with arthritis and related disorders. Diagnoses covered include rheumatoid arthritis, systemic lupus erythematosus, vasculitis syndromes, infectious arthritis, and crystalline arthritis. Clinical features and treatment will be emphasized. In small group sessions, students interview and examine patients to gain a fuller understanding of the typical history and physical findings of these disorders. Students are strongly encouraged to attend the small group sessions with patients, who make a major contribution to teaching students about these conditions

### **M25 611B CARDIOVASCULAR DISEASE**

Instructors: Dana R. Abendschein, PhD, 362-8901 and Justin Sadhu, MD

The purpose of this course is to consider the mechanisms and manifestations of acquired cardiovascular disorders as well as their pharmacologic treatment. Lectures and small group discussions that emphasize the major areas of cardiac and vascular pathophysiology and pharmacology are provided.

### **M25 612B PULMONARY DISEASE**

Instructor: Adrian Shifren, MD, 314-454-8764

The objectives of the pulmonary pathophysiology course are to classify, compare and contrast the major categories of human lung disease. This will be achieved through description of pathophysiologic mechanisms underlying lung disease in humans including alterations in pulmonary mechanics, gas exchange and lung ventilation.

### **M25 613B RENAL AND GENITOURINARY DISEASES**

Instructors: Steven Cheng, MD, 362-7211

This course uses basic principles of renal physiology and ion homeostasis to

understand commonly encountered fluid and electrolyte disorders (especially hyper-/hypo- natremias, acidoses/alkaloses) and the action of diuretic drugs. The pathophysiology of diabetic kidney disease, glomerular and tubulointerstitial diseases, hereditary kidney diseases, and the relationship between hypertension and the kidney are discussed. It also applies basic principles of urinary system anatomy and physiology to the understanding of kidney stones, disorders of the bladder and prostate, and of micturition. The course also introduces basic principles of dialysis and kidney transplant. Lectures, small group problem-solving and team-based learning sessions focus special attention on: 1) how a working knowledge of fundamentals, diagnostic testing and arithmetic manipulation can have important predictive value; and 2) how the courses of acute and chronic renal failure are both adaptive and maladaptive for the organism.

### **M25 614 DERMATOLOGY**

Instructor: David M. Sheinbein, MD, 996-8005

The dermatology second-year course is designed to teach medical students how to describe skin lesions and the pathophysiologic basis and clinical characteristics of major dermatologic diseases. Major categories of clinical skin diseases and their most prominent constituents will be discussed, including papulosquamous diseases, blistering diseases, infectious diseases, and benign and malignant neoplasms.

### **M25 615A ENDOCRINOLOGY AND METABOLISM**

Instructor: William E. Clutter, MD, 362-8094

This course aims to develop understanding of the pathophysiology, clinical manifestations and diagnosis of common endocrine disorders. History, physical examination and interpretation of diagnostic laboratory tests are emphasized. Principles of treatment of endocrine disorders and pharmacology of relevant drugs also are discussed. Students are expected to apply their knowledge in clinical case discussions.

### **M25 620A GASTROINTESTINAL AND LIVER DISEASES/NUTRITION**

Instructor: Deborah C. Rubin, MD, 362-8935

This course discusses the pathophysiologic mechanisms related to the diseases of the gastrointestinal tract including esophagus, stomach, small and large intestines, liver, gallbladder and pancreas. The emphasis is on changes that occur in normal physiology, biochemistry, anatomy, immunology and cell biology that result in human gastroenterologic diseases. Included also are lectures on the pharmacology of gastrointestinal drugs and basics of human nutrition in clinical practice. Lectures are supplemented by group seminars that focus on clinical case presentations.

### **M25 625A HEMATOLOGY AND ONCOLOGY**

Instructors: Dr. Meagan Jacoby – 314-454-8304 and Dr. Eric Knoche – 314-289-6305

The hematology and oncology pathophysiology course exposes students to common hematologic disorders and hematologic malignancies. The course uses lectures, clinical case discussions and practical sessions involving microscopy.

## **Third year**

### **M25 710 MEDICINE CLERKSHIP**

Instructor: Thomas M. De Fer, MD, 362-8050

The medicine clerkship provides supervised study of patients in both inpatient and ambulatory settings. The 12-week clerkship is divided into three four-week rotations: two inpatient and one outpatient. For the inpatient rotations, students are assigned as clinical clerks to patients admitted to the cardiology and general medical teaching services of Barnes-Jewish Hospital and the St. Louis VA Medical Center — John Cochran Division. For the outpatient rotations, students are placed with community-based internal medicine or family practice physicians and will almost always require a car for transportation. Teaching is provided by the chief of service, attending physicians, house staff, consultants, chief residents, community-based preceptors and regularly scheduled conferences. Formal instruction is given regarding core internal medicine topics during the clerkship. Teaching activities include Chief Resident Rounds, Core Lecture Series, Physical Diagnosis Rounds, Radiology Rounds, Professor's Rounds and other departmentally based conferences.

Clinical Pathological Conference

The clinical course, laboratory and radiologic studies, and pathological findings of a patient are discussed using a problem-solving format at a weekly conference by members of the Departments of Medicine, Pathology and Immunology, and Radiology; Melvin Blanchard, MD, internal medicine; chief residents and medical staff; Louis P. Dehner, MD; and pathology staff.

## **M25 707 PRACTICE OF MEDICINE III**

Course Master: Tim Yau, MD

Clerkship Coordinator: Melody Cox, 362-3480

### Objectives:

1. To review challenges and dilemmas relevant to the practice of clinical medicine.
2. To examine clinical experiences from a variety of perspectives.

In this course, themes and topics relevant students in their clinical stage of training are discussed. Session formats include lecture, panel discussion and/or small group. As students exchange problematic scenarios and questions, the group develops potential solutions and management schemes.

\*Topics in the past have included:

Session 1: Complimentary and Alternative Medicine

Session 2: Safe and Quality Care at BJH

Session 3: Communicating Serious Adverse Events to Patients and Families

Session 4: Intimate Partner Violence

Session 5: Medical Malpractice/Tort Reform

Session 6: Healthcare Financing

Session 7: Update on the Patient Protection and Affordable Care Act (PPACA)

Session 8: Clinical Practice Management

Session 9: Recognizing Personal Biases

Session 10: Evaluation and Treatment of Patients with Disabilities

Attendance at 8 out of 10 POM III sessions is required to pass this course. Student may use 2 absences for any reason and are recommended to save them for their ACES

rotation, Labor & Deliver rotation, or an emergency.

Sessions will be from 12:00 pm – 2:00 pm on the 3rd Tuesday of every month except for November and December. (Please note that the 1st session is held on the 4th Tuesday of June).

The dates for 2016-17 are:

6/21/16, 7/19/16, 8/16/16, 9/20/16, 10/18/16, 1/24/17, 2/21/17, 3/21/17, 4/18/17, 5/16/17

Students are excused from clinical activities to attend.

Location: Connor Auditorium, Farrell Learning and Teaching Center

\* Topics subject to change

## **M25 714 EMERGENCY MEDICINE**

Instructors: Mark Levine, MD, 362-6743

The WUMS III Emergency Medicine Rotation takes place in the main emergency department of Barnes-Jewish Hospital. Up to six students at a time are assigned to this four-week rotation. Students will spend their first day in an orientation session that will include an ED introduction, a suture lab, an airway lab, a central line lab, and an ultrasound lab. A digital course “text” will be provided. The student may request a written copy as well. Students will be evaluating and treating patients throughout the Emergency Department. Although the majority of the time will be spent in the areas of the ED that see “bread and butter” EM cases, the students will have assigned shifts in the trauma/critical care area and report directly to an attending or senior resident. There are five hours of mandatory lecture per week. Students can expect to gain a wide range of skills in evaluating a variety of complicated and non-complicated patients. At the end of the rotation, students will be familiar with the approach to complex medical conditions like chest pain, undifferentiated abdominal pain and complications of pregnancy as well as treatments of lacerations, abscesses, simple respiratory tract infections and minor trauma. Opportunities will be provided to the student to perform the necessary procedures on their patients as required. The student will also spend a day in an interdisciplinary approach with other EM support services (respiratory, social work, nursing, physical therapy).

WUMS III will be graded on their clinical skills, their ability to make a formal patient presentations during a shift, professionalism, and their conference attendance. There will be a written test on the last Friday of the rotation based entirely on the material provided to the students at the start of the rotation.

## **M25 740 DERMATOLOGY CLERKSHIP**

Instructor: Lynn Cornelius, MD, 454-8622

The goal of the dermatology clerkship is to provide a guide for the student to appreciate dermatology within the broader perspectives of medicine and biology. The student will develop familiarity with dermatologic vocabulary, learn to recognize and initiate therapy of common dermatologic disorders and become cognizant of uncommon or complicated dermatologic problems that require specialty care. Emphasis will be placed on careful history taking and physical examination. Students will always work under the direction of the resident physician and the attending physicians in the clinic setting.

The student will participate in outpatient care at the following hospitals and affiliated clinics: Barnes-Jewish Hospital, St. Louis Children's Hospital, Barnes-Jewish West County Hospital, and the Veterans Administration Medical Center. These hospital settings will provide the student with ample exposure to a diverse patient population. Students will attend all clinical teaching rounds and conferences in addition to the basic science and cutaneous histopathology conferences. Normal workday hours are 8 a.m. to 5 p.m. with no night or weekend on-call responsibilities. Each student is provided with copies of the two recommended textbooks, *The Washington Manual of Dermatology Diagnostics* by M. Laurin Council, et al. and *The Color Atlas and Synopsis of Clinical Dermatology* by T.B. Fitzpatrick for use during the clerkship; the textbooks are returned to the clerkship coordinator at the end of the clerkship for use by other students rotating in the dermatology division.

The rotation attending physician and the resident physician will submit an evaluation based on the student's clinical skills, presentation, attitudes, overall performance and the end-of-rotation written exam score. Students are not eligible to take the fourth-

year rotation if they complete this clerkship.

## **M25 750 GERIATRIC MEDICINE CLERKSHIP**

Instructor: Ellen F. Binder, MD, 286-2707

Program Coordinator: Stephanie Paule, 286-2909

The primary goal of the four-week clerkship in Geriatric Medicine is for students to gain proficiency in the principles of geriatric evaluation and interdisciplinary team management, including medical, psychological, social, and functional assessments of older adults. Students are expected to participate in the evaluation of at least three to five patients per week, in a variety of settings including the outpatient Geriatric Assessment Clinic, in-patient Geriatric consults, nursing home visits at Parc Provence, home visits with the VA Home-Based Primary Care Program, and at the Rehabilitation Institute of St. Louis (TRISL). Students will also have the opportunity to participate in hospice and home care visits, and observe an assessment at the WU Alzheimer's Disease Research Center. Students are expected to attend weekly conferences and didactic sessions while on the rotation, and give an oral presentation on a topic of their choice.

The day usually begins at 8:30 a.m. and ends by 5:30 p.m. There is no night or weekend call. Time is provided to read the syllabus/bibliography and complete web-based learning modules.

Location: Wohl Clinic Building, Third floor, Room 338

Other Information: Meet at the Department of Geriatrics office, Wohl Clinic Building, Third floor, Room 338, 9:00 a.m. first day of elective.

Pre-requisite: Students must have completed the Internal Medicine clerkship before taking this elective; completion of the Neurology clerkship is encouraged but not required.

## **M25 730 PHYSICAL MEDICINE AND REHABILITATION**

Coursemaster: Neringa Juknis, MD, 454-7757

Clerkship in PM&R for third-year medical students provides an opportunity to gain basic knowledge and clinical skills in evaluation and management of a wide range of



neurological and musculoskeletal diseases and conditions that require specialized rehabilitative medical and therapeutic care. Students spend two weeks on the Spinal Cord Injury Unit (SCI) and two weeks on the Brain Injury (BI) and Stroke Unit at The Rehabilitation Institute of St. Louis. Students are expected to be a part of the rehabilitation team, follow three to five patients, participate in daily morning rounds, participate in performing consults and attend team meetings and family conferences.

Students are required to attend several outpatient clinics such as SCI, BI, Amputee and Stroke. During the entire rotation, students work with PM&R residents and fellows, and under direct guidance of the NeuroRehabilitation faculty. The usual duty hours are 7:30 a.m. to 5 p.m. weekdays and 8 a.m. to noon on Saturdays. There is no night call.

Students are required to attend all PM&R curriculum lectures and conferences. On the first day of rotation, students meet with the PM&R program director to go over goals, objectives and schedules. Upon completion of the rotation, students are required to fill out the evaluation form to provide feedback regarding rotation experience.

## **M25 810 GERIATRIC MEDICINE**

Instructor(s): Ellen Binder, MD, 286-2700, press option 1

Enrollment limit per period: 1

Valid start weeks for 4-week blocks are: Weeks 5, 13, 17, 21, 25, 29, 33, 37, and 41.

The primary goal of the four-week clerkship in Geriatric Medicine is for students to gain proficiency in the principles of geriatric evaluation and interdisciplinary team management, including medical, psychological, social, and functional assessments of older adults. Students are expected to participate in the evaluation of at least three to five patients per week, in a variety of settings including the outpatient Geriatric Assessment Clinic, in-patient Geriatric consults, nursing home visits at Parc Provence, home visits with the VA Home-Based Primary Care Program, and at the Rehabilitation Institute of St. Louis (TRISL). Students will also have the opportunity to participate in hospice and home care visits, and observe an assessment at the WU Alzheimer's Disease Research Center. Students are expected to attend weekly conferences and didactic sessions while on the rotation, and give an oral presentation on a topic of

their choice.

The day usually begins at 8:30 a.m. and ends by 5:30 p.m. There is no night or weekend call. Time is provided to read the syllabus/bibliography and complete web-based learning modules.

Pre-requisite: Students must have completed the Internal Medicine clerkship before taking this elective; completion of the Neurology clerkship is encouraged but not required.

## **Fourth year**

### **Electives**

#### **M25 – INTERNAL MEDICINE**

##### **M25 801 / HONORS MEDICINE – GENERAL MEDICINE**

Instructor(s): Thomas De Fer, MD, 314-362-8050

Location: Barnes-Jewish Hospital

Elective Contact: Amber Specter, 314-362-8050

Other Information: Students will receive e-mail communication regarding where to report on the first day prior to the beginning of the period.

Enrollment limit per period: Limit 8/period for Weeks 1, 5, 9; 4/period for Weeks 13, 17, 21, 25, 29, 33, 37, and 41.

The purpose of the “Honors Medicine” elective (sub-internship) is the development of expertise in the care of hospitalized patients in a well-supervised teaching environment. Sub-interns act as their patients’ interns under the supervision of residents and attending physicians. Sub-interns have the same on-call and admitting schedules as the interns on their teams and are assigned up to two new patients on each admitting day. Sub-interns are not required to spend call nights in the hospital. Except in emergencies, sub-interns are the first individuals to evaluate patients admitted to medical service teams. A diagnostic and therapeutic approach to the patient is planned in consultation with the resident. Sub-interns assume primary

responsibility for the daily care of their patients, under the supervision of resident and attending physicians. This includes evaluation on daily rounds, scheduling and obtaining results of diagnostic studies, planning therapy, making arrangements for care after discharge and communicating with patients and their families. Sub-interns attend the same conferences as the house staff.

Student time distribution: Inpatient 90%; Conferences/Lectures 10%; Primary Care 50%; Subspecialty Care 50%

Major teaching responsibility: Attending, chief resident, and resident

Patients seen/weekly: 8-12

On call/weekend responsibility: Yes

## **M25 805 / RHEUMATOLOGY**

Instructor(s): Richard Brasington, MD; Prabha Ranganathan, MD; John Atkinson, MD; Deborah Parks, MD; 314-454-7279

Location: Barnes-Jewish Hospital, 5C Center for Advanced Medicine

Elective Contact: Department secretary, 314-454-7279

Other Information: Students should contact the Rheumatology office, 314-454-7279 prior to first day for assignment.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Students will be involved in the diagnostic work-up and management of patients with rheumatic illnesses including systemic lupus erythematosus, rheumatoid arthritis, vasculitis (polyarteritis, Wegener's, temporal arteritis), spondyloarthropathies (ankylosing spondylitis, reactive arthritis), osteoarthritis, gout and regional musculoskeletal problems. By working closely with a faculty member, fellows and medical residents, students become integral and active members of the rheumatology service for inpatient consultations and outpatient clinics at Barnes-Jewish Hospital. An emphasis is placed on the physical examination of joints and the musculoskeletal system, synovial fluid analysis, and interpretation of diagnostic tests and radiographs.

Students attend two rheumatology conferences held weekly. A rotation limited to outpatient rheumatology is possible by prior arrangement with Dr. Brasington.

Student time distribution: Inpatient 40%; Outpatient 50%; Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attendings

Patients seen/weekly: ~25 per student

On call/weekend responsibility: None

### **M25 807 / HONORS MEDICINE – VA MEDICAL CENTER**

Instructor(s): Amy Joseph, MD, 314-289-7030

Location: St. Louis Veterans Affairs Medical Center

Elective Contact: 314-289-6308

Other Information: Students will receive e-mail communication regarding where to report on the first day prior to the beginning of the period.

Enrollment limit per period: Limit 3/period for Weeks 1, 5, 9; 1/period for Weeks 13, 17, 21, 25, 29, 33, 37, and 41.

The purpose of the “Honors Medicine” elective (sub-internship) at the VA Medical Center is to develop practical experience and expertise in the care of hospitalized patients on an internal medicine ward. With appropriate supervision by the attending and resident physicians, sub-interns will have similar responsibilities as interns. They have the same on-call/admitting schedules as the interns and participate in the same teaching conferences, but they do not take overnight call. Sub-interns should admit at least two patients per call day, and they should be the first to evaluate the patients admitted to the medical service, except in emergencies. A diagnostic and therapeutic approach to evaluating each patient is planned in consultation with the resident. While being supervised as listed above, sub-interns assume primary responsibility for the daily care of their patients, including evaluation on daily rounds, scheduling and obtaining results of diagnostic studies, calling consults, planning therapy, making arrangements for care after discharge. and communicating with patients and their families.

Student time distribution: Inpatient 80%; Conferences/Lectures 20%; Subspecialty Care 100%

Major teaching responsibility: Attending, Chief Resident and Resident

Patients seen/weekly: 6-8 on average

On call/weekend responsibility: On-call every fourth day

## **M25 810 / GERIATRIC MEDICINE**

Instructor(s): Ellen Binder, MD, 314-286-2700, press option 1

Location: Wohl Clinic Building, 3rd Floor conference room

Elective Contact: Stephanie Paule, Program Coordinator: 314-286-2909

Other Information: Meet at the Department of Geriatrics office, Wohl Clinic Building, 3rd Floor conference room, 8:30 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 5, 13, 17, 21, 25, 29, 33, 37, and 41.

The primary goal of this rotation is for students to gain proficiency in the principles of geriatric evaluation and management, including the medical, psychological, social, and functional assessments of older adults. Students are expected to participate in the evaluation of three to five patients per week, in a variety of settings including the outpatient Geriatric Assessment Clinic, in-patient Geriatric Consult service, Parc Provence nursing home, and the Rehabilitation Institute of St. Louis (TRISL). Students will also have the opportunity to participate in hospice and home care visits, interdisciplinary team meetings, and observe an assessment at the WU Alzheimer's Disease Research Center. Students are expected to attend weekly conferences while on the rotation.

The day normally begins at 8:30 a.m. and is usually finished by 5:30 p.m. There is no night or weekend call. Time is provided to read the detailed syllabus/bibliography. Students will be expected to give an oral presentation on a topic of their choice once during the rotation.

Student time distribution: Inpatient 20%; Outpatient 80%; Primary Care 20%; Subspecialty Care 80%

Major teaching responsibility: Attendings

Patients seen/weekly: 10-15

On call/weekend responsibility: None

### **M25 811 / CLINICAL INTERNAL MEDICINE – HOSPITALIST**

Instructor(s): Caroline Kahle, MD, 314-362-1700

Location: Barnes Jewish Hospital, West Pavilion Corridor main level

Elective Contact: Mary Russell, 314-362-1707, [mrussell@wustl.edu](mailto:mrussell@wustl.edu)

Other Information: Students should contact Mary Russell one to two weeks prior to first day of elective for information on where to meet.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This course allows the student to work one-on-one with hospitalist physicians on a patient care team. The student acts as the intern under the direct supervision of the attending physician. Daily responsibilities include admission history and physicals, daily notes and discharge summaries on assigned patients. S/he also will have the opportunity to perform indicated procedures on patients on this service. Students are encouraged to participate in Department of Medicine conferences.

Student time distribution: Inpatient 95%; Conferences/Lectures 5%; Primary Care 100%

Major teaching responsibility: Hospitalist attendings

Patients seen/weekly: 10

On call/weekend responsibility: None

### **M25 814 / CLINICAL EMERGENCY MEDICINE, BARNES-JEWISH HOSPITAL**

Instructor(s): Mark Levine, MD, 314-362-6743

Location: Barnard and/or Wohl Hospital

Elective Contact: Mary Hummert, 314-747-4156

Other Information: Contact Emergency Medicine Division office at 314-747-4156, for scheduling one week prior to the rotation. If a student is needing any time off,

approval will be needed by the Course Coordinator before the start of the rotation.

Students are required to work at least 12 to 14 shifts.

Enrollment limit per period: 6

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This rotation offers practical experience in the evaluation and management of acutely sick and injured patients. Students will function as sub-interns, initially evaluating their assigned patients and developing a plan for further diagnostic studies and therapy. They will report to a senior level resident or an attending physician.

The student can expect to get an opportunity to perform a wide variety of procedural skills such as suturing, splinting, peripheral and central venous access, and cardiopulmonary resuscitation. Shifts will be eight hours and students will rotate between day, evening and night shifts, including weekend shifts, in order to gain maximum exposure to all types of emergencies. A core content of lectures will be provided.

Students will gain an understanding of prehospital care by doing a ridealong shift with the St. Louis Fire Department EMS. Students will also have a shift with the toxicology attendings and residents and will gain knowledge of the basics of ultrasound during their time in the department. Students interested in EM will be doing 1:1 shifts with a single attending during their last two weeks of the rotation.

Students desiring a letter of recommendation from Dr. Michael Mullins, Director of Research, or any other EM attending should take this WUMS IV Emergency Medicine rotation. Students will be scheduled for required weekend and overnight shifts and changes will not be allowed to the schedule unless approved prior to the start of the rotation by the course coordinator.

Please be advised that there is a limit of days off while on this rotation during interview season; otherwise, students should arrange to take the elective at a different time during the year. Days off during the rest of the year will conform to university

policy. Days off should be requested from Mary Hummert at least two weeks prior to the beginning of the rotation for scheduling purposes.

Student time distribution: Outpatient 80%; Conferences/Lectures 20%; Primary Care 40%; Subspecialty Care 60%

Major teaching responsibility: Attendings and senior residents (PGY 3 & 4)

Patients seen/weekly: ~5 per shift

On call/weekend responsibility: Evenings and weekends; no on call

## **M25 821 / INPATIENT CARDIOLOGY**

Instructor(s): Anita Bhandiwad, MD 314-362-1291

Location: 13th Floor, Northwest Tower

Elective Contact: Anita Johnson, 314-747-3606

Other Information: Students meet on the 13th Floor, Northwest Tower, 9:00 a.m. first day of elective.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Students will participate as members of the Barnes-Jewish Cardiology at Washington University Consultative Team. They will be part of a team composed of faculty members, fellows, residents, and nurse specialists that sees a large population of cardiac patients and follows them through all aspects of their in-hospital care.

Emphasis will be placed on physical examination and the interpretation of modern cardiac diagnostic tests including electrocardiograms, echocardiograms and coronary angiograms and their role in clinical decision making.

Student time distribution: Inpatient 90%; Outpatient 0%; Conferences/ Lectures 10%; Primary Care 0%; Subspecialty Care 100%

Major teaching responsibility: Attending and fellow

Patients seen/weekly: 10-15

On call/weekend responsibility: None



## **M25 822 / HONORS MEDICINE – CARDIOLOGY**

Instructor(s): Thomas De Fer, MD, 314-362-8050

Location: Barnes-Jewish Hospital

Elective Contact: Amber Specter, 314-362-8050

Other Information: Students will receive e-mail communication regarding when/where to report on the first day prior to the beginning of the period.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The structure and functioning of the “Honors Medicine-Cardiology” elective (sub-internship) is very similar to the general medicine sub-internship (M25 801). The basic purpose is to develop expertise in the care of hospitalized patients in a well-supervised teaching environment. The majority of patients admitted to the service will have a cardiology diagnosis as the main reason for admission. Some general medical problems will also be seen. All attendings on the service are cardiology subspecialists. Cardiology fellows act as the chief resident for the service on a monthly basis. Sub-interns act as their patients’ interns under the supervision of residents and attending physicians. Sub-interns have the same on-call and admitting schedules as the interns on their teams and are assigned up to two new patients on each admitting day. Sub-interns are not required to spend call nights in the hospital. Except in emergencies, sub-interns are the first individuals to evaluate patients admitted to medical service teams. A diagnostic and therapeutic approach to the patient is planned in consultation with the resident. Sub-interns assume primary responsibility for the daily care of their patients, under the supervision of resident and attending physicians. This includes evaluation on daily rounds, scheduling and obtaining results of diagnostic studies, planning therapy, making arrangements for care after discharge and communicating with patients and their families. Sub-interns attend the same conferences as the internal medicine house staff. There are also several conferences specific to the cardiology service.

Student time distribution: Inpatient 90%; Conferences/Lectures 10%; Primary Care

25%; Subspecialty Care 75%

Major teaching responsibility: Attending, chief resident, and resident

Patients seen/weekly: 8-12

On call/weekend responsibility: Yes

### **M25 823 / CLINICAL CARDIOLOGY – VA HOSPITAL**

Instructor(s): Wade Martin, MD, 314-289-6329

Location: John Cochran VA Hospital

Elective Contact: Wade Martin, MD, 314-289-6329

Other Information: Students should meet in Room B206, 2nd Floor, VA Hospital.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The major purpose of this elective in clinical cardiology at the John Cochran VA Hospital is to improve evaluation and management skills for diagnosis and treatment of important cardiovascular conditions such as coronary artery disease including acute myocardial infarction, congestive heart failure, hypertension, and valvular heart disease. The rotation is designed to be flexible enough to accommodate a wide variety of course objectives but includes the opportunity to participate in 1-3 outpatient clinics per week; 1-4 weeks of inpatient intensive care, telemetry, or cardiology consultation rounds; and ECG, stress testing, nuclear imaging, or echocardiographic reading sessions, cardiac catheterization and electrophysiologic procedures. The emphasis will be on improvement of the ability to diagnose and treat cardiovascular disease on the basis of information obtained from a thorough history and physical examination that is integrated with data from appropriate highly targeted laboratory studies in a manner that optimizes patient outcome and minimizes risk and costs.

Student time distribution: Inpatient 45%; Outpatient 55%; Conferences/ Lectures 5-10%; Primary Care 25%; Subspecialty Care 75%

Major teaching responsibility: Attendings and fellows

Patients seen/weekly: 20

On call/weekend responsibility: Varies

## **M25 825 / CARDIAC ARRHYTHMIAS AND ELECTROPHYSIOLOGY**

Instructor(s): Timothy Smith, MD, PhD, 314-454-7877

Location: Barnes-Jewish Hospital

Elective Contact: Timothy Smith, MD, PhD, or Gina Gentilini, 314-747-4166

Other Information: Students meet in the Cardiology Division, 13th Floor Northwest Tower, 8:00 a.m. first day of elective or page the EP Fellow at 314-424-4680.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This elective provides the student with exposure and teaching in the diagnosis and treatment of complex cardiac rhythm disturbances. Specifically, the student is expected to evaluate patients referred for evaluation and treatment of complex or life-threatening rhythm disturbances, unexplained syncope or sudden cardiac death. Rounds are made daily on hospitalized patients, and students are welcome to observe electrophysiology studies or implantation of pacemakers and defibrillators. This elective also provides an intensive opportunity to learn clinical electrocardiography and the systematic use of anti-arrhythmic drugs. Finally, since patients with chronic, complex rhythm disturbances frequently have organic heart disease, a broad-based exposure to general cardiology is also part of this elective.

Student time distribution: Inpatient 80%; Outpatient 10% (optional);

Conferences/Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attending physician

Patients seen/weekly: 2 new consults/day

On call/weekend responsibility: None

## **M25 827 / HEART FAILURE/CARDIAC TRANSPLANTATION**

Instructor(s): Gregory Ewald, MD, 314-454-7009

Location: Barnes-Jewish Hospital, North Campus, Suite 4455

Elective Contact: Gregory Ewald, MD, 314-454-7009

Other Information: Students should page the attending physician, 8:00 a.m. first day of elective.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This rotation is intended to provide trainees with a comprehensive experience managing patients with advanced heart failure. In addition to daily rounds, trainees are invited to attend both heart failure and transplant clinics. Further, the curriculum is supplemented by a comprehensive syllabus that contains the critical literature pertinent to this patient population. The trainees will also have experience with the evaluation of patients for operative heart failure therapies and will have the opportunity to observe these surgical procedures.

Student time distribution: Inpatient 70%; Outpatient 20%; Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attendings

Patients seen/weekly: 30

On call/weekend responsibility: None

## **M25 830 / DERMATOLOGY**

Instructor(s): Dermatology Staff, 314-454-8622

Location: 7705 Wohl Hospital

Elective Contact: Rosemarie Brannan, 314-454-8622

Other Information: First Monday of rotation students will attend both the 7:30 a.m. lecture in the Dermatology Library, 7706 Wohl Hospital and the 9:00 a.m. orientation, Room 7714 Wohl Hospital.

Enrollment limit per period: 4

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 29, 33, 37, and 41.

**THIS COURSE HAS A STRICT ATTENDANCE POLICY!**

The aim of this elective is to provide a guide for the student so that s/he is able to appreciate dermatology within the broader perspectives of medicine and biology. Emphasis will be placed on the dermatologic variations encountered in a normal

physical examination of the skin, the identification of common skin diseases, dermatologic clues to systemic disease, as well as those dermatologic conditions that are life threatening. The student will participate in outpatient care in the Barnes-Jewish Hospital and affiliated clinics. Students will attend all clinical teaching rounds and conferences in addition to the basic science and cutaneous histopathology conferences.

M25 830 is essentially the same as the 3rd Year Dermatology Clerkship. Students are limited to taking either one or the other – NOT BOTH.

Student time distribution: Inpatient 25%; Outpatient 50%; Conferences/ Lectures 25%; Specialty Care 100%

Major teaching responsibility: Course Master for rotation and senior resident

Patients seen/weekly: 25-50

On call/weekend responsibility: None

### **M25 831 / PEDIATRIC DERMATOLOGY**

Instructor(s): Carrie Coughlin, MD

Location: 7706 Wohl Hospital

Elective Contact: Rosemarie Brannan, 314-454-8622

Other Information: Call 314-454-8622 prior to first day of elective. Reporting time is 7:30 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for 4fourweek blocks are: Weeks 1, 5, 9, 13, 17, 21, 29, 33, 37, 41.

This clinical rotation will be available to students interested in dermatology, pediatrics or both. Students will follow the dermatology rotation (M25 830) with an emphasis on pediatric dermatology by attending pediatric dermatology clinics, seeing consults, etc. Enthusiastic students will have an opportunity to write up a case report if they wish, but need to notify Dr. Bayliss before the course.

Students can take either this elective or M25 830/Dermatology — NOT BOTH.

Student time distribution: Inpatient 1%; Outpatient 74%; Conferences/ Lectures 25%;  
Subspecialty Care 100%

Major teaching responsibility: Two attendings

Patients seen/weekly: 50-100

On call/weekend responsibility: None

### **M25 834 / CLINICAL MENTORING**

Instructor(s): Gregory Polites, MD, 314-747-5268

Location: Office of Medical Student Education (OMSE), 5th Floor Becker Medical Library

Elective Contact: Melody Cox, 314-286-2546

Other Information: To be determined

Enrollment limit per period: 62

This elective is designed to develop the teaching and mentoring skills of our 4th year medical students through structured hospital sessions with 1st year medical students and supervised sessions with clinical faculty. The primary format of the elective is observation of the 1st year students during hospital sessions where the first years perform the H&P and the 4th year mentors offer constructive feedback. Each H&P write-up is also thoroughly reviewed and critiqued by the mentor. Supervisory sessions also occur with clinical faculty who give feedback on both the performance of the 1st year students as well as the mentoring skills of the 4th year.

Student time distribution: TBD

Major teaching responsibility: TBD (assigned)

Patients seen/weekly:

On call/weekend responsibility: None

### **M25 836 / CLINICAL GASTROENTEROLOGY AND HEPATOLOGY**

Instructor(s): Gregory S. Sayuk, MD, MPH, 314-454-8201

Location: Barnes-Jewish Hospital, East Pavilion

Elective Contact: Beth Buschard-Steiger, 314-454-8201

Other Information: Students meet in the Digestive Disease Clinical Center, street level East Pavilion, Barnes-Jewish Hospital, 8:00 a.m. first day of elective.

Enrollment limit per period: 4

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The GI Hepatology elective is integrated into a very active inpatient/outpatient and endoscopy service at Barnes-Jewish Hospital. Students will participate in the evaluation of inpatients and outpatients with a spectrum of gut and liver disorders, will make patient rounds with the faculty and fellows, and have responsibility for patients on whom consultations have been requested. In addition, they will observe biopsy, endoscopic, and intubation techniques and participate in outpatient clinic and GI conferences.

Student time distribution: Inpatient 65%; Outpatient 25%; Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attending and fellows

Patients seen/weekly: 12 new

On call/weekend responsibility: None

### **M25 838 / MEDICINE CONSULT SERVICE**

Instructor(s): Caroline Kahle, MD, and Gina LaRossa, MD, 314-362-1700

Location: Barnes-Jewish Hospital, West Pavilion Corridor main level

Elective Contact: Mary Russell, 314-362-1707, [mrussell@wustl.edu](mailto:mrussell@wustl.edu)

Other Information: Students should contact Mary Russell, 314-362-1707, one to two weeks prior to first day of elective for information on where to meet.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41. Two week rotations are also available.

The focus of the Medicine Consult Service elective is the evaluation and management of medically complex patients admitted to the hospital on non-medicine services. The issues involved with perioperative management are particularly stressed. The student will function as a member of the consult service team. Duties will include performing initial consultations and follow-up care under the supervision of a Hospital Medicine

attending and a senior medical resident. Attendance at Department of Medicine and division conferences is encouraged.

Student time distribution: Inpatient 90%; Conferences/Lectures 10%; Primary Care 100%

Major teaching responsibility: Consult Service attending (from the Division of Hospital Medicine)

Patients seen/weekly: 10-15

On call/weekend responsibility: None

### **M25 842 / INTRODUCTION TO WILDERNESS MEDICINE**

Instructor(s): Nicholas Musisca, MD; Bill Dribben, MD; Kurt Eifling, MD

Location: Emergency Medicine Teaching Classroom

Elective Contact: Nicholas Musisca, MD; Bill Dribben, MD; Kurt Eifling, MD, 314-362-7998

Other Information: Students report at 8:00 am first day of elective

Enrollment limit per period: 10

Valid start weeks for two-week blocks are: Weeks 15-16

The purpose of this course is to introduce medical students to common medical problems both emergent and nonemergent seen in various wilderness settings. After taking this course the student should have a basic understanding on the pathophysiology and management of these problems in an environment with limited access to medical aid. The course will involve four days of four-hour lectures each week along with one 1-2 day required overnight camping trip. Requirements to pass this course include completing a presentation on a topic of their choosing that is approved by the course master as well as a skills and written test.

Attendance is required at all lectures & events. Grading will be pass/fail

Student time distribution: Conferences/Lectures, 100%; Subspeciality Care, 100%

Major teaching responsibility: Bill Dribben, MD; Nicholas Musisca, MD

Patients seen/weekly: 0



On call/weekend responsibility: No call, required outdoor activity

## **M25 843 / MEDICAL TOXICOLOGY**

Instructor(s): Evan S. Schwarz, MD, 314-747-3690

Location: Emergency Medicine office, 8th Floor of Barnard, Suite 8813

Elective Contact: Mary Hummert, 314-747-4156

Other Information: Students meet in 8th floor Emergency Medicine Conference Room, 8th Floor, Barnard, 8:00 a.m. first day of elective

Enrollment limit per period: 5

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This rotation offers practical experience in the evaluation and management of the acutely ill poisoned patient. Students will function as subinterns and either report to the senior resident, fellow, or directly to the toxicology attending.

Students will gain familiarity and experience evaluating and treating patients who have intentionally and unintentionally overdosed on medications or illicit drugs, been envenomated (such as by spiders, snakes, or other reptiles), or been exposed to toxic substances or chemicals. Students will also gain experience in administering antidotes and learning to properly decontaminate someone after an ingestion or exposure.

There are no overnight or weekend shifts. Daily activities start in the morning and are generally concluded by the early afternoon. A core content of lectures will be provided. The students will also be assigned small projects during their rotation that will enhance their experience particularly in environmental and occupational toxicology.

Opportunities to increase their experience with occupational toxicology also exist during this rotation; those with this interest can ask for further information during their rotation. Students will also have the opportunity to go to the Missouri Poison Center and evaluate patients in the outpatient toxicology clinic.

Students desiring a letter of recommendation from one of the toxicology attendings

(who are also Emergency Medicine and Internal Medicine attendings) or interested in Emergency Medicine or Medical Toxicology should take this elective. Also, students considering other specialties such as Pediatrics or Internal Medicine should consider this rotation as they will be responsible for evaluating these patients as part of their inpatient or outpatient practice.

Please be advised that there is a limit of days off while on this rotation during interview season; otherwise, students should arrange to take the elective at a different time during the year. Days off should be requested from Mary Hummert at least two weeks prior to the beginning of the rotation for scheduling purposes. Students should receive a course guide just prior to their rotation. However if they do not, they can page the toxicology pager at (314) 672-0284 to determine when and where to meet for rounds.

Student time distribution: Inpatient 70%; Outpatient 10%; Conferences/ Lectures 20%; Subspecialty Care 100%

Major teaching responsibility: Toxicology Faculty

Patients seen/weekly: 12

On call/weekend responsibility: None

## **M25 844 / HEMATOLOGY AND HEMOSTASIS**

Instructor(s): Morey Blinder, MD, and Evan Sadler, MD, 314-362-8857

Location: 8801 Clinical Sciences Research Building

Elective Contact: Morey Blinder, MD, 314-362-8814

Other Information: Students will meet in Barnes-Jewish Hospital South. Contact Kim French at 314-454-8532 for time and location.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Activities planned include work-up of patients at Barnes-Jewish Hospital under the supervision of the hematology fellow and his staff consultant; attendance at clinical rounds three to five hours weekly; participation in out-patient clinics; experience in

various procedures, especially blood and bone marrow morphology and in interpretation of coagulation tests. Daily student rounds with a senior staff person.

Student time distribution: Inpatient 80%; Outpatient 10%; Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attending and fellow

Patients seen/weekly: 3-5

On call/weekend responsibility: None

## **M25 847 / BONE AND MINERAL DISEASES**

Instructor(s): Michael Whyte, MD; Kathryn Diemer, MD; Roberto Civitelli, MD; and Carolyn Jachna, MD

Location: Barnes-Jewish Hospital; Barnes-Jewish Hospital West County; Shriners' Hospital for Children

Elective Contact: Michael Whyte, MD, 314-872-8305

Other Information: Please contact Dr. Whyte a week before elective for instruction and meeting location.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 17, 21, 25, 29, 33, 37, and 41.

The course is designed to acquaint the student with the clinical, radiological and pathological manifestations and treatment of disorders of bone and mineral metabolism, including osteoporosis, Paget's disease of bone, hyperparathyroidism, osteomalacia, and more rare disorders of bone development and homeostasis. The student will rotate through clinics of the Division of Bone and Mineral Diseases, and see patients at Barnes-Jewish Hospital, Barnes-Jewish West County Hospital and Shriners Hospital for Children.

Acquired and heritable bone diseases will be studied in the context of derangements of mineral homeostasis with emphasis on vitamin D and peptide hormone metabolism and skeletal formation and remodeling. The role of non-invasive methods for measuring bone mass in the diagnosis and management of skeletal diseases also will be stressed. Faculty and medical students will be present interesting cases for

discussion or the students can present a pertinent topic related to bone metabolism they have researched during their rotation.

Responsibilities: Shriners Hospital Wednesday a.m. (Dr. Whyte); CAM, 2nd and 3rd Monday (a.m.), and 4th Thursday (p.m.) of each month; Barnes-Jewish West County Prof. Building 2; Tuesdays or Wednesdays, p.m. Metabolic Bone Disease Case Conference, Fridays 8:00 a.m., BJC Institute of Health Building, 11th Floor, Conference Room AB; Avioli Musculoskeletal Research Seminars, Fridays 9:00 a.m., BJC Institute of Health Building, 11th Floor, Conference Room AB.

Student time distribution: Outpatient 85%; Conferences/ Lectures 15%; Subspecialty Care 100%

Major teaching responsibility: Attendings

Patients seen/weekly: ~20

On call/weekend responsibility: None

## **M25 853 / BONE AND JOINT INFECTIOUS DISEASE CONSULT**

Instructor(s): Hilary Babcock, MD, 314-454-8225, [HBABCOCK@DOM.wustl.edu](mailto:HBABCOCK@DOM.wustl.edu)

Location: 15th Floor, Northwest Tower

Elective Contact: Dawn-Michele Cannon, 314-454-8225

Other Information: Students should page the Bone and Joint attending at 314-510-3805 at 8:00 a.m. on the first day of the elective.

Enrollment limit per period: 8

Valid start weeks for two-week blocks are: Weeks 3, 7, 11, 15, 19, 23, 27, 31, 35, 39, and 43. Must be done in conjunction with 2 weeks of General Infectious Disease

Study of infectious diseases of the bones and joints, including infections in both native and prosthetic joints. The elective is designed to teach students the fundamentals of evaluating clinical orthopedic infections and formulating plans for workup and therapy. Students see consultations in infectious diseases in every part of Barnes-Jewish Hospital under the supervision of a faculty member who rounds with them every day. They work closely with the infectious diseases attending and nurse practitioner, follow their own patients and play an important role in their

management. They are expected to read the literature about their patients and participate in clinical conferences. They attend teaching rounds and conferences and lectures in infectious diseases. They also learn appropriate use of antibiotics and antifungal agents. The role of surgical and medical management is discussed, and the students will interact with surgical staff in understanding the risks and outcomes of these common infections. Two weeks of General Infectious Disease are a prerequisite to this course.

Student time distribution: Inpatient 90%; Conferences/Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Single Attendings

Patients seen/weekly: 20

On call/weekend responsibility: None

## **M25 854 / TRANSPLANT INFECTIOUS DISEASE**

Instructor(s): Steve Lawrence, MD, 314-454-8214, [slawrenc@dom.wustl.edu](mailto:slawrenc@dom.wustl.edu)

Location: 15th Floor Northwest Tower

Elective Contact: Dawn-Michele Cannon, 314-454-8225

Other Information: Students should page the Transplant fellow at 314-536-5253 at 8:00 a.m. on the first day of the elective.

Enrollment limit per period: 2

Valid start weeks for two-week blocks are: Weeks 3, 7, 11, 15, 19, 23, 27, 31, 35, 39, and 43. Must be done in conjunction with 2 weeks of General Infectious Disease

Study of infectious diseases in patients who have had bone marrow or solid organ transplants, or who have a hematologic malignancy. The elective is designed to teach students the fundamentals of evaluating clinical infections in these complex and interesting patients and formulating plans for workup and therapy. Students see consultations in every part of Barnes-Jewish Hospital under the supervision of a faculty member who rounds with them every day. They work closely with infectious disease fellows, follow their own patients and play an important role in their management. They are expected to read the literature about their patients and participate in clinical conferences. They attend teaching rounds and conferences and lectures in infectious

diseases. They also learn appropriate use of antibiotics, antifungal and antiviral agents in this highly immune suppressed population. A wide distribution of infectious diseases is covered including management of neutropenic fever, invasive fungal infections in the transplant population, acute and chronic infections, infection prophylaxis and monitoring and interactions between immunosuppressive agents and antibiotics.

Student time distribution: Inpatient 90%; Conferences/Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Single Attending and Fellow

Patients seen/weekly: 6

On call/weekend responsibility: None

### **M25 858 / AMBULATORY INFECTIOUS DISEASE**

Instructor(s): Nigar Kirmani, MD, 314-747-1214

Location: 15th Floor Northwest Tower and Storz Building

Elective Contact: Lori Watkins, 314-747-1214

Other Information: Students should report to the ID Clinic in the Storz Building, 8:00 a.m. first day of elective.

Enrollment limit per period: 8

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The elective is designed to teach students the fundamentals of evaluating clinical infections in the outpatient setting. Students see patients under the supervision of a faculty member. Students will participate in the care of HIV infected or otherwise immunosuppressed patients as well as general infectious disease and travel patients. The clinic is the primary provider for HIV infected patients, and students will learn the pathogenesis of HIV, become familiar with most antiretroviral medications, and have the opportunity to learn about opportunistic infections and their prophylaxis. They will also have the opportunity to see patients with bone and joint infections, endovascular infections, endemic and opportunistic mycoses, sexually transmitted diseases and travel plans. Patients seen will have a wide range of acute and chronic infections with a

heavy emphasis on HIV/AIDS, including indigent and insured patients, of both sexes and a wide range of ages. The students will play an important role in the management of these patients. They are expected to read the literature about their patients and participate in clinical conferences.

Student time distribution: Outpatient 90%; Conferences/Lectures 10%; Primary Care 20%; Subspecialty Care 80%

Major teaching responsibility: Clinic Attendings

Patients seen/weekly: 15

On call/weekend responsibility: None

### **M25 859 / GENERAL INPATIENT INFECTIOUS DISEASE**

Instructor(s): Nigar Kirnani, MD, 314-454-8214; Rachel Presti, MD, 314-454-8214, [rpresti@dom.wustl.edu](mailto:rpresti@dom.wustl.edu)

Location: 15th Floor, Northwest Tower

Elective Contact: Dawn-Michele Cannon or Alicia Cicerelli, 314-454-8214

Other Information: Students should call Infectious Disease Fellows at either mobile number 314-536-5310 or 314-536-5311 on the first morning of the elective.

Enrollment limit per period: 8

Valid start weeks for two- or four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41. Two week blocks must be done in conjunction with Transplant Infectious Disease or Bone and Joint Infectious Disease.

Study of patients with infectious diseases, including inpatient care of HIV infected patients and general infectious disease consults. The elective is designed to teach students the fundamentals of evaluating clinical problems in infection and formulating plans for workup and therapy. Students see consultations in infectious diseases in every part of Barnes-Jewish Hospital under the supervision of a faculty member who rounds with them every day. They work closely with medical residents and infectious disease fellows, follow their own patients and play an important role in their management. They are expected to read the literature about their patients and participate in clinical conferences. They attend teaching rounds and conferences and lectures in infectious diseases. They also learn appropriate use of antibiotics,

antifungal and antiviral agents. A wide distribution of infectious diseases is covered including community acquired acute and chronic infections, opportunistic infections in HIV infected patients, hospital acquired infections, and basic infection control practices. This is a four-week rotation. Two-week rotations are allowed, but must be done in conjunction with two weeks of Transplant Infectious Disease or Bone and Joint Infectious Disease.

Student time distribution: Inpatient 90%; Conferences/Lectures 10%; Subspecialty Care 100%. Students must be present at 75% of the elective to receive a passing grade.

Major teaching responsibility: Single attending and fellow

Patients seen/weekly: 7 new consults, 15 total

On call/weekend responsibility: None

### **M25 861 / ONCOLOGY-INPATIENT**

Instructor(s): Anna Roshal, MD, 314-454-8306

Location: Division 7900, 7th Floor CAM

Elective Contact: Janet Weier, 314-747-7509

Other Information: Students meet on the 7th Floor CAM, POD B, Medical Oncology Outpatient Area, 8:00 a.m. first day of elective.

Enrollment limit per period: 6 students per block, on average one per attending

Valid start weeks for four-weeks blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Medical Oncology is a complex subspecialty that is undergoing a rapid evolution as a result of new systemic treatment approaches that stem from biological insights into the nature of cancer. During the course of the elective medical students will be able to interact with attending physicians and patients for bed side teaching and attend tumor boards and lectures focused on the care of patients with solid tumors. At the end of the rotation the students will appreciate the principles of our approach to cancer patients and should have gained insights into the pharmacological basis for systemic cancer treatment. The ethical and medical challenges of caring for patients with advanced incurable malignancies will also be an important theme, as well as the conduct of clinical research in this patient population. Students will learn to care for



hospitalized patients suffering from complications from their cancer or from toxicities due to treatments. Oncologic emergencies will be covered. Issues such as palliative care treatment options and end-of-life decision making will be explored as well.

Student time distribution: Inpatient 90%; Conferences/Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: All Medical Oncology Attendings

Patients seen/weekly: 50

On call/weekend responsibility: None

### **M25 862 / INPATIENT INTERNAL MEDICINE/ONCOLOGY-FIRM**

Instructor(s): Anna Roshal, MD, 314-454-8306

Location: North Campus, 7900 Inpatient Floor

Elective Contact: Janet Weier, 314-747-7509

Other Information: Students meet in North Campus, 7900 Inpatient Floor, 7:30 a.m. first day of elective and find an on call resident.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Medical Oncology is a complex subspecialty that is undergoing a rapid evolution as a result of new systemic treatment approaches that stem from biological insights into the nature of cancer. During the course of the elective medical students will be able to interact with attending physicians and patients for bed side teaching and attend tumor boards and lectures focused on the care of patients with solid tumors and lymphoma. At the end of the rotation the students will appreciate the principles of our approach to cancer patients and should have gained insights into the pharmacological basis for systemic cancer treatment. The ethical and medical challenges of caring for patients with advanced incurable malignancies will also be an important theme, as well as the conduct of clinical research in this patient population. Students will learn to care for hospitalized patients suffering from complications from their cancer or from toxicities due to treatments. Oncologic emergencies will be covered. Issues such as palliative care treatment options and end-of-life decision making will be explored as well. Major

learning goals:

(1) Become familiar with frequent complications of cancer treatment such as neutropenic fever, nausea/vomiting, diarrhea, infectious complications and their management.

(2) Become familiar with oncologic emergencies (spinal cord compression, hypercalcemia, neutropenic sepsis) and their management.

(3) Become more comfortable interacting with patients and families requiring difficult psychosocial and end-of-life discussions.

Student time distribution: Inpatient 100%; Subspecialty Care 100%

Major teaching responsibility: All Oncology attendings

Patients seen/weekly: 50

On call/weekend responsibility: One-in-four call, with their assigned inpatient team.

## **M25 863 / EMERGENCY ULTRASOUND**

Instructor(s): Deborah Kane, MD, and staff, 314-747-4156

Location: Barnes-Jewish Hospital, North Campus

Elective Contact: Mary Hummert, 314-747-4156

Other Information: Students meet at the Emergency Department at Barnes Jewish Hospital at 10:00 a.m. on the first day of the elective.

Enrollment limit per period: 1 unless otherwise approved by Course Master

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This rotation will focus on ultrasound and all of its many applications and uses in the Emergency Department. Students will participate in the performance of bedside ultrasound of patients in the Emergency Department. Common applications of Emergency Ultrasound include the FAST exam, pelvic ultrasound, Abdominal Aortic Aneurysm (AAA), vascular access, renal, gallbladder, and DVT. In general, the student will be in the Emergency Department during weekdays to perform these exams.

Students will not be involved in direct patient care during this rotation. Students will have access to a lecture bank of the common applications. In addition, the student will meet with the Ultrasound Director 1-2 times/wk to review images and have direct hands-on instruction. At the end of the rotation the student should have gained the knowledge of basic Emergency Ultrasound including its indications and applications; as well as becoming more adept at the performance of ultrasound.

Student time distribution: Outpatient 80%; Conferences/Lectures 20%; Primary Care 40%; Subspecialty Care 60%

Major teaching responsibility: Attendings

Patients seen/weekly: 25

On call/weekend responsibility: None

### **M25 865 / INTENSIVE CARE MEDICINE – BARNES-JEWISH 8300**

Instructor(s): Warren Isakow, MD, and staff, 314-454-8762

Location: Barnes-Jewish Hospital, 8300 South Campus

Elective Contact: Lisa Wetzel, 314-454-8762

Other Information: Students meet at the MICU (8th Floor Barnes-Jewish Hospital, South Campus), 7:30 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This elective in intensive care is offered in the Intensive Care Unit at Barnes-Jewish Hospital, South Campus. This unit has 16 intensive care beds providing intensive nursing care and life-support technology. The patients represent a mixture of patients with primarily medical problems. Patient care responsibility includes night call. In addition to patient responsibility, there are regularly scheduled conferences and attending rounds.

Student time distribution: Inpatient 100%; Subspecialty Care 100%

Major teaching responsibility: Attendings and residents

Patients seen/weekly: 8

On call/weekend responsibility: Every third night

### **M25 867 / MEDICAL INTENSIVE CARE**

Instructor(s): Warren Isakow, MD, 314-454-8762

Location: Barnes-Jewish Hospital, South Campus

Elective Contact: Lisa Wetzel, 314-454-8762

Other Information: Students report to the Medical Intensive Care Unit, 8400 Barnes-Jewish Hospital, South Campus, 7:30 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This elective is offered as an opportunity to gain additional experience in acute, primary care medicine. The elective is an advanced course in patient care involving complex medical problems. Responsibilities involve working up new patients with the MICU team, case presentations and attendance at conferences. Conferences consist of attending rounds Monday through Saturday, radiology rounds Monday through Saturday, pulmonary conference and medical grand rounds on Thursday, and critical care conference once each month. Call schedule is every third night.

Student time distribution: Inpatient 90%; Conferences/Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attendings and residents

Patients seen/weekly: 3

On call/weekend responsibility: Yes

### **M25 869 / PALLIATIVE MEDICINE**

Instructor(s): Maria Dans, MD, Course Master, 314-362-5800, [mdans@dom.wustl.edu](mailto:mdans@dom.wustl.edu), BJH Palliative Care Service members

Location: 4105 Suite, Queeny Tower, Barnes-Jewish Hospital South Campus

Elective Contact: Nicole Williams, 314-747-5361, [nsw2227@bjc.org](mailto:nsw2227@bjc.org)

Other Information: Please email the Course Master and Elective Contact at least one week before start of elective. Reporting time is 8:45 a.m. first day of elective

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The Palliative Medicine elective will focus on the care of patients with life-threatening or debilitating illness throughout the course of their care. Skills in symptom management, communication, and interdisciplinary team-based care will be the focus. Students will spend the majority of their time on the BJH Palliative Care Service. Based on the individual student's interest, there may also be opportunities to work with the BJC Hospice Team and the St. Louis Children's Hospital Palliative Care Service.

While in the hospital, students will be responsible for seeing patients upon initial assessment as well as delivering follow-up care with the team. Patients will be seen for both end-of-life care as well as symptom management. Students will learn to assess and treat refractory symptoms and participate in complicated advanced care planning. Students will attend interdisciplinary team meetings, and may participate in conversations about goals of care and coping with bad news. They may also make home visits with hospice care providers, if desired. Emphasis will be placed on observing and understanding the psychosocial and spiritual needs of the patients, as well as the impact of the burden on caregivers. In addition, students will be expected to lead bi-weekly presentations/group discussions on selected aspects of Palliative Medicine with the BJH Palliative Care team.

Student time distribution: Inpatient 85%; Conferences/Lectures 15%; Subspecialty Care 100%

Major teaching responsibility: BJH Palliative Care Attendings (Maria Dans, MD; Mike Koller, MD; and Anna Roshal, MD); BJH Palliative Care Team Members; BJC Hospice Medical Director (Bernard Shore, MD); SLCH Palliative Care Service Medical Director (Joan Rosenbaum, MD)

Patients seen/weekly: 10

On call/weekend responsibility: None

**M25 870 / ENDOCRINOLOGY, DIABETES AND METABOLISM**

Instructor(s): Clay F. Semenkovich, MD, and staff, 314-362-7617

Location: 8th Floor Southwest Tower, Barnes-Jewish South Campus

Elective Contact: Karen Muehlhauser, 314-362-7617

Other Information: Students meet on 8th Floor Southwest Tower, Barnes-Jewish South Campus, 8:15 a.m. first day of elective.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

In general, the four-week rotation will be divided into 2 weeks of general endocrinology and 2 weeks of diabetes. Students taking this elective will perform consultations with fellows and faculty on the inpatient services at Barnes-Jewish Hospital and will also see patients with endocrine and metabolic diseases in the Outpatient Consultation. They will present these cases daily on teaching rounds. They will also participate in case conferences and seminars on a weekly basis. Extensive interaction with patients with diabetes and a diabetes education program are included, as is involvement with patients with thyroid, pituitary, adrenal, gonad, metabolic bone disease, and lipid disorders. Ample opportunities will be provided for discussions of patient problems with the members of the division. A variety of outpatient clinics are offered in the division and interested students should speak with the fellows and faculty members to customize the learning experience to match his or her career goals.

At the end of the rotation, it is expected that students will have the ability to initiate inpatient and outpatient management of diabetes including insulin dosing and glucose monitoring, as well as evaluate and treat of a variety of endocrine disorders including but not limited to thyroid, pituitary, and adrenal disease. Students will learn to perform effective inpatient and outpatient consultations.

Student time distribution: Inpatient 60%; Outpatient 30%; Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Faculty consultant for inpatients, individual faculty one-on-one for outpatients and division chief for both

Patients seen/weekly: 8-10

On call/weekend responsibility: Elective for students

## **M25 871 / ONCOLOGY-OUTPATIENT**

Instructor(s): Maria Bagstrom, MD, 314-362-5817

Location: Siteman Cancer Center, CAM Building, Siteman West County, Siteman South County

Elective Contact: Krista Mercille, 314-747-7409, [kmercill@dom.wustl.edu](mailto:kmercill@dom.wustl.edu)

Other Information: On the first day of the elective, students will meet in clinic at 8:00 a.m. Directions will be provided for each of the clinics.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Students will gain experience in the initial treatment of newly diagnosed malignancies and the outpatient management of oncology patients. Participation in multidisciplinary tumor conferences will stress a combined-modality approach to management, incorporating chemotherapy, radiotherapy and surgery. Students will see patients with a variety of malignancies, including lymphoma, myeloma, and tumors of the lung, breast, and colon. Management of hypercalcemia and other paraneoplastic syndromes, as well as cancer pain management will be covered. Students will have the opportunity to see how most oncologists spend 90% of their workday. They will observe different styles that oncologists have in presenting news about prognosis, treatment options and other information to patients while they also learn about the molecular basis for cancer, the mechanisms of action for our therapies (particularly the newer agents which target specific molecular abnormalities) and the key studies that justify the use of therapies (e.g. randomized studies showing that after surgery, chemotherapy will reduce the risk of recurrence from a particular cancer with a particular regimen). By spending time with clinicians, students will learn how to identify hereditary syndromes, use drugs for symptom relief and also learn how radiographic and laboratory tests allow oncologists to care for patients.

Student time distribution: Outpatient 85%; Conferences/Lectures 15%; Subspecialty

Care 100%

Major teaching responsibility: Oncology attendings and occasionally fellows

Patients seen/weekly: 30-50

On call/weekend responsibility: None

### **M25 877 / INTENSIVE ECG INTERPRETATION**

Instructor(s): Robert E. Kleiger, MD; 314-454-8146

Location: 13th Floor Northwest Tower

Elective Contact: Marge Leaders, 314-454-8146; [mleaders@dom.wustl.edu](mailto:mleaders@dom.wustl.edu)

Other Information: Contact Marge Leaders, 13th Floor Northwest Tower, on the first day of elective at 9:00 a.m.

Enrollment limit per period: 2

Valid start weeks for two-week blocks are: Weeks 1, 5, 11, 17, 19, 27, 29, 31, 33, 35, 37, 39, 41, and 43.

The student, during the two-week elective, will read 20-25 ECGs obtained from the Barnes-Jewish Heart Station and then over read by an experienced electrocardiographer. There will also be didactic sessions covering infarction, ventricular hypertrophy, heart block, arrhythmias, and aberrant conduction.

Student time distribution: Inpatient 0%; Outpatient 0%; Conferences/ Lectures 100%;

Subspecialty Care 100%

Major teaching responsibility: Attending

Patients seen/weekly: N/A

On call/weekend responsibility: None

### **M25 879 / PULMONARY CLINIC FOR THE UNDERSERVED**

Instructor(s): Barbara Ann Lutey, MD

Location: Wohl Hospital, 5th Floor

Elective Contact: Barbara Ann Lutey, MD, 314-747-8492, [blutey@dom.wustl.edu](mailto:blutey@dom.wustl.edu)

Other Information: Students should report to the Center of Outpatient Health, Suite 420, at 9:00 a.m. on the first day of the elective.

Enrollment limit per period: 2



Valid start weeks for two-week blocks are: Weeks 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, and 43.

Clinical setting: Outpatient Clinic dedicated to providing pulmonary specialty care to patients who are predominantly uninsured or who rely upon public assistance such as Medicaid.

Student role: Students independently interview and examine patients and present findings to the attending, tests and imaging are reviewed, and provider and attending develop plan.

Common problems/diseases: Asthma, COPD, sarcoidosis, lung cancer, and obstructive sleep apnea are commonly seen. Also, patients are referred for evaluation of abnormal x-rays and for symptoms such as dyspnea.

Primary learning objectives:

to understand and practice important history and exam skills in pulmonary medicine: symptoms, smoking history, work and environmental exposures, and important pulmonary physical exam findings.

to understand the basics of pulmonary function tests, chest imaging, and methods for tissue sampling.

to understand the basis of treatment of common pulmonary disorders.

Conferences: There is no conference associated with this clinic, but students may attend the usual Thursday morning Medicine Grand Rounds at 8:00 a.m. and the Pulmonary Grand Rounds at 11:00 a.m. if the subject matter is appropriate.

Student time distribution: Outpatient 100%; Conferences/Lectures Vary; Subspecialty Care 100%

Major teaching responsibility: Barbara Ann Lutey, MD

Patients seen/weekly: 12-20

On call/weekend responsibility: None

## **M25 880 / PULMONARY MEDICINE – BARNES-JEWISH HOSPITAL**

Instructor(s): Daniel Rosenbluth, MD, and staff, 314-454-8762

Location: 15th Floor, Northwest Tower

Elective Contact: Lisa Wetzel, 314-454-8762

Other Information: Students should page Pulmonary Consult Fellow, 7:30 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Students will acquire skills in the evaluation and management of patients with pulmonary diseases and in the interpretation of pulmonary function tests. They will gain experience in outpatient Lung Center and attend regular pulmonary and critical care medicine conferences.

Student time distribution: Inpatient 60%; Outpatient 20%; Conferences/ Lectures 20%; Subspecialty Care 100%

Major teaching responsibility: Multiple attendings, fellows and residents

Patients seen/weekly: 20

On call/weekend responsibility: None

### **M25 882 / PULMONARY MEDICINE – VA HOSPITAL**

Instructor(s): Michael Lippmann, MD, 314-289-6306

Location: John Cochran VA Hospital

Elective Contact: Michael Lippmann, MD, 314-289-6306

Other Information: Students meet in 6C-MICU John Cochran VA Hospital, 7:30 a.m. first day of elective.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Students will participate in several ambulatory care activities of the Pulmonary Section, including outpatient consultations of common respiratory disorders such as COPD, obstructive sleep apnea, lung cancer and tuberculosis, and follow-up of primary care patients with pulmonary disease. In addition, students will round in medical intensive care units, interpret pulmonary function tests, participate in bronchoscopy and attend

scheduled teaching conferences of the Pulmonary Division.

Student time distribution: Inpatient 30%; Outpatient 50%; Conferences/ Lectures 20%;

Subspecialty Care 100%

Major teaching responsibility: Several attendings

Patients seen/weekly: 6-10 (by student)

On call/weekend responsibility: None

## **M25 884 / BONE MARROW TRANSPLANTATION AND STEM CELL BIOLOGY**

Instructor(s): John F. DiPersio, MD, PhD, 314-362-9339

Location: Bone Marrow Transplant Unit 13-100

Elective Contact: John F. DiPersio, MD, PhD, or Cathy Wiggins, 314-454-8491

Other Information: Students meet in the Bone Marrow Transplant Unit, 8:30 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Intense four-week clinical rotation exposing interested fourth-year medical students to the clinical world of bone marrow transplantation and to the basic science of hematopoiesis, leukemia, and stem cell biology. Students will be primarily responsible for the care of autologous and allogeneic BMT recipients and those patients being treated for a variety of hematologic malignancies such as AML, ALL, multiple myeloma and Non-Hodgkin's Lymphoma. In addition they will be exposed to methods of stem cell harvest, cryopreservation, and immunophenotyping. This rotation plans to provide motivated students with an ideal mix of clinical medicine and basic science.

Student time distribution: Inpatient 60%; Outpatient 20%; Conferences/ Lectures 20%;

Subspecialty Care 100%

Major teaching responsibility: Attending on service as well as all BMT physicians

Patients seen/weekly: 10-20

On call/weekend responsibility: None

## **M25 885 / OCCUPATIONAL/ENVIRONMENTAL MEDICINE**

Instructor(s): Bradley Evanoff, MD, MPH, 314-454-8638

Location: Taylor Avenue Building

Elective Contact: Debbie Howard, 314-454-8638

Other Information: Students should meet at GMS Suite, Taylor Avenue Bldg., 9:00a.m. first day of elective.

Enrollment limit per period: 1 (2, by special arrangement)

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41. (Students may take this elective for up to 12 weeks.)

This elective is designed to introduce students to research and practice in the prevention of work-related injuries and illnesses, and prevention of health effects related to environmental exposures. Preventive activities will include work site visits and intervention projects, as well as involvement with work site health promotion and policy making. Research projects involve epidemiology and intervention projects in work-related injury and musculoskeletal disorders. Specific activities are flexible depending on the students' interests.

Students may elect to participate in the Interdisciplinary Environmental Clinic at Washington University. Based in the law school, the clinic involves interdisciplinary teams of students (law, engineering, environmental science) taking principal responsibility, under faculty supervision, for cases and projects on behalf of environmental and community organizations. The medical student(s) assist clinic students by evaluating the human health impacts involved in one or more of the clinic's cases, and presenting such information to the client organization(s) and others.

Among the cases on which medical students might participate are: (1) air pollution associated with factories in the St Louis metropolitan area; (2) lead poisoning of children and adults in St. Louis and surrounding towns; (3) air and water pollution caused by concentrated animal feeding operations (factory farms) in Missouri. Students choosing this option will work with the Environmental Clinic staff and with Dr. Evanoff to evaluate and present evaluations of human health impacts of environmental exposures.

Student time distribution: Conferences/Lectures 10%; Policy activities/Research 90%;  
Subspecialty Care 100%

Major teaching responsibility: Attending

Patients seen/weekly: 0

On call/weekend responsibility: None

### **M25 887 / CLINICAL CARDIOVASCULAR MEDICINE**

Instructor(s): Thomas F. Martin, MD, FACC; and Timothy J. Martin, MD, FACC, CCDS, 573-308-1301

Location: Phelps County Regional Medical Center, Rolla, MO

Elective Contact: Annette Wells, 573-308-1301, [wellsa@pcrmc.com](mailto:wellsa@pcrmc.com)

Other Information: Students should arrive at Washington University Heart Care Institute in Rolla, 1050 W. 10th Street, Suite 500 at 8:00 a.m. the first day of elective, and will be escorted to the unit where Dr. Martin is rounding.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 25, 29, 33, and 37.

Clinical cardiology with some internal medicine in a rural setting. Inpatient and Outpatient care. Diagnostic Testing. Device Implants and follow up care. Cardiac Catheterization. Peripheral Vascular angiography and intervention.

Student time distribution: Inpatient 50%; Outpatient 50%; Subspecialty Care 100%

Major teaching responsibility: Attending

Patients seen/weekly: 100

On call/weekend responsibility: None

### **M25 890 / CLINICAL NEPHROLOGY**

Instructor(s): Steven Cheng, MD, 314-362-3204

Location: Chromalloy American Kidney Center, Barnes-Jewish Hospital

Elective Contact: Kim Knolhoff, 314-362-7211

Other Information: Students meet in the Acute Dialysis Center, Division 14300, Barnes-Jewish Hospital, 8:00 a.m. first day of elective. Ask for the Renal Fellow on the Consult Service.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Students rotate through inpatient and outpatient experiences to gain exposure to all facets of nephrology. They will spend the majority of their time on an inpatient consult service, gaining exposure to acute and chronic renal failure, glomerulonephritis, and electrolyte disorders. During this time, they will serve as a fully integrated member of the consult team, evaluating underlying causes of kidney disease, performing diagnostic procedures, formulating management plans, and engaging in decision-making discussions with primary services and families. In addition, students will have the opportunity to experience ICU nephrology, the transplant service, the various CKD clinics, and all modalities of dialysis, including in-center, home, and peritoneal dialysis.

Student time distribution: Inpatient 70%; Outpatient 20%; Conferences/Lectures 10%; Primary Care 20%; Subspecialty Care 80%

Major teaching responsibility: Weekly pathophysiology/case conferences; Teaching rounds run by 3 attending physicians and 2 fellows.

Patients seen/weekly: Four consults per week

On call/weekend responsibility: Students are not required to take call or round on weekends.

## **M25 893 / ADULT ALLERGY AND CLINICAL IMMUNOLOGY**

Instructor(s): H. James Wedner, MD, 314-454-7376

Location: 15th Floor, Northwest Tower

Elective Contact: Jill Munoz, 314-454-7376

Other Information: Students meet Jessica Champlin in the Allergy and Immunology division office, 15th Floor, Northwest Tower, 8:00 a.m. first day of elective.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Students will participate in the allergy consult service at Barnes-Jewish Hospital, North and South Campus. The student will serve as the primary allergy consult for inpatient and Emergency Room consultation and present each patient to the allergy fellows on call and the attending physician. Students will attend The Adult Allergy Clinic, Pediatric Allergy Clinic, and the outpatient clinics at The Asthma & Allergy Center at Barnes-Jewish West County Hospital. Conferences on selected topics in allergy and clinical immunology will be held with the attending staff two to three afternoons a week.

Student time distribution: Inpatient 10%; Outpatient 75%; Conferences/ Lectures 15%; Subspecialty Care 100%

Major teaching responsibility: Attending and staff

Patients seen/weekly: 12

On call/weekend responsibility: Optional

### **M80 809 / AMBULATORY CARE – JACQUELINE MARITZ LUNG CTR**

Instructor(s): Daniel Rosenbluth, MD, 314-454-8762

Location: Barnes-Jewish Hospital, North Campus, Lung Center, 8th Floor CAM

Elective Contact: Lisa Wetzel, 314-454-8762

Other Information: Students meet in the Lung Center, 8th Floor CAM, Barnes-Jewish Hospital, North Campus, 8:00 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 17, 21, 25, 29, 33, 37, and 41.

The Jacqueline Maritz Lung Center houses the ambulatory care activities of the Divisions of Pulmonary Medicine, Thoracic Surgery, and Allergy/Immunology, as well as the pulmonary function laboratory. The student will rotate through (1) both general pulmonary and subspecialty clinics in Pulmonary Medicine (cystic fibrosis, transplantation, emphysema, etc.), (2) Thoracic Surgery clinic, (3) Allergy/ Immunology clinic, and (4) interpretation of pulmonary function tests. Chest imaging is also emphasized in the evaluation process. The rotation can be streamlined to meet areas of emphasis desired by individual students.

Student time distribution: Outpatient 100%; Conferences/Lectures 3-5 week; Primary

Care 15%; Subspecialty Care: 85%

Major teaching responsibility: Multiple attendings

Patients seen/weekly: >20

On call/weekend responsibility: None

## Research — Medicine

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(M25 900)

Dana R. Abendschein, PhD

9924 Clinical Sciences Research Building

314-362-8925

Research in this translational physiology laboratory is focused on development of novel antithrombotic approaches for use during acute myocardial infarction, stroke, and surgery where vascular injury is an underlying mechanism. Current studies are designed to define the efficacy of targeting antithrombotics to the surface of injured vascular cells and activated platelets on thrombus progression. One approach uses nanoparticles covered with epitopes to bind exposed receptors on thrombus and containing inhibitors of coagulation or platelet activation. Students will be expected to participate in experiments using animal models and will develop skills in experiment design, vascular physiology, clinical antithrombotic therapy, coagulation, histopathology, and statistics.

John P. Atkinson, MD

10th Floor Clinical Sciences Research Building



314-362-8391

A clinical research elective is offered in the evaluation of patients with complement deficiency or overactivity states and with undiagnosed rheumatic disease syndromes.

Roberto Civitelli, MD

BJCIH 11th Floor, Musculoskeletal Research Center

314-454-8408

The biology of cell-cell interactions and communication in bone via gap junctions and cell adhesion molecules. Function of connexins and cadherins in transcriptional control of osteoblast differentiation, osteoclastogenesis, and mechanotransduction. Modulation of mesenchymal lineage allocation and osteogenic differentiation by cadherins and beta-catenin signaling.

Nicholas O. Davidson, MD

910 CSRB North Tower

314-362-2027

Genetic pathways for nonalcoholic fatty liver disease (NAFLD) and colorectal cancer development. We have two major areas of research interest. Our laboratory is interested, first, in the molecular mechanisms of hepatic steatosis, and the pathogenesis of NAFLD. This is the most prevalent liver disease in the US, likely affecting a quarter of the population. We have generated genetically manipulated mouse strains that offer insights into the mechanisms of hepatic steatosis. The student would work as part of a team, designing and conducting experiments that will test hypotheses concerning the mechanisms and consequences of hepatic steatosis. These studies will primarily involve mouse genetics, examining the expression of candidate genes under a variety of nutritional and pharmacologic settings that modulate hepatic lipid metabolism. In addition we are using microarrays to study the spectrum of genetic changes that may predict the extent of hepatic lipid accumulation in patients with steatohepatitis. Our goal is to test hypotheses using mouse genetics and to extend these studies to examine the same pathways in humans with NAFLD. Our second area of interest concerns the genetic pathways involved in colorectal cancer, the second leading cause of cancer-related deaths. We have developed a novel

strain of mice in which the dominant effects of mutations in the APC tumor suppressor gene have been abrogated through deletion of an RNA binding protein, apobec-1. This deletion has a major effect on the expression of cox-2, abrogating the increase in expression seen in human colonic adenomas and wild type mouse intestinal adenomas. These findings suggest that apobec-1 is a genetic modifier of colon cancer development. We will study the importance of apobec-1 expression in human colon cancer specimens and continue our murine genetic studies of this novel pathway for modulating colon cancer development and progression.

Thomas M. DeFer, MD

6604 Wohl Hospital

314-362-8050, [tdefer@dom.wustl.edu](mailto:tdefer@dom.wustl.edu)

Special Projects in Medical Education. Through special arrangement with and approval by the Course Master, 4th year students will participate in special projects in medical education. Typical projects will require approximately four weeks to complete. These four weeks can occur consecutively (preferred) or be spread out somewhat as needed. Medical education projects should be aimed at improving the curriculum, student experience, and/or administration of the Internal Medicine Clerkship or the Subinternship. Interested students should contact the Course Master via phone or e-mail to discuss the proposed project. Those who are interested but would like guidance in designing a project should also contact the Course Master. This is open only to Washington University School of Medicine students.

Matthew Ellis, MB, BChir, PhD

Room 724, Southwest Tower

314-747-3613

Genomics of Breast Cancer. The demonstration that the HER2 gene was amplified in breast cancer heralded the “genomic era” for this disease which ultimately led to major clinical advances for HER2-positive disease. The HER2 discovery was based on a search for cancer specific anomalies in the cellular homologs of the acutely transforming retroviral oncogenes described in birds and mammals. However HER2 gene amplification is now recognized to be only one of a large number of somatic

mutations that occur in breast cancer. In the last ten years, my clinical and laboratory efforts have focused on the development of a luminal (hormone receptor positive) breast cancer genome atlas to elucidate the complexity of the somatic changes in the breast cancer genome responsible for tumors resistant to current therapies. During these efforts we established a body of work on the practice of treating postmenopausal women with large palpable hormone receptor rich tumors with four months of an aromatase inhibitor. The ultimate scientific goal of these efforts is to create specimen banks and biomarker data from thousands of patients to create sufficient statistical power to robustly link genomic screens to clinical outcomes so we can eventually focus our basic science efforts on the most lethal genetic events.

Over the last year, we have undertaken a comprehensive analysis of the tumor samples accrued, including “whole genome” gene expression chips, high resolution array comparative hybridization analysis and candidate gene sequencing. The gene lists we are currently generating, particularly those from the marriage of expression profiling and array comparative hybridization, suggest a host of new therapeutic targets are ready to be exploited. Functional characterization of these genes has begun, and this effort is a major focus in the laboratory. Elective students will focus on projects that relate to individual oncogene candidates. The scope of the project will be commensurate with elective time commitment but participation may include interpretation of genomic data, confirmatory studies on gene over-expression in cell lines and tissues and functional studies using gene transfer, gene knock-down and pharmacological targeting to verify the identity of bone fide therapeutic targets for further investigation. Attendance at weekly lab meetings is expected.

Bradley Evanoff, MD, MPH

314-454-8638

Occupational medicine epidemiology and intervention research. My research involves the use of epidemiology methods to characterize associations between diseases and work-related exposures. I am also doing workplace intervention studies to prevent injuries and illnesses, and to improve healthy diet and physical activity among working populations. During an elective in occupational medicine epidemiology research,

students will learn how to use epidemiologic methods to investigate disease processes by working on a mutually agreed-on topic of interest related to occupational diseases. Other activities can include work site visits and intervention projects, as well as involvement with work site health promotion and policy making. Elective length is variable depending on individual circumstances. Please contact Dr. Evanoff to discuss this research.

Gregory I. Goldberg, PhD,

7740 Barnard

314-362-8172

Role of secreted extracellular matrix metalloproteases in tissue remodeling. Structure and function of the metalloproteases.

Richard W. Gross, MD, PhD

4525 Scott Avenue, East Building

314-362-2690

Lipid mediators of signal transduction in the cardiovascular system. Characterization of regulatory mechanisms responsible for the liberation of lipid second messengers during cellular activation. The roles of phospholipases in mediating the metabolic syndrome and end-organ tissue damage.

Marc R. Hammerman, MD

7704 Wohl Clinic

314-362-8233

Studies characterizing the transplantation of kidney and pancreatic anlage as a means to "grow new organs" in the settings of end-stage chronic renal failure and diabetes mellitus.

Stacey House, MD, PhD

houses@wustl.edu, 314-362-8070

or Lisa Hayes, [hayesli@wusm.wustl.edu](mailto:hayesli@wusm.wustl.edu), 314-362-4362

Emergency Medicine Clinical Research. Emergency medicine clinical research involves the gamut of research designs ranging from retrospective cohort studies (The Use of B

Hydroxy Butyrate Point-of-Care Testing in Diabetic Ketoacidosis), to prospective clinical trials (Biomarkers in Traumatic Brain Injury), to the evaluation of healthcare systems and Emergency Department processes (Effects of a Triage Process Conversion on the Triage of High Risk Presentations.), to analyzing health policy issues (Rate of Follow-up to a Primary Care Clinic and Subsequent Emergency Department Utilization among an Urban ED Population). Students will learn the basic clinical research designs and will be able to articulate the benefits and drawbacks of each. They will be involved in hypothesis generation and study design for projects that are at that stage. For ongoing projects, they will learn about the informed consent process and be involved in screening for study subjects and subject selection and enrollment. They will be allowed to consent for studies judged to be minimal risk. Students will be taught important rules regarding data acquisition and entry, particularly as it relates to standards that have been set forth in the medical literature. They will learn about bias and inter-rater reliability. Students will participate in data entry, data analysis, and subsequent abstract/manuscript preparation based on their level of interest and ability for time commitment. Students will meet weekly with one of the course masters to discuss study progress and to identify any roadblocks to study completion. These meetings will also serve as a forum for one on one education of the student regarding study methodology, ethical issues in research, and various resources available to the clinical researcher at Washington University.

Keith A. Hruska, MD

5th Floor McDonnell Pediatric Research Building

314-286-2772

Our laboratory's focus is on two aspects of kidney diseases: the progression of chronic kidney disease (CKD), and the syndrome of the CKD-mineral bone disorder (CKD-MBD). The latter is an important cause of mortality associated with CKD. We have discovered the pathogenesis of the CKD-MBD in early stage 2 CKD. We have ongoing studies of CKD stimulated vascular calcification in which we have discovered the mechanism of atherosclerotic plaque calcification stimulated by phosphorus. We are analyzing phosphorus as a cardiovascular risk factor, and new therapies for chronic kidney disease, the CKD-MBD, and vascular calcification.

Stuart A. Kornfeld, MD

8th Floor Clinical Sciences Research Building

314-362-8803

Synthesis, processing and sorting of glycoproteins, including lysosomal enzymes.  
Intracellular protein trafficking.

Sandor J. Kovacs, MD, PhD

9965 Clinical Sciences Research Building

314-362-8901

For students with math, physics and engineering background. Cardiovascular biophysics research elective concentrates on physiologic modeling and comparison of model predictions to in vivo human data. Minimum of eight weeks of elective time.

Jack Ladenson, PhD

314-454-8436

Development of monoclonal and single-chain antibodies for use in research and in diagnostic testing.

Marc S. Levin, MD, and Deborah C. Rubin, MD

922/924 Clinical Sciences Research Building

314-362-8933, 314-362-8935

Students will be members of a collaborative research team headed by Drs. Levin and Rubin (Department of Medicine) investigating the mechanisms underlying the intestinal adaptive response that occurs to compensate for loss of functional small intestine. A second project focuses on epithelial-mesenchymal interactions and their role in regulating gut epithelial proliferation carcinogenesis and the normal and cancer stem cell niche. Specific mechanisms under investigation include the function of an immediate early gene Tis7 on gut adaptation following resection or injury. The role of myofibroblast protein epimorphin in regulating cell proliferation and colon carcinogenesis is being explored. The student will have the opportunity to learn basic molecular biology and physiology as it relates to small intestinal growth, and function. Examples of techniques that are used in these studies include small animal surgery and colitis and cancer models (mice and rats), molecular biological techniques

including PCR, Northern blotting, vector construction for production of transgenic and knockout mouse models, in situ hybridization and immunohistochemistry.

Philip W. Majerus, MD

8th Floor Clinical Sciences Research Building

314-362-8801

Biochemistry of platelets, regulation of lipid metabolism in tissue culture; mechanism of platelet thrombus formation.

Jeffrey D. Milbrandt, MD, PhD

101 Biotechnology Center

314-362-4650

We have several ongoing projects in our laboratory that focus on peripheral neuropathy and neurodegenerative diseases. (1) Using high throughput screening methods to dissect the molecular program responsible for dismantling injured and/or unhealthy axons with the goal of identifying drugs to treat neurological disorders. (2) Using genetics and metabolomics to understand how metabolic deficits in glia lead to neuropathy and axon breakdown. (3) Developing new genetic tools for in vivo and in vitro assays aimed at characterizing the role of non-myelinating Schwann cells in acquired peripheral neuropathies such as diabetic neuropathy. (4) Implementing novel, high-throughput genome engineering technologies in induced pluripotent stem cell-derived neurons to perform functional genomic screens for pathways involved in axon regeneration.

Jason C. Mills, MD, PhD

Room 1030 CSRB North Tower

314-362-4213

We investigate the differentiation of epithelial stem cells in the upper GI tract. We study how genes regulate differentiation in mouse models and in vitro in tissue culture, and we correlate our findings with human tissue specimens. Specific projects include: (1) understanding how inflammation leads to aberrant differentiation (metaplasia), which is a precursor for cancer; (2) elucidating how master regulatory transcription factors like Xbp1 and Mist1 coordinate the massive cytoskeletal and

organellar expansion of specialized secretory cells as they differentiate from stem cells; and (3) understanding mechanisms regulating how differentiated cells can be reprogrammed into stem cells in GI organs like stomach and pancreas.

Stanley Mislner, MD, PhD

815 Yalem Building, Barnes-Jewish Hospital

314-454-7719

Stimulus-secretion coupling in endocrine cells (B-islet cells and adrenal chromaffin cells) examined using single-cell assays of secretion (capacitance measurements, amperometry).

Ginger E. Nicol, MD

4412 Renard Building

314-362-5939

Clinical research concerning substrate (glucose and lipid) metabolism and the regulation of weight and body composition in persons with mental illness, particularly concerning the effect of psychotropic medications. This elective offers the student a broad exposure to clinical research protocols, including protocols in adults and children. Students will have an opportunity to focus on a particular project of interest.

Amit Noheria, MBBS, SM

Northwest Tower 13th Floor

314-249-7352

Clinical Outcomes in Patients with Cardiac Implantable Electronic Devices: Clinical research to evaluate outcomes in patients with cardiac implantable electronic devices (CIEDs).

1. Risk of stroke in patients with patent foramen ovale and CIEDs.
2. Predictors of hemodynamically unstable ventricular arrhythmias in patients with left ventricular assist devices (LVADs).

Richard E. Ostlund, MD

8804 Wohl Hospital



314-362-8286

Our laboratory focuses on the prevention and treatment of coronary heart disease by studying cholesterol absorption, detoxification and elimination from the body. Direct patient studies that use new stable isotopic cholesterol tracers and mass spectrometry techniques complement in vitro work on the biochemistry of cholesterol transport in cultured cells.

Russell Pachynski, MD

BJC Institute of Health, 7th Floor

314-286-2341

My lab focuses on several aspects of tumor immunology and translational immunotherapy. We utilize mouse tumor models, human tissues and samples, and advanced molecular and immunologic techniques to look study leukocyte trafficking in the setting of tumor development and progression. We also have projects focusing on developing novel immunotherapeutics aimed at augmenting the recruitment of beneficial leukocyte subsets into the tumor microenvironment in order to suppress tumor growth. We are utilizing several approaches such as nanoparticles, fusion proteins, and viruses.

Katherine Ponder, MD

8818 Cancer Science Research Building

314-362-5188, [kponder@wustl.edu](mailto:kponder@wustl.edu)

Gene Therapy for Lysosomal Storage Diseases. Our laboratory is interested in using gene therapy to treat lysosomal storage diseases such as mucopolysaccharidosis (MPS). We have developed a retroviral vector that can be efficiently delivered to the liver of mice and dogs, and results in expression that is sufficient to reduce many of the clinical manifestations of these genetic diseases. Current studies focus upon assessing the therapeutic effect of gene therapy on sites that are affected in MPS such as the heart, aorta, bones, and joints, and developing vectors that might be translated into human patients. In addition, we are evaluating the pathogenesis of disease in MPS, which appears to involve the upregulation of destructive proteases in the aorta and possibly other sites. A better understanding of the pathogenesis of disease might

result in additional therapies for MPS.

Clay F. Semenkovich, MD

8th floor, Southwest Tower

314-362-4454

Fatty acid metabolism and its role in atherosclerosis, diabetes, hypertension, and obesity. The modulation of respiratory uncoupling for the treatment of aging, obesity, and vascular disease.

Phyllis K. Stein, PhD

Room 13116 Northwest Tower

314-286-1350, [pstein@dom.wustl.edu](mailto:pstein@dom.wustl.edu)

Clinical Significance of Heart Rate Variability and ECG-Derived Waveform Parameters Obtained from Continuous Ambulatory Monitoring. This elective affords the opportunity to perform research in heart rate variability or in other measurements, like QT variability or T-wave alternans that can be derived from continuous ECG monitoring from Holter recordings or polysomnography recordings in the sleep lab. One area of active research is the identification of heart rate patterns associated with obstructive and central sleep apneas and hypopneas and the relationship of previously unappreciated cycling heart rate patterns and outcomes. Data are also available from mice. Many possible projects are available using our many large existing datasets, using the thousands of stored studies in the sleep lab or involving de novo data collection in a clinical or animal population and in infants. Also, many possible directions for this research are available from applying traditional and non-linear HRV to different populations, developing methods to quantify ultradian heart rate variability patterns, to developing novel ECG analysis techniques, etc. Also, we are involved with the Cardiovascular Health Study (CHS), a large population-based longitudinal study of risk factors for heart disease and stroke among community-dwelling people >65 years old. There is a subset of this population who had Holter recordings (~1400 at baseline, ~800 of the same people 5 years later, and ~370 minority subjects recorded at the same time as the second CHS recording). These recordings have already been analyzed by us so there is a large amount of heart rate

variability and heart rate pattern data available. There is also a subsets of the CHS and of another study (EPHESUS) who are known to have died suddenly, and we have developed a matched control group in order to examine ECG-based differences in those who died suddenly. We also have electronic sleep studies at two time points for about 300 of the CHS Holter participants who also participated in the Sleep Heart Health Study. We have analyzed an additional ~1500 sleep studies from CHS participants who did not have Holter recordings. Thus, there is also an opportunity in the CHS dataset for studies on the relationship of heart rate variability and changes in heart rate variability over time and a huge number of clinical and demographic factors among the elderly. We also have data on the relationship of Holter-based HRV and sleep apnea patterns to the development of atrial fibrillation post-cardiac surgery and data from a study of treatment of depression in treatment-resistant depressed post-MI patients, a study of sickle cell patients and one of heart rate variability and echo parameters in elderly African Americans. Currently we are also analyzing HRV in both premature infants as they mature and also HRV as a predictor of response to treatment in babies in the NICU and PICU, using stored 24-hour bedside ECGs.

Heart Rate Variability and Clinical Outcomes: The student will be learning about HRV Methods and will investigate the relationship of HRV and outcomes in one of our datasets. Because we have clinical and demographic data on about 20,000 people in who continuous ECGs from Holter recordings, sleep studies and ICU studies and also some mouse data, the student will be able to choose a project leading to a publishable result in an area of interest to the student. The HRV Lab has enough computers and software to accommodate the needs of any interested students.

John Turk, MD, PhD  
8th Floor South West Tower  
314-362-8190

Phospholipid signaling mechanisms in pancreatic islets. Experience in mass spectrometric analysis of complex lipids is available.

H.J. Wedner, MD

5002 Steinberg Pavilion, Barnes-Jewish Hospital, North Campus

314-454-7937 or 314-454-7377

1. Asthma Care in the Inner City: students will participate in ongoing studies of the delivery of asthma care to inner-city children and adults. The emphasis will be on direct contact between the asthmatic patients and the student, along with an asthma counselor.
2. Biology of Pollen and Fungal Allergens: our laboratory has been characterizing the important allergenic proteins from molds and pollen. The allergens are identified using skin test sensitive individuals, and the proteins are isolated and characterized by a combination of physiochemical and molecular biological techniques. These studies should lead to better forms of allergy immunotherapy. Students will participate in the isolation, characterization and modification of major allergens from a number of molds including *Stachybotrys* and *Epicoccum nigrum* and several pollens including those from white oak and *Parthenium hysterophorus*, a newly recognized allergen.

## Faculty — Medicine

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**Victoria J Fraser, MD** Adolphus Busch Professor of Medicine (primary appointment)

Head of the Department of Internal Medicine

BS William Woods College 1978

MD University of MO Columbia 1983

**Elliot Efrem Abbey, MD** Professor of Clinical Medicine (primary appointment)

MD New York University 1975

BA Cornell University 1971

**Camille N. Abboud, MD** Professor of Medicine (primary appointment)

MD American University of Beirut 1974

BS American University of Beirut 1970

**Basem Abdeen**Instructor in Clinical Medicine (primary appointment)  
Khaled M Abdel-HamidInstructor in Clinical Medicine (primary appointment)  
**Dana Ray Abendschein, PHD**Associate Professor of Medicine (primary appointment)  
**Associate Professor of Cell Biology and Physiology**  
PHD Purdue University 1978  
BS State University of New York 1974  
**Enyo Ama Ablordeppey, M PH, MD**Assistant Professor of Anesthesiology (primary appointment)  
**Assistant Professor of Emergency Medicine in Medicine**  
M PH University of Pittsburgh 2007  
MD University of Pittsburgh 2007  
**Grazia Abou Ezzi, MS, PHD, MS**Instructor in Medicine (primary appointment)  
MS University of Paris 2009  
BS Holy Spirit Univ of Kaslik 2006  
PHD University of Nice 2013  
MS University of Nice 2008  
**Barry K Abramson, MD**Instructor in Clinical Medicine (primary appointment)  
BA Johns Hopkins University 1981  
MD University of Miami 1985  
**Nada A Abumrad, PHD**Robert C Atkins Professor of Obesity Research in Medicine (primary appointment)  
**Professor of Cell Biology and Physiology**  
BS American University of Beirut 1972  
PHD State University of New York 1978  
**Susan R Adams, MD**Instructor in Clinical Medicine (primary appointment)  
BA Carleton College 1985  
MD University of Missouri 1989  
**Foluso O Ademuyiwa, M PH, MBBS**Assistant Professor of Medicine (primary appointment)  
M PH Johns Hopkins University 2001  
MBBS University of Ibadan 1999  
**Douglas R Adkins**Professor of Medicine (primary appointment)  
BS Wright State University 1982  
**Homaa Ahmad, MD**Assistant Professor of Medicine (primary appointment)  
MD Johns Hopkins University 2003  
BA Johns Hopkins University 1999  
**Abdulla Akfaly, MD**Instructor in Clinical Medicine (primary appointment)  
MD Aleppo University 1991  
Ghadah Abdulaziz Al IsmailInstructor in Medicine (primary appointment)  
Ziyad Al-AlyAssistant Professor of Medicine (primary appointment)  
Bassam AlbarchaInstructor in Clinical Medicine (primary appointment)  
**Jorge M Alegre, MD**Instructor in Clinical Medicine (primary appointment)  
MD School Not Listed 1965  
**Jennifer Marie Alexander-Brett, MD, PHD**Assistant Professor of Medicine (primary appointment)  
**Assistant Professor of Pathology and Immunology**  
MD Washington Univ in St. Louis 2007  
PHD Washington Univ in St. Louis 2007  
BS University of Nebraska 1999  
**Tarek Alhamad, MD, MS**Assistant Professor of Medicine (primary appointment)  
MD Damascus U. Medical School 2006

MS Pennsylvania State University 2013  
Alaa Ali **Instructor in Medicine** (primary appointment)  
**Muhammad A Ali, MD** **Instructor in Clinical Medicine** (primary appointment)  
MD School Not Listed 1985  
Florence Michelle Almiron-Torrabal **Instructor in Clinical Medicine** (primary appointment)  
**David Hershel Alpers, MD** **William B Kountz Professor of Gerontology in Medicine** (primary appointment)  
MD Harvard University 1960  
BA Harvard University 1956  
Jamaluddin Faisal Amanullah **Instructor in Clinical Medicine** (primary appointment)  
**Amit P. Amin, MD** **Assistant Professor of Medicine** (primary appointment)  
MD Government Medical College 1998  
**Manik A Amin, MD** **Assistant Professor of Medicine** (primary appointment)  
MD Government Medical College 1997  
**Milan J. Anadkat, MD** **Associate Professor of Medicine (Dermatology)** (primary appointment)  
MD Ohio University 2001  
BS University of Akron 1997  
**Dhanalakshmi Subramanian Anbukumar, PHD** **Instructor in Medicine** (primary appointment)  
PHD Saint Louis University 2010  
BA Saint Louis University 2003  
**Adam Lee Anderson, MD** **Assistant Professor of Medicine** (primary appointment)  
BS University of Illinois Chicago 2006  
MD University of Illinois Chicago 2010  
**Scott J Anderson, MD, PHD** **Instructor in Clinical Medicine** (primary appointment)  
BA University of California 1975  
MD Duke University 1982  
PHD Duke University 1981  
Muhammad Jaffer Ansari **Assistant Professor of Clinical Medicine** (primary appointment)  
**George Ansstas, MD** **Assistant Professor of Medicine** (primary appointment)  
MD Tishreen Univ College of Med 2001  
**Alison Lynne Antes Schuelke, PHD, MS** **Assistant Professor of Medicine** (primary appointment)  
PHD University of Oklahoma 2010  
BS Indiana State University 2005  
MS University of Oklahoma 2007  
**Rajendra Apte, PHD, MD** **Paul A. Cibis Distinguished Professor of Ophthalmology and Visual Sciences** (primary appointment)  
**Professor of Developmental Biology**  
**Professor of Medicine**  
PHD University of Texas Southwest 1997  
MD University of Bombay 1993  
**Suzanne V Arnold, MD, MHA** **Adjunct Assistant Professor of Medicine** (primary appointment)  
MD Ohio State University 2004  
MHA Ohio State University 2004  
**Vivek Kumar Arora, PHD, MD** **Assistant Professor of Medicine** (primary appointment)  
PHD University of Texas Southwest 2004  
MD University of Texas Southwest 2004  
BS Northwestern University 1996  
**Saira M Asadullah, MD** **Instructor in Clinical Medicine** (primary appointment)

MD Aga Khan University 1992

**Phillip V. Asaro, MD** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD Saint Louis University 1981

**Jeffrey Jay Atkinson** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pediatrics**

BS1 Loyola College 1990

MD1 Hahnemann University 1994

BS Loyola College 1990

**John Patterson Atkinson, MD** Samuel Grant Professor of Medicine (primary appointment)

**Professor of Molecular Microbiology**

BA University of Kansas 1965

MD University of Kansas 1969

**Crystal Lynn Atwood, MD** Instructor in Medicine (primary appointment)

MD University of Illinois Chicago 2009

**Chandra Aubin** Associate Professor of Emergency Medicine in Medicine (primary appointment)

**James G Avery, MD** Associate Professor of Clinical Medicine (primary appointment)

MD University of Tennessee 1990

**Riad Azar, MD** Associate Professor of Medicine (primary appointment)

MD Saint Josephs University 1994

**Hilary M Babcock, MPH, MD** Associate Professor of Medicine (primary appointment)

BA Brown University 1989

MPH Saint Louis University 2006

MD University of Texas Southwest 1994

**Richard G. Bach, MD, MS** Professor of Medicine (primary appointment)

MD New York University 1984

MS New York University 1980

BS Georgetown University 1977

**Leonard B Bacharier, MD** Professor of Pediatrics (primary appointment)

**Professor of Medicine**

MD Washington Univ in St. Louis 1992

BA Johns Hopkins University 1988

**Maria Quintos Baggstrom, MD** Associate Professor of Medicine (primary appointment)

BA Williams College 1991

MD University of Texas Houston 1996

**Om Parkash Bahl** Assistant Professor of Clinical Medicine (primary appointment)

**Donald M Bailey** Adjunct Instructor in Medicine (primary appointment)

**Thomas C Bailey, MD** Professor of Medicine (primary appointment)

BA William Jewell College 1980

MD Washington Univ in St. Louis 1984

**Gregory Eden Baker, MD** Instructor in Clinical Medicine (primary appointment)

MD Mayo Clinic 2001

**Megan Tierney Baldrige, MD, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Molecular Microbiology**

MD Baylor College of Medicine 2011

PHD Baylor College of Medicine 2009

**Fred J Balis, MS, MD** Assistant Professor of Clinical Medicine (primary appointment)

MS Cornell University 1985



MD Washington Univ in St. Louis 1989

BS University of Vermont 1981

**Clarence William Balke, MD** Professor of Medicine (primary appointment)

BS Haverford College 1975

MD Temple University 1981

**David Ban, MD** Associate Professor of Clinical Medicine (primary appointment)

BA Kalamazoo College 1976

MD University of Oregon 1980

**James William Banks, MD** Instructor in Clinical Medicine (primary appointment)

MD Marshall University 1984

**Dhruv Bansal, MD** Instructor in Medicine (primary appointment)

MD University of New Mexico 2011

**Abraham Barake** Associate Professor of Clinical Medicine (primary appointment)

BS University of Maryland 1976

**Thomas J Baranski, PHD, MD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Developmental Biology**

BS Univ of Wisconsin Madison 1985

PHD Washington Univ in St. Louis 1992

MD Washington Univ in St. Louis 1992

**Peggy Barco, MED** Assistant Professor of Occupational Therapy (primary appointment)

**Assistant Professor of Medicine**

MED Washington Univ in St. Louis 1987

Rachel Hannah Bardowell Assistant Professor of Medicine (primary appointment)

**Philip M Barger, MD** Associate Professor of Medicine (primary appointment)

MD Case Western Reserve Univ 1989

**Joaquin Barnoya, MS, MD** Associate Professor of Surgery (General Surgery) (primary appointment)

**Associate Professor of Medicine**

MS Harvard University 2001

MD Universidad de San Carlos 1998

**Ernie-Paul Barrette, MA** Associate Professor of Medicine (primary appointment)

BS University of Rhode Island 1982

MA Harvard University 1984

**Thomas Joseph Bartholet, MD** Instructor in Clinical Medicine (primary appointment)

MD1 Brown University 1994

BS Georgetown University 1990

MD Dartmouth College 1992

**Nancy Lee Bartlett, MS, MD** Koman Professor of Medical Oncology in Medicine (primary appointment)

MS Mass Inst of Technology (MIT) 1979

MD Washington Univ in St. Louis 1986

BS Stanford University 1978

**Robert W Barton** Assistant Professor of Clinical Medicine (primary appointment)

BS University of Chicago 1962

**Luis Francisco Zirnberger Batista, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Developmental Biology**

BS University of SAO Paulo 2003

PHD University of SAO Paulo 2008

**Natalie Christine Battle, MD** Instructor in Medicine (primary appointment)



MD Washington Univ in St. Louis 2010

**Frederick D Bauschard, MD**Assistant Professor of Clinical Medicine (Dermatology) (primary appointment)

MD University of Pittsburgh 1968

Michael D BavlsikAssistant Professor of Clinical Medicine (primary appointment)

**Susan Joy Bayliss, MD**Professor of Medicine (Dermatology) (primary appointment)

**Professor of Pediatrics**

BA University of Texas Austin 1970

MD University of Texas Galveston 1974

**Bahaa Ahmad Bedair, MD**Instructor in Medicine (primary appointment)

MD Washington Univ in St. Louis 2013

**Saba Beg, MD**Instructor in Medicine (primary appointment)

MD Government Medical College 2004

**Richard C Bell**Instructor in Clinical Medicine (Dermatology) (primary appointment)

BA Northwestern University 1984

C. Elliott Bell JrInstructor in Clinical Medicine (primary appointment)

William Waite BenedictInstructor in Clinical Medicine (primary appointment)

Bruno Antonio Benitez ViloriaInstructor in Medicine (primary appointment)

**Susan Berdy, MD**Assistant Professor of Clinical Medicine (primary appointment)

BA Brown University 1980

MD Saint Louis University 1984

**Daniel Ralph Berg, MD**Assistant Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 2000

**Michael A Berk, MD**Professor of Clinical Medicine (primary appointment)

BA Northwestern University 1974

MD Indiana University Bloomington 1979

**Carlos Bernal-Mizrachi, MD**Associate Professor of Medicine (primary appointment)

**Associate Professor of Cell Biology and Physiology**

MD Universidad del Valle Med Sch 1990

**Aaron M Bernstein, MD**Assistant Professor of Clinical Medicine (primary appointment)

MD University of Chicago 1952

BA Washington Univ in St. Louis 1948

**Keith A Bernstein, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Missouri 1987

BA University of MO Kansas City 1987

**Marc Jordan Bernstein, MD**Associate Professor of Clinical Medicine (primary appointment)

BA Haverford College 1988

MD Washington Univ in St. Louis 1992

**Douglas R Berson, MD**Instructor in Clinical Medicine (primary appointment)

BA Lehigh University 1981

MD University of Pennsylvania 1983

**Pavan Kumar Bhamidipati, MD**Instructor in Clinical Medicine (primary appointment)

MD Guntur Medical College 2007

**Anita R. Bhandiwad, MD**Assistant Professor of Medicine (primary appointment)

MD Northwestern University 1998

**Mythili C. Bharadwaj**Instructor in Clinical Medicine (primary appointment)

UNKNOWN University of Madras 1988

**Rakhee Kapadia Bhayani, MD**Associate Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1999

**Stanley I Biel, MD**Instructor in Clinical Medicine (primary appointment)

BA Rockford College 1974

MD University of Illinois 1978

**Joseph John Billadello, MD**Associate Professor of Medicine (primary appointment)

MD Georgetown University 1978

**Ellen F Binder, MD**Professor of Medicine (primary appointment)

**Professor of Occupational Therapy**

MD Washington Univ in St. Louis 1981

BA Davenport University 1977

**Aaron Birenbaum, MD**Assistant Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1948

**William D Birenbaum, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Missouri 1983

BA Washington Univ in St. Louis 1978

**Clifford Allen Birge, MD**Assistant Professor of Clinical Medicine (primary appointment)

BA Amherst College 1956

MD Washington Univ in St. Louis 1961

**Stanley J Birge, MD**Associate Professor of Medicine (primary appointment)

BA Amherst College 1959

MD Washington Univ in St. Louis 1963

**Thomas M Birkenmeier, MD**Assistant Professor of Medicine (primary appointment)

BA Washington Univ in St. Louis 1978

MD Washington Univ in St. Louis 1982

**Kumar Sanjeev Bishnupuri, MS**Instructor in Medicine (primary appointment)

BS Tilka Manjhi Bhagalpur Univ 1988

MS Banaras Hindu University 1992

**Valerie Blanc, PHD**Instructor in Medicine (primary appointment)

PHD University of Bordeaux 2 1996

**Melvin S Blanchard, BBA, MD**Professor of Medicine (primary appointment)

**Director of Residency Program, Department of Internal Medicine**

BBA Trevecca Nazarene College 1987

MD University of Tennessee 1994

**Merilda O Blanco-Guzman, MD**Instructor in Medicine (primary appointment)

MD PUCMM FACULTAT DE CIENCIAS DEL 2004

**Elizabeth Joy Blaney, MD**Assistant Professor of Medicine (primary appointment)

MD Ohio State University 2007

BA Eastern Michigan University 2003

**Morey A Blinder, MD**Professor of Medicine (primary appointment)

**Professor of Pathology and Immunology**

MD Saint Louis University 1981

BS University of Notre Dame 1977

Donald Allen Blum**Assistant Professor of Clinical Medicine** (primary appointment)

Imre Bodo**Adjunct Instructor in Medicine** (primary appointment)

**Indra Bole**Instructor in Medicine (primary appointment)

BS University of Maryland 2008

Michael Bolger**Instructor in Clinical Medicine** (primary appointment)

**Matthew James Bonzelet, MD**Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 2009

**Adrianus C Boon, PHD, MS**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

**Assistant Professor of Molecular Microbiology**

PHD Erasmus University Rotterdam 2003

MS University of Amsterdam 1997

**Benjamin A Borowsky**Professor of Clinical Medicine (primary appointment)

**Jonathan D Bortz**Instructor in Clinical Medicine (primary appointment)

**Ron Bose, PHD**Associate Professor of Medicine (primary appointment)

**Associate Professor of Cell Biology and Physiology**

PHD Cornell University 1998

PHD1 Cornell University 1998

**Matthew S Bosner, MD**Assistant Professor of Clinical Medicine (primary appointment)

BS Muhlenberg College 1979

MD University of Texas Austin 1983

**William G Bowen, MD**Associate Professor of Clinical Medicine (primary appointment)

BS Davidson College 1970

MD University of North Carolina 1974

**Lyndsey Jean Bowman, PHD**Adjunct Instructor in Medicine (primary appointment)

PHD St Louis College of Pharmacy 2005

**Sabina A Braithwaite**Associate Professor of Emergency Medicine In Medicine (Pending Executive Faculty Approval) (primary appointment)

**Richard D. Brasington Jr, MD**Professor of Medicine (primary appointment)

BA Harvard University 1974

MD Duke University 1980

**Alan C Braverman, MD**Alumni Endowed Professor of Cardiovascular Disease in Medicine (primary appointment)

MD University of Missouri 1985

**Andrea Lynn Bredemeyer, PHD**Instructor in Medicine (primary appointment)

PHD Washington Univ in St. Louis 2006

BA Colby College 1999

**Daniel C Brennan, MD**Professor of Medicine (primary appointment)

**Alan A and Edith L Wolff** Distinguished Professor

MD University of Iowa 1985

BS Cornell College 1981

**Audrey Brenot, PHD**Instructor in Medicine (primary appointment)

PHD University of Paris 2001

BS University of Paris 1996

**Thomas J. Brett**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Cell Biology and Physiology**

**Assistant Professor of Biochemistry and Molecular Biophysics**

BS North Dakota State University 1992

**Matthew Brinkmeier, MD**Instructor in Medicine (primary appointment)

MD Washington Univ in St. Louis 2007

**Steven L Brody, MD**Dorothy R and Hubert C Moog Professor of Pulmonary Diseases in Medicine (primary appointment)

**Professor of Radiology**

MD University of Michigan 1980

**Rita Thomas Brookheart**Instructor in Medicine (primary appointment)

**Instructor in Pediatrics**

BA Sweet Briar College 2003

**Christopher B. Brooks**Associate Professor of Emergency Medicine in Medicine (primary appointment)

**Angela L Brown, MD**Associate Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1992

**David L. Brown, MD**Professor of Medicine (primary appointment)

BA University of Texas Austin 1977

MD Baylor University 1982

**Lawrence R Brown, MD**Assistant Professor of Emergency Medicine in Medicine (primary appointment)

BS Univ of Wisconsin Madison 1982

MD Washington Univ in St. Louis 1990

**George John Broze Jr, MD**Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

**Professor of Pathology and Immunology**

MD University of Washington 1972

**Robert M Bruce, MD**Professor of Clinical Medicine (primary appointment)

MD University of Minnesota 1968

BS University of Minnesota 1968

BA Washington Univ in St. Louis 1964

**Kathleen S Brunts, MD**Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 1981

BS Western Michigan University 1977

**Stanley Buck, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1977

BS Princeton University 1973

**Philip J Budge**Assistant Professor of Medicine (primary appointment)

**Allen Cole Burks, MD**Instructor in Medicine (primary appointment)

MD Saint Louis University 2007

BS University of Central Arkansas 2002

**Tamara Lavon Burlis**Associate Professor of Physical Therapy (primary appointment)

**Associate Director for Clinical Education in Physical Therapy**

**Assistant Director of Professional Curriculum in Physical Therapy**

**Associate Professor of Medicine**

BA Wartburg College 1988

BS Washington Univ in St. Louis 1988

**Scott H Burner, MD**Associate Professor of Emergency Medicine in Medicine (primary appointment)

MD Medical University of Sth Car 1978

**Donald F Busiek, MD**Instructor in Clinical Medicine (primary appointment)

BA Saint Louis University 1974

MD University of Missouri 1983

**Melvin J Butler**Instructor in Clinical Medicine (primary appointment)

**Derek E Byers, MD**Associate Professor of Medicine (primary appointment)

BS University of Oklahoma 1993

MD University of Texas Southwest 2001

**Jonathan Nicholas Byrd, MD**Instructor in Clinical Medicine (primary appointment)

BS1 Tulane University 2007

MD Washington Univ in St. Louis 2011

**Minji Byun, PHD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

PHD Washington Univ in St. Louis 2009

BS Pohang Univ of Science & Tech 2002

**Galileu Cabral**Associate Professor of Clinical Medicine (primary appointment)

**William Todd Cade, PHD, MS**Professor of Physical Therapy (primary appointment)

**Professor of Medicine**

**Associate Director of Postdoctoral Fellowships in Physical Therapy**

PHD University of Maryland 2002

MS University of Miami 1994

**John William Campbell, MD**Professor of Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1973

MD Washington Univ in St. Louis 1977

**Jian Li Campian, PHD, MS, MD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Neurological Surgery**

PHD University of Louisville 2003

MS Peking Union Medical College 2000

MD Tianjin Medical University 1997

**Maria J Canizares**Instructor in Clinical Medicine (Dermatology) (primary appointment)

BA Saint Louis University 1996

**Rosemary L Cannistraro, MD**Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 1992

**Rebecca Goodwin Carey**Adjunct Instructor in Medicine (primary appointment)

**Abigail L Carlson, MD**Instructor in Medicine (primary appointment)

MD Johns Hopkins University 2010

**Kim Alan Carmichael, MD**Associate Professor of Medicine (primary appointment)

MD Virginia College 1978

**Christopher Robert Carpenter, MD**Associate Professor of Emergency Medicine in Medicine (primary appointment)

MD Wayne State University 1994

**David B Carr, MD**Professor of Medicine (primary appointment)

**Professor of Neurology**

**Alan A and Edith L Wolff** Distinguished Professor of Geriatric Medicine

BA University of MO Columbia 1981

MD University of MO Columbia 1985

**Scott Carrizales, MD**Assistant Professor of Medicine (Dermatology) (primary appointment)

MD UniformedServUofHealthSciences 1996

**Kenneth R Carson**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Surgery (Public Health Sciences)**

**Amanda Fishback Cashen, MD**Associate Professor of Medicine (primary appointment)

BS1 Yale University 1995

BS Yale University 1995

MD Washington Univ in St. Louis 1999

**Mario Castro, MD, M PH**Professor of Medicine (primary appointment)

**Professor of Radiology**

## **Professor of Pediatrics**

### **Alan A and Edith L Wolff Distinguished Professor**

MD University of Missouri 1988

BA University of MO Kansas City 1988

M PH Saint Louis University 1998

Lilibeth Maria Cayabyab-Loe **Assistant Professor of Clinical Medicine** (primary appointment)

**Murali M Chakinala, MD** **Associate Professor of Medicine** (primary appointment)

BS Duke University 1990

MD Vanderbilt University 1994

**Grant A Challen, PHD** **Assistant Professor of Medicine** (primary appointment)

PHD University of Queensland 2006

**Kari Terece Chambers** **Instructor in Medicine** (primary appointment)

BS Truman State University 2000

**Kae Pyng Chang, MD** **Instructor in Clinical Medicine** (primary appointment)

BA Washington Univ in St. Louis 1991

MD University of Missouri 1995

**Monica Chang-Panesso, MD** **Instructor in Medicine** (primary appointment)

MD Texas Tech University 2009

**Douglas Char** **Professor of Emergency Medicine in Medicine** (primary appointment)

BS Boston College 1983

Siroth Charnond **Instructor in Clinical Medicine** (primary appointment)

**Lewis Robert Chase, MD** **Professor of Medicine** (primary appointment)

BA Princeton University 1960

MD Harvard University 1964

**Alexander Chi Chen, MD** **Associate Professor of Medicine** (primary appointment)

**Associate Professor of Surgery (Cardiothoracic Surgery)**

MD University of MO Kansas City 2001

**Chien-Huan Chen, PHD, MD** **Associate Professor of Medicine** (primary appointment)

PHD Johns Hopkins University Medic 1999

MD National Taiwan University 1993

**David Yuan-Sou Chen, MD, PHD** **Instructor in Medicine** (primary appointment)

BS University of Michigan 2003

MD Washington Univ in St. Louis 2012

PHD Washington Univ in St. Louis 2012

**Delphine L. Chen, AB** **Associate Professor of Radiology** (primary appointment)

**Associate Professor of Medicine**

MD1 Washington Univ in St. Louis 1999

BA Harvard Radcliff 1995

AB Harvard Radcliff 1995

**Edward C. Chen, MD** **Instructor in Clinical Medicine** (primary appointment)

MD Saint Louis University 2005

**Feng Chen, PHD** **Associate Professor of Medicine** (primary appointment)

**Associate Professor of Cell Biology and Physiology**

BS Fudan University 1991

PHD University of Utah 1998

**Ling Chen, MPH, PHD** **Assistant Professor of Biostatistics** (primary appointment)

**Assistant Professor of Medicine**

BS Beijing Medical University 1996



MPH University South Carolina 2003

PHD University of MO Columbia 2009

**Phyllis Chen, MD**Instructor in Clinical Medicine (primary appointment)

MD Northwestern University Med 1992

**Qing Chen, MD, MS**Instructor in Clinical Medicine (primary appointment)

MD Nanjing Medical University 1983

UNKNOWN School Not Listed 1983

MS Nanjing Medical University 1988

**Ying Chen, PHD, MD**Assistant Professor of Medicine (primary appointment)

PHD Vanderbilt University 2004

MD Shanghai Medical University 1996

Steven Chih Nung Cheng**Associate Professor of Medicine** (primary appointment)

**Praveen R Chenna, MBBS**Assistant Professor of Medicine (primary appointment)

BS Washington Univ in St. Louis 1998

MBBS Sri Ramachandra Medical Colleg 2005

**Mathew Amprayil Cherian, MBBS**Instructor in Medicine (primary appointment)

MBBS Christian Medical College 2000

**Milan G Chheda, MD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Neurology**

MD Albert Einstein College of Med 2002

**Rebecca Joy Chibnall, AA, MD**Assistant Professor of Medicine (Dermatology) (primary appointment)

AA Washington Univ in St. Louis 2007

MD University of California 2012

Phillip Ruben Chisholm**Instructor in Clinical Medicine** (primary appointment)

**Jaebok Choi, MS, PHD, BE**Assistant Professor of Medicine (primary appointment)

MS Univ of Nebraska at Omaha 2001

PHD Baylor University 2006

BE Kyung Pook National University 1996

**Hyemi Chong, MD**Instructor in Medicine (primary appointment)

BA Yale University 2003

MD University of Texas Southwest 2011

**Courtney Darcey Chrisler, MD**Instructor in Medicine (primary appointment)

BS Northwestern University 2003

MD Washington Univ in St. Louis 2007

**Matthew Christopher, MD, PHD**Instructor in Medicine (primary appointment)

MD Washington Univ in St. Louis 2010

PHD Washington Univ in St. Louis 2010

BA Saint Louis University 1993

Philip Chu Pak-Yul**Instructor in Clinical Medicine** (primary appointment)

**Duck Sung Chun, MD**Instructor in Clinical Medicine (primary appointment)

MD Seoul National University

Jeffrey Peter Ciaramita**Instructor in Clinical Medicine** (primary appointment)

**Thomas Michael Ciesielski, MD**Instructor in Medicine (primary appointment)

MD Oregon Health Science Univers 2010

**Vincenza Cifarelli, PHD, MS**Instructor in Medicine (primary appointment)

PHD University of Pittsburgh 2011

MS Universita de Modena e Reggio 2005

**Matthew Aaron Ciorba, MD** Assistant Professor of Medicine (primary appointment)

MD University of Iowa 2001

**Geoffrey Cislo, MD** Assistant Professor of Medicine (primary appointment)

MD University of Michigan 1996

**Roberto Civitelli, MD** Sydney M and Stella H Schoenberg Professor of Medicine (primary appointment)

**Professor of Orthopaedic Surgery**

**Professor of Cell Biology and Physiology**

BS University of Siena 1980

MD University of Siena 1980

**David B Clifford Melba and Forest Seay Professor of Clinical Neuropharmacology in Neurology** (primary appointment)

**Professor of Medicine**

**Dorothy Jean Cline, MD** Instructor in Clinical Medicine (Dermatology) (primary appointment)

BA University of Missouri 1973

MD Saint Louis University 1977

**James Close, MD** Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1984

**William Edward Clutter, MD** Associate Professor of Medicine (primary appointment)

**Associate Director of the House Staff Training Program, Department of Internal Medicine**

BS Ohio State University 1972

MD Ohio State University 1975

**Shari J Cohen** Assistant Professor of Clinical Medicine (primary appointment)

**Brian G Cohn, MD** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD University of Alabama 2003

**Susan R Colbert-Threats, MD** Assistant Professor of Clinical Medicine (primary appointment)

BS Northwestern University 1986

MD University of Illinois 1991

**Graham A Colditz, MBBS, DRPH** Niess-Gain Professor of Surgery (General Surgery) (primary appointment)

**Professor of Medicine**

**Deputy Director for the Institute of Public Health**

BS University of Queensland 1977

MBBS University of Queensland 1979

DRPH Harvard University 1986

**Danita L Cole** Instructor in Clinical Medicine (primary appointment)

**Patricia L Cole, MA, MD** Associate Professor of Clinical Medicine (primary appointment)

BA Mount Holyoke College 1972

MA Brown University 1975

MD Harvard University 1981

**Roger Barto Cole, MS, MD, PHD** Instructor in Clinical Medicine (primary appointment)

MS Yale University 2001

MD Washington Univ in St. Louis 2008

PHD Yale University 2004

BS Rice University 1997

**Sarah F Cole** Instructor in Clinical Medicine (primary appointment)

**Lloyd W Coleman, MS, PHD** Instructor in Medicine (primary appointment)

MS Iowa State University 1976



PHD Iowa State University 1984

BS Northeast Missouri St Univrsty 1973

Laura Ann Colletti-Mann **Associate Professor of Medicine** (primary appointment)

Marco Colonna **Robert Rock Belliveau MD Professor of Pathology** (primary appointment)

**Professor of Medicine**

**Kim David Colter, MS, MD** **Instructor in Clinical Medicine** (primary appointment)

MS University of CA Berkeley 1974

MD Washington Univ in St. Louis 1978

BS MO S&T (formerly UofMO Rolla) 1973

**Arthur Hamilton Combs, MD** **Associate Professor of Clinical Medicine** (primary appointment)

MD New York Medical College 1975

**Daniel Horatio Cooper, MD** **Assistant Professor of Medicine** (primary appointment)

MD Loyola University Chicago 2003

BS Washington Univ in St. Louis 1999

**Matthew Cooper, PHD** **Instructor in Medicine** (primary appointment)

PHD University of Surrey 2008

BS University of Surrey 2004

**Nathan Richard Copeland, MD** **Instructor in Medicine** (primary appointment)

MD University of Arizona 2012

BS University of Arizona 2006

**Lynn Anne Cornelius, MD, BN** **Winfred A and Emma R Showman Professor of Dermatology in Medicine** (primary appointment)

MD University of Missouri 1984

BN University of Delaware 1977

**John Bernard Costello, MD** **Instructor in Clinical Medicine** (primary appointment)

BA Saint Louis University 1974

MD Saint Louis University 1977

**Carrie Christine Coughlin, MD** **Assistant Professor of Medicine (Dermatology)** (primary appointment)

**Assistant Professor of Pediatrics**

MD Washington Univ in St. Louis 2010

BA Yale University 2005

**Martha Laurin Council, MD** **Assistant Professor of Medicine (Dermatology)** (primary appointment)

BS Louisiana St University 2000

MD Washington Univ in St. Louis 2004

**Daniel W Coyne, MD** **Professor of Medicine** (primary appointment)

MD Case Western Reserve Univ 1983

BA Saint Louis University 1979

Clarissa S. Craft **Assistant Professo of Medicine** (primary appointment)

**Assistant Professor of Cell Biology and Physiology**

**Johnetta M Craig, MBA** **Instructor in Clinical Medicine** (primary appointment)

BS University of Missouri 1980

MBA University of Pennsylvania 1994

**John Jeffrey Cras, MD, MS** **Assistant Professor of Medicine** (primary appointment)

MD Georgetown University 2003

MS Georgetown University 1998

BS Loyola College 1994

**Charles Crecelius, MD, PHD** **Assistant Professor of Clinical Medicine** (primary appointment)

BA Carleton University 1976

MD Saint Louis University 1984

PHD Saint Louis University 1984

**Sharon Cresci, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Genetics**

MD New York University 1986

BS State Univ of NY Binghamton 1982

**Stephen R Crespin, MD** Associate Professor of Clinical Medicine (primary appointment)

MD Harvard University 1965

**Jeffrey S Crippin, MD** Professor of Medicine (primary appointment)

BS University of Notre Dame 1980

MD University of Kansas 1984

**Paulina Cruz Bravo, MD** Instructor in Medicine (primary appointment)

MD Universidad Automoma de Madrid 2009

**Philip E Cryer, MD** Professor Emeritus of Medicine (primary appointment)

**Prof Emeritus of Medicine** (primary appointment)

**Adjunct Professor of Medicine**

BA Northwestern University 1962

MD Northwestern University Med 1965

**Phillip S. Cuculich, MD** Associate Professor of Medicine (primary appointment)

MD Vanderbilt University 2001

**Kevin M Cullison** Instructor in Emergency Medicine in Medicine (Pending Dean's Approval)  
(primary appointment)

**Robert Culverhouse, PHD, MA** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Biostatistics**

PHD Washington Univ in St. Louis 1998

MA University of CA Berkeley 1987

BA Vanderbilt University 1983

**Lenise Andrea Cummings-Vaughn, MS, MD** Assistant Professor of Medicine (primary appointment)

MS San Francisco St University 1998

BS Williams College 1995

MD Saint Louis University 2005

**David T Curiel, MD, PHD** Distinguished Professor of Radiation Oncology (primary appointment)

**Professor of Medicine**

**Professor of Obstetrics and Gynecology**

MD Emory University 1982

BA West Georgia College 1978

PHD University of Groningen 2000

**Robert B Cusworth, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Rochester 1974

**Ann Marie Dale, PHD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Occupational Therapy**

BS University of MO Columbia 1983

PHD Saint Louis University 2009

**William H Danforth, MD** Professor of Medicine (primary appointment)

**Vice Chairman and Chancellor Emeritus**

BA Princeton University 1947

MD Harvard University 1951

**Erik D. Daniels, MD**Instructor in Clinical Medicine (primary appointment)

MD Howard University 1989

**John S Daniels, MA, MD**Associate Professor of Clinical Medicine (primary appointment)

MA University of Arkansas 1974

BA Washington Univ in St. Louis 1970

MD University of Arkansas 1974

**Peter G Danis**Instructor in Clinical Medicine (primary appointment)

**Rand E Dankner, MD**Associate Professor of Clinical Medicine (primary appointment)

BA University of Pennsylvania 1974

MD Baylor University 1978

**Maria Cristina Dans, MD**Assistant Professor of Medicine (primary appointment)

BA Princeton University 1989

MD Washington Univ in St. Louis 1999

**Bhajan Shewaldas Dara, MD**Instructor in Clinical Medicine (primary appointment)

MD Sindh Medical College 1987

**Lakshman Darsi, MBBS**Assistant Professor of Medicine (primary appointment)

MBBS Guntur Medical College 1985

**Koushik Kumar Das, MD**Assistant Professor of Medicine (primary appointment)

MD Columbia University 2016

**Sundee Das**Instructor in Clinical Medicine (primary appointment)

**Carlos Colton Daughaday**Professor of Medicine (primary appointment)

**John D Davidson, MD**Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1952

**Nicholas O Davidson, MBBS**Professor of Medicine (primary appointment)

**Professor of Developmental Biology**

MBBS King's College London 1974

**Victor G Davila-Roman, MD**Professor of Medicine (primary appointment)

**Professor of Radiology**

**Professor of Anesthesiology**

MD University of Puerto Rico 1981

BS University of Puerto Rico 1977

**Andrea Jill Davis, MD, MSN**Instructor in Clinical Medicine (primary appointment)

MD St George's University 2004

MSN Arizona State University 2000

BS Randolph Macon College 1997

**Thomas Edward Davis**Instructor in Clinical Medicine (primary appointment)

**Caroline Elizabeth Day, M PH**Instructor in Clinical Medicine (primary appointment)

M PH San Diego St University 2005

BS University of Colorado Boulder 1990

**Thomas M De Fer, MD**Professor of Medicine (primary appointment)

MD University of Missouri 1989

**Lisa De Las Fuentes, MD**Associate Professor of Medicine (primary appointment)

**Associate Professor of Biostatistics**

MD University of Texas Southwest 1996

BA Stanford University 1991

**Vincent R De Mello**Assistant Professor of Clinical Medicine (primary appointment)

**Anne V Dean**Instructor in Clinical Medicine (primary appointment)

**Melissa DeFoe, MD**Instructor in Medicine (primary appointment)

MD Univ of Texas Med Sch Houston 2013

**Angeline Diane DeiSanti, MD**Assistant Professor of Medicine (primary appointment)

MD University of MO Columbia 2003

BS University of MO Columbia 1998

**Jennifer A. Delaney, MD**Instructor in Clinical Medicine (primary appointment)

BA Georgetown University 1992

MD Washington Univ in St. Louis 1997

**James Albert Delmez, MD**Professor of Medicine (primary appointment)

MD University of Rochester 1973

BA Washington Univ in St. Louis 1969

**Rowena Bayudan Delos Santos**Assistant Professor of Medicine (primary appointment)

BS Creighton University 2000

**Bethany L Dement, MD**Instructor in Medicine (primary appointment)

MD Southeast Missouri St Unvers 2001

**David G. DeNardo, PHD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

BS Willamette University 1999

PHD Baylor University 2005

Amber Zimmer Deptol**Instructor in Medicine** (primary appointment)

Sunny Desai**Instructor in Clinical Medicine** (primary appointment)

**Teresa Deshields, PHD, MS**Associate Professor of Clinical Medicine (primary appointment)

PHD University of Georgia 1985

BA Meredith College 1981

MS University of Georgia 1983

**Vladimir Novak Despotovic, MD**Assistant Professor of Medicine (primary appointment)

MD Michigan State University 2004

**Neelendu Dey, MD**Assistant Professor of Medicine (primary appointment)

MD Yale University 2005

BS Harvard University 2000

**Michael Diamond, MD**Professor of Medicine (primary appointment)

**Professor of Molecular Microbiology**

**Professor of Pathology and Immunology**

**Herbert S Gasser Professor**

BA Columbia College 1985

MD Harvard University 1994

**Judith A Dibble, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1986

**Brian K Dieckgraefe, PHD**Associate Professor of Medicine (primary appointment)

PHD Washington Univ in St. Louis 1987

BA University of Kansas 1982

**Kathryn M Diemer, MD**Associate Professor of Medicine (primary appointment)

**Assistant Dean for Career Counseling**

BA University of Missouri 1984

MD University of Missouri 1985

**James A Diestelhorst, MD**Instructor in Clinical Medicine (primary appointment)

BS Southern Illinois University 1964

MD University of Missouri 1967

**Li Ding, PHD**Associate Professor of Medicine (primary appointment)

**Associate Professor of Genetics**

PHD University of Utah 1998

**John F Dipersio, MD, PHD** Virginia E and Sam J Golman Professor of Medicine (primary appointment)

**Professor of Pediatrics**

**Professor of Pathology and Immunology**

MD University of Rochester 1980

PHD University of Rochester 1980

BA Williams College 1973

Richard M Divaleri **Instructor in Clinical Medicine** (primary appointment)

Abhinav Diwan **Associate Professor of Medicine** (primary appointment)

**Associate Professor of Cell Biology and Physiology**

**Martin A Docherty, MD** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

BS Edinburgh University 1978

MD Saint Louis University 1983

**Irl Joseph Don, MD** Associate Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1972

**James W Donnelly, MD** Instructor in Clinical Medicine (Dermatology) (primary appointment)

BA Northwestern University 1982

MD Washington Univ in St. Louis 1986

**Balraj Doray** Assistant Professor of Medicine (primary appointment)

BS Southern Illinois University 1993

Gerald W. Dorn II **Philip and Sima K Needleman Professor of Medicine** (primary appointment)

**William H Dribben, MD** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD University of North Carolina 1990

BA University of North Carolina 1985

**Erik R Dubberke, MPH, MD** Associate Professor of Medicine (primary appointment)

BA Augustana University College 1995

MPH Saint Louis University 2008

MD University of Illinois 1999

**James Matthew DuBois, D SC, MA, PHD** Steven J Bander Professor of Medical Ethics and Professionalism (primary appointment)

**Professor of Psychological & Brain Sciences**

D SC University of Vienna 1997

MA University of Rhode Island 1990

PHD Intrnl Academy of Philosophy 1992

BA Franciscan University Stubenv 1989

**Nicole Marie Ducharme, DOST** Instructor in Clinical Medicine (primary appointment)

DOST Univ of Health Sciences KC 2003

**Carolyn Dufault, PHD** Instructor in Medicine (primary appointment)

**Assistant Dean for Office of Education**

PHD Washington Univ in St. Louis 2009

**Maria C Dumadag-Sabio, MD** Instructor in Clinical Medicine (primary appointment)

BA University of Missouri 1988

MD University of Missouri 1988

Edward Harry DuMontier **Instructor in Clinical Medicine** (primary appointment)

**William C Dunagan, MD, MS**Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1983

MS University of Texas Austin 1980

BS University of Texas Austin 1978

**Julia Passyn Dunn, MD, MS**Assistant Professor of Medicine (primary appointment)

MD University of South Alabama 2002

MS Vanderbilt University 2010

**Kirsten F Dunn, MD**Instructor in Medicine (primary appointment)

MD Saint Louis University 2012

**Michael Joseph Durkin**Instructor in Medicine (primary appointment)

BA Illinois Wesleyan University 2004

M PH1 University of North Carolina 2015

**Tiffany Biason Dy, MD**Instructor in Medicine (primary appointment)

BS University of Miami 2005

MD Univ Texas Health Science Ctr 2009

**William Charles Eades Jr**Associate Professor of Medicine (primary appointment)

**Dayna S Early, MD**Professor of Medicine (primary appointment)

BA University of Missouri 1986

MD University of Missouri 1990

**Royal J Eaton, MD**Instructor in Clinical Medicine (primary appointment)

BA University of Missouri 1960

MD University of Missouri 1964

**Charles S Eby**Professor of Pathology and Immunology (primary appointment)

Professor of Medicine

BS Duke University 1977

**Charmaine E. Edwards**Instructor in Clinical Medicine (primary appointment)

BS Alcorn State University 1987

**John R. Edwards, PHD**Assistant Professor of Medicine (primary appointment)

PHD Columbia University 2003

**Stilianos Efstratiadis**Assistant Professor of Clinical Medicine (primary appointment)

**Russell E Eggebrecht, MD**Associate Professor of Clinical Medicine (primary appointment)

BS University of Illinois 1967

MD Washington Univ in St. Louis 1971

**Ali A Ehsani, MD**Professor of Medicine (primary appointment)

MD Tehran University 1965

**Zamir Eidelman**Associate Professor of Clinical Medicine (primary appointment)

**Arthur Z Eisen, MS, MD**Professor of Medicine (Dermatology) (primary appointment)

MS Brown University 1953

BA State Univ of NY Buffalo 1951

MD University of Pennsylvania 1957

**Seth A Eisen, MD, MS**Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1966

MS Harvard University 1989

BA Reed College 1963

**Linda G Eissenberg, PHD**Assistant Professor of Medicine (primary appointment)

BA University of Tennessee 1977

PHD University of North Carolina 1982

**Lamice R. El-Kholy**Instructor in Clinical Medicine (primary appointment)



UNKNOWN School Not Listed 1982

**John Ellena, MD** Associate Professor of Clinical Medicine (primary appointment)

MD Southern Illinois University 1983

BS Southern Illinois University 1980

**Charlene Ann Ellsworth, PHD, MD** Instructor in Clinical Medicine (primary appointment)

PHD Mass Inst of Technology (MIT) 2004

MD Washington Univ in St. Louis 2008

**Amged Eltahir, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Khartoum 1985

AB1 Saint Louis University 2006

**Jill Elizabeth Elwing, MD** Assistant Professor of Medicine (primary appointment)

BS University of MO Columbia 1996

MD University of MO Columbia 2000

**James Michael Epstein, MD** Instructor in Clinical Medicine (primary appointment)

BS University of Notre Dame 1965

MD Washington Univ in St. Louis 1969

**Gerome V Escota** Assistant Professor of Medicine (primary appointment)

**Neil A Ettinger, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1983

BS Vanderbilt University 1979

**Bradley A Evanoff, MD** Richard A and Elizabeth Henby Sutter Professor of Occupational, Industrial, and Environmental Medicine in Medicine (primary appointment)

**Professor of Occupational Therapy**

**Assistant Dean for Clinical and Translational Research**

BA Cornell University 1982

MD Washington Univ in St. Louis 1986

**Alex S Evers** Henry E Mallinckrodt Professor of Anesthesiology (primary appointment)

**Head of the Department of Anesthesiology**

**Professor of Developmental Biology**

**Professor of Medicine**

BS Yale University 1974

**Carol Jane Evers** Instructor in Clinical Medicine (primary appointment)

**Gregory A Ewald, MD** Associate Professor of Medicine (primary appointment)

MD Northwestern University 1989

**Elisa Fabbrini, PHD** Adjunct Assistant Professor of Medicine (primary appointment)

PHD La Sapienza University 2006

**Mitch N Faddis, MD** Associate Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1993

BS Kansas State University 1985

**Akinrinola Fatoki** Instructor in Clinical Medicine (primary appointment)

**Todd A Fehniger, MD, PHD** Associate Professor of Medicine (primary appointment)

MD Ohio State University 2002

PHD Ohio State University 2000

**Herman L Ferrell** Instructor in Clinical Medicine (primary appointment)

BS University of Arkansas 1973

**Brian N. Finck, PHD** Associate Professor of Medicine (primary appointment)

BS University of Illinois 1994

PHD University of Illinois 2000

**Lewis Conrad Fischbein, MD** Associate Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1974

**Peter Uwe Fischer, MS** Associate Professor of Medicine (primary appointment)

MS Free University of Berlin 1991

**Norman Fishman, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD School Not Listed 1974

BA School Not Listed 1970

**Sean C. Fitzmaurice, MD** Instructor in Emergency Medicine in Medicine (primary appointment)

MD Saint Louis University 1995

BS Georgetown University 1989

**James M Fleckenstein, MD** Associate Professor of Medicine (primary appointment)

MD Saint Louis University 1985

BS Xavier University 1981

**Jaquelyn F Fleckenstein, MD** Professor of Medicine (primary appointment)

MD Saint Louis University 1985

BA Cornell University 1981

**Avegail Gascon Flores, MD** Assistant Professor of Medicine (primary appointment)

MD University of Pittsburgh 2007

**Justin Douglas Floyd, DOST** Assistant Professor of Clinical Medicine (primary appointment)

DOST Kirksville College of Osteopat 2000

BS University of Arizona 1996

**Emily Fondahn, MD** Assistant Professor of Medicine (primary appointment)

MD Northwestern University 2008

**Luigi Fontana, MD, PHD** Professor of Medicine (primary appointment)

MD University of Verona 1994

PHD University of Padova 2004

**Glennon Joseph Fox, MD** Instructor in Clinical Medicine (primary appointment)

MD University of MO Columbia 1984

**Judy Ann Frain, BN, MSN, PHD** Adjunct Assistant Professor of Medicine (primary appointment)

BN Webster University 2003

MSN Saint Louis University 2004

PHD University of MO St Louis 2013

**James Matthew Freer, MD** Assistant Professor of Medicine (primary appointment)

BS Truman State University 1998

MD University of MO Columbia 2002

**Deborah Frenchie, MD** Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1993

BA Washington Univ in St. Louis 1984

**Ashley Elizabeth Frith, MD** Assistant Professor of Medicine (primary appointment)

MD University of AR Med Sciences 2008

**Brian R. Froelke, MD** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD University of Cincinnati 2002

**Brian M Fuller, MD** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

Assistant Professor of Anesthesiology

Assistant Professor of Anesthesiology

MD University of Alabama 2003

BA University of Alabama 1998



**Michael Paul Fuller, MD** Associate Professor of Clinical Medicine (primary appointment)

MD University of Utah 1994

BA Brigham Young University 1990

Suzanne Furesz **Instructor in Clinical Medicine** (primary appointment)

**Gary Gaddis, PHD, MD** Professor of Emergency Medicine in Medicine (Pending Executive Faculty Approval) (primary appointment)

PHD Indiana State University 1984

MD Indiana University School of M 1986

**Brian F Gage, MD** Professor of Medicine (primary appointment)

MD University of California 1988

BS Stanford University 1984

**Daniel Gaitan, MD** Associate Professor of Clinical Medicine (primary appointment)

BS University of AL Birmingham 1980

MD University of Mississippi 1986

**Arthur H Gale, MD** Associate Professor of Clinical Medicine (primary appointment)

MD University of Missouri 1959

**Feng Gao, PHD** Associate Professor of Surgery (Public Health Science) (primary appointment)

Associate Professor of Biostatistics

Associate Professor of Medicine

PHD Emory University 2003

**Jane M. Garbutt, MHS, MBCHB** Professor of Medicine (primary appointment)

Professor of Pediatrics

MHS University of Toronto 1988

MBCHB Bristol University 1977

**John A Garcia, MD** Instructor in Clinical Medicine (primary appointment)

BA Carleton College 1985

MD University of Illinois 1990

**Jacquelyn B Garrett, MD** Instructor in Clinical Medicine (Dermatology) (primary appointment)

MD Howard University 1985

BS Howard University 1983

**Francisco J Garriga, MD** Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1970

BS University of Puerto Rico 1966

**Felicitas Z Gatachalian, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Santo Tomas 1976

BS University of Santo Tomas 1970

**Joseph H Gatewood, MD** Instructor in Emergency Medicine in Medicine (primary appointment)

MD University of Chicago 1970

BA Swarthmore College 1966

**Joseph P. Gaut, PHD, MD** Assistant Professor of Pathology and Immunology (primary appointment)

Assistant Professor of Medicine

BA Washington Univ in St. Louis 1996

PHD Washington Univ in St. Louis 2004

MD Washington Univ in St. Louis 2004

**William M Gee, MD** Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1981

BA Cornell College 1977

**Richard A Geisman, MD**Instructor in Clinical Medicine (primary appointment)

MD Tulane University 1983

BS Saint Louis University 1979

**Edward M Geltman, MD**Professor of Medicine (primary appointment)

**Assistant Professor of Radiology**

BS Mass Inst of Technology (MIT) 1967

MD New York University 1971

**Ige A George, MBBS**Instructor in Medicine (primary appointment)

MBBS Christian Medical College 1998

**Armin Ghobadi, MD**Assistant Professor of Medicine (primary appointment)

MD Iran Univ of Medical Sciences 2001

**Matthew John Gibfried, MD**Instructor in Clinical Medicine (primary appointment)

MD University of MO Columbia 2003

**Stephen James Giddings, MD, PHD**Associate Professor of Medicine (primary appointment)

MD University of Rochester 1976

PHD Dartmouth College 1973

BA Dartmouth College 1968

**Thomas J Girard, PHD**Assistant Professor of Medicine (primary appointment)

BS Univ of Wisconsin Oshkosh 1979

PHD Iowa State University 1985

**Margo Renee Girardi, MD**Assistant Professor of Medicine (primary appointment)

MD Saint Louis University 2005

BS University of Illinois 2001

**Gardar T Gislason**Adjunct Instructor in Medicine (primary appointment)

**Josephine Lee Aguhob Glaser**Instructor in Clinical Medicine (primary appointment)

**Marye J Gleva, MD**Professor of Medicine (primary appointment)

MD University of Washington 1988

BA Wellesley College 1984

**Andrew S Gold, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Iowa 1989

BS University of Illinois 1985

**Anne Carol Goldberg, MD**Professor of Medicine (primary appointment)

BA Harvard University 1973

MD University of Maryland 1977

**Daniel E Goldberg, MD**David M and Paula L Kipnis Distinguished Professor (primary appointment)

**Professor of Molecular Microbiology**

MD Washington Univ in St. Louis 1985

**Gregory I Goldberg, PHD**Professor of Medicine (Dermatology) (primary appointment)

**Professor of Biochemistry and Molecular Biophysics**

PHD Weizmann Institute of Science 1977

**Seth Goldberg, MD**Assistant Professor of Medicine (primary appointment)

BS University of South Florida 1999

MD University of South Florida 2003

**Scott Ryan Goldsmith**Instructor in Medicine (primary appointment)

**Benjamin M Goldstein, MD**Associate Professor of Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1960

MD Washington Univ in St. Louis 1964

**Yong-feng Gong, MS, PHD**Instructor in Medicine (primary appointment)

MS China Medical University 2005

PHD Zhejiang Medical University 2009

**Maria Cristina Gonzalez-Mayda, MD**Assistant Professor of Medicine (primary appointment)

MD University of Puerto Rico 2008

BS University of Puerto Rico 2004

Daniel M Goodenberger**Professor of Medicine** (primary appointment)

**Jeffrey I Gordon, MD**Professor of Pathology and Immunology (primary appointment)

**Dr Robert J Glaser Distinguished University Professor**

**Director of the Center for Genome Sciences**

**Professor of Medicine**

**Professor of Developmental Biology**

BA Oberlin College 1969

MD University of Chicago 1973

**Mary Jo Gorman, MBA**Instructor in Clinical Medicine (primary appointment)

MBA Washington Univ in St. Louis 1996

BA Saint Louis University 1981

**Ramaswamy Govindan, MD**Professor of Medicine (primary appointment)

MD University of Madras 1986

Siddhesh Gowda**Associate Professor of Clinical Medicine** (primary appointment)

**Gregory Alan Grant, PHD**Professor of Biochemistry in Medicine (**Dermatology**) (primary appointment)

**Professor of Developmental Biology**

PHD Univ of Wisconsin Madison 1975

BS Iowa State University 1971

**Jonathan M Green, MD**Professor of Medicine (primary appointment)

**Associate Dean for Human Studies**

**Professor of Pathology and Immunology**

BS University of Michigan 1982

MD Wayne State University 1986

Aaron Greenspan**Instructor in Clinical Medicine** (primary appointment)

**Mark H Gregory, MD**Assistant Professor of Clinical Medicine (primary appointment)

MD University of Vermont 1986

**Walter Blake Gribben, MD**Instructor in Medicine (primary appointment)

MD University of Alabama 2010

**Richard T Griffey Jr, MD**Associate Professor of Emergency Medicine in Medicine (primary appointment)

MD Norfolk General Hospital 1977

**Obi Lee Griffith, PHD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Genetics**

PHD British Columbia Open Univ 2008

**Scott D. Groesch, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1994

**John R Groll, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Illinois 1988

BA Illinois Wesleyan University 1984

**Robert John Gropler, MD**Professor of Radiology (primary appointment)

**Associate Professor of Medicine**

**Associate Professor of Biomedical Engineering**

BS Allegheny College 1977

MD University of Cincinnati 1981

**Richard Warren Gross, PHD, AB, MD** Professor of Medicine (primary appointment)

**Professor of Developmental Biology**

**Professor of Chemistry**

PHD Washington Univ in St. Louis 1982

AB Columbia University 1972

MD New York University 1976

**Brenda Jean Grossman, MS, MD** Professor of Pathology and Immunology (primary appointment)

**Professor of Medicine**

MS Saint Louis University 2003

MD Medical College Georgia 1980

BS Ohio University 1976

**Jessica Rosenbaum Grubb, MD** Assistant Professor of Medicine (primary appointment)

BA John Hopkins University 1992

MD University of Maryland 1996

**Brian Anthony Grus, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Pennsylvania 1992

BS University of Pittsburgh 1988

**Guner B Gulmen, PHD** Assistant Professor of Clinical Medicine (primary appointment)

PHD University of Minnesota 1974

**Vyjanthanath R. Gunasingham, MD** Instructor in Clinical Medicine (primary appointment)

MD School Not Listed 1982

BS School Not Listed 1975

**Mark Cobb Gunby, DOST** Assistant Professor of Clinical Medicine (primary appointment)

BS University of Tulsa 1981

DOST Oklahoma St University 1988

**Maria Gurrieri, MD, DIP** Instructor in Clinical Medicine (primary appointment)

MD Catholic University 1989

DIP School Not Listed 1982

**Reena Gurung, MD** Instructor in Medicine (primary appointment)

MD Kathmandu University 2007

**Alexandra Gutierrez, MD, M PH** Associate Professor of Medicine (primary appointment)

MD Case Western Reserve Univ 2000

M PH Harvard University 2006

BS Brown University 1996

**Chandra Prakash Gyawali, MBBS, MD** Professor of Medicine (primary appointment)

MBBS University of Calicut 1985

MD University of Calicut 1990

**Ramsey R Hachem, MD** Professor of Medicine (primary appointment)

**Tracey C Marshall - Dr. Elbert P Trulock** Distinguished Professor of Medicine

MD1 University of Texas Southwest 1997

MD University of Texas Southwest 1997

BA1 Southern Methodist University 1992

BA Southern Methodist University 1992

Matthew D Hageman Instructor in Clinical Medicine (primary appointment)

Jennifer Christine Hagopian Adjunct Instructor in Medicine (primary appointment)

**Ashfaq H Hakim, MD, MBBS** Instructor in Clinical Medicine (primary appointment)

MD RNT Medical College 1973

MBBS RNT Medical College 1968

**Ilia Gueorguev Halatchev, MD** Assistant Professor of Medicine (primary appointment)

MD Oregon Health Science Univ 2007

**Sarah Eliza Halcomb, MD** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD Royal College of Surgeons 2000

**Angela Marie Hall, PHD** Assistant Professor of Medicine (primary appointment)

PHD Univ of Minnesota Twin Cities 2005

BS University of MO Columbia 1999

**Ira McCarthy Hall, PHD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Genetics**

**Associate Director of the Genome Center**

BS University of CA Berkeley 1998

PHD Cold Spring Harbor Laboratory 2003

Yasir A Hamad **Instructor in Medicine** (primary appointment)

**Stephanie M Hammer, MD** Instructor in Clinical Medicine (primary appointment)

MD Chicago St University 1995

Se Young Han **Instructor in Medicine** (primary appointment)

Zahirul Haque **Instructor in Clinical Medicine** (primary appointment)

Charles A. Harris **Assistant Professor of Medicine** (primary appointment)

**Assistant Professor of Developmental Biology**

**Lydia-Ann Lynell Harris, PHD** Instructor in Medicine (primary appointment)

PHD State University of New York 2011

**Jeffrey A Haspel** Assistant Professor of Medicine (primary appointment)

BS Binghamton University 1994

**Anisa Hassan, MD** Instructor in Clinical Medicine (primary appointment)

MD Dow Medical College Karachi 1976

**Thomas F Hastings, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Missouri 1986

BA Rockhurst College 1981

**Krysta Lynn Heath, MD** Instructor in Medicine (primary appointment)

MD University of AR Med Sciences 2011

**George Heberton, MD** Instructor in Medicine (primary appointment)

MD Univ of Texas Med Sch Houston 2013

**James N Heins, MD** Professor of Clinical Medicine (primary appointment)

**Adjunct Professor of Medicine**

MD University of Louisville 1961

BA University of Louisville 1957

Laura Elaina Heitsch **Assistant Professor of Emergency Medicine in Medicine** (primary appointment)

**Assistant Professor of Neurology**

**Jason M Held, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Anesthesiology**

PHD University of San Francisco 2006

BS Duke University 2001

**Jeffrey P. Henderson, PHD, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Molecular Microbiology**

PHD Washington Univ in St. Louis 2002

BS Univ of Wisconsin Madison 1994

MD Washington Univ in St. Louis 2002

**Katherine Eileen Henderson** Assistant Professor of Clinical Medicine (primary appointment)

BS Univ of Wisconsin Madison 1993

**Kristina Louise Henderson, MD** Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 1991

BA Saint Louis University 1982

Daniel Robert Herleth Instructor in Clinical Medicine (primary appointment)

Catherine Hermann Instructor in Clinical Medicine (primary appointment)

**Leonel F. Hernandez Aya, MD** Assistant Professor of Medicine (primary appointment)

MD Universidad Nacional de Columb 2007

**Cynthia Joan Herrick, MD** Assistant Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 2006

BS Princeton University 2002

**Andreas Herrlich, PHD, MD** Associate Professor of Medicine (primary appointment)

PHD Freie University 1998

MD Freie University 1994

**Virginia M Herrmann, MD** Professor of Surgery (General Surgery) (primary appointment)

**Professor of Medicine**

MD Saint Louis University 1974

Jennifer Kristen Hester Instructor in Clinical Medicine (primary appointment)

**Scot G Hickman, MD** Professor of Medicine (primary appointment)

BA Duke University 1966

MD Washington Univ in St. Louis 1970

**Stuart T. Higano, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Massachusetts 1984

SueLin Ming Hilbert Assistant Professor of Emergency Medicine in Medicine (primary appointment)

**Elizabeth Hilliker, MA** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

**Assistant Professor of Surgery (General Surgery)**

BA Washington Univ in St. Louis 1965

MA Washington Univ in St. Louis 1970

**Paul Flack Hintze, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD University of Utah 1978

BS Brigham Young University 1974

**Angela Christine Hirbe, MD, PHD** Assistant Professor of Medicine (primary appointment)

BS Washington Univ in St. Louis 2001

MD Washington Univ in St. Louis 2009

PHD Washington Univ in St. Louis 2009

**Grant S. Hoekzema, MD** Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1992

**J. Langston Hoffman, MD** Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1999

BS Univ of Wisconsin Madison 1994

**Sandra S Hoffmann, MD** Instructor in Clinical Medicine (primary appointment)

BA University of Kansas 1972



MD University of Kansas 1976

**John Otto Holloszy, MD** Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1957

Christopher Vincent Holthaus Assistant Professor of Emergency Medicine in Medicine (primary appointment)

Michael J Holtzman Selma and Herman Seldin Professor of Medicine (primary appointment)  
Professor of Cell Biology and Physiology

Neal Holzum Instructor in Clinical Medicine (primary appointment)

Hitoshi Honda Adjunct Assistant Professor of Medicine (primary appointment)

**Barry Allen Hong, MD** Professor of Psychiatry (primary appointment)

Professor of Psychological & Brain Sciences

Vice Chairman for Clinical Affairs, Department of Psychiatry

Professor of Medicine

BA Concordia University 1969

MDI Concordia University 1972

**Bruce Jay Hookerman, MD** Assistant Professor Emeritus of Clinical Medicine (Dermatology) (primary appointment)

Asst Prof Emeritus of Clin Medicine (Derm) (primary appointment)

MD Saint Louis University 1968

BA Dartmouth College 1964

**Barbra A Horn, MD** Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1982

BA Clark University 1975

**Ian Kerst Hornstra, PHD, MD** Associate Professor of Medicine (Dermatology) (primary appointment)

PHD University of Florida 1993

MD University of MO Kansas City 1986

BA University of MO Kansas City 1985

Timothy Adam Horwedel Adjunct Instructor in Medicine (primary appointment)

Richard S Hotchkiss Professor of Anesthesiology (primary appointment)

Professor of Surgery (General Surgery)

Professor of Developmental Biology

Professor of Medicine

**Jianghui Hou, PHD** Associate Professor of Medicine (primary appointment)

PHD Edinburgh University 2003

BS Nanjing University 1999

**Dennis Emil Hourcade, MA, PHD** Professor of Medicine (primary appointment)

BS Mass Inst of Technology (MIT) 1971

MA Harvard University 1974

PHD Harvard University 1978

**Stacey L House** Instructor in Emergency Medicine in Medicine (primary appointment)

BS Yale University 1999

**Jacqueline Howard** Instructor in Clinical Medicine (primary appointment)

UNKNOWN School Not Listed 1995

David Thomas Howell Instructor in Clinical Medicine (primary appointment)

**Randall A Howell, MD** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

BS Kansas State University 1974

MD Kansas State University 1978

**Keith A Hruska, MD** Professor of Pediatrics (primary appointment)

**Professor of Cell Biology and Physiology**

**Professor of Medicine**

BS Creighton University 1965

MD Creighton University 1969

Chyi-Song Hsieh **Associate Professor of Medicine** (primary appointment)

**Associate Professor of Pathology and Immunology**

**Alan A and Edith L Wolff Distinguished Professor**

**Fong Fu Hsu, PHD, MS** Professor of Medicine (primary appointment)

PHD University of Utah 1986

MS Tsinghua University, China 1975

**Kevin Hsueh, MD** Instructor in Medicine (primary appointment)

BS Williams College 2003

BS1 Williams College 2003

MD New York University 2008

Raymond J Hul **Instructor in Clinical Medicine** (primary appointment)

Wei-Wei Huang **Instructor in Clinical Medicine (Dermatology)** (primary appointment)

**Yafei Huang, PHD, MS** Instructor in Medicine (primary appointment)

PHD Univ of Texas Med Sch Houston 2007

MS Beijing Medical University 2000

**John W Hubert, MD** Associate Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1975

BA Wabash College 1971

**Elizabeth Stack Huebner, MD** Assistant Professor of Medicine (primary appointment)

BA Washington Univ in St. Louis 1995

MD Loyola University Chicago 2000

**Laura Huff, MD** Assistant Professor of Medicine (Dermatology) (primary appointment)

MD U of Colorado Health Sci Ctr 2011

BS Colorado St University 2006

**Jing Hughes, MD** Instructor in Medicine (primary appointment)

MD University of Pennsylvania 2009

BS Stanford University 2002

Benjamin Duane Humphreys **Associate Professor of Medicine** (primary appointment)

**Eva A Hurst, MD** Associate Professor of Medicine (Dermatology) (primary appointment)

MD Washington Univ in St. Louis 2002

**Mark Albert Hurt, MD** Instructor in Clinical Medicine (Dermatology) (primary appointment)

MD University of Missouri 1982

BS Southeast Missouri St Unvers 1978

**Jennifer L Hyde, PHD** Instructor in Medicine (primary appointment)

BS University of Queensland 2005

PHD University of Queensland 2011

Richard G. Ihnat **Instructor in Clinical Medicine** (primary appointment)

Shin-Ichiro Imai **Professor of Developmental Biology** (primary appointment)

**Professor of Medicine**

**Belinda K. Ireland, MD** Adjunct Assistant Professor of Medicine (primary appointment)

MD University of MO Columbia 1976

**Warren Isakow, MD** Associate Professor of Medicine (primary appointment)



MD University of the Witwatersra 1998  
**Hassan Issa, MD**Instructor in Medicine (primary appointment)  
MD Tishreen Univ College of Med 2003  
**Eva Susanne Istvan**Assistant Professor of Medicine (primary appointment)  
**HHMI Specialist II**  
BS University of Houston 1993  
**Carolyn M Jachna, MD**Assistant Professor of Medicine (primary appointment)  
BS Washington Univ in St. Louis 1993  
MD Northwestern University Med 1998  
**Daryl Jacobs, MD, ME**Instructor in Clinical Medicine (primary appointment)  
BS Washington Univ in St. Louis 1977  
MD Washington Univ in St. Louis 1983  
ME Carnegie Mellon University 1979  
**Myron H Jacobs, MD**Instructor in Clinical Medicine (primary appointment)  
BA Vanderbilt University 1965  
MD Louisiana St Univ Hlth Sci 1969  
**Steven Jacobson, MD**Instructor in Clinical Medicine (primary appointment)  
MD Saint Louis University 1985  
**Meagan A. Jacoby, MD**Assistant Professor of Medicine (primary appointment)  
MD Washington Univ in St. Louis 2005  
**Sanjay Jain**Associate Professor of Medicine (primary appointment)  
**Associate Professor of Pathology and Immunology**  
BA University of California 1990  
**Sudhir Kumar Jain, MBBS**Associate Professor of Medicine (primary appointment)  
MBBS Maulana Azad Medical College 1986  
George JaradAssistant Professor of Medicine (primary appointment)  
**Daniel Ragin Jasper, MD**Instructor in Clinical Medicine (primary appointment)  
BA University of Texas Austin 1990  
MD Saint Louis University 1994  
**Anuja Java, MD**Instructor in Medicine (primary appointment)  
MD Government Medical College 2002  
**Donna Beth Jeffe, MA**Professor of Medicine (primary appointment)  
MA Washington Univ in St. Louis 1990  
BA Washington Univ in St. Louis 1972  
**Christopher M. Jenkins, PHD**Assistant Professor of Medicine (primary appointment)  
PHD Vanderbilt University 1997  
BS Michigan State University 1991  
**Xuntian Jiang, PHD**Assistant Professor of Medicine (primary appointment)  
PHD China Pharmaceutical Univ 1992  
**Morris Joftus, MD**Assistant Professor of Clinical Medicine (primary appointment)  
MD University of Illinois 1967  
**Eric Keith Johnson, MD**Instructor in Medicine (primary appointment)  
MD Univ of Wisconsin Madison 1999  
**Reuben D Johnson, BE, MD**Assistant Professor of Emergency Medicine in Medicine (primary appointment)  
BE Georgia Tech 1996  
BS1 Morehouse College 1996  
MD Howard University College of M 2002

William F Johnson **Adjunct Instructor in Medicine** (primary appointment)  
Sushma Jonna, MD **Instructor in Medicine** (primary appointment)  
MD Saint Louis University 2013  
Amy M Joseph **Associate Professor of Medicine** (primary appointment)  
BA Johnston Community College 1977  
Barbara Jost, MS **Instructor in Clinical Medicine** (primary appointment)  
MS Northwestern University 1995  
BS University of Missouri 1993  
Randall S Jotte **Associate Professor of Emergency Medicine in Medicine** (primary appointment)  
Brad S Kahl, MD **Professor of Medicine** (primary appointment)  
BS University of Wisconsin-Madison 1989  
MD Tufts University 1994  
Caroline Holleck Kahle, MD **Assistant Professor of Medicine** (primary appointment)  
MD University of North Carolina 2006  
Sona Sharad Kamat **Instructor in Clinical Medicine** (primary appointment)  
Vinay Gopal Kamat, MD **Instructor in Clinical Medicine** (primary appointment)  
MD University of Pennsylvania 1994  
Deborah Shipley Kane, MD **Assistant Professor of Emergency Medicine in Medicine** (primary appointment)  
BA University of MO Kansas City 2006  
MD University of MO Kansas City 2006  
Patricia F Kao, BE, MD **Associate Professor of Medicine (Pending Executive Faculty Approval)**  
(primary appointment)  
MS2 Ohio State University 1997  
BE Princeton University 1994  
MD Case Western Reserve Univ 2001  
Robert S Karsh, MD **Professor of Clinical Medicine** (primary appointment)  
BA Washington Univ in St. Louis 1951  
MD Washington Univ in St. Louis 1952  
Victoria Kaskutas, MHS **Associate Professor of Occupational Therapy** (primary appointment)  
**Associate Professor of Medicine**  
BS University of Illinois 1980  
MHS Washington Univ in St. Louis  
Andrew M. Kates, MD **Associate Professor of Medicine** (primary appointment)  
BS Tufts University 1990  
MD Tufts University 1994  
Shashi Krishna Katukoori, MS **Instructor in Medicine** (primary appointment)  
BS Kakatiya Medical College 2004  
MS Eastern Kentucky University 2010  
David A Katzman, MD **Instructor in Clinical Medicine** (primary appointment)  
MD Saint Louis University 1991  
BA Brown University 1986  
Andrew L. Kau, MD, PHD **Assistant Professor of Medicine** (primary appointment)  
BS Emory University 1998  
MD Washington Univ in St. Louis 2006  
PHD Washington St University 2006  
Charles Kaufman, PHD, MD **Assistant Professor of Medicine (Pending Executive Faculty Approval)**  
(primary appointment)

**Assistant Professor of Developmental Biology**

PHD University of Chicago 2003

MD University of Chicago 2005

BA Washington Univ in St. Louis 1997

**Robert L Kaufman, MD**Assistant Professor of Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1959

MD Washington Univ in St. Louis 1963

**Elizabeth Jane Keath, PHD**Assistant Professor of Medicine (primary appointment)

BA University of MO St Louis 1978

PHD Saint Louis University 1985

**Dalius Kedainis, MD**Instructor in Clinical Medicine (primary appointment)

MD Kaunas University of Medicine 1998

**Jacob Brian Keeperman, MD**Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Emergency Medicine in Medicine**

MD Loyola University Chicago 2006

Eirini Kefalogianni**Instructor in Medicine** (primary appointment)

**Jesse Wade Keller****Instructor in Medicine** (primary appointment)

BS University of Tulsa 2005

**Daniel P Kelly, MD**Adjunct Professor of Medicine (primary appointment)

BS University of Illinois 1978

MD University of Illinois 1982

**John J Kelly, MD**Associate Professor of Medicine (primary appointment)

BS Rockhurst College 1959

MD Saint Louis University 1963

**Charlotte J Kennedy, PHD, MD**Assistant Professor of Clinical Medicine (primary appointment)

PHD Washington Univ in St. Louis 1992

MD Washington Univ in St. Louis 1992

BA Agnes Scott College 1984

**Joseph L Kenzora, MD**Associate Professor of Medicine (primary appointment)

MD University of New Mexico 1975

**Martin Hurley Kerrigan**Assistant Professor of Medicine (primary appointment)

BS Saint Josephs University 2001

Ahmed Sultan Khan**Adjunct Instructor in Medicine** (primary appointment)

**Thomas B Kibby, MD**Instructor in Emergency Medicine in Medicine (primary appointment)

MD Eastern Virginia Med School 1979

**Daniel Jason Kichura, MD**Instructor in Medicine (primary appointment)

MD Israel Institute of Technology 2012

**George Kichura, MD**Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 1993

**Mary Kiehl, AS**Assistant Professor of Clinical Medicine (primary appointment)

BA University of California 1985

AS Long Beach City College 1976

**Kenneth Richard Kilian, MD**Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 1984

**Charles Kilo, MD**Professor of Medicine (primary appointment)

**Professor of Pathology and Immunology**

MD Washington Univ in St. Louis 1959

**Charles John Kilo, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1991

BA University of Kansas 1987

**Albert J Kim, MD**Instructor in Emergency Medicine in Medicine (primary appointment)

BS University of Chicago 2005

MD Northwestern University 2009

Alfred KimAssistant Professor of Medicine (primary appointment)

Assistant Professor of Pathology and Immunology

**Brian Kim, MD**Assistant Professor of Medicine (Dermatology) (primary appointment)

Assistant Professor of Anesthesiology

Assistant Professor of Pathology and Immunology

MD University of Washington 2007

BS Haverford College 2001

Helen Young Kim-JamesInstructor in Clinical Medicine (Dermatology) (primary appointment)

**Rosa Anne Kincaid**Instructor in Clinical Medicine (primary appointment)

BA City College 1970

**Allison A King, MD**Associate Professor of Occupational Therapy (primary appointment)

Associate Professor of Pediatrics

Associate Professor of Pediatrics

Associate Professor of Education (Courtesy)

Associate Professor of Surgery (General Surgery)

Associate Professor of Medicine

Associate Professor of Medicine

MD University of MO Columbia 1996

**Donald Kevin King, MD**Assistant Professor of Clinical Medicine (primary appointment)

BA Fairfield University 1966

MD Johns Hopkins University Medic 1970

**Kevin Patrick King, MD**Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 2006

**Tinna P King**Instructor in Clinical Medicine (primary appointment)

BA University of Missouri 1988

**Erik Paul Kirk, MS, PHD**Adjunct Assistant Professor of Medicine (primary appointment)

MS University of Kansas 2001

PHD University of Kansas 2004

**Nigar Kirmani, MD**Professor of Medicine (primary appointment)

MD King Edward Medical College 1973

**Sameer M. Kirtane, MD**Instructor in Clinical Medicine (primary appointment)

MD Jefferson Medical College 2008

**Michael K Klebert, BN, PHD, MSN**Instructor in Medicine (primary appointment)

BA Southern Illinois University 1979

BN Southern Illinois University 1981

PHD University of MO St Louis 2008

MSN University of Texas Austin 1987

Robert E KleigerProfessor of Medicine (primary appointment)

**Robyn Sue Klein, PHD**Professor of Medicine (primary appointment)

Professor of Pathology and Immunology

Professor of Neuroscience

PHD Albert Einstein College of Med 1993

**Samuel Klein, MD, MS**Danforth Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

BA Brandeis University 1974

MD Temple University 1979

MS Mass Inst of Technology (MIT) 1984

Linda Marie Klutho**Instructor in Clinical Medicine** (primary appointment)

Paula J Knapp-Baker**Instructor in Clinical Medicine** (primary appointment)

**Eric Knoche, MD****Assistant Professor of Medicine** (primary appointment)

MD Washington Univ in St. Louis 2006

BS Davidson College 2001

Kathryn Knoop**Instructor in Medicine** (primary appointment)

**Carolyn Koenig, MD****Instructor in Clinical Medicine** (primary appointment)

MD Saint Louis University 2002

**Ismail Kola, PHD****Adjunct Professor of Medicine** (primary appointment)

PHD School Not Listed 1985

UNKNOWN Rhodes College 1982

BS Rhodes College 1982

**Marin H Kollef, MD****Professor of Medicine** (primary appointment)

BS US Military Academy 1979

MD University of Rochester 1983

**Hermann M Koller, MD****Instructor in Medicine** (primary appointment)

MD Washington Univ in St. Louis 1978

BS Stanford University 1974

**Sri Devi Kolli, MBBS****Instructor in Clinical Medicine** (primary appointment)

MBBS Guntur Medical College 1989

**Mary E. Koly, MD****Instructor in Clinical Medicine** (primary appointment)

BA University of MO Kansas City 1995

MD University of MO Kansas City 1995

Kevin L Konzen**Assistant Professor of Clinical Medicine** (primary appointment)

**Robert G Kopitsky, MD****Assistant Professor of Clinical Medicine** (primary appointment)

BS Emory University 1978

MD Duke University 1982

**Kevin Marc Korenblat, MD****Professor of Medicine** (primary appointment)

MD Washington Univ in St. Louis 1996

Phillip E Korenblat**Professor of Clinical Medicine** (primary appointment)

**Stuart A Kornfeld****David C and Betty Farrell Professor of Medicine** (primary appointment)

**Professor of Biochemistry and Molecular Biophysics**

BA Dartmouth College 1958

**Alex H Kosloff, MD****Instructor in Clinical Medicine** (primary appointment)

BS Washington Univ in St. Louis 1975

MD Saint Louis University 1980

**Attila Kovacs****Associate Professor of Medicine** (primary appointment)

BS School Not Listed 1981

**Sandor J Kovacs, MD, MS, PHD****Professor of Medicine** (primary appointment)

**Adjunct Professor of Physics**

**Professor of Biomedical Engineering**

**Professor of Cell Biology and Physiology**

MD University of Miami 1979

MS California Institute Technolo 1972

PHD California Institute Technolo 1977

BS Cornell University 1969

**Mark S Krasnoff, MD**Instructor in Clinical Medicine (primary appointment)

BA Amherst College 1987

MD Johns Hopkins University Medic 1991

**Ronald J Krone, MD**Professor of Medicine (primary appointment)

**John E Simon** Scholar in Medicine

MD University of Chicago 1966

BS University of Michigan 1962

**Elaine Susan Krul, PHD**Adjunct Associate Professor of Medicine (primary appointment)

PHD McGill University 1982

**Kilannin Cathleen Krysiak, PHD**Instructor in Medicine (primary appointment)

PHD Washington Univ in St. Louis 2014

BS University of Illinois 2006

**Thomas Kuciejczyk-Kernan, MD**Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 1986

BS University of Illinois 1982

**Ralph F Kuhlman, MD**Assistant Professor of Clinical Medicine (primary appointment)

MD University of Illinois 1964

**Frederick Matthew Kuhlmann, MD**Instructor in Medicine (primary appointment)

MD Emory University 2002

BS Emory University 1998

**Anthony Kulczycki Jr, MD**Associate Professor of Medicine (primary appointment)

**Associate Professor of Molecular Microbiology**

MD Harvard University 1970

**Robin A. Kundra, PHD, MD**Instructor in Clinical Medicine (primary appointment)

PHD Washington Univ in St. Louis 2000

MD Washington Univ in St. Louis 2000

BS University of Georgia 1992

**David I. Kuperman**Instructor in Clinical Medicine (primary appointment)

BA Hendrix College 1997

**Howard I. Kurz, MEE, MD**Professor of Medicine (primary appointment)

MEE Princeton University 1980

MD New York Medical College 1984

BS Mass Inst of Technology (MIT) 1979

BS1 Mass Inst of Technology (MIT) 1979

**Vladimir Kushnir, MD**Assistant Professor of Medicine (primary appointment)

MD Ohio State University 2006

BS University of Utah 2002

**Jennie H Kwon, DOST**Instructor in Medicine (primary appointment)

BA Univ of IL -Urbana-Champaign 2005

DOST Chicago Coll of OsteopathicMed 2009

BS Univ of IL -Urbana-Champaign 2005

**George B Kyei, MS, MD, PHD**Assistant Professor of Medicine (primary appointment)

MS University of Ghana Medical Sc 2003

MD University of Ghana Medical Sc 1998

PHD University of New Mexico 2007

**Jack H Ladenson, PHD**Oree M Carroll and Lillian B Ladenson Professor of Clinical Chemistry in



**Pathology and Immunology** (primary appointment)

**Professor of Clinical Chemistry in Medicine**

PHD University of Maryland 1971

BS Pennsylvania State University 1964

**Albert Max Lai, PHD, M PHIL** Associate Professor of Medicine (primary appointment)

PHD Columbia University 2007

M PHIL Columbia University 2005

**Roop Lal, MS** Instructor in Clinical Medicine (primary appointment)

MS Osmania Medical College 1971

Irena Lanc **Instructor in Medicine** (primary appointment)

**Michael A. Lane, MD, MS** Assistant Professor of Medicine (primary appointment)

MD Drexel University 2004

MS John Hopkins University 2000

BA Colgate University 1995

**Gabriel David Lang, MD** Assistant Professor of Medicine (primary appointment)

MD University of Illinois Chicago 2009

**Gregory Mark Lanza, PHD, MS** Oliver M Langenberg Distinguished Professor of Science and Practice of Medicine (primary appointment)

**Professor of Biomedical Engineering**

BA Colby College 1975

PHD University of Georgia 1981

MS University of Georgia 1978

**Gina N LaRossa, MD** Assistant Professor of Medicine (primary appointment)

MD Yale University 2007

BS Yale University 2001

**Shane Joseph LaRue, MD** Assistant Professor of Medicine (primary appointment)

MD Medical College of Wisconsin 2005

**John M Lasala, MD** Professor of Medicine (primary appointment)

**Professor of Surgery (Cardiothoracic Surgery)**

BA Drew University 1975

MD University of Connecticut 1983

**Steven A Lauter, MD** Associate Professor of Medicine (primary appointment)

MD Wayne State University 1971

BS Wayne State University 1967

**Kory J. Lavine, PHD, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Development Biology**

PHD Washington Univ in St. Louis 2008

BS University of Rochester 2001

MD Washington Univ in St. Louis 2008

**Steven Jay Lavine** Professor of Medicine (primary appointment)

BA Temple University 1972

**Steven J Lawrence, MS** Associate Professor of Medicine (primary appointment)

MS University of London 2004

BS Rose Hulman Institute 1992

**Caroline Martz Lee, PHD, MD** Instructor in Medicine (primary appointment)

BS Knox College 2003

PHD University of North Carolina 2009

MD University of North Carolina 2011

**Eileen May Lee, MD**Assistant Professor of Medicine (primary appointment)

BA University of Iowa 2002

MD University of Iowa 2006

**Kim Lynette Lee**Instructor in Clinical Medicine (primary appointment)

BS Washington Univ in St. Louis 1979

**Sena Lee, PHD**Assistant Professor of Medicine (Dermatology) (primary appointment)

PHD Rockefeller University 2002

**Wang Sik Lee, PHD, MA**Assistant Professor of Medicine (primary appointment)

PHD Korea University Medical Coll 1990

MA Korea University Medical Coll 1982

BA Korea University Medical Coll 1978

**Robert B Lehman**Instructor in Clinical Medicine (primary appointment)

BA Texas Tech University 1977

**Deborah J. Lenschow, MD, PHD**Associate Professor of Medicine (primary appointment)

**Associate Professor of Pathology and Immunology**

MD University of Chicago 1998

PHD1 University of Chicago 1995

PHD University of Chicago 1995

MD1 University of Chicago 1998

**Marc Stephen Levin, MD**Professor of Medicine (primary appointment)

MD Columbia University 1981

**Mark D Levine, MD**Associate Professor of Emergency Medicine in Medicine (primary appointment)

MD New York University 1996

BA Washington Univ in St. Louis 1991

**Lawrence M Lewis, AA, MD**Professor of Emergency Medicine in Medicine (primary appointment)

AA University of Florida 1972

MD University of Miami 1976

**Warren Graybill Lewis, PHD**Instructor in Medicine (primary appointment)

BS State Univ of NY Buffalo 1998

PHD Scripps Research Institute 2005

**Timothy J Ley**Lewis T and Rosalind B Apple Professor of Medicine (primary appointment)

**Professor of Genetics**

BA Drake University 1974

**Li Li, MD, PHD**Instructor in Clinical Medicine (primary appointment)

MD Shanghai Medical University 1988

PHD Loyola University Chicago 1998

**Shunqiang Li, PHD**Assistant Professor of Medicine (primary appointment)

PHD Chinese Academy of Med Science 1999

**Tingting Li, MD**Associate Professor of Medicine (primary appointment)

MD State Univ of NY Buffalo 1999

**Min Lian, PHD**Assistant Professor of Medicine (primary appointment)

PHD Texas Tech University 2006

**Stephen Yuan-Tung Liang**Assistant Professor of Medicine (primary appointment)

**Charles H Lieu, MD**Instructor in Clinical Medicine (primary appointment)

MD State Univ of NY Buffalo 1993

**Stephen Bradley Lillard, MD**Instructor in Clinical Medicine (primary appointment)

MD Univ of Health Sciences KC 1970



**Kian-Huat Lim, PHD, MD**Assistant Professor of Medicine (primary appointment)  
PHD Duke University 2006  
MD National Taiwan University 1999  
Congxing Lin**Instructor in Medicine** (primary appointment)

**Michael Yun Lin, MD**Associate Professor of Medicine (primary appointment)  
MD University of Iowa 1994  
BA Harvard University 1990

**Kathryn Jesseca Lindley, MD**Assistant Professor of Medicine (primary appointment)  
BS University of Illinois 2003  
MD Emory University 2007

**Brian Richard Lindman, MD, MA**Associate Professor of Medicine (primary appointment)  
MD Vanderbilt University 2003  
BS Duke University 1997  
MA Reformed Theological Seminary 2001

**Daniel C Link, MD**Alan A and Edith L Wolff Distinguished Professor of Medicine (primary appointment)  
**Professor of Pathology and Immunology**  
MD Univ of Wisconsin Milwaukee 1985

**Michael Brayer Lippmann, MD**Professor of Medicine (primary appointment)  
MD State University of New York 1977  
BA State University of New York 1973

**Mauricio Lisker-Melman, MD**Professor of Medicine (primary appointment)  
MD National Autonomous U of Mex 1980

Mary Kathryn Liszewski**Assistant Professor of Medicine** (primary appointment)

**Howard S Lite, MD**Instructor in Clinical Medicine (primary appointment)  
BA Washington Univ in St. Louis 1977  
MD University of Missouri 1983

**Patricia Elizabeth Litkowski, MD**Instructor in Medicine (primary appointment)  
MD Washington Univ in St. Louis 2013

**Adam Daniel Littich, MD**Instructor in Medicine (primary appointment)  
MD Saint Louis University 2009

**Marina Litvin**Assistant Professor of Medicine (primary appointment)  
BA Washington Univ in St. Louis 2003

**Jianmei Liu, MS**Instructor in Clinical Medicine (primary appointment)  
MS Shanghai Medical University 1987

**Xinping Liu, MS, PHD**Instructor in Medicine (primary appointment)  
MS Southeast Missouri St Unvers 1999  
BS School Not Listed 1986  
PHD Washington Univ in St. Louis 2005

**Albert C Lockhart, MHS, MD**Professor of Medicine (primary appointment)  
BA Rice University 1989  
MHS Duke University 2001  
MD University of Texas Dallas 1993

**Amy Loden, MD**Instructor in Medicine (primary appointment)  
MD University of MO Columbia 2010

**Irfan J Lodhi, PHD, MS**Assistant Professor of Medicine (primary appointment)  
PHD University of Michigan 2007  
BS University of Michigan 1993

MS Wayne State University 1996

**Beverly A Logan-Morrison** Instructor in Clinical Medicine (primary appointment)

BA Webster University 1976

**Andrea Loiselle, MD, M PH** Assistant Professor of Medicine (primary appointment)

BS University of California 1995

MD Drexel University 2005

M PH California State University 1999

**Jane Loitman, MS, MD** Assistant Professor of Clinical Neurology (primary appointment)

**Instructor in Clinical Medicine**

MS Georgetown University 1988

MD University of Minnesota 1992

BA Tufts University 1982

**Fanxin Long, PHD** Professor of Orthopaedic Surgery (primary appointment)

**Professor of Developmental Biology**

**Professor of Medicine**

PHD Tufts University 1997

**Gregory D Longmore, MD, MS** Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

MD McGill University 1983

BS University of Western Ontario 1977

MS University of Toronto 1979

**Dwight C Look, MD** Professor of Medicine (primary appointment)

MD University of MO Kansas City 1985

BA University of MO Kansas City 1985

**James F Loomis Jr, MD, MBA** Instructor in Clinical Medicine (primary appointment)

MD University of Arkansas 1985

BA Hendrix College 1981

MBA Washington Univ in St. Louis 1997

**Herbert Lubowitz, MD** Associate Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1958

BA Clark University 1954

**Philip A Ludbrook, MBBS** Professor Emeritus of Medicine (primary appointment)

**Prof Emeritus of Medicine** (primary appointment)

**Professor Emeritus of Psychiatry**

MBBS University of Adelaide 1963

BS School Not Listed 1957

**Kenneth M Ludmerer, MA** Professor of Medicine (primary appointment)

**Mabel Dorn-Reeder** Distinguished Professor of the History of Medicine

MA Johns Hopkins University 1971

**Lauren Michelle Ludwig Lee, MD** Instructor in Clinical Medicine (primary appointment)

MD University of MO Kansas City 2008

**Susan L Luedke, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Rochester 1972

**Jingqin Luo, PHD, MS** Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

**Assistant Professor of Biostatistics**

**Assistant Professor of Medicine**

PHD Duke University 2006

MS Renmin University of China 2001

MS1 Duke University 2003

BS Renmin University of China 1998

**Barbara A Lutey, MD, MLS**Assistant Professor of Medicine (primary appointment)

BA Indiana University Bloomington 1982

MD University of Iowa 1999

MLS Indiana University Bloomington 1983

Christopher Raymond Lynch**Instructor in Clinical Medicine** (primary appointment)

**John P Lynch, MD**Professor of Medicine (primary appointment)

BA Saint Louis University 1983

MD Georgetown University 1989

**Alan P Lyss, MD**Associate Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1976

BA Washington Univ in St. Louis 1972

Carl A Lyss**Assistant Professor of Clinical Medicine** (primary appointment)

**Cynthia Xiuguang Ma, PHD, MD**Associate Professor of Medicine (primary appointment)

PHD University of Cincinnati 1997

MD Beijing Medical University 1990

**Hongming Ma, MS, PHD**Instructor in Medicine (primary appointment)

BA Qufu Normal University 1993

MS Fudan University 1996

PHD Ocean University of China, Qin 2004

**Liang Ma, PHD**Associate Professor of Medicine (Dermatology) (primary appointment)

**Associate Professor of Developmental Biology**

PHD University of CA Los Angeles 1995

BA University of CA Berkeley 1989

Ningning Ma**Instructor in Medicine** (primary appointment)

**Julie Kathleen MacPhee, MD**Instructor in Clinical Medicine (primary appointment)

MD Albert Einstein College of Med 2008

BS Trinity College 2003

**Blair B Madison, PHD**Assistant Professor of Medicine (primary appointment)

PHD University of Michigan 2005

BS Washington Univ in St. Louis 1998

**William Edwin Magee, MD**Associate Professor of Clinical Medicine (primary appointment)

MD Duke University 1950

**Leonard B Maggi Jr, PHD**Assistant Professor of Medicine (primary appointment)

BA Cornell College 1995

PHD Saint Louis University 2001

BA1 Cornell College 1995

Jambunathan Mahadevan**Instructor in Clinical Medicine** (primary appointment)

**Christopher A Maher, PHD**Assistant Professor of Medicine (primary appointment)

**Assistant Director of The Genome Institute**

PHD Stony Brook School of Medicine 2006

**Nicole Maher, PHD**Instructor in Medicine (primary appointment)

PHD Case Western Reserve Univ 2007

BA Ithaca College 1998

Mohamed Mahjoub**Assistant Professor of Medicine** (primary appointment)

**Assistant Professor of Cell Biology and Physiology**

**Robert John Mahoney, MD** Associate Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1997

BA Princeton University 1993

**Elaine Michelle Majerus, MD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Cell Biology and Physiology**

BA Washington Univ in St. Louis 1986

MD Saint Louis University 1998

BS Washington Univ in St. Louis 1986

**Majesh Makan, MD** Associate Professor of Medicine (primary appointment)

MD Univ of Panama School of Med 1984

**Mohsin Ilyas Malik, MBBS** Instructor in Clinical Medicine (primary appointment)

MBBS Army Medical College 1999

**Andrew F. Malone** Assistant Professor of Medicine (primary appointment)

BA Trinity College Dublin 2000

MBCHB1 Royal College of Surgeons 2005

**Hersh Maniar, MD** Associate Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Associate Professor of Medicine**

MD University of Illinois 1998

BS University of Michigan 1994

**Shivaprasad Gowda Manjappa, MBBS** Instructor in Clinical Medicine (primary appointment)

MBBS Medical College of India 2004

**Caroline Mann, MS, MD** Associate Professor of Medicine (Dermatology) (primary appointment)

BS Indiana University Bloomington 1986

MS Sarah Lawrence College 1988

MD Indiana University Bloomington 1993

**Douglas L. Mann, MD** Tobias and Hortense Lewin Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

MD Temple University 1979

BA Lafayette College 1973

**George Mansour, MD** Instructor in Medicine (primary appointment)

MD Tishreen Univ College of Med 2010

**Sarah K Margolis, MD** Associate Professor of Clinical Medicine (primary appointment)

MD State University of New York 1989

BA Barnard College 1984

**Jonas Marschall, MD** Adjunct Assistant Professor of Medicine (primary appointment)

MD University of Basel 1996

**Jay Phillips Marshall II, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD University of Missouri 1972

BA De Paul University 1968

**Ann G Martin** Associate Professor of Medicine (Dermatology) (primary appointment)

BS University of Notre Dame 1977

**Nathan Russell Martin, MD** Assistant Professor of Medicine (primary appointment)

MD University of Texas Southwest 2005

BA University of Pennsylvania 2001

**Thomas F Martin, MD** Associate Professor of Clinical Medicine (primary appointment)

MD Saint Louis University 1965

BS Saint Louis University 1961

**Wade H Martin III, MD** Associate Professor of Medicine (primary appointment)

BA University of Kansas 1973

MD University of Kansas 1977

**Jerald Arthur Maslanko, MD**Instructor in Clinical Medicine (primary appointment)

MD Emory University 1975

**Mary Vest Mason, MD, MBA**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1994

MBA Washington Univ in St. Louis 1999

BS University of Illinois 1990

**Joan Alice Mass, MD**Assistant Professor of Clinical Medicine (primary appointment)

MD Temple University 1977

BA Washington Univ in St. Louis 1971

**Stanley Mathew, MBBS**Instructor in Clinical Medicine (primary appointment)

MBBS Kerala University 1991

**Scot J. Matkovich, PHD**Assistant Professor of Medicine (primary appointment)

BA University of Melbourne 1995

BS University of Melbourne 1996

PHD University of Melbourne 2000

**Anthony J-P Mattaline, DOST**Assistant Professor of Clinical Medicine (primary appointment)

BA St Edwards University 1979

BS Northeast Missouri St Univrsty 1981

DOST School Not Listed 1985

**Caline Mattar, MD**Instructor in Medicine (primary appointment)

MD American University of Beirut 2010

BS American University of Beirut 2006

**Henry E Mattis, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1975

**Thin Thin Maw, MS, MBBS**Assistant Professor of Medicine (primary appointment)

MS Long Island University Brookl 2008

MBBS Institute of Medicine 2004

**Kara H Mayes**Instructor in Clinical Medicine (primary appointment)

**Gabriel Mbalaviele, PHD, MA**Associate Professor of Medicine (primary appointment)

PHD University of Paris 1992

MA School Not Listed 1987

**Timothy Joseph McCann, MD**Instructor in Clinical Medicine (primary appointment)

BS Saint Louis University 1980

MD American Univ of the Caribbean 1984

**Donte D McClary, MD**Instructor in Clinical Medicine (primary appointment)

MD Meharry Med College 1998

BS Xavier University 1993

**Leslie Rose McCrary-Etuk, MD**Instructor in Clinical Medicine (primary appointment)

MD New York Medical College 2001

**Jay R. McDonald, MD**Assistant Professor of Medicine (primary appointment)

MD Oregon Health Science Unvers 1998

BA Duke University 1991

BS Portland St University 1994

**Debra Ann McDonnell, MS, DPT, AS**Associate Professor of Emergency Medicine in Medicine (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Associate Professor of Physical Therapy**

BS Washington Univ in St. Louis 1990

MS Washington Univ in St. Louis 1990

DPT Washington Univ in St. Louis 2005

AS Oakton Community College 2000

**Cheryl Riddle McDonough, MD**Instructor in Medicine (primary appointment)

BS Vanderbilt University 1997

MD University of Tennessee 2001

**Colleen McEvoy, MD**Assistant Professor of Medicine (primary appointment)

BS Fairfield University 2004

MD University of MO Columbia 2008

**Janet B McGill, MA, MD**Professor of Medicine (primary appointment)

BS University of Michigan 1972

MA Northern Michigan University 1980

MD Michigan State University 1979

**Oliver McKee, MD**Instructor in Clinical Medicine (Dermatology) (primary appointment)

MD School Not Listed 1981

BA McGill University 1975

**Clark R McKenzie, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Missouri 1989

BA University of Missouri 1989

Robert M McMahanInstructor in Clinical Medicine (primary appointment)

**Amy McQueen**Assistant Professor of Medicine (primary appointment)

BA University of CA San Diego 1996

**Robert Paul Mecham, PHD**Alumni Endowed Professor of Cell Biology and Physiology (primary appointment)

**Professor of Medicine**

**Professor of Biomedical Engineering**

**Professor of Pediatrics**

PHD Boston University 1977

BS University of Utah 1973

**Gerald Medoff, MD**Professor Emeritus of Medicine (primary appointment)

**Prof Emeritus of Medicine** (primary appointment)

MD Washington Univ in St. Louis 1962

BA School Not Listed 1958

**Neha Mehta-Shah, MD**Assistant Professor of Medicine (primary appointment)

MD Northwestern University Med 2009

**Anibal G Melo, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1991

**Gary Jay Meltz, MD**Instructor in Clinical Medicine (primary appointment)

BA University of Missouri 1972

MD University of Miami 1977

Robert S MendelsohnAssociate Professor of Clinical Medicine (primary appointment)

**Paul A Mennes, MD**Professor of Clinical Medicine (primary appointment)

BS Univ of Wisconsin Madison 1966

MD Washington Univ in St. Louis 1970

**Ronald L Mera, MD**Instructor in Clinical Medicine (primary appointment)

MD School Not Listed 1976



BS School Not Listed 1970

**Adam Vogeler Meyer, MD**Assistant Professor of Medicine (primary appointment)

MD Baylor College of Medicine 2009

**Claire Elizabeth Meyer, MD**Assistant Professor of Medicine (primary appointment)

BS Roanoke College 2004

MD Washington Univ in St. Louis 2009

**Rabya Mian, MBBS**Instructor in Clinical Medicine (primary appointment)

MBBS King Edward Medical College 1999

**Scott Micek, MD**Adjunct Instructor in Medicine (primary appointment)

MD University of Iowa 1999

**Gina Michael**Instructor in Clinical Medicine (primary appointment)

BS University of Missouri 1978

**Andrew Philip Michelson, MD**Instructor in Medicine (primary appointment)

MD Case Western Reserve Univ 2013

BS Case Western Reserve Univ 2007

**William Samuel Micka, MD**Instructor in Clinical Medicine (primary appointment)

BA Saint Louis University 1999

MD Saint Louis University 2003

**Jeffrey D Milbrandt, PHD, MD**James S McDonnell Professor of Genetics (primary appointment)

**Professor of Medicine**

**Professor of Neurology**

**Professor of Pathology and Immunology**

**Head of the Department of Genetics**

PHD University of Virginia 1983

MD Washington Univ in St. Louis 1978

BS Univ of Nebraska at Kearney 1974

**Brent William Miller, MD**Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1990

BS Stanford University 1986

Charles William MillerAssistant Professor of Clinical Medicine (**Dermatology**) (primary appointment)

**Christopher A Miller, PHD**Instructor in Medicine (primary appointment)

PHD Baylor University 2011

BS Truman State University 2005

BS1 Truman State University 2005

**Heidi B Miller, MD**Instructor in Clinical Medicine (primary appointment)

BS Yale University 1994

MD Harvard University 2000

**J. Philip Miller**Professor of Biostatistics (primary appointment)

**Professor of Medicine**

**Tenure Held At-Large in the Medical School**

BA Washington Univ in St. Louis 1965

**Lara Elizabeth Miller, DOST**Instructor in Clinical Medicine (primary appointment)

DOST Midwestern University 2000

BS Carleton College 1996

**Mark James Miller, PHD**Associate Professor of Medicine (primary appointment)

**Associate Professor of Pathology and Immunology**

BS University of California 1991

PHD University of California 1996

**Jeffrey R Millman, PHD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Biomedical Engineering**

PHD Mass Inst of Technology (MIT) 2011

BS North Carolina State University 2005

**Jason C Mills, MD, AB, PHD**Professor of Medicine (primary appointment)

**Professor of Developmental Biology**

**Professor of Pathology and Immunology**

MD University of Pennsylvania 1997

BA Washington Univ in St. Louis 1989

AB Washington Univ in St. Louis 1989

PHD University of Pennsylvania 1997

MD1 University of Pennsylvania 1997

**Graeme Mindel, MS, MBBCH**Instructor in Clinical Medicine (primary appointment)

MS University of the Witwatersra 1992

MBBCH University of the Witwatersra 1992

**Jeffrey H Miner, PHD**Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

PHD California Institute Technolo 1991

**Jonathan J Miner, MD**Instructor in Medicine (primary appointment)

MD University of Oklahoma 2010

**Khurram Rehman Mirza, MBBS**Instructor in Medicine (primary appointment)

MBBS King Edward Medical College 2002

**Makedonka Mitreva, PHD, MS**Associate Professor of Medicine (primary appointment)

**Associate Professor of Genetics**

PHD Wageningen University 2001

MS University of Skopje - Macedon 1994

**Bettina Mittendorfer, PHD, MS**Professor of Medicine (primary appointment)

PHD University of Texas Austin 1999

MS University of Vienna 1999

**C. Scott Molden, MD**Instructor in Clinical Medicine (primary appointment)

BA De Paul University 1968

MD Case Western Reserve Univ 1972

**Hector D Molina-Vicenty, MD**Associate Professor of Medicine (primary appointment)

**Associate Professor of Pathology and Immunology**

BS University of Puerto Rico 1982

MD University of Puerto Rico 1985

**Cynthia L Monaco, MD, PHD**Instructor in Medicine (primary appointment)

BS Texas Tech University 2000

MD University of Texas Southwest 2009

PHD University of Texas Southwest 2009

**Michael David Monaco, MD**Instructor in Medicine (primary appointment)

MD Univ Texas Health Science Ctr 2009

**Jennifer Marie Monroy, MD**Assistant Professor of Medicine (primary appointment)

BS Incarnate Word College 2003

MD Univ Texas Health Science Ctr 2008

**Austin F Montgomery, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Pittsburgh 1954



BA Washington Univ in St. Louis 1950

BS University of Missouri 1952

**Sung Ho Moon, MS, PHD**Instructor in Medicine (primary appointment)

BS Yonsei University 1997

MS Yonsei University 1999

PHD Washington Univ in St. Louis 2006

**Nathan Moore, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 2013

BS Texas College 2007

Timothy D Moore**Instructor in Clinical Medicine** (primary appointment)

**Daniel Morgensztern, MD**Associate Professor of Medicine (primary appointment)

MD FTE Souza Marques 1995

**Donald G Morris, MS, MD**Instructor in Clinical Medicine (primary appointment)

BA Benedictine College 1987

MS Saint Louis University 1989

MD University of Missouri 1993

**Aubrey R Morrison, MBBS**Professor of Medicine (primary appointment)

**Professor of Developmental Biology**

MBBS University of London 1970

**Hawnwan P Moy, MD**Instructor in Emergency Medicine in Medicine (primary appointment)

MD Loyola University Chicago 2008

**Richard Gerard Mrad**Instructor in Clinical Medicine (primary appointment)

BA University of Missouri 1981

**Mike Max Mueckler, PHD**Professor of Cell Biology and Physiology (primary appointment)

**Professor of Medicine**

BA Univ of Wisconsin Madison 1976

PHD Univ of Wisconsin Madison 1982

**Kristen L Mueller, MD**Instructor in Emergency Medicine in Medicine (primary appointment)

MD Medical College of Wisconsin 2010

Faquir Muhammad**Instructor in Clinical Medicine** (primary appointment)

**Joshua Mutambuki Muia, PHD**Instructor in Medicine (primary appointment)

BA University of Nairobi 2003

PHD Western Michigan University 2010

**Daniel Kast Mullady, MD**Associate Professor of Medicine (primary appointment)

MD University of Connecticut 2001

Monalisa Mullick**Assistant Professor of Medicine** (primary appointment)

**Michael E Mullins, MD**Associate Professor of Emergency Medicine in Medicine (primary appointment)

MD Hahnemann University 1987

**Steven Robert Mumm, PHD, MS**Associate Professor of Medicine (primary appointment)

BS University of Missouri 1978

PHD Saint Louis University 1992

MS University of Missouri 1984

**Amy Musiek, MD**Associate Professor of Medicine (Dermatology) (primary appointment)

MD Vanderbilt University 2004

BS College of William and Mary 1999

Umadevi Muthyal**Instructor in Clinical Medicine** (primary appointment)

**Elna M Nagasako, PHD, MD**Assistant Professor of Medicine (primary appointment)

BS Pomona College 1991  
PHD University of Rochester 2001  
MD Washington Univ in St. Louis 2007  
Jyotirmaya Nanda **Instructor in Clinical Medicine** (primary appointment)  
Nicola Napoli **Adjunct Research Assistant Professor of Medicine** (primary appointment)  
**Michael J. Naughton, MD** **Associate Professor of Medicine** (primary appointment)  
MD State Univ of NY Buffalo 1993  
BA Williams College 1989  
**Rosanne S Naunheim, MD** **Associate Professor of Emergency Medicine in Medicine** (primary appointment)  
MD University of Chicago 1978  
BA Carleton College 1970  
Robert F Nease Jr **Adjunct Associate Professor of Medicine** (primary appointment)  
**Burton M Needles, MD** **Instructor in Clinical Medicine** (primary appointment)  
BS City College 1970  
MD Loyola University Chicago 1974  
**Jeanne M Nerbonne, PHD** **Professor of Medicine** (primary appointment)  
**Alumni Endowed Professor of Molecular Biology and Pharmacology in Developmental Biology**  
BS Framingham State College 1974  
PHD Georgetown University 1978  
**Elizabeth P. Newberry, PHD** **Assistant Professor of Medicine** (primary appointment)  
PHD Washington Univ in St. Louis 1995  
BA Knox College 1988  
**Rodney D Newberry, MD** **Professor of Medicine** (primary appointment)  
BA Washington Univ in St. Louis 1987  
MD Washington Univ in St. Louis 1991  
**Amy C Ney, MD** **Instructor in Clinical Medicine (Dermatology)** (primary appointment)  
MD University of Virginia 2001  
BS Mary Washington College 1997  
**Khanh Nguyen, MD** **Instructor in Medicine** (primary appointment)  
MD University of Illinois Chicago 2013  
BS Loyola University Chicago 2008  
**Nguyet Minh Nguyen, MD** **Assistant Professor of Medicine** (primary appointment)  
MD Wayne State University 1993  
BS1 University of Michigan 1989  
BS University of Michigan 1989  
**Joan P Noelker, MD** **Instructor in Emergency Medicine in Medicine** (primary appointment)  
MD Royal College of Surgeons 2010  
BA University of Virginia 2004  
Amit Noheria **Assistant Professor of Medicine** (primary appointment)  
**Lemuel Benedict R Non, MD** **Instructor in Medicine** (primary appointment)  
BS Mindanao State University 2003  
MD University of the Philippines 2008  
**Scott Monroe Nordlicht, MD** **Professor of Medicine** (primary appointment)  
BA Columbia University 1969  
MD State University of New York 1973  
**Tracy Wynette Norfleet, MD** **Instructor in Clinical Medicine** (primary appointment)  
MD Louisiana St Univ Hlth Sci 2002

**Deborah Veis Novack, PHD, MD** Associate Professor of Medicine (primary appointment)  
**Associate Professor of Pathology and Immunology**

BA Princeton University 1987

PHD Washington Univ in St. Louis 1995

MD Washington Univ in St. Louis 1995

**Sabrina Nunez, PHD** Assistant Professor of Medicine (primary appointment)

PHD Stony Brook School of Medicine 2007

**Samuel R Nussbaum, MD** Professor of Clinical Medicine (primary appointment)

MD School Not Listed 1973

**Muhammad Akram Nyazee** Instructor in Clinical Medicine (primary appointment)

UNKNOWN1 Nishtar Medical College Multa 1974

UNKNOWN Govt College Sarhodha 1968

**G Patrick O'Donnell, MD** Instructor in Clinical Medicine (primary appointment)

BA University of Kansas 1972

MD School Not Listed 1977

**Julie O'Neal, PHD** Instructor in Medicine (primary appointment)

BS University of MO Columbia 1999

PHD Washington Univ in St. Louis 2009

**Andrew John Odden, MD** Assistant Professor of Medicine (primary appointment)

BS Gustavus Adolphus College 2003

MD University of Minnesota 2007

**Devin Christopher Odom, MD** Instructor in Medicine (primary appointment)

MD Wake Forest University 2010

**Stephen T. Oh, PHD, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

PHD Northwestern University 2002

MD Northwestern University 2004

BS Harvard University 1996

**Adewole L. Okunade, PHD** Assistant Professor of Medicine (primary appointment)

BS University of Ibadan 1975

PHD University of Ibadan 1981

**George Charles Oliver, MD** Professor Emeritus of Clinical Medicine (primary appointment)

**Prof Emeritus of Clinical Medicine** (primary appointment)

BA Harvard University 1953

MD Harvard University 1957

**Margaret Olsen, PHD, MPH** Professor of Medicine (primary appointment)

**Professor of Surgery (Public Health Sciences)**

PHD University of Pennsylvania 1986

MPH Saint Louis University 2001

BS Southern Illinois University 1976

**Robert F Onder Jr, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1987

BA Washington Univ in St. Louis 1983

**Peter J. Oppelt, MD** Assistant Professor of Medicine (primary appointment)

MD University of MO Columbia 2008

**S. Michael Orgel, MD** Instructor in Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1960

MD Saint Louis University 1965

**Matthew J Orland, MD** Associate Professor of Clinical Medicine (primary appointment)  
MD University of Miami 1979  
BS Yale University 1975

**David William Ortals, MD** Assistant Professor of Clinical Medicine (primary appointment)  
MD Washington Univ in St. Louis 1970  
BS Saint Louis University 1966

**Daniel Scott Ory, MD** Professor of Medicine (primary appointment)  
**Professor of Cell Biology and Physiology**  
**Alan A and Edith L Wolff Professor of Cardiology**  
MD Harvard University 1986  
BA Harvard University 1982

**Tiffany Medlin Osborn, M PH, MD** Associate Professor of Surgery (General Surgery) (primary appointment)  
**Associate Professor of Emergency Medicine in Medicine**  
M PH London Hygiene & Tropical Med 2009  
BS University of Houston 1992  
MD Univ Texas Health Sci San Anto 1997

**Richard E Ostlund Jr, MD** Professor of Medicine (primary appointment)  
MD University of Utah 1970  
BS University of Utah 1966

**Theodore Otti** Instructor in Clinical Medicine (primary appointment)  
UNKNOWN School Not Listed 1983

**Jiafu Ou, MD** Assistant Professor of Medicine (primary appointment)  
MD Sun Yat-Sen University 1995

**Edgar Turner Overton, MD** Adjunct Assistant Professor of Medicine (primary appointment)  
MD University of Tennessee 1999  
BA University of Tennessee 1992

**Vani Pachalla, MD** Instructor in Clinical Medicine (primary appointment)  
MD School Not Listed 1990

**Russell Kent Pachynski, MD** Assistant Professor of Medicine (primary appointment)  
BS Stanford University 1994  
MD Univ of Wisconsin Madison 2003

**Robert C Packman, MD** Professor of Clinical Medicine (primary appointment)  
BS University of Missouri 1954  
BA Washington Univ in St. Louis 1953  
MD Washington Univ in St. Louis 1956

**Ross Ian Palis, MD** Instructor in Clinical Medicine (primary appointment)  
BS Duke University 1998  
MD Vanderbilt University 2002

**Chris M Palmer, MD** Assistant Professor of Anesthesiology (primary appointment)  
**Assistant Professor of Emergency Medicine in Medicine**  
BS Virginia Tech 2004  
MD SUNY - Empire State College 2008

**Hua Pan, MS** Assistant Professor of Medicine (primary appointment)  
BS Huashong University of Science 1997  
MS Huashong University of Science 2002

**Peter D Panagos** Associate Professor of Emergency Medicine in Medicine (primary appointment)  
**Associate Professor of Neurology**

BA Dartmouth College 1987

**Anupam S Pande, MBBS, MS**Instructor in Medicine (primary appointment)

MBBS Byramjee Jeejeebhoy Medical Co 2009

MS University of Texas Houston 2011

**Joseph Pangelinan, PHD**Assistant Professor in Medicine (primary appointment)

PHD University of MO St Louis 2015

Andrew Yong-Woo Park**Instructor in Medicine** (primary appointment)

**Haeseong Park, MD, MS**Assistant Professor of Medicine (Pending Executive Faculty Approval)

(primary appointment)

MD Seoul National University 2006

BS Seoul National University 2001

MS Johns Hopkins University Med 2007

Stephanie Sun-Young Park**Instructor in Clinical Medicine** (primary appointment)

**David A Parks, MD, MBA**Associate Professor of Clinical Medicine (primary appointment)

MD Saint Louis University 1994

BS University of MO Rolla 1979

MBA Southern Illinois University 1985

**Deborah L Parks, MD**Professor of Medicine (primary appointment)

BA Washington Univ in St. Louis 1978

MD University of Louisville 1982

**Shadi Parsaei, DOST**Instructor in Medicine (primary appointment)

BS University of Louisville 2002

DOST Chicago Coll of OsteopathicMed 2007

Dilip H. Patel**Instructor in Clinical Medicine** (primary appointment)

Pravinkumar Manjibhai Patel**Instructor in Medicine** (primary appointment)

**Rajiv Nanu Patel, MD**Instructor in Clinical Medicine (primary appointment)

MD Saba University School of Med 2001

**Rupa R Patel**Assistant Professor of Medicine (primary appointment)

BA University of Michigan 2000

**Urvi Patel, MD**Assistant Professor of Medicine (Dermatology) (primary appointment)

BA Kent St University 2007

MD University of Tenn Memphis 2011

Vaiibhav Patel**Instructor in Medicine** (primary appointment)

**Amanullah Pathan, MS**Instructor in Clinical Medicine (primary appointment)

UNKNOWN1 School Not Listed 1969

MS School Not Listed 1969

**Bruce Patterson, PHD**Professor of Medicine (primary appointment)

PHD University of Illinois 1980

BS Southern Illinois University 1974

**Philip Richard Orrin Payne, MA**Professor of Medicine (primary appointment)

**Robert J Terry** Professor

**Professor of Computer Science and Engineering**

MA Columbia University 2000

BA University of CA San Diego 1999

**Chelsea Elizabeth Pearson, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 2013

**Susan E Pearson, MS, PHD, BFA, DOST**Instructor in Clinical Medicine (primary appointment)

MS Central Michigan University 1984

PHD University of Southwestern Lo 1986

BFA Southern Methodist University 1977

DOST School Not Listed 1992

**William A Peck, MD** Professor of Medicine (primary appointment)

**Alan A and Edith L Wolff Distinguished Professor**

**Director, Center for Health Policy**

**Affiliated Professor of Engineering**

MD University of Rochester 1960

**Katrina Sophia Pedersen, MS, MD** Assistant Professor of Medicine (primary appointment)

MS University of Iowa 2005

BA Grinnell College 2003

MD Southern Illinois University 2009

**Marybeth Pereira** Associate Professor of Clinical Medicine (primary appointment)

BA Swarthmore College 1973

**Julio E Perez, MD** Professor of Medicine (primary appointment)

BS University of Puerto Rico 1970

MD University of Puerto Rico 1973

**Laurence F Perlstein, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Louisville 1974

BS Tulane University 1967

**Linda R Peterson, MD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Radiology**

BS Georgetown University 1986

MD Washington Univ in St. Louis 1990

**Lindsay L Peterson, MD** Assistant Professor of Medicine (primary appointment)

BS Tulane University 2000

MD Tulane University 2006

**Timothy Richard Peterson** Assistant Professor of Medicine (primary appointment)

BS University of Michigan 1999

**Christine T Pham** Associate Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

BS University of Florida 1981

**Jennifer A Philips, MD, PHD, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Molecular Microbiology**

MD University of CA San Francisco 2000

PHD University of CA San Francisco 1998

PHD University of CA San Francisco 2015

BA Columbia University 1991

**William J Phillips, MD** Assistant Professor of Clinical Medicine (primary appointment)

BA Ohio State University 1959

MD Washington Univ in St. Louis 1963

**Jay Francis Piccirillo** Professor of Otolaryngology (primary appointment)

**Vice Chairman for Research, Dept of Otolaryngology**

**Professor of Medicine**

**Professor of Occupational Therapy**

**Professor of Biostatistics**

BA University of Vermont 1979

**Joel Picus, MD** Professor of Medicine (primary appointment)



MD Harvard University 1984

BS University of Illinois 1979

BA University of Illinois 1979

**Stephen J Pieper, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1988

**Brian Pierce, MD**Instructor in Medicine (primary appointment)

MD Wayne State University 2013

**Bryan Douglas Piotrowski, MD**Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 2004

**Beatrice Plougastel Douglas, PHD**Instructor in Medicine (primary appointment)

PHD University of Pierre et Marie 1994

**Doug Pogue, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1996

**Robert Francis Poirier Jr, MD**Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD American U of Carribean SchMed 1999

**Donovan Polack, MD**Assistant Professor of Clinical Medicine (primary appointment)

MD Cornell University 1979

**Gregory Polites, MD**Associate Professor of Emergency Medicine in Medicine (primary appointment)

MD University of Illinois Chicago 1996

**Alex Politsmakher, MD**Assistant Professor of Medicine (primary appointment)

BA Yeshiva University 1997

MD Ross Univ School of Medicine 2002

**Kenneth S Polonsky, MBChB**Adjunct Professor of Medicine (primary appointment)

MBChB University of the Witwatersra 1973

**Katherine P Ponder, MD**Professor of Medicine (primary appointment)

**Professor of Biochemistry and Molecular Biophysics**

BS Stanford University 1979

MD Washington Univ in St. Louis 1983

**Makhawadee Pongruangporn, MD**Instructor in Clinical Medicine (primary appointment)

MD Chiang Mai University 2001

**Harish Ponnuru, MD**Instructor in Clinical Medicine (primary appointment)

BA University of MO Kansas City 1995

MD University of Missouri 1995

**Lee S Portnoff**Assistant Professor of Clinical Medicine (Dermatology) (primary appointment)

BS Purdue University 1972

**Daniel E Potts, MD**Associate Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1972

BS Beaufort Technical College 1968

**William G Powderly, MD**J. William Campbell Professor of Medicine (primary appointment)

**Director for the Institute of Public Health**

MD National University of Ireland 1979

**John A Powell**Assistant Professor of Clinical Medicine (Dermatology) (primary appointment)

BS University of Notre Dame 1967

Jennifer Lynn PowersAssistant Professor of Medicine (Pending Executive Faculty Approval) (primary appointment)

**Diana A Prablek, MD**Instructor in Clinical Medicine (primary appointment)

BA Texas Christian University 1984  
MD Southwestern University 1988  
**Lawrence Prablek, MD**Instructor in Clinical Medicine (primary appointment)  
BS Southern Methodist University 1984  
MD University of Texas Southwest 1988  
**Simeon Prager, MD**Assistant Professor of Clinical Medicine (primary appointment)  
MD University of California 1991  
Vajravel M Prasad**Adjunct Instructor in Medicine** (primary appointment)  
**David J Prelutsky**Associate Professor of Clinical Medicine (primary appointment)  
BA Northwestern University 1975  
**Rachel M. Presti, PHD, MD**Assistant Professor of Medicine (primary appointment)  
BA Scripps College 1990  
PHD Washington Univ in St. Louis 2001  
MD Washington Univ in St. Louis 2001  
Aaron J Pugh**Adjunct Instructor in Medicine** (primary appointment)  
**Edward Puro, PHD, MD, MS**Assistant Professor of Clinical Medicine (primary appointment)  
PHD University of Toronto 1970  
BS University of Toronto 1962  
MD Washington Univ in St. Louis 1975  
MS University of Toronto 1966  
**Iskra Pusic, MD**Assistant Professor of Medicine (primary appointment)  
MD University of Zagreb 1997  
Usman Qayyum**Instructor in Clinical Medicine** (primary appointment)  
**Nishath Quader, MD**Assistant Professor of Medicine (primary appointment)  
BS University of Illinois Chicago 2002  
MD Northwestern University 2007  
**Patricia M Quinley, MD**Instructor in Clinical Medicine (primary appointment)  
MD University of Illinois 1989  
BS University of Illinois 1985  
**Abdul H Qureshi, MS**Instructor in Clinical Medicine (primary appointment)  
MS School Not Listed 1992  
**Susan B. Racette, PHD**Professor of Physical Therapy (primary appointment)  
**Professor of Medicine**  
PHD University of Chicago 1994  
BS Bucknell University 1988  
Srinivasan Raghavan**Instructor in Clinical Medicine** (primary appointment)  
**Britney Martin Ramgopal, MD**Instructor in Medicine (primary appointment)  
BS Oklahoma St University 2008  
MD Oklahoma St University 2012  
**Rajeev Ramgopal, MD**Instructor in Medicine (primary appointment)  
MD University of Oklahoma 2012  
BS University of Rochester 2005  
**Gwendalyn Jan Randolph, PHD**Unanue Distinguished Professof of Immunology (primary appointment)  
**Professor of Medicine**  
BS Temple University 1991  
PHD State University of New York 1995  
**Prabha Ranganathan, MBBS**Associate Professor of Medicine (primary appointment)



MBBS Kilpauk Medical College 1990

Srinivasan Dubagunta Rao **Adjunct Instructor in Medicine** (primary appointment)

**U. Ramakrishna Rao, PHD** **Associate Professor of Medicine** (primary appointment)

BS Mysore University 1975

PHD University of Bombay 1987

**Antonella Luisa Rastelli, MD** **Associate Professor of Medicine** (primary appointment)

**Associate Professor of Surgery (General Surgery)**

BA University of Verona 1984

MD University of Verona 1991

**Gary A Ratkin, MD** **Associate Professor of Clinical Medicine** (primary appointment)

**Instructor in Clinical Radiation Oncology**

MD Washington Univ in St. Louis 1967

BA Rice University 1963

**Lee Ratner, MA, PHD** **Professor of Medicine** (primary appointment)

**Professor of Molecular Microbiology**

**Alan A and Edith L Wolff** **Professor of Oncology**

BA Harvard University 1973

MA Harvard University 1973

PHD Yale University 1979

**Gregory Ratti, MD** **Instructor in Medicine** (primary appointment)

MD University of Cincinnati 2013

**Daniel Rauch, PHD** **Assistant Professor of Medicine** (primary appointment)

PHD University of Iowa 2001

BS Augustana College 1996

BS1 Augustana College 1996

**Saadia Taufiq Raza, MD** **Assistant Professor of Clinical Medicine (Dermatology)** (primary appointment)

MD Emory University 1997

**Babak Razani, PHD, MD** **Assistant Professor of Medicine** (primary appointment)

**Assistant Professor of Pathology and Immunology**

PHD Albert Einstein College of Med 2003

MD Albert Einstein College of Med 2003

**Timothy Patrick Rearden, MD, MS** **Instructor in Clinical Medicine** (primary appointment)

BS Southeast Missouri St Univer 1979

MD University of MO Columbia 1985

MS University of MO Columbia 1981

Arhaanth D Reddy **Instructor in Clinical Medicine** (primary appointment)

Kavitha Reddy **Assistant Professor of Emergency Medicine in Medicine** (primary appointment)

**Katherine Marie Reeder, PHD** **Adjunct Assistant Professor of Medicine** (primary appointment)

PHD University of Iowa 2007

**Dominic N Reeds** **Associate Professor of Medicine** (primary appointment)

BA University of Texas Austin 1992

Susan Robinson Reeds **Assistant Professor of Medicine** (primary appointment)

**Lester T Reese, MD** **Professor of Clinical Medicine (Dermatology)** (primary appointment)

BS Tulane University 1962

MD Tulane University 1966

**Kara Anne Regan, MD** **Assistant Professor of Medicine** (primary appointment)

BS East Carolina University 2002

MD East Carolina University 2008

**Margaret Reiker, MD, PHD**Instructor in Clinical Medicine (primary appointment)

UNKNOWN Saint Louis University 1986

MD Saint Louis University 1993

PHD Saint Louis University 1991

**Craig K Reiss, MD**Professor of Clinical Medicine (primary appointment)

MD University of Missouri 1983

BA University of Missouri 1979

**Jacqueline Levy Reiss, MD**Instructor in Clinical Medicine (primary appointment)

BA University of MO Kansas City 1989

MD University of Missouri 1990

**Maria Sara Remedi, PHD, MS**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Cell Biology and Physiology**

PHD University of Cordoba 1999

MS University of Cordoba 1989

BS University of Cordoba 1987

**Hilary Elizabeth Lee Reno, MD, MS, PHD**Assistant Professor of Medicine (primary appointment)

MD University of Illinois 2002

MS University of Illinois 1997

PHD University of Illinois 2000

**Stacey L. Rentschler, MS, PHD, MD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Developmental Biology**

MS Mount Sinai School of Medicine 2000

PHD Mount Sinai School of Medicine 2002

MD Mount Sinai School of Medicine 2004

**Nicholas R Renz**Instructor in Emergency Medicine in Medicine (primary appointment)

BA University of MO Columbia 2004

**Michael P Rettig, PHD**Assistant Professor of Medicine (primary appointment)

BS Illinois State University 1993

PHD Purdue University 2000

**Michael W Rich, MD**Professor of Medicine (primary appointment)

BA University of Illinois 1974

MD University of Illinois 1979

**Lois F. Richard, PHD**Assistant Professor of Medicine (primary appointment)

BS Murray St University 1982

PHD Saint Louis University 1998

**Cheryl Richards, MA, PHD**Assistant Professor of Psychiatry (primary appointment)

**Assistant Professor of Medicine**

MA University of Illinois 1981

BS Ohio University 1977

PHD University of Illinois 1987

**Justin M Richner, PHD**Instructor in Medicine (primary appointment)

BS Washington Univ in St. Louis 2006

PHD University of CA Berkeley 2011

**Terrence E Riehl, MS, PHD**Associate Professor of Medicine (primary appointment)

MS Rutgers University 1976

BS Rutgers University 1974

PHD Ohio University 1981

Amy Elizabeth Riek **Assistant Professor of Medicine** (primary appointment)

**Robert D Rifkin, MD** **Professor of Medicine** (primary appointment)

BS Mass Inst of Technology (MIT) 1968

MD New York University 1972

**Caron E Rigden, BFA, MD** **Assistant Professor of Medicine** (primary appointment)

BFA Tulane University 1996

MD Tulane University 2000

**Joan K. Riley, PHD** **Assistant Professor of Obstetrics and Gynecology** (primary appointment)

**Assistant Professor of Pediatrics**

**Instructor in Medicine**

PHD Washington Univ in St. Louis 1998

**Tracy Marie Riordan, MD** **Instructor in Clinical Medicine** (primary appointment)

BA Saint Louis University 1996

MD Saint Louis University 2000

**Elisha D.O. Roberson, PHD** **Assistant Professor of Medicine** (primary appointment)

**Assistant Professor of Genetics**

BS Western Kentucky University 2004

PHD Johns Hopkins University 2009

**Paul Arthur Robiolio, M PHIL, MD** **Assistant Professor of Clinical Medicine** (primary appointment)

M PHIL Cambridge University 1985

MD Washington Univ in St. Louis 1989

BS Haverford College 1983

**M. Reza Rofougaran, MD** **Instructor in Clinical Medicine** (primary appointment)

MD Tehran University 1988

**H. Bryan Rogers, MD** **Instructor in Clinical Medicine** (primary appointment)

MD Washington Univ in St. Louis 1965

**Felice A Rolnick, MD** **Instructor in Clinical Medicine** (primary appointment)

MD School Not Listed 1987

BS Union College New York 1982

**Rizwan Romee, MD** **Assistant Professor of Medicine** (primary appointment)

MD Gov't Gandhi Memorial Sci Coll 2004

**Arthur G. Romero** **Associate Professor of Medicine** (primary appointment)

BS Johns Hopkins University 1979

Ernesto J Romo **Instructor in Emergency Medicine in Medicine (Pending Dean's Approval)**

(primary appointment)

**Daniel B Rosenbluth, MD** **Professor of Medicine** (primary appointment)

**Professor of Pediatrics**

**Tracey C and William J Marshall Professor of Medicine**

MD Mount Sinai School of Medicine 1989

BS Columbia University 1985

**Anna Roshal** **Assistant Professor of Medicine** (primary appointment)

BS University of Rochester 1993

**Ilana Shaina Rosman, MD** **Assistant Professor of Medicine (Dermatology)** (primary appointment)

**Assistant Professor of Pathology and Immunology**

MD Washington Univ in St. Louis 2008

Ian Ross **Instructor in Medicine** (primary appointment)

**Willie Ray Ross, M PH, MD** **Associate Dean for Diversity** (primary appointment)

**Professor of Medicine**

BS Yale University 1980  
M PH Saint Louis University 2007  
MD Washington Univ in St. Louis 1984  
**Bruce J Roth, MD** Professor of Medicine (primary appointment)  
MD Saint Louis University 1980  
**Marcos Rothstein, MD** Professor of Medicine (primary appointment)  
MD University of Zulia 1974  
**Ernest Tuttle Rouse III, MD** Instructor in Clinical Medicine (primary appointment)  
MD Washington Univ in St. Louis 1971  
**Jeremy Rower, MD** Instructor in Clinical Medicine (primary appointment)  
MD University of Cincinnati 1997  
BS University of Cincinnati 1993  
**Deborah C Rubin, MD** Professor of Medicine (primary appointment)  
**Professor of Developmental Biology**  
MD Albert Einstein College of Med 1981  
BS Mass Inst of Technology (MIT) 1977  
**Myra L. Rubio, MD** Associate Professor of Medicine (primary appointment)  
MD Indiana University Bloomington 1998  
BA Washington Univ in St. Louis 1994  
**Paetra Ruddy, MD** Assistant Professor of Medicine (Dermatology) (primary appointment)  
BA Bard College 1997  
MD University of Iowa 2011  
**Emily Lindholm Rumora, MD** Instructor in Medicine (primary appointment)  
MD Dartmouth College 2013  
**Brent E Ruoff, MD** Associate Professor of Emergency Medicine in Medicine (primary appointment)  
BS Graceland College 1977  
MD Saint Louis University 1981  
Michael B Rusche **Adjunct Instructor in Medicine** (primary appointment)  
**Tonya D Russell, MD** Associate Professor of Medicine (primary appointment)  
MD University of Florida 1997  
Joseph F Ruwitch Jr **Professor of Clinical Medicine** (primary appointment)  
**Kenneth J Rybicki, MS, MD, PHD** Instructor in Clinical Medicine (primary appointment)  
MS Southern Illinois University 1980  
MD University of Texas Austin 1987  
BA Southern Illinois University 1978  
PHD University of Texas Austin 1984  
**Raya Saba, MD** Instructor in Medicine (primary appointment)  
MD Damascus University 2011  
Molly Sachdev **Assistant Professor of Medicine** (primary appointment)  
**Justin Sadhu, MD** Instructor in Medicine (primary appointment)  
MD Washington Univ in St. Louis 2007  
**J. Evan Sadler, MD, PHD** Professor of Medicine (primary appointment)  
**Professor of Biochemistry and Molecular Biophysics**  
MD Duke University 1979  
PHD Duke University 1978  
**Mohammed Jaafar Saeed, M PH, MD** Instructor in Medicine (primary appointment)  
M PH University of Kentucky 2012  
MD Baghdad University 2007

**Mehrdad Saeed-Vafa, MD**Instructor in Clinical Medicine (primary appointment)

MD School Not Listed 2000

**Jose Bernardo Saenz, PHD, MD**Instructor in Medicine (primary appointment)

BA Cornell University 2003

PHD Washington Univ in St. Louis 2009

MD Washington Univ in St. Louis 2011

**Shabbir H Safdar**Professor of Clinical Medicine (primary appointment)

UNKNOWN1 School Not Listed 1961

Sonny Satnam SaggariInstructor in Clinical Medicine (primary appointment)

Kaori A. SakuraiInstructor in Clinical Medicine (primary appointment)

**Christine Joan Salter, DC**Instructor in Clinical Medicine (primary appointment)

BS Reading University 1982

DC Logan College of Chiropractic 1991

**Robert J Saltman, MD**Associate Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1980

**John Mark Samet, MD**Instructor in Clinical Medicine (primary appointment)

BS Washington & Lee 1964

MD University of Missouri 1968

**Dmitri Samovski, PHD**Instructor in Medicine (primary appointment)

PHD Hebrew University 2009

**Lawrence E Samuels**Instructor in Clinical Medicine (Dermatology) (primary appointment)

BA University of Texas Austin 1972

**Guadalupe Sanchez, MD**Instructor in Clinical Medicine (Dermatology) (primary appointment)

MD Harvard University 1978

BA Berry College 1974

**Mark Steven Sands, PHD**Professor of Medicine (primary appointment)

**Professor of Genetics**

PHD State Univ of NY Stonybrook 1990

BS Rochester Institute of Techno 1980

**Kristen Marie Sanfilippo, MD**Assiatant Professor of Medicine (primary appointment)

MD University of MO Columbia 2007

Daniel Jose Santa CruzInstructor in Clinical Medicine (Dermatology) (primary appointment)

**Richard Albert Santos, PHD, MD**Assistant Professor of Medicine (primary appointment)

BS Michigan State University 1994

PHD University of Iowa 2002

MD University of Iowa 2002

**Evelio E. Sardina, MD, MS, PHD**Instructor in Clinical Medicine (primary appointment)

MD University of South Florida 1994

MS University of South Florida 1988

PHD University of South Florida 1990

BA Rutgers University 1985

Gregory Stephen SayukAssociate Professor of Medicine (primary appointment)

**Associate Professor of Psychiatry**

**Lawrence R Schacht, MD**Instructor in Clinical Medicine (primary appointment)

BA University Wyoming 1971

MD Oregon Health Science Univers 1975

**Andras Schaffer, MD, PHD**Assistant Professor of Pathology and Immunology (primary appointment)

**Assistant Professor of Medicine (Dermatology)**

MD University of Pecs Medical Sch 1993

PHD Cornell University 2001

**Jean E. Schaffer** Virginia Minnich Distinguished Professor of Medicine (primary appointment)

**Professor of Developmental Biology**

BA Harvard Radcliff 1982

Richard O. Schamp Instructor in Clinical Medicine (primary appointment)

**Kenneth B Schechtman, MS, MA, PHD** Associate Professor of Biostatistics (primary appointment)

**Associate Professor of Medicine**

**Tenure Held At-Large in the Medical School**

BS City University of New York 1967

MS Purdue University 1971

MA Washington Univ in St. Louis 1978

PHD Washington Univ in St. Louis 1978

**Jennifer Lynn Scheer, MD** Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1994

**Erica Lynn Scheller, DDENT** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Cell Biology and Physiology**

DDENT University of Michigan 2011

BS Michigan State University 2004

**Mark Scheperle, MD** Instructor in Clinical Medicine (primary appointment)

BA University of Missouri 1989

MD University of Missouri 1989

**Alvin K Schergen, MD** Instructor in Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1976

MD Saint Louis University 1980

**Joel D. Schilling, PHD, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

PHD Washington Univ in St. Louis 2001

MD Washington Univ in St. Louis 2003

**Tania L Schmid, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Mississippi 1985

BA University of Mississippi 1981

Richard Urban Schmidt Jr Instructor in Emergency Medicine in Medicine (primary appointment)

**Robert Jay Schneider, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD Johns Hopkins University 1976

BA Johns Hopkins University 1973

**Erin R. Schockett, MD** Instructor in Clinical Medicine (primary appointment)

MD Brown University 2005

**Mark Andrew Schroeder, MD** Assistant Professor of Medicine (primary appointment)

MD University of Cincinnati 2003

BS University of Toledo 1999

**Alexander E Schuetz, MD** Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 1996

BA Saint Louis University 1991

Stephen Schuman Instructor in Clinical Medicine (primary appointment)

**Benjamin D Schwartz, PHD, MD** Professor of Clinical Medicine (primary appointment)

**Adjunct Professor of Medicine**



BA Columbia College 1965

PHD School Not Listed 1971

MD School Not Listed 1972

**David B Schwartz, PHD, MD**Associate Professor of Medicine (primary appointment)

PHD Washington Univ in St. Louis 1986

BS University of Michigan 1980

MD Washington Univ in St. Louis 1987

**Evan Stuart Schwarz, MD**Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD University of Texas Austin 2005

BA University of Texas Austin 2001

**George G. Schweitzer, MS**Instructor in Medicine (primary appointment)

MS Southern Ill Univ Edwardsville 2007

BS Washington Univ in St. Louis 2004

**Mitchell G Scott, MS**Professor of Pathology and Immunology (primary appointment)

**Clinical Research Assistant Professor of Medicine**

MS University of Missouri 1977

Lynne M Seacord**Associate Professor of Medicine** (primary appointment)

David Seltzer**Assistant Professor of Emergency Medicine in Medicine** (primary appointment)

**Jay R Seltzer, MD**Assistant Professor of Clinical Medicine (primary appointment)

MD University of Missouri 1987

BA University of Missouri 1987

**Clay F Semenkovich, MD**Irene E and Michael M Karl Professor of Endocrinology and Metabolism in Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

BA University of Virginia 1977

MD Washington Univ in St. Louis 1981

**Deepali Prabir Sen, MD, MBBS**Assistant Professor of Medicine (primary appointment)

MD University of Mumbai 2003

MBBS Grant Medical College 1999

**Joseph Michael Serial**Instructor in Clinical Medicine (primary appointment)

BS St Vincent College 1964

**Harvey Serota, MD**Instructor in Clinical Medicine (primary appointment)

MD Johns Hopkins University 1982

BA Johns Hopkins University 1976

**James F Sertl, MD**Instructor in Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1962

MD Saint Louis University 1966

**Jieya Shao, PHD**Assistant Professor of Medicine (primary appointment)

PHD Oklahoma St University 2002

BS Nankai University 1996

Rajiv Kumar Sharma**Adjunct Instructor in Medicine** (primary appointment)

**Gerald Stephen Shatz, MD**Assistant Professor of Clinical Medicine (primary appointment)

BA Northwestern University 1970

MD Washington Univ in St. Louis 1974

**Nidal Shawahin, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Jordan 1988

**Vidal T. Sheen, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Louisville 1995

BA Johns Hopkins University 1991

**David M. Sheinbein, MD** Associate Professor of Medicine (Dermatology) (primary appointment)

MD Saint Louis University 1995

Mounir M Shenouda **Instructor in Clinical Medicine** (primary appointment)

**Adrian Shifren, MBBCH, MS** Assistant Professor of Medicine (primary appointment)

MBBCH University of the Witwatersra 1996

MS Washington Univ in St. Louis 2011

BS University of the Witwatersra 1993

**Haina Shin, PHD** Assistant Professor of Medicine (primary appointment)

BA Northwestern University 2004

PHD University of Pennsylvania 2009

**Cara L Shirai, MS** Instructor in Medicine (primary appointment)

MS Southeast Missouri St Unvers 2005

Bernard L Shore **Professor of Clinical Medicine** (primary appointment)

**Robert B Shuman** Associate Professor of Clinical Medicine (primary appointment)

BA Brandeis University 1977

**Sherry E Shuman, MD** Associate Professor of Clinical Medicine (primary appointment)

BS University of Michigan 1978

MD Wayne State University 1982

**Barry Alan Siegel** Professor of Radiology (primary appointment)

**Vice Chair for Nuclear Medicine in Radiology**

**Professor of Medicine**

BA Washington Univ in St. Louis 1966

Jeffrey E Siegler **Instructor in Emergency Medicine in Medicine** (primary appointment)

Christine A Sigman **Instructor in Clinical Medicine** (primary appointment)

**Julie Martha Silverstein, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Neurological Surgery**

MD Drexel University 2007

BA New York University 2004

**Randy B Silverstein, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Missouri

**David R Sinacore, MHS, PHD** Professor of Physical Therapy (primary appointment)

**Professor of Medicine**

MHS Washington Univ in St. Louis 1983

PHD West Virginia University 1992

BS State University of New York 1979

**Robert W Sindel, MD** Instructor in Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1969

MD Washington Univ in St. Louis 1975

**Sanford S Sineff, MD** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

BS Harvard University 1992

MD Brown University 1996

**Gary Singer, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD University of Toronto 1987

**Gurcharan J Singh, MD** Instructor in Clinical Medicine (primary appointment)

BS Delhi University 1968



MD Delhi University 1975

**Jasvinder Singh, MD** Associate Professor of Medicine (primary appointment)

MD Fiji School of Medicine 1988

**Donald A Skor, MD** Professor of Clinical Medicine (primary appointment)

MD Rush University 1978

BA Washington Univ in St. Louis 1973

**Gordon Ian Smith, PHD, MS** Assistant Professor of Medicine (primary appointment)

PHD University of Aberdeen 2006

MS University College Chichester 2002

**Raymond P Smith, MD** Instructor in Clinical Medicine (primary appointment)

BA Vassar College 1980

MD University of Virginia 1984

**Timothy Robert Smith, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Mississippi 1989

BS University of Mississippi 1983

**Timothy W. Smith, MD, PHD** Associate Professor of Medicine (primary appointment)

MD Duke University 1993

PHD Oxford University 1989

BS Duke University 1986

Michael C Snyder **Adjunct Instructor in Medicine** (primary appointment)

**Allen D Soffer, MD** Instructor in Clinical Medicine (primary appointment)

BA Emory University

MD University of Missouri 1983

**Stephanie Rose Solomon, PHD** Adjunct Assistant Professor of Medicine (primary appointment)

PHD Emory University 2008

BS Ohio State University 2001

**Rand Washburn Sommer, MD** Associate Professor of Clinical Medicine (primary appointment)

BS Davidson College 1976

MD Washington Univ in St. Louis 1980

**Hani Charles Soudah, MD, PHD** Associate Professor of Clinical Medicine (primary appointment)

MD School Not Listed 1983

PHD School Not Listed 1988

**William F Southworth, MD** Assistant Professor of Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1969

MD Washington Univ in St. Louis 1975

James Joseph Spadaro Jr **Assistant Professor of Clinical Medicine** (primary appointment)

**Michael L Spearman, MD** Instructor in Clinical Medicine (primary appointment)

BS Kansas State University 1978

MD University of Kansas Medical 1982

**Andrej Spec, MD** Instructor in Medicine (primary appointment)

MD University of Illinois 2010

**David H. Spencer, MD, PHD** Assistant Professor of Medicine (primary appointment)

MD University of Washington 2010

BS University of Washington 2001

PHD University of Washington 2008

John Spertus **Adjunct Professor of Medicine** (primary appointment)

Michael Spezia **Instructor in Clinical Medicine** (primary appointment)

Erik Christian Stabell **Instructor in Clinical Medicine** (primary appointment)

**Paul M Stein, MD** Professor of Clinical Medicine (primary appointment)

MD Saint Louis University 1971

BA University of Rochester 1967

**Phyllis K Stein, PHD** Associate Professor of Medicine (primary appointment)

BA Barnard College 1962

PHD University of Virginia 1990

**Richard Ian Stein, PHD** Associate Professor of Medicine (primary appointment)

PHD Arizona State University 2000

**Emily Steiner, MD** Instructor in Medicine (primary appointment)

MD University of Toledo 2013

**William F Stenson** Dr Nicholas V Costrini Professor of Medicine (primary appointment)

BS Providence College 1967

**Barbara B Sterkel** Adjunct Associate Professor of Medicine (primary appointment)

**Karin Sterl, MD** Instructor in Medicine (primary appointment)

MD Luliu Hatieganu U of Med 2007

**Kara Ellen Sternhell-Blackwell, MA, MD** Assistant Professor of Medicine (Dermatology) (primary appointment)

MA Washington Univ in St. Louis 2003

MD Washington Univ in St. Louis 2005

BA Washington Univ in St. Louis 1999

**Sheila Stewart-Wigglesworth, PHD** Professor of Cell Biology and Physiology (primary appointment)  
**Professor of Medicine**

BS University of Minnesota 1990

PHD University of CA Los Angeles 1996

**Nathan O. Stitzel** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Genetics**

BA1 Washington Univ in St. Louis 1998

**Keith Evan Stockerl-Goldstein, MD** Associate Professor of Medicine (primary appointment)

MD University of CA Los Angeles 1991

BA Washington Univ in St. Louis 1986

**James Andrew Stokes, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Missouri 1984

BA Stanford University 1976

**Michael Gary Stone, MD** Instructor in Clinical Medicine (primary appointment)

MD Kansas Cty Univ Med/Bioscience 2008

**Gregory A Storch, MD** Ruth L. Siteman Professor of Pediatrics (primary appointment)

**Professor of Molecular Microbiology**

**Professor of Medicine**

MD New York University 1973

BA Harvard University 1969

**James Stowe, PHD, MS** Instructor in Medicine (primary appointment)

PHD Columbia, MO 2014

BA Kansas State University 2006

MS Kansas State University 2009

**Cristina Strong** Assistant Professor of Medicine (Dermatology) (primary appointment)

**Christopher Michael Sturgeon, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Developmental Biology**

PHD University of British Columbia 2006

Xinming Su **Instructor in Medicine** (primary appointment)  
**Xiong Su, PHD Assistant Professor of Medicine** (primary appointment)  
**Assistant Professor of Cell Biology and Physiology**  
PHD Washington Univ in St. Louis 2004  
BS Beijing University 1998  
**Hamsa Subramanian Instructor in Clinical Medicine** (primary appointment)  
BS St. Joseph's Convent - Trichy 1986  
**Kanagaraj Subramanian, PHD, MS Instructor in Medicine** (primary appointment)  
PHD Heidelberg University 2007  
MS Heidelberg University 2000  
**Hani Suleiman, MD Instr in Medicine** (primary appointment)  
MD Regensburg University 2007  
**Kaharu Sumino, PHD, M PA, MD Associate Professor of Medicine** (primary appointment)  
PHD Yokohama City Univ Sch Med 1999  
M PA Johns Hopkins University 2008  
MD Yokohama City Univ Sch Med 1992  
**William Craig Summers, MD Instructor in Clinical Medicine** (primary appointment)  
MD University of AL Birmingham 1999  
BS University of Alabama 1994  
**Walton Sumner II, MD Associate Professor of Medicine** (primary appointment)  
MD Southwestern University 1985  
BA Rice University 1981  
**Rama Suresh, MBBS Assistant Professor of Medicine** (primary appointment)  
MBBS University of Madras 1993  
**Rudee Suwannasri, MD Instructor in Clinical Medicine** (primary appointment)  
MD Chiang Mai University 1973  
BS Chiang Mai University 1971  
**Bridgette B Svancarek Assistant Professor of Emergency Medicine in Medicine** (primary appointment)  
**Elzbieta Anna Swietlicki, MS, PHD Instructor in Medicine** (primary appointment)  
MS Medical Academy Lodz 1975  
PHD Medical Academy Lodz 1981  
**Steven D Taff, MS, PHD Assistant Professor of Occupational Therapy** (primary appointment)  
**Assistant Professor of Medicine**  
MS Washington Univ in St. Louis 1997  
BS MO State U (formerly SW MO St) 1989  
PHD University of MO St Louis 2005  
**Mohammad Tahir, MD Instructor in Clinical Medicine** (primary appointment)  
MD Dow Medical College Karachi 1976  
**Benjamin R Tan, MD Associate Professor of Medicine** (primary appointment)  
BS University of the Philippines 1985  
MD University of the Philippines 1990  
**David Tan, MD Associate Professor of Emergency Medicine in Medicine** (primary appointment)  
MD Loma Linda University 1997  
**Kongsak Tanphaichitr, MD Professor of Clinical Medicine** (primary appointment)  
MD Siriraj Medical School 1970  
**Richard S Tao, MD Instructor in Emergency Medicine in Medicine** (primary appointment)  
MD Indiana State University 1995

BA Indiana State University 1991

**Steven L Teitelbaum, MD** Messing Professor of Pathology and Immunology (primary appointment)  
**Professor of Medicine**

MD Washington Univ in St. Louis 1964

**Arnold S Tepper, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Missouri 1970

BS School Not Listed 1966

**Wanda T Terrell, MD** Associate Professor of Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1975

MD Washington Univ in St. Louis 1979

**Larissa Bryka Thackray, PHD** Assistant Professor of Medicine (primary appointment)

BS Cornell University 1991

PHD U of Colorado Health Sci Ctr 2003

George K. Thampy Instructor in Clinical Medicine (primary appointment)

**Daniel Leonidas Theodoro, MD** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD Brown University 1997

**J. Allen Thiel, MD** Associate Professor of Clinical Medicine (primary appointment)

BS Rockhurst College 1956

MD Saint Louis University 1960

**Mark S Thoele, MD** Associate Professor of Medicine (primary appointment)

BS University of Illinois 1982

MD University of Illinois 1990

**Benjamin S Thomas, MD** Adjunct Instructor in Medicine (primary appointment)

MD Mercer University Macon 2009

BS Georgia Tech 2002

**Erik P Thyssen, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD University of Copenhagen 1984

BS University of Copenhagen 1980

**LinLin Tian, PHD** Instructor in Emergency Medicine in Medicine (primary appointment)

PHD Beijing Institute of Radiation 2009

BS Hebei Medical University 2004

**Lawrence S Tierney, MD** Associate Professor of Clinical Medicine (primary appointment)

BS University of Illinois 1984

MD University of Illinois 1988

**Jeffrey P Tillinghast, MD** Associate Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1980

**Wael Toama, MD** Instructor in Medicine (primary appointment)

MD Damascus U. Medical School 2005

**Garry S Tobin, MD** Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1985

BS MO S&T (formerly UofMO Rolla) 1981

**Douglas M Tollefsen, MD** Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1977

**Michael H. Tomasson, MD** Adjunct Assistant Professor of Medicine (primary appointment)

BA Wesleyan University 1986

MD Stanford University 1992

**Robert R Townsend, MD, PHD, MS** Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

BS Centenary College 1972

MD Tulane University 1976

PHD Johns Hopkins University 1982

MS Tulane University 1976

**Elizabeth A Tracy, MD**Instructor in Clinical Medicine (primary appointment)

BS Marquette University 1982

MD Univ of Wisconsin Milwaukee 1986

Doris Janet Tribune-Brown**Instructor in Clinical Medicine** (primary appointment)

**Sandeep Kumar Tripathy, PHD**Assistant Professor of Medicine (primary appointment)

PHD University of Chicago 1995

**Elbert P Trulock III, MD**Rosemary and I Jerome Flance Professor of Pulmonary Medicine in Medicine (primary appointment)

MD Emory University 1978

BS Emory University 1968

**Thomas F Tse, MD**Instructor in Clinical Medicine (primary appointment)

BS University of Nebraska 1972

MD Univ of Nebraska at Omaha 1976

David J Tucker**Assistant Professor of Clinical Medicine** (primary appointment)

**Dolores R Tucker, MD**Assistant Professor of Clinical Medicine (Dermatology) (primary appointment)

MD Washington Univ in St. Louis 1974

BS Saint Mary's College 1958

**Stacey S Tull, MD, M PH**Assistant Professor of Clinical Medicine (Dermatology) (primary appointment)

MD Duke University 1997

M PH Duke University 1997

**John W Turk, PHD, MD**Professor of Medicine (primary appointment)

**Alan A and Edith L Wolff** Professor of Endocrinology

**Professor of Pathology and Immunology**

BA Washington Univ in St. Louis 1970

PHD Washington Univ in St. Louis 1976

MD Washington Univ in St. Louis 1976

**Robert C. Uchiyama, MD**Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 1980

**Fumihiko Urano, MD**Samuel E Schechter Associate Professor of Medicine (primary appointment)

**Associate Professor of Pathology and Immunology**

MD Keio University 1994

**Geoffrey L Uy, MD**Associate Professor of Medicine (primary appointment)

BA1 Cornell University 1996

BA Cornell University 1996

MD Washington Univ in St. Louis 2001

**Justin Marinus Vader, MD**Assistant Professor of Medicine (primary appointment)

MD University of Texas Southwest 2006

**Brij R Vaid, MD**Instructor in Clinical Medicine (primary appointment)

MD Rush University 1992

**Albert Lee Van Amburg III, MD**Assistant Professor of Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1968

MD Washington Univ in St. Louis 1972

**Brian Andrew Van Tine, MD, PHD**Assistant Professor of Medicine (primary appointment)

BS University of Arizona 1995

MD University of AL Birmingham 2005

PHD University of AL Birmingham 2005

**Gil M Vardi, MD**Assistant Professor of Clinical Medicine (primary appointment)

MD Tel-Aviv University 1988

**Emmanuel A Venkatesan, MBBS**Associate Professor of Clinical Medicine (primary appointment)

MBBS CMC, Vellore, India 1990

**Kiran Raj Vij, MD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

MD Indira Gandhi Medical College 1993

Ravi Vij**Professor of Medicine** (primary appointment)

Anitha Vijayan**Professor of Medicine** (primary appointment)

Dennis T Villareal**Adjunct Associate Professor of Medicine** (primary appointment)

**Herbert W Virgin IV, PHD**Mallinckrodt Professor of Pathology and Immunology (primary appointment)

**Professor of Medicine**

**Head of the Department of Pathology and Immunology**

**Professor of Molecular Microbiology**

PHD Harvard University 1985

**Oksana Volshteyn, MD**Professor of Neurology (primary appointment)

**Professor of Medicine**

MD Minsk State Medical Institute 1976

**Benjamin Allen Voss, MD**Instructor in Clinical Medicine (primary appointment)

MD Creighton University 2007

BA Saint Louis University 2003

BA1 Saint Louis University 2003

**Stanley G Vriezelaar, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Iowa 1981

**Harry Lee Wadsworth, MD**Instructor in Clinical Medicine (primary appointment)

MD Texas Tech University 1983

BS Texas Tech University 1978

**Jason Cass Wagner, MD**Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD University of Colorado Denver 2001

**Stanley M Wald, MD**Associate Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1946

**David Wallace, MD**Instructor in Clinical Medicine (primary appointment)

BA Saint Anselm College 1980

MD Saint Louis University 1984

**David A Walls, MD**Instructor in Clinical Medicine (primary appointment)

MD Southern Illinois University 1982

BA Southern Illinois University 1979

Sarah N. Walsh**Instructor in Clinical Medicine (Dermatology)** (primary appointment)

Matthew John Walter**Associate Professor of Medicine** (primary appointment)

**Associate Professor of Genetics**

**Richard Coburn Walters, MD**Instructor in Clinical Medicine (Dermatology) (primary appointment)



BS University of Illinois 1969

MD Washington Univ in St. Louis 1973

**Jean S Wang, PHD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Surgery (General Surgery)**

PHD John Hopkins University 2009

**Lawrence L. Wang, MD, PHD** Instructor in Clinical Medicine (Dermatology) (primary appointment)

BA Harvard University 1993

MD Washington Univ in St. Louis 2001

PHD Washington Univ in St. Louis 2001

Sarah Qian Wang **Instructor in Medicine** (primary appointment)

**Andrea Wang-Gillam, MD** Associate Professor of Medicine (primary appointment)

MD University of AR Little Rock 2001

BS Ouachita Baptist University 1993

BS1 Ouachita Baptist University 1993

**Saiana Naheed Waqar, MD** Assistant Professor of Medicine (primary appointment)

MD Aga Khan University 2001

**Jeffrey Peter Ward, MD, PHD** Instructor in Medicine (primary appointment)

MD SUNY - Empire State College 2010

BS Wilkes University 2002

PHD SUNY - Empire State College 2010

**Corinna Hendrell Warren, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Illinois Chicago 1994

BS Southern Ill Univ Edwardsville 1990

**David K. Warren, MD, MPH** Professor of Medicine (primary appointment)

MD University of Pittsburgh 1994

MPH Saint Louis University 2005

BS Pennsylvania State University 1990

**Lukas Delbert Wartman, MD** Assistant Professor of Medicine (primary appointment)

BS Univ of Wisconsin Madison 1998

MD Washington Univ in St. Louis 2005

**Andrzej J. Wasiak, PHD, MD** Assistant Professor of Clinical Medicine (primary appointment)

PHD Szczecin Medical School 1980

MD Szczecin Medical School 1972

**Scott P Wasserstrom, MD, MA** Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1995

BS University of Illinois 1990

MA Washington Univ in St. Louis 1995

**Michael J. Weaver, MD** Instructor in Medicine (primary appointment)

MD Loyola University Chicago 2013

**Jason Dean Weber, PHD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Cell Biology and Physiology**

BS Bradley University 1993

PHD Saint Louis University 1997

**H. James Wedner, MD** Phillip & Arleen Korenblat Professor of Allergy and Immunology in Medicine (primary appointment)

BS Cornell University 1963

MD Cornell University 1967

**Xiaochao Wei, PHD** Instructor in Medicine (primary appointment)

PHD University of Rochester 2007

**Kevin D Weikart, MD**Instructor in Clinical Medicine (primary appointment)

MD American Univ of the Caribbean 1979

**Gary J Weil, MD**Professor of Medicine (primary appointment)

**Professor of Molecular Microbiology**

MD Harvard University 1975

BA Harvard University 1971

**Katherine N Weilbaecher, MD**Professor of Medicine (primary appointment)

**Professor of Pathology and Immunology**

**Professor of Cell Biology and Physiology**

BA Harvard University 1987

MD Stanford University 1992

**Carla Joy Weinheimer, MS**Associate Professor of Medicine (primary appointment)

MS Washington Univ in St. Louis 1997

BS University of Illinois 1984

**Leonard B Weinstock**Associate Professor of Clinical Medicine (primary appointment)

**Assistant Professor of Clinical Surgery (General Surgery)**

BA University of Vermont 1977

**Steven Jay Weintraub, MD, MS**Assistant Professor of Medicine (primary appointment)

BA State Univ of NY Binghamton 1978

MD University of Virginia 1985

MS University of Virginia 1981

**Edmond Weisbart**Assistant Professor of Clinical Medicine (primary appointment)

**Alan N Weiss, MD**Professor of Medicine (primary appointment)

BA Ohio State University 1963

MD Ohio State University 1966

**Edward P Weiss, PHD, MS**Adjunct Research Assistant Professor of Medicine (primary appointment)

BS Southern Illinois University 1989

PHD University of Maryland 2003

MS Southern Illinois University 1992

**Peter Douglas Weiss, MD**Instructor in Clinical Medicine (primary appointment)

MD Case Western Reserve Univ 1980

BA Harvard University 1975

**John Sutton Welch, PHD, MD**Assistant Professor of Medicine (primary appointment)

PHD University of CA San Diego 2002

MD San Diego St University 2004

BS Brigham Young University 1995

Lynn Ellis Welling**Adjunct Associate Professor of Medicine** (primary appointment)

**Alvin S Wenneker, MD**Professor of Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1949

MD Washington Univ in St. Louis 1953

**Jennifer Marie Wessels, MD**Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 2009

**Brian T Wessman, MD**Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Emergency Medicine in Medicine**

MD Commonwealth College 2005

BS College of William and Mary 2000



**Peter Westervelt, MD, PHD** Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1992

PHD Washington Univ in St. Louis 1992

**Alison J Whelan, MD** Professor of Medicine (primary appointment)

Senior Associate Dean for Education

Professor of Pediatrics

MD Washington Univ in St. Louis 1986

**Neil Harris White, MD** Professor of Pediatrics (primary appointment)

Professor of Medicine

MD Albert Einstein College of Med 1975

BS State Univ of NY at Albany 1971

**Patrick White, MD** Assistant Professor of Medicine (primary appointment)

BS Notre Dame College 2002

MD Ohio State University 2007

**Michael Peter Whyte, MD** Professor of Medicine (primary appointment)

Professor of Pediatrics

Professor of Genetics

MD State University of New York 1972

BA New York University 1968

**Burton M Wice, PHD** Associate Professor of Medicine (primary appointment)

PHD Washington Univ in St. Louis 1992

**Cynthia A Wichelman** Associate Professor of Emergency Medicine in Medicine (primary appointment)

Course Director for the Mini-Medical School

Course Director for the Mini-Medical School

Course Director for the Mini-Medical School

BA University of California 1982

**John F Wiedner, MD** Instructor in Clinical Medicine (primary appointment)

BA Knox College 1982

MD School Not Listed 1985

**Deborah A Wienski, MD** Instructor in Clinical Medicine (primary appointment)

BA Smith College 1979

MD Tufts University 1983

**Tanya M Wildes, MD** Assistant Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 2002

BS Illinois Wesleyan University 1998

**Denise Wilfley, PHD** Professor of Psychiatry (primary appointment)

Professor of Medicine

Professor of Psychological & Brain Sciences

Professor of Pediatrics

Scott Rudolph University Professor

PHD University of Missouri Columbi 1989

**Nancy J Williams** Instructor in Clinical Medicine (primary appointment)

BA Dartmouth College 1982

**Timothy John Williams, MD** Instructor in Medicine (primary appointment)

BA McKendree College 2008

MD University of Cincinnati 2012

**George A Williams III, MD, MA** Assistant Professor of Clinical Medicine (primary appointment)

MD Univ of Wisconsin Madison 1972

MA Columbia University 1968

BA University of Notre Dame 1967

**R. Jerome Williams Jr** Associate Professor of Clinical Medicine (primary appointment)

BA Harvard University 1973

**Monita Elaine Wilson, MS, PHD** Associate Professor of Medicine (primary appointment)

MS Southern Illinois University 1984

BS Southern Illinois University 1981

PHD Brandeis University 1992

Patrick H Win **Instructor in Clinical Medicine** (primary appointment)

**David William Windus, MD** Professor of Medicine (primary appointment)

BS Iowa State University 1974

MD Creighton University 1978

**Karen Winters, MD** Associate Professor of Medicine (primary appointment)

**Director of the Student and Employee Health Service - Medical Campus**

BS Illinois State University 1975

MD Southern Illinois University 1983

**Chad Alan Witt, MD** Assistant Professor of Medicine (primary appointment)

MD University of Texas Southwest 2005

BS Texas Tech University 2001

**Keith Frederic Woeltje, MD, PHD** Professor of Medicine (primary appointment)

MD Texas Southern University 1991

PHD Texas Southern University 1991

BS University of Dallas 1984

**Edward M Wolfe, MD** Instructor in Clinical Medicine (Dermatology) (primary appointment)

BA Hobart College 1956

MD Washington Univ in St. Louis 1960

**Gerald Wolff, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1961

BA Harvard University 1955

Nathan E Wolins **Assistant Professor of Medicine** (primary appointment)

**Terrence N Wong, MD, PHD** Instructor in Medicine (primary appointment)

MD Dartmouth College 2009

PHD University of Chicago 2007

**John A Wood, MD** Associate Professor of Clinical Medicine (primary appointment)

MD University of Oklahoma 1968

**Megan Elizabeth Wren, MD** Associate Professor of Medicine (primary appointment)

BA Washington Univ in St. Louis 1981

MD Washington Univ in St. Louis 1985

**Jeffrey M Wright, MD** Assistant Professor of Clinical Medicine (primary appointment)

**Assistant Professor of Clinical Pediatrics**

BS Vanderbilt University 1975

MD Washington Univ in St. Louis 1979

**Xiaobo Wu, MD** Assistant Professor of Medicine (primary appointment)

MD Tongji University 1986

**Yan Xie, MD, MS** Instructor in Medicine (primary appointment)

MD Tongji University 1986

MS Hubei Medical University 1991

**Mai Xu, PHD, MS, MD**Instructor in Medicine (primary appointment)

PHD China Medical University 1992

MS China Medical University 1983

MD China Medical University 1981

**Naga M Yalla, MD**Instructor in Medicine (primary appointment)

MD SRTR Medical College 2005

**Timothy Teng-Kay Yau, MD**Assistant Professor of Medicine (primary appointment)

MD Saint Louis University 2005

**Wayne M Yokoyama, MD**Sam and Audrey Loew Levin Professor of Medicine (Rheumatology) (primary appointment)

**Howard Hughes Medical Institute Investigator in Medicine**

**Professor of Pathology and Immunology**

BA University of Rochester 1974

MD University of Hawaii 1978

**Jun Yoshino, PHD, MD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Developmental Biology**

PHD Keio University 2004

MD Keio University 2000

**Mihoko Yoshino, PHD, MD**Instructor in Medicine (primary appointment)

PHD Shimane Medical University 2006

MD Keio University 2000

**Zhongsheng You, MS**Associate Professor of Cell Biology and Physiology (primary appointment)

**Associate Professor of Medicine**

MS Shanghai Inst of Biochemistry 1997

BS Zhejiang Medical University 1994

**Simon Yu, MD**Instructor in Clinical Medicine (primary appointment)

MD University of MO Columbia 1984

**Roger D. Yusen, MPH, MD**Associate Professor of Medicine (primary appointment)

BS University of Illinois 1986

MPH Saint Louis University 2002

MD University of Illinois 1990

**Alan Zajarias, MD**Associate Professor of Medicine (primary appointment)

**Associate Professor of Surgery (Cardiothoracic Surgery)**

MD National Autonomous U of Mex 2000

**John F. Zalewski**Instructor in Clinical Medicine (primary appointment)

**Yong Zhang, MD, PHD, MS**Instructor in Medicine (primary appointment)

MD Anhui Medical University 1978

PHD Albert Ludwig University 1999

MS Sun Yat-Sen University 1983

**Amy Wei Wei Zhou, MD**Instructor in Medicine (primary appointment)

MD Wayne State University 2009

**Li Zhou, MD**Instructor in Medicine (primary appointment)

MD Vanderbilt University 2013

**Jian Zhu, PHD**Instructor in Medicine (primary appointment)

PHD Oklahoma St University 2004

**Robert E Ziegler, PHD, MD**Assistant Professor of Clinical Medicine (Dermatology) (primary appointment)

PHD Duke University 1980

MD Duke University 1980  
BA University of Colorado Boulder 1972  
No entries found

# Department of Molecular Microbiology

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The [Department of Molecular Microbiology](#) teaches introductory courses in microbiology and pathogenic microorganisms for first-year medical students and graduate students. In conjunction with the [DBBS](#) program in [Molecular Microbiology and Microbial Pathogenesis](#), the department also offers a number of advanced courses, primarily designed for graduate students, but open to medical students. Advanced elective research activities are offered by faculty in the department.

Please visit the [Department of Molecular Microbiology website](#) for more information.

## MD Courses — Molecular Microbiology

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### First year

#### M30 526 MICROBES AND PATHOGENESIS

Instructors: Henry V. Huang, PhD, 362-2755; Scott Hultgren, PhD, 362-6772

The course emphasizes the importance of understanding molecular and cellular paradigms of how pathogenic microbes interact with their hosts and cause disease.

Selected pathogenic microbes, including bacteria, viruses, parasites and fungi, will be utilized as models to explain general principles of host-pathogen interactions and their

consequences. Mechanisms by which microbes evade host defenses to cause acute and chronic infections will be highlighted. Problems facing the medical community in the 21st century such as rising antibiotic resistance and tropical diseases will be addressed. The main objective of this course is to teach students how to think about microbial pathogenesis in a way that will provide them a conceptual framework that relates mechanisms of pathogenesis to symptomology and pathophysiology.

#### **L41 (Bio) 5392 MOLECULAR MICROBIOLOGY AND PATHOGENESIS**

Instructor: Joseph P. Vogel, PhD, 747-1029

This course is similar to M30 526 but focuses more on the molecular mechanisms used by pathogens to cause disease. L41 (Bio) 5392 encompasses all areas of medical microbiology including bacteriology, eukaryotic pathogens, and virology. Completion of the course will provide a student with a background in microbial pathogenesis and prepare them to perform research in a microbiology laboratory. The primary enrollees in the course are students working for a PhD degree. However, this course is recommended for interested medical students, especially those who may be considering a career in medical research, including MSTP students. MSTP students can take Bio 5392 in place of the Medical Microbiology course (M30 526) and obtain dual credit for both medical school and graduate school.

## **Fourth year**

### **Electives**

#### **L41 (Bio) 5217 SPECIAL TOPICS IN MICROBIAL PATHOGENESIS**

Detailed course description is presented under Division of Biology and Biomedical Sciences.

Note — The number preceding the course title indicates that the course carries credit in the Graduate School of Arts & Sciences.

# Research — Molecular Microbiology

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## M30 – MOLECULAR MICROBIOLOGY

### MOLECULAR MICROBIOLOGY RESEARCH OPPORTUNITIES (M30 900)

(M30 900)

Cross-listed with L41 (Bio) 590

Stephen M. Beverley, PhD

9th Floor, McDonnell Pediatric Research Building

314-747-2630

Molecular genetics of protozoan parasites and tropical diseases; biosynthesis of the parasite surface, genomics, virulence and drug action or resistance.

Michael Caparon, PhD

10th Floor, McDonnell Pediatric Research Building

314-362-1485

Molecular genetics and pathogenicity of the streptococci and other pathogenic gram positive bacteria.

Tamara L. Doering, MD, PhD

10th Floor, McDonnell Pediatric Research Building

314-747-5597

The Doering lab studies the opportunistic fungal pathogen, *Cryptococcus neoformans*, with the dual motivations of elucidating basic biology and identifying potential drug targets. Projects include studies of the synthesis and regulation of the main cryptococcal virulence factor, its polysaccharide capsule, and investigation of host fungal interactions. Current approaches include those of biochemistry, cell and molecular biology, and genetics; studies also include high-throughput analysis of host-

pathogen interactions and computational approaches to reconstructing the capsule regulatory network.

Daniel Goldberg, MD, PhD

9th Floor, McDonnell Pediatric Research Building

314-362-1514

Biochemistry of malaria.

Henry Huang, PhD

8th Floor, McDonnell Pediatric Research Building

314-362-2755

RNA virus evolution. Molecular biology of alphaviruses. Alphavirus gene expression vectors. Antiviral drug design.

Scott J. Hultgren, PhD

10th Floor, McDonnell Pediatric Research Building

314-362-6772

Pathogenic mechanisms and disease outcomes in the urinary tract. Work in the Hultgren lab blends multiple scientific disciplines to elucidate bacterial and host mechanisms that determine the onset, course and outcome of interactions between a host mucosal surface and bacterial pathogens. Using genetics, genomics, biochemistry, structural biology, high-resolution imaging, animal models, clinical studies and combinatorial chemistry, we have illuminated new ways in which intracellular lifestyles and community behavior play critical roles in the pathogenesis of urinary tract infection. We have uncovered new principles of adhesive pili biogenesis in Gram Negative bacteria by the chaperone/usher pathway; delineating the fine molecular details of a donor strand complementation and exchange mechanism by which the energy of final subunit folding is used to complete assembly and extrusion of pili across the outer membrane. We revealed how UPEC use type 1 pili to invade and establish biofilm-like intracellular bacterial communities within bladder cells as part of a mechanism that subverts host defenses and how quiescent intracellular reservoirs can seed recurrent infections. We have uncovered complex networks that govern mucosal epithelial response to infection, which we have shown

determines disease outcome. Further, we have made seminal contributions to our understanding of the pathogenesis and response to other uropathogens, polymicrobial infections and catheter-associated UTIs and to the mechanisms by which bacteria form a directed amyloid fiber, curli, which is important in biofilm formation. Together, this work is changing the way UTIs are evaluated, re-shaping models of bacterial infections in general and spawning new technologies to design novel vaccines and anti-microbial therapeutics to diagnose, treat and/or prevent UTIs and their sequelae.

Amanda Lewis, PhD

10th Floor, BJC Institute of Health

314-286-0016

Polymicrobial Infection and Women's Health. Our lab is using biochemical, cellular and animal models to study infectious processes of the female urogenital tract that involve multiple bacterial species. For example, Bacterial vaginosis (BV) is a polymicrobial imbalance of the vaginal flora characterized by reductions in beneficial lactobacilli and an overgrowth of mostly Gram negative bacteria. BV is the most common of all vaginal infections and is associated with increased risks of adverse pregnancy outcomes and greater susceptibility to sexually transmitted infections. We are collaborating with clinical investigators to define molecular and biochemical processes of BV and identify patient groups most at risk for adverse events. Another active area of study in the lab involves polymicrobial urinary tract infection (UTI). We have developed a mouse model of polymicrobial UTI and are currently defining novel processes, bacterial factors and the impact of host that contribute to susceptibility.

Jennifer Lodge, PhD

McDonnell Pediatric Research Building 10210A

314-286-2125

Antifungal therapy and vaccine development against a fungal pathogen: *Cryptococcus neoformans* is a significant fungal pathogen, particularly in immunocompromised patients, that causes pulmonary infections and meningoencephalitis. It has been estimated that over 1,000,000 new cases of *Cryptococcus* occur, with over 650,000



deaths per year, and the majority of these cases are in Africa. Our lab focuses on understanding the structure and the synthesis of the fungal cell wall. We are working on it as a target for antifungal therapies and for vaccine development.

David Sibley, PhD

9th Floor, McDonnell Pediatric Research Building

314-362-8873

We study the intracellular survival mechanisms of protozoan parasites, focusing on the model parasite *Toxoplasma gondii*. Current approaches include high-resolution microscopy, genetic mapping of virulence traits, comparative genomic analyses and development of animal models for studying pathogenesis and resistance.

Christina L. Stallings, PhD

8th Floor, McDonnell Pediatrics Research Building

314-286-0276

Molecular Pathogenesis of Mycobacteria. Our laboratory integrates in vivo disease modeling, molecular biology, and biochemistry to provide answers to the fundamental biological questions regarding molecular pathogenesis and yield therapeutic strategies for treatment of mycobacterial infections.

Niraj H. Tolia, PhD

8th Floor, McDonnell Pediatric Research Building

314-286-0134

Structural and Mechanistic Studies of Malaria Pathogenesis. Our lab is interested in the molecular events that occur during erythrocyte invasion by *Plasmodium* parasites. We use the tools of structural biology, biochemistry and biophysics to examine proteins and protein complexes associated with these events.

Joseph P. Vogel, PhD

10th Floor, McDonnell Pediatric Research Building

314-747-1029

*Legionella pneumophila*, the causative agent of Legionnaires' pneumonia, replicates inside alveolar macrophages by preventing phagosome-lysosome fusion.

David Wang, PhD

8th Floor, McDonnell Pediatric Research Building

314-286-1123

Discovery and characterization of novel viruses. We use functional genomic technologies to identify novel viruses from a variety of clinical samples from diseases of unexplained etiology. We then use epidemiologic and molecular/cellular strategies to define the relevance of newly identified viruses to human disease. A range of new viruses, including polyomaviruses, astroviruses and picornaviruses are under investigation.

## Faculty — Molecular Microbiology

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**Stephen M Beverley, PhD** Marvin A Brennecke Professor of Molecular Microbiology (primary appointment)

**Head of the Department of Molecular Microbiology**

PHD University of California 1979

BS California Institute Technolo 1973

**Shabaana Abdul Khader, PhD** Associate Professor of Molecular Microbiology (primary appointment)

PHD Madurai Kamaraj University 2002

**Natalia S Akopyants** Instructor in Molecular Microbiology (primary appointment)

**Gaya K Amarasinghe, PhD** Associate Professor of Pathology and Immunology (primary appointment)

**Associate Professor of Biochemistry and Molecular Biophysics**

**Associate Professor of Molecular Microbiology**

PHD University of Maryland 2001

**John Patterson Atkinson, MD** Samuel Grant Professor of Medicine (primary appointment)

**Professor of Molecular Microbiology**

BA University of Kansas 1965

MD University of Kansas 1969

**Megan Tierney Baldrige, MD, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Molecular Microbiology**

MD Baylor College of Medicine 2011

PHD Baylor College of Medicine 2009

**Wandy L. Beatty, PHD** Assistant Professor of Molecular Microbiology (primary appointment)

BS Montana State University 1989

PHD Univ of Wisconsin Madison 1994

**Adrianus C Boon, PHD, MS** Assistant Professor of Medicine (primary appointment)

Assistant Professor of Pathology and Immunology

Assistant Professor of Molecular Microbiology

PHD Erasmus University Rotterdam 2003

MS University of Amsterdam 1997

**Tamara L. Brent, PHD, MD** Professor of Molecular Microbiology (primary appointment)

Alumni Endowed Professor of Molecular Microbiology

PHD Johns Hopkins University Medic 1991

MD Johns Hopkins University Medic 1991

BA Johns Hopkins University 1983

**Carey-Ann Dawn Burnham, PHD** Associate Professor of Pathology and Immunology (primary appointment)

Associate Professor of Pediatrics

Associate Professor of Molecular Microbiology

BS University of Alberta 2002

PHD University of Alberta 2007

**Michael G Caparon Jr, PHD** Professor of Molecular Microbiology (primary appointment)

PHD University of Iowa 1985

BS Michigan State University 1981

**Gautam Dantas** Associate Professor of Pathology and Immunology (primary appointment)

Associate Professor of Biomedical Engineering

Associate Professor of Molecular Microbiology

BS Macalester College 2000

**Michael Diamond, MD** Professor of Medicine (primary appointment)

Professor of Molecular Microbiology

Professor of Pathology and Immunology

Herbert S Gasser Professor

BA Columbia College 1985

MD Harvard University 1994

**Deborah E Dobson, PHD** Associate Professor of Molecular Microbiology (primary appointment)

PHD University of CA Berkeley 1981

BS University of Illinois 1976

**Karen W Dodson, PHD** Instructor in Molecular Microbiology (primary appointment)

PHD Washington Univ in St. Louis 1990

BA University of Missouri 1983

**Mario Federico Feldman, PHD** Associate Professor of Molecular Microbiology (primary appointment)

PHD Universidad del Buenos Aires 2004

**Daniel E Goldberg, MD** David M and Paula L Kipnis Distinguished Professor (primary appointment)

Professor of Molecular Microbiology

MD Washington Univ in St. Louis 1985

**Dennis E Hallahan, MD** Professor of Radiation Oncology (primary appointment)

Professor of Cell Biology and Physiology

Professor of Pathology and Immunology

**Elizabeth H and James S McDonnell III Distinguished Professor of Medicine**

**Head of the Department of Radiation Oncology**

**Professor of Molecular Microbiology**

MD Rush University 1984

BS University of Illinois 1980

**Jeffrey P. Henderson, PHD, MD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Molecular Microbiology**

PHD Washington Univ in St. Louis 2002

BS Univ of Wisconsin Madison 1994

MD Washington Univ in St. Louis 2002

**Henry V Huang, PHD**Associate Professor of Molecular Microbiology (primary appointment)

PHD California Institute Technolo 1977

**Scott James Hultgren, PHD**Helen L Stoever Professor of Molecular Microbiology (primary appointment)

BS Indiana University Bloomington 1981

PHD Northwestern University 1987

**David A Hunstad, MD**Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Molecular Microbiology**

MD Washington Univ in St. Louis 1995

BA Carleton College 1991

**Audrey Ragan Odom John, PHD, MD**Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Molecular Microbiology**

BS Duke University 1996

PHD Duke University 2002

MD Duke University 2003

**Anthony Kulczycki Jr, MD**Associate Professor of Medicine (primary appointment)

**Associate Professor of Molecular Microbiology**

MD Harvard University 1970

**Sebla Bulent Kutluay, PHD**Assistant Professor of Molecular Microbiology (primary appointment)

PHD Michigan State University 2009

**Amanda Lark Lewis, PHD**Assistant Professor of Molecular Microbiology (primary appointment)

**Assistant Professor of Obstetrics and Gynecology**

BS Cal Polytec San Luis Obispo 2001

PHD University of San Diego 2006

**Efrem S Lim, PHD**Instructor in Molecular Microbiology (primary appointment)

PHD University of Washington 2012

BS University of Michigan 2008

**Jennifer K Lodge, PHD**Professor of Molecular Microbiology (primary appointment)

**Vice Chancellor for Research**

**Vice Chancellor for Research**

**Associate Dean for Research**

**Associate Dean for Research**

BS Oberlin College 1979

PHD Washington Univ in St. Louis 1988

**Paul D Olivo, PHD, MD**Adjunct Assistant Professor of Molecular Microbiology (primary appointment)

PHD University of Florida 1982

BA George Washington University 1972

MD University of Florida 1981

**Jennifer A Philips, MD, PHD, PHD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Molecular Microbiology**

MD University of CA San Francisco 2000

PHD University of CA San Francisco 1998

PHD University of CA San Francisco 2015

BA Columbia University 1991

**Lee Ratner, MA, PHD**Professor of Medicine (primary appointment)

**Professor of Molecular Microbiology**

**Alan A and Edith L Wolff Professor of Oncology**

BA Harvard University 1973

MA Harvard University 1973

PHD Yale University 1979

**Charles M Rice III, PHD**Adjunct Professor of Molecular Microbiology (primary appointment)

PHD California Institute Technolo 1981

BS University of California 1974

**Robert D Schreiber, PHD**Alumni Endowed Professor of Pathology and Immunology (primary appointment)

**Professor of Molecular Microbiology**

PHD State University of New York 1973

BA State University of New York 1968

**Laurence David Sibley, PHD**Professor of Molecular Microbiology (primary appointment)

**Alan A and Edith L Wolff Distinguished Professor**

BA Oberlin College 1978

PHD Louisiana St University 1985

**Christina Leigh Stallings, MS, MA, PHD**Assistant Professor of Molecular Microbiology (primary appointment)

MS Columbia University 2002

MA Columbia University 2001

PHD Columbia University 2005

BS Mary Washington College 1999

**Gregory A Storch, MD**Ruth L. Siteman Professor of Pediatrics (primary appointment)

**Professor of Molecular Microbiology**

**Professor of Medicine**

MD New York University 1973

BA Harvard University 1969

**Phillip Irwin Tarr, MD**Melvin E Carnahan Professor of Pediatrics (primary appointment)

**Professor of Molecular Microbiology**

BA Brown University 1975

MD Yale University 1980

**Niraj Harish Tolia, PHD**Associate Professor of Molecular Microbiology (primary appointment)

**Associate Professor of Biochemistry and Molecular Biophysics**

PHD Watson Sch of Biological Scien 2004

BS Imperial College 1999

**Herbert W Virgin IV, PHD**Mallinckrodt Professor of Pathology and Immunology (primary appointment)

**Professor of Medicine**

**Head of the Department of Pathology and Immunology**

**Professor of Molecular Microbiology**

PHD Harvard University 1985

**Joseph Paul Vogel, PHD** Associate Professor of Molecular Microbiology (primary appointment)

PHD Princeton University 1993

BS2 Minnesota State University 1986

BS1 Minnesota State University 1986

BS Minnesota State University 1986

**David Wang, PHD** Associate Professor of Molecular Microbiology (primary appointment)

**Associate Professor of Pathology and Immunology**

BS Stanford University 1992

PHD Mass Inst of Technology (MIT) 1998

**Gary J Weil, MD** Professor of Medicine (primary appointment)

**Professor of Molecular Microbiology**

MD Harvard University 1975

BA Harvard University 1971

No entries found

# Department of Neurology

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Neurology concerns itself with the diseases of brain, spinal cord, peripheral nerves and muscles. An introduction to the anatomy and physiology of the nervous system is presented in the first-year neuroscience course by faculty from the **Department of Anatomy and Neurobiology**, with participation of faculty from the **Department of Neurology**. A first-year selective titled **Clinical Correlations in Neuroscience** is available, which is an opportunity for interested students to shadow physicians in neuro-related fields and attend basic science or clinical conferences. Another first-year selective titled **Alzheimer's Disease (AD) in the Clinic and the Lab** is also available, which is an opportunity for interested students to get an overview of the most exciting areas of AD clinical and science research. In the second year, the Department of Neurology presents the course **Diseases of the Nervous System** in conjunction with the Departments of **Pathology and Immunology**, **Neurological Surgery** and **Ophthalmology**. The course emphasizes the pathophysiology, pathology, clinical manifestations and treatment of the major neurological and neurosurgical diseases. The department also participates in the Practice of Medicine course, providing

lectures, demonstrations and teaching exercises with patients in neurological physical diagnosis.

In the third year, a four-week clerkship in Neurology introduces students to the clinical care of patients with diseases of the nervous system. Questions pertaining to neurosurgical treatment, neurorehabilitation and ethical issues in management also are addressed. In the fourth year, opportunities exist for many varieties of advanced clinical or research experience. A four-year residency program prepares medical graduates for specialization in neurology. Subspecialty fellowship programs routinely provide additional training in dementia, epilepsy, electrophysiology, electromyography, sleep medicine, cerebrovascular disease and stroke, neuroimmunology, neurological critical care, neuromuscular disease, neuropsychology and movement disorders.

Thirteen divisions and sections are in the department including the Division of Adult Neurology, the Division of Pediatric and Developmental Neurology and the Division of Neurorehabilitation. See [www.neuro.wustl.edu](http://www.neuro.wustl.edu) for details.

**Division of Neuropsychology:** Steven Petersen, PhD (division director); Francis Miezin, BS, MS; Bradley Schlaggar, MD, PhD; Gordon Shulman, PhD

**Division of Neurorehabilitation:** Maurizio Corbetta, MD (division director); David Brody, MD, PhD; Alex Carter, MD, PhD; Robert Fucetola, PhD; Thy Huskey, MD; Sindhu Jacob, MD; Neringa Juknis, MD; Rimma Ruvinskaya, MD; Nicole Werner, PhD; Oksana Volshteyn, MD; Martin Wice, MD

**Division of Pediatric and Developmental Neurology:** Bradley Schlaggar, MD, PhD (division director); Michael Noetzel, MD (division associate director); Mary Bertrand, MD; Janice Brunstrom, MD; Anne Connolly, MD; Edwin Dodson, MD; Nico Dosenbach, MD, PhD; Rafael Galindo, MD, PhD; Paul Golumbek, MD, PhD; Christina Gurnett, MD, PhD; Kristin Guilliams, MD; David Gutmann, MD; Siddharth Jain, MD; Douglas Larsen, MD; Amy Licis, MD; Soe Mar, MD; Bryan McGill, MD, PhD; Arthur Prenskey, MD; Robin Ryther, MD, PhD; Christopher Smyser, MD; Liu Lin Thio, MD, PhD; Jean Thurston, MD; Amy Viehoveer, MD, PhD; Judy Weisenberg, MD; Michael Wong, MD, PhD; Kelvin

Yamada, MD; John Zempel, MD, PhD; Craig Zaidman, MD

**Aging and Dementia Section:** John Morris, MD (section head); Randall Bateman, MD; Virginia Buckles, PhD; Nigel J. Cairns, PhD, FRC Path; David Carr, MD; John Cirrito, PhD; Anne Fagan, PhD; Nupur Ghoshal, MD, PhD; Jason Hassenstab, PhD; David Holtzman, MD (department chair); Terri Hosto, MSW; Eugene Johnson, Jr., PhD; Krista Moulder, PhD; Erik Musiek, MD, PhD; Catherine Roe, PhD; Davis Ryman, MD, PhD; Suzanne Schindler, MD, PhD; B. Joy Snider, MD, PhD

**Hope Center for Neurological Disorders (specifically those faculty in the Department of Neurology):** Alison Goate, D.Phil (director); Beau Ances, MD, PhD; Randall Bateman, MD; David Brody, MD, PhD; Janice Brunstrom, MD; Nigel Cairns, PhD; FRCPath, John Cirrito, PhD; Anne Cross, MD; Marc Diamond, MD; Anne Fagan Niven, PhD; Christina Gurnett, MD, PhD; Matthew Harms, MD; David Holtzman, MD (department chairman); Mark Jacquin, PhD; Eugene Johnson Jr., PhD; Paul Kotzbauer, MD, PhD; Terrance Kummer, MD, PhD; Jin-Moo Lee, MD, PhD; Mingjie Li, PhD; Timothy Miller, MD, PhD; John Morris, MD; Erik Musiek, MD, PhD; Joel Perlmutter, MD; Alan Pestronk, MD; Steve Petersen, PhD; Laura Piccio, MD, PhD; Anneliese Schaefer, PhD (executive director); Bradley Schlaggar, MD; B. Joy Snider, MD, PhD; Liu-Lin Thio, MD, PhD; Conrad Chris Weihl, MD, PhD; Michael Wong, MD, PhD; Gregory Wu, MD, PhD; Kelvin Yamada, MD

**Cerebrovascular Disease Section:** Jin-Moo Lee, MD, PhD (section head); David Carpenter, MD; Amar Dhand, MD; Andria Ford, MD; Kristin Guilliams, MD; Salah Keyrouz, MD; Renee Van Stavern, MD; Allyson Zazulia, MD

**Clinical Neurophysiology Section:** Muhammad Al-Lozi, MD, Edward Hogan, MD (section heads); Mary Bertrand, MD; Anne Connolly, MD; Keith Day, MD, PhD; Lawrence Eisenman, MD, PhD; Christina Gurnett, MD, PhD; Amy Licis, MD; Glenn Lopate, MD; Luigi Maccotta, MD, PhD; Samiya Rashid, DO; Liu Lin Thio, MD, PhD; Judy Weisenberg, MD; Michael Wong, MD, PhD; Kelvin Yamada, MD; John Zempel, MD, PhD

**Pediatric Epilepsy and Sleep Section:** Liu Lin Thio, MD, PhD (section co-head); Kelvin



Yamada, MD (section co-head); Mary Bertrand, MD; Christina Gurnett, MD, PhD; Jean Holowach-Thurston, MD; Siddharth Jain, MD; Amy Licis, MD; Robin Ryther, MD, PhD; Judy Weisenberg, MD; Michael Wong, MD, PhD; John Zempel, MD, PhD

**Adult Epilepsy Section:** Edward Hogan, MD (section head); Keith Day, MD, PhD; Laurence Eisenman, MD, PhD; Yuan Fan, MD, PhD; Luigi Maccotta, MD, PhD

**Neuroimaging Section:** Beau Ances, MD; Kevin Black, MD; Maurizio Corbetta, MD; Colin Derdeyn, MD; Morvarid Karimi, MD; Francis Miezin, MS; Scott Norris, MD; Joel Perlmutter, MD; Steven Petersen, PhD; Bradley Schlaggar, MD, PhD; Gordon Shulman, PhD; Mwiza Ushe, MD; Allyson Zazulia, MD

**Neuroinfectious Disease Section:** David Clifford, MD (section head); Beau Ances, MD  
**Neurofibromatosis and Neuro-Oncology:** David Gutmann, MD, PhD

**Movement Disorders Section:** Joel Perlmutter, MD (section head); Kevin Black, MD; Meghan Campbell, PhD; Susan Criswell, MD; Marc Diamond, MD; Gammon Earhart, PhD; Erin Foster, OTD; Johanna Hartlein, APRN; Tamara Hershey, PhD; Morvarid Karimi, MD; Paul Kotzbauer, MD, PhD; Scott Norris, MD; Brad Racette, MD; Bradley Schlaggar, MD, PhD; LinLin Tian, MD, PhD; Mwiza Ushe, MD; Amy Viehoveer, MD, PhD; Brenton Wright, MD

**Neuroimmunology Section:** Anne Cross, MD (section head); Becky Parks, MD; Robert Naismith, MD; Laura Piccio, MD, PhD; Gregory Wu, MD

**Neurological Critical Care Section:** Michael Diringer, MD (section head-NNICU); Salah Keyrouz, MD (Medical Director, NNICU); Rajat Dhar, MD; Terrance Kummer, MD; Michael Rubin, MD

**Neuromuscular Diseases Section:** Alan Pestronk, MD (section head); Muhammad Al-Lozi, MD; Robert Bucelli, MD, PhD; Anne Connolly, MD; Julaine Florence, PT, DPT; Paul Golumbek, MD, PhD; Matthew Harms, MD; Glenn Lopate, MD; Timothy Miller, MD, PhD; Brian Sommerville, MD; Arun Varadhachary, MD, PhD; Chris Weihl, MD, PhD;

Craig Zaidman, MD

**Sleep Section:** Kelvin Yamada, MD (section head); Gabriela de Bruin, MD; Yo-El Ju, MD; Amy Licis, MD; Rachel Darken, MD, PhD; Brendan Lucey, MD; Terri Riutcel, MD; Luqi Chi, MD

**General Neurology Section:** General Neurology Section: Sylvia Awadalla, MD (section head); William Landau, MD (Emeritus); Robert Bucelli, MD, PhD; Rachel Darken, MD, PhD; Gabriela de Bruin, MD; Arun Varadhachary, MD, PhD

## For more information

Please visit the [Department of Neurology website](#) for more information.

# MD Courses — Neurology

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## First year

### Selectives

#### M04 5017 01 CLINICAL CORRELATIONS IN NEUROSCIENCE

Instructor: Allyson Zazulia, MD, 362-2560

Clinical faculty for this selective are members of the following departments or divisions: Neurology, Pediatric Neurology, Neurological Surgery, Neuro ICU, Radiology, Pathology and Immunology, and Psychiatry. Students will shadow physicians, attend rounds and meet for seminars and demonstrations to discuss particular patient cases and research studies. Teaching Objective: to gain exposure to medical career options involving neuroscience.

## **M04 582 01 ALZHEIMER'S DISEASE IN THE CLINIC AND THE LAB**

Instructors: John C. Morris, MD, and other faculty affiliated with the Knight Alzheimer's Disease Research Center, Department of Neurology. For information, contact Jennifer Phillips at 286-2882 or [phillipsj@abraxas.wustl.edu](mailto:phillipsj@abraxas.wustl.edu)

Alzheimer's disease (AD) affects more than 5 million Americans, and will increase substantially as our population ages. Of the top 10 causes of death in the United States, AD is the only disease without any way to prevent, cure or slow the progression. The cost of caring for AD patients has been estimated at over \$172 billion annually, and the human toll on patients and family members can be devastating. Patients and families turn to primary care and specialist physicians (e.g., neurologists, psychiatrists, geriatricians) for answers to their plight. The good news for physicians is that research on AD is moving at a rapid pace. Exciting advances in our understanding of AD etiology, early diagnosis and treatment are changing the landscape of dementia care.

Students in this course are offered a dynamic and interactive overview of the most exciting areas of AD clinical and science research from one of the top Alzheimer's disease research centers in the world. Find out how amyloid plaques and other AD-related abnormalities form in the brain and new discoveries about their possible reversal! The course includes lecture and student presentation components, plus opportunities to observe patients and families in an active neurology memory disorder clinic, participate in neuropathology evaluations of demented individuals, experience and administer psychometric evaluation tools and interact with investigators from the fields of molecular genetics, cell biology and neuropathology.

## **Second year**

### **M35 632 DISEASES OF THE NERVOUS SYSTEM**

Instructor: Allyson Zazulia, MD, 362-2560

The goal of this course is to provide an introduction to diseases of the central and peripheral nervous systems, including their clinical manifestations, pathology, pathophysiology and pharmacotherapy. The course includes reading assignments, lectures, laboratories, conferences and clinical presentations.

## Third year

### **M35 720 NEUROLOGY CLERKSHIP**

Instructor: Robert Naismith, MD, 362-3998

A full-time, four-week clerkship is provided on the inpatient neurology services at Barnes-Jewish Hospital south. Patients are assigned to students, who evaluate and follow them with the resident staff and discuss them regularly in conferences with the senior neurological staff. Students also work in the neurology clinic under staff supervision and attend a series of lectures on neurosurgical problems. The goal of this rotation is to gain expertise in the evaluation and treatment of patients with neurologic diseases.

Up to two students may elect to obtain their clerkship experience on the neurosurgery service. Up to two students may elect to obtain their clerkship experience on the inpatient pediatric neurology service. Students participate in the neurology specialty clinics at St. Louis Children's Hospital, working under the supervision of pediatric neurology fellows and senior staff.

### **M25 730 PHYSICAL MEDICINE AND REHABILITATION CLERKSHIP**

Coursemaster: Neringa Juknis MD, 454-7757

The clerkship in PM&R for third-year medical students provides an opportunity to gain basic knowledge and clinical skills in evaluation and management of a wide range of neurological and musculoskeletal diseases and conditions that require specialized rehabilitative medical and therapeutic care. Students spend two weeks on the Spinal Cord Injury Unit (SCI) and two weeks on the Brain Injury (BI) and Stroke Unit at The Rehabilitation Institute of St. Louis. Students are expected to be a part of the rehabilitation team, follow two to three patients, participate in daily morning rounds, participate in performing consults and attend team meetings and family conferences.

Students are required to attend several outpatient clinics such as SCI, BI, Amputee and Stroke. During the entire rotation, students work together with PM&R residents and fellows, and under direct guidance of the neurorehabilitation faculty. The usual duty hours are 7-7:30 a.m. to 5 p.m. on weekdays and 8 a.m. to noon on Saturdays. There is

no night call.

Students are required to attend all PM&R curriculum lectures and conferences. On the first day of rotation, students meet briefly with the PM&R program coordinator. Students will meet with the coursemaster at The Rehab Institute during their first week to go over goals, objectives. Upon completion of the rotation, students are required to provide written email feedback regarding the rotation experience.

## **Fourth year**

### **Electives**

SCHOOL OF MEDICINE STUDENTS

#### **M35 827 / NEUROLOGY SUB-INTERNSHIP FOR WASHINGTON UNIVERSITY SCHOOL OF MEDICINE STUDENTS**

Instructor(s): Director: Robert Naismith, MD, 314-362-3998

Location: Barnes-Jewish Hospital or St. Louis Children's Hospital

Elective Contact: Chrissy McIntosh, 362-3998

Other Information: Completion of the WU neurology clerkship is a prerequisite for this elective. WU medical students will not repeat clerkship orientation and student-specific neurology conferences. Students will present to their team at the beginning of day one, and will attend resident-oriented conferences (i.e. Morning Report, Journal Club, Clinical Neuroscience).

Enrollment limit per period: 2

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This four-week elective will be customized to include inpatient and outpatient experiences desired by WU students who have completed the WU Neurology Clerkship. Students may choose this elective to further improve their Neurology knowledge and skills. Students considering Neurology as a career may also desire

additional exposure to supplement their prior clerkship experience.

The elective is split into two 2-week rotations which may include:

1. Adult Inpatient General Service (with 1 clinic/week)
2. Adult Inpatient Stroke Service (with 1 clinic/week)
3. Adult Inpatient Consult Service (with 1 clinic/week)
4. Pediatric Neurology Consult Service (with 1 clinic/week)
5. Adult Neurology ICU (with 1 clinic/week)
6. Outpatient Clinics (with 8-10 clinics/week)

Student time distribution: Consult Service: Inpatient 90%, Outpatient 10%; Inpatient Service: Inpatient 90%, Outpatient 10%; Inpatient 90-50% (with 2 clinic/week); Outpatient 10-50% (with 2 clinic/week)

Major teaching responsibility: Consult Service: Single attending and resident; Inpatient Service: Single attending, chief resident, junior resident

Patients seen/weekly: Consult Service: 10-12; Inpatient Service: 8-12

On call/weekend responsibility: Consult Service: No call. Work one day per weekend; Inpatient Service: Every 4th night

### **M35 828 / NEUROLOGY SUB-INTERNSHIP FOR VISITING US MEDICAL STUDENTS**

Instructor(s): Robert Naismith, MD, 314-362-3998

Location: Barnes-Jewish Hospital

Elective Contact: Christy McIntosh, 314-362-3998

Other Information: Visiting students will attend Orientation on the first day of the elective, in addition to Neurology Clerkship student conferences.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This four-week elective for fourth-year visiting students from a US medical school provides the option (space permitting) of four weeks of Adult Inpatient Service (Stroke

for 2 weeks, General Neurology for 2 weeks), or two weeks on an Adult Inpatient Service and two weeks on the Adult Consult Service.

Students on the inpatient service will function as a Sub-Intern under the supervision of their junior resident, chief resident, and attending physician. The student will also attend weekly clinical conferences and a weekly outpatient clinic experience. This elective is suitable for visiting fourth-year students interested in Neurology, who wish to improve their Neurology knowledge and skills.

Student time distribution: Consult Service: Inpatient 90%, Outpatient 10%; Inpatient Service: Inpatient 90%, Outpatient 10%

Major teaching responsibility: Consult Service: Single attending and resident; Inpatient Service: Single attending, chief resident, junior resident

Patients seen/weekly: Consult Service: 10-12; Inpatient Service: 8-12

On call/weekend responsibility: Consult Service: No call. Work one day per weekend; Inpatient Service: Every 4th night

### **M35 830 / NEURO-ONCOLOGY**

Instructor(s): David H. Gutmann, MD, PhD, 362-7379

Location: Suite C, 6th Floor CAM Building

Elective Contact: David H. Gutmann, MD, PhD, [gutmannd@neuro.wustl.edu](mailto:gutmannd@neuro.wustl.edu), Kristi Bullock, 362-7379

Other Information: Students should email Dr. Gutmann at least one week prior to the start date of elective.

Enrollment limit per period: 1

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Provide an outpatient-oriented combined pediatric and adult neuro-oncology experience for 4th year medical students. (1) Attend multidisciplinary adult and pediatric neuro-oncology clinics and case conferences (tumor boards); (2) Attend adult and pediatric radiation oncology clinics; (3) Attend neuropathology brain tumor review; (4) Participate in subspecialty brain tumor clinics; (5) Attend monthly brain tumor research conferences.

Student time distribution: Outpatient 90%, Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Team teaching in clinic

Patients seen/weekly: 50 patients

On call/weekend responsibility: None

### **M35 851 / CLINICAL ASPECTS OF AGING AND DEMENTIA**

Instructor(s): Joy Snider, MD, PhD, and John C. Morris, MD

Location: Knight Alzheimer's Disease Research Center (ADRC), 4488 Forest Park Ave. (two-story brick building at intersection with Taylor)

Elective Contact: Jennifer Phillips, MPA (coordinator), 314-286-2882, phillipsj@wustl.edu

Other Information: Please contact Jennifer Phillips to discuss what type of elective experience you would like to have.

Enrollment limit per period: 1

Valid start weeks for 4-week blocks are: Weeks 9, 13, 17, 21, 33, 37 and 41.

This elective provides the opportunity to learn about clinical research and clinical care in health brain aging and dementia. Students should contact Dr. Morris or Dr. Snider to discuss this, as this elective is customized based on student interests. This can be a two-week or four-week elective. Students can gain proficiency in interviewing techniques and in the neurologic examination of the geriatric patient, and be introduced to neuropsychology, neuropathology, biomarkers, neuroimaging, genetics, and other biomedical procedures important in the diagnostic evaluation of older adults. The Knight ADRC is an interdisciplinary group, so students have the opportunity to interact with physicians, nurse clinicians, psychologists, and social workers, and to explore the neuropsychology, neuropathology, biomarkers, neuroimaging, genetics, and other biomedical procedures used in the diagnosis of dementing disorders such as Alzheimer's disease, dementia with Lewy bodies, frontotemporal dementias, cerebrovascular disorders, and affective disorders.

Student time distribution: Varies based on student interest: a typical distribution would be Research and Clinical Patient Evaluation 80%, Conferences/Lectures 20%,



Subspecialty Care 100%

Major teaching responsibility: Attending neurologists, psychiatrists, and geriatricians involved in the evaluation of memory and aging

Patients seen/weekly: 6-12

On call/weekend responsibility: None

### **M35 859 / NEONATAL NEUROLOGY**

Instructor(s): Chris Smyser, MD, 314-454-6120, [smyserc@neuro.wustl.edu](mailto:smyserc@neuro.wustl.edu)

Location: 1260 Northwest Tower

Elective Contact: Chris Smyser, MD, 314-454-6120, [smyserc@neuro.wustl.edu](mailto:smyserc@neuro.wustl.edu)

Other Information: Meet at St. Louis Children's Hospital NICU, West Library, 8:30 a.m. first day of the elective.

Enrollment limit per period: 1

Valid start weeks for two-week blocks are: Weeks 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, and 43.

The Neonatal Neurology elective will consist of a combination of inpatient and outpatient experiences designed to provide medical students with comprehensive exposure to the field. Through the rotation, students will actively participate in all aspects of patient care, acquiring the knowledge and skill necessary to effectively manage infants with neurological disorders, including encephalopathy, stroke, seizures, hypotonia, intraventricular hemorrhage, and periventricular leukomalacia, among others. Clinical activities will be tailored to fit the interests and goals of the individual student and include a combination of inpatient and outpatient exposures. Inpatient activities will occur in the St. Louis Children's Hospital Neonatal Intensive Unit as part of the Neonatal Neurology Consultation service. Outpatient activities will occur in the St. Louis Children's Hospital Outpatient Clinics. Students will also attend educational conferences specific to the field during the rotation, including Neonatal Neurology Clinical Conference and Neonatal Neuroradiology Conference.

Student time distribution: Inpatient 60%; Outpatient 30%; Conferences/Lectures 10%;

Subspecialty Care 100%

Major teaching responsibility: Pediatric Neurology faculty attending on consult service

and in outpatient clinics

Patients seen/weekly: 25-30

On call/weekend responsibility: None

### **M35 860 / PEDIATRIC NEUROLOGY**

Instructor(s): Douglas Larsen, MD, MEd, 314-454-6042

Location: 12th Floor, Suite 1260 Northwest Tower

Elective Contact: Christy McIntosh, 314-362-3998

Other Information: Students report to Dr. Larsen on the 12th floor, Suite 1260

Northwest Tower, 8:00 a.m. first day of elective for orientation.

Enrollment limit per period: 1 (Inpatient); 1 (Consultation Office Service)

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The senior elective experience in child neurology is designed to adapt to the individual goals and objectives of students. The elective takes place in two 2-week blocks that occur among five possible venues as chosen by the student: (1) Outpatient clinics, (2) In-patient ward service, (3) In-patient general consult service, (4) NICU consult service, and (5) Video EEG (VEEG) monitoring service. The combination of services and experiences will be arranged directly between the student and the Course Master prior to beginning the rotation. In the outpatient clinics, students will rotate between a variety of subspecialty clinics and work with a variety of attendings in order to experience the breadth of outpatient pediatric neurology. Students rotating on the inpatient ward service will have a different role than the third-year student on pediatrics. The fourth-year student will focus solely on neurology patients and work closely with the pediatric neurology resident to develop neurology-specific care plans. No call or weekend duties will be expected on this rotation. On the general consult services, students will work with the consult attending and pediatric neurology residents on that team to see consults in the PICU, CICU, ER, and other hospital floors. The NICU consult team focuses on infants in the NICU. Student rotating on the VEEG monitoring service will focus on learning the indications and uses of VEEG and basic EEG reading skills. All students choosing a pediatric neurology elective will arrange

their specific schedule with the Course Master beforehand.

Student time distribution: Inpatient rotation 80%; Outpatient rotation 80%;

Conferences/Lectures 20%; Subspecialty Care 100%

Major teaching responsibility: Inpatient: Single attending and senior resident;

Outpatient: Multiple attendings

Patients seen/weekly: Inpatient: 5-9; Outpatient: 20-25

On call/weekend responsibility: None

### **M35 861 / NEUROLOGY/NEUROSURGERY ICU**

Instructor(s): Raj Dhar, MD, 314-362-2999

Location: 10400B Barnes-Jewish Hospital

Elective Contact: Liz Vansickle, 314-362-2999

Other Information: Students report to 10400 ICU, 7:30 a.m. first day of elective.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The student will be integrated into the Critical Care Team that provides care in the Neurology/Neurosurgery ICU. Diseases frequently encountered include intracerebral hemorrhage, head trauma, subarachnoid hemorrhage, and stroke. The student will follow patients, participate in rounds and perform some procedures under supervision. Didactic sessions will be provided as conferences or lectures from the ICU attending.

Student time distribution: Inpatient 80%; Conferences/Lectures 20%; Subspecialty Care 100%

Major teaching responsibility: Fellows and residents

Patients seen/weekly: 25

On call/weekend responsibility: Variable

### **M35 865 / ADULT AND PEDIATRIC EPILEPSY**

Instructor(s): Edward Hogan, MD, 314-362-3944

Location: 11400 EMU Barnes Jewish Hospital

Elective Contact: Donna Theiss, 314-362-7845, [theissd@neuro.wustl.edu](mailto:theissd@neuro.wustl.edu)

Other Information: Students should meet on 11400 EMU 9:00 a.m. first day of elective.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Students will learn how epileptologists diagnose and manage epilepsy in adults and children. They will learn how to use the history and physical exam and laboratory studies such as EEG, MRI, PET, and SPECT to diagnose and manage patients with new onset epilepsy, established epilepsy, and medically intractable epilepsy. They will become familiar with the medical management of epilepsy as well as the treatment options for medically intractable epilepsy including surgery, the vagus nerve stimulator, and the ketogenic diet. They will also learn how to manage the co-morbid conditions that accompany epilepsy such as depression, behavioral problems, cognitive impairment, sleep disturbance, and non-epileptic events. Students will accomplish these goals by attending epilepsy clinics and rounding on the inpatient epilepsy service with the epilepsy team at Barnes-Jewish Hospital and St. Louis Children's Hospital. They will attend the Adult Epilepsy Conference, the Pediatric Epilepsy Conference, and Neurology Grand Rounds. Students will also have the opportunity to observe epilepsy surgery if they wish. They will have the option to present one 15-30 minute talk on a topic relevant to epilepsy.

Student time distribution: Inpatient 70%; Outpatient 10%; Conferences/Lectures 20%; Subspecialty Care 100%

Major teaching responsibility: Attending faculty, fellows

Patients seen/weekly: 40

On call/weekend responsibility: None

### **M35 871 / CLINICAL NEUROIMMUNOLOGY & MULTIPLE SCLEROSIS**

Instructor(s): Becky Parks, MD, [parksb@neuro.wustl.edu](mailto:parksb@neuro.wustl.edu)

Location: Various clinic locations

Elective Contact: Nanette Bladdick, 314-362-3307

Other Information: Contact Dr. Parks by email to arrange time and location to report on first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 5, 13, 17, 21, 25, 29, 33, 37, and 41.

Students will have the opportunity to interview and examine patients with multiple sclerosis or related neuroimmunological disorders. They will become familiar with the differential diagnosis of MS, appropriate laboratory evaluation and common MRI findings in MS. This elective will also familiarize students with the disease-modifying therapies used to treat MS. They will gain practical knowledge about evaluation and treatment of spasticity, neurogenic bladder, fatigue and other common symptoms.

Third-year medical students rotating as part of a core rotation will attend the required conferences for third-year students. Students choosing this elective to gain additional experience in the field of Neurology will attend Neurology Grand Rounds on Friday morning. Students may also attend our MS Journal Club and the MS Patient Care conference held on the first and third Thursdays of every month, respectively.

Student time distribution: Inpatient 0%; Outpatient 90%; Conferences/Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Becky Parks, MD

Patients seen/weekly: 30+

On call/weekend responsibility: None

### **M35 872 / MS CENTER/OUTPATIENT – MISSOURI BAPTIST**

Instructor(s): Barry Singer, MD, 314-996-7966

Location: Missouri Baptist Medical Center, 3009 N. Ballas Rd, Building B, Ste. 207B, St. Louis, MO 63131

Elective Contact: Barry Singer, MD, 314-996-7966

Other Information: Students meet at 8:00 a.m., Missouri Baptist Medical Center, 3009 N. Ballas Rd, Building B, Ste. 207B, St. Louis, MO 63131, first day of elective.

Enrollment limit per period: 2

Valid start weeks for 4-week blocks are: Weeks 5 and 9.

Students will develop their skills in taking histories and performing neurological examinations on patients with multiple sclerosis under direct supervision of multiple sclerosis specialists. Localization of neurological findings and symptoms to the neuro-axis will be emphasized. A major goal for the students will to increase the understanding of comprehensive patient management including disease treatment, symptom management, adjunctive therapy services, and psychosocial issues.

The outpatient rotation will be four weeks at The MS Center for Innovations in Care at Missouri Baptist Medical Center with Dr. Barry Singer and Dr. Mark Tullman. An additional goal for students will be to understand process of clinical research and translation into approved therapies. The center has been a leader in clinical trial development of therapeutics that have been or will soon be FDA-approved as new medications for multiple sclerosis.

Student time distribution: Outpatient 100%; Subspecialty Care 100%

Major teaching responsibility: Barry Singer, MD, Mark Tullman, MD

Patients seen/weekly: 20

On call/weekend responsibility: None

### **M80 807 / PHYSICAL MEDICINE AND REHABILITATION**

Instructor(s): Neringa Juknis, MD, 314-454-7757, [juknisn@neuro.wustl.edu](mailto:juknisn@neuro.wustl.edu)

Location: Suite 2304, Rehabilitation Division, Neurology Department, 4444 Forest Park

Elective Contact: Donna Barbier, 314-454-7757, [barbierd@neuro.wustl.edu](mailto:barbierd@neuro.wustl.edu)

Other Information: Students report to Suite 2304, Rehabilitation Division, Neurology Department, 4444 Forest Park, 9:00 a.m. first day of elective.

Rotation location: The Rehabilitation Institute of St. Louis, 4455 Duncan Ave.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The elective is designed to provide the student with a broad introduction to the field of Physical Medicine and Rehabilitation. Major objective of this clinical elective is to achieve greater knowledge of the neurological and musculoskeletal diseases and their

treatment, and gain understanding of basic principles of rehabilitation. The student will learn the clinical and rehabilitative care of patients with strokes, traumatic brain injury, spinal cord trauma and diseases, and limb amputations. Student will gain clinical skills in evaluating in management of functional impairments. Students will be expected to participate in daily rounds on inpatient rehabilitation units with the clinical care team, follow 3-5 patients, attend multidisciplinary team conferences and family meetings, attend outpatient rehabilitation clinics in spinal cord, stroke, traumatic brain injury, and amputee. Teaching and supervision is provided by the physiatry and neurology faculty of the Division of Rehabilitation. Rehabilitation and neurology residents are involved in student teaching as well. Students are required to participate in didactic teaching conferences within the PM&R residency.

This rotation is particularly useful for students considering careers in rehabilitation, neurology, geriatrics, primary care, neurosurgery, or any other field that will require experience in the evaluation and management of patients with physical impairment and disabilities.

Student time distribution: Inpatient 80%; Outpatient 10%; Conferences/Lectures 10%;  
Subspecialty Care 100%

Major teaching responsibility: Attending faculty and residents

Patients seen/weekly: 20

On call/weekend responsibility: None

## Research — Neurology

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### NEUROLOGY RESEARCH OPPORTUNITIES (M35 900)

Beau Ances, MD

2nd Floor, Storz Building

314-747-8423

Neuroimaging of Neurodegenerative Disorders. Students can work in a neuroimaging laboratory that is focused on translational discovery of neuroimaging biomarkers for neurodegenerative diseases. The laboratory focuses on the pathogenesis of HIV dementia and Alzheimer's disease. We are investigating the effects of neurodegenerative diseases on brain networks using blood oxygen level dependent imaging and arterial spin labeling. Multiple projects that involve bioengineering, neuroimaging, and infectious disease are available depending on the interest of the student.

Randall Bateman, MD

304 Biotechnology Center

314-747-7066

Central Nervous System protein metabolism in aging and dementia. This research elective will expose the student to translational research in the study of Alzheimers disease. The student will participate in multiple areas of the research including participant consent, enrollment, and admission to a research hospital unit. Lumbar catheter placement and CSF sample collection will be demonstrated. The student will participate in sample analysis including processing for mass spectrometry quantitation, ELISA, and western gel methods. Quantiation, analysis and modeling of the data will be taught in the context of data interpretation and study design.

Maurizio Corbetta, MD

4525 East Building, Room 2127

314-362-7620

Website: [www.nil.wustl.edu/labs/corbetta](http://www.nil.wustl.edu/labs/corbetta)

The elective will provide the opportunity to learn about neuroimaging (Structural MRI, functional MRI, Diffusion MRI, Functional Connectivity MRI), behavior methods (reaction times; psychophysics; eye movement recordings), and their application to cognitive neuroscience, and investigations of brain injury (stroke, TBI) and recovery of function. A 3-month project will involve typically a well-defined data analysis project on



available data either neuroimaging or behavioral, while a longer rotation may provide the opportunity for a more substantial project that can lay the foundation for a training or fellowship. Experience in programming (C++, Matlab) is desirable for neuroimaging projects.

Anne H. Cross, MD, and Laura Piccio, MD, PhD

3rd Floor, McMillan

314-747-4591 or 314-747-0405

Understanding interactions of the immune system with the central nervous system as it relates to multiple sclerosis and other neuroimmunological disorders. Our goal is to understand how immune cells cross the blood-brain barrier and initiate the cascade of events leading to lesions of multiple sclerosis. We are also funded to study the effects of diet and adipokines on neuro-inflammation. Depending upon the time commitment of the student and their individual interests and goals, they will either assist with ongoing projects, or be given a laboratory project on which to work. Projects may involve animal models for MS, cell culture or studies of human samples (CSF, blood, autopsied specimens).

Interested students should contact Dr. Cross ([crossa@neuro.wustl.edu](mailto:crossa@neuro.wustl.edu)) or Dr. Piccio ([picciol@neuro.wustl.edu](mailto:picciol@neuro.wustl.edu)) several weeks in advance before signing up for this research to allow for sufficient planning.

Robert T. Naismith, MD

310B McMillan

314-747-0432

Clinical Imaging Research in Multiple Sclerosis (8 weeks). The student will learn about neuroimaging, imaging analyses, data collection, data management, and clinical study endpoints in multiple sclerosis (MS). They will observe patient participants undergoing a detailed evaluation of disability measures, such as ambulation, symptom scales, cognition, vision, upper extremity function, etc. They will witness the entire process of image acquisition, processing, analyses, and data extraction. They will have the opportunity to interact with many people who are vital to the research, including research coordinators, imaging technologists, imaging physicists/chemists, and

specialized research clinicians (i.e. neurocognitive and physical therapy research specialists).

The student will assist with hands-on clinical investigative research. They will gain an excellent appreciation of MS, from its pathophysiology within the central nervous system, to how it affect the neurological function of individuals. Through detailed and quantitative imaging analysis, the student will become very adept at analyzing brain MRI scans. They will marks and track lesions, determine their effects on clinical function, normal appearing white matter, cortex and gray-matter structures. They will become familiar with Amira Imaging Analysis Software, SPSS Statistical Analysis Software, SIENA Volume Analysis Software, and Matlab Imaging Analysis Software.

Steven E. Petersen, PhD

2108 East Building

314-362-3319

This lab is interested in brain organization and function, particularly for language, attention, and memory. Our main approaches to these issue is through functional MRI and large-scale network analysis.

Joel S. Perlmutter, MD

2nd Floor East Building

314-362-6026

Pathophysiology of Movement Disorders. The lab is primarily interested in etiology, pathophysiology and treatment of basal ganglia disorders. We have several studies of PD. We investigate mechanisms of action of deep brain stimulation, a dramatic new treatment. These studies combine PET, cognitive testing and quantified measures of movement. We also test new drugs that might rescue injured nigrostriatal neurons (a model of PD). For these, we use PET to measure dopamine pathways and also quantify motor behavior. We also have an active program developing and validation neuroimaging biomarkers for PD and integrity of the nigrostriatal pathway that includes studies in people and animal models of PD. We have an active program combining a variety of approaches to develop biomarkers and investigate the pathophysiology of dementia associated with PD. We use PET to measure radioligand

binding and sensorimotor processing in dystonia. We developed a new animal model of dystonia to investigate pharmacologic and physiologic changes. We use PET to investigate drug-mediated pathways in the brain and parse out the effects of selective dopaminergic agonists. We also are working to develop MR-based methods including DTI and resting state functional connectivity to investigate brain mechanisms underlying PD and dystonia.

Brad A. Racette, MD

9th Floor, McMillan

314-362-5291

Our lab is primarily interested in environmental risk factors associated with Parkinson disease. We use a variety of techniques to study these risk factors, including traditional field epidemiology in which we evaluate workers exposed to metals in the US and residents living near a smelter in South Africa, neuroimaging where we study the pathophysiology of toxin mediated parkinsonism, geographic information systems research where we associate environmental toxin exposures with incident and prevalent Parkinson disease in the US and Finland, and neuropathologic studies in manganese exposed workers from South Africa. There are numerous opportunities available for students to be involved with any of these projects. Students will have some clinical exposure, as well, to familiarize them with pertinent clinical syndrome.

Marcus E. Raichle, MD

Neuro Imaging Laboratory – 2nd Floor, East Building

314-362-6907

In vivo brain hemodynamic, metabolic and functional studies of human cognition and emotion using cyclotron-produced isotopes and emission tomography (PET) as well as functional magnetic resonance imaging (fMRI) in humans. See also Steven E. Petersen, PhD.

Gregory Wu, MD, PhD

3rd Floor, McMillan

314-362-3293

Understanding how immune responses are generated that target the central nervous

system. Specifically, studies on antigen presentation cell contributions to autoimmune animal models of multiple sclerosis. Our goal is to understand what cellular interactions are critical to the development of immune-mediated demyelination.

## Faculty — Neurology

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**David Michael Holtzman, MD** Andrew B. and Gretchen P. Jones Professor of Neurology (primary appointment)

**Head of the Department of Neurology**

**Professor of Developmental Biology**

MD Northwestern University 1985

BS Northwestern University 1983

**Aninda Bhat Acharya, MD** Instructor in Clinical Neurology (primary appointment)

MD1 University of Kansas 1996

BS University of Kansas 1992

MD University of Kansas 1996

**Muhammad Taher Al-Lozi, MD** Professor of Neurology (primary appointment)

MD University of Panjab 1980

**Amber Salter Albright, PHD, M PH** Assistant Professor of Biostatistics (primary appointment)

**Assistant Professor of Neurology**

PHD University of Alabama-Birmingham 2015

M PH University of North Texas Health 2005

**Denis Ian Altman, MBBCH** Associate Professor of Clinical Neurology (primary appointment)

**Assistant Professor of Clinical Pediatrics**

MBBCH University of the Witwatersrand 1975

**Lizette Alvarez-Montero, MD** Instructor in Clinical Neurology (primary appointment)

MD School Not Listed 1991

BA Washington Univ in St. Louis 1987

**Beau Mark Ances, MS, PHD, MD** Associate Professor of Neurology (primary appointment)

**Associate Professor of Biomedical Engineering**

**Associate Professor of Radiology**

MS London School of Economics 1994

BS University of Pennsylvania 1993

PHD University of Pennsylvania 2000

MD University of Pennsylvania 2001

**Gabriel C Araujo** Instructor in Clinical Neurology (primary appointment)

**Sylvia Awadalla, MD** Professor of Neurology (primary appointment)

MD Ohio State University 1985

**Robert H Baloh, MD, PHD** Adjunct Assistant Professor of Neurology (primary appointment)

MD Washington Univ in St. Louis 2001

BS Brown University 1995

PHD Washington Univ in St. Louis 2005

MD1 Washington Univ in St. Louis 2001

**Randall John Bateman, MD** Professor of Neurology (primary appointment)

**Charles F and Joanne Knight Distinguished Professor of Neurology**

BS1 Washington Univ in St. Louis 1995

MD Case Western Reserve Univ 2000

BS Washington Univ in St. Louis 1995

**M. Carolyn Baum, MA, PHD** Professor of Occupational Therapy (primary appointment)

**Professor of Neurology (Occupational Therapy)**

**Elias Michael Executive Director of the Program in Occupational Therapy**

BS University of Kansas 1966

MA Webster University 1979

PHD Washington Univ in St. Louis 1993

Max Prely Benzaquen **Instructor in Clinical Neurology** (primary appointment)

**Christine R. Berg, MS, BSOT, PHD** Associate Professor of Occupational Therapy (primary appointment)

**Associate Professor of Neurology**

MS Boston University 1980

BSOT Tufts University 1976

PHD Washington Univ in St. Louis 1999

**Mary Ellen Bertrand, MD** Associate Professor of Neurology (primary appointment)

**Associate Professor of Pediatrics**

BS McKendree College 1987

MD Southern Illinois University 1993

Alan J Birtwistle **Assistant Professor of Clinical Neurology** (primary appointment)

**Joseph T Black, MD** Professor of Clinical Neurology (primary appointment)

MD School Not Listed 1965

BA University of Rochester 1961

**Lynn Bennett Blackburn, MA, PHD** Assistant Professor of Clinical Neurology (primary appointment)

MA Indiana University Bloomington 1970

BS Univ of Wisconsin Madison 1968

PHD Indiana University Bloomington 1972

**Marghuretta Dakota Bland, MS** Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Neurology**

**Assistant Professor of Occupational Therapy**

MS Washington Univ in St. Louis 2008

BS Canisius College 2004

**James Scott Bonner, MD** Instructor in Clinical Neurology (primary appointment)

MD University of Missouri 1980

BA Drury College 1976

**David L Brody, MD, PHD** Professor of Neurology (primary appointment)

**Associate Professor of Biomedical Engineering (Courtesy)**

BA Stanford University 1992

MD Johns Hopkins University 2000

PHD Johns Hopkins University 2000

Janice E Brunstrom-Hernandez **Adjunct Associate Professor of Neurology** (primary appointment)

**Robert Charles Bucelli, PHD, MD** **Assistant Professor of Neurology** (primary appointment)

PHD State Univ of NY Buffalo 2007

BS Canisius College 2001

MD State Univ of NY Buffalo 2007

**Virginia D Buckles, PHD, MS** **Professor of Neurology** (primary appointment)

PHD Univ of Wisconsin Madison 1981

BS California St Poly Pomona 1974

MS California St Poly Pomona 1977

**Michelle A. Burack, PHD, MD** **Adjunct Instructor in Neurology** (primary appointment)

PHD University of Virginia 2000

MD Washington Univ in St. Louis 2002

BS Duke University 1990

**Garrett C Burris, MD** **Associate Professor of Clinical Neurology** (primary appointment)

**Associate Professor of Clinical Pediatrics**

BS School Not Listed 1964

MD Saint Louis University 1968

**Nigel John Cairns, PHD** **Professor of Neurology** (primary appointment)

**Professor of Pathology and Immunology**

PHD University of London 1995

David J Callahan **Assistant Professor of Clinical Neurology** (primary appointment)

**Assistant in Clinical Pediatrics**

**Alejandra Camacho-Soto** **Instructor in Neurology (Pending Dean's Approval)** (primary appointment)

BA Georgetown University 2005

**Meghan Clark Campbell** **Assistant Professor of Neurology** (primary appointment)

**Assistant Professor of Radiology**

BS University of Illinois 1999

**Russell C. Cantrell, MD** **Instructor in Clinical Neurology** (primary appointment)

BS School Not Listed 1985

MD University of Tennessee 1989

**David A Carpenter, MD** **Professor of Neurology** (primary appointment)

BS Amherst College 1979

MD Washington Univ in St. Louis 1983

**Alexandre Carter, PHD, MD** **Assistant Professor of Neurology** (primary appointment)

**Assistant Professor of Occupational Therapy**

PHD Harvard University 2003

MD Harvard University 2003

**Yasheng Chen, PHD** **Assistant Professor of Neurology** (primary appointment)

BA Tianjin University 1993

PHD Washington Univ in St. Louis 2002

**Milan G Chheda, MD** **Assistant Professor of Medicine** (primary appointment)

**Assistant Professor of Neurology**

MD Albert Einstein College of Med 2002

**Luqi Chi, MD** **Associate Professor of Neurology** (primary appointment)

MD Huabei Medical College for Coa 1984

**John R. Cirrito, PHD** **Associate Professor of Neurology** (primary appointment)

BA Boston College 1998

PHD Washington Univ in St. Louis 2004

**Billie Ruth Clark, PhD** Professor of Physical Therapy (primary appointment)

**Professor of Neurology**

BS Saint Louis University 1974

PHD Saint Louis University 1988

David B Clifford **Melba and Forest Seay Professor of Clinical Neuropharmacology in Neurology** (primary appointment)

**Professor of Medicine**

**Berdale S. Colorado, MS, DOST** Assistant Professor of Orthopaedic Surgery (primary appointment)

**Assistant Professor of Neurology**

MS Des Moines Universtiy 2009

DOST Des Moines Universtiy 2009

BS University of Iowa 2004

**Anne Maureen Connolly, MD** Professor of Neurology (primary appointment)

**Professor of Pediatrics**

MD Indiana University Bloomington 1984

BS Saint Mary's College 1980

**Maurizio Corbetta, MD** Norman J. Stupp Professor of Neurology (primary appointment)

**Professor of Radiology**

**Associate Professor of Psychological & Brain Sciences**

**Professor of Neuroscience**

MD University of Pavia 1985

Susan R Criswell **Associate Professor of Neurology** (primary appointment)

**Dorothy Anne Cross, MD** Professor of Neurology (primary appointment)

MD University of Alabama 1980

**Beth Elaine Crowner, MS, DPT, BS PT, M PP** Associate Professor of Physical Therapy (primary appointment)

**Division Director of Clinical Practice in Physical Therapy**

**Associate Professor of Neurology**

MS Washington Univ in St. Louis 1989

DPT Washington Univ in St. Louis 2007

BS PT Washington Univ in St. Louis 1989

M PP University of MO St Louis 1997

Carlos Cruchaga **Associate Professor of Psychiatry** (primary appointment)

**Associate Professor of Neurology**

Nicole Cruz **Instructor in Clinical Neurology** (primary appointment)

**David Rex Curfman, MD** Instructor in Clinical Neurology (primary appointment)

BS Purdue University 2007

MD Case Western Reserve Univ 2011

**Jeanenne M Dallas** Instructor in Occupational Therapy (primary appointment)

**Instructor in Neurology**

BS University of Central Arkansas 1979

**Rachel S Darken, MD, PHD** Associate Professor of Neurology (primary appointment)

MD Cornell University 2004

PHD Cornell University 2003

BA University of Texas Austin 1996

**Jessica L Dashner, MS** Instructor in Occupational Therapy (primary appointment)

**Instructor in Nuerology**

BS McKendree College 2000

MS Washington Univ in St. Louis 2002

**Albert Augustus Davis, PHD, MD**Instructor in Neurology (primary appointment)

BS Emory University 2002

PHD Emory University 2009

MD Vanderbilt University 2011

**Brian Keith Day, MD, PHD**Assistant Professor of Neurology (primary appointment)

MD University of Kentucky 2007

PHD University of Kentucky 2005

BS Harvard University 1997

**Gregory Scott Day, MS, MD**Instructor in Neurology (primary appointment)

MS Queen's University 2006

MD Queen's University 2009

BS Queen's University 2003

**Gabriela De Bruin**Assistant Professor of Neurology (primary appointment)

**Andrea Denny**Instructor in Neurology (Pending Dean's Approval) (primary appointment)

**Amar Dhand, PHD, MD**Adjunct Assistant Professor of Neurology (primary appointment)

BS Dartmouth College 2001

PHD Oxford University 2006

MD Harvard University 2008

**Rajat Dhar**Associate Professor of Neurology (primary appointment)

**Marc I Diamond, MD**Adjunct Professor of Neurology (primary appointment)

MD University of San Francisco 1993

**Michael N Diringer, MA, MD**Professor of Neurology (primary appointment)

**Professor of Anesthesiology**

**Professor of Occupational Therapy**

**Professor of Neurological Surgery**

MA University of Louisville 1978

MD University of Kentucky 1982

**Jonathan Noel Dodd**Instructor in Clinical Neurology (primary appointment)

**Joseph M Dooley Jr, MD**Associate Professor of Clinical Neurology (primary appointment)

BS Saint Louis University 1954

MD Saint Louis University 1958

**Nico U. Dosenbach, MD, PHD**Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Pediatrics**

**Assistant Professor of Occupational Therapy**

BA Columbia University 2000

MD Washington Univ in St. Louis 2008

PHD Washington Univ in St. Louis 2008

**Alexander W Dromerick, MD**Adjunct Associate Professor of Neurology (primary appointment)

**Adjunct Associate Professor of Occupational Therapy**

**Adjunct Associate Professor of Physical Therapy**

BA University of Virginia 1980

MD University of Maryland 1986

**Ryan Patrick Duncan, DPT, MS**Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Neurology**

DPT Washington Univ in St. Louis 2012



BS Maryville University 2007

MS Maryville University 2008

**Gammon Marie Earhart, MS, PHD** Professor of Physical Therapy (primary appointment)

**Professor of Neuroscience**

**Professor of Neurology**

**Associate Director of Movement Science PhD Program in Physical Therapy**

**Executive Director of the Program in Physical Therapy**

MS Beaver College 1996

BS Beaver College 1994

PHD Washington Univ in St. Louis 2000

**Dorothy F Edwards, PHD** Adjunct Associate Professor of Occupational Therapy

**Adjunct Associate Professor of Neurology**

PHD Washington Univ in St. Louis 1980

**Lawrence N Eisenman, MD, PHD** Associate Professor of Neurology (primary appointment)

MD Northwestern University 1997

PHD Northwestern University 1997

**Juan Escandon, MD** Assistant Professor of Clinical Neurology (primary appointment)

BS School Not Listed 1985

MD School Not Listed 1989

**Eugene Evra, MD** Instructor in Clinical Neurology (primary appointment)

MD Smolensk State Medical Academy 1996

**Julaine Marie Florence, DPT, MS** Professor of Neurology (primary appointment)

**Professor of Physical Therapy**

DPT Washington Univ in St. Louis 2002

MS Washington Univ in St. Louis 1983

BS Washington Univ in St. Louis 1975

**Andria L Ford, MD** Associate Professor of Neurology (primary appointment)

MD University of Oklahoma 2002

BS Duke University 1998

**Bennett David Frank, MD, PHD** Instructor in Clinical Neurology (primary appointment)

MD Beaufort Technical College 1988

PHD Beaufort Technical College 1987

BA Washington Univ in St. Louis 1982

**Robert P. Fucetola, MA, PHD** Professor of Neurology (primary appointment)

**Adjunct Professor of Psychological & Brain Sciences**

BA Washington Univ in St. Louis 1991

MA Washington Univ in St. Louis 1993

PHD Washington Univ in St. Louis 1997

**Rafael Galindo, PHD** Assistant Professor of Neurology (primary appointment)

PHD University of New Mexico 2005

BS University of New Mexico 1996

**Gilbert Gallardo, MS, PHD** Assistant Professor of Neurology (primary appointment)

MS Univ of Texas San Antonio 2002

BS University of Texas El Paso 1999

PHD University of Texas Southwest 2008

**Stefanie Geisler, MD** Instructor in Neurology (primary appointment)

MD Humboldt University 2001

**Nupur Ghoshal, PHD, MD** Assistant Professor of Neurology (primary appointment)

BA Iowa State University 1995

PHD Northwestern University Med 2001

MD Northwestern University Med 2003

**James M Goldring, MD, PHD**Instructor in Clinical Neurology (primary appointment)

MD Washington Univ in St. Louis 1986

PHD Washington Univ in St. Louis 1977

**Paul T Golumbek, MD, PHD**Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Pediatrics**

MD Johns Hopkins University Med 1995

BA University of Maryland 1984

PHD Johns Hopkins University 1995

**Royal Gene Grueneich, PHD**Assistant Professor of Clinical Neurology (primary appointment)

PHD University of Minnesota 1979

BA School Not Listed 1973

**Rejean Michael Guerriero, MD**Assistant Professor of Neurology (primary appointment)

BS Bates College 2001

MD University of New England 2009

**Kristin Guilliams, MD**Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Pediatrics**

MD University of Virginia 2006

BS Furman University 2002

**Christina A. Gurnett, PHD, MD**Associate Professor of Neurology (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Assistant Professor of Pediatrics**

PHD University of Iowa 1998

BS University of Notre Dame 1991

MD University of Iowa 1998

David H Gutmann**Donald O. Schnuck** Family Professor of Neurology (primary appointment)

**Professor of Genetics**

**Professor of Neurological Surgery**

**Professor of Pediatrics**

**Joseph Hanaway, MD**Assistant Professor of Clinical Neurology (primary appointment)

BA McGill University 1956

MD McGill University 1960

Lisa Adel Harker**Instructor in Clinical Neurology** (primary appointment)

**Jason J Hassenstab, PHD, MS PSYC**Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Psychological & Brain Sciences**

PHD Fordham University 2009

MS PSYC Fordham University 2005

**J Michael Hatlelid, MD**Associate Professor of Clinical Neurology (primary appointment)

MD Washington Univ in St. Louis 1977

BA St Johns University 1970

Laura Elaina Heitsch**Assistant Professor of Emergency Medicine in Medicine** (primary appointment)

**Assistant Professor of Neurology**

**Tamara G Hershey**Professor of Psychiatry (primary appointment)

**Adjunct Professor of Psychological & Brain Sciences (Courtesy)**

**Professor of Neurology**

**Professor of Radiology**

BA Earlham College 1988

**Robert Edward Hogan III, MD** Professor of Neurology (primary appointment)

MD University of MO Columbia 1989

**Carey Lane Holleran, MS, PHD** Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Neurology**

MS Duquesne University 2004

BS Duquesne University 2003

PHD University of Indianapolis 2014

**Terri L Hosto, BSW, MSW** Instructor in Neurology (primary appointment)

BSW University of Illinois 1981

MSW University of Michigan 1986

**Chung Hsu, MD, PHD** Adjunct Professor of Neurology (primary appointment)

MD National Taiwan University 1970

PHD University of Virginia 1975

Theresa Human Instructor in Clinical Neurology (primary appointment)

**Devyani M. Hunt, MD** Associate Professor of Orthopaedic Surgery (primary appointment)

**Associate Professor of Neurology**

MD University of Texas Houston 2000

BS University of Texas Austin 1995

Linda Ann Hunt Adjunct Associate Professor of Neurology

**Adjunct Associate Professor of Occupational Therapy**

**Thy N Huskey, MD** Associate Professor of Neurology (primary appointment)

MD Northwestern University Med 1996

BS Northwestern University 1993

**Krzysztof L Hyrc, PHD, MS** Assistant Professor of Neurology (primary appointment)

PHD Jagiellonian University 1987

MS Jagiellonian University 1981

**Jill Christine Isenberg, MS PSYC** Instructor in Clinical Neurology (primary appointment)

BA Wake Forest University 1998

MS PSYC Wake Forest University 2003

Sindhu Saji Jacob Assistant Professor of Neurology (primary appointment)

**Mark F Jacquin, PHD** Professor of Neurology (primary appointment)

BS Brandeis University 1975

PHD City University of New York 1980

**Siddharth Vinod Jain, MD** Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Pediatrics**

MD D.Y. Patil Medical College 2003

**Yo-Ei S Ju, MD** Assistant Professor of Neurology (primary appointment)

MD Columbia University 2005

BS Harvard University 2001

**Neringa Juknis, MD** Associate Professor of Neurology (primary appointment)

BA School Not Listed 1985

MD Kaunas Medical Institute 1989

Richard T. Katz Professor of Clinical Neurology (primary appointment)

Salah G. Keyrouz Associate Professor of Neurology (primary appointment)

**Associate Professor of Neurological Surgery**

**Syed Ahmed Khader** Instructor in Clinical Neurology (primary appointment)

BS School Not Listed 1989

**Albert H Kim, MA, PHD, MD**Assistant Professor of Neurological Surgery (primary appointment)

**Assistant Professor of Neurology**

**Assistant Professor of Developmental Biology**

BA Harvard University 1994

MA Washington Univ in St. Louis 1999

PHD New York U. School of Medicine 2002

MD New York U. School of Medicine 2003

**Joong Hee Kim, PHD, MS**Instructor in Neurology (primary appointment)

**Instructor in Radiology**

PHD Washington Univ in St. Louis 2006

BS Kangwon National University 1996

PHD1 Washington Univ in St. Louis 2006

MS Kangwon National University 2000

**Kathleen Marie Kniepmann, M PH, DED**Assistant Professor of Occupational Therapy (primary appointment)

**Assistant Professor of Neurology**

M PH Harvard University 1981

BA Washington Univ in St. Louis 1974

BS Washington Univ in St. Louis 1974

DED Harvard University 1980

Paul Thomas Kotzbauer**Associate Professor of Neurology** (primary appointment)

**Associate Professor of Developmental Biology**

**Geraldine J. Kress, PHD**Instructor in Neurology (primary appointment)

PHD Washington Univ in St. Louis 2009

**Ashok Kumar, MD**Assistant Professor of Clinical Neurology (primary appointment)

MD Dow Medical College Karachi 1985

**Terrance T. Kummer, PHD, MD**Assistant Professor of Neurology (primary appointment)

PHD Washington Univ in St. Louis 2006

MD Washington Univ in St. Louis 2006

BS University of Minnesota 1999

**Adam J. LaBore, MD**Associate Professor of Orthopaedic Surgery (primary appointment)

**Associate Professor of Neurology**

MD Loyola University Chicago 1998

BS Louisiana College 1994

**Catherine Eckels Lang, MS, PHD**Professor of Physical Therapy (primary appointment)

**Professor of Neurology**

**Professor of Occupational Therapy**

MS University of Vermont 1997

PHD Washington Univ in St. Louis 2001

BS University of Vermont 1993

**Douglas P. Larsen, MD**Associate Professor of Neurology (primary appointment)

**Associate Professor of Pediatrics**

BA Brigham Young University 1999

MD University of Utah 2003

**Jin-Moo Lee, MD**Professor of Neurology (primary appointment)

**Professor of Radiology**

MD Cornell University 1993

**Walter Lemann III, MD** Associate Professor of Clinical Neurology (primary appointment)

MD Tulane University 1979

BS Yale University 1975

**Alison M Leston, MD, PHD** Assistant Professor of Clinical Neurology (primary appointment)

MD Washington Univ in St. Louis 2001

BS University of Illinois 1990

PHD University of Chicago 2000

**Mingjie Li, MD, PHD** Assistant Professor of Neurology (primary appointment)

MD Heilong jiang Coll of Trad Med 1983

PHD Kochi Medical School 1989

**Amy K Licis, MD** Assistant Professor of Neurology (primary appointment)

MD Washington Univ in St. Louis 2004

BS Rice University 2000

**Jane Loitman, MS, MD** Assistant Professor of Clinical Neurology (primary appointment)

**Instructor in Clinical Medicine**

MS Georgetown University 1988

MD University of Minnesota 1992

BA Tufts University 1982

**Glenn Lopate, MD** Professor of Neurology (primary appointment)

BS Colorado St University 1983

MD Ohio State University 1987

**Brendan Patrick Lucey, MD** Assistant Professor of Neurology (primary appointment)

BA University of Vermont 1999

MD John Hopkins University 2003

**Shannon L. Macauley-Rambach, PHD** Assistant Professor of Neurology (primary appointment)

PHD Washington Univ in St. Louis 2009

BS Middlebury College 1999

**Luigi Maccotta, MD, PHD** Assistant Professor of Neurology (primary appointment)

BS St Peters College 1994

MD Washington Univ in St. Louis 2005

PHD Washington Univ in St. Louis 2005

**Baijayanta Maiti** Instructor in Neurology (Pending Dean's Approval) (primary appointment)

**John F Mantovani, MD** Associate Professor of Clinical Neurology (primary appointment)

**Assistant Professor of Clinical Pediatrics**

BA University of Evansville 1971

MD University of Missouri 1974

**Soe S Mar** Associate Professor of Neurology (primary appointment)

**Associate Professor of Pediatrics**

**Robert P Margolis, MD** Assistant Professor of Clinical Neurology (primary appointment)

MD Saint Louis University 1975

BA Kent St University 1971

**Pietro Mazzone, PHD, MD** Associate Professor of Neurology (primary appointment)

PHD Mass Inst of Technology (MIT) 1994

BS University of CA San Diego 1988

MD Harvard University 1995

**Eric Martin McDade, DOST** Assistant Professor of Neurology (primary appointment)

BA Canisius College 1998

DOST Chicago Coll of OsteopathicMed 2004

**Bryan Edward McGill, MD**Instructor in Neurology (primary appointment)

**Instructor in Pediatrics**

MD Baylor University 2008

BS Denison University 1999

**Marie Elizabeth McNeely, PHD**Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Neurology**

BS Ohio Wesleyan University 2008

PHD Washington Univ in St. Louis 2012

**John P Metzler**Associate Professor of Orthopaedic Surgery (primary appointment)

**Associate Professor of Neurology**

BS Texas A&M University 1991

**Gretchen Ann Meyer, PHD, MS**Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Neurology**

**Assistant Professor of Orthopaedic Surgery**

PHD University of CA San Diego 2011

BS Washington Univ in St. Louis 2004

MS Washington Univ in St. Louis 2004

**Francis M Miezín, MS**Associate Professor of Neurology (primary appointment)

**Associate in Psychology**

**Associate Professor of Radiology**

MS Univ of Wisconsin Madison 1972

BS Univ of Wisconsin Madison 1969

**Jeffrey D Milbrandt, PHD, MD**James S McDonnell Professor of Genetics (primary appointment)

**Professor of Medicine**

**Professor of Neurology**

**Professor of Pathology and Immunology**

**Head of the Department of Genetics**

PHD University of Virginia 1983

MD Washington Univ in St. Louis 1978

BS Univ of Nebraska at Kearney 1974

**Timothy M Miller**Clayson Professor of Neurology (primary appointment)

**Kerri A Morgan, PHD, MS**Assistant Professor of Occupational Therapy (primary appointment)

**Assistant Professor of Neurology**

PHD Washington Univ in St. Louis 2015

MS Washington Univ in St. Louis 1998

BA Texas Christian University 1996

**John Carl Morris, MD**Harvey A and Dorismae Hacker Friedman Distinguished Professor of Neurology (primary appointment)

**Professor of Physical Therapy**

**Professor of Pathology and Immunology**

**Professor of Occupational Therapy**

MD University of Rochester 1974

BA Ohio Wesleyan University 1970

**Stephanie Morris, MD**Instructor in Neurology (primary appointment)

MD University of Phoenix 2011

BS University of Arizona 2007

**Michael Justin Morrissey, PHD**Instructor in Clinical Neurology (primary appointment)

PHD Saint Louis University 2005



**Krista L Moulder, PHD** Associate Professor of Neurology (primary appointment)

PHD Washington Univ in St. Louis 2001

**Erik S Musiek, MD, PHD** PMCG Assistant Professor of Neurology (primary appointment)

MD Vanderbilt University 2007

PHD PMCG Vanderbilt University 2005

BS College of William and Mary 1999

**Robert T Naismith II, MD** Associate Professor of Neurology (primary appointment)

MD Case Western Reserve Univ 1998

**Susan Searles Nielsen, MA, PHD** Assistant Professor of Neurology (primary appointment)

MA University of Washington 2000

PHD University of Washington 2004

**Anne Fagan Niven, PHD** Professor of Neurology (primary appointment)

BA Wellesley College 1984

PHD University of CA San Diego 1992

**Michael Justin Noetzel, MD** Professor of Neurology (primary appointment)

**Professor of Pediatrics**

**Vice Chair of Pediatric and Developmental Neurology**

BA Yale University 1973

MD University of Virginia 1977

**Scott Norris, MD** Assistant Professor of Neurology (primary appointment)

BA Washington Univ in St. Louis 2000

MD University of MO Columbia 2008

**Barbara Jean Norton, MHS** Professor of Physical Therapy (primary appointment)

**Associate Director for Education Technology in Physical Therapy**

**Professor of Neurology**

MHS Washington Univ in St. Louis 1985

Sheel Jitendra Pathak **Instructor in Clinical Neurology** (primary appointment)

**Robert Harris Paul, PHD, MS** Adjunct Assistant Professor of Neurology (primary appointment)

PHD Oklahoma St University 1998

BS California State Long Beach 1993

MS Oklahoma St University 1995

**Katrina Paumier, PHD, PHD** Assistant Professor of Neurology (Pending Executive Faculty Approval) (primary appointment)

PHD University of Cincinnati 2015

PHD University of Cincinnati 2014

**Toni Shih Pearson, B MUS, MD** Associate Professor of Neurology (primary appointment)

B MUS University of Adelaide 2000

MD University of Adelaide 1998

**David M Peeples, MD** Instructor in Clinical Neurology (primary appointment)

BA Vanderbilt University 1982

MD University of Chicago 1986

**Karen J Pentella, MD** Assistant Professor of Clinical Neurology (primary appointment)

MD Ohio State University 1979

BS Ohio State University 1975

**Joel S Perlmutter, MD** Professor of Neurology (primary appointment)

**Professor of Radiology**

**Professor of Occupational Therapy**

**Professor of Neuroscience**

**Professor of Physical Therapy**

MD University of MO Columbia 1979

BA Princeton University 1975

**Alan Pestronk, MD** Professor of Neurology (primary appointment)

**Professor of Pathology and Immunology**

MD Johns Hopkins University 1970

BA Princeton University 1966

**Steven E Petersen, PHD** James S McDonnell Professor of Cognitive Neuroscience in Neurology (primary appointment)

**Professor of Neuroscience**

**Professor of Radiology**

**Professor of Psychology**

**Professor of Biomedical Engineering**

**Associate Professor of Neurological Surgery (Neuropsychology)**

PHD California Institute Technolo 1982

BA University of Montana Missoula 1974

Benjamin Allen Philip **Instructor in Occupational Therapy** (primary appointment)

**Instructor in Neurology**

Daniel Phillips **Assistant Professor of Clinical Neurology** (primary appointment)

**Chia Ling Phuah** **Assistant Professor of Neurology** (primary appointment)

MS1 Cambridge University 2007

**Laura Piccio, MD** **Associate Professor of Neurology** (primary appointment)

MD University of Milan 1997

**Jose A Pineda Soto, MD** **Associate Professor of Pediatrics** (primary appointment)

**Associate Professor of Neurology**

BS Francisco Marroquin University 1988

MD Francisco Marroquin University 1993

**Stephanie K Powell, PHD, MS** **Instructor in Clinical Neurology** (primary appointment)

PHD Univ of Wisconsin Milwaukee 2004

MS Univ of Wisconsin Milwaukee 2000

**William John Powers, MD** **Adjunct Professor of Neurology** (primary appointment)

BA Dartmouth College 1971

MD Cornell University 1975

**Heidi Prather, DOST** **Professor of Orthopaedic Surgery** (primary appointment)

**Professor of Neurology**

DOST Univ of Health Sciences KC 1991

BA Drury College 1987

**Brad Alan Racette, MD** **Professor of Neurology** (primary appointment)

**Executive Vice Chair of Clinical Affairs, Department of Neurology**

MD Northwestern University 1992

**Marcus E Raichle, MD** **Professor of Radiology** (primary appointment)

**Professor of Neuroscience**

**Professor of Neurology**

**Alan A and Edith L Wolff** **Distinguished Professor of Medicine**

**Professor of Psychological & Brain Sciences**

**Professor of Biomedical Engineering**

BS University of Washington 1960

MD University of Washington 1964



**David Martin Reisler, M PH, MD** Assistant Professor of Clinical Neurology (primary appointment)

M PH Johns Hopkins University Med 1971

MD Washington Univ in St. Louis 1961

BA Harvard University 1957

**Dave A Rengachary, MD** Instructor in Clinical Neurology (primary appointment)

MD Northwestern University 2000

**Terri L Riutcel, MD** Associate Professor of Neurology (primary appointment)

BS University of MO Columbia 1991

MD Vanderbilt University 1995

**Catherine M Roe, MA** Assistant Professor of Neurology (primary appointment)

MA Southern Illinois University 1990

BA Purdue University 1986

**James R Rohrbaugh, MD** Associate Professor of Clinical Neurology (primary appointment)

Associate Professor of Clinical Pediatrics

MD Ohio State University 1974

BA Yale University 1971

**Joshua Bennett Rubin, MD, PHD, MS** Professor of Pediatrics (primary appointment)

Professor of Neuroscience

Professor of Neurology

MD Albert Einstein College of Med 1994

BS Yale University 1982

PHD Albert Einstein College of Med 1994

MS Albert Einstein College of Med 1992

**Rimma Ruvinskaya, MD** Associate Professor of Neurology (primary appointment)

BA School Not Listed 1979

MD Leningrad Inst of Peds Med 1985

**Robin C Ryther, PHD, MD** Assistant Professor of Neurology (primary appointment)

PHD Vanderbilt University 2004

MD Vanderbilt University 2006

BS University of MO Columbia 1998

**Chihiro Sato, PHD, MS** Instructor in Neurology (primary appointment)

PHD University of Tokyo 2008

MS University of Tokyo 2005

BS University of Tokyo 2003

**Anneliese M Schaefer, PHD, BBA** Associate Professor of Neurology (primary appointment)

PHD Washington Univ in St. Louis 2001

BBA Washington Univ in St. Louis 1985

**Suzanne E. Schindler, PHD, MD** Assistant Professor of Neurology (primary appointment)

PHD Washington Univ in St. Louis 2008

MD Washington Univ in St. Louis 2008

BS Millsaps College 1999

**Bradley L Schlaggar, PHD, MDA** Ernest and Jane G Stein Professor of Neurology (primary appointment)

Professor of Radiology

Professor of Psychiatry

Professor of Pediatrics

Professor of Neuroscience

BS Brown University 1986

PHD Washington Univ in St. Louis 1994

MD Washington Univ in St. Louis 1994

**Earl R Schultz, MD** Professor of Clinical Neurology (primary appointment)

**Associate Professor of Clinical Psychiatry**

MD Washington Univ in St. Louis 1955

BS University of Missouri 1953

BA Southeast Missouri St Unvers 1952

**Christian T Sheline, PHD** Adjunct Research Associate Professor of Neurology (primary appointment)

BA Dartmouth College 1983

PHD University of California 1989

**Gordon L Shulman, MS, PHD** Professor of Neurology (primary appointment)

BA Yale University 1975

MS University of Oregon 1977

PHD University of Oregon 1979

**Eli R Shuter, MD** Associate Professor of Clinical Neurology (primary appointment)

MD Washington Univ in St. Louis 1960

Todd B Silverman Instructor in Clinical Neurology (primary appointment)

Barry A. Singer Assistant Professor of Clinical Neurology (primary appointment)

Christopher D Smyser Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Radiology**

**Barbara Joy Snider, MD** Professor of Neurology (primary appointment)

MD University of Texas Southwest 1989

**Abraham Z Snyder, MD, PHD** Professor of Radiology (primary appointment)

**Associate Professor of Neurology**

BA Columbia University 1970

MD State University of New York 1981

PHD Rockefeller University 1977

**Richard Brian Sommerville, MD** Assistant Professor of Neurology (primary appointment)

MD Columbia University 2005

BS Harvard University 1999

**Tara V. Spevack, MS, PHD** Instructor in Clinical Neurology (primary appointment)

BS McGill University 1987

MS University of Florida 1994

PHD University of Florida 1997

**Susan L Stark, PHD, MS** Assistant Professor of Occupational Therapy (primary appointment)

**Assistant Professor of Neurology**

PHD University of MO Columbia 1998

BS Alma College 1988

MS Washington Univ in St. Louis 1989

**Jennifer S Stith, MSW, MS, PHD** Professor of Physical Therapy (primary appointment)

**Associate Director of Professional Curriculum in Physical Therapy**

**Division Director for Education in Physical Therapy**

**Professor of Neurology**

BS University of California 1976

MSW Washington Univ in St. Louis 2006

MS University of Southern Calif 1979

PHD Washington Univ in St. Louis 1994

**Chi-Tsai Tang** Assistant Professor of Orthopaedic Surgery (primary appointment)

**Assistant Professor of Neurology**

**Sandra L Tate, MD** Instructor in Clinical Neurology (primary appointment)

MD Southern Illinois University 1987

BA School Not Listed

**Mengesha A Teshome, MD** Instructor in Neurology (primary appointment)

MD Addis Ababa University 1989

**Kwee L Thio, PHD, MD** Associate Professor of Neurology (primary appointment)

**Associate Professor of Pediatrics**

**Associate Professor of Neuroscience**

PHD Washington Univ in St. Louis 1992

MD Washington Univ in St. Louis 1992

BS Brown University 1984

**Jeffrey B. Titus, MA, PHD** Assistant Professor of Clinical Neurology (primary appointment)

MA University of Northern Colora 1999

PHD Ball State University 2002

**Norman Edwin Trevathan III, MS, MD** Adjunct Professor of Neurology (primary appointment)

MS Emory University 1982

BS David Lipscomb University 1977

MD Emory University 1982

**Jason Daniel Ulrich** Assistant Professor of Neurology (primary appointment)

**Mwiza Ushe, MD, MS** Assistant Professor of Neurology (primary appointment)

MD Washington Univ in St. Louis 2007

MS Washington Univ in St. Louis 2007

**Gregory Paul Van Stavern, MD** Associate Professor of Ophthalmology and Visual Sciences (primary appointment)

**Associate Professor of Neurology**

MD Pennsylvania State University 1993

BS La Salle University 1989

**Renee Bailey Van Stavern, MD** Associate Professor of Neurology (primary appointment)

MD Univ Texas Health Science Ctr 1997

**Arun S. Varadhachary** Assistant Professor of Neurology (primary appointment)

**Erin Foster Voegtli, OTD** Assistant Professor of Occupational Therapy (primary appointment)

**Assistant Professor of Neurology**

**Assistant Professor of Psychiatry**

OTD Washington Univ in St. Louis 2005

BS Washington Univ in St. Louis 2003

**Oksana Volshteyn, MD** Professor of Neurology (primary appointment)

**Professor of Medicine**

MD Minsk State Medical Institute 1976

**Andrew M. Wayne** Instructor in Clinical Neurology (primary appointment)

**Ling Wei, MD** Adjunct Research Assistant Professor of Neurology (primary appointment)

MD Beijing Medical University 1977

**Conrad Christian Wehl, PHD, MD** Associate Professor of Neurology (primary appointment)

PHD University of Chicago 1998

BS University of Illinois 1993

MD University of Chicago 2001

**Judith L. Weisenberg** Assistant Professor of Neurology (primary appointment)

BS Barnard College 1998

Howard I Weiss **Assistant Professor of Clinical Neurology** (primary appointment)

**Nicole Joy Werner, PHD, MS** **Associate Professor of Neurology** (primary appointment)

PHD Saint Louis University 2004

MS Saint Louis University 2000

BS Univ of Minnesota Twin Cities 1997

**Martin B Wice, MD, MS** **Associate Professor of Neurology** (primary appointment)

MD Northwestern University 1977

BS Grinnell College 1972

MS University of Washington 1983

**Michael Wong, MD, PHD** **Allen P and Josephine B Green Professor of Pediatric Neurology** (primary appointment)

**Professor of Pediatrics**

**Professor of Neuroscience**

MD University of Texas Southwest 1995

PHD University of Texas Southwest 1995

BA Princeton University 1987

Wing Kai Wong **Assistant Professor of Occupational Therapy** (primary appointment)

**Assistant Professor of Neurology**

**Brenton Alan Wright, MD** **Assistant Professor of Neurology** (primary appointment)

BS University of Virginia 2004

MD University of Louisville 2008

**Stephanie Wrobel Goldberg, MD** **Assistant Professor of Neurology** (primary appointment)

MD University of Rio de Janeiro 2007

**Gregory Frederick Wu, MD, PHD** **Assistant Professor of Neurology** (primary appointment)

**Assistant Professor of Pathology and Immunology**

MD University of Iowa 2001

BS Washington Univ in St. Louis 1993

PHD University of Iowa 2001

**Chengjie Xiong, PHD, MS** **Professor of Biostatistics** (primary appointment)

**Professor of Neurology**

**Professor of Mathematics**

PHD Kansas State University 1997

BS Xinjiang University 1983

MS Peking University 1989

**Hiroko Yano, PHD, MS** **Assistant Professor of Neurological Surgery** (primary appointment)

**Assistant Professor of Genetics**

**Assistant Professor of Neurology**

PHD University of Tokyo 1996

MS University of Tokyo 1993

BS Science University of Tokyo 1991

**Carla Marie Yuede, PHD** **Assistant Professor of Neurology** (primary appointment)

PHD University of MO St Louis 2006

Craig Mitchell Zaidman **Associate Professor of Neurology** (primary appointment)

**Assistant Professor of Pediatrics**

**Allyson R Zazulia, MD** **Professor of Neurology** (primary appointment)

**Associate Dean for Continuing Medical Education**

**Professor of Radiology**

BS University of Maryland 1990

MD Georgetown University 1994

**John M Zempel, MD, PHD** Associate Professor of Neurology (primary appointment)

**Associate Professor of Pediatrics**

MD Washington Univ in St. Louis 1995

PHD Washington Univ in St. Louis 1995

BS Univ of Wisconsin Madison 1985

**Lirong Zhu, MD, PHD** Assistant Professor of Clinical Neurology (primary appointment)

MD Fudan University 2000

PHD Baylor College of Medicine 2006

**Gregory Joseph Zipfel, MD** Professor of Neurological Surgery (primary appointment)

**Professor of Neurology**

BS University of Illinois 1991

MD Northwestern University Med 1995

No entries found

## Department of Neuroscience

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The structure of the human body is presented in two courses: **The Human Body: Anatomy, Embryology and Imaging**, offered in the first semester, and Microscopic Anatomy, which extends over the first and second semesters. A third course, **Neural Sciences**, is taught at the end of the second semester.

The Human Body: Anatomy, Embryology, Imaging is largely a laboratory course, and lectures deal with anatomical principles and human growth and development. Instruction in Microscopic Anatomy (Histology) focuses on cell and tissue biology, with laboratory sessions paralleling the lectures in these areas. Neural Sciences is an integrated course that deals with the structure, function and development of the nervous system from molecular, cellular and systems perspectives. Throughout all three courses, attention is paid to the results of recent investigations and to major developments in each field. In addition, the departmental faculty have a lead role in many graduate courses that may be taken as electives by students in any of the four years.

The department is well-equipped for specialized work in several areas, including gross anatomy, tissue culture and all aspects of neurobiology.

Please visit the [Department of Neuroscience website](#) for more information.

## MD Courses — Neurosciences

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### First year

Instructors: David C. Van Essen, PhD, 362-7043; Krikor Dikranian, MD, PhD, 362-3548; Timothy E. Holy, PhD, 362-0086; (Co-Coursemasters)

Neural Sciences is an intensive seven-week course that covers the structure, function and development of the nervous system as seen from molecular, cellular and systems-oriented perspectives. The emphasis is on the organization and function of the nervous system in health, but there is frequent reference to the clinical relevance of material presented. The course includes regular lectures, conference sessions and laboratories, plus a number of clinically oriented presentations. Computer-aided instructional programs, accessible from a variety of locations, provide auxiliary modes of self-paced learning and review. The midterm and final emphasize the core body of important facts and principles presented in lectures and laboratories. (SPRING ONLY).

### **M05 501B THE HUMAN BODY: ANATOMY, EMBRYOLOGY AND IMAGING**

Instructor: Glenn C. Conroy, PhD, 362-3397

The course is based largely on the dissection of the human body. Lectures on functional and topographic anatomy emphasize the principles of organization of the various systems of the body. Lectures on developmental anatomy stress organogenesis as an adjunct to understanding the normal and abnormal anatomy. An extensive museum of labeled dissected specimens is housed in the dissection room

for ready reference by students who encounter abnormalities or variations in their dissections. Frequent use of CT, MRI, and X-ray images aid in the synthesis of knowledge gained through dissection. Small group discussions emphasize radiological anatomy and clinical correlations. This course is restricted to first year medical students, but limited space is sometimes available for nonmedical students enrolled in the PhD program with instructor's permission. Cross-listed with L41 (Bio) 501.

### **M05 502A01 HISTOLOGY AND CELL BIOLOGY**

Instructor: Paul C. Bridgman, PhD, 362-3449

The structures of cells, tissues, and major organ systems are studied in relationship to their functions. Lectures integrate histology with cell biology and physiology. The laboratories consist of the study of prepared slides and electron micrographs using an iBook or eBook (ePub) guide. An extensive online digital annotated atlas (Slide-Atlas.org) and a video library are used to supplement the slides and electron micrographs. Presentations of case studies provide examples of clinical relevance. A dual-view microscope and slide set will be issued for each pair of students. Limited space is available for non-medical students, who must have permission from the coursemaster to enroll. The topics in this course are timed to integrate with the physiology course and span the fall and winter semesters.

## **Selectives**

### **M04 552 GENETICS AND MOLECULAR BIOLOGY OF ION CHANNELS**

Instructor: Lawrence B. Salkoff, PhD, 362-3644

A functional genomics approach to studying membrane excitability. How the new DNA sequence data from genomic and EST sequencing projects can be exploited to get a comprehensive picture of gene families that contribute to membrane excitability. How DNA sequence data can contribute to understanding questions of physiology, development, regulation and structure-function relationships.

## **Fourth year**

## Electives

The department offers a number of graduate-level courses that may be taken as electives by medical students. The department participates in the Division of Biology and Biomedical Sciences, which also offers courses relevant to anatomy and neurobiology.

These course descriptions are presented in the section on Biology and Biomedical Sciences.

L41 (Bio) 5571 CELLULAR NEUROBIOLOGY

L41 (Bio) 5651 NEURAL SYSTEMS

L41 (Bio) 590 RESEARCH OPPORTUNITIES

Note — The number preceding the course title indicates that the course is offered by the Division of Biology and Biomedical Sciences and carries credit in the Graduate School of Arts & Sciences.

### **M05 810 / ADVANCED DISSECTION**

Instructor(s): Staff, 314-362-3397

Location: North Building

Elective Contact: Glenn Conroy, PhD, 314-362-3397

Other Information: Self Study. High Pass/Fail. Contact Dr. Conroy one week prior to the start of the elective.

Enrollment limit per period: 20

Valid start weeks for four-week blocks are: Weeks 33 and 37.

Different regions of the body will be dissected in detail. A period of four weeks should be allowed for each region: head and neck, thorax and abdomen, and superior and inferior limbs. Surgical approaches, cross-sections, X-rays, and CT scans can be studied.

Student time distribution: A minimum of 40 hours is required

Major teaching responsibility: N/A



Patients seen/weekly: N/A

On call/weekend responsibility: N/A

## Research — Neuroscience

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(M05 900)

Cross-listed with L41 (Bio) 590

Kari Allen, PhD

3rd Floor North Building

314-747-6572

Paleoanthropology and phylogenetic statistics: comparative analyses of primate craniodental morphology and the evolution of brain size.

Martha Bagnall, PhD

4th floor McDonnell Science Building

314-362-9695

Molecular, electrophysiological, and behavioral analyses of neural circuits for vestibular control of spinal function.

Amy Bauernfeind, PhD

3rd Floor North Building

314-747-6566

Biological bases of human cognition; comparative neurobiology of primates.

Azad Bonni, MD, PhD

8th floor McDonnell Science Building

314-362-3033.

Principles & mechanisms governing assembly & function of neural circuits, deregulation of mechanisms in neurological diseases.

Paul Bridgman, PhD

8th Floor McDonnell Science Building

314-362-3449

Cell biology of the developing nervous system.

Andreas Burkhalter, PhD

4th Floor North Building

314-362-4068

Organization and function of neuronal circuits in mouse visual cortex.

Harold Burton, PhD

3rd Floor East McDonnell

314-362-3556

Cortical functional reorganization in response to sensory changes due to unilateral deafness or strabismus.

Valeria Cavalli, PhD

9th Floor McDonnell Science Building

314-362-3540

Cellular, molecular and epigenetic mechanisms controlling axon regeneration.

Glenn C. Conroy, PhD

3rd Floor North Building

314-362-3397

Paleoanthropology; Geographical Information Systems (GIS).

Krikor Dikranian, MD, PhD

3rd Floor North Building

314-362-3548

Development and morphology of the amyloid plaques in experimental animals, neuropathological changes after head trauma.

James Fitzpatrick, PhD

Basement, McKinley Research Building

314-747-0838

Optical and charged particle multi-scale microscopy application method development.

Harrison Gabel, PhD

8th Floor McDonnell Science Building

314-362-3531

Gene regulation in the developing nervous system; molecular mechanisms of neurodevelopmental disorders.

Edward Han, PhD

9th Floor McDonnell Science Building

314-747-2505

Learning-related hippocampal network activation.

Timothy E. Holy, PhD

4th Floor North Building

314-314-362-0086

Mammalian pheromones: neural mechanisms of action.

Arthur D. Loewy, PhD

9th Floor McDonnell Science Building

314-362-3930

Analysis of brain circuits controlling cardiovascular functions.

Ilya Monosov, MS, PhD

2nd Floor East McDonnell Building

314-362-3740

Neuronal mechanisms of voluntary behavior.

Michael L. Nonet, PhD

9th Floor McDonnell Science Building

314-747-1176

Molecular genetic analysis of synaptic development and function.

Karen L. O'Malley, PhD

9th Floor McDonnell Science Building

314-362-7087

Molecular mechanisms underlying neurodegenerative processes. Signaling mechanisms associated with intracellular receptors.

Jane Phillips-Conroy, PhD

3rd Floor North Building

314-362-3396

Behavior, morphology and biology of living primate populations.

Camillo Padoa Schioppa, PhD

3rd Floor East McDonnell Science Building

314-362-3530

Neuronal bases of economic choice and decision making.

Lawrence B. Salkoff, PhD

9th Floor McDonnell Science Building

314-362-3644

The roles of ion channels in neuronal long term excitability changes.

Paul J. Shaw, PhD

9th Floor McDonnell Science Building

314-362-2703

Molecular genetics of sleep and circadian rhythms.

Lawrence H. Snyder, MD, PhD

3rd Floor East McDonnell

314-747-3530

Computational and cognitive issues in cortical control of eye and arm movement: electrophysiology and imaging.

Paul H. Taghert, PhD

9th Floor McDonnell Science Building

314-362-3641

I. Neurobiology of circadian rhythms.

II. Neurobiology of peptidergic neurotransmission.

David C. Van Essen, PhD

2nd Floor East McDonnell

314-362-7043

Organization, function, and development of primate cerebral cortex, especially in humans; generation and utilization of neuroinformatics tools for data mining.

## Faculty — Neuroscience

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**Azad Bonni, MD, PHD** Edison Professor of Neurobiology (primary appointment)

**Head of the Department of Neuroscience**

MD Queen's University 1986

PHD Harvard University 1996

**Kari Leigh Allen, MA, PHD** Assistant Professor of Anatomy (primary appointment)

**Assistant Professor of Anthropology (Courtesy)**

MA New Mexico St University 2008

PHD Duke University 2014

**Amy Lynn Bauernfeind, PHD, M PHIL** Assistant Professor of Anatomy (primary appointment)

**Assistant Professor of Anthropology (Courtesy)**

PHD George Washington University 2014

M PHIL George Washington University 2011

**Kevin J. Black, MD** Professor of Psychiatry (primary appointment)

**Professor of Radiology**

**Professor of Neurology**

**Professor of Neuroscience**

MD Duke University 1990

BS Brigham Young University 1986

**Paul C Bridgman, MS, PHD** Professor of Neuroscience (primary appointment)

**Associate Professor of Biomedical Engineering**

MS University of CA San Diego 1976

BA University of San Diego 1974

PHD Purdue University 1980

**Michael Raymond Bruchas, PHD** Associate Professor of Anesthesiology (primary appointment)

**Associate Professor of Neuroscience**

PHD Creighton University 2004

**Andreas H Burkhalter, MS, PHD** Professor of Neuroscience (primary appointment)

**Associate Professor of Biomedical Engineering**

**Associate Professor of Neurobiology in Neurological Surgery**

MS University of Zurich 1973

PHD University of Zurich 1977

**Harold Burton, PHD** Professor of Neuroscience (primary appointment)

**Professor of Radiology**

**Professor of Biomedical Engineering**

**Professor of Cell Biology and Physiology**

PHD Univ of Wisconsin Madison 1968

BA University of Michigan 1964

Valeria Cavalli Associate Professor of Neuroscience (primary appointment)

**Theodore J Cicero, MS, PHD** John P Feighner Professor of Psychiatry (primary appointment)

**Vice Chairman for Research, Department of Psychiatry**

**Professor of Neuroscience**

MS Purdue University 1966

BS Villanova University 1964

PHD Purdue University 1969

**Glenn C Conroy, M PHIL, PHD** Professor of Anatomy (primary appointment)

**Professor of Anthropology**

M PHIL Yale University 1972

PHD Yale University 1974

BA University of CA Berkeley 1970

**Maurizio Corbetta, MD** Norman J. Stupp Professor of Neurology (primary appointment)

**Professor of Radiology**

**Associate Professor of Psychological & Brain Sciences**

**Professor of Neuroscience**

MD University of Pavia 1985

**Krikor T Dikranian, PHD, MD** Professor of Anatomy (primary appointment)

**Professor of Physical Therapy**

PHD Medical University - Sofia 1992

MD Medical University - Varna 1978

**Gammon Marie Earhart, MS, PHD** Professor of Physical Therapy (primary appointment)

**Professor of Neuroscience**

**Professor of Neurology**

**Associate Director of Movement Science PhD Program in Physical Therapy**

**Executive Director of the Program in Physical Therapy**

MS Beaver College 1996

BS Beaver College 1994

PHD Washington Univ in St. Louis 2000

**James Alexander John Fitzpatrick, PHD** Associate Professor of Neuroscience (primary appointment)

**Associate Professor of Cell Biology and Physiology**

PHD University of Bristol 2003

**Susan M Fitzpatrick, PHD** Adjunct Associate Professor of Neuroscience (primary appointment)

**Adjunct Associate Professor of Occupational Therapy**

BS St Johns University 1978

PHD Cornell University 1984

**Harrison W. Gabel, PHD, AB** Assistant Professor of Neuroscience (primary appointment)

PHD Harvard University 2008

AB Princeton University 2001

**Robert W Gereau, PHD** Dr Seymour and Rose T Brown Professor of Anesthesiology (primary appointment)

**Professor of Neuroscience**

PHD Emory University 1995

BS Southwest Missouri St University 1991

**Edward B. Han, PHD** Assistant Professor of Neuroscience (primary appointment)

**Assistant Professor of Anesthesiology**

PHD University of CA San Diego 2004

BS Cornell University 1995

**Martha B. Han, PHD** Assistant Professor of Neuroscience (primary appointment)

BS Yale University 2000

PHD University of CA San Diego 2008

**Timothy E. Holy, MA, PHD** Associate Professor of Neuroscience (primary appointment)

MA Princeton University 1992

BA Rice University 1991

PHD Princeton University 1997

**Vladimir Jivkov Kefalov, PHD** Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Neuroscience**

PHD Boston University 1999

**Daniel Kerschensteiner, PHD** Associate Professor of Ophthalmology and Visual Sciences (primary appointment)

**Associate Professor of Neuroscience**

**Associate Professor of Biomedical Engineering (Courtesy)**

PHD Georg August University 2004

**Robyn Sue Klein, PHD** Professor of Medicine (primary appointment)

**Professor of Pathology and Immunology**

**Professor of Neuroscience**

PHD Albert Einstein College of Med 1993

**Vitaly A Klyachko, PHD, MS** Associate Professor of Cell Biology and Physiology (primary appointment)

**Associate Professor of Biomedical Engineering**

**Associate Professor of Neuroscience**

PHD Univ of Wisconsin Madison 2002

MS Moscow State University 1998

BS Moscow State University 1997

**Eric Claude Leuthardt, MD** Professor of Neurological Surgery (primary appointment)

**Professor of Neuroscience**

**Professor of Mechanical Engineering and Applied Science.**

BS Saint Louis University 1995

MD University of Pennsylvania 1999

**Christopher J Lingle** Professor of Anesthesiology (primary appointment)

**Professor of Neuroscience**

BS University of Oregon 1972

**Arthur D Loewy, PHD** Professor of Anatomy and Neuroscience (primary appointment)

BA Lawrence University 1964

PHD Univ of Wisconsin Madison 1969

**Peter David Lukasiewicz, PHD** Janet and Bernard Becker Professor of Ophthalmology (primary appointment)

**Professor of Neuroscience**

PHD University of Michigan 1984

BS Brown University 1977

**Steven James Mennerick, PHD** Professor of Psychiatry (primary appointment)

**Professor of Neuroscience**

PHD Washington Univ in St. Louis 1995

BA Earlham College 1988

**Ilya E. Monosov, MS, PHD** Assistant Professor of Neuroscience (primary appointment)

MS NewSchool Architecture Design 2005

BS University of CA San Diego 2004

PHD Brown University 2009

**Joshua L. Morgan, PHD** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

**Assistant Professor of Neuroscience**

BA Florida Southern College 2001

PHD Washington Univ in St. Louis 2007

**Jose Moron-Concepcion, PHD** Associate Professor of Anesthesiology (primary appointment)

**Associate Professor of Neuroscience**

PHD University of Barcelona 1998

**Bruce L Nock, PHD, MS** Associate Professor of Neurobiology in Psychiatry (primary appointment)

**Associate Professor of Neuroscience**

PHD Rutgers University 1981

BA Elizabethtown College 1969

MS Bucknell University 1975



**Michael L Nonet, PHD** Associate Professor of Neuroscience (primary appointment)

BS University of CA Davis 1984

PHD Mass Inst of Technology (MIT) 1989

**Karen Laurel O'Malley, MS, PHD** Professor of Neuroscience (primary appointment)

MS Portland St University 1973

BA Sonoma State University 1971

PHD University of Texas Austin 1980

**Camillo Padoa-Schioppa, PHD** Associate Professor of Neuroscience (primary appointment)

Associate Professor of Economics (Courtesy)

PHD Mass Inst of Technology (MIT) 2002

**Tae Sung Park, MD** Shi Hui Huang Professor of Neurological Surgery (primary appointment)

Professor of Neuroscience

Professor of Pediatrics

MD Yonsei University 1971

BS Yonsei University 1967

**Joel S Perlmutter, MD** Professor of Neurology (primary appointment)

Professor of Radiology

Professor of Occupational Therapy

Professor of Neuroscience

Professor of Physical Therapy

MD University of MO Columbia 1979

BA Princeton University 1975

**Steven E Petersen, PHD** James S McDonnell Professor of Cognitive Neuroscience in Neurology (primary appointment)

Professor of Neuroscience

Professor of Radiology

Professor of Psychology

Professor of Biomedical Engineering

Associate Professor of Neurological Surgery (Neuropsychology)

PHD California Institute Technolo 1982

BA University of Montana Missoula 1974

**Jane Phillips Conroy, PHD, MA** Professor of Anatomy (primary appointment)

Professor of Anthropology

PHD New York University 1978

BA Brandeis University 1969

MA New York University 1973

**Marcus E Raichle, MD** Professor of Radiology (primary appointment)

Professor of Neuroscience

Professor of Neurology

Alan A and Edith L Wolff Distinguished Professor of Medicine

Professor of Psychological & Brain Sciences

Professor of Biomedical Engineering

BS University of Washington 1960

MD University of Washington 1964

**Keith M Rich, MD** Professor of Neurological Surgery (primary appointment)

Professor of Neuroscience

Professor of Radiation Oncology

BA Taylor University 1974

MD Indiana University Bloomington 1977

**Joshua Bennett Rubin, MD, PHD, MS** Professor of Pediatrics (primary appointment)

**Professor of Neuroscience**

**Professor of Neurology**

MD Albert Einstein College of Med 1994

BS Yale University 1982

PHD Albert Einstein College of Med 1994

MS Albert Einstein College of Med 1992

**Lawrence B Salkoff, PHD** Professor of Neuroscience (primary appointment)

**Professor of Genetics**

BA University of CA Los Angeles 1967

PHD University of CA Berkeley 1979

**Bradley L Schlaggar, PHD, MDA** Ernest and Jane G Stein Professor of Neurology (primary appointment)

**Professor of Radiology**

**Professor of Psychiatry**

**Professor of Pediatrics**

**Professor of Neuroscience**

BS Brown University 1986

PHD Washington Univ in St. Louis 1994

MD Washington Univ in St. Louis 1994

**Paul Joseph Shaw, MA, PHD** Associate Professor of Neuroscience (primary appointment)

BA Niagara University 1985

MA San Jose State University 1990

PHD University of Chicago 1996

**Lawrence H Snyder, AB, PHD, MD, MS** Professor of Neuroscience (primary appointment)

**Professor of Psychological & Brain Sciences**

AB Princeton University 1982

PHD University of Rochester 1992

MD University of Rochester 1992

MS University of Rochester 1992

**Paul H Taghert, PHD** Professor of Neuroscience (primary appointment)

BA Reed College 1975

PHD University of Washington 1981

**Kwee L Thio, PHD, MD** Associate Professor of Neurology (primary appointment)

**Associate Professor of Pediatrics**

**Associate Professor of Neuroscience**

PHD Washington Univ in St. Louis 1992

MD Washington Univ in St. Louis 1992

BS Brown University 1984

**Robert Lawrence Tychsen** Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Neuroscience**

**Professor of Ophthalmology and Visual Sciences in Pediatrics**

**John F Hardesty MD** Distinguished Professor of Ophthalmology and Visual Sciences

BS Georgetown University 1975

**David C Van Essen, PHD** Alumni Endowed Professor of Neurobiology (primary appointment)

**Professor of Biomedical Engineering**

PHD Harvard University 1971

**Mark Edward Warchol, PHD** Professor of Otolaryngology (primary appointment)

Professor of Audiology and Communication Sciences

Professor of Neuroscience

PHD Northwestern University 1989

**Michael Wong, MD, PHD** Allen P and Josephine B Green Professor of Pediatric Neurology (primary appointment)

Professor of Pediatrics

Professor of Neuroscience

MD University of Texas Southwest 1995

PHD University of Texas Southwest 1995

BA Princeton University 1987

**Charles F Zorumski** Samuel B. Guze Professor of Psychiatry (primary appointment)

Professor of Neuroscience

Head of the Department of Psychiatry

BA Saint Louis University 1974

No entries found

## Department of Neurosurgery

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Instruction in neurological surgery begins with an introduction to the anatomy and physiology of the nervous system presented in the first-year course in neural sciences directed by the **Department of Anatomy and Neurobiology** with participation of the neurosurgery faculty. In the second year, the **Department of Neurosurgery** presents the course in Diseases of the Nervous System in conjunction with the Departments of Neurology, Pathology, Molecular Biology and Pharmacology, Medicine and Pediatrics. The course emphasizes how knowledge derived from basic or clinical investigations leads to improvements in clinical care. In the third year, students may elect to participate in a two- or four-week Neurosurgery clerkship which introduces them to the clinical care of patients with diseases of the nervous system. Neurosurgical faculty members work with the neurologists in providing lectures, demonstrations and teaching exercises in patients with neurological diagnoses as part of the Clinical Medicine course. Students may elect to fulfill their Neurology requirement by rotating on the neurosurgery service. Students may also choose neurosurgery as part of the Surgical Specialty rotations. Neurosurgical diagnosis, critical care, operative treatment

and ethical issues in patient management are emphasized. In the fourth year, students may choose from several advanced electives including clinical externships in neurosurgery and experiences in basic or clinical/translational research.

## **Neurosurgery divisions**

### **Division of Pediatric Neurosurgery**

Matthew D. Smyth, MD; Tae Sung Park, MD; David D. Limbrick Jr., MD, PhD, Jennifer Strahle, MD

Based in St. Louis Children's Hospital, the Division of Pediatric Neurosurgery of the Department of Neurosurgery provides neurosurgical care for the many disorders that are unique to the developing nervous system, from the premature infant to the young adult. Subspecialty areas include pediatric neuro-oncology, spastic cerebral palsy, craniofacial disorders, obstetrical brachial plexus injuries and epilepsy surgery. Active areas of clinical and basic research include pediatric head trauma, brain tumors, epilepsy and neonatal brain injury and hydrocephalus.

### **Center for Innovation in Neuroscience and Technology**

Eric C. Leuthardt, MD (director)

The multidisciplinary center is based in the Department of Neurosurgery with participation from multiple departments in the medical school and across the University campus. Current active participants include neurosurgery faculty members Ralph G. Dacey Jr., MD, chairman; Albert Kim, MD, David Limbrick, MD, PhD, Wilson Z. Ray, MD, Matthew Smyth, MD, Neill Wright, MD, and Gregory J. Zipfel, MD; Colin Derdeyn, MD, with the Division of Neuroradiology; Steve Peterson, MD, with the Department of Neurology/Neurobiology; Frank C-P Yin, PhD, chairman and Daniel Moran, PhD, Dennis Barbour, MD, PhD, Shelly E. Sakiyama-Elbert, PhD, and Donald L. Elbert, PhD, with the Department of Biomedical Engineering; Philip Bayly, PhD, Skrikanth Singamaneni, PhD, and Guy Genin, PhD, with the Department of Mechanical

Engineering; Alex Evers, MD, with the Department of Anesthesiology; and Matthew MacEwan.

## **Areas of neurosurgical specialization**

### **Cerebrovascular Surgery**

Michael R. Chicoine, MD; Ralph G. Dacey Jr., MD; Ian G. Dorward, MD.; Joshua Osbun, MD, Keith M. Rich, MD; Gregory J. Zipfel, MD

### **Cranial Base Surgery**

Michael R. Chicoine, MD; Albert H. Kim, MD, PhD; Joshua Osbun, MD, Gregory J. Zipfel, MD

### **Endovascular Surgery**

Joshua Osbun, MD

### **Epilepsy Surgery**

Joshua L. Dowling, MD; Eric C. Leuthardt, MD

### **Neuro-Oncology**

Michael R. Chicoine, MD; Ralph G. Dacey Jr., MD; Gavin P. Dunn, MD, PhD; Albert Kim, MD; Keith M. Rich, MD; Eric C. Leuthardt, MD

### **Pediatric Neurosurgery**

Matthew D. Smyth, MD; Tae Sung Park, MD; David D. Limbrick Jr., MD, PhD, Jennifer Strahle, MD

### **Peripheral Nerve Surgery**

Wilson Z. Ray, MD

### **Pituitary Surgery**

Michael R. Chicoine, MD; Ralph G. Dacey Jr., MD; Gregory J. Zipfel, MD

## Spinal Neurosurgery

Ian G. Dorward, MD; Wilson Z. Ray, MD; Paul Santiago, MD; Neill M. Wright, MD

## Stereotactic Radiosurgery

Michael R. Chicoine, MD; Ralph G. Dacey Jr., MD; Joshua L. Dowling, MD; Keith M. Rich, MD; Matthew D. Smyth, MD; Eric C. Leuthardt, MD, Gavin P. Dunn, MD, PhD, Gregory J. Zipfel, MD

## Surgical Management of Pain

Joshua L. Dowling, MD

## For more information

Please visit the [Department of Neurosurgery](#) website for more information.

# MD Courses — Neurosurgery

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## First year

### Selectives

#### MO4 5878 INTRODUCTION TO CLINICAL NEUROSURGERY

Instructor: Jennifer Strahle, MD, 454-2816

The objective for this selective course is to expose students to the field of neurosurgery and its subspecialty disciplines. There are nine sessions for the semester in which a faculty expert reviews a particular field and, along with chosen student discussion leaders, reviews key papers in the field to aid in developing critical reading of medical and neurosurgical literature. Topics span the breadth of neurosurgery and

include the management of aneurysms, cutting edge brain tumor management, brain-computer interface technologies, surgical epilepsy, and contemporary complex spine surgery. In addition, students are encouraged to attend several neurosurgical Grand Rounds and clinical case discussion conferences, which are the working seminars in the department. Near the end of the course, students participate in a cadaver lab which provides hands-on experience with neurosurgical procedures involving the brain and spine and an interactive opportunity to work with attending neurosurgeons and residents instructors.

## **Third year**

### **Clerkship opportunities**

Students may elect to obtain their neurology clerkship experience on the neurosurgery service, or they can choose neurosurgery as part of the surgical specialty rotations. Third-year students participate with the residents and attendings on hospital rounds, evaluate patients in the neurosurgery outpatient department and participate in the neurosurgical operating room. The main objectives of the rotation include: 1) the evaluation of comatose or head-injured patients; 2) clinical presentation, diagnostic work-up and treatment of cervical and lumbar disc disease; and 3) evaluation and treatment of patients with hemorrhagic and ischemic stroke.

## **Fourth year**

### **Elective Neurosurgery Externship**

Students interested in pursuing a Neurosurgery residency can elect to spend 4 weeks on the neurosurgery service as a “sub-I/extern”. Students have an opportunity to gain a more in-depth look at the Washington University Neurosurgery training program and obtain clinical skills that will be useful as students transition to residency. Students can expect to spend time on both the adult and pediatric service with exposure to all aspects of Neurosurgery.

## Elective

### M40 805 / NEUROSURGERY

Instructor(s): Zach Ray, MD, 314-362-3570

Location: McMillan Hospital, 5th Floor, Neurosurgery Conference Room, 8:00 a.m. first day of elective.

Elective Contact: Zack Ray, MD, 314-362-3570, Sophie Church, 314-362-3636

Other Information: Students should contact Dr. Ray prior to the first day of the elective.

Enrollment limit per period: 4

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The goal is to provide an overview of neurological surgery. The fourth year medical student will participate in patient work-ups, pre, intra- and postoperative care, and diagnostic procedures. Students will also scrub in cases with senior level and chief residents assisting with neurosurgical procedures and observing the more critical portions of these procedures. It is expected that they will learn how to perform basic neurosurgical procedures such as lumbar punctures, ICP monitor placement, and ventricular drain placement. Fourth year medical students are encouraged to participate in Grand Rounds, Neurosurgery Resident Curriculum conference, and Journal Club with the neurosurgery residents. At least one day/week is spent in an outpatient neurosurgery office setting. A week spent on the pediatric service at St. Louis Children's Hospital is also strongly encouraged as a component of this fourth year elective.

Student time distribution: Inpatient 80%; Outpatient 20%, Conferences/Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: N/A

Patients seen/weekly: 125

On call/weekend responsibility: None



# Research — Neurosurgery

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Michael R. Chicoine, MD

314-747-6143

Outcomes analysis for adult patients with brain tumors. Current clinical studies focus on outcomes of patients with benign and malignant brain tumors utilizing a prospective brain tumor database. Particular emphasis includes the impact of intraoperative MRI (iMRI) upon outcomes for patients with brain tumors and other diseases. We are establishing a multicenter database pooling data from multiple iMRI centers in North America.

Ian G. Dorward, MD

314-747-6142

Research interests include outcomes analysis in spinal reconstruction surgery, including the impact of age, obesity, and other clinical variables on costs, complications, and patient satisfaction. Another area of interest is the evaluation of novel techniques in spinal deformity correction and minimally invasive spinal surgery. Additional work focuses on etiologic factors in spinal deformity, both in adolescents and adults.

Gavin P. Dunn, MD, PhD

314-747-6141

Studies focus on examination of molecular mechanisms in the endothelial cells and smooth muscle cells in the intracerebral microcirculation and the contribution of glial cells to their impairment after hypoxia/reoxygenation. In vitro techniques for studying isolated perfused microvessels are used to examine questions centered on endothelial smooth muscle and glial cell integration of cerebral blood flow responses.

Albert H. Kim, MD, PhD

314-747-6141

I have laboratory and clinical research interests in the cancer stem cell state and the genetics of glioblastoma using human tumor specimens. I additionally have clinical projects examining patient outcomes for two common types of brain tumors, meningiomas and pituitary tumors.

Eric C. Leuthardt, MD

747-6146

Pursuing research in the areas of neuroprosthetics, brain computer interfaces (BCIs), and advanced imaging modalities. These include opportunities in basic neurophysiology, engineering for BCIs and functional MRI imaging research for applications towards brain tumors.

David D. Limbrick, MD, PhD

314-454-4630

Clinical and translational research into newborn brain injuries, including post-hemorrhagic hydrocephalus. Main research areas include cerebrospinal fluid protein markers of disease, MRI diffusion tensor imaging, and prospective clinical trials. Also, multi-institutional clinical research opportunities exist for syringomyelia associated with Chiari I malformation.

T. S. Park, MD

314-454-2810

Outcome studies of selective dorsal rhizotomies for treatment of spastic cerebral palsy in children, and brachial plexus repair for birth injury are ongoing projects. Multicenter outcome study of syringomyelia associated with Chiari I malformation in children.

Wilson Z. Ray, MD

314-362-3114

Clinical and translational research on peripheral nerve and spinal cord injuries. Lab based opportunities for longer research electives investigating peripheral nerve regeneration and peripheral neuroprosthetics incorporating transient electronics.

Keith M. Rich, MD

314-747-6142

Research on neuronal and glioma cellular apoptosis after treatment with DNA-damaging agents. Techniques include growing human brain tumor cells in culture, bioassay for apoptosis with fluorescent staining, protein immunoblotting, and PCR.

Matthew Smyth, MD

314-454-4454

Clinical outcomes studies for pediatric epilepsy surgery and craniostomosis surgery, basic and translational research in advanced clinical imaging, and translational research in the development of focal brain cooling devices for the treatment of epilepsy.

Neill M. Wright, MD

314-747-6144

Clinical outcomes studies focusing on the treatment and results of cervical spine surgery. Several active research opportunities include the evaluation of novel surgical techniques for treatment of the atlantoaxial (C1-2) segment, the use of synthetic bone in cervical spine surgery, the relationship between cervical spondylosis and dizziness, and the critical evaluation of certain intra-operative techniques and surgical practices.

Gregory J. Zipfel, MD

314-747-6141

My NIH-funded research program involves both basic and clinical research efforts focused on two main conditions: 1) Cerebral amyloid angiopathy and its contribution to ischemic stroke, vascular dementia, and Alzheimer's Disease; and 2) Vasospasm-induced delayed cerebral ischemia and long-term cognitive deficits following aneurysmal subarachnoid hemorrhage. My work spans from basic experimental methods including cell culture and ex vivo vascular techniques to in vivo studies utilizing animal models of ischemic stroke and subarachnoid hemorrhage and live animal epifluorescent and confocal imaging to Phase I clinical trials in patients.

# Faculty — Neurosurgery

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**Ralph G Dacey Jr, MD** Henry G and Edith R Schwartz Professor of Neurological Surgery (primary appointment)

**Head of the Department of Neurological Surgery**

BA Harvard University 1970

MD University of Virginia 1974

**Tammie Lee Smith Benzinger, MD, PHD** Associate Professor of Radiology (primary appointment)

**Associate Professor of Neurological Surgery**

MD University of Chicago 2000

BA Williams College 1993

PHD University of Chicago 1998

**Keith Happ Bridwell** Albert Key Distinguished Professor of Orthopaedic Surgery (primary appointment)

**Professor of Neurological Surgery**

BA Washington Univ in St. Louis 1973

**Jacob M Buchowski, MD, MS** Professor of Orthopaedic Surgery (primary appointment)

**Professor of Neurological Surgery**

BS Yale University 1996

MD Johns Hopkins University 2000

MS Yale University 1996

**Andreas H Burkhalter, MS, PHD** Professor of Neuroscience (primary appointment)

**Associate Professor of Biomedical Engineering**

**Associate Professor of Neurobiology in Neurological Surgery**

MS University of Zurich 1973

PHD University of Zurich 1977

**Jian Li Campian, PHD, MS, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Neurological Surgery**

PHD University of Louisville 2003

MS Peking Union Medical College 2000

MD Tianjin Medical University 1997

**Michael R Chicoine, MD** Professor of Neurological Surgery (primary appointment)

**August A. Busch, Jr. Distinguished Professor**

MD University of California 1990

**Dewitte T Cross III, MD** Professor of Radiology (primary appointment)

**Professor of Neurological Surgery**

BA Vanderbilt University 1975

MD University of Alabama 1980

**Michael N Diringer, MA, MD** Professor of Neurology (primary appointment)

**Professor of Anesthesiology**

**Professor of Occupational Therapy**

**Professor of Neurological Surgery**

MA University of Louisville 1978

MD University of Kentucky 1982

Ian G Dorward **Assistant Professor of Neurological Surgery** (primary appointment)

**Joshua L Dowling, MD** **Professor of Neurological Surgery** (primary appointment)

MD Tulane University 1989

BA Yale University 1985

Gavin P. Dunn **Assistant Professor of Neurological Surgery** (primary appointment)

**Assistant Professor of Pathology and Immunology**

**Jack R. Engsborg, PHD, MS** **Professor of Occupational Therapy** (primary appointment)

**Professor of Neurological Surgery**

**Professor of Orthopaedic Surgery**

BS Univ of Wisconsin La Crosse 1973

PHD University of Iowa 1985

MS Univ of Wisconsin La Crosse 1978

MS1 Univ of Wisconsin La Crosse 1979

**Robert L Grubb Jr, MD** **Professor of Neurological Surgery** (primary appointment)

**Professor of Radiology**

BA University of North Carolina 1961

MD University of North Carolina 1965

David H Gutmann **Donald O. Schnuck Family Professor of Neurology** (primary appointment)

**Professor of Genetics**

**Professor of Neurological Surgery**

**Professor of Pediatrics**

Matthew A Howard **Adjunct Assistant Professor of Neurological Surgery** (primary appointment)

Sarah C. Jost **Adjunct Assistant Professor of Neurological Surgery** (primary appointment)

**Michael Patrick Kelly, MD** **Assistant Professor of Orthopaedic Surgery** (primary appointment)

**Assistant Professor of Neurological Surgery**

BS Boston College 1999

MD University of Massachusetts 2005

Salah G. Keyrouz **Associate Professor of Neurology** (primary appointment)

**Associate Professor of Neurological Surgery**

**Albert H Kim, MA, PHD, MD** **Assistant Professor of Neurological Surgery** (primary appointment)

**Assistant Professor of Neurology**

**Assistant Professor of Developmental Biology**

BA Harvard University 1994

MA Washington Univ in St. Louis 1999

PHD New York U. School of Medicine 2002

MD New York U. School of Medicine 2003

**Eric Claude Leuthardt, MD** **Professor of Neurological Surgery** (primary appointment)

**Professor of Neuroscience**

**Professor of Mechanical Engineering and Applied Science.**

BS Saint Louis University 1995

MD University of Pennsylvania 1999

**David D Limbrick Jr** **Professor of Neurological Surgery** (primary appointment)

**Professor of Pediatrics**

BS College of William and Mary 1995

**Matthew R. MacEwan, PHD** **Assistant Professor of Neurosurgery (Pending Executive Faculty Approval)** (primary appointment)

PHD Washington Univ in St. Louis 2015

BS Case Western Reserve Univ 2004

**James Patterson McAllister, PHD** Professor of Neurological Surgery (primary appointment)

PHD Purdue University 1976

BA Earlham College 1970

**Christopher J Moran, MD** Professor of Radiology (primary appointment)

**Professor of Neurological Surgery**

MD Saint Louis University 1974

BS University of Notre Dame 1970

**Joshua William Osburn, MD** Assistant Professor of Neurosurgery (Pending Executive Faculty Approval) (primary appointment)

BA Texas A&M University 2002

MD University of Texas Southwest 2007

**Tae Sung Park, MD** Shi Hui Huang Professor of Neurological Surgery (primary appointment)

**Professor of Neuroscience**

**Professor of Pediatrics**

MD Yonsei University 1971

BS Yonsei University 1967

**Steven E Petersen, PHD** James S McDonnell Professor of Cognitive Neuroscience in Neurology (primary appointment)

**Professor of Neuroscience**

**Professor of Radiology**

**Professor of Psychology**

**Professor of Biomedical Engineering**

**Associate Professor of Neurological Surgery (Neuropsychology)**

PHD California Institute Technolo 1982

BA University of Montana Missoula 1974

**Wilson Z Ray** Assistant Professor of Neurological Surgery (primary appointment)

**Assistant Professor of Orthopaedic Surgery**

**Keith M Rich, MD** Professor of Neurological Surgery (primary appointment)

**Professor of Neuroscience**

**Professor of Radiation Oncology**

BA Taylor University 1974

MD Indiana University Bloomington 1977

**Paul Santiago, MD** Professor of Neurological Surgery (primary appointment)

**Professor of Orthopaedic Surgery**

BS Stanford University 1990

MD Yale University 1995

**Gerwin Schalk** Adjunct Assistant Professor of Neurological Surgery (primary appointment)

**Julie Martha Silverstein, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Neurological Surgery**

MD Drexel University 2007

BA New York University 2004

**Itender Singh, PHD** Assistant Professor of Neurological Surgery (primary appointment)

PHD UNIVERSITY OF DELHI 2004

**Matthew D Smyth, MD** Professor of Neurological Surgery (primary appointment)

**Professor of Pediatrics**

MD University of CA San Francisco 1996

BA Cornell University 1992

**Jennifer Mae Strahle, MD** Asst Prof of Neurological Surgery (primary appointment)

Asst Prof of Orthopaedic Surgery

Asst Prof of Pediatrics

MD University of Minnesota 2008

BS Bates College 2002

**Rene Tempelhoff, MD** Professor of Anesthesiology (primary appointment)

Professor of Neurological Surgery

MD University of Lyon 1974

**Neill Marshall Wright, MD** Herbert Lourie Professor of Neurological Surgery (primary appointment)

Professor of Orthopaedic Surgery

MD University of California 1993

**Hiroko Yano, PHD, MS** Assistant Professor of Neurological Surgery (primary appointment)

Assistant Professor of Genetics

Assistant Professor of Neurology

PHD University of Tokyo 1996

MS University of Tokyo 1993

BS Science University of Tokyo 1991

**Liya Yuan, PHD, MS** Instructor in Neurological Surgery (primary appointment)

PHD Tongji University 1994

MS Tongji University 1987

**Lukas P Zebala, MD** Assistant Professor of Orthopaedic Surgery (primary appointment)

Assistant Professor of Neurological Surgery

BS Northwestern University 1998

MD University of Chicago 2004

**Gregory Joseph Zipfel, MD** Professor of Neurological Surgery (primary appointment)

Professor of Neurology

BS University of Illinois 1991

MD Northwestern University Med 1995

No entries found

# Department of Obstetrics and Gynecology

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The **Department of Obstetrics and Gynecology** has clinical teaching services located at Barnes-Jewish Hospital and Missouri Baptist Medical Center under the following director:

**George A. Macones, MD, MSCE**, Professor and Head, Department of Obstetrics and Gynecology

In addition, for the purposes of teaching, clinical care and research, the Department of Obstetrics and Gynecology is divided into subspecialty divisions under the following directors:

**Gynecologic Oncology**

Matthew A. Powell, MD

**Maternal-Fetal Medicine**

Allison G. Cahill, MD, MSCI

**Imaging**

Jeffrey M. Dicke, MD

**Reproductive Endocrinology and Infertility**

Randall R. Odem, MD

**General Obstetrics and Gynecology**

Eric A. Strand, MD

**Female Pelvic Medicine and Reconstructive Surgery (formerly Uro-Gynecology)**

Jerry L. Lowder, MD, MS

**Pediatric and Adolescent Gynecology**

Diane F. Merritt, MD

**Minimally Invasive Gynecologic Surgery**

Scott W. Biest, MD

**Research**

Kelle H. Moley, MD (Basic Research), Methodius Tuuli, MD, MPH (Clinical Research)



## Ob/Gyn Residency Program Director

Eric A. Strand, MD

Instruction in obstetrics and gynecology is provided during all four years of the medical curriculum, beginning with an introductory course in the first year as a component of Clinical Medicine. Teaching in the second year is designed to correlate basic science with the physiologic basis of normal pregnancy and parturition, reproductive biology, infertility and reproductive endocrinology and gynecologic malignancies. All third-year medical students participate in a six-week clinical clerkship in obstetrics and gynecology. This is divided into three two-week components of outpatient OB/GYN, inpatient obstetrics and inpatient gynecology. In the fourth year, students may elect a sub-internship in the listed clinical subspecialties or a research elective.

### For more information

Please visit the [Department of Obstetrics and Gynecology website](#) for more information.

# MD Courses — Obstetrics and Gynecology

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## First year

As a component of the course in Clinical Medicine offered by the Department of Medicine, the student is introduced to the essentials in the medical history and examination for the gynecological evaluation of the adult woman patient.

## Second year

Second-year students are introduced to obstetrics and gynecology with lectures in reproductive biology that apply and expand upon pelvic anatomy and gynecologic and obstetric physiologic principles taught in the first year.

### **M45 635B OBSTETRICS AND GYNECOLOGY**

Instructor: Kenan R. Omurtag, MD, 314-286-1384

The obstetrical component of this course emphasizes the physiologic basis of normal pregnancy, parturition, labor and delivery, and adaptations of other organ systems to pregnancy. Pathophysiology of pregnancy, pregnancy complications and deviations from normal labor will also be introduced. The gynecologic component of the course reviews embryology and genetics of practical use for clinicians. This provides a foundation to overview adolescent gynecology, amenorrhea, abnormal uterine bleeding, reproductive endocrinology, infertility, menopause, surgical anatomy, and diagnosis and treatment of gynecologic neoplasm.

## Third year

### **M45 730 OB/GYN CLERKSHIP**

Clerkship Director: Tammy Sonn, MD

Clerkship Coordinator: Trish Werner, 314-362-3126

All third-year medical students participate in a six-week clinical clerkship in Obstetrics and Gynecology. This is divided into three two-week components of outpatient OB/GYN, inpatient obstetrics and inpatient gynecology. Comprehensive study of the reproductive health needs of women in both the office setting and the surgical setting is the focus of the curriculum. Students are actively involved in all settings of health care delivery: outpatient faculty clinics within all specialties, resident ambulatory clinics, operating rooms for all obstetric or gynecologic cases, inpatient floors of L&D and Gynecology, and the emergency department/hospital inpatient consults. Faculty, fellows, residents, and nurse practitioners provide teaching for this rotation. Student-directed didactics include the faculty and chief resident lecture series, procedural skill station session and faculty-assigned preceptor groups that meet throughout their six-

week rotation.

## Fourth year

Fourth-year students wishing to take an externship or research elective can choose from a variety of courses.

### Electives

#### **M45 804 / OB/GYN OUTPATIENT CARE SUBINTERNSHIP**

Instructor(s): Laura A. Parks, MD, [parksla@wudosis.wustl.edu](mailto:parksla@wudosis.wustl.edu), 314-362-1016

Location: Room 308, Maternity Hospital, Barnes-Jewish Hospital, South Campus

Elective Contact: Casey Lindemann, 314-362-4591

Other Information: Students should contact Casey Lindemann one to two weeks before rotation for instructions of start time/location for first day of elective.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This experience is designed to primarily acquaint the student with the diagnosis and care of outpatients. Students will work one-on-one with attending staff, to focus on an overview of evaluation, diagnosis, and treatment of common obstetric and gynecologic concerns. The sub-intern will spend one to three half days weekly participating in outpatient surgery under the supervision of attendings and house staff, and five to six additional half days in clinic and private offices. Overnight OB call will be selected over a weekend to acquaint the student with the house staff and hospital, providing opportunity to participate in deliveries. A 30-45 minute presentation to attendings and house staff will culminate the rotation on a selected OB GYN topic.

Student time distribution: Outpatient 100%; Primary Care 100%

Major teaching responsibility: Attending staff

Patients seen/weekly: 5-20/day

On call/weekend responsibility: See above description

### **M45 810 / OB/GYN ENDOCRINOLOGY-INFERTILITY SUB-INTERNSHIP**

Instructor(s): Randall Odem, MD; Kenan Omurtag, MD; Emily Jungheim, MD; Sarah Keller, MD; Kelle Moley, MD; and Valerie Ratts, MD; 314-286-2419

Location: 4444 Forest Park Avenue, Suite 3100

Elective Contact: Sarah Keller, MD, [kellers@wudosis.wustl.edu](mailto:kellers@wudosis.wustl.edu)

Other Information: Students report to Dr. Keller first day of elective. Please email Dr. Keller the prior week.

Enrollment limit per period: 1 (will consider two students if faculty presence allows)

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The sub-intern will participate (in the office and hospital) in the study and treatment of women with reproductive endocrine disorders and infertility. The student will attend and present in conferences, attend surgery, observe assisted reproductive technology procedures, have assigned reading and be an integral part of the reproductive endocrine service. Opportunities for clinical research projects in reproductive endocrinology are also available.

Student time distribution: Inpatient 10%; Outpatient 75%; Conferences/ Lectures 15%; Primary Care 10%; Subspecialty Care 90%

Major teaching responsibility: Attendings, fellows, and resident

Patients seen/weekly: 75

On call/weekend responsibility: None

### **M45 830 / GYN ONCOLOGY SUB-INTERNSHIP**

Instructor(s): David Mutch, MD, 314-362-3181

Location: Maternity Hospital, Barnes-Jewish Hospital, South Campus

Elective Contact: David Mutch, MD, 314-362-3181, Dana Schenck, 314-362-3218

Other Information: Students report to 17300 Conference Room, 6 a.m. first day of

elective to round with the Fellows.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41.

The sub-intern will take part in the work-up of tumor patients prior to surgery and/or radiotherapy, assist in pelvic operations, help render perioperative care, and review pathology specimens and slides. The student will participate in GYN Tumor Clinic sessions, make hospital rounds with house staff, accompany chief residents on consultations, and attend OB/GYN conferences. Opportunities for clinical or basic research project in gynecologic malignancy are also available.

Student time distribution: Inpatient 70%; Outpatient 20%; Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attendings, fellows, and residents

Patients seen/weekly: 40

On call/weekend responsibility: Weekend rounds

### **M45 833 / SPECIAL TOPICS IN REPRODUCTIVE HEALTH**

Instructor(s): David Eisenberg, MD, MPH

Location: Dept of OB/GYN, Maternity Building, 3rd floor

Elective Contact: David Eisenberg, MD, MPH, 314-362-3751

Other Information: Students should contact Dr. Eisenberg ([eisenbergd@wudosis.wustl.edu](mailto:eisenbergd@wudosis.wustl.edu)) and Michele Curran ([curranm@wudosis.wustl.edu](mailto:curranm@wudosis.wustl.edu)), who will coordinate scheduling at least two weeks prior to the beginning of the rotation.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 17, 21, 29, 33, 37, and 41.

Students will attend a variety of outpatient clinics to interact with patients seeking different reproductive health services. These clinics include family planning and abortion services at Planned Parenthood of the St. Louis Region, the St. Louis County

STD clinic, Adolescent and Pediatric Gynecology, Child Sexual Abuse, Teen OB, The SPOT, Ultrasound and Prenatal Diagnosis, and Gynecology clinics. Clinical experiences will be ambulatory. Conferences include Obstetrics and Gynecology Grand Rounds every Wednesday at 7 am, Family Planning service meetings, and monthly Journal Club. Reading will include relevant articles and chapters. Students will be responsible for a brief (15-20 minute) presentation on a reproductive health topic at the conclusion of the course. Opportunities for clinical research in contraception are also available.

Student time distribution: Outpatient 100%; Primary Care 30%; Subspecialty Care 70%

Major teaching responsibility: Attendings and Nurse Practitioners when at Planned Parenthood

Patients seen/weekly: Varies

On call/weekend responsibility: None.

NOTE: It is important that students have access to a car for portions of this rotation as some of the clinical locations are best reached by car.

#### **M45 843 / MATERNAL-FETAL MEDICINE OUTPATIENT CARE SUB-INTERSHIP**

Instructor(s): Roxane Rampersad, MD, 314-747-0739

Location: 5th Floor, Center for Advanced Medicine, Ob/Gyn office

Elective Contact: Roxane Rampersad, MD, 314-747-0739

Other Information: Students report to the 5th Floor, Center for Advanced Medicine, Ob/Gyn office, 8:00 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Students will see a variety of high risk obstetrical patients in the outpatient setting in the Center for Advanced Medicine and the Center for Outpatient Health. The student will evaluate various types of reproductive age patients with medical or obstetrical complications, including preconception consultations, prenatal care consultations and initial prenatal visits. The student will also see return patients to experience the

continuity of prenatal care. Students will participate in antenatal testing and learn basic ultrasonography skills. The student will be responsible for one presentation to be given to the OB teams at the end of the rotation. Students are provided independent study time to put together the presentation which should be in power point and on a topic of their choice, inspired by a patient-related clinical condition that peaked their interest during the block. In addition, the student will have the option to take overnight call, or call in the Pregnancy Assessment Center in order to gain more hands-on experience with in-patient obstetrics. This is voluntary and not a requisite.

Student time distribution: Inpatient 5%; Outpatient 85%; Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Maternal-Fetal Medicine Attendings and fellows

Patients seen/weekly: 40

On call/weekend responsibility: None

#### **M45 844 / MATERNAL-FETAL MEDICINE INPATIENT (ANTEPARTUM) SUB-INTERNSHIP**

Instructor(s): D. Michael Nelson, MD, 314-747-0738

Location: Maternity Hospital, Barnes- Jewish Hospital, South Campus

Elective Contact: D. Michael Nelson, MD, 314-747-0738, Shannon Johme, 314-362-8895

Other Information: Students report to Antepartum Service (ward 5300), 7:30 a.m. first Monday of elective. If the first day is a holiday, email Dr. Nelson prior to start date for instructions.

Enrollment limit per period: 1 (unless cleared by Course Master)

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Sub-interns will participate in the antepartum and intrapartum management of high-risk hospitalized patients. There is limited interaction with outpatients through the High-Risk Obstetrics Clinics and the Center for Diabetes in Pregnancy. Examples include diabetes, hypertension, renal disease, hematologic abnormalities, preterm labor, and others. Antepartum evaluation and monitoring of the pregnant woman and

her fetus are emphasized. Supervision is by the antepartum chief resident and a maternal-fetal medicine faculty member and fellow. An opportunity for intense labor and delivery experience with the Night Team is also encouraged. Students will spend time observing diagnostic obstetric ultrasound examinations. The student will prepare a brief talk on a topic of his/her interest during the course of the rotation.

Student time distribution: Inpatient 80%; Outpatient 15%; Conferences/ Lectures 5%; Subspecialty Care 100%

Major teaching responsibility: Attendings and residents

Patients seen/weekly: Inpatient: 20; Outpatient: 5

On call/weekend responsibility: Overnight/weekend call optional (student self-scheduled)

#### **M45 856 / OB/GYN ULTRASOUND – GENETICS**

Instructor(s): Jeffrey Dicke, MD, 314-454-8135

Location: The Women's Health Center, 5th floor, Center for Advanced Medicine and The Center for Women's Wellness, 4th floor, Building D, Missouri Baptist Medical Center

Elective Contact: Jeffrey Dicke, MD, 314-454-8135, Shannon Johme, 314-362-8895

Other Information: Students should contact Dr. Dicke one week prior to first day of elective.

Enrollment limit per period: 1 (will consider two students if faculty presence allows)

Valid start weeks for two-week blocks are: Weeks 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, and 43.

Working with the attending physicians in the Ultrasound Units at the Center for Advanced Medicine and the Center for Women's Wellness at Missouri Baptist Medical Center, the student will learn the principles and techniques of non-invasive screening for fetal disorders and observe the performance of invasive prenatal diagnostic procedures. The student will also learn the standards and guidelines for performance of the antepartum obstetrical ultrasound examination and female pelvic examination. Normal and abnormal fetal and gynecologic anatomy will be reviewed. Experience will



be gained in pedigree analysis and familial risk factor assessment by working with genetic counselors. One day is spent in the Cytogenetics Laboratory observing the preparation of prenatal specimens for karyotype analysis. Opportunities for participation in clinical research are also available.

Student time distribution: Outpatient 90%; Conferences/Lectures 10%; Primary Care 30%; Subspecialty Care 70%

Major teaching responsibility: The attendings of the ultrasound section

Patients seen/weekly: 40

On call/weekend responsibility: None

### **M45 861 / GYN FEMALE PELVIC MEDICINE & RECONSTRUCTIVE SURGERY (UROGYNECOLOGY) SUB-INTERNSHIP**

Instructor(s): Chiara Ghetti, MD, and Jerry Lowder, MD, 314-747-1402

Location: Maternity Hospital,

Barnes-Jewish Hospital, South Campus

Elective Contact: Chiara Ghetti, MD, and Jerry Lowder, MD, 314-747-1402

Other Information: Students report to Drs. Ghetti or Lowder, Center for Advanced Medicine, 13th Floor, Suite C at 8:00 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5 and 9.

The sub-intern will take part in the office evaluation of patients (with pelvic floor disorders including pelvic organ prolapse, urinary incontinence, fecal incontinence, birth injuries), assist in pelvic floor reconstructive surgical procedures, and participate in perioperative care. The Sub-I will participate in office sessions, surgical cases and will be responsible for rounding with the Urogynecology resident on service as well as participating in consultations. The Sub-I will attend FPMRS didactic educational sessions and OB-GYN conferences. The Sub-I will be required to do a 45 minute presentation on an urogynecologic topic of choice by the end of the rotation. Opportunities for clinical research projects in Urogynecology are also available.

Student time distribution: Outpatient 50-60%; Inpatient 20-30%; Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attendings and Residents

Patients seen/weekly: 30

On call/weekend responsibility: Weekend rounds may be necessary.

### **M10 823 / OBSTETRICAL ANESTHESIA**

Instructor(s): Swarup Varaday, MD, 314-362-6252

Location: Barnes-Jewish Hospital, South Campus

Elective Contact: Swarup Varaday, MD, 314-362-2628

Other Information: Students should report to 5400 Labor and Delivery, 7:00 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for two- or four-week blocks are: Weeks 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, and 43.

The medical students will learn the different analgesia/anesthetic options for the labor patient. They will also learn how the physiological adaptations of pregnancy influence anesthetic management. They will be actively involved in the parturient's management, i.e., starting an IV, placement of spinal, epidural or CSE (combined spinal epidural) anesthetics. They will also attend the OB anesthesia conferences and interview patients in labor (with an OB anesthesia attending).

Student time distribution: Inpatient 90%; Conferences/Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attending, Senior Resident

Patients seen/weekly: 20

On call/weekend responsibility: None (optional)

# Research — Obstetrics and Gynecology

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Kelle H. Moley, MD; Sarah England, PhD; Indira Mysorekar, PhD; Katherine Fuh MD, PhD; Celia Santi PhD

10th Floor, BJC Institute of Health

314-286-1775

In this six-week elective, students will have the opportunity to immerse themselves in bench research in reproductive science. The five PI's willing to take students are Drs. Kelle Moley, Sarah England, Indira Mysorekar, Katherine Fuh, and Celia Santi.

- Moley's research focuses on mammalian gametes, fertilization, preimplantation development and implantation.
- England's laboratory focuses on uterine contractility and ion channels in the uterine myometrium.
- The Mysorekar lab studies the dynamics of tissue regeneration in the adult mammalian urinary bladder pathogenesis of a common infectious disease in women: namely, recurrent urinary tract infections (UTIs) and investigation of potential infectious etiology for preterm birth in pregnant women.
- Santi's work focuses on ion channels in mouse and human sperm.
- Fuh investigates cell signaling in ovarian cancer and the biology of ovarian cancer metastasis.

The main criteria for this rotation is that the student must have prior experience as an undergraduate or postgraduate in a laboratory, not including class work. This rotation is designed for the student planning a career in academic medicine as a physician scientist and one who is interested in considering reproductive science as a field. Prior to signing up for this course, the student must contact Dr. Moley to discuss the schedule and expectations of the rotation.

# Faculty — Obstetrics and Gynecology

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**George Andrew Macones, MD, MS** Mitchell and Elaine Yanow Professor of Obstetrics and Gynecology (primary appointment)

**Head of the Department of Obstetrics and Gynecology**

MD Jefferson Medical College 1988

BS University of Pennsylvania 1984

MS University of Pennsylvania 2006

**John K Appelbaum, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD Washington Univ in St. Louis 1984

BA Saint Louis University 1980

**Tomas Ismael Aquino** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

**Yasmin Asvat, MA, PHD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MA San Diego St University 2006

PHD University of South Florida 2013

BA University of Toronto 2004

BA1 University of Toronto 2004

**Sangeeta Kaur Babar, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS Rensselaer Poly Institute 2001

MD Albany Medical College 2003

**Margaret Elizabeth Baum, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD John Hopkins Univeresity 2001

**Michael William Bebbington** Professor of Obstetrics and Gynecology (Pending Executive Faculty Approval) (primary appointment)

**Robert L Becker, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD Washington Univ in St. Louis 1969

BA Cornell University 1965

**James E Belcher, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS University of Texas Austin 1972

MD Washington Univ in St. Louis 1976

**Joe E Belew, MD** Associate Professor of Clinical Obstetrics and Gynecology (primary appointment)

BA Central Methodist College 1953

MD Saint Louis University 1957

**Lisa Marie Bernhard, MD** Instructor in Obstetrics and Gynecology (Pending Dean's Approval) (primary appointment)

MD Louisiana St University 1985

BA Vanderbilt University 1981

Scott W Biest **Associate Professor of Obstetrics and Gynecology** (primary appointment)  
Jeffrey D Bloss **Adjunct Associate Professor of Obstetrics and Gynecology** (primary appointment)  
**Irving Boime, PHD, MS** **Professor of Developmental Biology** (primary appointment)  
**Professor of Reproductive Biology in Obstetrics and Gynecology**  
PHD Washington Univ in St. Louis 1970  
MS Purdue University 1966  
BS St Louis College of Pharmacy 1964  
Richard Gerald Bolanos **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)  
**Kathryn L Botney** **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)  
BA Washington Univ in St. Louis 1980  
**Lawrence V Boveri, MD** **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)  
MD University of Missouri 1988  
Jessica Naomi Bowers **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)  
**Igor Brondz, MD** **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)  
MD School Not Listed 1978  
**Robert J Brown, MD** **Assistant Professor of Clinical Obstetrics and Gynecology** (primary appointment)  
MD Washington Univ in St. Louis 1983  
BS St Peters College 1977  
**Bruce L Bryan, MD, BE** **Assistant Professor of Clinical Obstetrics and Gynecology** (primary appointment)  
MD School Not Listed  
BE Purdue University 1973  
**Alison Gale Cahill, MD** **Associate Professor of Obstetrics and Gynecology** (primary appointment)  
MD University of Connecticut 2002  
**Ebony Boyce Carter, MS, MD** **Assistant Professor of Obstetrics and Gynecology** (primary appointment)  
**Assistant Professor of Surgery (Public Health Sciences)**  
MS University of Michigan 2002  
BS Stanford University 2000  
MD Duke University 2006  
**Arthur L Casey, MD** **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)  
MD University of Missouri 1977  
Michael B Chen **Assistant Professor of Clinical Obstetrics and Gynecology** (primary appointment)  
**Ronald J Chod** **Adjunct Associate Professor of Obstetrics and Gynecology** (primary appointment)  
BA University of Texas Austin 1978  
**Camaryn E Chrisman Robbins, MD, M PH** **Assistant Professor of Obstetrics and Gynecology** (primary appointment)  
MD Wake Forest University 2004  
M PH University of Michigan 1998  
Christine M Chu **Assistant Professor of Obstetrics and Gynecology** (primary appointment)  
**Vicente M Colon-Alcaraz, MD** **Assistant Professor of Clinical Obstetrics and Gynecology** (primary appointment)  
BA University of Puerto Rico 1978  
MD School Not Listed 1982  
**Eric S Colton, MD** **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)  
BS University of CA Irvine 1987  
MD Saint Louis University 1996

**Shayna N Conner, MD** Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD University of MO Columbia 2008

BA George Washington University 2003

**James P Crane, MD** Associate Vice Chancellor for Clinical Affairs (primary appointment)

Chief Executive Officer-Faculty Practice Plan

Professor of Obstetrics and Gynecology

Professor of Radiology

Associate Professor of Genetics

MD Indiana University Bloomington 1970

BS Indiana University Bloomington 1966

**Robert D Crist** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Veronica Lynn Cross** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**David T Curiel, MD, PHD** Distinguished Professor of Radiation Oncology (primary appointment)

Professor of Medicine

Professor of Obstetrics and Gynecology

MD Emory University 1982

BA West Georgia College 1978

PHD University of Groningen 2000

**Michelle R Devera, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA Washington Univ in St. Louis 1985

MD Washington Univ in St. Louis 1993

**Jeffrey M Dicke, MD** Professor of Obstetrics and Gynecology (primary appointment)

MD Ohio State University 1978

BA University of Toledo 1975

**Shelby Marie Dickison, MD** Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD University of MO Columbia 2011

BS University of MO St Louis 2004

**Russell B Dieterich, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA Knox College 1965

MD University of Illinois 1970

**Lakshmi Vljaya Dundoo, MS** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MS School Not Listed 1992

BS School Not Listed 1986

UNKNOWN School Not Listed 1992

**David Louis Eisenberg, MD, M PH** Associate Professor of Obstetrics and Gynecology (primary appointment)

BS University of Pittsburgh 1999

MD University of Alabama 2003

M PH Northwestern University 2009

**Josiah O. Ekunno** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS School Not Listed 1965

**Sarah K England, PHD** Professor of Obstetrics and Gynecology (primary appointment)

Professor of Cell Biology and Physiology

Alan A and Edith L Wolff Professor of Medicine

PHD Medical College of Wisconsin 1993

BA Carleton College 1988

**Prabagaran Esakky, MS, PHD**Instructor in Obstetrics and Gynecology (primary appointment)

MS Sri Paramakalyani College 1997

BS Sri Paramakalyani College 1995

PHD Natl Inst Resrch Reprod Health 2007

**Renee D Ewing, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Southern Illinois University 1984

BA University of MO St Louis 1979

**Cathleen Rae Faris, MD**Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

BA University of Kansas 1977

MD University of Kansas 1982

**Marsha Nicole Fisher, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD University of Missouri 1992

BA Washington Univ in St. Louis 1988

**Shanon Alex Forseter**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Katherine C Fuh, MD**Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD Georgetown University 2005

**Andrew E Galakatos, MD**Professor of Clinical Obstetrics and Gynecology (primary appointment)

BS St Louis College of Pharmacy 1960

MD University of Missouri 1965

**Chiara G.I. Ghetti, MD**Associate Professor of Obstetrics and Gynecology (primary appointment)

MD Indiana University Indianopoli 1997

**Nicole Marie Gilbert**Instructor in Obstetrics and Gynecology (primary appointment)

**Gordon Goldman, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS University of Toledo 1962

MD Saint Louis University 1966

**Diana Lee Gray**Professor of Obstetrics and Gynecology (primary appointment)

**Professor of Radiology**

**Associate Dean for Faculty Affairs**

**Professor of Engineering**

BS University of Illinois 1977

**Margaret Rosanna Gray-Swain, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Washington Univ in St. Louis 2002

**Perry W Grigsby, MD**Professor of Radiation Oncology (primary appointment)

**Professor of Radiology**

**Professor of Obstetrics and Gynecology**

BS University of Kentucky 1974

MD University of Kentucky 1982

**Ann Marie Gronowski, PHD**Professor of Pathology and Immunology (primary appointment)

**Professor of Obstetrics and Gynecology**

BS University of Illinois 1985

PHD Univ of Wisconsin Madison 1992

**Andrea Ruth Hagemann, MD**Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD Washington Univ in St. Louis 2004

BA Princeton University 2000

**Ian Sean Hagemann, PHD, MD**Assistant Professor of Pathology and Immunology (primary

appointment)

**Assistant Professor of Obstetrics and Gynecology**

PHD Washington Univ in St. Louis 2008

MD Washington Univ in St. Louis 2008

BA Princeton University 2000

**Hoosna Haque, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS University of Texas Arlington 1992

MD Beaufort Technical College 1996

**Richard Alan Hartman, MD**Associate Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD University of Missouri 1978

**Kenneth Edmond Hembra, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Jefferson Medical College 2011

Laurel D HibbsInstructor in Clinical Obstetrics and Gynecology (primary appointment)

**John T Hoff, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS Xavier University 2002

MD Medical College of Wisconsin 2006

**Kathleen M Hogan, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA Westminster College 1985

MD University of Missouri 1989

Robert Franklyn Holloway JrInstructor in Clinical Obstetrics and Gynecology (primary appointment)

**William Edward Houck, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD University of Cincinnati 1981

BS Brown University 1977

**David H Hua**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS University of California 1990

**Laura Hulbert, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Washington Univ in St. Louis 1981

BA Washington Univ in St. Louis 1976

**Saji Jacob, MD, MS**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD School Not Listed 1993

UNKNOWN School Not Listed 1996

MS Kerala University 1989

**Michael K Johnson, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Saint Louis University 1975

BS Ohio State University 1970

Sandy Lynn JostAdjunct Instructor in Obstetrics and Gynecology (primary appointment)

**Mark J Jostes, MD**Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

BS Rockhurst College 1976

MD University of Missouri 1981

**Emily Susan Jungheim, MD**Associate Professor of Obstetrics and Gynecology (primary appointment)

BS University of Illinois 1997

MD Loyola University Chicago 2001



**Elizabeth A Keegan Garrett, MD, M PH**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Oregon Health Science University 2005

M PH Harvard University 2003

BA Mount Holyoke College 1998

**Sarah Lynn Keller, MD**Assistant Professor of Obstetrics and Gynecology (primary appointment)

BA University of Notre Dame 1985

MD Southern Illinois University 1989

**Jeannie Chen Kelly, MD**Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD Columbia University 2009

**Erin L King, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Washington Univ in St. Louis 2003

BA Stanford University 1997

**Phillip Lee Kintner, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Southern Illinois University 1986

**Laurie Klabi, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD University of Missouri 1991

BA University of Missouri 1987

**Jacob Klein, MD**Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD School Not Listed 1968

BS Muhlenberg College 1964

**Teresa Lee Knight, MS, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MS Saint Louis University 1994

MD Saint Louis University 1998

BA University of CA Berkeley 1992

**Yosuke Komatsu**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Ramakrishna Kommagani, PHD**Assistant Professor of Obstetrics and Gynecology (Pending Executive Faculty Approval) (primary appointment)

PHD Wright State University 2009

**Claudia Krasnoff, MA, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MA Johns Hopkins University 1990

MD University of Maryland 1994

**Frederick Thier Kraus**Adjunct Professor of Obstetrics and Gynecology (primary appointment)

BS College of William and Mary 1951

**Lindsay M Kuroki, MD**Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD Brown University 2009

**Christine Marie Ladd, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD University of Missouri 1990

BA Saint Louis University 1986

**Tony C Lam**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Patricia Lazaroff, BN, MSN**Adjunct Instructor in Obstetrics and Gynecology (primary appointment)

BN School Not Listed 1972

MSN Saint Louis University 1974

**Gary G Lee, DOST**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS School Not Listed 1970

DOST School Not Listed 1976

**Fanee J Lekkas**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Edward S Levy, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Washington Univ in St. Louis 1991

BA Duke University 1987

**Amanda Lark Lewis, PHD** Assistant Professor of Molecular Microbiology (primary appointment)

**Assistant Professor of Obstetrics and Gynecology**

BS Cal Polytec San Luis Obispo 2001

PHD University of San Diego 2006

**Lola J Loeb, MA, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MA California State Dominguez 1992

MD KANSAS U SCHOOL OF MEDICINE 2000

BS Loyola Marymount University 1988

**Ramon Alberto Lorca** Instructor in Obstetrics and Gynecology (Pending Dean's Approval) (primary appointment)

BS Universidad Catolica Del Norte 2001

**Jerry L Lowder, MD** Associate Professor of Obstetrics and Gynecology (primary appointment)

MD East Carolina University 1999

**Tessa E Madden, MD, M PH** Associate Professor of Obstetrics and Gynecology (primary appointment)

BS Smith College 1995

MD Washington Univ in St. Louis 2001

M PH Johns Hopkins University Medic 2006

**Maria Maminta-Streiff** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Mary Elizabeth Mani** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA Washington Univ in St. Louis 1980

**Carolyn Marie Martin, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

BA Lindenwood College 1970

MD Washington Univ in St. Louis 1976

**Leslie Stewart Massad, MD** Professor of Obstetrics and Gynecology (primary appointment)

BS Williams College 1980

MD Duke University 1984

**Rebecca P McAlister, MD** Professor of Obstetrics and Gynecology (primary appointment)

**Associate Dean for Graduate Medical Education**

MD University of Kentucky 1979

BS University of Kentucky 1977

**Jennifer Ann McCabe** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS Saint Louis University 2001

**Carolyn Kay McCourt, MD** Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD Creighton University 2001

BS Creighton University 1997

**Daniel S McDonald, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS Yale University 1984

MD University of Missouri 1989

**Colleen Patricia McNicholas, DOST** Assistant Professor of Obstetrics and Gynecology (primary appointment)

DOST Kirksville College of Osteopat 2007

BS Benedictine University 2003

**Denise Andrea Meckler, MD** Instructor in Clinical Obstetrics and Gynecology (primary

appointment)

MD Ohio State University 1992

**Diane F Merritt, MD** Professor of Obstetrics and Gynecology (primary appointment)

MD New York University 1975

BS Miami University 1971

**Jerry N Middleton, MD** Instructor Emeritus in Clinical Obstetrics and Gynecology (primary appointment)

**Instr Emeritus in Clinical Ob & Gyn** (primary appointment)

MD Washington Univ in St. Louis 1963

BA Westminster College 1959

**Jennifer Alaine Miller-Katsafanas, DPT, BBA** Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Obstetrics and Gynecology**

BA University of MO St Louis 1996

DPT Washington Univ in St. Louis 2012

BBA University of MO St Louis 1996

**Tehmton S Mistry, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD University of Bombay 1968

**Kelle Harbert Moley** James Crane Professor of Obstetrics and Gynecology (primary appointment)

**Associate Professor of Cell Biology and Physiology**

**Vice Chairman for Basic Research, Department of Obstetrics and Gynecology**

BA Wellesley College 1984

**Alvaro Mora, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Universidad de Antioquia

**Jeffrey Stuart Mormol** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS Indiana University Bloomington 1986

**Nathaniel H Murdock, MD** Associate Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD Meharry Med College 1963

BS Howard University 1958

**Helen I-Yun Mussemann, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA Rice University 1992

MD Beaufort Technical College 1996

**David G Mutch, MD** Ira C and Judith Gall Professor of Obstetrics and Gynecology (primary appointment)

BA Carleton College 1976

MD Washington Univ in St. Louis 1980

**Indira U Mysorekar, MS, PHD** Associate Professor of Obstetrics and Gynecology (primary appointment)

**Associate Professor of Pathology and Immunology**

MS University of Lund 1995

BS University of Lund 1994

PHD Washington Univ in St. Louis 2002

**Clarice Michelle Nelson, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD University of Kansas Medical 2011

**Donald Michael Nelson, MD, PHD** Virginia Lang Professor of Obstetrics and Gynecology (primary

appointment)

MD Washington Univ in St. Louis 1977

BA Cornell College 1971

PHD Washington Univ in St. Louis 1977

**Marlynn Nunez**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Oroma Beatrice Afiong Nwanodi**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Laura James Nywening, MD**Instructor in Obstetrics and Gynecology (primary appointment)

BS University of Florida 2007

MD University of Florida 2011

**Randall Odem, MD**Professor of Obstetrics and Gynecology (primary appointment)

MD University of Iowa 1981

**Chukwuma Mbonu Okoroji**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Kenan Rifat Omurtag, MD**Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD University of MO Kansas City 2006

BA University of MO Kansas City 2006

**Margaret McCarthy Ormonde**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS University of Missouri 1983

**Allen S Palmer, DOST**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

DOST School Not Listed 1972

BS Ohio Northern University 1963

**Laura Anne Parks, MD**Associate Professor of Obstetrics and Gynecology (primary appointment)

BA University of Kansas 1998

BS University of Kansas 1998

MD University of Kansas 2004

**Meera Raman Patel, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD University of MO Kansas City 1996

**Anthony Craig Pearlstone, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA Washington Univ in St. Louis 1981

MD Washington Univ in St. Louis 1985

**John David Pfeifer, MD, PHD**Professor of Pathology and Immunology (primary appointment)

**Professor of Obstetrics and Gynecology**

**Vice Chairman for Clinical Affairs of Pathology and Immunology**

MD University of California 1988

PHD University of California 1987

BA University of California 1981

**Timothy Charles Philpott, MD**Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD Washington Univ in St. Louis 1994

**Aaron Juan Pile, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD School Not Listed 1983

BA Norfolk State University 1980

**Jorge Pineda, MD**Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD School Not Listed 1972

**Matthew A Powell, MD** Associate Professor of Obstetrics and Gynecology (primary appointment)

MD Michigan State University 1995

BS Washington St University 1990

**Jodie Rai, MD** Associate Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD University of Illinois 1988

BA Harvard University 1983

**Roxane M. Rampersad, MD** Associate Professor of Obstetrics and Gynecology (primary appointment)

MD Emory University 1998

BS Emory University 1994

Valerie Ratts Professor of Obstetrics and Gynecology (primary appointment)

**Associate Dean for Admissions**

**Amy J. Ravin, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD University of Chicago 1996

**Jonathan R Reed, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

BA Fisk University 1956

MD Meharry Med College 1965

Angela Mary Reining Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Lee A Rigg, PHD, MD** Associate Professor of Clinical Obstetrics and Gynecology (primary appointment)

BA Arizona State University 1961

PHD University of Colorado Boulder 1965

MD Washington Univ in St. Louis 1971

**Joan K. Riley, PHD** Assistant Professor of Obstetrics and Gynecology (primary appointment)

**Assistant Professor of Pediatrics**

**Instructor in Medicine**

PHD Washington Univ in St. Louis 1998

Ann Marie Rockamann Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Chinda Vanasin Rojanasathit, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD School Not Listed 1967

**Sharman M Russell, MD** Assistant Professor in Obstetrics and Gynecology (primary appointment)

MD CHICAGO MEDICAL SCHOOL 2010

Bridget Scheve Rutledge Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Jerome D Sachar, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

BA Amherst College 2000

MD University of Missouri 1979

**Sudha Saha, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD School Not Listed 1963

BA Balurghat College 1957

**Celia Maria Santi Grau Perez, MD, PHD** Associate Professor of Obstetrics and Gynecology (primary appointment)

MD Instituto de Montevideo 1992

BS Instituto de Montevideo 1979

PHD National Autonomous U of Mex 1998

**Leslie A Scott**Instructor in Clinical Obstetrics and Gynecology (primary appointment)  
**Anne R Seyer, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)  
BA Saint Louis University 2002  
MD Saint Louis University 2006

**Clayton D. Skaggs**Adjunct Instructor in Obstetrics and Gynecology (primary appointment)  
BS Southwest Missouri St University 1984

**Jennifer H. Smith**Instructor in Clinical Obstetrics and Gynecology (primary appointment)  
BS University of California 1995

**Tammy Shim Sonn, MD**Associate Professor of Obstetrics and Gynecology (primary appointment)  
MD Rush University 2004  
BS University of Chicago 1999

**Theresa M Spitznagle, DPT, MHS**Associate Professor of Physical Therapy (primary appointment)  
**Associate Professor of Obstetrics and Gynecology**  
DPT Washington Univ in St. Louis 2006  
MHS Washington Univ in St. Louis 1994  
BS Marquette University 1986

**Chotchai Srisuro, MD**Associate Professor of Clinical Obstetrics and Gynecology (primary appointment)  
MD School Not Listed 1967

**Holly L Steiner**Assistant Professor of Obstetrics and Gynecology (primary appointment)  
BS Southern Ill Univ Edwardsville 2005

**John A Stopple, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)  
BA Grinnell College 1962  
MD Univ of Wisconsin Madison 1969

**Molly Jean Stout, MD**Assistant Professor of Obstetrics and Gynecology (primary appointment)  
BA Bryn Mawr College 2002  
MD Loyola University Chicago 2007

**Eric A Strand, MD**Associate Professor of Obstetrics and Gynecology (primary appointment)  
MD Johns Hopkins University 1995

**Abbe L Sudvarg**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Melissa Dawn Tepe, MD, MS**Instructor in Clinical Obstetrics and Gynecology (primary appointment)  
BS Yale University 1999  
MD Albert Einstein College of Med 2005  
MS Columbia University 2004

**Premal H Thaker, MD, MS**Associate Professor of Obstetrics and Gynecology (primary appointment)  
MD Allegheny College 1997  
BA Villanova University 1995  
MS University of Texas Houston 2004

**Jean Alfred Thomas Sr., MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)  
MD School Not Listed 1972

**Jeffrey Bryant Thompson, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)  
BS Vanderbilt University 1989  
MD University of Missouri 1994

**M. Bryant Thompson**Associate Professor of Clinical Obstetrics and Gynecology (primary



appointment)

BA Eastern New Mexico University 1957

**Albro C Tobey, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

BS Butler University 1965

MD School Not Listed 1972

Randall W Tobler Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

**Yvonne Perle Treece, AA** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

AA Pellissippi St Technical Coll 1997

**Jacqueline Sue Turner, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Tulane University 1983

BA Mass Inst of Technology (MIT) 1979

**Methodius Gamuo Tuuli, M PH** Associate Professor of Obstetrics and Gynecology (primary appointment)

M PH University of California 2003

BS University of Ghana 1997

**Stacy Lynne Tylka, DPT, MS** Associate Professor of Physical Therapy (primary appointment)

Associate Professor of Orthopaedic Surgery

Associate Professor of Obstetrics and Gynecology

BS Saint Louis University 2000

DPT Washington Univ in St. Louis 2009

MS Saint Louis University 2002

**Zevidah Vickery, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Ben-Gurion Univ of the Negev 2005

**Daniel G Wagner** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA1 Holy Cross College 1985

**Leonard Lewis Wall, MD, MS, PHD** Selina Okin Kim Conner Professor in Arts & Sciences and Professor of Anthropology (primary appointment)

Professor of Obstetrics and Gynecology

Professor of Obstetrics and Gynecology

Professor of Obstetrics and Gynecology

MD University of Kansas 1983

BA University of Kansas 1972

MS Monash University 2001

PHD Oxford University 1983

BS Oxford University 1974

**Caihong Wang, PHD** Instructor in Obstetrics and Gynecology (primary appointment)

BS Laiyang Agricultural College 1993

PHD China Agriculture University 1998

Yong Wang Assistant Professor of Obstetrics and Gynecology (primary appointment)

Assistant Professor of Radiology

**Gary Michael Wasserman, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD University of Missouri 1980

**Mark S Wasserman, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA University of Missouri 1980

MD University of Missouri 1984

BS University of Missouri

David L Weinstein Associate Professor of Clinical Obstetrics and Gynecology (primary appointment)

Denise Michelle Willers, MD Associate Professor of Obstetrics and Gynecology (primary appointment)

MD Southern Illinois University 2000

BS Drake University 1996

Brooke Allison Winner, MD Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD University of Washington 2008

Anna Wolaniuk, PHD, MD Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS University of Lodz 1974

PHD Medical Academy Lodz 1975

MD Medical Academy Lodz 1979

Heather E. Wuebker Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA University of MO Kansas City 1996

Omar M. Young, MD Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD Columbia University 2008

Haifaa Tawifiq Younis, MD Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Baghdad University 1984

Sandra G.H. Zakroff Instructor in Clinical Obstetrics and Gynecology (primary appointment)

Darryl Thomas Zinck Instructor in Clinical Obstetrics and Gynecology (primary appointment)

No entries found

## Department of Ophthalmology and Visual Sciences

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Instruction begins in the first year with examination of the eye and a lecture on various aspects of ocular disease. During the second year, students will receive a refresher lecture and lab on direct ophthalmoscopy as well as a lecture on ophthalmic manifestations of systemic disease and primary ocular disease. During the third year, students are given the opportunity during the surgery clerkship to spend four weeks on the ophthalmology services. In addition, during the third year there are lectures given to students during the Internal Medicine rotations. In the fourth year, a four-week intensive clinical rotation is tailored to students interested in pursuing ophthalmology as a career. Also, research electives are available under the guidance



of numerous different ophthalmology faculty members for fourth year students.

Please visit the [Department of Ophthalmology website](#) for more information about the department.

# MD Courses — Ophthalmology and Visual Sciences

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## First year

Introduction to clinical ophthalmology begins in the first year with a lecture and practicum (peer exam) on taking an ocular history and performing an ocular exam. Emphasis is on ophthalmoscopy. Lectures and practicum session will be led by Dr. John Lind and Dr. Morton Smith.

## Second year

During the second year, students will receive a refresher lecture and lab on direct ophthalmoscopy as well as a lecture on ophthalmic manifestations of systemic disease and primary ocular diseases.

## Third year

### Third-Year Clerkship Opportunities

In the third year, students are given the opportunity to spend four weeks of their surgery rotation on the ophthalmology service. The students work closely with the ophthalmology residents and review the differential diagnosis of the “red eye,” how to

interpret an ophthalmologic consult note, and how to handle ocular emergencies. During this rotation, there is again emphasis on the use of the ophthalmoscope. Additional clinical skills introduced to student rotators include the use of the slit lamp and indirect ophthalmoscopy. All third-year students must complete the “Case Studies in Ophthalmology for Medical Students” and attend the periodic “feedback/oral exam” session with Dr. John Lind and/or Dr. Morton Smith.

## **Third year/fourth year**

Ophthalmology Sub-Internship Rotation (“The Sub-eye”). During the month of June prior to fourth year, students interested in pursuing a career in ophthalmology are encouraged to rotate on this intensive four week rotation. Students will have personal indirect ophthalmoscopy lenses available for use on the rotation. Formal didactics and workshops will be used to teach students how to perform a detailed ophthalmic history and exam including mastery of advanced slit lamp techniques and indirect funduscopy. There will be an intense schedule of both live and recorded lectures delivered by ophthalmology faculty members with post-lecture quizzes. Students will be expected to perform daily required reading. Retention and understanding of reading materials will be gauged by frequent quizzes. Students are strongly encouraged to present a case at the Department’s Grand Rounds. By the end of the rotation, students will be expected to function at the level of a first year ophthalmology resident.

## **Fourth year**

### **Electives**

#### **M50 – OPHTHALMOLOGY**

#### **M50 801 / OPHTHALMOLOGY**

Instructor(s): John T. Lind, MD, MS, [lindj@vision.wustl.edu](mailto:lindj@vision.wustl.edu), and

Morton E. Smith, MD, 314-747-5559 or 314-362-5722

Location: McMillan Hospital, Room 114, Barnes-Jewish Hospital, South Campus

Elective Contact: Mary Carnoali, 314-362-4418

Other Information: All students interested in this senior elective must meet with Dr. John Lind or Dr. Morton Smith in March of year WUMS III.

Enrollment limit per period: 8

Valid start weeks for WUMS IV students only: June 201

This elective is for senior students who plan to apply for a residency in ophthalmology. In accordance with any sub-internship, medical students will be expected to function at the level of a beginning first-year ophthalmology resident on this rotation. The students will rotate through the resident eye clinic and the subspecialty clinics of the full time faculty of the Washington University Medical School Department of Ophthalmology and Visual Sciences (e.g., neuro-ophthalmology service, cornea/external disease service, etc.).

The first day of the rotation will consist of an orientation day in which students will receive extensive didactics and participate in workshops to learn the basics of a complete ophthalmic history and examination. Students may opt to check-out indirect ophthalmoscopy lenses that may be used for the month to facilitate the acquisition of funduscopy skills. During the rotation, the student's responsibilities range from observation (including observing surgery) to working at a resident level and completing full eye examinations.

There will be a rigorous academic curriculum for the rotation including a weekly case presentation to Dr. John Lind or Dr. Morton Smith, bi-monthly wet lab sessions with a resident, weekly attendance at grand rounds, and a mix of medical student-oriented and resident-oriented conferences.

On day one, students will receive a rotating call schedule for the entire month. A medical student is expected to be present at all times to assist the primary call ophthalmology resident during the rotation. By the end of the four-week rotation, the student is expected to be proficient in taking an ocular history and performing a complete eye exam including slit lamp biomicroscopy and indirect ophthalmoscopy.

All students interested in this senior elective must meet with Dr. John Lind or Dr. Morton Smith in March of year WUMS III. The final grade of the student is determined by input from the director of the particular service(s) through which the student rotated, plus the case presentations, plus scores on quizzes over required reading. The grades at Washington University are Honors, High Pass, Pass, Fail.

Student time distribution: Inpatient 5%; Outpatient 80%; Conferences/ Lectures 15%; Subspecialty Care 100%

Major teaching responsibility: Attendings, fellows and residents

Patients seen/weekly: At least 25, usually more

On call/weekend responsibility: yes / yes- call schedule will be finalized on day one of the rotation.

### **M50 816 / AWAY ROTATION IN OPHTHALMOLOGY**

Instructor(s): John T. Lind, MD, MS, [lindj@vision.wustl.edu](mailto:lindj@vision.wustl.edu), and Morton E. Smith, MD

Location: McMillan Hospital, Room 114, Barnes-Jewish Hospital, South Campus

Elective Contact: Mary Carnoali, 314-362-4418

Other Information: All students interested in this away elective must apply through VSAS and then be formally invited to enroll.

Enrollment limit per period: 6

Valid start weeks: September 2016

This four-week elective is for senior students from medical schools across the United States who are in good standing at their home institution and who are planning to apply for a residency in ophthalmology. To enroll in this elective students must first apply online for the elective via the visiting student application service (VSAS). These applications will be reviewed and invitations will then be sent to individuals to enroll in the elective. Due to large demand, not all eligible away students will be accepted for the rotation. The dates for this elective are not flexible.

The students will rotate through the resident eye clinic and the subspecialty clinics of the full time faculty of the Washington University Medical School Department of

Ophthalmology and Visual Sciences (e.g., neuro-ophthalmology service, cornea/external disease service, etc.). In exchange for a refundable deposit, students may opt to check-out indirect ophthalmoscopy lenses that may be used for the month to facilitate the acquisition of funduscopy skills.

During the rotation the student's responsibilities range from observation (including observing surgery) to working at a resident level and completing full eye examinations. Didactics will include weekly case presentation sessions to Dr. John Lind or Dr. Morton Smith, weekly attendance at grand rounds, and a mix of medical student-oriented and resident-oriented conferences. Also, there will be medical student-oriented workshops to learn the basics of the slit lamp and indirect ophthalmoscopy.

On day one, students will receive a schedule of conferences that they are expected to attend during the month. By the end of the four-week rotation, the student is expected to be proficient in taking an ocular history and performing a complete eye exam including slit lamp biomicroscopy and indirect ophthalmoscopy.

The final grade of the student is determined by the course director with input from the residents, fellows, and faculty members of the particular service(s) through which the student rotated.

Student time distribution: Inpatient 15%; Outpatient 70%; Conferences/ Lectures 15%; Subspecialty Care 100%

Major teaching responsibility: Attendings, fellows, and residents

Patients seen/weekly: At least 25, usually more

On call/weekend responsibility: No call responsibility. Very rare weekend responsibility.

# Research — Ophthalmology and Visual Sciences

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## OPHTHALMOLOGY RESEARCH OPPORTUNITIES (M50 900)

Usha P. Andley, PhD

1114-C McMillan

314-362-7167

Molecular basis of cataract; the function of molecular chaperones in cataract; proteomics, imaging and biochemical studies on cell culture and mouse models for crystallin gene mutations linked with cataract; testing drugs to inhibit cataract.

Rajendra S. Apte, MD, PhD

[apte@vision.wustl.edu](mailto:apte@vision.wustl.edu)

Innate immunity and immune effector mechanisms in the retina, oxidative stress and cell death, models of developmental angiogenesis and neovascularization, inflammation and photoreceptor survival, macular degeneration.

Steven Bassnett, PhD

1114 McMillan

314-362-1604

Eye development, stochastic models of lens growth, stem cell biology, age-related cataract, UV-induced somatic mutation, ocular manifestations of Marfan syndrome, cell death suppression on the optic axis, cell biology of transparent tissues.

Anjali Bhorade, MD

314-362-5343

Evaluating the effect of glaucoma on visual function in older adults in the home. Understanding the relationship between vision and driving in older adults with glaucoma.

Shiming Chen, PhD

618 McMillan

314-747-4350

The molecular mechanisms regulating photoreceptor gene expression and the implications in understanding photoreceptor development and disease. We are focusing on three transcription factors, CRX, NRL and NR2E3, linked to photoreceptor degenerative diseases. Molecular genetics and biochemical approaches are used to identify the regulatory pathways associated with each factor. Mouse models are used to understand why mutations in these factors cause disease and develop therapeutic strategies, including AAV-gene therapy.

Steven M. Couch, MD

[couch@vision.wustl.edu](mailto:couch@vision.wustl.edu)

Orbital inflammatory diseases, surgical techniques and novel treatments of periocular/orbital disease.

Susan M. Culican, MD, PhD

1104 McMillan

314-362-9278

Clinical: development of a low cost, simple visual function task for screening for macular disorders in the primary care setting. Education: examination of the utility of assessment tools for evaluating resident clinical progression during residency training. Development of new metrics to gauge resident progress.

Philip L. Custer, MD

[custer@vision.wustl.edu](mailto:custer@vision.wustl.edu)

Enucleation and anophthalmic socket disorders. Orbital fractures and implants. Hemorrhagic complications during oculoplastic procedures.

Thomas A. Ferguson, PhD

1207 McMillan

314-362-3745

Molecular basis of immune tolerance and how apoptotic cells tolerize the immune

response. The role of immune privilege in the pathogenesis of eye diseases such as age-related macular degeneration (AMD). The role of basal autophagy in the cells of the eye by using the cre-loxP system to delete essential autophagy genes from specific cell types in the eye.

Mae Gordon, PhD

1125 Old Shriners

314-362-3716

Ocular hypertension, glaucoma, keratoconus, adenoviral conjunctivitis, randomized clinical trial methodology, patient-reported outcome measures and measurement reliability.

George J. Harocopos, MD

[harocopos@vision.wustl.edu](mailto:harocopos@vision.wustl.edu)

Age-related cataract, ophthalmic pathology.

Didier Hodzic, PhD

[hodzicd@vision.wustl.edu](mailto:hodzicd@vision.wustl.edu)

620 McMillan

314-362-7037

Cell biology of retinal development and homeostasis in mice, cone and rods cytoarchitecture.

Andrew Huang, MD, MPH

106 McMillan Building

314-362-0403

Ocular surface stem cell biology, molecular therapy for corneal dystrophies and corneal neovascularization, oxidative stress of corneal endothelium, clinical research on dry eye and ocular surface disease.

Humeyra Karacal, MD

[karacal@vision.wustl.edu](mailto:karacal@vision.wustl.edu)

Treatment of uveitis, prevention of cataracts with anti-oxidants, anti-oxidants in age



related macular degeneration, retinal imaging and analysis using data mining techniques, designing OR equipment to facilitate ophthalmic surgery

Michael A. Kass, MD

[kass@vision.wustl.edu](mailto:kass@vision.wustl.edu)

Principal Investigator of the Ocular Hypertension Treatment Study (OHTS). Diagnosis, treatment and public health aspects of glaucoma.

Vladimir Kefalov, PhD

625 McMillan

314-362-4376

Photoreceptor Neurobiology and Retinal Degeneration. We are a sensory neurobiology lab interested in the function of mammalian rod and cone photoreceptors. In addition, we are interested in the mechanisms of neurodegeneration in the retina and are working on developing pharmacological and gene-therapy tools for preventing photoreceptor cell death.

Daniel Kerschensteiner, MD

[kerschensteinerd@vision.wustl.edu](mailto:kerschensteinerd@vision.wustl.edu)

To understand the principles that guide the assembly of neural circuits and to decipher the way they process information. We would like to understand the principles that guide the assembly of neural circuits in the retina and to decipher the way they process information and hope to identify features of the retinal circuit architecture that perform particular computations and characterize how they arise during development. We then probe underlying mechanisms of circuit assembly and function through genetically targeted manipulations of specific cells in the retina.

John T. Lind, MD, MS

[lindj@vision.wustl.edu](mailto:lindj@vision.wustl.edu)

Glaucoma education, resident education, pharmacologic and surgical treatment of glaucoma, ophthalmic microbiology.

Gregg T. Lueder, MD

[lueder@vision.wustl.edu](mailto:lueder@vision.wustl.edu)

Retinoblastoma, eye misalignment (strabismus), retinopathy of prematurity, abnormal tearing, nasolacrinal disorders, cataracts, glaucoma.

Peter Lukasiewicz, PhD

1003C McMillan

314-362-4284

Neurotransmitters, synapses, retinal function in health and disease, retinal information processing.

Todd P. Margolis, MD, PhD

[margolist@vision.wustl.edu](mailto:margolist@vision.wustl.edu)

1. Cellular and molecular mechanisms that regulate herpes simplex infection neurons.
2. Inexpensive telemedicine for reducing blindness in underserved populations.

John R. Pruett, Jr., MD, PhD

1153K East Building

314-747-6769

Visual Systems and Cognitive Neuroscience Studies of Autism. Two active areas of research in my lab include: 1) behavioral and imaging studies of visual attention to and processing of eyes and faces in autistic and non-autistic subjects, and 2) developmental studies of large-scale brain networks in autistic and non-autistic subjects using functional connectivity magnetic resonance imaging (fcMRI). Example research rotation projects might include: pilot visual psychophysical studies of intermediate visual processes supporting face perception, or – for trainees with computational and/or imaging skills and interests – graph theory-based analyses of visual system sub-network structure across various groups in fcMRI data we have acquired from on-going projects.

Kumar Rao, MD

[rao@vision.wustl.edu](mailto:rao@vision.wustl.edu)

Surgical and medical therapies for disorders of retina and choroid.

Nathan Ravi, MD, PhD, MS, FAAO

[ravi@vision.wustl.edu](mailto:ravi@vision.wustl.edu)

Directed toward understanding the pathophysiology of presbyopia and developing medical or surgical treatments for this condition.

Alan Shiels, PhD

1128 McMillan

314-362-1637

[shiels@vision.wustl.edu](mailto:shiels@vision.wustl.edu)

Molecular genetic mechanisms underlying cataract, glaucoma and associated eye disorders: (1) genome-wide linkage analysis and targeted (exome, amplicon) sequencing for discovery of causative or susceptibility genes, and (2) genotype-phenotype and functional expression studies of naturally occurring and gene-targeted mouse models to characterize pathogenic mechanisms.

Carla J. Siegfried, MD

[siegfried@vision.wustl.edu](mailto:siegfried@vision.wustl.edu)

My research is focused on ocular oxygen metabolism and the development of open angle glaucoma. We are studying how the oxygen gradient in the eye is altered in disease states as well as non-invasive methods of measuring corneal oxygen consumption.

Florentina Soto, PhD

[sotolucasf@vision.wustl.edu](mailto:sotolucasf@vision.wustl.edu)

Studies in my laboratory aim to identify the molecular basis of dendrites and axons lamination and synapse formation during development and in the adult retina. In addition, we investigate how these molecules could be involved in the development of retinal pathologies including retinal degeneration.

Larry Tychsen, MD

2S89 Eye Clinic, St. Louis Children's Hospital

314-454-6026

Principal investigator on NIH-funded studies of visual brain maldevelopment and repair in infant primates, as well as clinical studies of visuomotor abnormalities in cerebral palsy and pediatric refractive surgery.

Gregory P. Van Stavern, MD

[vanstavern@vision.wustl.edu](mailto:vanstavern@vision.wustl.edu)

Neuroimaging of the visual pathways, Idiopathic Intracranial Hypertension, evidence-based medicine and clinical decision making; using the visual system as a model to study neurologic disorders. A further description of research labs can be found at <http://vrcore.wustl.edu/residentstudentresearchopportunities/RSROHome>

## Faculty — Ophthalmology and Visual Sciences

---

**Todd P Margolis, PHD, MD** Alan A and Edith L Wolff Distinguished Professor (primary appointment)

**Head of the Department of Ophthalmology and Visual Sciences**

PHD University of CA San Francisco 1983

BS Stanford University 1977

MD University of CA San Francisco 1984

**Henry W Allhoff, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BA University of Missouri 1976

OD Illinois College of Optometry 1981

**Navinkumar J Amin, MS** Associate Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MS University of Bombay 1966

**Shilpa S Amin** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA University of MO Kansas City 1994

**Usha P Andley, MS** Professor of Ophthalmology and Visual Sciences (primary appointment)

Assistant Professor of Biochemistry and Molecular Biophysics

BS Delhi University 1970

MS Delhi University 1972

**Rajendra Apte, PHD, MD** Paul A. Cibis Distinguished Professor of Ophthalmology and Visual Sciences (primary appointment)

Professor of Developmental Biology

Professor of Medicine

PHD University of Texas Southwest 1997

MD University of Bombay 1993

**Sonya Bamba, MD** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

MD Saint Louis University 2007

**Steven Bassnett, PHD** Professor of Ophthalmology and Visual Sciences (primary appointment)

Professor of Cell Biology and Physiology

BS University of Wales 1982

PHD University of East Anglia 1987

**Paul Douglas Becherer, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BA Southern Illinois University 1971

OD School Not Listed 1975

**Stanley C Becker, PHD, MD, MA** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Washington Univ in St. Louis 1948

PHD Washington Univ in St. Louis 1951

MD University of Chicago 1955

MA Washington Univ in St. Louis 1950

**William L Becker, MD, MA** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Earlham College 1982

MD Washington Univ in St. Louis 1987

MA Washington Univ in St. Louis 1987

**Gregg Jonathan Berdy, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Duke University 1979

MD Saint Louis University 1983

**Paul M Bernier, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BS Indiana State University 1983

OD University of Missouri 1987

**Anjali Maruti Bhorade, MD** Associate Professor of Ophthalmology and Visual Sciences (primary appointment)

Associate Professor of Occupational Therapy

MD University of Chicago 1999

**Frank Joseph Bier, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary

appointment)

OD University of MO St Louis 1984

BS University of Missouri 1979

**Ronald C Bilchik, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BS University of Toledo 1963

MD Washington Univ in St. Louis 1967

**Mark Gerald Birkmann** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BA University of Missouri 1988

**Andrew N Blatt, MA, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Duke University 1987

MA Washington Univ in St. Louis 1991

MD Washington Univ in St. Louis 1992

**Kevin Jay Blinder, MD** Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD University of MO Kansas City 1985

**James C Bobrow, MD** Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Yale University 1966

MD Johns Hopkins University Medic 1970

**George M Bohigian, MD** Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Saint Louis University 1965

**Isaac Boniuk** Professor Emeritus of Clinical Ophthalmology and Visual Sciences (primary appointment)

**Prof Emeritus of Clin Ophthalmol & Vis Sci** (primary appointment)

BS Dalhousie University 1958

**Bernita Born-Wolf, OD, BN** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD University of MO St Louis 1987

BN Saint Louis University 1978

**Paul J Botelho, MD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

MD Boston University 1992

BA Holy Cross College 1988

**Bryan R Bowen, OD** Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD University of MO St Louis 2001

BS University of MO Columbia 1994

**Rebekah Arletta Braslow, MD** Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

BS Stanford University 1981

MD Yale University 1987

**Sean Michael Breit, MD** Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Ohio State University 2002

**Larry G Brokering** Adjunct Instructor in Ophthalmology and Visual Sciences (primary

appointment)

**Marc Richard Brown, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BA University of Missouri 1974

OD School Not Listed 1980

**Dean B Burgess, MD** Professor Emeritus of Clinical Ophthalmology and Visual Sciences (primary appointment)

**Prof Emeritus of Clin Ophthalmol & Vis Sci** (primary appointment)

MD University of California 1967

BA Occidental College 1963

**Carmen F Castellano** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BA University of MO St Louis 1977

BS Illinois College of Optometry 1980

**Earl S Changar, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD School Not Listed 1957

**Jenny Chen** Instructor in Ophthalmology and Visual Sciences (primary appointment)

**Shiming Chen, PHD** Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Developmental Biology**

BS Beijing University 1981

PHD State University of New York 1992

**Bruce H Cohen, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Harvard University 1976

MD Johns Hopkins University 1980

**Nicholas J Colosi, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Saint Louis University 1968

BA La Salle University 1964

**Joseph C. Corbo, MD, PHD, AB** Associate Professor of Pathology and Immunology (primary appointment)

**Associate Professor of Genetics**

**Associate Professor of Ophthalmology and Visual Sciences**

MD University of California 1999

PHD University of California 1997

BS Stanford University 1990

AB Stanford University 1990

**Pamela Ann Coslick-Fada, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD University of Missouri 1987

**Steven Michael Couch, MD** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

MD University of MO Kansas City 2006

**John Bruce Crane II** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

**Susan Margaret Culican, PHD, MD** Associate Professor of Ophthalmology and Visual Sciences (primary appointment)

BA Washington Univ in St. Louis 1990

PHD Washington Univ in St. Louis 1998

MD Washington Univ in St. Louis 1998

**Philip L Custer, MD** Professor of Ophthalmology and Visual Sciences (primary appointment)

BS Vanderbilt University 1974

MD Vanderbilt University 1978

David L Davidson Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

**James Allen Declue, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Illinois College of Optometry 1949

**John James Deguire, MD** Instructor in Ophthalmology and Visual Sciences (primary appointment)

BA Washington Univ in St. Louis 1983

MD University of Illinois 1988

**Paul E Diehl, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Illinois College of Optometry 1959

**John Robert Eigenbrodt, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD University of Missouri 1988

BS Southern Ill Univ Edwardsville 1985

Nicholas Earl Engelbrecht Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

**Lawrence W Ernst, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD University of Missouri 1990

**Raymond F Fada Jr, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD University of Missouri 1989

BS University of Michigan 1984

Adam Ross Fedyk Instructor in Clinical of Ophthalmology & Visual Sciences (primary appointment)

Robert M Feibel Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

**Thomas A Ferguson** Professor of Ophthalmology and Visual Sciences (primary appointment)  
Associate Professor of Pathology and Immunology

BA Kent St University 1974

**Kurt W Finklang, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BS University of Missouri 1977

OD State University of New York 1981

**Frank Donald Fontana, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Illinois College of Optometry 1950

**Bruce S Frank, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BS Mass Inst of Technology (MIT) 1972

MD Washington Univ in St. Louis 1976

**Carrie S Gaines, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)



OD University of Missouri 1988

BS University of Missouri 1984

**Lawrence A Gans, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Columbia University 1972

MD Case Western Reserve Univ 1977

**Stephen M Garnett, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Indiana University Bloomington 1980

BS Indiana University Bloomington 1978

**N. Rex Ghormley** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

**James M Gordon, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD University of Minnesota 1966

BA University of Minnesota 1962

**Mae Etsuko Gordon, MS, PHD** Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Biostatistics**

MS Univ of Wisconsin Madison 1970

PHD Univ of Wisconsin Madison 1979

BA Portland St University 1967

**Mark Gilbert Grand, MD** Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BS Tufts University 1964

MD Yale University 1968

**Kenneth O Green, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD University of Missouri 1960

**Kevin William Greulich, MD** Instructor in Ophthalmology and Visual Sciences (primary appointment)

MD University of Michigan 1999

BS University of Notre Dame 1995

**Steven J Grondalski, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Penn College of Optometry 1987

**George J Harocopos, MD** Associate Professor of Ophthalmology and Visual Sciences (primary appointment)

**Assistant Professor of Pathology and Immunology**

MD University of Virginia 2000

BA Harvard University 1995

**Alexander D Harris, OD, MA** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BA University of Evansville 1969

OD University of Missouri 1986

MA Washington Univ in St. Louis 1972

**Charles R Harris** Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

UNKNOWN University of Missouri 1971

BS University of Missouri 1970

**Jack Hartstein, MD** Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA University of Missouri 1953

MD University of Cincinnati 1955

**William L Herbold, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD School Not Listed 1967

BS School Not Listed 1967

**Didier Hodzic, PHD** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

**Assistant Professor of Cell Biology and Physiology**

BS University of Liege 1991

PHD University of Liege 1998

**James R Hoekel, OD** Instructor in Ophthalmology and Visual Sciences (primary appointment)

BS University of MO Columbia 1990

OD University of MO St Louis 1994

**Nancy Melberg Holekamp, MD** Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Johns Hopkins University 1989

BA Wellesley College 1985

**Augustine Richard Hong** Assistant Professor in Ophthalmology and Visual Sciences (primary appointment)

BA University of Illinois 2004

**Jing-Wei Huang, MD** Professor of Ophthalmology and Visual Sciences (primary appointment)

MD National Taiwan University 1981

**Douglas Lee Huff, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD So Cal College of Optometry 1981

BS School Not Listed 1980

**Michael J Isserman, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Washington Univ in St. Louis 1975

**Jeffrey H Jacob, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BA University of Missouri 1975

OD So Cal College of Optometry 1980

BS So Cal College of Optometry 1978

**Sharon Leslie Jick** Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

**Daniel Paul Joseph** Associate Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BS Cornell University 1981

**Krishna Priya Kalyam, MD** Instructor in Ophthalmology and Visual Sciences (primary appointment)

MD Robert Wood Johnson Medical Sc 2012

BS Rutgers University 2008

**Stephen A Kamenetzky, MD** Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Washington Univ in St. Louis 1967

MD1 School Not Listed 1970

MD Washington Univ in St. Louis 1970

**Humeyra Karacal, MD** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

MD Hacettepe University 1994

**Michael A Kass, MD, MS** Bernard Becker Professor of Ophthalmology and Visual Sciences (primary appointment)

**Senior Associate Dean for Human Research Protection**

MD Northwestern University 1966

MS Northwestern University Med 1966

BS Northwestern University 1963

**Jack Kayes, MD** Professor Emeritus of Clinical Ophthalmology and Visual Sciences (primary appointment)

**Prof Emeritus of Clin Ophthalmol & Vis Sci** (primary appointment)

MD Washington Univ in St. Louis 1957

BA Yale University 1953

**Vladimir Jivkov Kefalov, PHD** Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Neuroscience**

PHD Boston University 1999

**Deborah Lynn Kerber** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BS Southeast Missouri St Univer 1986

**Daniel Kerschensteiner, PHD** Associate Professor of Ophthalmology and Visual Sciences (primary appointment)

**Associate Professor of Neuroscience**

**Associate Professor of Biomedical Engineering (Courtesy)**

PHD Georg August University 2004

**Sangeeta Khanna** Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

**William F Kiefer Jr, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Illinois College of Optometry 1975

BA Princeton University 1967

BS Illinois College of Optometry 1973

**Mark Alan Kleindorfer, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Indiana University Bloomington 1979

BS Indiana University Bloomington 1977

**Vivian Marie Kloke, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD University of Missouri 1990

**Harry L Knopf** Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Harvard University 1963

**Ronald Joseph Knox, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD School Not Listed 1956

**Michael S Korenfeld, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Washington Univ in St. Louis 1986

BS University of Arizona 1981

**Thomas Errol Kraemer, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BS Indiana University Bloomington 1970

OD Indiana University Bloomington 1972

BA Millikin University 1968

**Michael J Lachtrup** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

**Robert Louis Lamberg, MD** Associate Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Washington Univ in St. Louis 1976

BS University of MO St Louis 1972

**Paul Arthur Lapoint, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD School Not Listed 1963

**Steven F Lee, MD** Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

MD University of Maryland 1987

BS University of Maryland 1983

**Scott W Lewis** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BS1 So Cal College of Optometry 1975

**James Walter Lieber** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BS Wayne State University 1976

**John T Lind, MS** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

BS Indiana University Indianopoli 1999

MS Purdue University 2000

**Qin Liu, PHD** Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Ophthalmology and Visual Sciences**

PHD Chinese Academy of Sciences 2004

BS Wuhan University 1998

**Anthony J Lubniewski, MD** Professor of Ophthalmology and Visual Sciences (primary appointment)

BS University of Florida 1980

MD University of Florida 1985

**Gregg T Lueder, MD** Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Pediatrics**

MD University of Iowa 1985

BS Iowa State University 1981

**Peter David Lukasiewicz, PHD** Janet and Bernard Becker Professor of Ophthalmology (primary appointment)

**Professor of Neuroscience**

PHD University of Michigan 1984

BS Brown University 1977

**Lisa Marie Mackey** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BA University of Kansas 1989

**Ranjan P Malhotra, MD** Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

MD University of Missouri 1995

**Mary Kay Migneco, OD** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

BS University of Missouri 1986

OD University of MO St Louis 1991

BS1 University of Missouri 1986

**Barry David Milder, MD** Associate Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Washington Univ in St. Louis 1973

**Duane L Mitzel, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BS University of California 2000

MD Washington Univ in St. Louis 1977

**Eugene James Mobley** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

**Robert L Mobley, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Illinois College of Optometry 1958

**Joshua L. Morgan, PHD** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

**Assistant Professor of Neuroscience**

BA Florida Southern College 2001

PHD Washington Univ in St. Louis 2007

**Robert F Munsch** Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

BA University of Colorado Boulder 1974

**Raymond I Myers, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Indiana University Bloomington 1970

BS University of Notre Dame 1966

**Randall Earl Nacker** Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

**Matthew Newman, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Vanderbilt University 1956

MD Columbia University 1959

**Paul F Nichols III** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

**Judith Mosinger Ogilvie, PHD, MA** Adjunct Research Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

PHD Harvard University 1983

MA Harvard University 1978

BS Brown University 1976

PHD1 Harvard University 1983

**Jeffrey Robert Padousis, MD** Instructor in Clinical Ophthalmology and Visual Science (primary appointment)

MD Saint Louis University 2000

**Anjali K Pathak, MD** Associate Professor of Ophthalmology and Visual Sciences (primary appointment)

MD1 West Virginia University 1997

BA West Virginia University 1993

BS West Virginia University 1993

MD West Virginia University 1997

**Jay S Pepose, PHD, MA, MD** Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Brandeis University 1975

PHD University of California 1980

MA Brandeis University 1975

MD University of CA Los Angeles 1982

**John Craig Perlmutter, MD** Associate Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Cornell University 1971

BA Queens College 1967

**Monica S Perlmutter, OTD, MA, BSOT** Associate Professor of Occupational Therapy (primary appointment)

**Associate Professor of Ophthalmology and Visual Sciences**

OTD Washington Univ in St. Louis 2012

MA Washington Univ in St. Louis 1989

BSOT University of MO Columbia 1981

**Mujtaba A Qazi** Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

**Rithwick Rajagopal** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

**Mark S Rallo, OD** Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD University of Missouri 1990

BS Saint Louis University 1986

**Prabakar Kumar Rao, MD** Professor of Ophthalmology and Visual Sciences (primary appointment)

MD University of Southern Calif 1995

BA University of CA San Diego 1991

**V. Nathan Ravi, PHD, MS** Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Energy, Environmental and Chemical Engineering**

PHD Virginia Tech 1980

MS University of Bombay 1975

BS University of Bombay 1972

**Michael Dennis Rohde** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BS Valparaiso University 1983

**Louis J Rosenbaum, MD** Associate Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Washington Univ in St. Louis 1963

**Mark A Rothstein, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Williams College 1986

MD University of Utah 1991

**Michael B Rumelt, MD** Assistant Professor Emeritus of Clinical Ophthalmology and Visual Sciences (primary appointment)

**Asst Prof Emer of Clinical Ophthal & Vis Sci** (primary appointment)

BS Lamar University 1962



MD Washington Univ in St. Louis 1966

Scott Geoffrey Sagett **Instructor in Clinical Ophthalmology and Visual Sciences** (primary appointment)

**Jonathan C Schell, MD** **Instructor in Clinical Ophthalmology and Visual Sciences** (primary appointment)

BS Saint Louis University 2001

MD Saint Louis University 2005

**Frederick W Schwagger, OD** **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary appointment)

BS Illinois College of Optometry 1957

BS1 Washington Univ in St. Louis 2000

OD Illinois College of Optometry 1957

**Christopher G Seep, OD** **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary appointment)

BA University of Missouri 1971

OD University of MO St Louis 1984

David Brian Seibel **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary appointment)

**Gaurav Kirit Shah, MD** **Professor of Clinical Ophthalmology and Visual Sciences** (primary appointment)

MD University of Illinois 1993

**James Banks Shepherd III, MD** **Associate Professor of Ophthalmology and Visual Sciences** (primary appointment)

BA Amherst College 1992

MD Columbia University 1997

**Priya Saigal Shetty, MD** **Instructor in Clinical Ophthalmology and Visual Sciences** (primary appointment)

MD University of Michigan 2007

**Arsham Sheybani, MD** **Assistant Professor of Ophthalmology and Visual Sciences** (primary appointment)

MD Washington Univ in St. Louis 2008

**Steven M Shields, MD** **Assistant Professor of Clinical Ophthalmology and Visual Sciences** (primary appointment)

BS Washington Univ in St. Louis 1981

MD Washington Univ in St. Louis 1986

**Alan Shiels, PHD** **Professor of Ophthalmology and Visual Sciences** (primary appointment)

**Professor of Genetics**

PHD University of London 1983

BS School Not Listed 1979

**Howard Newton Short, MD** **Instructor in Clinical Ophthalmology and Visual Sciences** (primary appointment)

MD Saint Louis University 1978

BA Washington Univ in St. Louis 1974

**Carla J Siegfried, MD** **Jacquelyn E and Allan E Kolker M.D. Distinguished Professor of Ophthalmology** (primary appointment)

BA University of MO Kansas City 1989

MD University of MO Kansas City 1989

**Charles D Signorelli, OD** **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary

appointment)

OD School Not Listed 1957

BS School Not Listed 1957

Nicholas James Silvestros **Instructor in Ophthalmology and Visual Sciences** (primary appointment)

**Bradley Thomas Smith, MD** **Instructor in Clinical Ophthalmology and Visual Sciences** (primary appointment)

MD University of AL Birmingham 2002

**Morton Edward Smith, MD** **Professor Emeritus of Ophthalmology and Visual Sciences** (primary appointment)

**Prof Emeritus of Ophthalmol & Vis Sci** (primary appointment)

**Lecturer in Ophthalmology and Visual Sciences**

**Lecturer in Pathology and Immunology**

**Associate Dean Emeritus for Post-Graduate Education**

BS University of Maryland 1956

MD University of Maryland 1960

**Claud Randall Snowden, OD** **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary appointment)

OD Illinois College of Optometry 1974

BS Illinois College of Optometry 1972

**Craig H Sorce, OD** **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary appointment)

OD University of Missouri 1992

BA Southern Illinois University 1988

**Florentina Soto Lucas, PHD** **Assistant Professor of Ophthalmology and Visual Sciences** (primary appointment)

PHD University of Alicante 1992

**Mark H Spurrier, MD** **Instructor in Clinical Ophthalmology and Visual Sciences** (primary appointment)

MD Washington Univ in St. Louis 1980

BA Kansas State University 1976

**James F Strieter, MBA, OD** **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary appointment)

MBA Southern Ill Univ Edwardsville 1988

BS School Not Listed 1953

OD School Not Listed 1954

Brian Patrick Sumner **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary appointment)

Kenneth V Swanson **Instructor in Clinical Ophthalmology and Visual Sciences** (primary appointment)

Paul M Tesser **Associate Professor of Clinical Ophthalmology and Visual Sciences** (primary appointment)

**Matthew A Thomas, MD** **Professor of Clinical Ophthalmology and Visual Sciences** (primary appointment)

MD Harvard University 1991

BS Harvard University 1977

**Linda Mei-Lin Tsai, MD** **Associate Professor of Ophthalmology and Visual Sciences** (primary appointment)

MD Northwestern University 1995



**Robert Lawrence Tychsen** Professor of Ophthalmology and Visual Sciences (primary appointment)

Professor of Neuroscience

Professor of Ophthalmology and Visual Sciences in Pediatrics

**John F Hardesty MD** Distinguished Professor of Ophthalmology and Visual Sciences

BS Georgetown University 1975

**Gregory Paul Van Stavern, MD** Associate Professor of Ophthalmology and Visual Sciences

(primary appointment)

Associate Professor of Neurology

MD Pennsylvania State University 1993

BS La Salle University 1989

**Gary Lee Vogel, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary

appointment)

OD Ohio State University 1977

BA University of Iowa 1970

**David Edward Vollman, MD** Assistant Professor of Ophthalmology and Visual Sciences (primary

appointment)

MD Ohio State University 2006

**James J Wachter, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary

appointment)

OD Illinois College of Optometry 1991

BS Illinois College of Optometry 1990

**William Lee Walter, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences

(primary appointment)

MD Ohio State University 1954

BA De Paul University 1950

**Donald E Walter Jr, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary

appointment)

BS University of Houston 1971

OD University of Houston 1972

**Stephen R Waltman, MD, MBA** Professor of Clinical Ophthalmology and Visual Sciences (primary

appointment)

BS Mass Inst of Technology (MIT) 1961

MD Yale University 1964

MBA Washington Univ in St. Louis

**Stephen Alan Wexler** Professor of Clinical Ophthalmology and Visual Sciences (primary

appointment)

BS University of Michigan 1977

**Richard Harris Wieder, MD** Assistant Professor of Ophthalmology and Visual Sciences (primary

appointment)

MD University of Illinois 1986

BS University of Illinois 1982

**Michael L Wolf, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary

appointment)

OD University of Missouri 1987

BS University of Missouri 1979

**Ming-Fong Agnes Wong, MD, PHD** Adjunct Professor of Ophthalmology and Visual Sciences

(primary appointment)

BA Boston University 1990

MD McGill University 1994  
PHD University of Toronto 2001  
No entries found

# Department of Orthopaedic Surgery

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Orthopaedic surgery is a discipline of surgery that is concerned with the musculoskeletal system. A medical student rotation exposes one to various aspects of orthopaedic surgery. This rotation should provide a variety of experiences ranging from operative, office and clinical practice and emergency room care of patients.

Please visit the [Department of Orthopaedic Surgery website](#) for more information.

## MD Courses — Orthopaedic Surgery

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### Third year

#### THE MUSCULOSKELETAL CLERKSHIP: A PART OF THE COMPREHENSIVE SURGICAL CLERKSHIP

The objective of this rotation is to convey to the student appropriate knowledge, skills and attitudes for the recognition, diagnosis, investigation and treatment of conditions affecting the musculoskeletal system.

Most students at Washington University School of Medicine are not entering specialties that devote themselves to the treatment of diseases of the musculoskeletal system. It is noteworthy, though, that greater than one-third of complaints directed

toward primary caregivers and general internists are related to the musculoskeletal system: the actual volume of these complaints presented to primary care physicians, general internists and pediatricians is second only to complaints related to the cardiovascular system (and for pediatricians, presentations related to infectious diseases).

Musculoskeletal signs and symptoms are encountered commonly in emergency medicine, trauma surgery, internal medicine, oncology, neurology, pediatrics and endocrinology as well as many other surgical and medical specialties. Since students who enter postgraduate training in these subspecialties as well as in general primary care will be required to evaluate, diagnose and treat these conditions, it is important for the undergraduate curriculum to have these topics addressed in an organized and consistent way. It is for this reason that we developed a comprehensive integrated exposure to musculoskeletal surgery and medicine during the third-year comprehensive surgical clerkship. This is a key component of the integrated third-year curriculum.

To accomplish these goals, there will be a balance between clinical, operative, emergency room and didactic (lecture and small group) experiences. Didactic sessions will be in several formats: lectures, physical examination demonstrations and small group discussions. Only instructor or assistant-, associate- or professor-level members of the full-time Washington University School of Medicine staff will deliver formal lectures to the students. Lecturers will be from the Department of Orthopedic Surgery's full-time faculty.

The following lecture topics will be scheduled monthly:

- Spinal Disorders
- Musculoskeletal Emergencies
- Common Fractures
- Adult Disorders of the Hip and Knee
- Adult Disorders of the Shoulder and Elbow
- Sports Injuries and Conditions in Adults and Children
- Adult Conditions of the Foot and Ankle

- Cancer

The clinical experience is one month in duration, and takes place during the comprehensive surgical clerkship for all Washington University medical students during either the first, second or third months of the 12-week clerkship. The one-month block is divided into two two-week sessions wherein the students would spend time with staff from the following specialties: orthopaedic surgery, rheumatology, physical medicine and rehabilitation, sports medicine, neurosurgery, and bone and mineral physiology.

The experience can be combined inpatient and outpatient, clinic and operating room, emergent and non-emergent care as well as both surgical and nonsurgical, based upon the student's own choosing. The following rotations are offered:

Hand (2 weeks)

Joint Reconstruction (2 weeks)

Shoulder and Elbow (2 weeks)

Oncology (2 weeks)

Physical Medicine and Rehabilitation (2 weeks)

Spine (2 weeks)

Rheumatology/Bone (2 weeks)

Pediatric Orthopaedic Surgery (2 weeks)

VA Orthopaedic Service (2 weeks)

Sports Medicine (2 weeks)

Sports Surgery (2 weeks)

Trauma (2 weeks)

Foot and Ankle/ (2 weeks)

The following Washington University School of Medicine full-time attending staff mentors are available to have students rotate with them during the rotation:

- Martin Boyer (Hand)

- Charles Goldfarb (Hand)

- Ryan Calfee (Hand)
- Daniel Osei (Hand)
- Christopher Dy (Hand)
- Lindley Wall (Hand)
- Matthew Matava (Sports Surgery)
- Mark Halstead (Sports Medicine)
- Robert Brophy (Sports Surgery)
- Matt Smith (Sports Surgery)
- Heidi Prather and Devyani Hunt (Physical Medicine and Rehabilitation)
- John Metzler and Adam Labore (Physical Medicine and Rehabilitation)
- Eric Gordon (Pediatric Orthopaedic Surgery)
- Jeff Nepple (Pediatric Orthopaedic Surgery)
- Mark Miller (Pediatric Orthopaedic Surgery)
- Gary Miller (VA Orthopaedic Surgery Service)
- Ryan Nunley (Joint Reconstruction)
- Denis Nam (Joint Reconstruction)
- Richard Brasington and Kathy Diemer (Rheumatology, Bone and Mineral)
- Jacob Buchowski (Spine)
- Luke Zebala (Spine)
- Mike Kelly (Spine)
- Munish Gupta (Spine)
- Paul Santiago (Neurosurgery Spine)
- Zach Ray (Neurosurgery Spine)
- Douglas McDonald (Orthopaedic Oncology)
- Cara Cipriano (Orthopedic Oncology)
- Regis O'Keefe (Orthopedic Oncology)
- Jay Keener (Shoulder and Elbow)
- Jeremy McCormick (Foot and Ankle)
- Sandra Klein (Foot and Ankle)
- William Ricci (Trauma)
- Chris McAndrew (Trauma)

There should only be ONE student per attending staff in order to promote one-on-one teaching; however, exceptions can be made in the event of vacations, illness, conference travel, etc. on the part of the attending staff.

The learning of physical examination skills by the students is a critical part of the musculoskeletal block. The Coursemaster and other attendings will meet weekly with the students to demonstrate physical examination of the neck and spine, shoulder and elbow, hip and knee, and the hand and foot. The normal examination will be covered, and relevant common conditions and provocative tests will be covered as well.

## Fourth year

### Electives

#### M95 –ORTHOPAEDIC SURGERY

M95 838 / PEDIATRIC ORTHOPAEDIC SPINE & SPORTS SURGERY

Instructor(s): Scott J. Luhmann, MD, 314-454-2045

Location: Washington University Orthopedics– Center for Advanced Medicine and Chesterfield; St. Louis Children’s Hospital; Shriners Hospital for Children.

Elective Contact: Tracy Line, [linet@wudosis.wustl.edu](mailto:linet@wudosis.wustl.edu), 314-454-5219, or Kathy Jones, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), 314-747-2813 for questions.

Other Information: Students should contact either Tracy Line or Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 25, 29, 33, 37, and 41.

Clinical elective available for four weeks during which time the student will work with attending surgeon primarily at St. Louis Children’s Hospital observing and assisting in outpatient and inpatient care. To be included are activities in the OR, ER, and outpatient clinics. In addition to general pediatric orthopaedics, Dr. Luhmann has

special interests in the treatment of pediatric spinal injuries and disorders as well as pediatric sports medicine. Attendance at and participation in the weekly pediatric orthopaedic conference activities required.

Student time distribution: Inpatient 48%; Outpatient 47%; Conferences/ Lectures 5%; Subspecialty Care 100%

Major teaching responsibility: Faculty attendings and resident mentors

Patients seen/weekly: Varies

On call/weekend responsibility: : Varies — generally one weekend call and two weekday calls during the rotation.

### **M95 839 / ORTHOPAEDIC SPORTS MEDICINE**

Instructor(s): Matthew Smith, MD, 314-514-3584

Location: Washington University/ Barnes-Jewish Hospital; VA Hospital; Washington University Orthopedics – Chesterfield

Elective Contact: Denise Andre, [andred@wudosis.wustl.edu](mailto:andred@wudosis.wustl.edu), 314-514-3584 or Kathy Jones, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), 314-747-2813.

Other Information: Students should contact Denise Andre or Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This clinical elective is available for four weeks during which the student participates in orthopaedic conferences, outpatient clinics, surgical cases, and patient rounds on the Sports Medicine service.

Student time distribution: Inpatient 5%; Outpatient 90%; Conferences/ Lectures 5%; Subspecialty Care 100%

Major teaching responsibility: Faculty attending and fellow/resident mentors

Patients seen/weekly: Varies

On call/weekend responsibility: Varies — generally one weekend call and two weekday

calls during the rotation.

### **M95 840A / ORTHOPAEDIC SURGERY – FOOT/ANKLE**

Instructor(s): Jeremy J. McCormick, MD, 314-514-3569

Location: Washington University Orthopedics – Chesterfield and Center for Advanced Medicine.

Elective Contact: Karen Jaboor, [jaboork@wudosis.wustl.edu](mailto:jaboork@wudosis.wustl.edu), 314-514-3569, or Kathy Jones, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), 747-2813.

Other Information: Students should contact Karen Jaboor or Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This four week clinical elective is available to medical students looking to further their knowledge/experience in orthopaedics, specifically foot and ankle surgery. Students will participate in surgical cases, outpatient clinics, inpatient care and weekly didactic sessions/conferences. At the completion of the elective students should have gained a basic knowledge of foot and ankle problems as well as their operative and non-operative care.

Student time distribution: Inpatient 20%; Outpatient 75%; Conferences/ Lectures 5%; Subspecialty Care 100%

Major teaching responsibility: Faculty attendings and fellow/resident mentors

Patients seen/weekly: 80

On call/weekend responsibility: Varies — generally one weekend call and two weekday calls during the rotation.

### **M95 840B / ORTHOPAEDIC SURGERY – FOOT/ANKLE**

Instructor(s): Sandra Klein, MD, 314-514-2535

Location: Washington University Orthopedics – Chesterfield and Center for Advanced Medicine.



Elective Contact: Vicki Goldman, [goldmanv@wudosis.wustl.edu](mailto:goldmanv@wudosis.wustl.edu), 314-514-2535 or Kathy Jones, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), 314-747-2813.

Other Information: Students should contact Vicki Goldman or Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 25, 29, 33, 37, and 41.

This four week clinical elective is available to medical students looking to further their knowledge/experience in orthopaedics, specifically foot and ankle surgery. Students will participate in surgical cases, outpatient clinics, inpatient care and weekly didactic sessions/conferences. At the completion of the elective students should have gained a basic knowledge of foot and ankle problems as well as their operative and non-operative care.

Student time distribution: Inpatient 20%; Outpatient 75%; Conferences/ Lectures 5%; Subspecialty Care 100%

Major teaching responsibility: Faculty attendings and fellow/resident mentors

Patients seen/weekly: 80

On call/weekend responsibility: Varies — generally one weekend call and two weekday calls during the rotation.

### **M95 842C / ORTHOPAEDIC SHOULDER/ELBOW SURGERY**

Instructor(s): Jay D. Keener, MD, 314-747-2639

Location: Washington University/ Barnes-Jewish Hospital; Washington University Orthopedics – Chesterfield and Center for Advanced Medicine.

Elective Contact: Linda Burnworth, [burnworthl@wudosis.wustl.edu](mailto:burnworthl@wudosis.wustl.edu), 314-747-2639 or Kathy Jones, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), 314-747-2813.

Other Information: Students should contact Linda Burnworth or Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 25, 29, 33, 37, and 41.

Clinical elective available, during which time the student will work with attending surgeons primarily at Barnes-Jewish Hospital. Activities will include participation in the care of hospitalized inpatients, participation in inpatient and outpatient procedures, attendance at designated attending office hours, attendance at designated orthopaedic conferences, and dissection of upper-extremity anatomical specimens.

Student time distribution: Inpatient 48%; Outpatient 47%; Conferences/ Lectures 5%; Subspecialty Care 100%

Major teaching responsibility: Faculty attendings and resident mentors

Patients seen/weekly: Varies

On call/weekend responsibility: Varies — generally one weekend call and two weekday calls during the rotation.

### **M95 845A / ORTHOPAEDIC HAND AND UPPER EXTREMITY SURGERY**

Instructor(s): Ryan P. Calfee, MD, 314-747-4705

Location: Washington University/ Barnes-Jewish Hospital; Shriners Hospital for Children; and St. Louis Children's Hospital; Washington University Orthopedics – Chesterfield and Center for Advanced Medicine.

Elective Contact: Emily Camden, [camdene@wudosis.wustl.edu](mailto:camdene@wudosis.wustl.edu), 314-362-9369, or Kathy Jones, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), 314-747-2813.

Other Information: Students should contact Emily Camden or Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 25, 29, 33, 37, and 41.

Clinical elective available, during which time the student will work with attending surgeons primarily at Barnes-Jewish Hospital, St Louis Children's Hospital, and Shriners Hospital. The service includes care of adult and pediatric patients with traumatic, sports (arthroscopy), nerve, and degenerative disease. Activities will include participation in outpatient procedures, attendance at faculty clinic office hours, and attendance at orthopaedic conferences.

Student time distribution: Inpatient 5%; Outpatient 85%; Conferences/ Lectures 10%;  
Subspecialty Care 100%

Major teaching responsibility: Faculty attendings, fellow and resident mentors

Patients seen/weekly: 70+

On call/weekend responsibility: Varies — generally one weekend call and two weekday calls during the rotation.

### **M95 845B / ORTHOPAEDIC HAND AND UPPER EXTREMITY SURGERY**

Instructor(s): Charles Goldfarb, MD, 314-747-4705

Location: Washington University/ Barnes-Jewish Hospital; Shriners Hospital for Children; St. Louis Children's Hospital; Washington University Orthopedics – Chesterfield and Center for Advanced Medicine, St. Louis Children's Specialty Care Center

Elective Contact: Karen Addison, [addisonk@wudosis.wustl.edu](mailto:addisonk@wudosis.wustl.edu), 314-747-4705 or Kathy Jones, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), 314-747-2813.

Other Information: Students should contact Karen Addison or Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 25, 29, 33, 37, and 41.

Clinical elective available, during which time the student will work with attending surgeons primarily at Barnes-Jewish Hospital, St Louis Children's Hospital, and Shriner's Hospital. The service includes care of adult and pediatric patients with congenital, traumatic, sports (arthroscopy), nerve, and degenerative disease. Activities will include participation in outpatient procedures, attendance at faculty clinic office hours, attendance at orthopaedic conferences, and dissection of upper-extremity anatomical specimens.

Student time distribution: Inpatient 5%; Outpatient 85%; Conferences/ Lectures 10%;  
Subspecialty Care 100%

Major teaching responsibility: Faculty attendings, fellow and resident mentors

Patients seen/weekly: 100+

On call/weekend responsibility: Varies — generally one weekend call and two weekday calls during the rotation.

### **M95 845C / ORTHOPAEDIC HAND AND UPPER EXTREMITY SURGERY**

Instructor(s): Richard H. Gelberman, MD, 314-747-2531

Location: Washington University/ Barnes-Jewish Hospital; Washington University Orthopedics – Chesterfield and Center for Advanced Medicine.

Elective Contact: Kally Coleman, [colemank@wudosis.wustl.edu](mailto:colemank@wudosis.wustl.edu), 314-747-2531 or Kathy Jones, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), 314-747-2813.

Other Information: Students should contact Kally Coleman or Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Clinical elective available, during which time the student will work with attending surgeon primarily at Barnes-Jewish Hospital. Activities will include participation in the care of hospitalized inpatients, participation in inpatient and outpatient procedures, attendance at designated attending office hours, attendance at designated orthopaedic conferences, and dissection of upper-extremity anatomical specimens.

Student time distribution: Inpatient 48%; Outpatient 47%; Conferences/ Lectures 5%; Subspecialty Care 100%

Major teaching responsibility: Richard Gelberman, MD

Patients seen/weekly: Varies

On call/weekend responsibility: Varies — generally one weekend call and two weekday calls during the rotation.

### **M95 845D / ORTHOPAEDIC HAND AND UPPER EXTREMITY SURGERY**

Instructor(s): Daniel A. Osei, MD, 314-747-2813

Location: Washington University/ Barnes-Jewish Hospital; Shriners Hospital for

Children; and St. Louis Children's Hospital; Washington University Orthopedics – Chesterfield and Center for Advanced Medicine.

Elective Contact: Kathy Jones, 314-747-2813, [jones.k@wustl.edu](mailto:jones.k@wustl.edu)

Other Information: Contact Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Clinical elective available, during which time the student will work with attending surgeons primarily at Barnes-Jewish Hospital and St. Louis Children's Hospital. The service includes care of adult and pediatric patients with traumatic, sports (arthroscopy), nerve, and degenerative disease. Activities will include participation in outpatient procedures, attendance at faculty clinic office hours, and attendance at orthopaedic conferences.

Student time distribution: Inpatient 5%; Outpatient 85%; Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Faculty attending and resident mentors

Patients seen/weekly: Varies

On call/weekend responsibility: Varies — generally one weekend call and two weekday calls during the rotation.

### **M95 845E / ORTHOPAEDIC HAND AND UPPER EXTREMITY SURGERY**

Instructor(s): Lindley B. Wall, MD, 314-362-9369

Location: Washington University/ Barnes-Jewish Hospital; Shriners Hospital for Children; and St. Louis Children's Hospital, Center for Advanced Medicine.

Elective Contact: Emily Camden, [camdene@wudosis.wustl.edu](mailto:camdene@wudosis.wustl.edu), 314-362-9369, or Kathy Jones, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), 314-747-2813.

Other Information: Students should contact Emily Camden or Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Clinical elective available, during which time the student will work with attending surgeons primarily at Barnes-Jewish Hospital, St Louis Children's Hospital, and Shriner's Hospital. The service includes care of adult and pediatric patients with congenital, traumatic, sports (arthroscopy), nerve, and degenerative disease. Activities will include participation in outpatient procedures, attendance at faculty clinic office hours, attendance at orthopaedic conferences, and dissection of upper-extremity anatomical specimens.

Student time distribution: Inpatient 5%; Outpatient 85%; Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Faculty attendings, fellow and resident mentors

Patients seen/weekly: 60+

On call/weekend responsibility: Varies — generally one weekend call and two weekday calls during the rotation.

### **M95 846 / ORTHOPAEDIC TRAUMA**

Instructor(s): William Ricci, MD and Christopher McAndrew, MD; 314-747-2811

Location: Washington University/ Barnes-Jewish Hospital; Washington University Orthopedics – Center for Advanced Medicine.

Elective Contact: Karen O'Dell, [odellk@wudosis.wustl.edu](mailto:odellk@wudosis.wustl.edu), 314-747-2811 or Kathy Jones, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), 314-747-2813.

Other Information: Students should contact Karen O'Dell or Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Clinical elective available for a four-week period, during which time the student will work in orthopaedic trauma at Barnes-Jewish Hospital. The student will work with a

team of attendings, residents, PA's, and NP's to provide care for orthopaedic trauma patients. Activities include participation in the care of hospitalized inpatients, inpatient surgical procedures, outpatient office visits and daily conferences.

Student time distribution: Inpatient 60%; Outpatient 35%; Conferences/ Lectures 5%;  
Subspecialty Care 100%

Major teaching responsibility: Faculty attendings and resident mentors

Patients seen/weekly: Varies

On call/weekend responsibility: Varies — generally one weekend call and two weekday calls during the rotation.

### **M95 848A / ORTHOPAEDIC PEDIATRIC SURGERY**

Instructor(s): Eric Gordon, MD, 314-454-2045

Location: Washington University/St. Louis Children's Hospital; Shriners Hospital for Children; Washington University Orthopedics – Chesterfield and Center for Advanced Medicine, St. Louis Children's Specialty Care Center

Elective Contact: Barb Haegele, [haegele.b@wudosis.wustl.edu](mailto:haegele.b@wudosis.wustl.edu), 314-454-2045 or Kathy Jones, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), 314-747-2813.

Other Information: Students should contact Barb Haegele or Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 25, 29, 33, 37, and 41.

Clinical elective available for four weeks during which time the student will work with attending surgeon primarily at St. Louis Children's Hospital observing and assisting in outpatient and inpatient care. To be included are activities in the OR, ER, and outpatient clinics. Attendance at and participation in the weekly pediatric orthopaedic conference activities required.

Student time distribution: Inpatient 48%; Outpatient 47%; Conferences/ Lectures 5%;  
Subspecialty Care 100%

Major teaching responsibility: Faculty attendings and resident mentors

Patients seen/weekly: Varies

On call/weekend responsibility: Varies — generally one weekend call and two weekday calls during the rotation.

### **M95 849A / ORTHOPAEDIC SPINE SURGERY IN ADULT PATIENTS**

Instructor(s): Michael Kelly, MD, 314-747-2535

Location: Washington University/ Barnes-Jewish Hospital; Washington University Orthopedics – Chesterfield and Center for Advanced Medicine.

Elective Contact: Tricia Nester, [nestert@wudosis.wustl.edu](mailto:nestert@wudosis.wustl.edu), 314-362-7140, or Kathy Jones, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), 747-2813.

Other Information: Students should contact Tricia Nester or Kathy Jones, 314-747-2813, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This clinical elective is available for four weeks during which time the student will work with the attending surgeon primarily at Barnes-Jewish Hospital observing and assisting when appropriate in outpatient and inpatient care. To be included are activities in the OR, ER, and outpatient clinics. Attendance at and participation in the weekly orthopaedic conference activities is required. The spine fellow assigned to this service will serve as a primary contributor to the student's education experience on this rotation.

Student time distribution: Inpatient 48%; Outpatient 47%; Conferences/ Lectures 5%; Subspecialty Care 100%

Major teaching responsibility: Faculty attending, spine fellow assigned to this service and resident mentors

Patients seen/weekly: Varies

On call/weekend responsibility: Varies — generally one weekend call and two weekday calls during the rotation.



## **M95 849B / ORTHOPAEDIC SPINE SURGERY IN ADULT PATIENTS**

Instructor(s): Jacob Buchowski, MD, MS, 314-747-4950

Location: Washington University/ Barnes-Jewish Hospital; Washington University Orthopedics – Chesterfield and Center for Advanced Medicine.

Elective Contact: Amy Akers, [akersa@wudosis.wustl.edu](mailto:akersa@wudosis.wustl.edu), 314-747-4950 or Kathy Jones, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), 314-747-2813.

Other Information: Students should contact Amy Akers or Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 25, 29, 33, 37, and 41.

This clinical elective is available for four weeks during which time the student will work with the attending surgeon primarily at Barnes-Jewish Hospital observing and assisting when appropriate in outpatient and inpatient care. To be included are activities in the OR, ER, and outpatient clinics. Attendance at and participation in the weekly orthopaedic conference activities is required. The spine fellow assigned to this service will serve as a primary contributor to the student's education experience on this rotation.

Student time distribution: Inpatient 48%; Outpatient 47%; Conferences/ Lectures 5%; Subspecialty Care 100%

Major teaching responsibility: Faculty attending, spine fellow assigned to this service and resident mentors

Patients seen/weekly: Varies

On call/weekend responsibility: Varies — generally one weekend call and two weekday calls during the rotation.

## **M95 855A / RECONSTRUCTIVE AND JOINT PRESERVATION SURGERY**

Instructor(s): Robert L. Barrack, MD, 314-747-2562

Location: Washington University/ Barnes-Jewish Hospital; Washington University Orthopedics – Chesterfield and Center for Advanced Medicine.

Elective Contact: Christine Cucchi, [cucchic@wudosis.wustl.edu](mailto:cucchic@wudosis.wustl.edu), 314-747-2562 or Kathy

Jones, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), 314-747-2813.

Other Information: Students should contact Christine Cucchi or Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Clinical elective available, during which time the student will work with the attending physician on the Adult Reconstruction and Joint Preservation/Replacement service. This rotation is primarily centered at Barnes-Jewish Hospital and includes care of hospitalized inpatients, participant in inpatient and outpatient procedures, attendance at designated office hours, and attendance at and participation in orthopaedic educational conferences and anatomy sessions.

Student time distribution: Inpatient 48%; Outpatient 47%; Conferences/ Lectures 5%; Subspecialty Care 100%

Major teaching responsibility: Faculty attendings, fellow and resident mentors

Patients seen/weekly: Varies

On call/weekend responsibility: Varies — generally one weekend call and two weekday calls during the rotation.

### **M95 855B / RECONSTRUCTIVE AND JOINT PRESERVATION SURGERY**

Instructor(s): John C. Clohisy, MD, 314-747-2566

Location: Washington University/ Barnes-Jewish Hospital; Shriners Hospital for Children; Washington University Orthopedics – Chesterfield and Center for Advanced Medicine.

Elective Contact: Debbie Long, [longd@wudosis.wustl.edu](mailto:longd@wudosis.wustl.edu), 314-747-2566 or Kathy Jones, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), 314-747-2813.

Other Information: Students should contact Debbie Long or Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 25, 29, 33, 37, and 41.

Clinical elective available, during which time the student will work with the attending physician on the Adult Reconstruction and Joint Preservation/Replacement service. This rotation is primarily centered at Barnes-Jewish Hospital and includes care of hospitalized inpatients, participant in inpatient and outpatient procedures, attendance at designated office hours, and attendance at and participation in orthopaedic educational conferences and anatomy sessions.

Student time distribution: Inpatient 48%; Outpatient 47%; Conferences/ Lectures 5%; Subspecialty Care 100%

Major teaching responsibility: Faculty attendings, fellow and resident mentors

Patients seen/weekly: Varies

On call/weekend responsibility: Varies — generally one weekend call and two weekday calls during the rotation.

### **M95 855C / RECONSTRUCTIVE AND JOINT PRESERVATION SURGERY**

Instructor(s): Ryan M. Nunley, MD, 314-747-2523

Location: Washington University/ Barnes-Jewish Hospital; VA Hospital; Washington University Orthopedics – Chesterfield

Elective Contact: Melissa Stanley, [stanleym@wudosis.wustl.edu](mailto:stanleym@wudosis.wustl.edu), 314-747-2523 or Kathy Jones, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), 314-747-2813.

Other Information: Students should contact Melissa Stanley or Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 25, 29, 33, 37, and 41.

Clinical elective available, during which time the student will work with the attending physician on the Adult Reconstruction and Joint Preservation/Replacement service. This rotation is primarily centered at Barnes-Jewish Hospital and includes care of young patients with hip impingement pathology and older patients with end stage joint arthritis, hospitalized inpatients, participant in inpatient and outpatient

procedures, attendance at designated office hours, and attendance at and participation in orthopaedic educational conferences and anatomy sessions.

Student time distribution: Surgical 60%; Clinics 30%; Conferences/ Lectures 10%;  
Subspecialty Care 100%

Major teaching responsibility: Faculty attendings, fellow and resident mentors

Patients seen/weekly: 40-60 patients in clinic, 8-12 surgeries

On call/weekend responsibility: Varies — generally one weekend call and two weekday calls during the rotation.

### **M95 855D / RECONSTRUCTIVE AND JOINT PRESERVATION SURGERY**

Instructor(s): Denis Nam, MD, MSc

Location: Washington University/Barnes-Jewish Hospital; Washington University  
Orthopedics – Chesterfield

Elective Contact: Kelly Barriger, [barrigerk@wudosis.wustl.edu](mailto:barrigerk@wudosis.wustl.edu), or Kathy Jones,  
[jones.k@wustl.edu](mailto:jones.k@wustl.edu)

Other Information: Student should contact either Kelly Barriger or Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 25, 29, 33, 37, and 41.

This clinical elective is available for four weeks during which the student participates in orthopaedic conferences, outpatient clinics, surgical cases, and patient rounds on the Reconstructive and Joint Preservation Surgery service.

Student time distribution: Inpatient 45%; Outpatient 45%; Conferences/Lectures 10%;  
Subspecialty Care 100%

Major teaching responsibility: Faculty attendings, fellows, and resident mentors

Patients seen/weekly: 120

On call/weekend responsibility: Varies – generally one weekend call and two weekday calls during each rotation.

## **M95 859 / ORTHOPAEDIC ONCOLOGY**

Instructor(s): Douglas J. McDonald, MD, 314-747-2563

Location: Washington University/ Barnes-Jewish Hospital; Center for Advanced Medicine.

Elective Contact: Carrie Heineman, [heinemanc@wudosis.wustl.edu](mailto:heinemanc@wudosis.wustl.edu), 314-747-2563 or Kathy Jones, [jones.k@wustl.edu](mailto:jones.k@wustl.edu), 314-747-2813.

Other Information: Students should contact Carrie Heineman or Kathy Jones prior to the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 25, 29, 33, 37, and 41.

This clinical elective, centered primarily at Barnes-Jewish Hospital, is available for four weeks during which the student participates in orthopaedic conferences, outpatient clinics, surgical cases, and patient rounds on the Musculoskeletal Oncology service.

Student time distribution: Inpatient 48%; Outpatient 47%; Conferences/ Lectures 5%; Subspecialty Care 100%

Major teaching responsibility: Douglas J. McDonald, MD

Patients seen/weekly: Varies

On call/weekend responsibility: Varies — generally one weekend call and two weekday calls during the rotation.

## **M95 8991 / ORTHOPAEDIC SURGERY EXTERNSHIP (Visiting Students Only)**

Instructor(s): Rick Wright, MD; Martin I. Boyer, MD; Jacob Buchowski, MD; Charles A. Goldfarb, MD; Ryan P. Calfee, MD; Eric Gordon, MD; Jay Keener, MD; Douglas McDonald, MD; Ryan Nunley, MD; Sandra Klein, MD; John C. Clohisy, MD; Scott Luhmann, MD; and Denis Nam, MD

Location: Washington University/ Barnes-Jewish Hospital; Washington University Orthopedics – Chesterfield and Center for Advanced Medicine.

Elective Contact: Heather Robinson, [robinsonh@wudosis.wustl.edu](mailto:robinsonh@wudosis.wustl.edu), 314-747-2996.

Other Information: Students meet in the Education Office, 8:30 a.m. first day of the

elective.

Enrollment limit per period: Varies

Flexible scheduling is available for this externship.

Students rotate on Orthopaedic Services in four-week blocks. During their rotations students are assigned to two different services for two weeks each. Some subspecialties that students may rotate on include sports medicine, hand and upper extremity, foot and ankle, musculoskeletal oncology, adult reconstructive surgery, pediatric orthopaedics, shoulder and elbow, and spine.

Student time distribution: Inpatient 48%; Outpatient 47%; Conferences/ Lectures 5%; Subspecialty Care 100%

Major teaching responsibility: Faculty attendings and resident mentors

Patients seen/weekly: Varies

On call/weekend responsibility: Varies — generally one weekend call and two weekday calls during the rotation.

## Research — Orthopaedic Surgery

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ORTHOPAEDIC SURGERY RESEARCH OPPORTUNITIES (M95 900)

Various orthopaedic surgery research opportunities are available with the following faculty attendings. If interested, please contact the Education Office at 314-747-2543, [orthosurg@wudosis.wustl.edu](mailto:orthosurg@wudosis.wustl.edu) or contact the faculty member directly.

Yousef Abu-Amer, PhD

Robert L. Barrack, MD

Robert Brophy, MD

Jacob M. Buchowski, MD, MS

Ryan Calfee, MD

Aaron Chamberlain, MD

John Clohisy, MD

Matthew Dobbs, MD

Richard H. Gelberman, MD

Charles A. Goldfarb, MD

Eric Gordon, MD

Munish Gupta, MD

Michael Kelly, MD

Sandra Klein, MD

Scott J. Luhmann, MD

Matthew J. Matava, MD

Chris McAndrew, MD

Mark Miller, MD

Jeff Nepple, MD

Regis O'Keefe, MD

Daniel Osei, MD

Linda Sandell, PhD

Perry Schoenecker, MD

Matt Silva, PhD

Matthew Smith, MD

Lindley B. Wall, MD

Rick Wright, MD

## Faculty — Orthopaedic Surgery

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Regis James O'Keefe, MD, PHD Fred C Reynolds Professor of Orthopaedic Surgery (primary

appointment)

**Head of the Department of Orthopaedic Surgery**

MD Harvard University 1985

BA Yale University 1981

PHD University of Rochester 2000

**Yousef Abu-Amer, MS** Professor of Orthopaedic Surgery (primary appointment)

**Professor of Cell Biology and Physiology**

BS Hebrew University 1985

MS Hebrew University 1987

Muyibat A Adelani **Assistant Professor of Orthopaedic Surgery** (primary appointment)

**Alexander William Aleem, MD** Assistant Professor of Orthopaedic Surgery (Pending Executive Faculty Approval) (primary appointment)

MD Washington Univ in St. Louis 2010

BS Johns Hopkins University 2006

**Robert L Barrack, MD** Charles F and Joanne Knight Distinguished Professor of Orthopaedic Surgery (primary appointment)

MD Vanderbilt University 1980

**Donald R Bassman, MD** Instructor in Clinical Orthopaedic Surgery (primary appointment)

BA Washington Univ in St. Louis 1971

MD Washington Univ in St. Louis 1975

**Terra Rupert Blatnik, MD** Assistant Professor of Orthopaedic Surgery (primary appointment)

MD Case Western Reserve Univ 2007

BS Allegheny College 2003

**Ljiljana Bogunovic, MD** Assistant Professor of Orthopaedic Surgery (primary appointment)

MD Cornell University 2009

**Martin I Boyer, MS** Carol B and Jerome T Loeb Professor of Orthopaedic Surgery (primary appointment)

MS University of Toronto 1993

**Keith Happ Bridwell** J Albert Key Distinguished Professor of Orthopaedic Surgery (primary appointment)

**Professor of Neurological Surgery**

BA Washington Univ in St. Louis 1973

**Robert Henry Brophy IV, MS, MD** Associate Professor of Orthopaedic Surgery (primary appointment)

BS Stanford University 1994

MS Stanford University 1995

MD Washington Univ in St. Louis 2001

BA Stanford University 1994

**Jacob M Buchowski, MD, MS** Professor of Orthopaedic Surgery (primary appointment)

**Professor of Neurological Surgery**

BS Yale University 1996

MD Johns Hopkins University 2000

MS Yale University 1996

**Cheryl Ann Caldwell, DPT, MHS** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

BS University of Colorado Boulder 1976

DPT Washington Univ in St. Louis 2002

MHS Washington Univ in St. Louis 1988



**Ryan Patrick Calfee, MD** Associate Professor of Orthopaedic Surgery (primary appointment)

BS University of Virginia 1997

MD Washington Univ in St. Louis 2001

**Aaron Mark Chamberlain, B MUS** Assistant Professor of Orthopaedic Surgery (primary appointment)

B MUS University of Utah 2002

**Cara Alessandra Cipriano, MD** Assistant Professor of Orthopaedic Surgery (primary appointment)

MD University of Pennsylvania 2007

BS Williams College 2003

**Roberto Civitelli, MD** Sydney M and Stella H Schoenberg Professor of Medicine (primary appointment)

**Professor of Orthopaedic Surgery**

**Professor of Cell Biology and Physiology**

BS University of Siena 1980

MD University of Siena 1980

**John C Clohisy, MD** Daniel C. and Betty B. Viehmann Distinguished Professor of Orthopaedic Surgery (primary appointment)

MD Northwestern University 1989

**Berdale S. Colorado, MS, DOST** Assistant Professor of Orthopaedic Surgery (primary appointment)

**Assistant Professor of Neurology**

MS Des Moines Universtiy 2009

DOST Des Moines Universtiy 2009

BS University of Iowa 2004

**Suzanne Marie Cornbleet, MA, DPT** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

MA Washington Univ in St. Louis 1987

BS University of Colorado Boulder 1975

DPT Washington Univ in St. Louis 2003

**Sylvia Lin Czuppon** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Ryan Michael DeGeeter, DPT** Instructor in Physical Therapy (primary appointment)

**Instructor in Orthopaedic Surgery**

BS Ball State University 2007

DPT Washington Univ in St. Louis 2010

**Matthew Barrett Dobbs, MD** Dr Asa C and Mrs Dorothy W Jones Professorship in Orthopaedic Surgery (primary appointment)

MD University of Iowa 1995

**Robert Kelso Duddy** Instructor in Clinical Orthopaedic Surgery (primary appointment)

**Christopher J. Dy, M PH** Assistant Professor of Orthopaedic Surgery (primary appointment)

M PH University of Miami 2008

BS University of Miami 2004

**Jack R. Engsborg, PHD, MS** Professor of Occupational Therapy (primary appointment)

**Professor of Neurological Surgery**

**Professor of Orthopaedic Surgery**

BS Univ of Wisconsin La Crosse 1973

PHD University of Iowa 1985

MS Univ of Wisconsin La Crosse 1978

MS1 Univ of Wisconsin La Crosse 1979

**Kelly Eileen Estes, MD, MPH, MS** Assistant Professor of Orthopaedic Surgery (Pending Executive Faculty Approval) (primary appointment)

MD Wright State University 2012

BS Kalamazoo College 2005

MPH Wright State University 2012

MS Columbia University 2016

Lawrence Glennon Evans Jr Instructor in Orthopaedic Surgery (primary appointment)

**Roberta Faccio, PHD** Professor of Orthopaedic Surgery (primary appointment)

Professor of Cell Biology and Physiology

PHD University of Bari 2000

**Richard H Gelberman, MD** Professor of Orthopaedic Surgery (primary appointment)

BA University of North Carolina 1965

MD University of Tennessee 1969

**Charles A Goldfarb, MD** Professor of Orthopaedic Surgery (primary appointment)

BA Williams College 1992

MD University of Alabama 1996

**J. Eric Gordon, MD** Professor of Orthopaedic Surgery (primary appointment)

MD University of CA Davis 1988

**Farshid Guilak, MS, MPH** Professor of Orthopaedic Surgery (primary appointment)

Professor of Development Biology

Professor of Biomedical Engineering

MS Rensselaer Poly Institute 1987

MPH Columbia University 1990

BS Rensselaer Poly Institute 1985

**Munish C Gupta, MD** Mildred B. Simon Distinguished Professor of Orthopaedic Surgery (primary appointment)

BS Northwestern University 1982

MD Northwestern University Med 1986

**Christina A. Gurnett, PHD, MD** Associate Professor of Neurology (primary appointment)

Associate Professor of Orthopaedic Surgery

Assistant Professor of Pediatrics

PHD University of Iowa 1998

BS University of Notre Dame 1991

MD University of Iowa 1998

**Mark E. Halstead, MD** Associate Professor of Orthopaedic Surgery (primary appointment)

Associate Professor of Pediatrics

BS Univ of Wisconsin Madison 1994

MD Univ of Wisconsin Madison 1998

**Michael Dennison Harris** Assistant Professor of Physical Therapy (primary appointment)

Assistant Professor of Orthopaedic Surgery

BS University of Utah 2007

**Mary Kent Hastings, MS, DPT** Associate Professor of Physical Therapy (primary appointment)

Associate Professor of Orthopaedic Surgery

MS Washington Univ in St. Louis 1993

BS University of Illinois 1990

DPT Washington Univ in St. Louis 2002

**Marcie Harris Hayes, MS, DPT** Associate Professor of Physical Therapy (primary appointment)

Associate Professor of Orthopaedic Surgery

BS Southwest Missouri St University 1994

MS Northwestern University 1996

DPT Washington Univ in St. Louis 2003

**Damon Joseph Louis Hays, MD**Instructor in Clinical Orthopaedic Surgery (primary appointment)

BS Truman State University 1998

MD Ohio University 2003

**Nilsson Holguin, MS, PHD**Instructor in Orthopaedic Surgery (primary appointment)

MS Stony Brook University 2007

PHD Stony Brook University 2010

**Gregory William Holtzman, MS, DPT**Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Associate Director of Clinical Practice in Physical Therapy**

BA Emory University 1995

MS Washington Univ in St. Louis 2001

DPT Washington Univ in St. Louis 2007

**Pooya Hosseinzadeh**Assistant Professor of Orthopaedic Surgery (Pending Executive Faculty Approval) (primary appointment)

**Devyani M. Hunt, MD**Associate Professor of Orthopaedic Surgery (primary appointment)

**Associate Professor of Neurology**

MD University of Texas Houston 2000

BS University of Texas Austin 1995

**Renee A. Ivens, DPT, MHS**Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

BS Maryville University 1984

DPT Washington Univ in St. Louis 2006

MHS Washington Univ in St. Louis 1996

**Jeffrey E Johnson, MD**Professor of Orthopaedic Surgery (primary appointment)

MD Georgetown University 1980

BA Duke University 1976

**Jay Donovan Keener, MD**Associate Professor of Orthopaedic Surgery (primary appointment)

BS West Virginia University 1991

MD West Virginia University 1998

**Brian Adams Kelly, MD**Assistant Professor of Orthopaedic Surgery (Pending Executive Faculty Approval) (primary appointment)

MD Columbia University 2009

BA Williams College 2002

**Michael Patrick Kelly, MD**Assistant Professor of Orthopaedic Surgery (primary appointment)

**Assistant Professor of Neurological Surgery**

BS Boston College 1999

MD University of Massachusetts 2005

**Lynnette C Khoo-Summers, MS, DPT**Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

MS Washington Univ in St. Louis 1998

DPT Washington Univ in St. Louis 2008

BA Colorado St University 1990

**Sandra E. Klein, BE, MD**Associate Professor of Orthopaedic Surgery (primary appointment)

BE University of Missouri 1994

MD Washington Univ in St. Louis 2001

**Robert S Kramer, MD**Instructor in Clinical Orthopaedic Surgery (primary appointment)

BA Harvard University 1979

MD Washington Univ in St. Louis 1983

**Adam J. LaBore, MD**Associate Professor of Orthopaedic Surgery (primary appointment)

**Associate Professor of Neurology**

MD Loyola University Chicago 1998

BS Louisiana College 1994

**Robert Craig Lander, MD**Instructor in Clinical Orthopaedic Surgery (primary appointment)

MD University of Illinois 1972

BA University of Michigan 1968

**Vanessa Mae Lanier**Instructor in Physical Therapy (primary appointment)

**Instructor in Orthopaedic Surgery**

BS Washington Univ in St. Louis 2007

**Fanxin Long, PHD**Professor of Orthopaedic Surgery (primary appointment)

**Professor of Developmental Biology**

**Professor of Medicine**

PHD Tufts University 1997

**Scott J Luhmann, MD**Professor of Orthopaedic Surgery (primary appointment)

MD University of Minnesota 1991

BA Gustavus Adolphus College 1986

**Jeffrey Wackher Martin, MD**Associate Professor in Orthopaedic Surgery (Pending Executive Faculty Approval) (primary appointment)

MD Case Western Reserve Univ 1981

**Matthew J Matava, MD**Professor of Orthopaedic Surgery (primary appointment)

**Professor of Physical Therapy**

BA University of MO Kansas City 1986

MD University of MO Kansas City 1987

**Audrey McAlinden, PHD**Associate Professor of Orthopaedic Surgery (primary appointment)

**Associate Professor of Cell Biology and Physiology**

PHD University of London 1998

**Steven Joseph McAnany, MD**Assistant Professor of Orthopaedic Surgery (Pending Executive Faculty Approval) (primary appointment)

MD Mount Sinai School of Medicine 2010

**Christopher M McAndrew, MD**Assistant Professor of Orthopaedic Surgery (primary appointment)

MD University of Tennessee 2004

**Sarah Howe McBride, PHD, MS**Adjunct Instructor in Orthopaedic Surgery (primary appointment)

BS Clemson University 2004

PHD Case Western Reserve Univ 2011

MS Case Western Reserve Univ 2008

**Jeremy James McCormick, MD**Assistant Professor of Orthopaedic Surgery (primary appointment)

MD Loyola University Chicago 2003

BS Dartmouth College 1999

**Douglas J. McDonald, MD**Professor of Orthopaedic Surgery (primary appointment)

BS St Johns University 1978

MD University of Minnesota 1982

**Debra Ann McDonnell, MS, DPT, AS**Associate Professor of Emergency Medicine in Medicine

(primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Associate Professor of Physical Therapy**

BS Washington Univ in St. Louis 1990

MS Washington Univ in St. Louis 1990

DPT Washington Univ in St. Louis 2005

AS Oakton Community College 2000

**Mary Kate McDonnell, DPT, MHS** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Associate Director of Residencies and Fellowships in Physical Therapy**

BS Saint Louis University 1981

DPT Washington Univ in St. Louis 2003

MHS Washington Univ in St. Louis 1985

Patricia Navarro McGee **Assistant Professor of Physical Therapy** (primary appointment)

**Assistant Professor of Orthopaedic Surgery**

**John P Metzler** Associate Professor of Orthopaedic Surgery (primary appointment)

**Associate Professor of Neurology**

BS Texas A&M University 1991

**Gretchen Ann Meyer, PHD, MS** Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Neurology**

**Assistant Professor of Orthopaedic Surgery**

PHD University of CA San Diego 2011

BS Washington Univ in St. Louis 2004

MS Washington Univ in St. Louis 2004

**Anna Noel Miller, MD** Associate Professor of Orthopaedic Surgery (Pending Executive Faculty Approval) (primary appointment)

BA Rice University 2001

MD Baylor University 2005

**Gary Arthur Miller, MD** Associate Professor of Orthopaedic Surgery (primary appointment)

MD Jefferson Medical College 1977

BA University of Chicago 1973

**Mark L. Miller, BE** Assistant Professor of Orthopaedic Surgery (primary appointment)

BE Stanford University 2004

**Jeffrey Jerome Nepple** Assistant Professor of Orthopaedic Surgery (primary appointment)

BS Truman State University 2003

**Ryan M. Nunley, MD** Associate Professor of Orthopaedic Surgery (primary appointment)

MD University of North Carolina 2002

BA Vanderbilt University 1998

Daniel Akwasi Osei **Assistant Professor of Orthopaedic Surgery** (primary appointment)

**Debabrata Patra, PHD, MS** Assistant Professor of Orthopaedic Surgery (primary appointment)

BS University of Bombay 1985

PHD University of Pittsburgh 1993

MS University of Bombay 2005

**Terrence L Piper, MD** Assistant Professor of Clinical Orthopaedic Surgery (primary appointment)

BA Saint Louis University 1971

MD Saint Louis University 1975

**Heidi Prather, DOST** Professor of Orthopaedic Surgery (primary appointment)

**Professor of Neurology**

DOST Univ of Health Sciences KC 1991

BA Drury College 1987

**Muhammad Farooq Rai, PHD** Assistant Professor of Orthopaedic Surgery (primary appointment)

PHD Freie University 2008

Wilson Z Ray Assistant Professor of Neurological Surgery (primary appointment)

**Assistant Professor of Orthopaedic Surgery**

**William M Ricci, MD** Professor of Orthopaedic Surgery (primary appointment)

MD Duke University 1992

BS Duke University 1986

**Elizabeth Yanik Rowlands, PHD, MD** Assistant Professor of Orthopaedic Surgery (Pending Executive Faculty Approval) (primary appointment)

PHD University of North Carolina 2013

BS University of Maryland 2007

MD Johns Hopkins University 2009

**Linda J Sandell, PHD, MS** Mildred B Simon Research Professor of Orthopaedic Surgery (primary appointment)

**Professor of Cell Biology and Physiology**

PHD Northwestern University 1980

MS University of Denver 1971

**Paul Santiago, MD** Professor of Neurological Surgery (primary appointment)

**Professor of Orthopaedic Surgery**

BS Stanford University 1990

MD Yale University 1995

**Perry Lee Schoenecker, MD** Professor of Orthopaedic Surgery (primary appointment)

BS Univ of Wisconsin Madison 1964

MD Univ of Wisconsin Madison 1968

**Hua Shen, MS, PHD** Instructor in Orthopaedic Surgery (primary appointment)

MS Chinese Academy of Med Science 1996

PHD University of Konstanz 2002

**Jie Shen, MS, PHD** Assistant Professor of Orthopaedic Surgery (primary appointment)

MS University of Rochester 2011

PHD University of Rochester 2012

BS Nanjing University 2005

**John Joseph Sheridan, MD** Instructor in Clinical Orthopaedic Surgery (primary appointment)

MD Washington Univ in St. Louis 1969

**Matthew J Silva, ME, PHD** Julia and Walter R Peterson Professor of Orthopaedic Research (primary appointment)

**Assistant Professor of Biomedical Engineering**

ME Cornell University 1984

PHD Mass Inst of Technology (MIT) 1996

BS Cornell University 1982

**Matthew Vernon Smith, MD** Assistant Professor of Orthopaedic Surgery (primary appointment)

MD Virginia Comm University 2002

**Nancy Bloom Smith, DPT** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

DPT Washington Univ in St. Louis 2002

BS Washington Univ in St. Louis 1984

BA University of Virginia 1976



**Jennifer Mae Strahle, MD** Asst Prof of Neurological Surgery (primary appointment)

**Asst Prof of Orthopaedic Surgery**

**Asst Prof of Pediatrics**

MD University of Minnesota 2008

BS Bates College 2002

**James W Strickland, MD** Visiting Professor of Orthopaedic Surgery (primary appointment)

BS Indiana University Bloomington 1958

MD Indiana University 1962

**Chi-Tsai Tang** Assistant Professor of Orthopaedic Surgery (primary appointment)

**Assistant Professor of Neurology**

**Simon Tang, PHD, MS** Assistant Professor of Orthopaedic Surgery (primary appointment)

PHD Rensselaer Poly Institute 2007

BS University of CA Berkeley 2003

MS Rensselaer Poly Institute 2005

**Stacy Lynne Tylka, DPT, MS** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Associate Professor of Obstetrics and Gynecology**

BS Saint Louis University 2000

DPT Washington Univ in St. Louis 2009

MS Saint Louis University 2002

**Linda R Van Dillen, MS, PHD** Professor of Physical Therapy (primary appointment)

**Professor of Orthopaedic Surgery**

**Associate Director of Musculoskeletal Research in Physical Therapy**

MS Washington Univ in St. Louis 1985

BS University of Missouri 1979

PHD Washington Univ in St. Louis 1994

**Harry John Visser** Instructor in Clinical Orthopaedic Surgery (primary appointment)

**Lindley Bevelle Wall, MD** Assistant Professor of Orthopaedic Surgery (primary appointment)

MD Washington Univ in St. Louis 2006

BS Duke University 2002

**Pamela M. Wendl, DPT** Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Orthopaedic Surgery**

BS North Park College 1991

DPT Washington Univ in St. Louis 2007

**Neill Marshall Wright, MD** Herbert Lourie Professor of Neurological Surgery (primary appointment)

**Professor of Orthopaedic Surgery**

MD University of California 1993

**Rick Wayne Wright, MD** Jerome J Gilden MD Distinguished Professor of Orthopaedic Surgery (primary appointment)

BS University of Missouri 1984

MD University of Missouri 1988

**Ken Yamaguchi, MD, MS** Professor of Orthopaedic Surgery (primary appointment)

MD George Washington University 1989

BA University of California 1983

MS University of California 1985

**Lukas P Zebala, MD** Assistant Professor of Orthopaedic Surgery (primary appointment)

**Assistant Professor of Neurological Surgery**

BS Northwestern University 1998

MD University of Chicago 2004

No entries found

# Department of Otolaryngology

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Otolaryngology is presented to students in the first-, second-, third- and fourth-year classes. Physical diagnosis skills are taught in the first year. Clinically oriented lectures and a physical diagnosis workshop are presented to second-year students. In the third year of the medical curriculum, four-week elective rotations on one of the services in East Pavilion, the St. Louis VA Medical Center — John Cochran Division or St. Louis Children's Hospital are offered. During this period, there is teaching at the bedside, in the operating room and in the clinic, supplemented by daily afternoon lectures, Grand Rounds on Wednesdays and an introduction to audiology.

Fourth-year students interested in ENT as a specialty may take a two- to four-week elective designed to give them exposure to patient care, both in the outpatient clinic and the operating room and postoperative setting. An additional four-week elective that provides comprehensive ambulatory experience is offered to students headed for primary care.

## **CID at Washington University School of Medicine**

The consortium of graduate-education, research and clinical programs known today as CID at Washington University School of Medicine was born out of the pioneering efforts of St. Louis physician Max Goldstein, MD. In 1914, he founded the Central Institute for the Deaf (CID), where doctors and teachers worked together to help deaf people. When CID's school building opened two years later, its auditory/oral methods for instructing deaf children were groundbreaking.



Washington University and CID first joined forces in 1931, when CID's established teacher training program became the first deaf education undergraduate program to affiliate with a university. Graduate programs in deaf education, audiology, and speech and hearing sciences soon followed.

CID's research efforts began in the 1930s to study the anatomy and science of hearing. During World War II, CID's research on hearing loss in military personnel laid the foundation for the field of audiology. CID also pioneered hearing testing and hearing aids and opened the country's first hearing aid clinic in 1941. In September 2003, a new affiliation transferred CID's graduate degree programs, research programs and adult audiology clinic, along with its building, to Washington University School of Medicine. The CID school continues to operate on the School of Medicine campus as CID — Central Institute for the Deaf.

Today, these programs continue to work together to fulfill a shared mission to serve people with hearing loss.

## For more information

Please visit the [Department of Otolaryngology website](#) for more information.

# MD Courses — Otolaryngology

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## First year

### OTOLARYNGOLOGY CLINICAL SKILLS

Instructor: Joseph P. Bradley, MD, 996-3869

This course consists of nine introductory lectures on common diseases of the head and neck, including voice disorders, head and neck cancer, hearing loss, management

of vertigo, pediatric otolaryngology, salivary gland disorders, sinusitis, otolaryngologic emergencies and facial trauma. Additionally, there is a case-based roundtable focusing on otolaryngology disorders affecting the geriatric population and the involvement of allied health care disciplines in the evaluation and management of these patients. Each lecture is highlighted by case presentations and treatment options in addition to pathophysiology. This course follows the physical examination practicum given earlier in the academic year.

## Second year

### **M55 660B CLINICAL TOPICS IN OTOLARYNGOLOGY**

Instructor: Joseph Bradley, MD, 362-6599

This course consists of eight introductory lectures on common diseases of the head and neck, including head and neck carcinoma, hearing loss, vertigo, neck masses, pediatric otolaryngology, salivary gland disorders, sinusitis, otolaryngologic emergencies and facial fractures. Each lecture is highlighted by case presentations and treatment options in addition to pathophysiology. This course follows the physical examination practicum given earlier in the academic year.

## Fourth year

### **Electives**

#### **M55 801 / OTOLARYNGOLOGY**

Instructor(s): Andrew Drescher, MD, 314-747-3742

Location: 805 F

Elective Contact: Carmen Horn,  
314-747-3742, [horn\\_c@ent.wustl.edu](mailto:horn_c@ent.wustl.edu)

Other Information: Students considering a career in otolaryngology should speak to Dr. Drescher prior to scheduling this elective. Prior to first day of elective student should contact Dr. Drescher to discuss options of elective and to ascertain starting time and location.

Enrollment limit per period: Limit 3/period for Weeks: 1, 5; Limit 2/period for Weeks: 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Four-week rotation includes evaluation of ENT problems presented to specialist for diagnosis and treatment. The student participates in the clinic, hospital, and operating room. This also includes time on the Pediatric ENT Service, Audiology, Voice Laboratory, and Vestibular Evaluation Laboratory. Option of rotation on the ENT Service at VAMC is available.

Student time distribution: Inpatient 40%; Outpatient 40%; Conferences/Lectures 20%; Primary Care 20%; Subspecialty Care 80%

Major teaching responsibility: Attendings and residents

Patients seen/weekly: 50

On call/weekend responsibility: Every fourth day

### **M55 802 / GENERAL OTOLARYNGOLOGY**

Instructor(s): Andrew Drescher, MD, 314-747-3742

Location: 805 F

Elective Contact: Carmen Horn,  
314-747-3742, [horn\\_c@ent.wustl.edu](mailto:horn_c@ent.wustl.edu)

Other Information: Students considering a career in otolaryngology should speak to Dr. Drescher prior to scheduling this elective. Prior to first day of elective student should contact Dr. Drescher to discuss options of elective and to ascertain starting time and location.

Enrollment limit per period: 1

Valid start weeks for two-week blocks are: Weeks 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, and 43.

This two-week elective is an extremely flexible program consisting of several options:

- General Ear, Nose and Throat Service: Student functions as a junior resident at either Barnes-Jewish Hospital or John Cochran VA Medical Center. At Barnes-

Jewish Hospital participation in clinic, hospital inpatient, and operating room settings would expose student to a broad spectrum of patients. At the VA Hospital the emphasis would be on head and neck tumors.

- Head and Neck Service—Barnes-Jewish Hospital: Student functions as junior resident on ENT hospital floor with great deal of exposure to head and neck surgery.
- Pediatric Otolaryngology—St. Louis Children's Hospital: Student participates as a junior resident, involved in pre- and postoperative surgical care as well as outpatient medical care.
- Preceptorships: Student is assigned to a private practitioner's office functioning in his/her office as well as hospital service.

Other options can be entertained and formulated according to the student's particular needs. Students participating in this elective will be required to spend an afternoon or morning in the Audiology/Vestibular Laboratory learning fundamentals of audiological and vestibular evaluation. Attendance at Monday afternoon conferences as well as Grand Rounds on Wednesday mornings is expected.

Student time distribution: Inpatient 20%; Outpatient 70%; Conferences/Lectures 10%;  
Primary Care 40%; Subspecialty Care 60%

Major teaching responsibility: Attendings and residents

Patients seen/weekly: 60

On call/weekend responsibility: None

### **M55 803 / PEDIATRIC OTOLARYNGOLOGY**

Instructor(s): David W. Molter, MD, 314-454-2136

Location: 3S35 St. Louis Children's Hospital

Elective Contact: Patty Tampow, 314-454-2136

Other Information: Students should report to 3S35, St. Louis Children's Hospital, 8:00 a.m. first day of elective.

Enrollment limit per period: 2

This course is offered as either a two- or four-week rotation.

Valid start weeks for two-week or four-week blocks are: Weeks 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41 and 43.

The student will actively participate in the clinical office, inpatient consultations, and surgery with the attending staff at St. Louis Children's Hospital. Care would be taken to provide experience in the common problems one would see in primary care pediatrics or family practice. Participation in sub-specialty/multidisciplinary clinics such as the Cleft and Craniofacial clinic is encouraged. Opportunity will be provided to learn the fundamentals of audiological evaluation. Students participating in this elective will attend academic conferences in both the pediatric and adult divisions.

Student time distribution: Inpatient 50%; Outpatient 40%; Conferences/ Lectures 10%; Primary Care 30%; Subspecialty care 70%

Major teaching responsibility: Attending physician and residents

Patients seen/weekly: 100

On call/weekend responsibility: At student's discretion

### **M55 820 / PRACTICUM IN ADULT CLINICAL AUDIOLOGY**

Instructor(s): Michael Valente, PhD, 314-362-7489

Location: 11th Floor, Center for Advanced Medicine (CAM)

Elective Contact: Michael Valente, PhD, 314-362-7489

Other Information: Students should contact Dr. Valente to schedule this elective.

Enrollment limit per period: 8

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Guidance provided in the administration and interpretation of audiometric tests. Emphasis on defining the severity of auditory dysfunction in addition to identifying sites of pathological processes. Theoretical bases of acoustics, anatomy and physiology, and electronics reviewed as they relate to auditory assessment. Modification of conventional test paradigms and hearing aid procedures covered

according to each student's interests and needs.

Student time distribution: Inpatient 10%; Outpatient 80%; Conferences/ Lectures 10%;

Primary Care 50%; Subspecialty Care 50%

Major teaching responsibility: Audiology staff

Patients seen/weekly: 120

On call/weekend responsibility: None

### **M55 831 / NEUROTOLOGY**

Instructor(s): Joel Goebel, MD, FACS, 314-747-0553

Location: 9th Floor McMillan

Elective Contact: Maria Harrington, 314-747-0553

Other Information: Students should contact Dr. Goebel if interested in this elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Active student participation in the physical exam, advanced testing, and management of patients with balance dysfunction. Attend patient clinic two days a week and test patients on ENG, rotary chair, and computerized platform three days a week. Research participation welcome with prior arrangements.

Student time distribution: Outpatient 80%; Conferences/Lectures 20%; Primary Care

10%; Subspecialty Care 90%

Major teaching responsibility: Attending

Patients seen/weekly: 40

On call/weekend responsibility: None

### **M55 833 / AMBULATORY OTOLARYNGOLOGY FOR THE PRIMARY CARE PHYSICIAN**

Instructor(s): Andrew Drescher, MD, 314-747-3742

Location: Barnes-Jewish Hospital and St. Louis Children's Hospital clinics

Elective Contact: Carmen Horn, 314-747-3742, [hornc@ent.wustl.edu](mailto:hornc@ent.wustl.edu)

Other Information: Students should contact Carmen, 314-747-3742, prior to the start of this elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This course offers a four-week exposure to ambulatory care of patients with diseases of the head and neck. Eight half-day sessions per week will be offered in attending clinics for general otolaryngology, head and neck cancer, otology, and pediatric otolaryngology. Two half-day sessions are reserved for audiology, vestibular lab, and voice lab experience. Surgical exposure is available for selected cases as identified by the student and attending physician, but the main goal of this rotation is outpatient diagnosis and management.

Student time distribution: Outpatient 100%; Primary Care 50%; Subspecialty Care 50%

Major teaching responsibility: Attendings and residents

Patients seen/weekly: >100

On call/weekend responsibility: None

## Research — Otolaryngology

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### OTOLARYNGOLOGY RESEARCH OPPORTUNITIES (M55 900)

The type of research will depend upon the current phase of the research program in each laboratory. Students should contact the director of each laboratory to negotiate.

Pablo M Blazquez, PhD

4566 Scott Avenue, East McDonnell Science Building

314-362-1013

Role of the vestibulo-cerebellum and its target nuclei in eye movement control and spatial orientation. We used a range of methodologies: single and multiunit recordings, electrical brain stimulation, computational methods, pharmacology and behavioral studies. Our main lines of research are: 1-Signal transformations carried out by the the vestibulo-cerebellum during visual and vestibular stimulation. 2- Physiology of the vestibular nuclei 3-Role of the cerebellum-brainstem loop in motor learning in the vestibulo-ocular reflex.

Students will be instructed in one or several techniques and are expected to contribute significantly to the development of specific lab projects.

Joel A. Goebel, MD, FACS

8th Floor McMillan

314-747-0553

Clinical research testing of posture and ocular motor control. Projects include measurement of gaze stabilization during head movement, otolith input into dynamic subjective visual vertical measurements, computerized historical data screening for dizziness, and head-mounted vibrotactile balance prosthesis (BalCap). We welcome students to join these projects at any stage.

Judith E. C. Lieu, MD, MSPH

3S35 Children's Hospital and 8th Floor McMillan

314-747-8205

Clinical Outcomes Research in Pediatric Otolaryngology. The Clinical Outcomes Research office performs clinical epidemiology and health services research. (Please reference the research elective offered by Dr. Jay Piccirillo in otolaryngology for more details.) These techniques and methodologies are used to investigate clinical problems seen in pediatric otolaryngology. Projects currently underway include the evaluation of quality of life of children with hearing loss, progression of hearing loss in children, and evaluation of unilateral hearing loss, use of functional connectivity MRI to investigate effects of hearing loss in children, and quality of life of parents whose young children with recurrent otitis media. Other projects of the student's choosing that would utilize these research techniques may also be pursued.



Kevin K. Ohlemiller, PhD

2205 Central Institute for the Deaf Bldg

314-747-7179

Gene/environment interactions in cochlear injury. We study the interaction of genes and environment that increase cochlear injury due to noise and ototoxic exposure, with an emphasis on how these may yield apparent presbycusis. Because cochlear function and injury is the same in mice and humans, and governed by the same genes, we use mostly mouse models. Methods employed include standard ABR assessment and intra-cochlear recording, quantitative light microscopy, immunohistochemistry, and western blots. We also collaborate to map, and perform expression profiling of genes that underlie traits we have discovered. We and our collaborators have identified specific genes and inbred strains of mice that mimic the three major forms of human presbycusis (sensory, neural, and strial). Sensory presbycusis appears promoted by alleles and mutations that impair protective factors such as antioxidant enzymes, or that impair ion homeostasis. Neural presbycusis can be modeled by mutations that alter the function of cholinergic receptors. While we are not sure what types of genes and mutations can lead to strial presbycusis, we have discovered four mouse strains that show the key feature of this disease (age-related endocochlear potential reduction), and also show distinct types of strial pathology.

We have shown that some of the same gene alleles and mutations that promote presbycusis also promote cochlear noise injury. Such findings point to an interpretation of sensory presbycusis as principally cumulative injury. We have also published evidence for one or more QTLs that impact the qualitative character of noise injury. Important implications of our findings are (1) that there exists no single 'mammalian' archetype of cochlear noise injury, and (2) that injury to the organ of Corti and lateral wall are mechanistically and genetically independent.

Our research is eminently adaptable in difficulty and scale to students' schedules and other requirements. Students may expect to learn the full range of methods we employ, including physiology, immunohistochemistry, histopathology, and cellular/molecular techniques.

Jay F. Piccirillo, MD  
8th Floor McMillan  
314-362-8641

The Clinical Outcomes Research Office of the Division of Research performs basic and applied clinical epidemiology and health services research. Clinical epidemiology is the study of the diagnosis, prognosis, and evaluation of treatment. Health service research is the study of the delivery of health care. The scientific methodology of clinical epidemiology is based on the architecture of clinical research, biostatistics, and data processing. Current projects include studying the impact of comorbidities on treatment and outcome for patients with cancer and the impact of a web-based cancer patient-specific prognostic information (Prognostigram) on treatment choices, outcomes, and satisfaction with care. We also conduct research into treatment and outcomes for patients with tinnitus. Using clinical epidemiology methodology, we can also study a variety of other diseases.

## Faculty — Otolaryngology

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**Craig Alan Buchman, MD** Lindburg Professor of Otolaryngology (primary appointment)

**Head of the Department of Otolaryngology**

BA University of Georgia 1986

MD University of Florida 1990

**Marc Bruce Abrams, DDENT** Instructor in Clinical Otolaryngology (primary appointment)

BA University of MO Kansas City 1968

DDENT University of MO Kansas City 1972

**Azadeh Afshari, MS, DDENT** Instructor in Clinical Otolaryngology (primary appointment)

BS West Virginia University 2004

MS Univ of Texas Med Sch Houston 2013

DDENT Univ of Texas Med Sch Houston 2014

**Nawal Mona Ahmed** Instructor in Clinical Otolaryngology (DDS) (primary appointment)

**Murray Howard Appelbaum** Instructor in Clinical Otolaryngology (DMD) (primary appointment)

**Sean B Bailey, MD, MS**Instructor in Clinical Otolaryngology (primary appointment)

MD Tulane University 1987

MS Tulane University 1988

BS Tulane University 1981

**Jianxin Bao, PHD**Adjunct Associate Professor of Otolaryngology (primary appointment)

PHD University of Florida 1992

**Perry J Bartels, DDENT**Instructor in Clinical Otolaryngology (primary appointment)

DDENT Marquette University 1991

BA Ripon College 1986

**Lynda Cheryl Berkowitz, MS**Instructor in Otolaryngology (primary appointment)

**Instructor in Audiology and Communication Sciences**

BS University of Illinois 1981

MS Washington Univ in St. Louis 1983

**Pablo M Blazquez Gamez, PHD**Assistant Professor of Otolaryngology (primary appointment)

PHD University of Seville 1998

**Joseph P Bradley, MD**Assistant Professor of Otolaryngology (primary appointment)

MD University of Kansas Medical 2008

BS Washington Univ in St. Louis 2003

**Gregory Harris Branham, MD**Professor of Otolaryngology (primary appointment)

BS University of South Carolina 1979

MD University of South Carolina 1983

**Douglas A Carano, DDENT**Instructor in Clinical Otolaryngology (DDS) (primary appointment)

DDENT University of Iowa 1984

BS University of Iowa 1981

**Chad Phadung Chadaratana, MD**Instructor in Clinical Otolaryngology (primary appointment)

MD School Not Listed 1964

**Rebecca D Chernock**Assistant Professor of Pathology and Immunology (primary appointment)

**Assistant Professor of Otolaryngology**

BS Brown University 1999

**John Jeonhwan Chi, MS, MD**Assistant Professor of Otolaryngology (primary appointment)

BS Columbia University 2001

MS City College 2003

MD SUNY DOWNSTATE MED BROOKLYN 2007

**John N Chiapell**Instructor in Clinical Otolaryngology (primary appointment)

**Richard A Chole, MD, PHD**Professor of Otolaryngology (primary appointment)

**Professor of Developmental Biology**

**Professor of Audiology and Communication Sciences**

MD University of Southern Calif 1969

PHD University of Minnesota 1977

**William W. Clark**Professor of Otolaryngology (primary appointment)

**Professor of Education**

**Director of the Program in Audiology and Communication Sciences**

**Professor of Audiology and Communication Sciences**

**Gene C Cohen**Instructor in Clinical Otolaryngology (DDS) (primary appointment)

BS University of Missouri 1971

**Sheldon C Cohen, DDENT**Instructor in Clinical Otolaryngology (primary appointment)

BS Washington Univ in St. Louis 1973

DDENT Southern Illinois University 1976

**William Mark Cohen, MS, DDENT**Instructor in Clinical Otolaryngology (DMD) (primary appointment)

MS University of North Carolina 1991

DDENT Washington Univ in St. Louis 1988

**John Michael Conoyer, MD**Instructor in Clinical Otolaryngology (primary appointment)

BS Southeast Missouri St Unvers 1971

MD Vanderbilt University 1975

**Lisa S. Davidson, MS, PHD**Associate Professor of Otolaryngology (primary appointment)

**Associate Professor of Audiology and Communication Sciences**

BS East Tennessee State Universi 1985

MS Washington Univ in St. Louis 1987

PHD Washington Univ in St. Louis 2003

**Richard Davidson, DDENT, MS**Instructor in Clinical Otolaryngology (DMD) (primary appointment)

BA Washington Univ in St. Louis 1966

DDENT Washington Univ in St. Louis 1970

MS University of Missouri 1979

Sheldon L Davis**Assistant Professor of Clinical Otolaryngology** (primary appointment)

**Andrew J. Drescher, MD**Assistant Professor of Otolaryngology (primary appointment)

MD University of Michigan 2002

BS Yale University 1998

**Norman Steven Druck, MD**Assistant Professor of Clinical Otolaryngology (primary appointment)

BA Washington Univ in St. Louis 1967

MD University of Illinois 1970

Katherine Dunsky**Assistant Professor of Otolaryngology (Pending Executive Faculty Approval)**

(primary appointment)

Julia D Edgar**Adjunct Instructor of Otolaryngology** (primary appointment)

**Tamara Kay Ehlert, MD**Instructor in Clinical Otolaryngology (primary appointment)

BA Northwestern University 1979

MD Univ of Wisconsin Madison 1983

**Samir Khattab El-Mofty, MS, PHD**Professor of Oral Pathology (primary appointment)

**Professor of Pathology and Immunology**

**Professor of Otolaryngology**

UNKNOWN School Not Listed 1955

DDENT1 Washington Univ in St. Louis 1987

MS University of Pennsylvania 1966

PHD Temple University 1976

Mohamed Elsafi**Assistant Professor of Clinical Otolaryngology** (primary appointment)

**Brian T Faddis, MS, PHD**Assistant Professor of Otolaryngology (primary appointment)

**Assistant Professor of Audiology and Communication Sciences**

MS University of California 1989

BS University of California 1982

PHD University of California 1994

**James A Fernandez**Instructor in Clinical Otolaryngology (primary appointment)

BS University of Notre Dame 1977

**Jeffrey T Fierstein, MD**Assistant Professor of Clinical Otolaryngology (primary appointment)

MD School Not Listed 1971

BA Dartmouth College 1968

**Debra Fink, MS, DDENT**Instructor in Clinical Otolaryngology (DMD) (primary appointment)

MS University of Scranton 1981

DDENT Washington Univ in St. Louis 1988

BA Barnard College 1971

Charles Coleman Finley **Adjunct Research Associate Professor of Otolaryngology** (primary appointment)

**Jill B Firszt, MS, PHD** **Professor of Otolaryngology** (primary appointment)

**Professor of Audiology and Communication Sciences**

MS University of Illinois 1982

BS University of Illinois 1978

PHD University of Illinois 1998

**Joel Goebel, MD** **Professor of Otolaryngology** (primary appointment)

**Vice Chairman of Otolaryngology**

MD Washington Univ in St. Louis 1980

BS University of Notre Dame 1976

**Richard I Goldberg, DDENT** **Instructor in Clinical Otolaryngology (DMD)** (primary appointment)

DDENT Washington Univ in St. Louis 1988

BA Washington Univ in St. Louis 1981

**Barry Steven Goldenberg, DDENT, MS** **Instructor in Clinical Otolaryngology (DMD)** (primary appointment)

BA Fairleigh Dickinson University 1975

DDENT Washington Univ in St. Louis 1982

MS University of Missouri 1987

**Debra Ann Gonzalez, MD** **Assistant Professor of Otolaryngology** (primary appointment)

MD Cornell University 1987

BS Wellesley College 1982

**James Dean Gould, MD** **Instructor in Clinical Otolaryngology** (primary appointment)

BA University of Virginia 1989

MD University of Virginia 1993

Michael Anne Gratton **Professor of Otolaryngology (Pending Executive Faculty Approval)** (primary appointment)

**Christine Hilleary Gustus, MS** **Instructor in Otolaryngology** (primary appointment)

**Instructor in Audiology and Communication Sciences**

MS Washington Univ in St. Louis 1975

**Jason M. Hanson, MD** **Instructor in Clinical Otolaryngology** (primary appointment)

MD Northwestern University 1992

**Archie B Harmon Jr, MA, PHD** **Instructor in Otolaryngology** (primary appointment)

MA University of Central Florida 2006

BA University of Florida 2002

PHD Florida State University 2010

William Hartel **Instructor in Clinical Otolaryngology** (primary appointment)

Alan A Harvey **Assistant Professor of Clinical Otolaryngology** (primary appointment)

**Jay Fredrick Hauser, DDENT** **Instructor in Clinical Otolaryngology** (primary appointment)

DDENT University of Iowa 1988

BA University of Tulsa 1983

**Heather Hayes, M ED, PHD** **Associate Professor of Otolaryngology** (primary appointment)

**Associate Professor of Audiology and Communication Sciences**

**Director of Deaf Education Studies in Audiology and Communication Sciences**

M ED Smith College 2005

BA Emory University 1995

PHD Washington Univ in St. Louis 2009

**Jacques A Herzog, MD**Assistant Professor of Clinical Otolaryngology (primary appointment)

BA University of Missouri 1980

MD University of MO Kansas City 1980

**Keiko Hirose, MD**Associate Professor of Otolaryngology (primary appointment)

**Associate Professor of Audiology and Communication Sciences**

**Associate Professor of Pediatrics**

**Vice Chairman of Otolaryngology**

MD Harvard University 1993

**Lawrence M Hoffman, DDENT**Instructor in Clinical Otolaryngology (DMD) (primary appointment)

BA Indiana University Bloomington 1972

DDENT Washington Univ in St. Louis 1976

**Dee Jay Hubbard, MA, PHD**Adjunct Assistant Professor of Otolaryngology (Speech Pathology) (primary appointment)

MA University of Iowa 1965

BS Kansas State University 1962

PHD University of Iowa 1967

**Timothy Everett Hullar, MD**Adjunct Professor of Otolaryngology (primary appointment)

BS Stanford University 1990

MD Harvard University 1996

**Ryan Scott Jackson, MD**Assistant Professor of Otolaryngology (primary appointment)

MD Saint Louis University 2009

BA Saint Louis University 2004

**Arnold Scott Jacobson, DDENT, MS**Instructor in Clinical Otolaryngology (DMD) (primary appointment)

DDENT Washington Univ in St. Louis 1976

BA University of Missouri 1970

MS University of Missouri 1977

Susan Jerger**Adjunct Research Professor of Otolaryngology** (primary appointment)

Timothy N Kaiser**Assistant Professor of Clinical Otolaryngology** (primary appointment)

Eugenia Kardaris**Instructor in Clinical Otolaryngology (DDS)** (primary appointment)

**Roanne Kay Karzon, MS, PHD**Adjunct Assistant Professor of Audiology and Communication Science (primary appointment)

**Adjunct Assistant Professor of Otolaryngology**

MS University of Virginia 1976

PHD Washington Univ in St. Louis 1982

BA University of Connecticut 1974

**Tejbeer Kaur, PHD, BAS, PHARMD**Instructor in Otolaryngology (primary appointment)

PHD Southern Illinois University 2012

BAS Delhi University 2005

PHARMD Delhi University 2007

**Andrew M Kim, MS, DDENT**Assistant Professor of Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)

**Instructor in Clinical Otolaryngology**

MS Ohio State University 1987

BA California State University 1978

DDENT Washington Univ in St. Louis 1984



**June Leslie Kleinfeld, DDENT**Instructor in Clinical Otolaryngology (DMD) (primary appointment)  
DDENT Washington Univ in St. Louis 1985

**George R Kletzker, MD**Assistant Professor of Clinical Otolaryngology (primary appointment)  
BA University of Missouri 1980  
MD University of Missouri 1984

**David Seamus Leonard, MBCHB, MHA**Assistant Professor of Otolaryngology (primary appointment)

MBCHB National University of Ireland 2000  
BA Dartmouth College 1995  
MHA Harvard University 2012

**Laurence A Levine, DDENT, MD, MA**Associate Professor of Clinical Otolaryngology (primary appointment)

DDENT New York University 1967  
MD Albany Medical College 1971  
MA Hofstra University 1963

**Jeffery Lichtenhan, BAS**Assistant Professor of Otolaryngology (primary appointment)

BAS University of Kansas 2000

**Judith E Lieu, MD**Associate Professor of Otolaryngology (primary appointment)

BS University of CA Davis 1988  
MD Washington Univ in St. Louis 1992

**Michael Lillmars, DDENT**Instructor in Clinical Otolaryngology (DDS) (primary appointment)

DDENT Northwestern University 1984  
BA Drury College 1979

**Robert Douglas Lowe, DDENT**Instructor in Clinical Otolaryngology (DMD) (primary appointment)

DDENT Washington Univ in St. Louis 1982  
BA Washington Univ in St. Louis 1977

**Richard W Maack, MD**Instructor in Clinical Otolaryngology (primary appointment)

BS Muhlenberg College 1981  
MD University of Maryland 1985

**Robert R Mac Donald III, MD**Instructor in Clinical Otolaryngology (primary appointment)

MD Washington Univ in St. Louis 1993  
BA Duke University 1989

**Susan E Mackinnon, MD**Sydney M., Jr. and Robert H. Shoenberg Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)

Professor of Otolaryngology  
Professor of Occupational Therapy

BA Queens College 1971  
MD Queen's University 1975

**Kamlesh R Makwana, DDENT**Instructor in Clinical Otolaryngology (DDS) (primary appointment)

BA Univ of Wisconsin Madison 1992  
DDENT Marquette University 1996

**Marshall S Manne, DDENT, MS**Instructor in Clinical Otolaryngology (DDS) (primary appointment)

DDENT Washington Univ in St. Louis 1960  
BA Washington Univ in St. Louis 1956  
MS Indiana University Bloomington 1964

**Philip Latham Martin, MD**Associate Professor of Clinical Otolaryngology (primary appointment)

MD Saint Louis University 1968

**Alicia B Matayoshi**Instructor in Clinical Otolaryngology (DDS) (primary appointment)

**Claire Matthews, MA, PHD** Adjunct Assistant Professor of Otolaryngology (Speech Pathology) (primary appointment)

MA University of Kansas 1978

BA University of Kansas 1969

PHD University of Kansas 1980

**Scott A McClain, DDENT** Instructor in Clinical Otolaryngology (DDS) (primary appointment)

BS Graceland College 1987

DDENT University of Missouri 1991

**Murray D McGrady, MD** Instructor in Clinical Otolaryngology (primary appointment)

MD University of Illinois 1986

BS University of Illinois 1982

**Jonathan L McJunkin, MD** Assistant Professor of Otolaryngology (primary appointment)

BS Northwestern University 2001

MD Jefferson Medical College 2005

**John W McKinney, MD** Instructor in Clinical Otolaryngology (primary appointment)

BA School Not Listed

BS Southeast Missouri St Univer 1975

MD University of Missouri 1979

**Maithilee D Menezes, MD** Assistant Professor of Otolaryngology (primary appointment)

BS Grinnell College 1997

MD Grinnell College 2002

**James D. Miller, PHD, MA** Instructor in Audiology and Communication Sciences (primary appointment)

**Instructor in Otolaryngology**

PHD Indiana University Bloomington 1957

MA Indiana University Bloomington 1953

BS Univ of Wisconsin Madison 1951

**Elizabeth Tracy Mishler, MA, AUD** Instructor in Audiology and Communication Sciences (primary appointment)

**Instructor in Otolaryngology**

MA Northwestern University 1981

BS Northwestern University 1980

AUD A.T. Still U of Health Science 2007

**David W. Molter, MD** Professor of Otolaryngology (primary appointment)

BS Duke University 1980

MD Duke University 1988

**Stewart Edward Moreland, DDENT** Instructor in Clinical Otolaryngology (DMD) (primary appointment)

BA University of Missouri 1978

DDENT Washington Univ in St. Louis 1983

Nancy Tye Murray **Professor of Otolaryngology** (primary appointment)

**Professor of Audiology and Communication Sciences**

**John Gail Neely, MD** Professor of Otolaryngology (primary appointment)

**Professor of Occupational Therapy**

BS University of Central Oklahom 1962

MD University of Oklahoma 1965

**Johanna Grant Nicholas, MA, PHD** Associate Professor of Otolaryngology (primary appointment)

**Associate Professor of Audiology and Communication Sciences**



MA University of Northern Colorado 1982

PHD Washington Univ in St. Louis 1990

BA University of Northern Colorado 1978

**Brian Nussenbaum, MD**Christy J. and Richard S. Hawes III Professor of Otolaryngology (primary appointment)

**Vice Chair for Clinical Affairs, Department of Otolaryngology**

MD New York University 1994

BA State Univ of NY Binghamton 1990

**Margaret A Ogden, MD**Associate Professor of Otolaryngology (primary appointment)

BA Amherst College 1997

MD Washington Univ in St. Louis 2002

**Kevin Kenneth Ohlemiller, PHD**Associate Professor of Otolaryngology (primary appointment)

**Associate Professor of Audiology and Communication Sciences**

BS Indiana University Bloomington 1983

PHD Northwestern University 1990

**Randal C Paniello, MS**Professor of Otolaryngology (primary appointment)

BS1 University of Illinois 1979

MS University of Illinois 1980

BS University of Illinois 1979

**Margaret Grace Peak, MA, PHD**Adjunct Assistant Professor of Otolaryngology (Audiology) (primary appointment)

BS Maryville University 1959

MA Saint Louis University 1961

PHD Columbia University 1975

**Jonathan Erik Peelle, BAS, PHD, MS PSYC**Assistant Professor of Otolaryngology (primary appointment)

**Assistant Professor of Psychological & Brain Sciences**

BAS Houghton College 1999

PHD Brandeis University 2005

MS PSYC Brandeis University 2002

**Michael James Pernoud, DDENT**Instructor in Clinical Otolaryngology (primary appointment)

DDENT University of Missouri 1975

BA Saint Louis University 1971

**Supote Phipatanakul, MD**Assistant Professor of Clinical Otolaryngology (primary appointment)

MD Chulalongkorn University 1965

**Jay Francis Piccirillo**Professor of Otolaryngology (primary appointment)

**Vice Chairman for Research, Dept of Otolaryngology**

**Professor of Medicine**

**Professor of Occupational Therapy**

**Professor of Biostatistics**

BA University of Vermont 1979

**Patrik Pipkorn, MD**Instructor in Otolaryngology (Pending Dean's Approval) (primary appointment)

MD University of Gothenburg 2007

Gerald Raymond PopelkaAdjunct Professor of Otolaryngology (primary appointment)

**Lisa Gayle Potts, PHD, MS**Assistant Professor of Otolaryngology (primary appointment)

**Assistant Professor of Audiology and Communication Sciences**

BS Southern Illinois University 1988

PHD Washington Univ in St. Louis 2006

MS Washington Univ in St. Louis 1991

**Jason T. Rich, MD** Assistant Professor of Otolaryngology (primary appointment)

MD Ohio State University 2004

BS Brigham Young University 2000

**Julie L Ring, DDENT** Instructor in Clinical Otolaryngology (DDS) (primary appointment)

DDENT University of MO Kansas City 1998

**Robert V Rivlin, MS, DDENT** Instructor in Clinical Otolaryngology (DMD) (primary appointment)

MS Fairleigh Dickinson University 1975

DDENT Washington Univ in St. Louis 1979

BA Rutgers University 1972

**Albert F Ruehl, MS, MD** Assistant Professor of Clinical Otolaryngology (primary appointment)

BS Washington Univ in St. Louis 1961

MS Washington Univ in St. Louis 1964

MD Saint Louis University 1973

**Mark A Rutherford, PHD** Assistant Professor of Otolaryngology (primary appointment)

BS University of MO St Louis 1999

PHD University of Oregon 2005

**Alec N Salt, PHD, MS** Professor of Otolaryngology (primary appointment)

PHD University of Birmingham 1977

MS University of Birmingham 1974

BS University of East Anglia 1973

**John Stone Schneider, MD, BBA, M PP** Assistant Professor of Otolaryngology (primary appointment)

MD University of Chicago 2007

BBA University of Chicago 1997

M PP University of Chicago 2007

**Richard E Schrick, MD** Instructor in Clinical Otolaryngology (primary appointment)

BS University of Missouri 1968

MD University of Missouri 1977

**Allen Sclaroff, DDENT** Professor of Clinical Otolaryngology (Oral Surgery) (primary appointment)

BA University of Colorado Boulder 1968

DDENT Temple University 1972

**Karl Shanker, DDENT** Instructor in Clinical Otolaryngology (DDS) (primary appointment)

DDENT University of Missouri 1978

BA Washington Univ in St. Louis 1975

**Peter Gaillard Smith, ME, PHD** Assistant Professor of Clinical Otolaryngology (primary appointment)

BS Clemson University 1967

ME Purdue University 1970

PHD Purdue University 1972

**Jules M Snitzer, DDENT** Instructor in Clinical Otolaryngology (DDS) (primary appointment)

DDENT Washington Univ in St. Louis 1955

**Isolde E Thalmann, PHD** Professor Emeritus of Otolaryngology (primary appointment)

**Prof Emeritus of Otolaryngology** (primary appointment)

**Resrch Prof Emeritus of Otolaryngology** (primary appointment)

BS Washington Univ in St. Louis 1968

PHD California Western 1982

**Ruediger Thalmann** Professor Emeritus of Otolaryngology (primary appointment)

**Prof Emeritus of Otolaryngology** (primary appointment)

**Lecturer in Otolaryngology**

**Stanley E Thawley, MD** Associate Professor of Otolaryngology (primary appointment)

MD University of Texas Galveston 1967

BA University of Texas Austin 1963

**Rosalie May Uchanski, MS, PHD** Assistant Professor of Otolaryngology (primary appointment)

**Assistant Professor of Audiology and Communication Sciences**

BS University of Illinois Chicago 1978

MS Mass Inst of Technology (MIT) 1981

PHD Mass Inst of Technology (MIT) 1988

**Lora Maureen Valente** Associate Professor of Otolaryngology (primary appointment)

**Associate Professor of Audiology and Communication Sciences**

**Director of Audiology Studies in Audiology and Communication Sciences**

BS University of Illinois 1974

**Michael Valente, MS, PHD** Professor of Otolaryngology (Audiology) (primary appointment)

**Professor of Audiology and Communication Sciences**

MS Adelphi Univ 1972

PHD University of Illinois 1975

BA Adelphi Univ 1970

**Thomas J Veraldi, MS** Instructor in Clinical Otolaryngology (primary appointment)

MS Washington Univ in St. Louis 1988

BS Moravian College 1976

**Wayne A Viers** Associate Professor of Clinical Otolaryngology (primary appointment)

BS Phillips University 1952

**Mark Edward Warchol, PHD** Professor of Otolaryngology (primary appointment)

**Professor of Audiology and Communication Sciences**

**Professor of Neuroscience**

PHD Northwestern University 1989

**Calvin H Weiss, DDENT** Instructor in Clinical Otolaryngology (DDS) (primary appointment)

DDENT Saint Louis University 1946

BA University of Missouri 1943

**Tatyana Aleksandrovna Yakusheva, PHD, MS** Assistant Professor of Otolaryngology (primary appointment)

PHD Russian U of Friendship of Ppl 2002

MS Saratov State University 1997

No entries found

# Department of Pathology and Immunology

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The **Department of Pathology and Immunology** is involved in the clinical diagnosis and monitoring of disease, in the teaching of Pathology and Immunology, and in research on the molecular basis of disease and immunology.

The Department is responsible through its divisions for studying the pathogenesis and the biochemical and anatomical basis of diseases. Pathologists do research on disease processes using molecular, genetic and structural analysis. Pathologists have the responsibility for the cytological and anatomical diagnosis of diseases and for developing novel structural and molecular approaches for the analysis of them, particularly cancers and infectious diseases. The divisions of **Anatomic and Molecular Pathology, Anatomic and Molecular Pathology** (headed by Steven L. Teitelbaum, MD), **Laboratory and Genomic Medicine** (headed by Charles Eby, MD and Thaddeus Stappenbeck, MD, PhD) and **Neuropathology** (headed by Robert E. Schmidt, MD, PhD) have faculty involved in teaching, clinical service and research. Prominent areas of research include experimental diabetes, hematology, bone pathophysiology, cancer and gastrointestinal and vascular pathology.

The department teaches an extensive course in the second year of the curriculum and presents a number of conferences that third- and fourth-year students can attend. The department also offers a number of clerkships. The coursemaster of the second-year Pathology course is Erika C. Crouch, PhD, MD. Students can take clerkships in Autopsy Pathology, Surgical Pathology or Laboratory Medicine, or participate in the research activities of the faculty.

The **Division of Immunobiology** integrates immunobiology activities in the School. It is responsible for the teaching of immunology in the first year of the curriculum (Brian T. Edelson, MD, PhD is the coursemaster) and for conducting basic research in immunobiology and in the immunological basis of disease.

Many faculty in the department are involved in graduate teaching and participate in the various programs offered by the **Division of Biology and Biomedical Sciences**. The department has strong participation in the Immunology Graduate Program.

## For more information

Please visit the [Department of Pathology and Immunology website](#) for more information.

# MD Courses — Pathology and Immunology

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## First year

### M30 523 IMMUNOLOGY

Coursemaster: Brian T. Edelson, MD, PhD, 362-4427

This course consists of lectures, laboratory exercises and small group clinical discussions. It covers all aspects of the immune response, general properties of the immune system, effector molecules, cells and their function, cellular interactions and immunological diseases. The Immunology course requires a strong background in biochemistry, genetics and cell biology. Some of the basic concepts from these fields should be reviewed during the course. There are two laboratory sessions. These will cover the areas of blood typing/blood banking and allergy. In these laboratories, students will type blood and be tested for allergies. POPS (Patient Oriented Problem-Solving System in Immunology) will also be used during each laboratory sessions and contain a clinical problem that is analyzed and solved by small groups of three to four students. There are five hours of small group clinical discussion sessions. In these sessions, students meet with physicians to discuss the role of immunology and a particular human disease. The Immune System (latest edition) by Peter Parham is used. For the small group clinical sessions, the latest edition of the textbook Case Studies in Immunology: A Clinical Companion by Rosen and Geha is used. There will be an online self-assessment (multiple-choice and true/false), a take-home exam (essay

questions) and a formal final exam (multiple choice and short answer) on the topics described in the lectures and in the laboratory sessions. This course is restricted to medical students only.

## **Second year**

### **M60 665 PATHOLOGY**

Coursemaster: Erika C. Crouch, PhD, MD, 454-8462

This course provides a comprehensive survey of the biology and morphology of human disease through a combination of lectures and laboratory/case study sessions. The year begins with a review of basic disease mechanisms at the cellular and molecular level. Subsequently, the pathogenesis and characteristics of important diseases involving each organ system of the body are presented. Considerable emphasis is placed on learning the “language” of human disease. During the year, students become familiar with the methods of contemporary pathologic analysis. They also learn how the results of pathologic studies are used in the clinical setting to establish diagnoses, to assess prognosis and response to therapy, and to evaluate the quality of patient care.

## **Third year**

### **Conferences — Tumor Conference**

One hour each week for 12 weeks during the Surgery and Obstetrics and Gynecology clerkships. Problem cases are presented for illustration and discussion of all aspects of neoplastic disease.

Instructors: Staff

## **Fourth year**

### **Electives**

#### **M60 805 / AUTOPSY PATHOLOGY**

Instructor(s): Louis P. Dehner, MD, 314-362-0150

Location: West Building

Elective Contact: Louis P. Dehner, MD, 314-362-0150; Julie Gutierrez, 314-362-0143;  
Linda Hankins 314-362-8750

Other Information: Students should contact Dr. Dehner prior to scheduling this elective.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 13, 17, 21, 25, 29, 33, 37, and 41.

This full-time elective is designed to introduce students to autopsy pathology. Students will assist in performing autopsies, and together with the first-year pathology residents, will participate in all of the activities of the Autopsy Service including brain cutting, specialty microscopic conferences, and weekly autopsy case conferences. Students will be under the direction of senior pathology faculty.

Student time distribution: Autopsy Activities 75%; Conferences/Lectures 25%

Major teaching responsibility: Attendings and residents

Patients seen/weekly: N/A

On call/weekend responsibility: None

### **M60 807 / DERMATOPATHOLOGY**

Instructor(s): Andras Schaffer, MD, PhD, and Ilana Rosman, MD

Location: Dermatopathology Center

Elective Contact: Andras Schaffer, 314-362-5757

Other Information: Students will meet at the Dermatopathology Center Signout Room, CORTEX building, 4320 Forest Park Avenue, Room 212M at 8:00 a.m. on the first day of the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 9, 13, 17, 21, 25, 29, 33, 37, and 41

The student will be involved in all activities of the dermatopathology service. These

include review, discussion and signout of gross and microscopic skin specimens. Signout occurs each day with a team that includes an attending, fellow, and residents from both dermatology and pathology. The medical student will work closely with the residents and fellow to preview cases prior to signout.

Dermatology Grand Rounds and dermatopathology lectures are held on Thursday mornings and are mandatory. In addition, dermatopathology slide review conferences are held on Friday mornings and are mandatory. Other learning opportunities include daily Consensus Conference, informal unknown slide sessions, weekly Dermatology Consult Clinicopathologic Conference and monthly Cutaneous Lymphoma Conference and Journal Club.

The primary goal of this elective is to acquire basic competence in the diagnosis of skin diseases at the microscopic level. A secondary goal is to acquire understanding of the structure and function of the laboratory at the technical, administrative and medical professional level as it pertains to skin specimens.

Student time distribution: Inpatient 5%; Outpatient 80%; Conferences/Lectures 15%; Subspecialty Care 100%

Major teaching responsibility: Drs. Andras Schaffer and Ilana Rosman

Patients seen/weekly: Average number of specimens per week is 300; percentages above reflect specimens not patients.

On call/weekend responsibility: None

## **M60 812 / GENERAL CYTOPATHOLOGY**

Instructor(s): Brian Collins, MD, 314-747-1397

Location: BJC Institute of Health, 3rd Floor, Room 3430

Elective Contact: Kim Green, 314-747-8159, [greenk@path.wustl.edu](mailto:greenk@path.wustl.edu)

Other Information: Please call or e-mail Kim Green at [greenk@path.wustl.edu](mailto:greenk@path.wustl.edu) one week before the rotation to receive clerkship information and password access forms. Students report to the Cytopathology fellow in the Resident's Room, 3rd Floor IOH Building, Room 3202, 9:00 a.m. first day of elective.



Enrollment limit per period: 2

Valid start weeks for two- or four-week blocks are: Weeks 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, and 43.

This elective is designed to familiarize students with the discipline of cytopathology and to encourage the development of basic skills. Cytopathology impacts many different areas of patient care and medical practice. The cytopathology laboratory at Barnes-Jewish Hospital receives a broad range of medical cytology material involving fine needle aspiration biopsies (FNA), body fluids and Pap tests. As a result, the elective is beneficial for students considering a career in pathology and for students planning careers in internal medicine, surgery, OB-GYN, ENT, and radiology. The focus of the experience can be customized based on the interest of the student. Desk space and a microscope are provided.

Students on the elective will (1) learn how patient specimens are received and processed (2) acquire skills in the microscopic diagnosis of disease through active participation and (3) learn the role of the cytopathologist in the care and management of patients. Students will have the opportunity to function as junior house staff managing their own cases with supervision from residents, fellows, and attending cytopathologist. There are text books and extensive study sets to permit students to focus on specific areas of interest.

The daily schedule for student begins previewing the cytology cases at 8:00 a.m. The student will attend the cytology conference on Wednesday and Thursday. In general, the student will be able to complete sign-out activities by 4:30p.m.

Student time distribution: Clinical Duties 85%; Conferences/Lectures 15%; Subspecialty Care 100%

Major teaching responsibility: Attending staff, residents and fellows

Patients seen/weekly: N/A

On call/weekend responsibility: None

**M60 813 / MOLECULAR PATHOLOGY**

Instructor(s): Jacqueline Payton, MD, PhD

Location: BJC Institute of Health, 5th Floor

Elective Contact: Jacqueline Payton, MD, PhD, 314-362-5935, [jpayton@wustl.edu](mailto:jpayton@wustl.edu)

Other Information: Students should contact Dr. Payton at least two weeks prior to beginning this elective to learn the details of their schedule.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This elective is designed to introduce students to the field of molecular pathology, including established molecular diagnostics and Next Generation Sequencing clinical assays. Students will learn through observation in the laboratory, didactic sessions, resident and fellow presentations, sign out with attending pathologists, and clinical informatics workshops. Students will work with residents/fellows on the rotation and participate as part of the team.

Student time distribution: Preview/Signout 25%; Conferences/Lectures 25%; Lab Observation and Informatics Training 50%

Major teaching responsibility: Attendings and residents/fellows

Patients seen/weekly: 200 assays

On call/weekend responsibility: None

### **M60 815 / OB/GYN PATHOLOGY SUB-INTERNSHIP**

Instructor(s): Hannah Krigman, MD

Location: Barnes-Jewish Hospital, South Campus

Elective Contact: Hannah Krigman, MD, Julie Gutierrez, 314-362-0143

Other Information: Students report to Julie Gutierrez's office, 3405 BJC IH, Barnes-Jewish Hospital, South Campus, 9:00 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The elective stresses the principles of anatomic pathology when applied to operative material in obstetrics and gynecology. The subintern will examine gross and microscopic specimens in the Ob-Gyn Pathology Lab and review pertinent literature with a senior pathologist. Ample time will be available for attending regular conferences in ob-gyn and pathology..

Student time distribution: Inpatient 90%; Conferences/Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attendings and residents

Patients seen/weekly: N/A

On call/weekend responsibility: None

### **M60 820 / SURGICAL PATHOLOGY – BARNES-JEWISH HOSPITAL**

Instructor(s): Samir El-Mofty, DMD PhD, and staff, 314-362-2681

Location: Division of Surgical Pathology, 3rd Floor, BJC Institute of Health, Barnes-Jewish Hospital, South Campus

Elective Contact: Samir El-Mofty, DMD, PhD, 314-362-2681, [elmofty@wustl.edu](mailto:elmofty@wustl.edu) or Julie Gutierrez, 314-362-0143, [jgutierrez@path.wustl.edu](mailto:jgutierrez@path.wustl.edu).

Other Information: See the pathology website for detailed orientation and introductory information (<http://pathimm.wustl.edu/>). If you need to discuss individual goals and interests, please call or e-mail Dr. Samir El-Mofty at least one week prior to the elective.

Enrollment limit per period: In order to permit maximum interaction with the surgical pathology staff and house staff, the elective is limited to four students per four-week block. For the initial round of scheduling the available slots are allotted to accommodate two 4th year students and two 3rd year students. Any open slots after the original scheduling period are then made available to either 3rd and 4th year students on a first-come, first-serve basis. Contact your scheduling office for details.

This elective is designed to familiarize students with the discipline of surgical pathology and to encourage the development of basic skills in gross pathology and histopathological interpretation. The Laboratory of Surgical Pathology at Barnes-Jewish

Hospital receives a broad range of medical biopsy material in addition to specimens derived from the busy surgical subspecialty practices. As a result, this elective is beneficial not only for students considering a career in pathology, but also for students planning careers in internal medicine, surgery, obstetrics-gynecology, pediatrics, radiology, radiation oncology and dermatology. Students on this elective will (1) Learn how patient specimens are received and processed, (2) Acquire skills in the gross examination and microscopic diagnosis of disease through active participation and (3) Learn the role of the pathologist in the preoperative, intraoperative, and postoperative care and management of patients. Students will function as junior house staff managing their own cases with supervision from residents, fellows and attending pathologists. Students may also wish to participate in ongoing research projects within the Department as time, and interest, allows. At the end of the rotation the students are required to do a formal case presentation for the residents, fellows and attending staff.

The daily schedule for students begins at 8:00 a.m. with morning conference. In general, the student will be able to complete all gross examination and sign-out activities by 4:30 p.m. Students are welcome to stay beyond 4:30 p.m. to participate in any of the academic or other working activities of the Division.

Student time distribution: Clinical duties 85%; Conference/Lectures 15%

Major teaching responsibility: Attending staff, residents and fellows

Patients seen/weekly: N/A

On call/weekend responsibility: None

### **M60 825 / INTRODUCTION TO NEUROPATHOLOGY**

Instructor(s): Robert E. Schmidt, MD, PhD, 314-362-7426

Location: West Building

Elective Contact: Robert E. Schmidt, MD, PhD, 314-362-7426

Other Information: Students report to BJC Institute of Health, Room 3407, 9:00 a.m. first day of elective.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 13, 17, 21, 29, 33, 37, and 41.

The course is structured to give the student a full-time immersion in the specialty of neuropathology including both neurosurgical and neuroautopsy derived material. There are daily didactic sessions that cover the spectrum of neurological diseases, review gross and microscopic neuro-anatomy, discuss approaches to the diagnosis of nervous system disease, and point out the interrelationships of research to clinical problems. Multiple clinical conferences and diagnostic working sessions complement reading, use of a large microscopic Divisional study set and project work. Time: 35 to 40 hours per week.

Student time distribution: Conferences/Lectures 100%; Subspecialty Care 100%

Major teaching responsibility: Attendings and fellows

Patients seen/weekly: N/A

On call/weekend responsibility: None

### **M60 855 / DIAGNOSTIC HEMATOPATHOLOGY**

Instructor(s): Anjum Hassan, MD, 314-362-1329

Location: BJC Institute of Health, Room 3436

Elective Contact: Kevin Hutchinson,

Heme Path Division Secretary, 314-362-1329,

[khutchinson@path.wustl.edu](mailto:khutchinson@path.wustl.edu)

Other Information: Students will meet on the 2nd Floor, Kingshighway Building Room 2303, 10:00 a.m. first day of elective.

Enrollment limit per period: 2

Valid start weeks for two- or four-week blocks are: Weeks 9, 11, 13, 15, 17, 19, 29, 31, 33, and 35.

Student electives in diagnostics of diseases of hematopoietic cells aims to foster understanding of acute and chronic leukemias, reactive conditions mimicking malignancies, and lymphomas affecting adults and pediatric populations. This diverse field involves multiple ancillary diagnostic tests such as immunohistochemistry, flow

cytometry and genetic testing. This elective will offer medical students an in-depth insight into what goes behind the final pathologic diagnoses in hematologic malignancies before a treatment plan can be executed. This insight is crucial to understand the importance of correct diagnosis (the answer to the usual “what’s taking pathology so long” comment) and accurate, timely communication of preliminary and final diagnosis to the clinicians. Under general faculty and fellow supervision, the students will be primarily responsible for handling of their own cases such as bone marrow biopsies, simple lymph node biopsies, ordering the required tests, dictating the final reports and communicating with the clinicians. They will also participate in several conferences per week including Hematopathology consensus conference, weekly cytogenetic/molecular correlation conferences, journal club and interdepartmental bone marrow transplant and lymphoma conferences.

Student time distribution: Bench Signouts 60%; Conference/Lectures 40%

Major teaching responsibility: Anjum Hassan, MD

Patients seen/weekly: 60-70 bone marrow biopsies; 50 consults and in-house cases

On call/weekend responsibility: None

### **M60 860 / CLINICAL LABORATORY MEDICINE – BARNES-JEWISH HOSPITAL**

Instructor(s): Mitchell Scott, PhD, 314-362-1503

Location: Barnes-Jewish Hospital, South Campus

Elective Contact: Mitchell Scott, PhD, 314-362-1503

Other Information: Students meet in chief resident’s office, BJC Institute of Health, 3rd floor, 8:30 a.m. first day of elective.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: 13, 17, 21, 29, 33, 37, and 41.

This elective is designed to teach the student how clinical laboratory assays are used in the diagnosis of disease and to understand the quality assurance tools the laboratory utilizes to assure the reliability of tests. The four-week elective includes rotations through laboratories in clinical chemistry, clinical microbiology, transfusion medicine and hematopathology. During the elective the student will have a daily schedule,

which includes didactic sessions with senior staff and house staff. Particularly useful clinical skills to be acquired include: morphology of peripheral blood smears and bone marrow biopsies; interpretation of coagulation tests, biomarkers of cardiac damage and serum protein electrophoresis patterns; appropriate use of blood component therapy and therapeutic apheresis; and identification of infectious organisms. Students will attend quality assurance meetings with senior staff, participate in microbiology rounds and present case discussions during this elective.

Student time distribution: Inpatient 25%; Conferences/Lectures 75%

Major teaching responsibility: Attendings and residents

Patients seen/weekly: 5

On call/weekend responsibility: None

## Research — Pathology and Immunology

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Paul M. Allen, PhD

8th Floor, BJC Institute of Health

314-362-8758

Research in immunology. The recognition of antigen by T cells. We are investigating how the T cell receptor functions developmentally, biochemically and structurally. We utilize in vivo models to study the role of T cells in alloreactivity/graft rejection and inflammatory bowel disease.

Jacques U. Baenziger, MD, PhD

2nd Floor, Kingshighway Building, Room 2423

314-362-8730

Glycobiology, informational role of carbohydrates in protein targeting and reproductive endocrinology.

Jeffrey I. Gordon, MD

5th Floor 4444 Forest Park

314-362-7243

Genomic and metabolic foundations of symbiotic host-microbial interactions in the human gut; impact on obesity and malnutrition.

Michael McDaniel, PhD

3709 West Building

314-362-7435

The focus of this laboratory is to study the function and growth of pancreatic islets in Types 1 and 2 diabetes. Mammalian target of rapamycin (mTOR) is a protein kinase that integrates signals from growth factors and nutrients to regulate DNA and protein synthesis. G protein-coupled receptor agonists, such as GLP-1, have been shown to enhance proinsulin biosynthesis and secretion, and stimulate cellular growth and proliferation. Our objective is to further explore the mechanisms of action of GLP-1 to enhance DNA and protein synthesis via mTOR in rodent and human islets. These studies are of fundamental interest in optimizing mTOR to induce cellular growth and proliferation to: (1) enhance pre- and post- islet transplantation in Type 1 diabetes and (2) prolong b-cell compensation in response to insulin resistance in Type 2 diabetes. b-cell failure in obesity-associated Type 2 diabetes is believed to correlate with the intracellular accumulation of lipids that contribute to defects in insulin secretion and maintenance of b-cell mass. Our studies have identified lipoprotein lipase in b-cells, a key enzyme for catalyzing the hydrolysis of lipoprotein-associated TAG, to produce free fatty acids (FFA) for local cellular uptake. We are also characterizing the effects of enhanced FFA uptake through fatty acid transporters and determining the regulation of lipid droplet synthesis and breakdown by lipid droplet associated proteins. Recent studies suggest that FFA up-regulate mitochondrial uncoupling proteins proposed to dissipate the proton gradient across the mitochondrial inner membrane. The objective of this study is to delineate the link between FFA and b-cell mitochondrial dysfunction in Type 2 diabetes.

Kenneth M. Murphy, MD, PhD



7th Floor, Room 7766, Clinical Sciences Research Building

314-362-2009

Function of dendritic cells in T cell responses and anti-tumor vaccines.

Robert D. Schreiber, PhD

8th Floor, BJC Institute of Health

314-362-8747

Tumor Immunology and Cancer Immunoediting. Research on natural and therapeutically induced responses to tumors and definition of the molecular roles of interferon-gamma and interferon-alpha/beta in these processes.

Carl H. Smith, MD

St. Louis Children's Hospital

314-454-6029

Placental transport and surface membrane structure and function.

Thaddeus S. Stappenbeck, MD, PhD

Room 1020 Clinical Sciences Research Building – North Tower

314-362-4214

My lab studies the cause of inflammatory bowel disease, a condition that leads to spontaneous inflammation of the intestine. We study the mechanisms of host gene mutations as well as abnormalities in host-microbial interactions that drive this disease.

Steven Teitelbaum, MD

Barnes-Jewish Hospital

314-454-8463

Cellular and molecular mechanisms of bone remodeling with particular emphasis on osteoclast biology as relates to pathogenesis and prevention of diseases, such as osteoporosis. We focus on integrin and cytokine biology utilizing a variety of genetically-manipulated mice.

John Turk, MD, PhD

6609 Wohl

314-362-8190

Phospholipase A2 (PLA2) enzymes in regulating insulin secretion from pancreatic islet - cells, e.g. a novel iPLA2 that does not require Ca<sup>2+</sup> cloned from rat and human islets that is involved in -cell secretion and proliferation. Studies of iPLA2, its post translational modifications, and its interactions with other proteins involve mice that are iPLA2-deficient globally or in selected tissues, transgenic mice that overexpress iPL2 in -cells, and insulinoma cells with genetically manipulated iPLA2 expression. Mass spectrometric characterization of proteins and complex lipids is an important tool in these studies.

Emil R. Unanue, MD

8414 at BJCIH

314-362-8748

Research in immunobiology/immunopathology. Examination of cellular interactions resulting in immune induction and cellular immunity. These cellular interactions are examined in normal immune responses and in autoimmune diseases. The focus is to identify the proteins responsible for activation of lymphocytes in Type 1 diabetes.

Herbert Virgin, MD, PhD

Clinical Sciences Research Building, Room 8849

314-362-9223

We work on issues at the interface of virology and immunology by analyzing aspects of viral immunity, viral pathogenesis, and viral genetics that contribute to virulence and disease.

Mark A. Watson, MD, PhD

Room 1029, Clinical Sciences Research Building – North Tower

314-454-7919

Our laboratory is interested in defining patterns of somatic gene mutation, gene expression, and quantitative tumor clonality that can be used to predict distant site metastases and therapeutic vulnerability in patients with lung and breast cancer. Experimental approaches use histopathological review, and next generation DNA

exome and RNA sequencing (NGS) of primary cancer patient tissues, coupled with bioinformatics and statistical modeling to identify candidate biomarker patterns that may be useful for the clinical management of cancer patients.

## Faculty — Pathology and Immunology

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**Herbert W Virgin IV, PHD** Mallinckrodt Professor of Pathology and Immunology (primary appointment)

**Professor of Medicine**

**Head of the Department of Pathology and Immunology**

**Professor of Molecular Microbiology**

PHD Harvard University 1985

**Philip Patrick Ahern, PHD** Instructor in Pathology and Immunology (primary appointment)

PHD Oxford University 2010

**Jennifer Marie Alexander-Brett, MD, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

MD Washington Univ in St. Louis 2007

PHD Washington Univ in St. Louis 2007

BS University of Nebraska 1999

**Paul M Allen, PHD, MS** Robert L. Kroc Professor of Pathology and Immunology (primary appointment)

PHD University of Michigan 1981

BS University of Michigan 1974

MS University of Michigan 1977

**Gaya K Amarasinghe, PHD** Associate Professor of Pathology and Immunology (primary appointment)

**Associate Professor of Biochemistry and Molecular Biophysics**

**Associate Professor of Molecular Microbiology**

PHD University of Maryland 2001

**Ferdinand Enginco Amarillo, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

PHD Florida State University 2010

**Neil William Anderson, MD** Assistant Professor of Pathology and Immunology (primary appointment)

MD University of Wisconsin-Madison 2009

BS1 University of Wisconsin-Madison 2005

**Maksym Artomov, MS, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

MS University of Chicago 2005

PHD Mass Inst of Technology (MIT) 2009

**Michael James Barratt, PHD**Instructor in Pathology and Immunology (primary appointment)

PHD KINGS COLLEGE LONDON 1994

**Melissa Anne Barrow, PHD**Instructor in Pathology and Immunology (primary appointment)

PHD University of Queensland 2003

**Cory Thomas Bernadt, PHD, MD**Assistant Professor of Pathology and Immunology (primary appointment)

PHD University of Nebraska 2004

MD University of Nebraska 2006

BS Nebraska Wesleyan University 1998

**Deepta Bhattacharya, PHD**Assistant Professor of Pathology and Immunology (primary appointment)

BS Indiana University Bloomington 1996

PHD University of CA Berkeley 2001

**Morey A Blinder, MD**Professor of Medicine (primary appointment)

**Professor of Pathology and Immunology**

MD Saint Louis University 1981

BS University of Notre Dame 1977

**Adrianus C Boon, PHD, MS**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

**Assistant Professor of Molecular Microbiology**

PHD Erasmus University Rotterdam 2003

MS University of Amsterdam 1997

Sarah Michelle BrownAssistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Pathology and Immunology**

**Instructor in Anesthesiology**

**George John Broze Jr, MD**Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

**Professor of Pathology and Immunology**

MD University of Washington 1972

**Carey-Ann Dawn Burnham, PHD**Associate Professor of Pathology and Immunology (primary appointment)

**Associate Professor of Pediatrics**

**Associate Professor of Molecular Microbiology**

BS University of Alberta 2002

PHD University of Alberta 2007

**Minji Byun, PHD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

PHD Washington Univ in St. Louis 2009

BS Pohang Univ of Science & Tech 2002

**Nigel John Cairns, PHD**Professor of Neurology (primary appointment)

**Professor of Pathology and Immunology**

PHD University of London 1995

**Dengfeng Cao, MD**Associate Professor of Pathology and Immunology (primary appointment)

MD Peking Union Medical College 1996

**Danielle Marie Ho Carpenter, MD**Assistant Professor of Pathology and Immunology (primary appointment)

MD Saint Louis University 2009

BS Saint Louis University 2002

**Javier A Carrero-Brewer, PHD, MA**Assistant Professor of Pathology and Immunology (primary appointment)

PHD Washington Univ in St. Louis 2005

MA University of Puerto Rico 2000

BS Emory University 1996

**Marina Cella, MD**Associate Professor of Pathology and Immunology (primary appointment)

MD University of Genova 1989

**Chih-Hao Chang, MS, PHD, MS**Instructor in Pathology and Immunology (primary appointment)

MS National Taiwan University 2015

BS National Taiwan University 2015

PHD Oxford University 2015

MS Oxford University 2015

**Rebecca D Chernock**Assistant Professor of Pathology and Immunology (primary appointment)

**Assistant Professor of Otolaryngology**

BS Brown University 1999

**Kyunghee Choi**Associate Professor of Pathology and Immunology (primary appointment)

**Brian Tyler Collins, MD**Associate Professor of Pathology and Immunology (primary appointment)

MD University of MO Columbia 1988

**Marco Colonna****Robert Rock Belliveau MD** Professor of Pathology (primary appointment)

**Professor of Medicine**

**Donald Franklin Conrad**Assistant Professor of Genetics (primary appointment)

**Assistant Professor of Pathology and Immunology**

**Megan A Cooper, PHD, MD**Assistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Pathology and Immunology**

BA College of Wooster 1995

PHD Ohio State University 2002

MD Ohio State University 2004

**Joseph C. Corbo, MD, PHD, AB**Associate Professor of Pathology and Immunology (primary appointment)

**Associate Professor of Genetics**

**Associate Professor of Ophthalmology and Visual Sciences**

MD University of California 1999

PHD University of California 1997

BS Stanford University 1990

AB Stanford University 1990

**Catherine E Cottrell, PHD**Assistant Professor of Pathology and Immunology (primary appointment)

**Assistant Professor of Genetics**

BS Ohio State University 2001

PHD Ohio State University 2007

**Erika C Crouch, MD, PHD**Professor of Pathology and Immunology (primary appointment)

MD University of Washington 1979

PHD University of Washington 1978

**Sonika M Dahiya, MD**Assistant Professor of Pathology and Immunology (primary appointment)

MD Kasturba Medical College 2000

**Gautam Dantas**Associate Professor of Pathology and Immunology (primary appointment)

**Associate Professor of Biomedical Engineering**

**Associate Professor of Molecular Microbiology**

BS Macalester College 2000

**Louis P Dehner, MD** Professor of Pathology and Immunology (primary appointment)

**Professor of Pathology in Pediatrics**

MD Washington Univ in St. Louis 1966

BA Washington Univ in St. Louis 1962

**David G. DeNardo, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

BS Willamette University 1999

PHD Baylor University 2005

**George J Despotis** Associate Professor of Pathology and Immunology (primary appointment)

**Associate Professor of Anesthesiology**

BA Greenville College 1981

**Michael Diamond, MD** Professor of Medicine (primary appointment)

**Professor of Molecular Microbiology**

**Professor of Pathology and Immunology**

**Herbert S Gasser Professor**

BA Columbia College 1985

MD Harvard University 1994

**Dennis J. Dietzen, PHD** Professor of Pediatrics (primary appointment)

**Professor of Pathology and Immunology**

PHD Indiana University Bloomington 1992

**Mary C Dinauer, MD, PHD** Professor of Pediatrics (primary appointment)

**Professor of Pathology and Immunology**

BA Lawrence University 1975

MD University of Chicago 1981

PHD University of Chicago 1979

**John F Dipersio, MD, PHD** Virginia E and Sam J Golman Professor of Medicine (primary appointment)

**Professor of Pediatrics**

**Professor of Pathology and Immunology**

MD University of Rochester 1980

PHD University of Rochester 1980

BA Williams College 1973

**Eric James Duncavage** Assistant Professor of Pathology and Immunology (primary appointment)

BS Vanderbilt University 1998

**Gavin P. Dunn** Assistant Professor of Neurological Surgery (primary appointment)

**Assistant Professor of Pathology and Immunology**

**William Michael Dunne Jr, PHD** Adjunct Professor of Pathology and Immunology (primary appointment)

BS Univ of Wisconsin Madison 1975

PHD Univ of Wisconsin Madison 1981

**Timothy J Eberlein, MD, MA** Bixby Professor of Surgery (General Surgery) (primary appointment)

**Head of the Department of Surgery**

**Director of The Alvin J. Siteman Cancer Center**

**Professor of Pathology and Immunology**

**Spencer T. and Ann W. Olin Distinguished Professor**

MD University of Pittsburgh 1977

MA Harvard University 1996

BS University of Pittsburgh 1973

**Charles S Eby** Professor of Pathology and Immunology (primary appointment)

**Professor of Medicine**

BS Duke University 1977

**Brian T. Edelson, MD, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

UNKNOWN Brown University 1995

MD Washington Univ in St. Louis 2004

PHD Washington Univ in St. Louis 1995

**Takeshi Egawa, PHD, MD** Assistant Professor of Pathology and Immunology (primary appointment)

PHD Osaka University 2002

MD Osaka University 1994

**Samir Khattab El-Mofty, MS, PHD** Professor of Oral Pathology (primary appointment)

**Professor of Pathology and Immunology**

**Professor of Otolaryngology**

UNKNOWN School Not Listed 1955

DDENT1 Washington Univ in St. Louis 1987

MS University of Pennsylvania 1966

PHD Temple University 1976

**Thomas A Ferguson** Professor of Ophthalmology and Visual Sciences (primary appointment)

**Associate Professor of Pathology and Immunology**

BA Kent St University 1974

**John Lawrence Frater, MD** Associate Professor of Pathology and Immunology (primary appointment)

MD Medical College of Ohio 1996

BS University of Notre Dame 1992

**Daved H Fremont, PHD** Professor of Pathology and Immunology (primary appointment)

**Professor of Biochemistry and Molecular Biophysics**

BS Univ of Wisconsin Madison 1986

PHD University of CA San Diego 1993

**Anthony Raymond French, PHD** Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Pathology and Immunology**

**Associate Professor of Biomedical Engineering**

PHD University of Illinois 1995

**Joseph P. Gaut, PHD, MD** Assistant Professor of Pathology and Immunology (primary appointment)

**Assistant Professor of Medicine**

BA Washington Univ in St. Louis 1996

PHD Washington Univ in St. Louis 2004

MD Washington Univ in St. Louis 2004

**Andrew E. Gelman, PHD** Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Professor of Pathology and Immunology**

PHD University of Pennsylvania 2006

BS University of CA Los Angeles 1996

**Susan Gilfillan, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

BA University of Denver 1982

PHD Stanford University 1990

**Jeffrey I Gordon, MD** Professor of Pathology and Immunology (primary appointment)

**Dr Robert J Glaser** Distinguished University Professor

Director of the Center for Genome Sciences

Professor of Medicine

Professor of Developmental Biology

BA Oberlin College 1969

MD University of Chicago 1973

**Bella Goyal** Instructor in Pathology and Immunology (Pending Dean's Approval) (primary appointment)

**Jonathan M Green, MD** Professor of Medicine (primary appointment)

Associate Dean for Human Studies

Professor of Pathology and Immunology

BS University of Michigan 1982

MD Wayne State University 1986

**Nicholas Wayne Griffin, PHD** Instructor in Pathology and Immunology (primary appointment)

PHD Washington Univ in St. Louis 2010

**Ann Marie Gronowski, PHD** Professor of Pathology and Immunology (primary appointment)

Professor of Obstetrics and Gynecology

BS University of Illinois 1985

PHD Univ of Wisconsin Madison 1992

**Brenda Jean Grossman, MS, MD** Professor of Pathology and Immunology (primary appointment)

Professor of Medicine

MS Saint Louis University 2003

MD Medical College Georgia 1980

BS Ohio University 1976

**Ian Sean Hagemann, PHD, MD** Assistant Professor of Pathology and Immunology (primary appointment)

Assistant Professor of Obstetrics and Gynecology

PHD Washington Univ in St. Louis 2008

MD Washington Univ in St. Louis 2008

BA Princeton University 2000

**Dennis E Hallahan, MD** Professor of Radiation Oncology (primary appointment)

Professor of Cell Biology and Physiology

Professor of Pathology and Immunology

Elizabeth H and James S McDonnell III Distinguished Professor of Medicine

Head of the Department of Radiation Oncology

Professor of Molecular Microbiology

MD Rush University 1984

BS University of Illinois 1980

**Scott A Handley, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

PHD Washington Univ in St. Louis 2006

BS Southwest Missouri St University 1998

**Thomas Joseph Hannan, DVM** Instructor in Pathology and Immunology (primary appointment)

BA Georgetown University 1989

BA1 Georgetown University 1989

DVM Tufts University 1995



**George J Harocopos, MD** Associate Professor of Ophthalmology and Visual Sciences (primary appointment)

**Assistant Professor of Pathology and Immunology**

MD University of Virginia 2000

BA Harvard University 1995

**Anjum Hassan, MD** Associate Professor of Pathology and Immunology (primary appointment)

MD Aga Khan University 1989

MD1 School Not Listed 1989

**Mai He** Associate Professor of Pathology and Immunology (Pending Executive Faculty Approval) (primary appointment)

**Richard D Head** Associate Professor of Genetics (primary appointment)

**Associate Professor of Pathology and Immunology**

**Jonathan W Heusel, MD, PHD** Associate Professor of Pathology and Immunology (primary appointment)

MD Washington Univ in St. Louis 1995

PHD Washington Univ in St. Louis 1995

**Chyi-Song Hsieh** Associate Professor of Medicine (primary appointment)

**Associate Professor of Pathology and Immunology**

**Alan A and Edith L Wolff** Distinguished Professor

**Ronald R Jackups Jr.** Assistant Professor of Pathology and Immunology (primary appointment)

**Assistant Professor of Pediatrics**

BS Washington Univ in St. Louis 2000

**Sanjay Jain** Associate Professor of Medicine (primary appointment)

**Associate Professor of Pathology and Immunology**

BA University of California 1990

**Charles Kilo, MD** Professor of Medicine (primary appointment)

**Professor of Pathology and Immunology**

MD Washington Univ in St. Louis 1959

**Alfred Kim** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

**Brian Kim, MD** Assistant Professor of Medicine (Dermatology) (primary appointment)

**Assistant Professor of Anesthesiology**

**Assistant Professor of Pathology and Immunology**

MD University of Washington 2007

BS Haverford College 2001

**John M Kissane** Retiree - Professor of Pathology and Immunology (primary appointment)

**Eynav Yafit Klechevsky, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

PHD Baylor University 2007

**Robyn Sue Klein, PHD** Professor of Medicine (primary appointment)

**Professor of Pathology and Immunology**

**Professor of Neuroscience**

PHD Albert Einstein College of Med 1993

**Daniel Kreisel, MD, PHD** Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Professor of Pathology and Immunology**

MD Mount Sinai School of Medicine 1995

PHD University of Pennsylvania 2002

**Friederike H. Kreisel, MD** Associate Professor of Pathology and Immunology (primary

appointment)

MD Goethe University 1995

**Hannah Rachel Krigman, MD** Associate Professor of Pathology and Immunology (primary appointment)

BA Amherst College 1983

MD University of North Carolina 1988

**Michael Kyriakos, MD** Professor of Pathology and Immunology (primary appointment)

MD Albert Einstein College of Med 1962

**Jack H Ladenson, PHD** Oree M Carroll and Lillian B Ladenson Professor of Clinical Chemistry in Pathology and Immunology (primary appointment)

**Professor of Clinical Chemistry in Medicine**

PHD University of Maryland 1971

BS Pennsylvania State University 1964

**Yi-Shan Lee, MD, PHD** Asst Professor of Pathology and Immunology (primary appointment)

MD National Taiwan University 2000

PHD Duke University 2008

**Deborah J. Lenschow, MD, PHD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Pathology and Immunology**

MD University of Chicago 1998

PHD1 University of Chicago 1995

PHD University of Chicago 1995

MD1 University of Chicago 1998

**Daisy W Leung, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

**Assistant Professor of Biochemistry and Molecular Biophysics**

PHD University of Texas Southwest 2005

BS Amherst College 1997

**Daniel C Link, MD** Alan A and Edith L Wolff Distinguished Professor of Medicine (primary appointment)

**Professor of Pathology and Immunology**

MD Univ of Wisconsin Milwaukee 1985

**Chang Liu, PHD, MD** Assistant Professor of Pathology and Immunology (primary appointment)

PHD Oregon Health Science Unvers 2010

MD Peking Union Medical College 2004

**Ta-Chiang Liu, MD, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

MD National Yang-Ming University 1997

PHD Imperial College 2003

**Olga Y. Lubman, PHD** Instructor in Pathology and Immunology (primary appointment)

BA Goucher College 1998

PHD Washington Univ in St. Louis 2002

BS Goucher College 1998

**Donna Alexandra MacDuff, PHD** Instructor in Pathology and Immunology (primary appointment)

PHD University of Minnesota 2008

**Horacio M Maluf** Associate Professor of Pathology and Immunology (primary appointment)

**Leslie Denise McIntosh, PHD, MA** Assistant Professor of Pathology and Immunology (primary appointment)

PHD Saint Louis University 2008

BA Texas A&M University 1993

MA Saint Louis University 2006

**Jeffrey D Milbrandt, PHD, MD** James S McDonnell Professor of Genetics (primary appointment)

**Professor of Medicine**

**Professor of Neurology**

**Professor of Pathology and Immunology**

**Head of the Department of Genetics**

PHD University of Virginia 1983

MD Washington Univ in St. Louis 1978

BS Univ of Nebraska at Kearney 1974

**Mark James Miller, PHD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Pathology and Immunology**

BS University of California 1991

PHD University of California 1996

**Jason C Mills, MD, AB, PHD** Professor of Medicine (primary appointment)

**Professor of Developmental Biology**

**Professor of Pathology and Immunology**

MD University of Pennsylvania 1997

BA Washington Univ in St. Louis 1989

AB Washington Univ in St. Louis 1989

PHD University of Pennsylvania 1997

MD1 University of Pennsylvania 1997

**Yoshiko Mito, MS, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

MS University of Tokyo 2002

BS University of Tokyo 2000

PHD University of Washington 2007

**Hector D Molina-Vicenty, MD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Pathology and Immunology**

BS University of Puerto Rico 1982

MD University of Puerto Rico 1985

**Sharon Celeste Morley, MD, PHD** Assistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Pathology and Immunology**

MD Harvard University 2002

PHD Harvard University 2002

**John Carl Morris, MD** Harvey A and Dorismae Hacker Friedman Distinguished Professor of Neurology (primary appointment)

**Professor of Physical Therapy**

**Professor of Pathology and Immunology**

**Professor of Occupational Therapy**

MD University of Rochester 1974

BA Ohio Wesleyan University 1970

**Nima Mosammaparast, MD, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

MD University of Virginia 2006

PHD University of Virginia 2005

BS University of Rochester 1998

**Kenneth M Murphy, MD, PHD** Professor of Pathology and Immunology (primary appointment)

**Howard Hughes Medical Institute Investigator in Pathology and Immunology**

**Eugene Opie First Centennial Professor of Pathology and Immunology**

MD Johns Hopkins University 1984

PHD Johns Hopkins University 1984

**Theresa L Murphy, PHD** Associate Professor of Pathology and Immunology (primary appointment)

BS University of Arizona 1978

PHD Johns Hopkins University 1983

**Indira U Mysorekar, MS, PHD** Associate Professor of Obstetrics and Gynecology (primary appointment)

**Associate Professor of Pathology and Immunology**

MS University of Lund 1995

BS University of Lund 1994

PHD Washington Univ in St. Louis 2002

**Rakesh Nagarajan, PHD, MD** Adjunct Associate Professor of Pathology and Immunology (primary appointment)

PHD Washington Univ in St. Louis 2002

BA1 University of Virginia 1994

MD Washington Univ in St. Louis 2002

BA University of Virginia 1994

**Ilke Nalbantoglu, MD** Assistant Professor of Pathology and Immunology (primary appointment)

MD Ege University 2000

**Christopher A Nelson, PHD** Instructor in Pathology and Immunology (primary appointment)

PHD Washington Univ in St. Louis 1995

BS Univ of Wisconsin Madison 1985

**Deborah Veis Novack, PHD, MD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Pathology and Immunology**

BA Princeton University 1987

PHD Washington Univ in St. Louis 1995

MD Washington Univ in St. Louis 1995

**Stephen T. Oh, PHD, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

PHD Northwestern University 2002

MD Northwestern University 2004

BS Harvard University 1996

**Eugene Merle Oltz, PHD** Professor of Pathology and Immunology (primary appointment)

PHD Columbia University 1987

BS Cornell University 1982

**Bijal A. Parikh, PHD, MD** Instructor in Pathology and Immunology (primary appointment)

PHD Rutgers University 2004

MD U Medical-Dental Of New Jersey 2006

**Jacqueline Elise Payton, PHD, MD** Assistant Professor of Pathology and Immunology (primary appointment)

PHD University of Illinois 2002

MD University of Illinois 2004

BS Bradley University 1996

**Richard J. Perrin, MD, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

MD University of Illinois Chicago 2004

BS Yale University 1992

PHD University of Illinois 2001

**Alan Pestronk, MD** Professor of Neurology (primary appointment)

**Professor of Pathology and Immunology**

MD Johns Hopkins University 1970

BA Princeton University 1966

**John David Pfeifer, MD, PHD** Professor of Pathology and Immunology (primary appointment)

**Professor of Obstetrics and Gynecology**

**Vice Chairman for Clinical Affairs of Pathology and Immunology**

MD University of California 1988

PHD University of California 1987

BA University of California 1981

**Christine T Pham** Associate Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

BS University of Florida 1981

**Gwendalyn Jan Randolph, PHD** Unanue Distinguished Professor of Immunology (primary appointment)

**Professor of Medicine**

BS Temple University 1991

PHD State University of New York 1995

**Babak Razani, PHD, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

PHD Albert Einstein College of Med 2003

MD Albert Einstein College of Med 2003

**Alejandro Reyes** Adjunct Assistant Professor of Pathology and Immunology (primary appointment)

**Jon H Ritter** Professor of Pathology and Immunology (primary appointment)

**Ilana Shaina Rosman, MD** Assistant Professor of Medicine (Dermatology) (primary appointment)

**Assistant Professor of Pathology and Immunology**

MD Washington Univ in St. Louis 2008

**Marianna B Ruzinova, MD, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

MD Cornell University 2005

PHD Cornell University 2004

**Souzan Sanati, MD** Assistant Professor of Pathology and Immunology (primary appointment)

MD Iran Univ of Medical Sciences 1993

**Andras Schaffer, MD, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

**Assistant Professor of Medicine (Dermatology)**

MD University of Pecs Medical Sch 1993

PHD Cornell University 2001

**Joel D. Schilling, PHD, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

PHD Washington Univ in St. Louis 2001

MD Washington Univ in St. Louis 2003

**Robert Edward Schmidt, PHD, MD** Professor of Pathology and Immunology (primary appointment)

PHD Washington Univ in St. Louis 1976

BA Washington Univ in St. Louis 1969

MD Washington Univ in St. Louis 1976

**Robert D Schreiber, PHD** Alumni Endowed Professor of Pathology and Immunology (primary appointment)

**Professor of Molecular Microbiology**

PHD State University of New York 1973

BA State University of New York 1968

**Mitchell G Scott, MS** Professor of Pathology and Immunology (primary appointment)

**Clinical Research Assistant Professor of Medicine**

MS University of Missouri 1977

**Jennifer K Sehn, MD** Assistant Professor of Pathology and Immunology (primary appointment)

MD Washington Univ in St. Louis 2011

BS Georgia Tech 2007

**Karen Seibert, MA** Professor of Anesthesiology (primary appointment)

**Professor of Pathology and Immunology**

**Professor of Genetics**

BS Northwestern University 1981

MA University of Toledo 1983

**Andrey S Shaw, MD** Adjunct Professor of Pathology and Immunology (primary appointment)

BA Columbia University 1979

MD Columbia University 1984

**Kathleen C Sheehan, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

BS University of Notre Dame 1980

PHD Saint Louis University 1986

**Morton Edward Smith, MD** Professor Emeritus of Ophthalmology and Visual Sciences (primary appointment)

**Prof Emeritus of Ophthalmol & Vis Sci** (primary appointment)

**Lecturer in Ophthalmology and Visual Sciences**

**Lecturer in Pathology and Immunology**

**Associate Dean Emeritus for Post-Graduate Education**

BS University of Maryland 1956

MD University of Maryland 1960

**Thaddeus S. Stappenbeck, PHD, MD** Conan Professor of Laboratory and Genomic Medicine (primary appointment)

**Professor of Developmental Biology**

BA Northwestern University 1987

PHD Northwestern University 1994

MD Northwestern University 1995

**Sanjay Joshua Swamidass, PHD, MA, MD** Assistant Professor of Pathology and Immunology (primary appointment)

**Assistant Professor in Computer Science and Engineering**

PHD University of California 2007

MA University of California 2006

MD University of California 2009

BS University of California 2000

**Wojciech A. Swat, MS, PHD** Associate Professor of Pathology and Immunology (primary appointment)

MS University of Warsaw 1989

PHD University of Basel 1992

**Steven L Teitelbaum, MD** Messing Professor of Pathology and Immunology (primary appointment)

**Professor of Medicine**

MD Washington Univ in St. Louis 1964



**John W Turk, PHD, MD** Professor of Medicine (primary appointment)

**Alan A and Edith L Wolff** Professor of Endocrinology

**Professor of Pathology and Immunology**

BA Washington Univ in St. Louis 1970

PHD Washington Univ in St. Louis 1976

MD Washington Univ in St. Louis 1976

**Emil Raphael Unanue, MD** Paul and Ellen Lacy Professor of Pathology and Immunology (primary appointment)

BS Institute of Secondary Educati 1952

MD Havana University 1960

**Fumihiko Urano, MD** Samuel E Schechter Associate Professor of Medicine (primary appointment)

**Associate Professor of Pathology and Immunology**

MD Keio University 1994

**Kelli Lynn VanDussen, PHD** Instructor in Pathology and Immunology (Pending Dean's Approval) (primary appointment)

PHD University of Michigan 2010

BS Grand Valley St University 2004

**William Vermi** Adjunct Assistant Professor of Pathology and Immunology (primary appointment)

**Monika Vig, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

BS Delhi University 1995

PHD Jawaharlal Nehru Univerisity 2003

**Kiran Raj Vij, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

MD Indira Gandhi Medical College 1993

**David Wang, PHD** Associate Professor of Molecular Microbiology (primary appointment)

**Associate Professor of Pathology and Immunology**

BS Stanford University 1992

PHD Mass Inst of Technology (MIT) 1998

**Xiaoli Wang, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

PHD University of Arkansas 2001

**Mark A Watson, PHD, MD** Associate Professor of Pathology and Immunology (primary appointment)

PHD Washington Univ in St. Louis 1992

MD Washington Univ in St. Louis 1992

BA University of Pennsylvania 1985

**Katherine N Weilbaecher, MD** Professor of Medicine (primary appointment)

**Professor of Pathology and Immunology**

**Professor of Cell Biology and Physiology**

BA Harvard University 1987

MD Stanford University 1992

**Frances V White, MD, MS** Associate Professor of Pathology and Immunology (primary appointment)

**Associate Professor of Pediatrics**

MD University of North Carolina 1989

MS University of North Carolina 1978

BA Princeton University 1975

**Terry A Woodford-Thomas, PHD, MS** Adjunct Research Assistant Professor of Pathology and Immunology (primary appointment)

PHD Va Polytechnic Inst & State U 1982

BS Eastern Illinois University 1975

MS Purdue University 1977

**Gregory Frederick Wu, MD, PHD** Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Pathology and Immunology**

MD University of Iowa 2001

BS Washington Univ in St. Louis 1993

PHD University of Iowa 2001

**Wayne M Yokoyama, MD** Sam and Audrey Loew Levin Professor of Medicine (Rheumatology) (primary appointment)

**Howard Hughes Medical Institute Investigator in Medicine**

**Professor of Pathology and Immunology**

BA University of Rochester 1974

MD University of Hawaii 1978

**Guoyan Zhao, PHD, MS** Assistant Professor of Pathology and Immunology (primary appointment)

PHD Washington Univ in St. Louis 2003

BS School Not Listed 1995

MS School Not Listed 1998

**Bernd Heinrich Zinselmeyer, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

PHD University of Strathclyde 2006

**Wei Zou, MA** Assistant Professor of Pathology and Immunology (primary appointment)

MA Qingdao University 1994

No entries found

## Edward Mallinckrodt Department of Pediatrics

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The primary aim of the teaching program of the **Department of Pediatrics** is to stimulate interest in developmental biology, especially human growth and development, and to provide the student with a foundation sufficiently comprehensive so that he or she will have an appreciation of clinical pediatric problems regardless of his or her future career choice in medicine.

The major clinical and research facilities are in **St. Louis Children's Hospital**, and the newborn services are at Barnes-Jewish Hospital. St. Louis Children's Hospital is a



facility with 264 beds that accepts patients through 21 years of age with all types of medical and surgical problems. Hospital admissions average 11,200 annually. Pediatric medical ambulatory activity, including subspecialty and emergency visits, averages about 152,000 visits a year. Nearly 4,000 infants are born annually at the Washington University Medical Center.

## For more information

Please visit the [Department of Pediatrics website](#) for more information.

# MD Courses — Pediatrics

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## First year

### Selectives

#### M04 526 NEW DISEASES, NEW PATHOGENS

For full description, see Department of Molecular Microbiology.

## Second year

#### M65 640A PHYSICIANS, PATIENTS & SOCIETY: PEDIATRICS

Instructors: Amanda Emke, MD and Erika Hayes, MD

This year-long curriculum introduces students to the unique nature of pediatrics as a

subspecialty focused on the role of pediatricians in assessing and managing growth and development, the impact of environment on growth and development, and the way a pediatrician's role changes in concert with the patient's growth and development. Through a series of lectures and Team-Based Learning sessions, students are given the knowledge, skills and attitudes to understand and recognize pediatric pathology through an intricate understanding of preventative health and health supervision, normal growth and development, focused pathologies in each organ-specific area, and the unique physician-patient relationship in such a dynamic specialty. The unique aspects of the physical examination of patients across various ages and developmental levels are presented in an optional Physical Examination Night.

## **Third year**

### **M65 760 PEDIATRICS CLERKSHIP**

Instructors: Michelle Estabrook, MD and Colleen Wallace, MD (both: 454-6299)

This six-week curriculum emphasizes pediatric pathophysiology and normal growth and development from birth through adolescence. The clerkship consists of three two-week rotations that encompass inpatient medicine, newborn nursery and an ambulatory experience. Sites include St. Louis Children's Hospital, Progress West, and Missouri Baptist Medical Center as well as community pediatricians' offices. Students will learn to perform and document age appropriate pediatric histories and physical examinations, develop evidenced based differential diagnoses, and construct logical plans for diagnosis and treatment. Daily rounds with house staff and attending physicians, as well as weekly case management conferences and grand rounds, further this emphasis.

## **Fourth year**

### **Electives**

**M65 801 / GENERAL PEDIATRIC SUB-INTERNSHIP – ST. LOUIS CHILDREN'S HOSPITAL**

Instructor(s): Michele Estabrook, MD

Location: St. Louis Children's Hospital

Elective Contact: Liz Scott, 4S30, St. Louis Children's Hospital, 314-454-6299

Other Information: The student can choose either 8 East or 8 West. If both students prefer the same floor, a lottery will be used for assignments.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This is the general pediatric sub-internship. The student will be assigned patients on one of two inpatient pediatric floor teams. They will follow patients from initial evaluation and for continuing care until discharge. Students work directly under the supervision of the senior resident and manage their own patients without co-coverage by an intern. Teaching rounds are conducted by the faculty. The elective will provide experience in the management of many pediatric medical conditions (variable depending on floor) and will include the care of patients with various diseases including pulmonary, infectious diseases, gastrointestinal, renal, neurological, endocrine, and rheumatologic issues. Additionally, patients with failure to thrive, asthmatic exacerbations, poisonings, PICU transfers and undiagnosed conditions may be seen.

Student time distribution: Inpatient 100%; Subspecialty Care/General Pediatrics 100%

Major teaching responsibility: Attendings and residents

Patients seen/weekly: Approximately 12

On call/weekend responsibility: 2-3 weekend days, 5 consecutive night shifts

### **M65 808 / PEDIATRIC ASTHMA AND ALLERGY**

Instructor(s): Leonard B. Bacharier, MD; Caroline Horner, MD; Robert C. Strunk, MD; Avraham Beigelman, MD; Alysa Ellis, MD; and Maleewan Kitcharoensakkul, MD; 314-454-2694

Location: St. Louis Children's Hospital and St. Louis Children's Specialty Care Center

Elective Contact: Kim Tinsley, 314-454-2158

Other Information: Students should call 314-454-2158 prior to the start of this elective for location and time.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

In predominantly an outpatient setting, students will evaluate patients with a wide variety of allergic and immunologic disorders including asthma, allergic rhinitis, anaphylaxis, food allergy, atopic dermatitis, urticaria, angioedema and primary immunodeficiency. Rotation goals include: (1) the extension of history-taking skills to include environmental exposures, (2) the recognition of physical findings suggestive of allergic disease, (3) understanding the indications and interpretation of diagnostic testing including skin testing and assessment of pulmonary function, and (4) application of appropriate therapeutic strategies to these disorders. Weekly didactic conferences and inpatient consultations provide additional educational opportunities to the student.

Student time distribution: Inpatient 10%; Outpatient 80%; Conferences/ Lectures 10%;  
Subspecialty Care 100%

Major teaching responsibility: Leonard B. Bacharier, MD, and Caroline Horner, MD

Patients seen/weekly: 40

On call/weekend responsibility: None

### **M65 809 / PEDIATRIC PULMONARY SUB-INTERNSHIP**

Instructor(s): Thomas Ferkol, Jr., MD; Leonard Bacharier, MD; Avraham Beigelman, MD; Joshua Blatter, MD; Ferdinand Coste, DO; Andrea Coverstone, MD; Alysa Ellis, MD; Albert Faro, MD; Amjad Horani, MD; Kay Horner, MD; James Kemp, MD; Maleewan Kitcharoensakkul, MD; Peter Michelson, MD; Jessica Pittman, MD; Katherine Rivera-Spoljaric, MD; and Stuart C. Sweet, MD, PhD

Location: St. Louis Children's Hospital

Elective Contact: Thomas Ferkol, Jr., MD, 314-454-2158, or Ferdinand Coste, DO, 314-747-5752

Other Information: Students report to 7 East Respiratory Unit, St. Louis Children's Hospital, 7:00 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

On the 7 East Respiratory Unit, the sub-intern is an active member of a multidisciplinary care team, consisting of attending pulmonologist or allergist, advanced practice nurses, second-year pediatric residents, unit nurses, and other care providers and takes responsibility for children with acute and chronic lung diseases admitted to the unit. The student will be co-managed with a senior pediatric resident and the sub-intern will be directly supervised by the pediatric residents and attending physician in the daily care of patients. The rotation is structured to provide students with a primarily clinical experience to allow them to gain exposure to the breadth of lung diseases seen at St. Louis Children's Hospital.

The volume of patients on the 7 East Respiratory Unit varies with the number of patients covered by the sub-intern at any time, and he or she will typically be responsible for the care of two to six patients at any given time. The student will be exposed to children with wide-ranging lung diseases and breathing disorders, such as asthma, cystic fibrosis, bronchopulmonary dysplasia, bronchiolitis, pneumonia, chronic respiratory insufficiency, and congenital lung anomalies during their clinical rotation. The student will also have the opportunity to participate in tests and procedures essential to the practice of pulmonary and allergy medicine, including pulmonary function studies, flexible fiberoptic bronchoscopy, and overnight polysomnography. Sub-interns do not have evening coverage responsibilities, and weekend responsibilities are limited to two days during the four-week block. They are strongly encouraged to attend departmental and divisional conferences.

Student time distribution: Inpatient 80%; Outpatient 10%; Conferences/ Lectures 10%; Primary Care 30%; Subspecialty Care 70%

Major teaching responsibility: Attending Physician

Patients seen/weekly: 10-15

On call/weekend responsibility: Two weekend days per month

### **M65 811 / PEDIATRIC CRITICAL CARE MEDICINE**

Instructor(s): Stuart Friess, MD

Location: St. Louis Children's Hospital

Elective Contact: Stuart Friess, MD, [Friess\\_S@kids.wustl.edu](mailto:Friess_S@kids.wustl.edu), 286-2799

Other Information: Students report to the PICU, 7th Floor St. Louis Children's Hospital, 6:30 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This elective is designed to familiarize the student with the diagnosis and treatment of critical illness in infants and children. To this end, each student is made responsible for a small number of assigned cases under the direct supervision of pediatric residents, pediatric critical care fellows, and faculty. The teaching activities emphasize the understanding of pathophysiological processes that lead to respiratory, circulatory, and central nervous system dysfunction and their therapy in the developing subject. Students are expected to participate in all the daily activities of the Pediatric Intensive Care Unit at St. Louis Children's Hospital and be on occasional call after hours.

Student time distribution: Inpatient 100%; Subspecialty Care 100%

Major teaching responsibility: Attending, critical care fellows, and pediatric residents

Patients seen/weekly: 150

On call/weekend responsibility: Yes

### **M65 813 / PEDIATRIC CARDIAC CATHETERIZATION**

Instructor(s): David Balzer, MD, and Shabana Shahanavaz, MBBS

Location: St. Louis Children's Hospital

Elective Contact: David Balzer, MD, 314-454-6095

Other Information: Students report to St. Louis Children's Hospital Cath Lab (7th

Floor), 8:00 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Elective will focus on interpretation of hemodynamic and angiographic data acquired in the cardiac catheterization laboratory.

Student time distribution: Inpatient 95%; Conferences/ Lectures 5%; Subspecialty Care 100%

Major teaching responsibility: Two attendings, supplemented by one fellow

Patients seen/weekly: 10

On call/weekend responsibility: None

### **M65 819 / PEDIATRIC CARDIOLOGY-OUTPATIENT**

Instructor(s): Georgeann Groh, MD; George Van Hare, MD; Shafkat Anwar, MD; Dave Balzer, MD; Charles Canter, MD; Chesney Castleberry, MD; Mark Grady, MD; Patrick Jay, MD; Mark Johnson, MD; Caroline Lee, MD; Jennifer Silva, MD; Shabana Shahanavaz, MBBS; Kathleen Simpson, MD; Gautam Singh, MD; and Bridget Zoeller, MD

Location: St. Louis Children's Hospital and Children's Specialty Care Center

Elective Contact: Georgeann Groh, MD, [groh\\_g@wustl.edu](mailto:groh_g@wustl.edu), 314-454-6095

Other Information: Schedules are kept on the residents' hard drive. For additional information and questions, students should report to 8th Floor, Northwest Tower, Division of Cardiology, Kim Graham, Room 8206, 8:00 a.m. first day of elective to pick up a clinic schedule. Students are encouraged to contact/meet with the elective coordinator, Dr. Groh, prior to the elective, to plan their rotation according to their interests and career goals

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Students will be exposed to the wide spectrum of pediatric cardiology on an

outpatient basis. In addition to general cardiology clinics, several subspecialty clinics are also available, including heart failure/transplant, electrophysiology/inherited arrhythmias, pulmonary hypertension, William's syndrome, Down syndrome, and preventative cardiology clinic. Students will independently evaluate clinic patients referred for a variety of cardiac complaints, such as cardiac murmurs, chest pain, syncope, arrhythmia, as well a wide variety of congenital cardiac lesions, and report their findings to the attending. Cardiac auscultation skills will be enhanced through auscultation of cardiac patients in a clinic environment. Students will learn basics of ECG and echocardiogram interpretation by reviewing studies performed during clinic with the attending. Clinics are held at St. Louis Children's Hospital, and the Children's Specialty Care Center in West County. Students also have the option to participate in outreach clinics that occur on a monthly basis (locations include Cape Girardeau, Poplar Bluff, Rolla, Bonne Terre, and Columbia). Depending on interest, students may spend additional time in the echocardiography laboratory for more in depth exposure to echocardiography. Participation in weekly surgical conference and daily cardiology educational conferences is encouraged.

Student time distribution: Outpatient 95%; Conferences/Lectures 5%; Subspecialty Care 100%

Major teaching responsibility: Multiple attendings

Patients seen/weekly: 25

On call/weekend responsibility: None required

## **M65 826 / GENETICS AND GENOMIC MEDICINE**

Instructor(s): D. Kathy Grange, MD

Location: St. Louis Children's Hospital

Elective Contact: D. Kathy Grange, MD, 314-454-6093

Other Information: Students should report to the Genetics office on the 9th floor of the Northwest Tower at 9:00 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.



The goal of this senior elective is to facilitate the acquisition of clinical skills and knowledge in genetics and genomic medicine. The student will actively participate in the diagnosis and management of pediatric and adult patients with genetic disease in both the ambulatory and in-patient settings. Emphasis will be placed on application of the science of genetics to the bedside and will include a broad exposure to patients with biochemical, metabolic, structural and complex genetic diseases. Students will have an opportunity to visit clinical laboratories involved with diagnosis of genetic disorders, including the cytogenetics, molecular genetics and biochemical genetics laboratories. Students will be expected to participate in the weekly clinical case conference.

Student time distribution: Inpatient 30%; Outpatient 60%; Conferences/Lectures 10%; Subspecialty Care 100%.

Major teaching responsibility: Attendings

Patients seen/weekly: 15

On call/weekend responsibility: None

### **M65 827 / SUB-INTERNSHIP – PEDIATRIC HEMATOLOGY/ONCOLOGY**

Instructor(s): Robert Hayashi, MD

Location: St. Louis Children's Hospital, 9 West

Elective Contact: Robert Hayashi, MD, 314-454-4118

Other Information: Students report to 9 South Nursing Station, 8:00 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Students will assume the responsibilities of a pediatric resident on the inpatient Hematology/Oncology service at St. Louis Children's Hospital.

Student time distribution: Inpatient 90%; Conferences/Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Single attending, first-year hematology/oncology fellow.

Patients seen/weekly: 2-3 patients a day

On call/weekend responsibility: None

### **M65 836 / PEDIATRIC RHEUMATOLOGY**

Instructor(s): Andrew White, MD; Kevin Baszis, MD; Megan Cooper, MD, PhD; and Anthony French, MD, PhD

Location: St. Louis Children's Hospital

Elective Contact: Andrew White, MD, 314-454-6124

Other Information: Students report to Rheumatology Clinic, Suite C, St. Louis Children's Hospital, 8:30 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Opportunities are available to care for children with a variety of immunologic and rheumatologic disorders. Students will see patients in outpatient clinics and inpatient consultations. An in-depth approach to evaluating disorders of the immunologic system will be provided. Students will participate in evaluation of new patients with a variety of rheumatologic diseases including JRA, SLE, and scleroderma at both SLCH and Shriners Hospital clinics. Students may elect to participate in conferences and seminars.

Student time distribution: Inpatient 20%; Outpatient 70%; Conferences/ Lectures 10%; Primary Care 30%; Subspecialty Care 70%

Major teaching responsibility: Andrew White, MD

Patients seen/weekly: 35-40

On call/weekend responsibility: None

### **M65 838 / PEDIATRIC GASTROENTEROLOGY, HEPATOLOGY & NUTRITION**

Instructor(s): Alex Weymann, MD (medical student supervisor); Brian DeBosch, MD, PhD; Christina Hickey, MD; Lori Holtz, MD; Shannon Joerger, MD; Robert Rothbaum,

MD; David Rudnick, MD; Chip Samson, MD; Phillip Tarr, MD; Yumi Turmelle, MD; and Liz Utterson, MD

Location: Gastroenterology Clinical Offices, 9th Floor, Northwest Tower

Elective Contact: Maida Redzic, 286-2848, [redzic\\_m@kids.wustl.edu](mailto:redzic_m@kids.wustl.edu)

Other Information: Students should contact Maida Redzic at least one week in advance of first day of elective for further information.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The rotation in Pediatric Gastroenterology, Hepatology, and Nutrition provides broad exposure to specialized and common pediatric problems. Division patients are seen in the outpatient suites and in the hospital. Students evaluate outpatients with common pediatric complaints like abdominal pain, constipation, and poor growth. Additionally, students experience the ongoing outpatient care of patients with liver disease, inflammatory bowel disease, short-gut syndrome, celiac disease, and other rare disorders. The inpatient service provides experience in caring for patients with acute illnesses such as gastrointestinal bleeding, malnutrition, liver failure, complications of inflammatory bowel disease, and pancreatitis. Students participate in diagnostic and therapeutic endoscopic procedures. At weekly divisional conferences, faculty, fellows, and students review pathology slides from current cases and discuss difficult patient problems and topics of interest.

Student time distribution: The time spent in the outpatient clinic and on the inpatient service can be individualized according to the student's interests. In general, the distribution is: Inpatient 50%; Outpatient 30%; Procedures 10%; Conferences/Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Faculty and fellows

Patients seen/weekly: 150 (entire division) /week (outpatients), 70/week (inpatients), 20/week (procedures). Students participate in a subset (most interesting/instructive cases)

On call/weekend responsibility: None

## **M65 840 / PEDIATRIC INFECTIOUS DISEASES**

Instructor(s): David Hunstad, MD; Alexis Elward, MD; Michele Estabrook, MD; Stephanie Fritz, MD; Ericka Hayes, MD; S. Celeste Morley, MD, PhD; Audrey Odom, MD, PhD; Gregory Storch, MD; Indi Trehan, MD; and Rachel Orscheln, MD; 314-454-6050

Location: St. Louis Children's Hospital

Elective Contact: Pam Wilson, 314-286-2778

Other Information: Students should contact Fellow on call at 314-424-6877 one week prior to start of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This elective is designed to introduce students to the clinical aspects of infectious diseases in children. Students will consult on both inpatients and outpatients. Regular daily activities will include evaluation of new patients, work rounds on inpatient consults, microbiology teaching rounds in the bacteriology and virology labs, and teaching rounds with the infectious diseases attending. Students will attend the general pediatric clinic and the pediatric HIV clinic once per week. Formal teaching sessions include a weekly pediatric infectious disease case conference, a weekly joint clinical conference with the adult infectious diseases group, and a weekly pediatric infectious diseases research conference.

Student time distribution: Inpatient 70%; Outpatient 20%; Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: One or two attendings, one or two fellows

Patients seen/weekly: 5-10 new patients primarily, over 15-20 new patients with team

On call/weekend responsibility: None

## **M65 845 / PEDIATRIC EMERGENCY MEDICINE**

Instructor(s): Kimberly S. Quayle, MD and Robert (Bo) M. Kennedy, MD

Location: St. Louis Children's Hospital

Elective Contact: Carol Heller, 454-2341

Other Information: Students report to Room 9105 Northwest Tower, 8:30 a.m. first day of elective.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The goal of this elective is to provide the senior medical student with a broad introductory clinical experience in pediatric emergency medicine. Functioning as a subintern in the Emergency Unit of St. Louis Children's Hospital, the student will have the opportunity to evaluate and manage patients with a wide variety of emergent and urgent medical and surgical problems. Examples include: respiratory distress, abdominal pain, lacerations, bone injuries, rashes, fever, etc.

Students will work either a day shift (7:30 a.m.-3:00 p.m.) or an evening shift (3:00 p.m.-11:00 p.m.) in rotation. Daily teaching conferences are provided by the attending staff. A weekly meeting of the students and senior faculty will occur to review interesting cases. Also, attending staff and senior pediatric residents provide 24-hour on-site supervision. Each medical student will be asked to prepare a 20-minute presentation on a topic of his/her choosing.

Student time distribution: Outpatient 90%' Conferences/Lectures 10%; Subspecialty Care (Emergency Medicine) 100%

Major teaching responsibility: All EM attendings

Patients seen/weekly: ~30

On call/weekend responsibility: None (unless making up time)

### **M65 849 / PEDIATRIC ENDOCRINOLOGY AND DIABETES**

Instructor(s): Abby Hollander, MD; Bess Marshall, MD; Paul Hruz, MD, PhD; Ana Maria Arbelaez, MD; Neil White, MD; Andrea Granados, MD.; and Jennifer Sprague, MD, PhD, 314-454-6051

Location: St. Louis Children's Hospital

Elective Contact: Kathy Corey, 314-286-2725

Other Information: Student has the option to extend elective. Students report to Endocrinology and Diabetes Office, 9th Floor Northwest Tower, 8:30 a.m. first day of elective.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This elective is designed to include broad clinical experience in pediatric endocrinology and diabetes. The student will have an opportunity to evaluate both patients admitted to St. Louis Children's Hospital and patients referred for consultation in our three outpatient clinics each week. In addition to a divisional conference to review referred patients, several joint conferences with the adult Endocrinology and Diabetes Division (clinical rounds, journal club/research seminar, case conference) are held weekly.

Student time distribution: Inpatient 40%; Outpatient 50%; Conferences/Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attending physicians and fellows

Patients seen/weekly: 10-20 by student

On call/weekend responsibility: None

### **M65 852 / CLINICAL PEDIATRIC PULMONARY MEDICINE**

Instructor(s): Thomas Ferkol, Jr., MD; Leonard Bacharier, MD; Avraham Beigelman, MD; Joshua Blatter, MD; Ferdinand Coste, DO; Andrea Coverstone, MD; Alysia Ellis, MD; Albert Faro, MD; Amjad Horani, MD; Kay Horner, MD; James Kemp, MD; Peter Michelson, MD; Jessica Pittman, MD; Katherine Rivera-Spoljaric, MD; Robert C. Struck, ND; and Stuart C. Sweet, MD, PhD; 314-454-2694

Location: St. Louis Children's Hospital

Elective Contact: Kim Tinsley, 314-454-2158

Other Information: Students should call 314-454-2158 prior to the start of elective for location and time.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and

41.

This elective provides an excellent opportunity for students to be exposed to the full scope of respiratory diseases and sleep disorders in infants and children. Pediatric referrals will be seen in both an inpatient and outpatient setting. Rotation goals for students include: (1) gain greater insights into the genetics, epidemiology, pathophysiology, and clinical presentations of lung diseases in children; (2) learn the importance of the physical examination using inspection, percussion, and auscultation; (3) understand indications and interpretation of diagnostic tests, such as chest imaging, blood gas measurements, polysomnography, pulmonary function testing, and bronchoscopy with biopsy and lavage; and (4) learn to apply therapeutic interventions to common lung diseases. Unique aspects of this rotation include, a broad exposure to children with asthma, cystic fibrosis, ciliopathies, interstitial lung diseases, chronic lung disease of infancy, congenital lung malformations, and end-stage cardiopulmonary diseases referred for lung transplantation. Weekly didactic sessions, as well as divisional clinical conferences, provide opportunities for the trainee to develop his or her presentation skills.

Student time distribution: Inpatient varies; Outpatient varies; Conferences/Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attendings

Patients seen/weekly: 25

On call/weekend responsibility: None

### **M65 861 / NEWBORN MEDICINE**

Instructor(s): Akshaya Vachharajani, MD

Location: 8th Floor Northwest Tower

Elective Contact: Emily Alexander, 314-454-6148

Other Information: Students should schedule an appointment with Emily to meet with Dr. Vachharajani. Appointments should be scheduled one week prior to class start date.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The goal of this course is to provide students with responsibility for caring for newborn infants who range from normal, to acutely ill, to chronically ill, and for their families. The physiology of the transition from fetal to extrauterine existence, the pathophysiology of specific diseases, and primary accountability of the student for patient management decisions and procedures, will be emphasized. In addition, collaboration with nursing staff, other health care providers in decision-making (especially concerning the viability of individual infants), and family management will be regularly required.

Students, during each rotation, will have the option to rotate through the Neonatal Intensive Care Unit at St. Louis Children's Hospital and/or the labor and delivery services at Barnes-Jewish Hospital. Students assigned to the Labor and Delivery Service will routinely be involved in normal newborn care and delivery room management. The student will be expected to rotate patient responsibilities every fourth night.

Student time distribution: Inpatient 90%; Outpatient 5%; Conferences/ Lectures 5%; Subspecialty Care 100%

Major teaching responsibility: Attending, fellow and residents

Patients seen/weekly: 30

On call/weekend responsibility: Every fourth night

### **M65 875 / PEDIATRIC RENAL DISEASE**

Instructor(s): Vikas Dharnidharka, MD, MPH; Keith A. Hruska, MD; S. Paul Hmiel, MD, PhD; Carmen Halabi, MD, PhD; Thomas Keefe Davis, MD; and Tara Neumayr, MD

Location: St. Louis Children's Hospital

Elective Contact: Vikas Dharnidharka, MD, MPH, 314-454-6043

Other Information: Students report to the Division of Nephrology, 314-286-1574, 10th Floor Northwest Tower, 8:15 a.m. first day of elective.



Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This course is designed to provide the student with a wide exposure to all aspects of pediatric renal disease and an opportunity to explore a desired aspect of the field in-depth. The student will be an integral part of the Renal Team and as such will see both inpatients and outpatients. Students will have an opportunity to follow the courses of patients with acute renal disease as well as those with more chronic problems and will help to plan the evaluation and therapeutic management of these patients. Discussions and rounds with the attending staff and fellows emphasize the relationship between clinical problems and the pathophysiology of the underlying disease. These informal teaching sessions are supplemented by more formal sessions. These include renal attending rounds, renal research rounds and grand rounds, which are conducted weekly in conjunction with the Renal Division of Barnes-Jewish Hospital. Renal biopsy material is reviewed with the renal pathologists. Attendance at the weekly pediatric grand rounds and pediatric case conferences is encouraged. Opportunities in clinical and translational research projects will be discussed with interested students.

Student time distribution: Inpatient 50%; Outpatient 40%; Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attendings

Patients seen/weekly: 12-15

On call/weekend responsibility: None

### **M65 876 / PEDIATRIC LUNG TRANSPLANTATION**

Instructor(s): Stuart C. Sweet, MD; Peter Michelson, MD; Albert Faro, MD; and Joshua Blatter, MD, 314-454-2214

Location: St. Louis Children's Hospital

Elective Contact: Kim Tinsley, 314-454-2158

Other Information: Students should call 314-454-2158 prior to the start of elective for

location and time.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

St. Louis Children's Hospital has the largest pediatric lung transplantation program in North America. This unique clinical rotation will enable students to be exposed to the process of transplantation from referral and listing to the actual surgery and post-operative care. Both inpatient and twice weekly outpatient clinics will be available for participation and learning. The use of diagnostic tests, including flexible fiberoptic bronchoscopy with biopsies and bronchoalveolar lavage, histopathology of infection and graft rejection, and the complexities of immunosuppression will all be explored. Weekly multidisciplinary meetings with our team, as well as didactic, psychosocial, and ethical meetings will be available. Our patient referral base is worldwide, and includes infants and children with cystic fibrosis, pulmonary hypertension, complex congenital heart defects, surfactant protein defects and alveolar proteinosis.

Student time distribution: Inpatient 50%; Outpatient 40%; Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attendings

Patients seen/weekly: 20-30

On call/weekend responsibility: None

### **M65 878 / CLERKSHIP IN RURAL PRIMARY CARE PEDIATRICS**

Instructor(s): Michele Estabrook, MD, 314-454-6299; Claudia Preuschoff, MD, in Cape Girardeau, MO

Location: Cape Girardeau, MO

Elective Contact: Liz Scott, St. Louis Children's Hospital, 314-454-6299

Other Information: Students should call Liz Scott, 314-454-6299, at beginning of school year to confirm dates. Students should then report to the site on their first day, at time determined by Dr. Preuschoff. Enrollment limit per period: 1

Valid start weeks for two or four-week blocks are: Weeks 1, 3, 5, 7, 9, 11, 13, 15, 17, 19,

21, 23, 25, 27, 29, 31, 33, 35, 37, 39, and 41.

The clerkship in rural primary care pediatrics is designed to provide the student with first-hand experience in general pediatric practice in a rural community setting. Students will have the opportunity to see patients in a private office, participate in delivery room resuscitation, evaluate patients in the emergency department, and provide pediatric consultation to family practitioners, obstetricians, and surgeons. The objective of this elective is to provide the student with the experience of serving as a general pediatrician providing comprehensive health services in a rural community. Students assume responsibility for ongoing care of patients and have opportunities to perform procedures. Two-week or four-week blocks are available.

Student time distribution: Inpatient 10%; Outpatient 90%; Primary Care 100%

Major teaching responsibility: Single attending

Patients seen/weekly: 25-50

On call/weekend responsibility: Call with instructor, not in-house call

## Research — Pediatrics

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Ana Maria Arbelaez, MD

10th Floor, Northwest Tower

314-286-1138

Clinical Research in Diabetes Mellitus. Clinical research studies on hypoglycemia associated autonomic failure in patients with type 1 diabetes mellitus and on cystic fibrosis related diabetes.

Charles E. Canter, MD

8th Floor, Northwest Tower, Division of Cardiology

314-454-6095

Single-center and multi-center clinical studies and trials in pediatric cardiomyopathy, heart failure, and heart transplantation.

F. Sessions Cole, MD, and Jennifer Wambach, MD, MS

8th Floor, Northwest Tower and 5th Floor McDonnell Pediatric Research Building

314-454-6148

Using candidate gene sequencing, exome sequencing, whole genome sequencing, and computational prediction and filtering strategies for discovery of deleterious variants in population-based cohorts, case-control cohorts, and trios of affected infant and parents, our laboratory focuses on discovering novel candidate genes associated with neonatal respiratory distress syndrome and understanding the contribution of genetic variation in candidate genes of the pulmonary surfactant metabolic pathway (including surfactant protein B, surfactant protein C, NKX2-1, and ABCA3), to risk of neonatal respiratory distress syndrome.

Vikas Dharnidharka, MD, MPH

10th Floor, Northwest Tower

314-286-1574

Clinical and translational research in childhood kidney disease. Our group is involved in several different types of clinical and translational research, including (a) multicenter clinical intervention trials to improve teen adherence with transplant medications and test new medications in children on dialysis; (b) translational biomarker studies in transplant acute and chronic rejection and genomic studies or post-transplant lymphoproliferative disease; (c) large transplant database epidemiological analyses for associations of immunosuppressive regimens with efficacy and morbidity balance.

Allan Doctor, MD

5th Floor, McDonnell Pediatric Research Building

314-454-2527

Role of Erythrocytes in Pathologic Vascular Signaling. We employ several novel experimental platforms to pursue a range of basic, translational, and clinical studies exploring: (1) the role of erythrocytes in context-responsive metabolism of vasoactive

effectors in flowing blood; (2) molecular control of antioxidant defense in erythrocytes; (3) the role of acquired injury to normal erythrocytes in the pathophysiology of acute lung injury and multiple organ failure syndrome; and (4) the impact of genetic abnormalities in erythrocytes upon antioxidant defense and vascular signaling (modeled by sickle cell anemia). Query is modeled on many levels from isolated proteins – cell culture – isolated organ – whole mouse – to studies in humans.

Todd Druley, MD, PhD

Room 6203, 4444 Forest Park Avenue

314-286-2124

Translational genomic research in pediatric oncology. The Druley lab aims to develop novel genomic and computational methodologies for characterizing the functional impact of rare acquired and germline variation on the etiology and outcomes of various pediatric malignancies.

Jennifer Duncan, MD

3rd Floor, McDonnell Pediatric Research Building

314-747-0802

Understanding the Transgenerational Impact of Maternal Nutrition. Our lab uses *Drosophila melanogaster* as a model system to evaluate the impact of maternal caloric excess on metabolism and mitochondrial function in offspring. We are currently pursuing epigenetic mechanisms, specifically the role of histone modification, for altering gene expression. In addition, we are evaluating the molecular mechanisms underlying triglyceride excess in the offspring and are evaluating tissue specific mitochondrial function. This elective is for students interested in research in any of these areas.

Stephanie A. Fritz, MD, MSCI

Room 10125, Northwest Tower

314-454-4115

Our research team studies the epidemiology, microbial virulence mechanisms, and host defenses against community-associated methicillin-resistant *Staphylococcus aureus* (CA-MRSA) colonization, transmission, and disease. We are investigating the

transmission dynamics of CA-MRSA in households and interventions to interrupt the transmission of CA-MRSA and prevent subsequent infections. Our lab also explores the microbial and host genomic determinants, as well as the host immune response to staphylococcal toxins implicated in the pathogenesis of CA-MRSA, in patients across a spectrum of disease states. Our goal is to develop novel approaches for the prevention of CA-MRSA infections.

Carmen Halabi, MD, PhD

4th Floor, McDonnell Pediatric Research Building, Room 4107

314-286-1376

Extracellular matrix in vascular development and disease: The research in the laboratory focuses on vascular biology. Specifically, we study extracellular matrix proteins that make up the elastic fibers of blood vessels. Elastic fibers convey elasticity to blood vessels allowing large arteries to store energy during systole and release it during diastole. Abnormalities in elastic fiber components lead to various complications including hypertension, stiff vessels, and aneurysms. In the laboratory, we utilize mouse models to understand how abnormalities in these proteins lead to disease, which helps us not only learn about the normal function of these proteins, but also identify potential novel therapeutic targets.

Robert J. Hayashi, MD

Suite 9S, St. Louis Children's Hospital

314-454-4118

Clinical research interests include stem cell transplantation and its complications, including Post Transplant Lymphoproliferative Disease and long-term side effects of therapy.

Keith A. Hruska, MD

5th Floor, McDonnell Pediatric Research Building

314-286-2772

The research in the laboratory focuses on chronic kidney disease (CKD) and its complications of the chronic kidney disease mineral bone disorder syndrome that involves skeletal frailty, cardiovascular disease, and vascular calcification. The lab has

discovered important new pathologic mechanisms of disease leading to vascular calcification through systemic effects of factors involved in renal repair, and hyperphosphatemia. Translational studies that continue to develop new therapeutic approaches are being aggressively pursued. New therapies for chronic kidney disease, and its complications, are being studied in clinical trials.

Paul Hruz, MD, PhD

3rd Floor, McDonnell Pediatric Research Building

314-286-2797

Research interests include structure/function relationships in facilitative glucose transporters, congenital and acquired lipodystrophy syndromes, and insulin resistance associated with HIV protease inhibitor therapy.

David A. Hunstad, MD

Room 6106, McDonnell Pediatric Research Building

314-286-2710

Work in our lab focuses on the interactions of pathogenic bacteria with their hosts. We aim to elucidate the modulation of host immune responses by pathogens and to determine the mechanisms by which these bacteria present specific virulence factors on their surfaces. Currently, we use cultured bladder epithelial cell models and murine models of cystitis to investigate the ability of uropathogenic *Escherichia coli* to modulate host innate and adaptive immune responses. In addition, we are studying the molecular mechanisms by which selected outer membrane proteins contribute to the virulence of uropathogenic *E. coli*. Our primary goal is to discover novel targets for interventions that will prevent and better treat bacterial infections of the urinary tract. Along these lines, we are leveraging recent discoveries in UTI pathogenesis to design nanoparticle-based therapies for prevention of acute and recurrent UTI. We have also launched a new translational study of immune responses to UTI in male and female infants, paired with an innovative new mouse model of male UTI that permits first-ever studies of sex differences in these infections.

S. Celeste Morley, MD, PhD

Room 6105, McDonnell Pediatric Research Building

314-286-2136

Our laboratory investigates the molecular mechanisms underlying immune cell signaling and trafficking using mouse models. We hope to identify molecules critical for host defense against infectious organisms such as pneumococcus. Our focus is currently on an actin-binding protein called L-plastin, which is required for normal T and B cell motility.

Audrey R. Odom, MD, PhD

Room 6108, McDonnell Pediatric Research Building

314-747-2370

Antimalarial therapies and diagnostics. Severe malaria due to infection with *Plasmodium falciparum* kills nearly a million children annually. My laboratory uses translational approaches to develop new methods to diagnose and treat malaria. Projects are available in several research areas, ranging from clinical studies to molecular parasitology approaches in the lab. We are eager to have students join either our team on campus, where we study parasite metabolism and evaluate new potential therapies, or our team in the field in Malawi, where we are collecting samples for new malaria biomarkers.

Jose A. Pineda, MD

10th Floor, Northwest Tower, Patient Oriented Research Unit

314-286-1246

Mechanisms of brain injury in children. Our clinical research efforts focus on investigating the mechanisms and potential new treatments for brain injury, including strategies for implementation of best clinical practices. We utilize high-resolution physiological monitoring, biochemical analysis of clinical samples, and innovative implementation science methodologies.

Alan L. Schwartz, PhD, MD

Suite 3S36, St. Louis Children's Hospital

314-454-6005

Investigative efforts are aimed at understanding: (1) the biology of cell surface receptors, including biochemical and molecular dissection of the mechanisms



responsible for receptor-mediated endocytosis of blood coagulation proteins; and (2) the regulation of intracellular protein turnover.

Shalini Shenoy, MD

Suite 9S, St. Louis Children's Hospital

314-454-6018

Investigation of novel reduced intensity transplant strategies for pediatric non-malignant disorders and the immunologic basis of graft versus host disease and graft rejection.

Gregory A. Storch, MD; Kristine Wylie, PhD; Todd Wylie, BS; Richard S. Buller, PhD

Suite 2N52, St. Louis Children's Hospital

314-454-6079

Infectious disease genomics. Our laboratory is interested in applying genomic analysis to a variety of problems in infectious diseases, mostly related to viral infections.

Recent studies include use of next generation sequencing to define the human virome in immunocompromised children, improved methods for detecting viruses using next generation sequencing, use of next generation sequencing for clinical diagnosis, analysis of the human transcriptome response to acute infections, sequencing of the genome of enterovirus D68 and development of a rapid diagnostic test for that virus. Students would have the opportunity to learn genomic techniques, including informatics analysis.

Phillip I. Tarr, MD

Room 6103, McDonnell Pediatric Research Building

314-286-2848

Research in Pediatric Gastroenterology, Hepatology, and Nutrition. Students have opportunities in broadly encompassing research projects. Investigators, in the Division, have funded and vibrant projects in liver disease (fatty liver disease, acute liver failure, biliary atresia, liver transplants, cystic fibrosis liver disease), inflammatory bowel diseases (Crohn's Disease and ulcerative colitis), infections of the gastrointestinal tract (diarrhea), acute liver failure, Hirschsprung Disease, diarrhea, gut microbiome, aflatoxin injury to the liver and stunting, health services research,

necrotizing enterocolitis, antibiotic resistant pathogens in the human gut, and quality improvement, particularly related to inflammatory bowel disease management. Short- and long-term projects can be arranged around these and other related efforts. The exact nature of the project depends on the time that the student can contribute to the effort, and the availability of any of the Division faculty, who all have established track records as mentors. Interested students should contact any of our faculty, or Dr. Tarr, to discuss the possibilities.

Neil H. White, MD, CDE

9th Floor, Northwest Tower, St. Louis Children's Hospital  
314-286-1157

Our work involves patient-oriented research in the management of diabetes in children. Arrangements can be made for involvement in, or development of, projects aimed at improving outcome or prevention of diabetes mellitus and its complications.

David B. Wilson, MD, PhD

Room 3102, McDonnell Pediatric Research Building  
314-286-2834

Research is focused on the molecular switches that regulate control genes during early embryonic development and differentiation.

## Faculty — Pediatrics

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**Gary Arthur Silverman, PHD, MD** Harriet B Spoehrer Professor of Pediatrics (primary appointment)

**Head of the Department of Pediatrics**

BS Washington Jefferson College 1978

PHD University of Chicago 1982

MD University of Chicago 1984

Philip Mulayara Abraham **Instructor in Pediatrics** (primary appointment)

**Susan E Adams, PHD, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

BS University of Kansas 1977

PHD University of Kansas Medical 1984  
BA University of Kansas 1977  
MD Washington Univ in St. Louis 1991  
William S Adams **Associate Professor of Clinical Pediatrics** (primary appointment)  
**Randy Agolia, MD** **Instructor in Clinical Pediatrics** (primary appointment)  
MD St. Louis University Group of 1995  
**Fahd Aqeeb Ahmad, MD** **Assistant Professor of Pediatrics** (primary appointment)  
MD University of MO Columbia 2006  
Etihad S. Al-Falahi **Instructor in Clinical Pediatrics** (primary appointment)  
Suzanne G Albrecht **Instructor in Clinical Pediatrics** (primary appointment)  
**Ardis Kay Allison, DOST** **Instructor in Clinical Pediatrics** (primary appointment)  
DOST Oklahoma St University 1980  
**Denis Ian Altman, MBBCH** **Associate Professor of Clinical Neurology** (primary appointment)  
**Assistant Professor of Clinical Pediatrics**  
MBBCH University of the Witwatersra 1975  
**Patricia J Amato** **Professor of Clinical Pediatrics** (primary appointment)  
BS Notre Dame College 1979  
**Mohamad T Amjad, MD** **Professor of Clinical Pediatrics** (primary appointment)  
BS School Not Listed 1957  
MD School Not Listed 1961  
**Jagruti Shah Anadkat, MD** **Assistant Professor of Pediatrics** (primary appointment)  
BS Ohio State University 2000  
MD Northeastern University 2005  
Kristen Minette Andersen **Instructor in Clinical Pediatrics** (primary appointment)  
**Dana E Ankney, MD** **Instructor in Clinical Pediatrics** (primary appointment)  
MD Wake Forest University 2005  
BA Washington Univ in St. Louis 2001  
Amal F. Antoun **Instructor in Clinical Pediatrics** (primary appointment)  
**Shafkat Anwar, MD** **Assistant Professor of Pediatrics** (primary appointment)  
MD George Washington University 2005  
Ana Marie Arbelaez Perez **Associate Professor of Pediatrics** (primary appointment)  
Jennifer L. Arter **Assistant Professor of Clinical Pediatrics** (primary appointment)  
**Elizabeth L Atkinson, MD** **Instructor in Clinical Pediatrics** (primary appointment)  
MD Hahnemann University 1994  
**Jeffrey Jay Atkinson** **Assistant Professor of Medicine** (primary appointment)  
**Assistant Professor of Pediatrics**  
BS1 Loyola College 1990  
MD1 Hahnemann University 1994  
BS Loyola College 1990  
**Stephanie Jane Attarian, BBA, MD** **Instructor in Pediatrics** (primary appointment)  
BBA East Tennessee State Universi 2004  
MD University of Tennessee 2009  
Robert K Atteberry **Instructor in Clinical Pediatrics** (primary appointment)  
**Adrienne Denise Atzemis, MD** **Associate Professor of Pediatrics** (primary appointment)  
MD Creighton University 2000  
BS John Carroll University 1996  
**Sarah Elizabeth Aubuchon, MD** **Instructor in Clinical Pediatrics** (primary appointment)  
BA University of MO Kansas City 2007

MD University of MO Kansas City 2008

**Sara Ayers, MD**Instructor in Clinical Pediatrics (primary appointment)

MD University of Missouri 1998

**Fariba Azarpour, MDX** (primary appointment)

MD School Not Listed 1971

**Leonard B Bacharier, MD**Professor of Pediatrics (primary appointment)

**Professor of Medicine**

MD Washington Univ in St. Louis 1992

BA Johns Hopkins University 1988

**Jill M Baer, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

BS University of Kentucky 1972

MD University of Kentucky 1975

**Dustin M Baldridge, MD**Instructor in Pediatrics (primary appointment)

MD Baylor University 2011

Sirine A. Baltagi**Assistant Professor of Pediatrics** (primary appointment)

**David T Balzer, MD**Professor of Pediatrics (primary appointment)

MD Saint Louis University 1985

BS University of MO Columbia 1981

**Angela L Bard, MD**Associate Professor of Clinical Pediatrics (primary appointment)

MD Indiana University Bloomington 1981

BS Indiana University Bloomington 1976

Alan Roy Barnette**Adjunct Instructor in Pediatrics** (primary appointment)

Amanda Marie Musto Bashir**Instructor in Pediatrics** (primary appointment)

**Kevin W Baszis, MD**Assistant Professor of Pediatrics (primary appointment)

MD University of MO Kansas City 2004

Maria S Baszis**Instructor in Clinical Pediatrics** (primary appointment)

**Aimee M Baumann-Dudenhoeffer, MD**Instructor in Pediatrics (primary appointment)

BA Cornell University 2000

MD Washington Univ in St. Louis 2005

**Susan L Baumer, MD**Associate Professor of Clinical Pediatrics (primary appointment)

MD University of Pennsylvania 1975

**Christie A. Bayer, MD**Instructor in Clinical Pediatrics (primary appointment)

MD University of MO Columbia 1990

BA Saint Louis University 1986

**Susan Joy Bayliss, MD**Professor of Medicine (Dermatology) (primary appointment)

**Professor of Pediatrics**

BA University of Texas Austin 1970

MD University of Texas Galveston 1974

**Julia M. Becker, MD**Instructor in Clinical Pediatrics (primary appointment)

MD University of Missouri 1997

**Jeffrey John Bednarski, MD, PHD**Assistant Professor of Pediatrics (primary appointment)

BS Duke University 1995

MD Davenport University 2003

PHD Davenport University 2003

**Earl C Beeks Jr, MD**Associate Professor of Clinical Pediatrics (primary appointment)

MD University of Missouri 1981

BS Howard University 1977

**Avraham Beigelman, MD**Associate Professor of Pediatrics (primary appointment)

MD Hebrew University 2000

**Walter F Benoist, MD** Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1972

BA University of Pennsylvania 1968

**Kathleen Mary Berchermann, MD** Assistant Professor of Pediatrics (primary appointment)

BS Amherst College 1998

MD University of Connecticut 2003

Louise E Berdan **Instructor in Clinical Pediatrics** (primary appointment)

**Mary Ellen Bertrand, MD** Associate Professor of Neurology (primary appointment)

**Associate Professor of Pediatrics**

BS McKendree College 1987

MD Southern Illinois University 1993

**Shobha Bhaskar, MBBS** Assistant Professor of Pediatrics (primary appointment)

MBBS Bangalore University 1994

**Priya Narayana Bhat, MS, MD** Assistant Professor of Pediatrics (primary appointment)

MS University of AL Huntsville 2000

BS University of AL Huntsville 1999

MD University of South Alabama 2004

Jean E Birmingham **Associate Professor of Clinical Pediatrics** (primary appointment)

Huldah C Blamoville **Associate Professor of Clinical Pediatrics** (primary appointment)

Kevin J Blanton **Instructor in Clinical Pediatrics** (primary appointment)

**Joshua Andrew Blatter, M PH, MD** Assistant Professor of Pediatrics (primary appointment)

M PH University of Pittsburgh 2014

MD University of Pittsburgh 2008

**Trina Blythe, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

BA Harvard Radcliff 1992

MD Albany Medical College 1996

Joshua P Boldt **Instructor in Clinical Pediatrics** (primary appointment)

**Robert J Bradshaw, MD** Instructor in Clinical Pediatrics (primary appointment)

BA Emory University 1976

BS Emory University 1976

MD Saint Louis University 1980

Celeste Capers Brancato **Assistant Professor of Pediatrics** (primary appointment)

**Rita Thomas Brookheart** Instructor in Medicine (primary appointment)

**Instructor in Pediatrics**

BA Sweet Briar College 2003

Sarah Michelle Brown **Assistant Professor of Pediatrics** (primary appointment)

**Assistant Professor of Pathology and Immunology**

**Instructor in Anesthesiology**

**Yolette V Brown, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

BS City University of New York 1973

MD Washington Univ in St. Louis 1982

Earline A Brownridge **Instructor in Clinical Pediatrics** (primary appointment)

**Seth J Brownridge, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1982

BA Washington Univ in St. Louis 1978

**Kathryn Ann Bucklen, MD** Assistant Professor of Pediatrics (primary appointment)

MD Wake Forest University 2001

Tara M. Budetti **Instructor in Clinical Pediatrics** (primary appointment)  
**Lorena Buffa, MD** **Instructor in Clinical Pediatrics** (primary appointment)  
MD University of MO Columbia 1998  
**Richard S Buller** **Associate Professor of Pediatrics** (primary appointment)  
BS Michigan Tech University 1972  
**Rebecca Kay Bullivant, MD** **Assistant Professor of Clinical Pediatrics** (primary appointment)  
BS Eastern Illinois University 1988  
MD University of Illinois 1992  
**Max H Burgdorf, MD** **Assistant Professor of Clinical Pediatrics** (primary appointment)  
MD Washington Univ in St. Louis 1974  
BA Washington Univ in St. Louis 1970  
**Carey-Ann Dawn Burnham, PHD** **Associate Professor of Pathology and Immunology** (primary appointment)  
**Associate Professor of Pediatrics**  
**Associate Professor of Molecular Microbiology**  
BS University of Alberta 2002  
PHD University of Alberta 2007  
**Candice Marie Burns** **Instructor in Pediatrics** (primary appointment)  
BS Lee College 2004  
**Garrett C Burris, MD** **Associate Professor of Clinical Neurology** (primary appointment)  
**Associate Professor of Clinical Pediatrics**  
BS School Not Listed 1964  
MD Saint Louis University 1968  
**Kelley S. Caddel, MD** **Instructor in Clinical Pediatrics** (primary appointment)  
BA Indiana University Bloomington 1998  
MD George Washington University 2008  
**Archna Calfee, MD** **Instructor in Clinical Pediatrics** (primary appointment)  
BA Case Western Reserve Univ 1997  
MD Washington Univ in St. Louis 2001  
David J Callahan **Assistant Professor of Clinical Neurology** (primary appointment)  
**Assistant in Clinical Pediatrics**  
**Kirstin Lee Campbell, MD** **Assistant Professor of Pediatrics** (primary appointment)  
MD Washington Univ in St. Louis 2006  
BA Johns Hopkins University 2002  
Joseph Edward Cangas **Assistant Professor of Clinical Pediatrics** (primary appointment)  
**Charles E Canter, MD** **Professor of Pediatrics** (primary appointment)  
BS Brown University 1974  
BS1 Brown University 1976  
MD Saint Louis University 1979  
**John R Carlile, MD** **Assistant Professor of Clinical Pediatrics** (primary appointment)  
BS University of Kansas 1972  
MD University of Kansas Medical 1975  
**Michael J. Carney, MD** **Instructor in Clinical Pediatrics** (primary appointment)  
BS University of Notre Dame 1987  
MD University of MO Columbia 1991  
**Rubilinda Q Casino, MD** **Instructor in Clinical Pediatrics** (primary appointment)  
MD University of Santo Tomas 1979  
BS University of Santo Tomas 1979

**Timothy James Casper**Instructor in Pediatrics (primary appointment)

BS University of Dayton 2005

**Chesney Dawn Castleberry, MD**Assistant Professor of Pediatrics (primary appointment)

MD University Texas San Antonio 2005

**Mario Castro, MD, M PH**Professor of Medicine (primary appointment)

**Professor of Radiology**

**Professor of Pediatrics**

**Alan A and Edith L Wolff** Distinguished Professor

MD University of Missouri 1988

BA University of MO Kansas City 1988

M PH Saint Louis University 1998

**Tattamangalam P Chandrika**Associate Professor of Clinical Pediatrics (primary appointment)

**William T Chao, MD**Instructor in Clinical Pediatrics (primary appointment)

BS University of Illinois 1975

MD University of Illinois 1979

**Glenn S Cheng, MD**Instructor in Clinical Pediatrics (primary appointment)

MD University Texas San Antonio 1988

BS University of Texas Austin 1984

**Wak S Chia, MD**Instructor in Clinical Pediatrics (primary appointment)

MD School Not Listed 1974

**Jonathan C Chiles, MD**Assistant Professor of Pediatrics (primary appointment)

MD University of MO Kansas City 2004

BA University of MO Kansas City 2004

**Sri Sankar Chinta**Instructor in Pediatrics (primary appointment)

MS1 Washington University 2015

**Amy Lynn Clark, DOST**Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)

DOST Kirksville College of Osteopat 2009

BA Saint Louis University 2004

**Andrew Stephen Cluster, MD**Instructor in Pediatrics (primary appointment)

BS University of Maryland 2006

MD University of Texas Southwest 2010

**Darryl S Cohen, DOST**Assistant Professor of Clinical Pediatrics (primary appointment)

DOST School Not Listed 1981

BA University of North Texas 1976

**Barbara A Cohan, MD**Professor of Pediatrics (primary appointment)

BA University of Michigan 1974

MD New York University 1978

**F. Sessions Cole, MD**Park J White, M.D. Professor of Pediatrics (primary appointment)

**Vice Chair of the Department of Pediatrics**

**Professor of Cell Biology and Physiology**

**Assistant Vice Chancellor for Children's Health, Washington University School of Medicine**

MD Yale University 1973

BA Amherst College 1969

**John C. Cole, MD, PHD**Instructor in Clinical Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1995

MD Washington Univ in St. Louis 2003

PHD Washington Univ in St. Louis 2003

**Lora Pearlman Collier**Instructor in Clinical Pediatrics (primary appointment)



**Bryanne Noel Colvin**Instructor of Pediatrics (Pending Dean's Approval) (primary appointment)

**Susan Conger**Instructor in Clinical Pediatrics (primary appointment)

**Anne Maureen Connolly, MD**Professor of Neurology (primary appointment)

**Professor of Pediatrics**

MD Indiana University Bloomington 1984

BS Saint Mary's College 1980

**John Nicholas Constantino**Blanche F Ittleson Professor of Psychiatry (Child Psychiatry) (primary appointment)

**Professor of Pediatrics**

BA Cornell University 1984

**Megan A Cooper, PHD, MD**Assistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Pathology and Immunology**

BA College of Wooster 1995

PHD Ohio State University 2002

MD Ohio State University 2004

**Ferdinand Louis Coste III, DOST**Assistant Professor of Pediatrics (primary appointment)

DOST NY Coll of Osteopathic Med 2004

BS Cornell University 1998

**Carrie Christine Coughlin, MD**Assistant Professor of Medicine (Dermatology) (primary appointment)

**Assistant Professor of Pediatrics**

MD Washington Univ in St. Louis 2010

BA Yale University 2005

**Andrea Michele Coverstone, MD**Instructor in Pediatrics (primary appointment)

MD Saint Louis University 2009

**Mary Michaelleen Cradock**Assistant Professor of Clinical Pediatrics (primary appointment)

**Andrew Cronyn, MD**Instructor in Clinical Pediatrics (primary appointment)

MD Albert Einstein College of Med 1996

BA Princeton University 1987

**Betty Cross, MD**Instructor in Clinical Pediatrics (primary appointment)

BS University of Kansas 1979

MD University of Kansas 1983

**Clayton Cummings, BSBA, MD**Instructor in Pediatrics (primary appointment)

BSBA University of MO Columbia 1996

MD University of MO Columbia 2000

**Aarti Sudhir Dalal, DOST**Instructor in Pediatrics (primary appointment)

DOST Rowan College 2007

BA Boston University 2002

**Tracey M. Daly**Instructor in Clinical Pediatrics (primary appointment)

**Michael E Danter**Assistant Professor of Clinical Pediatrics (primary appointment)

**Yasmeen Daud, MD**Associate Professor of Pediatrics (primary appointment)

MD University of MO Kansas City 2000

**John C Davis, MD**Associate Professor of Clinical Pediatrics (primary appointment)

MD University of Michigan 1980

**Kasey L. Davis, PHD, MS**Instructor in Clinical Pediatrics (primary appointment)

PHD University of Indianapolis 2007

BS McKendree College 2002

MS University of Indianapolis 2004



**Ray S Davis, MD** Professor of Clinical Pediatrics (primary appointment)

MD University of Louisville 1978

**Thomas Keefe Davis, MD** Assistant Professor of Pediatrics (primary appointment)

MD St. George's University 2004

BS Regis University 1999

**Jeffrey G Dawson, MD** Professor of Pediatrics (primary appointment)

BA Northwestern University 1982

MD University of Louisville 1982

**Brian J. DeBosch, PHD, MD** Assistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Cell Biology and Physiology**

PHD Washington Univ in St. Louis 2008

MD Washington Univ in St. Louis 2008

BS University of Michigan 2001

**Jane E. Defalco, MS, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MS Rutgers University 1978

MD Case Western Reserve Univ 1984

BA Rutgers University 1977

**Louis P Dehner, MD** Professor of Pathology and Immunology (primary appointment)

**Professor of Pathology in Pediatrics**

MD Washington Univ in St. Louis 1966

BA Washington Univ in St. Louis 1962

Maureen Elaine Dempsey Instructor in Clinical Pediatrics (primary appointment)

**Leanne Michelle DePalma, MD** Instructor in Pediatrics (primary appointment)

MD University of Louisville 2008

BS University of Notre Dame 2004

**Gerry Deschamps, MD** Instructor in Clinical Pediatrics (primary appointment)

MD University of Missouri 1983

BA Washington Univ in St. Louis 1976

**Vikas Ramnath Dharnidharka, MD** Professor of Pediatrics (primary appointment)

UNKNOWN St Xavier's College 1982

MD Topiwala National Med College 1991

**Donald V. Dichsen, MD** Instructor in Clinical Pediatrics (primary appointment)

MD University of Nebraska 1964

BA School Not Listed 1961

Lizbeth H Didriksen Assistant Professor of Clinical Pediatrics (primary appointment)

**Dennis J. Dietzen, PHD** Professor of Pediatrics (primary appointment)

**Professor of Pathology and Immunology**

PHD Indiana University Bloomington 1992

**Patrick A Dillon** Associate Professor of Surgery (Pediatric Surgery) (primary appointment)

**Associate Professor of Pediatrics**

BA Brown University 1983

**Mary C Dinauer, MD, PHD** Professor of Pediatrics (primary appointment)

**Professor of Pathology and Immunology**

BA Lawrence University 1975

MD University of Chicago 1981

PHD University of Chicago 1979

**Tulay F Dincer, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD School Not Listed 1977

**John F Dipersio, MD, PHD** Virginia E and Sam J Golman Professor of Medicine (primary appointment)

**Professor of Pediatrics**

**Professor of Pathology and Immunology**

MD University of Rochester 1980

PHD University of Rochester 1980

BA Williams College 1973

Allan Doctor **Professor of Pediatrics** (primary appointment)

**Associate Professor of Biochemistry and Molecular Biophysics**

**Alla Dorfman, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Cherkovtsov State School of Med 1986

**Nico U. Dosenbach, MD, PHD** Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Pediatrics**

**Assistant Professor of Occupational Therapy**

BA Columbia University 2000

MD Washington Univ in St. Louis 2008

PHD Washington Univ in St. Louis 2008

Catherine J Doty **Instructor in Clinical Pediatrics** (primary appointment)

**Charles H Dougherty** Professor of Clinical Pediatrics (primary appointment)

BA Holy Cross College 1969

Matthew P Dougherty **Instructor in Clinical Pediatrics** (primary appointment)

**Joan Catherine Downey, M PH, MD** Assistant Professor of Pediatrics (primary appointment)

**Assistant Dean, College of Arts & Sciences**

M PH Harvard University 1985

MD Harvard University 1985

**Todd Druley, MD, PHD** Assistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Genetics**

**Assistant Professor of Developmental Biology**

MD University of Illinois Chicago 2002

BS University of Illinois 1994

PHD University of Illinois Chicago 2002

**Jennifer Gries Duncan, MD** Associate Professor of Pediatrics (primary appointment)

MD University of Chicago 1997

BS Vanderbilt University 1993

**Jennifer M Dunn, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 2000

BS Duke University 1996

**Adam C. Eaton, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

BS University of Illinois 1992

MD Washington Univ in St. Louis 1997

Lori L Eberhart **Instructor in Clinical Pediatrics** (primary appointment)

**Robert W Edmonds, MD** Assistant Professor Emeritus of Clinical Pediatrics (primary appointment)

**Asst Prof Emeritus of Clinical Pediatrics** (primary appointment)

MD Washington Univ in St. Louis 1960

BA University of Missouri 1956

**Pirooz Eghtesady, MD, MS, D SC** Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Professor of Pediatrics**

MD University of CA Los Angeles 1993

MS University of CA Los Angeles 1987

BS University of CA Los Angeles 1987

D SC University of CA Los Angeles 1993

**Alysa G. Ellis** Assistant Professor of Pediatrics (primary appointment)

BA University of MO Kansas City 2004

**Alexis M Elward, MPH, MD** Professor of Pediatrics (primary appointment)

**Vice Chair of Quality Improvement and Safety in Pediatrics**

MPH Saint Louis University 2006

BA Loyola College 1988

MD University of Maryland 1994

**Amanda R. Emke** Assistant Professor of Pediatrics (primary appointment)

BS St Marys University 1998

**Jay S Epstein, MS, MD** Professor of Clinical Pediatrics (primary appointment)

BA Emory University 1977

MS Emory University 1978

MD Emory University 1983

**Diane M Eschmann, MD** Instructor in Clinical Pediatrics (primary appointment)

MD University of Missouri 1993

BA Saint Louis University 1989

Jennifer Ess Instructor in Clinical Pediatrics (primary appointment)

**Laura Ann Esswein, MD** Instructor in Clinical Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1987

MD University of Missouri 1991

**Michele Marie Estabrook, MA, MD** Professor of Pediatrics (primary appointment)

BA Bates College 1976

MA Stanford University 1979

MD Case Western Reserve Univ 1983

**Elliott H Farberman, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Saint Louis University 1973

BA University of Rochester 1969

James J Fehr III Professor of Anesthesiology (primary appointment)

**Professor of Pediatrics**

Richard A. Felkel Jr Instructor in Clinical Pediatrics (primary appointment)

**Thomas W Ferkol, MD** Professor of Pediatrics (primary appointment)

**Professor of Cell Biology and Physiology**

**Alexis Hartmann MD** Professor of Pediatrics

MD Ohio State University 1985

BA Case Western Reserve Univ 1981

Isabel Fernandez-Holtzman Instructor in Clinical Pediatrics (primary appointment)

**Melanie Erin Fields, MD** Instructor in Pediatrics (primary appointment)

BS Tulane University 2003

MD Univ of Texas Med Sch Houston 2008

**Mayte Ideliz Figueroa, MD** Associate Professor of Pediatrics (Pending Executive Faculty Approval)  
(primary appointment)

MD Mount Sinai School of Medicine 1992

**Gregory K Finn, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1992

BA Hendrix College 1985

**Emily Faith Fishman, MD**Instructor in Pediatrics (primary appointment)

BS Youngstown St University 2005

MD Northeast Ohio Medical U 2009

**Anna M Fitz-James, MD, M PH**Assistant Professor of Clinical Pediatrics (primary appointment)

MD George Washington University 1981

M PH School Not Listed 1994

BA University of Massachusetts 1975

**Edward B Fliesher, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

MD Saint Louis University 1978

BA Northwestern University 1974

Rebecca Hope FosterInstructor in Clinical Pediatrics (primary appointment)

**Myrto Frangos, MD**Instructor in Clinical Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1981

MD Saint Louis University 1985

Sharon Glave FrazeeAdjunct Assistant Professor of Pediatrics (primary appointment)

**Anthony Raymond French, PHD**Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Pathology and Immunology**

**Associate Professor of Biomedical Engineering**

PHD University of Illinois 1995

**Stuart Howard Friess, MD**Associate Professor of Pediatrics (primary appointment)

MD Mount Sinai School of Medicine 1999

BS Brown University 1985

**Stephanie Ann Fritz, MD, MS**Assistant Professor of Pediatrics (primary appointment)

MD Medical College of Wisconsin 2001

MS Washington Univ in St. Louis 2008

BS Univ of Wisconsin Milwaukee 1997

**John P Galgani Jr, MD**Associate Professor of Clinical Pediatrics (primary appointment)

MD Saint Louis University 1982

BS Massachusetts College of Phar 1977

Maria Virginia GanningerInstructor in Clinical Pediatrics (primary appointment)

**Jane M. Garbutt, MHS, MBCHB**Professor of Medicine (primary appointment)

**Professor of Pediatrics**

MHS University of Toronto 1988

MBCHB Bristol University 1977

**Tessa D Gardner, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

MD Harvard University 1972

BS Mass Inst of Technology (MIT) 1968

Caryn GarrigaAssistant Professor of Clinical Pediatrics (primary appointment)

**Sarah Kathryn Garwood, MD**Assistant Professor of Pediatrics (primary appointment)

BS Truman State University 1998

MD University of MO St Louis 2002

Karen J GarziaInstructor in Clinical Pediatrics (primary appointment)

**Karen Marie Gauvain, MD**Assistant Professor of Pediatrics (primary appointment)

BS University of MO St Louis 1989

MD Saint Louis University 1998

**Avihu Gazit, MD**Associate Professor of Pediatrics (primary appointment)

MD Technion - Israel Inst. of Tec 1997

**Elliot Field Gellman, MD** Professor of Clinical Pediatrics (primary appointment)

MD University of MO Columbia 1961

BA Iowa State University 1957

**John F Gleeson Jr** Instructor in Pediatrics (primary appointment)

**Joseph K Goldenberg, MD** Associate Professor of Clinical Pediatrics (primary appointment)

MD University of MO Kansas City 1980

**Matthew I Goldsmith, MD, MS** Associate Professor of Pediatrics (primary appointment)

**Assistant Professor of Genetics**

BS University of Toronto 1987

MD University of Toronto 1995

MS University of Toronto 1990

**Paul T Golumbek, MD, PHD** Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Pediatrics**

MD Johns Hopkins University 1995

BA University of Maryland 1984

PHD Johns Hopkins University 1995

**Misty Lynn Good, MD** Assistant Professor of Pediatrics (Pending Executive Faculty Approval)

(primary appointment)

MD American U of Caribbean SchMed 2005

**Gary M Goodman** Assistant Professor of Clinical Pediatrics (primary appointment)

**Jaya Goswami, MA, MD** Instructor in Pediatrics (primary appointment)

MA State University of New York 2008

BS Calcutta University 2004

MD SUNY DOWNSTATE MED BROOKLYN 2012

**Ronald M Grady, MD, MA** Associate Professor of Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1989

BA Princeton University 1984

MA Washington Univ in St. Louis 1989

**Laquita A Graham, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Saint Louis University 1996

BA Washington Univ in St. Louis 1991

**Andrea Granados, MD** Instructor in Pediatrics (primary appointment)

MD Universidad Nacional de Columb 2015

**Dorothy K. Grange** Professor of Pediatrics (primary appointment)

BA Mount Holyoke College 1976

**Valerie Janet Gribben** Instructor in Pediatrics (primary appointment)

BA University of AL Birmingham 2008

**Georgeann Keh-Teng Groh, MD** Instructor in Pediatrics (primary appointment)

BS Rice University 2001

MD Baylor College of Medicine 2006

**Jesse Brookshire Groh, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Baylor University 2006

BA Rice University 2002

**Kristin Guilliams, MD** Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Pediatrics**

MD University of Virginia 2006

BS Furman University 2002

**Joseph Donald Gunn, MD** Associate Professor of Pediatrics (primary appointment)

MD University of Virginia 1989

**Santosh K Gupta, DC** Associate Professor of Clinical Pediatrics (primary appointment)

UNKNOWN School Not Listed 1963

DC University of London 1966

UNKNOWN1 University of London 1970

**Christina A. Gurnett, PHD, MD** Associate Professor of Neurology (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Assistant Professor of Pediatrics**

PHD University of Iowa 1998

BS University of Notre Dame 1991

MD University of Iowa 1998

David H Gutmann **Donald O. Schnuck Family Professor of Neurology** (primary appointment)

**Professor of Genetics**

**Professor of Neurological Surgery**

**Professor of Pediatrics**

Allah B Haafiz **Adjunct Associate Professor of Pediatrics** (primary appointment)

**Brian P Hackett, PHD, MD** Professor of Pediatrics (primary appointment)

BA Middlebury College 1975

PHD Boston College 1984

MD Saint Louis University 1986

**Carmen Marie Halabi, PHD, MD** Instructor in Pediatrics (primary appointment)

BS University of Iowa 2001

PHD University of Iowa 2009

MD University of Iowa 2009

**Laura Evelyn Hall, MD** Instructor in Pediatrics (primary appointment)

MD University of Toledo 2010

BS Allegheny College 2005

**Mark E. Halstead, MD** Associate Professor of Orthopaedic Surgery (primary appointment)

**Associate Professor of Pediatrics**

BS Univ of Wisconsin Madison 1994

MD Univ of Wisconsin Madison 1998

**Kim P Hamlin, MD** Assistant Professor of Pediatrics (primary appointment)

MD University of MO St Louis 2001

BS University of MO St Louis 1997

**Roman E Hammes, MD** Instructor in Clinical Pediatrics (primary appointment)

MD University of Iowa 1954

BA University of Iowa 1950

**Melanie G Hampton, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

BS Georgetown College 1976

MD University of Louisville 1981

**Elinor F Hancock, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Meharry Med College 1982

BA Fisk University 1975

**Robin D Hanson** Instructor in Clinical Pediatrics (primary appointment)

BA Johns Hopkins University 1985

Suzanne M Hanson **Assistant Professor of Clinical Pediatrics** (primary appointment)

**Michael Raymond Harris, MS** Professor of Pediatrics (primary appointment)

MS Saint Louis University 1976



**Elizabeth Avis Harrison, MD**Instructor in Clinical Pediatrics (primary appointment)

BA Vanderbilt University 2002

MD Washington Univ in St. Louis 2006

**Thomas J. Harrison Jr, MD**Instructor in Clinical Pediatrics (primary appointment)

BA Saint Louis University 1970

MD University of Missouri 1979

**David E Hartenbach**Associate Professor of Clinical Pediatrics (primary appointment)

BA Saint Louis University 1983

**Mary E Hartman, M PH, MD**Assistant Professor of Pediatrics (primary appointment)

M PH University of Pittsburgh 2006

BA Mount Holyoke College 1994

MD University of Rochester 1999

**John Edward Hartweger**Instructor in Clinical Pediatrics (primary appointment)

**James Larry Harwell, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1958

MD University of Missouri 1961

**Sherrie M Hautt, MD**Professor of Pediatrics (primary appointment)

MD University of Texas Austin 1984

BS University of Texas Austin 1977

**Robert J Hayashi, MD**Professor of Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1986

BS Stanford University 1982

**Ericka V. Hayes, MD**Associate Professor of Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1998

BS Washington Univ in St. Louis 1994

**Kara E Hennelly, MD**Assistant Professor of Pediatrics (primary appointment)

MD UMICCSOM 2015

**Nathan Henninger**Instructor in Clinical Pediatrics (primary appointment)

**Mary Jo Hernandez-Zipfel, MD**Instructor in Clinical Pediatrics (primary appointment)

BS University of North Carolina 1996

MD University of Florida 2001

**Christina Kim Ahn Hickey, MD**Instructor in Pediatrics (primary appointment)

MD Washington Univ in St. Louis 2009

**Tunde Hidvegi, MS, PHD**Associate Professor of Pediatrics (primary appointment)

MS Eötvös Loránd University 1980

PHD Eötvös Loránd University 1988

**Laura Hill, MD**Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)

MD University of Illinois Chicago 2002

**Jennifer M Hinton**Instructor in Clinical Pediatrics (primary appointment)

**Keiko Hirose, MD**Associate Professor of Otolaryngology (primary appointment)

Associate Professor of Audiology and Communication Sciences

Associate Professor of Pediatrics

Vice Chairman of Otolaryngology

MD Harvard University 1993

**Stanley P Hmiel, MD, M PHIL, PHD**Professor of Pediatrics (primary appointment)

MD Case Western Reserve Univ 1989

BS Case Western Reserve Univ 1980

M PHIL Cambridge University 1981

PHD Case Western Reserve Univ 1987

Sandra Jean Hodel **Instructor in Clinical Pediatrics** (primary appointment)

**Dee Hodge III, MD** **Professor of Pediatrics** (primary appointment)

BA Occidental College 1974

MD University of CA San Francisco 1978

**Robert J Hoffman, MD** **Professor of Clinical Pediatrics** (primary appointment)

MD Saint Louis University 1976

BS University of Illinois 1972

**Russell G. Hoffmann, PHD** **Instructor in Clinical Pediatrics** (primary appointment)

PHD University of Florida 1995

**Nicholas Alan Holekamp, MD** **Instructor in Clinical Pediatrics** (primary appointment)

MD Saint Louis University 1987

BA Dartmouth College 1982

**Abby Solomon Hollander, MD** **Associate Professor of Pediatrics** (primary appointment)

BA Cornell University 1982

MD University of Cincinnati 1986

**Nancy E Holmes, MD** **Professor of Clinical Pediatrics** (primary appointment)

MD University of Missouri 1976

BA University of Kansas 1972

**Lori Rachel Holtz, MD** **Assistant Professor of Pediatrics** (primary appointment)

MD Ohio State University 2003

**Rochelle LeAnn Holtzman, PHD, MS** **Instructor in Clinical Pediatrics** (primary appointment)

PHD University of Kansas 2010

BS Loyola University 2003

MS University of Kansas 2006

**J. Joseph Horan, MD** **Instructor in Clinical Pediatrics** (primary appointment)

MD Saint Louis University 1971

BA Wesleyan University 1967

**Amjad Horani, MD** **Assistant Professor of Pediatrics** (primary appointment)

BS Hebrew University-Hadassah Med 2015

MD Hebrew University-Hadassah Med 2004

**Caroline Clare Horner, MD** **Associate Professor of Pediatrics** (primary appointment)

MD Saint Louis University 2000

BA Washington Univ in St. Louis 1993

**Jennifer A. Horst, MD** **Instructor in Pediatrics** (primary appointment)

BS University of Missouri Columbi 2003

MD University of Missouri Columbi 2007

**Christine M Hrach, MD, BSW** **Assistant Professor of Pediatrics** (primary appointment)

MD Saint Louis University 2002

BSW Saint Louis University 1998

**Keith A Hruska, MD** **Professor of Pediatrics** (primary appointment)

**Professor of Cell Biology and Physiology**

**Professor of Medicine**

BS Creighton University 1965

MD Creighton University 1969

**Paul W. Hruz, PHD, MD** **Associate Professor of Pediatrics** (primary appointment)

**Associate Professor of Cell Biology and Physiology**

PHD Medical College of Wisconsin 1993



MD Medical College of Wisconsin 1994

BS Marquette University 1987

**Frederick Szujuei Huang, MD** Associate Professor of Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1990

MD Baylor University 1994

**Monica L Hulbert** Associate Professor of Pediatrics (primary appointment)

BS Indiana University Bloomington 1996

**David A Hunstad, MD** Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Molecular Microbiology**

MD Washington Univ in St. Louis 1995

BA Carleton College 1991

**Jane Alyce Hunt, MD** Instructor in Pediatrics (primary appointment)

MD Washington Univ in St. Louis 2014

BS Washington Univ in St. Louis 2014

**Richard J Iken, MD** Instructor in Clinical Pediatrics (primary appointment)

BA Univ of Wisconsin Madison 1972

MD University of MO Columbia 1978

**Carl S Ingber, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Boston University 1972

BA University of Rochester 1968

**Ronald R Jackups Jr.** Assistant Professor of Pathology and Immunology (primary appointment)

**Assistant Professor of Pediatrics**

BS Washington Univ in St. Louis 2000

**David M Jaffe, MD** Adjunct Professor of Pediatrics (primary appointment)

MD University of Chicago 1978

BA Stanford University 1972

**Sue E Jagler** Instructor in Clinical Pediatrics (primary appointment)

**Siddharth Vinod Jain, MD** Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Pediatrics**

MD D.Y. Patil Medical College 2003

**Patricia A Jamerson** Instructor in Clinical Pediatrics (primary appointment)

**Patrick Y Jay** Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Genetics**

**Yasangi Maina Jayasihal** Instructor in Clinical Pediatrics (primary appointment)

**Shannon M. Joerger, MD** Instructor in Pediatrics (primary appointment)

BS Southern Ill Univ Edwardsville 1995

MD University of Missouri-Columbi 2007

**Audrey Ragan Odom John, PHD, MD** Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Molecular Microbiology**

BS Duke University 1996

PHD Duke University 2002

MD Duke University 2003

**Denise R Johnson, MD** Associate Professor of Clinical Pediatrics (primary appointment)

BA Oakwood College 1979

MD Loma Linda University 1984

**Joyce D Johnson, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Case Western Reserve Univ 1982

BS Oberlin College 1977

**Mark C Johnson, MD** Associate Professor of Pediatrics (primary appointment)  
MD Johns Hopkins University 1982

**Staci R. Johnson, MD** Instructor in Clinical Pediatrics (primary appointment)  
MD Southern Illinois University 2002

**William Lee Johnson, MD** Associate Professor of Clinical Pediatrics (primary appointment)  
**Adjunct Associate Professor of Pediatrics**  
MD University of Missouri 1981  
BS University of Missouri 1977

**Angela Marie Jones, MD** Instructor in Clinical Pediatrics (primary appointment)  
MD Universidad Nacional de Columb 1989

**Katherine McMullin Jones, MD** Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)  
BA Amherst College 2001  
MD Washington Univ in St. Louis 2007

**Larry A Jones, MD** Assistant Professor of Clinical Pediatrics (primary appointment)  
BA Johns Hopkins University 1972  
MD Johns Hopkins University Medic 1976

**Heather Robin Joyce, MD** Instructor in Clinical Pediatrics (primary appointment)  
MD University of MO Columbia 2006  
BS University of MO Columbia 2002

**Samuel F. Julian, MD** Instructor in Pediatrics (primary appointment)  
MD University of Texas Southwest 2007  
BS University of Texas Austin 2001

**Erzsebet Jung, MD** Instructor in Clinical Pediatrics (primary appointment)  
MD School Not Listed 1987

**Aadil Kausarali Kakajiwala, MBBS** Instructor in Pediatrics (primary appointment)  
MBBS Topiwala National Med College 2008

**Thomas J Kasper** Instructor in Clinical Pediatrics (primary appointment)

**Jenny E Kaufman** Instructor in Clinical Pediatrics (primary appointment)  
BS University of Michigan 1999

**Robert S Kebler, MD** Instructor in Clinical Pediatrics (primary appointment)  
MD Saint Louis University 1984  
BS Muhlenberg College 1980

**Martin S Keller, MD** Associate Professor of Surgery (Pediatric Surgery) (primary appointment)  
**Associate Professor of Pediatrics**  
BS University of Pennsylvania 1985  
MD University of Vermont 1990

**Robert V Kellow** Assistant Professor of Clinical Pediatrics (primary appointment)

**Brian J Kelly, MD** Assistant Professor of Clinical Pediatrics (primary appointment)  
MD School Not Listed 1972  
BS School Not Listed 1964

**James Scott Kemp** Professor of Pediatrics (primary appointment)

**Michele E Kemp, MD** Associate Professor of Clinical Pediatrics (primary appointment)  
MD Washington Univ in St. Louis 1981  
BA Washington Univ in St. Louis 1977

**Robert M Kennedy** Professor of Pediatrics (primary appointment)  
BS Georgia Tech 1975

**Kent Leon Killian, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Saint Louis University 1990

BA Saint Louis University 1986

**Allison A King, MD** Associate Professor of Occupational Therapy (primary appointment)

Associate Professor of Pediatrics

Associate Professor of Pediatrics

Associate Professor of Education (Courtesy)

Associate Professor of Surgery (General Surgery)

Associate Professor of Medicine

Associate Professor of Medicine

MD University of MO Columbia 1996

**Sonya Kirmani, MD** Instructor in Pediatrics (primary appointment)

BS Northwestern University 2006

MD University of Iowa 2010

Maleewan Kitcharoensakkul Instructor in Pediatrics (primary appointment)

Richard D Knight Instructor in Clinical Pediatrics (primary appointment)

**Shirley M Knight, MD** Professor of Clinical Pediatrics (primary appointment)

BA Dillard University 1976

MD Washington Univ in St. Louis 1980

**Joel S Koenig, MD** Professor of Clinical Pediatrics (primary appointment)

MD Vanderbilt University 1982

**Kenneth A Koerner, MD** Associate Professor of Clinical Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1935

MD Washington Univ in St. Louis 1941

**Nikoleta S. Kolovos, MD** Associate Professor of Pediatrics (primary appointment)

MD University of Pittsburgh 1996

BS University of Pittsburgh 1991

**Katherine L Komendowski, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD School Not Listed 1984

BS Marymount College 1980

**Jamie L Kondis, MD** Instructor in Pediatrics (primary appointment)

BS Westminster College 2002

MD Indiana University South Bend 2006

**Beth Ann Kozel, MD, PHD** Adjunct Assistant Professor of Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1996

MD Washington Univ in St. Louis 2004

PHD Washington Univ in St. Louis 2004

James M Krafcik Instructor in Clinical Pediatrics (primary appointment)

Lily Tadayyon Kregenow Instructor in Clinical Pediatrics (primary appointment)

**Katherine L Kreusser, MD** Professor of Clinical Pediatrics (primary appointment)

MD Indiana University Bloomington 1978

BS University of Pennsylvania 1973

**Denise Kung, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Yale University 1991

BA University of Missouri 1986

**Jennifer S Ladage, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Saint Louis University 1991

BS Valparaiso Universty 1987

**Stacie Sharon Laff, MD** Instructor in Clinical Pediatrics (primary appointment)

BA Lawrence University 1989

MD School Not Listed 1993

Li-Ling Lail **Instructor in Clinical Pediatrics** (primary appointment)

**Douglas P. Larsen, MD** **Associate Professor of Neurology** (primary appointment)

**Associate Professor of Pediatrics**

BA Brigham Young University 1999

MD University of Utah 2003

**Russell K Lawrence, MD** **Adjunct Instructor in Pediatrics** (primary appointment)

MD Baylor College of Medicine 2002

BS University of Texas Austin 1998

**Leland M Laycob, MD** **Instructor in Clinical Pediatrics** (primary appointment)

BA Washington Univ in St. Louis 1964

MD University of Missouri 1968

Richard Lee Lazaroff **Professor of Clinical Pediatrics** (primary appointment)

**Caroline Kim Lee, MD** **Associate Professor of Pediatrics** (primary appointment)

BA Wellesley College 1995

MD University of Virginia 1999

**Kathryn B Leonard, MD** **Instructor in Pediatrics (Pending Dean's Approval)** (primary appointment)

MD Saint Louis University 2010

**Kenneth C Levy** **Instructor in Clinical Pediatrics** (primary appointment)

BA Emory University 1983

**Philip Thaler Levy, MD** **Adjunct Instructor in Pediatrics** (primary appointment)

MD Tel-Aviv University 2003

BS Rutgers University 2001

**Steve Ming-Che Liao, MD** **Assistant Professor of Pediatrics** (primary appointment)

BS University of CA Los Angeles 1999

MD Saint Louis University 2003

**Barry Light, MD** **Associate Professor of Clinical Pediatrics** (primary appointment)

BA University of Missouri 1973

MD University of Missouri 1980

**Anna Lijowska, MD** **Assistant Professor of Pediatrics** (primary appointment)

MD Jagiellonian University 1988

**David D Limbrick Jr** **Professor of Neurological Surgery** (primary appointment)

**Professor of Pediatrics**

BS College of William and Mary 1995

**John Chao-Chun Lin, MD** **Assistant Professor of Pediatrics** (primary appointment)

MD University of Virginia 1998

BS University of Virginia 1994

**Robert D Lins** **Instructor in Clinical Pediatrics** (primary appointment)

BA Washington Univ in St. Louis 1965

**Blake Allen Little, MD** **Instructor in Clinical Pediatrics** (primary appointment)

MD University of MO Kansas City 1986

**Gregg T Lueder, MD** **Professor of Ophthalmology and Visual Sciences** (primary appointment)

**Professor of Pediatrics**

MD University of Iowa 1985

BS Iowa State University 1981

**Clifford James Luke, PHD** **Associate Professor of Pediatrics (Pending Executive Faculty Approval)**  
(primary appointment)

PHD University of Surrey 1999

BS University of Liverpool 1994

John C. Madden **Instructor in Clinical Pediatrics** (primary appointment)

**Jeffrey A Magee, PHD, MD** **Assistant Professor of Pediatrics** (primary appointment)

**Assistant Professor of Genetics**

PHD Washington Univ in St. Louis 2005

MD Washington Univ in St. Louis 2005

**Jay Randolph Malone, MD** **Instructor in Pediatrics (Pending Dean's Approval)** (primary appointment)

BS University of Oklahoma 2005

MD University of Oklahoma 2009

**Mark John Manary, MD** **Helene B. Roberson Professor of Pediatrics** (primary appointment)

MD Washington Univ in St. Louis 1982

BS Mass Inst of Technology (MIT) 1977

**John F Mantovani, MD** **Associate Professor of Clinical Neurology** (primary appointment)

**Assistant Professor of Clinical Pediatrics**

BA University of Evansville 1971

MD University of Missouri 1974

Soe S Mar **Associate Professor of Neurology** (primary appointment)

**Associate Professor of Pediatrics**

**Bess Adkins Marshall, MD** **Professor of Pediatrics** (primary appointment)

**Professor of Cell Biology and Physiology**

BS Vanderbilt University 1982

MD Vanderbilt University 1986

**Megan Spokes Martin, MD** **Instructor in Pediatrics** (primary appointment)

BA University of Notre Dame 2007

MD University of Kansas 2012

**Patrice Mathews, MD** **Instructor in Clinical Pediatrics** (primary appointment)

BA Trinity University 1984

MD University of Oklahoma 1988

**Amit Mathur, MBBS** **Professor of Pediatrics** (primary appointment)

MBBS Delhi University 1982

BS Delhi University 1976

**Marvin M Maurer Jr, MD** **Assistant Professor of Clinical Pediatrics** (primary appointment)

BA Washington Univ in St. Louis 1968

MD Washington Univ in St. Louis 1972

**Ariane E May, MD** **Associate Professor of Clinical Pediatrics** (primary appointment)

BA Tufts University 1983

MD School Not Listed 1993

William H McAlister **Professor of Radiology** (primary appointment)

**Professor of Radiology in Pediatrics**

**John D McAllister, MD** **Professor of Anesthesiology** (primary appointment)

**Professor of Pediatrics**

MD University of Manitoba 1980

BS University of Manitoba 1982

Jina L McAtee **Assistant Professor of Clinical Pediatrics** (primary appointment)

Megan McBride **Instructor in Clinical Pediatrics** (primary appointment)

Steven D McGaughey **Instructor in Pediatrics** (primary appointment)

Carli Laura McGeel **Instructor in Pediatrics** (primary appointment)

**Bryan Edward McGill, MD** **Instructor in Neurology** (primary appointment)

**Instructor in Pediatrics**

MD Baylor University 2008

BS Denison University 1999

**Mark E. McGranahan, MD** **Instructor in Clinical Pediatrics** (primary appointment)

MD Saint Louis University 1997

**Thomas Casey McKinney, MD** **Professor of Clinical Pediatrics** (primary appointment)

MD Washington Univ in St. Louis 1980

BA Illinois Wesleyan University 1976

Robert Carolin McKinstry III **Professor of Radiology** (primary appointment)

**Professor of Pediatrics**

**William A McManus, MD** **Assistant Professor of Pediatrics** (primary appointment)

MD Saint Louis University 1986

BA Carroll College 1980

Christopher Clayton McPherson **Assistant Professor of Clinical Pediatrics** (primary appointment)

**Robert Paul Mecham, PhD** **Alumni Endowed Professor of Cell Biology and Physiology** (primary appointment)

**Professor of Medicine**

**Professor of Biomedical Engineering**

**Professor of Pediatrics**

PHD Boston University 1977

BS University of Utah 1973

Nalini K Mehta **Instructor in Clinical Pediatrics** (primary appointment)

P Aravindaksha Menon **Instructor in Clinical Pediatrics** (primary appointment)

**Sarah J. Mermelstein, MD** **Instructor in Pediatrics** (primary appointment)

MD Drexel University 2007

BA Indiana University Bloomington 2002

**Elizabeth Sarah Messer, MD** **Instructor in Pediatrics (Pending Dean's Approval)** (primary appointment)

BS Washington Univ in St. Louis 2009

MD University of Illinois Chicago 2013

**Mary Shaughnessy Meyer, MD** **Assistant Professor of Clinical Pediatrics** (primary appointment)

MD Saint Louis University 2003

BA Saint Louis University 1999

**Peter Howard Michelson, MD, MS** **Associate Professor of Pediatrics** (primary appointment)

MD Jefferson Medical College 1983

MS University of Pittsburgh 2007

BS Bowdoin College 1978

**Jenny Lynn Miele, MD** **Instructor in Clinical Pediatrics** (primary appointment)

BS Valparaiso University 2001

MD University of Illinois at Chic 2005

**Donna C Miller, MD** **Instructor in Clinical Pediatrics** (primary appointment)

MD University of Miami 1982

**Suzanne Lee Miller, MD** **Instructor in Clinical Pediatrics** (primary appointment)

BS University of Illinois 1974

MD University of Illinois 1978

Christopher Molitor **Instructor in Clinical Pediatrics** (primary appointment)



Gail Lynn Moolsintong **Instructor in Clinical Pediatrics** (primary appointment)  
**Darlene A. Moore, MD** **Instructor in Clinical Pediatrics** (primary appointment)  
BS Eastern Illinois University 1974  
MD University of Illinois 1978  
**Mary R Morgan, MD** **Instructor in Clinical Pediatrics** (primary appointment)  
MD Washington Univ in St. Louis 1990  
BA Miami University 1984  
**Sharon Celeste Morley, MD, PHD** **Assistant Professor of Pediatrics** (primary appointment)  
**Assistant Professor of Pathology and Immunology**  
MD Harvard University 2002  
PHD Harvard University 2002  
Daniel R. Morra **Instructor in Clinical Pediatrics** (primary appointment)  
**Lisa Mae Moscoso, MD, PHD** **Associate Professor of Pediatrics** (primary appointment)  
**Associate Dean for Student Affairs**  
MD Washington Univ in St. Louis 1998  
PHD Washington Univ in St. Louis 1998  
BS Univ of Wisconsin Madison 1989  
**Janet Gwen Mueller, MD** **Assistant Professor of Clinical Pediatrics** (primary appointment)  
BA Kansas State University 1985  
MD Washington Univ in St. Louis 1992  
Margaret M Mueller **Instructor in Clinical Pediatrics** (primary appointment)  
Steven Mueth **Instructor in Clinical Pediatrics** (primary appointment)  
Manohara Munimuddappa **Instructor in Clinical Pediatrics** (primary appointment)  
**Kevin J Murphy, MD** **Professor of Clinical Pediatrics** (primary appointment)  
MD Saint Louis University 1978  
BS Birmingham Southern College 1974  
Gian Marco Musarra **Assistant Professor of Pediatrics** (primary appointment)  
**John A Myers, MD** **Instructor in Clinical Pediatrics** (primary appointment)  
MD Southern Illinois University S 1997  
BA Washington Univ in St. Louis 1993  
Venkata S. Nagireddi **Instructor in Clinical Pediatrics** (primary appointment)  
**Tasnim A Najaf, MD** **Assistant Professor of Pediatrics** (primary appointment)  
MD Dow Medical College Karachi 1991  
Ayesha Najib **Instructor in Clinical Pediatrics** (primary appointment)  
**Alison C Nash** **Professor of Clinical Pediatrics** (primary appointment)  
BS Howard University 1977  
Lynn G Nelms **Instructor in Clinical Pediatrics** (primary appointment)  
April Erwin Nesin **Instructor in Clinical Pediatrics** (primary appointment)  
**Tara Marie Neumayr, MD** **Assistant Professor of Pediatrics** (primary appointment)  
BA Duke University 1999  
MD Univ South Dakota Vermillion 2003  
**Jason Guy Newland, MS, MD** **Associate Professor of Pediatrics (Pending Executive Faculty Approval)** (primary appointment)  
MS University of Cincinnati 2011  
MD University of Oklahoma 2000  
**Khai Ngo, MD** **Instructor in Clinical Pediatrics** (primary appointment)  
MD School Not Listed 1974  
Ellen Margaret Nicastro **Instructor in Clinical Pediatrics** (primary appointment)

**Ramzi T Nicolas**Adjunct Associate Professor of Pediatrics (primary appointment)

**Michael Justin Noetzel, MD**Professor of Neurology (primary appointment)

**Professor of Pediatrics**

**Vice Chair of Pediatric and Developmental Neurology**

BA Yale University 1973

MD University of Virginia 1977

**David Craig Norman, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

MD School Not Listed 1992

BS University of Illinois 1988

**Karen K Norton, MD**Associate Professor of Clinical Pediatrics (primary appointment)

BS Loyola University 1985

MD Louisiana St University 1989

**Douglase Susumu Nozaki**Instructor in Clinical Pediatrics (primary appointment)

**Christian J Nunez, MD**Instructor in Pediatrics (primary appointment)

BA Washington Univ in St. Louis 2005

MD University of Illinois 2013

**Kevin Sullivan O'Bryan, MD**Instructor in Pediatrics (primary appointment)

MD University of Michigan 2010

**Shawn David O'Connor, MD**Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)

MD Medical College Georgia 2010

BS University of Georgia 2006

**Jerome H O'Neil Jr, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

MD Saint Louis University 1981

BA University of Missouri 1977

**Justin O Ogbevden, MBBS**Instructor in Clinical Pediatrics (primary appointment)

MBBS University of Lagos 1982

**Andrea Cohron Orr**Instructor in Clinical Pediatrics (primary appointment)

BS University of Georgia 2007

**Valerie Orrico**Instructor in Clinical Pediatrics (primary appointment)

**Rachel C. Orscheln, MD**Assistant Professor of Pediatrics (primary appointment)

MD University of MO Columbia 1998

BS University of MO Columbia 1994

**Cynthia M. Ortinau, MD**Assistant Professor of Pediatrics (Pending Executive Faculty Approval) (primary appointment)

MD University of MO Kansas City 2005

**Irma I Ortiz-Arroyo**Assistant Professor of Clinical Pediatrics (primary appointment)

**Amir Mordechai Oryan**Visiting Assistant Professor of Pediatrics (primary appointment)

**Alison H Oswald**Instructor in Clinical Pediatrics (primary appointment)

**Pamela B Padda, MD**Instructor in Clinical Pediatrics (primary appointment)

BA University of Michigan 1986

MD University of Illinois 1990

**Stephen C Pak, PHD**Associate Professor of Pediatrics (Pending Executive Faculty Approval) (primary appointment)

BS University of Sydney 1990

PHD University of New South Wales 1996

**Jennifer Ann Panasci**Instructor in Clinical Pediatrics (primary appointment)

**Tae Sung Park, MD**Shi Hui Huang Professor of Neurological Surgery (primary appointment)



**Professor of Neuroscience**

**Professor of Pediatrics**

MD Yonsei University 1971

BS Yonsei University 1967

**David H Perlmutter, MD** Executive Vice Chancellor for Medical Affairs (primary appointment)

**Dean of the School of Medicine**

**Professor of Pediatrics**

BS1 University of Rochester 1974

MD Saint Louis University 1978

**Jose A Pineda Soto, MD** Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Neurology**

BS Francisco Marroquin University 1988

MD Francisco Marroquin University 1993

**Christopher James Pingel, MD** Instructor in Pediatrics (primary appointment)

BS Washington Univ in St. Louis 2003

MD Saint Louis University 2007

**Jessica E Pittman, MD, M PH** Assistant Professor of Pediatrics (primary appointment)

BS Oberlin College 1998

MD Washington Univ in St. Louis 2004

M PH University North Carolina 2009

**Daniel S Plax, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1993

BA Brown University 1988

**Kathryn L. Plax, MD** Ferring Family Chair Professor of Pediatrics (primary appointment)

BA Brown University 1989

MD University of Rochester 1996

**John Samuel Plowden, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

BS Washington & Lee 1979

MD Medical College Georgia 1984

**Santiago Boye Plurad Jr, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1982

MD School Not Listed 1987

**Juanita C Polito-Colvin, MD** Associate Professor of Clinical Pediatrics (primary appointment)

BA University of Dallas 1975

MD Southwest Texas State Unvers 1979

**Claudia Preuschoff** Instructor in Clinical Pediatrics (primary appointment)

**Cassandra Michelle Pruitt, MD** Associate Professor of Pediatrics (primary appointment)

MD Texas Tech University 1999

BA Emory University 1994

**Peter J Putnam** Assistant Professor of Clinical Pediatrics (primary appointment)

**Jenna M Putzell** Instructor in Clinical Pediatrics (primary appointment)

**Robert Louis Quaas** Instructor in Clinical Pediatrics (primary appointment)

BA Cornell College 1970

BS University of South Dakota 1973

**Kimberly S Quayle, MD** Professor of Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1988

**Jennifer Quinn** Instructor in Clinical Pediatrics (primary appointment)

BA University of Kentucky 1982

**Mohammad H Rahman**Instructor in Clinical Pediatrics (primary appointment)  
UNKNOWN School Not Listed 1960

**Vidya Raman**Instructor in Clinical Pediatrics (primary appointment)

**Pathmawathy T Ramesvara, MS**Instructor in Clinical Pediatrics (primary appointment)  
MS School Not Listed 1972

**Rakesh Rao, MD**Assistant Professor of Pediatrics (primary appointment)  
MD Maulana Azad Medical College 1996

**Emanuel Rashed, MD**Instructor in Clinical Pediatrics (primary appointment)  
MD Saint Louis University 1962  
BS University of Illinois 1958

**Sheryl S Ream, MD**Instructor in Clinical Pediatrics (primary appointment)  
MD Saint Louis University 1986  
BA Saint Louis University 1982

**Neil F. Rebbe, PHS, MD**Instructor in Clinical Pediatrics (primary appointment)  
BA University of MO St Louis 1978  
PHS Washington Univ in St. Louis 1983  
MD Saint Louis University 1996

**Timothy Reed**Instructor in Clinical Pediatrics (primary appointment)

**Phillip D Reichert**Instructor in Clinical Pediatrics (primary appointment)

**Catherine R Remus, MD, MSN**Assistant Professor of Clinical Pediatrics (primary appointment)  
MD School Not Listed 1983  
BA Luther College 1975  
MSN Rush University 1978

**Kenneth Eugene Remy, MD**Assistant Professor of Pediatrics (primary appointment)  
MD Jefferson Medical College 2004

**George H Rezabek, DOST**Instructor in Clinical Pediatrics (primary appointment)  
DOST School Not Listed 1988

**Edward K Rhee**Adjunct Assistant Professor of Pediatrics (primary appointment)  
BA University of Pennsylvania 1986

**Noor Riaz, MD**Instructor in Pediatrics (primary appointment)  
MD Washington Univ in St. Louis 2008

**Joan K. Riley, PHD**Assistant Professor of Obstetrics and Gynecology (primary appointment)  
**Assistant Professor of Pediatrics**  
**Instructor in Medicine**  
PHD Washington Univ in St. Louis 1998

**Katherine Rivera-Spoljaric, MS, MD**Associate Professor of Pediatrics (primary appointment)  
BS University of Puerto Rico 1997  
MS Washington Univ in St. Louis 2008  
MD University of Puerto Rico 2001

**William L. Rives, MS**Assistant Professor of Pediatrics (primary appointment)  
MS University of Missouri 1992

**Janis B Robinson, MA**Associate Professor of Clinical Pediatrics (primary appointment)  
MA Yale University 1972

**Toby Andrew Rockefeller, MD**Assistant Professor of Pediatrics (Pending Executive Faculty Approval) (primary appointment)  
BS Oklahoma St University 2005  
MD University of Oklahoma 2009

**Sandeep Rohatgi, MD**Instructor in Clinical Pediatrics (primary appointment)

MD U Medical-Dental Of New Jersey 1993

BA Saint Louis University 1989

**James R Rohrbaugh, MD** Associate Professor of Clinical Neurology (primary appointment)

**Associate Professor of Clinical Pediatrics**

MD Ohio State University 1974

BA Yale University 1971

**Ayelet Rosen, MD** Instructor in Pediatrics (primary appointment)

BS Rutgers University 2015

MD Albert Einstein College of Med 2015

Joan Lee Rosenbaum Professor of Pediatrics (primary appointment)

**Isabel L Rosenbloom** Associate Professor of Clinical Pediatrics (primary appointment)

BA Goucher College 1979

**Daniel B Rosenbluth, MD** Professor of Medicine (primary appointment)

**Professor of Pediatrics**

**Tracey C and William J Marshall Professor of Medicine**

MD Mount Sinai School of Medicine 1989

BS Columbia University 1985

**Kelly Ross, MD** Assistant Professor of Pediatrics (primary appointment)

BS University of MO Kansas City 1991

MD University of MO Columbia 1996

**William J Ross, MD** Associate Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1972

BA Miami University 1968

**Robert J Rothbaum, MD** Centennial Professor of Pediatrics (primary appointment)

MD University of Chicago 1976

Ella Rozin Instructor in Clinical Pediatrics (primary appointment)

**Joshua Bennett Rubin, MD, PHD, MS** Professor of Pediatrics (primary appointment)

**Professor of Neuroscience**

**Professor of Neurology**

MD Albert Einstein College of Med 1994

BS Yale University 1982

PHD Albert Einstein College of Med 1994

MS Albert Einstein College of Med 1992

**Christina M Ruby-Ziegler, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

BS Loyola University 1990

MD Northwestern University Med 1994

**Martin D Rudloff, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1981

**David Rudnick, MD** Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Developmental Biology**

BS University of Illinois 1987

MD Washington Univ in St. Louis 1994

**Daniel G. Rudolph, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Saint Louis University 1992

BS Saint Louis University 1988

Karen Elizabeth Ruecker Instructor in Clinical Pediatrics (primary appointment)

**Diane Mary Rup, MA, MD** Instructor in Clinical Pediatrics (primary appointment)

BA State University of New York 1976

MA State University of New York 1979

MD Case Western Reserve Univ 1986

Lisa A Ryan **Instructor in Clinical Pediatrics** (primary appointment)

**Ahmed Sameh Said, PHD, MD** **Instructor in Pediatrics** (primary appointment)

PHD Ain Shams University 2009

MD Ain Shams University 2000

**Charles Michael Samson, MD** **Assistant Professor of Pediatrics** (primary appointment)

MD University of Washington 2003

BS University of North Carolina 1998

**Gretchen A Sander, MD** **Instructor in Clinical Pediatrics** (primary appointment)

BA Vanderbilt University 2000

MD Loyola University Chicago 2004

**Heidi L Sandige, MD, MA** **Instructor in Pediatrics** (primary appointment)

BA Northwestern University 1991

MD Washington Univ in St. Louis 2005

MA Yale University 1993

MA1 Washington Univ in St. Louis 2003

**Pravesh Sangwan, MD, MBBS** **Instructor in Pediatrics** (primary appointment)

MD Gauhati Medical College 2009

MBBS Vijayanagara Inst of Med Sci 2015

Diana M Sater-Roukoz **Instructor in Clinical Pediatrics** (primary appointment)

**Scott Saunders, PHD, MD** **Associate Professor of Pediatrics** (primary appointment)

**Associate Professor of Developmental Biology**

PHD Stanford University 1990

MD Stanford University 1990

BS University of Minnesota 1983

**Brian J. Saville, MD** **Instructor in Pediatrics (Pending Dean's Approval)** (primary appointment)

BS Washington Univ in St. Louis 1997

MD Washington Univ in St. Louis 2001

**Blaine M Sayre, M PH, MD** **Professor of Clinical Pediatrics** (primary appointment)

M PH University of CA Berkeley 1972

MD Washington Univ in St. Louis 1968

**Joseph Schachter, MD** **Assistant Professor of Clinical Pediatrics** (primary appointment)

MD Indiana University Bloomington 1979

BA Indiana University Bloomington 1974

**Bradley L Schlaggar, PHD, MDA** **Ernest and Jane G Stein Professor of Neurology** (primary appointment)

**Professor of Radiology**

**Professor of Psychiatry**

**Professor of Pediatrics**

**Professor of Neuroscience**

BS Brown University 1986

PHD Washington Univ in St. Louis 1994

MD Washington Univ in St. Louis 1994

**Howard J Schlansky, MD** **Instructor in Clinical Pediatrics** (primary appointment)

BA University of MO Kansas City 1976

MD University of MO Kansas City 1978

**Margaret Ann Schmandt, MD** **Associate Professor of Clinical Pediatrics** (primary appointment)

BA University of Iowa 1982

MD Saint Louis University 1987

**David Schnadower, M PH, MD** Associate Professor of Pediatrics (primary appointment)

M PH Columbia University 2005

MD National Autonomous U of Mex 1993

**Jacquelyn C Schnidman, MD** Instructor in Clinical Pediatrics (primary appointment)

BA University of Missouri 1975

MD Saint Louis University 1979

**Laura Graves Schuettpelz, PHD** Assistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Developmental Biology**

PHD Northwestern University 2000

**Alan L Schwartz, PHD, MD** Alumni Endowed Professor of Pediatrics (primary appointment)

**Professor of Developmental Biology**

PHD Case Western Reserve Univ 1974

MD Case Western Reserve Univ 1976

Colleen Erika Seematter **Instructor in Clinical Pediatrics** (primary appointment)

**Martha Papay Sewall, MD** Instructor in Clinical Pediatrics (primary appointment)

MD University of Missouri 1985

BA University of Missouri 1983

**Purvi Shah, MD** Assistant Professor of Pediatrics (primary appointment)

MD Baylor University 2000

BA Rice University 1996

**Snehal Paresh Shah, MD** Instructor in Pediatrics (primary appointment)

MD Ross Univ School of Medicine 2010

BA Boston College 2003

**Shabana Shahanavaz, MD** Assistant Professor of Pediatrics (primary appointment)

MD Kasturba Medical College 2002

**Rachel E. Shakofsky, MD** Instructor in Pediatrics (primary appointment)

BS University of MO Columbia 2003

MD University of MO Columbia 2007

**Larry J Shapiro, MD** Spencer T and Ann W Olin Distinguished University Professor (primary appointment)

**Professor of Pediatrics**

**Executive Vice Chancellor and Dean Emeritus**

BS Washington Univ in St. Louis 1968

MD Washington Univ in St. Louis 1971

**Eleanor Maria Shaw** Assistant Professor of Clinical Pediatrics (primary appointment)

BA University of Missouri 1978

Megan Elizabeth Shelton **Instructor in Clinical Pediatrics** (primary appointment)

**Shalini Shenoy, MD, MBBS** Professor of Pediatrics (primary appointment)

MD Kasturba Medical College 1985

BS M.G.R. Medical University 1981

MBBS Kasturba Medical College 1981

**Ross William Shepherd, MD, MBBS** Adjunct Professor of Pediatrics (primary appointment)

MD University of Queensland 1979

MBBS University of Queensland 1970

**Marwan Shinawi, MD** Professor of Pediatrics (primary appointment)

MD Technion - Israel Inst. of Tec 1996

**Min-Yi Katherin Shiue**Instructor in Clinical Pediatrics (primary appointment)

BS Washington Univ in St. Louis 1992

**Michael Shoykhet, MD, PHD**Assistant Professor of Pediatrics (primary appointment)

BA Cornell University 1996

MD University of Pittsburgh 2005

PHD University of Pittsburgh 2003

**Marilyn J Siegel**Professor of Radiology (primary appointment)

**Professor of Radiology in Pediatrics**

**Jennifer N Silva**Assistant Professor of Pediatrics (primary appointment)

BA Union College New York 1997

**Connie Darlene Simmons**Instructor in Clinical Pediatrics (primary appointment)

**Paul S Simons, MD**Associate Professor of Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1967

BA University of Texas Austin 1963

**Kathleen Elizabeth Simpson, MD**Assistant Professor of Pediatrics (primary appointment)

MD University of MO Kansas City 2006

**Gautam K Singh, MBBS, MD**Professor of Pediatrics (primary appointment)

MBBS Ranchi University 1977

MD Patna Medical College 1982

**Carl Jeffrey Sippel, MD, PHD**Assistant Professor of Clinical Pediatrics (primary appointment)

MD Saint Louis University 1983

BA University of Missouri 1975

PHD Saint Louis University 1980

**Bryan Anthony Sisk**Instructor in Pediatrics (primary appointment)

**Kelsey Alayne Sisti, MD**Instructor in Pediatrics (primary appointment)

MD University of Arkansas 2009

BS University of Alaska 2005

**Harold B Sitrin, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

BA University of Rochester 1966

MD Saint Louis University 1971

**Alan Joseph Skoultchi, MD**Instructor in Clinical Pediatrics (primary appointment)

BS Duke University 1989

MD U Medical-Dental Of New Jersey 1995

**Carolyn Anne Delaney Smith**Assistant Professor of Pediatrics (primary appointment)

BA Rice University 1996

**Joshua C Smith**Instructor in Clinical Pediatrics (primary appointment)

**Matthew D Smyth, MD**Professor of Neurological Surgery (primary appointment)

**Professor of Pediatrics**

MD University of CA San Francisco 1996

BA Cornell University 1992

**Nareshkumar J Solanki**Assistant Professor of Clinical Pediatrics (primary appointment)

UNKNOWN University of Nairobi 1975

**Umang Sood**Instructor in Pediatrics (primary appointment)

BS University of MO Kansas City 2003

**Robert D Spewak, MD**Instructor in Clinical Pediatrics (primary appointment)

MD Saint Louis University 1979

BA Drake University 1975

**Craig A Spiegel, MD**Assistant Professor of Clinical Pediatrics (primary appointment)



MD Case Western Reserve Univ 1982

BA Washington Univ in St. Louis 1978

**Philip Charles Spinella, MD** Associate Professor of Pediatrics (primary appointment)

MD New York Medical College 1995

BS Tufts University 1991

**Jennifer E. Sprague, PHD, MD** Assistant Professor of Pediatrics (primary appointment)

BS Indiana University Bloomington 2000

PHD Washington Univ in St. Louis 2007

MD Washington Univ in St. Louis 2007

**Mythili Srinivasan, MS** Associate Professor of Pediatrics (primary appointment)

MS Madurai Kamaraj University 1983

Danielle R St Leger **Instructor in Clinical Pediatrics** (primary appointment)

Kristin Voellinger Stahl **Instructor in Clinical Neurology** (primary appointment)

**Sarah A Stanage** **Instructor in Pediatrics** (primary appointment)

BS Washington Univ in St. Louis 2001

**Ashley L. Steed, MD, PHD** **Instructor in Pediatrics (Pending Dean's Approval)** (primary appointment)

MD Washington Univ in St. Louis 2008

PHD Washington Univ in St. Louis 2008

BS Duke University 2001

Norman P Steele **Instructor in Clinical Pediatrics** (primary appointment)

**Leena Lata Stemler, MD** **Instructor in Pediatrics** (primary appointment)

BA Brown University 2003

MD Brown University 2007

**Randall S Sterkel** **Assistant Professor of Clinical Pediatrics** (primary appointment)

BA Duke University 1989

**Anita R Stiffelman, MD** **Associate Professor of Clinical Pediatrics** (primary appointment)

BA Washington Univ in St. Louis 1983

MD New York Medical College 1987

Jeffrey R Stokes **Professor of Pediatrics (Pending Executive Faculty Approval)** (primary appointment)

**Janis Marie Stoll, MD** **Assistant Professor of Pediatrics** (primary appointment)

MD Eastern Virginia Med School 2004

**Stephen I Stone, MD** **Instructor in Pediatrics (Pending Dean's Approval)** (primary appointment)

BS University of Illinois Chicago 2005

MD Rosalind Franklin University 2010

**Gregory A Storch, MD** **Ruth L. Siteman Professor of Pediatrics** (primary appointment)

**Professor of Molecular Microbiology**

**Professor of Medicine**

MD New York University 1973

BA Harvard University 1969

**Jennifer Mae Strahle, MD** **Asst Prof of Neurological Surgery** (primary appointment)

**Asst Prof of Orthopaedic Surgery**

**Asst Prof of Pediatrics**

MD University of Minnesota 2008

BS Bates College 2002

**Robert H Strashun, MD, MA** **Associate Professor of Clinical Pediatrics** (primary appointment)

MD New York University 1982

BA Yeshiva University 1978

MA Yeshiva University 1978

**M. Anne Street, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

MD University of Illinois 1976

**Judith M. Stucki-Simeon, MD**Instructor in Clinical Pediatrics (primary appointment)

MD Univ of Wisconsin Madison 1987

**Rosa M Suarez-Solar**Instructor in Clinical Pediatrics (primary appointment)

BA University of Puerto Rico 1990

**Lisa Suffian, MD**Instructor in Clinical Pediatrics (primary appointment)

MD University of MO Kansas City 1996

BS University of MO Kansas City 1990

**Toshifumi Sugatani, PHD, DDENT**Instructor in Pediatrics (primary appointment)

PHD Meiji University 2003

DDENT Meiji University 1991

**Stuart C Sweet, PHD**W. Mckim O. Marriott Professor of Pediatrics (primary appointment)

PHD University of Michigan 1989

Amanda SweetlandInstructor in Clinical Pediatrics (primary appointment)

Susan C. SylviaInstructor in Clinical Pediatrics (primary appointment)

**Phillip Irwin Tarr, MD**Melvin E Carnahan Professor of Pediatrics (primary appointment)

**Professor of Molecular Microbiology**

BA Brown University 1975

MD Yale University 1980

Kristen A TerrillInstructor in Clinical Pediatrics (primary appointment)

**Donna T Thackrey, MD**Instructor in Clinical Pediatrics (primary appointment)

BS John Carroll University 1990

MD Wright State University 1994

**Tama Saint The, MD**Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)

BS1 University of Kentucky 2009

MD University of Louisville 2013

BS University of Kentucky 2009

Stephen ThieraufInstructor in Clinical Pediatrics (primary appointment)

**Kwee L Thio, PHD, MD**Associate Professor of Neurology (primary appointment)

**Associate Professor of Pediatrics**

**Associate Professor of Neuroscience**

PHD Washington Univ in St. Louis 1992

MD Washington Univ in St. Louis 1992

BS Brown University 1984

Mary A Tillman**Professor of Clinical Pediatrics** (primary appointment)

**Robert W Tolan Jr., MA, MD**Instructor in Clinical Pediatrics (primary appointment)

MA Indiana University Bloomington 1983

BA Indiana University Bloomington 1982

MD Washington Univ in St. Louis 1987

**Scott A. Trail, MD**Instructor in Clinical Pediatrics (primary appointment)

BA Saint Louis University 1985

MD University of MO Columbia 1990

**Indi Trehan, MD, MPH**Assistant Professor of Pediatrics (primary appointment)

MD Northwestern University 2004

MPH Northwestern University 2004



BS University of CA Berkeley 1998

**Shamik Bharat Trivedi, MD**Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)

MD University of Toledo 2009

**Garland R Tschudin, MD**Instructor in Clinical Pediatrics (primary appointment)

BA University of Missouri 1971

MD University of Missouri 1975

**Michael P Turmelle, MD**Associate Professor of Pediatrics (primary appointment)

MD Johns Hopkins University 1998

BA Bowdoin College 1994

**Yumirle Padron Turmelle, MD, AA**Associate Professor of Pediatrics (primary appointment)

MD University of Florida 2000

AA Miami Dade Community College 1993

BA University of Miami 1995

**Robert Lawrence Tychsen**Professor of Ophthalmology and Visual Sciences (primary appointment)  
Professor of Neuroscience

Professor of Ophthalmology and Visual Sciences in Pediatrics

**John F Hardesty MD** Distinguished Professor of Ophthalmology and Visual Sciences

BS Georgetown University 1975

**April L Tyus**Instructor in Clinical Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1995

**Elizabeth C Utterson, MD**Assistant Professor of Pediatrics (primary appointment)

BA University of Notre Dame 1994

MD Creighton University 1998

**Akshaya J Vachharajani, MBBS, MD**Associate Professor of Pediatrics (primary appointment)

MBBS Topiwala National Med College 1984

MD University of Bombay 1986

**George Frederick Van Hare III, MD**Louis Larrick Ward Professor of Pediatrics (primary appointment)

MD University of Connecticut 1980

BS Bates College 1976

**Laird Henry Vermont**Instructor in Clinical Pediatrics (primary appointment)

**Zachary Andrew Vesoulis, MD**Instructor in Pediatrics (primary appointment)

MD Ohio State University 2009

**Jean V Wagner**Instructor in Clinical Pediatrics (primary appointment)

**Colleen M Wallace, MD**Assistant Professor of Pediatrics (primary appointment)

Director, Humanities Program

MD Washington Univ in St. Louis 2001

BS University of Notre Dame 1997

**Jennifer Anne Wambach, MD**Assistant Professor of Pediatrics (primary appointment)

BS Vanderbilt University 1997

MD Vanderbilt University 2001

**Barbara B. Warner, MS, MD**Professor of Pediatrics (primary appointment)

MS University of Massachussetts 1981

MD University of Cincinnati 1985

BS University of Dayton 1976

**Brad W. Warner****Jessie L. Ternberg, M.D., PhD. Distinguished Professor of Pediatric Surgery in Surgery (Pediatric Surgery)** (primary appointment)

## **Professor of Pediatrics**

**Michael S Watson, MS, PHD** Adjunct Professor of Pediatrics (primary appointment)

MS University of Alabama 1978

PHD University of Alabama 1981

**Benjamin David Weintraub** Instructor in Clinical Pediatrics (primary appointment)

**Don Weiss, MS, MD** Instructor in Clinical Pediatrics (primary appointment)

MS Saint Louis University 1996

BS Dickinson College 1979

MD School Not Listed 1986

**Timothy P Welch, MD** Assistant Professor of Anesthesiology (primary appointment)

## **Assistant Professor of Pediatrics**

MD University of Cincinnati 2004

**Valerie B. Welch, MD** Instructor in Clinical Pediatrics (primary appointment)

BA Baylor University 1994

MD University Texas San Antonio 1998

**Jennifer Corinne Wessman, MD** Instructor in Pediatrics (primary appointment)

MD Commonwealth College 2005

**Alexander Weymann, MD** Assistant Professor of Pediatrics (primary appointment)

MD Witten Herdecke University 1999

**Andrew J White, MD** James P Keating Professor of Pediatrics (primary appointment)

## **Vice Chair of Medical Education in Pediatrics**

MD University of Texas Southwest 1994

**Frances V White, MD, MS** Associate Professor of Pathology and Immunology (primary appointment)

## **Associate Professor of Pediatrics**

MD University of North Carolina 1989

MS University of North Carolina 1978

BA Princeton University 1975

**Neil Harris White, MD** Professor of Pediatrics (primary appointment)

## **Professor of Medicine**

MD Albert Einstein College of Med 1975

BS State Univ of NY at Albany 1971

**Nicole Izetta White** Instructor in Clinical Pediatrics (primary appointment)

**Karen Whiteside** Instructor in Clinical Pediatrics (primary appointment)

**Michael Peter Whyte, MD** Professor of Medicine (primary appointment)

## **Professor of Pediatrics**

## **Professor of Genetics**

MD State University of New York 1972

BA New York University 1968

**Karen Mori Wickline, MD** Associate Professor of Pediatrics (primary appointment)

MD Saint Louis University 1986

BS University of Hawaii 1978

**Denise Wilfley, PHD** Professor of Psychiatry (primary appointment)

## **Professor of Medicine**

## **Professor of Psychological & Brain Sciences**

## **Professor of Pediatrics**

**Scott Rudolph** University Professor

PHD University of Missouri Columbi 1989

**Kristine G Williams, MD, MPH** Assistant Professor of Pediatrics (primary appointment)

MD Georgetown University 1994

MPH Saint Louis University 2001

**Marcia Christine Willing, MS, MD, D SC** Professor of Pediatrics (primary appointment)

BS Goucher College 1973

MS University of Michigan 1976

MD University of Virginia 1982

D SC George Washington University 1981

**David B Wilson, PHD** Professor of Pediatrics (primary appointment)

**Professor of Developmental Biology**

PHD Washington Univ in St. Louis 1986

**Loralee Jane Wold, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Saint Louis University 1997

BA Saint Louis University 1993

**Patricia Ann Wolff, MD** Professor of Clinical Pediatrics (primary appointment)

MD University of Minnesota 1972

BA University of Minnesota 1968

**Michael Wong, MD, PHD** Allen P and Josephine B Green Professor of Pediatric Neurology (primary appointment)

**Professor of Pediatrics**

**Professor of Neuroscience**

MD University of Texas Southwest 1995

PHD University of Texas Southwest 1995

BA Princeton University 1987

**Jeffrey M Wright, MD** Assistant Professor of Clinical Medicine (primary appointment)

**Assistant Professor of Clinical Pediatrics**

BS Vanderbilt University 1975

MD Washington Univ in St. Louis 1979

**Kathie R Wuellner** Associate Professor of Clinical Pediatrics (primary appointment)

BS University of Illinois 1973

**Hayley Wurzel, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1999

BS Brown University 1995

**Kristine M Wylie, PHD** Assistant Professor of Pediatrics (primary appointment)

BA Southern Ill Univ Edwardsville 1996

PHD Saint Louis University 2009

**Todd N Wylie** Assistant Professor of Pediatrics (primary appointment)

BS Southern Ill Univ Edwardsville 1995

Christina Marie Yadao Instructor in Clinical Pediatrics (primary appointment)

**Mona Yassin, MD** Instructor in Clinical Pediatrics (primary appointment)

MD School Not Listed 1979

Julia Catherine Young Instructor in Clinical Pediatrics (primary appointment)

Cecilia H Yu Assistant Professor of Clinical Pediatrics (primary appointment)

Craig Mitchell Zaidman Associate Professor of Neurology (primary appointment)

**Assistant Professor of Pediatrics**

**John M Zempel, MD, PHD** Associate Professor of Neurology (primary appointment)

**Associate Professor of Pediatrics**

MD Washington Univ in St. Louis 1995

PHD Washington Univ in St. Louis 1995

BS Univ of Wisconsin Madison 1985

Aurora Denise Zertuche-Sanchez **Instructor in Clinical Pediatrics** (primary appointment)

**Amy Christine Zimmermann, MD** **Instructor in Clinical Pediatrics** (primary appointment)

MD University of MO Columbia 2003

BS University of MO Columbia 1998

**Bridget Bilyeu Zoeller, MD** **Assistant Professor of Pediatrics** (primary appointment)

MD Southern Illinois University 2007

BS University of Illinois 2003

Andrew C. Zuckerman **Instructor in Clinical Pediatrics** (primary appointment)

No entries found

## Department of Psychiatry

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Instruction in psychiatry is given during the second, third and fourth years of the medical curriculum. Emphasis is on the teaching of psychiatry as a medical discipline, including the biological, social and psychological mechanisms and manifestations of psychiatric illness, as well as psychological reactions to other illnesses. Psychiatric disorders are common and disabling illnesses. An explosion of knowledge resulting from research in neuroscience, genetics and epidemiology is leading to exciting advances in understanding and treating these disorders. Our department is heavily involved in this research, and our didactic curriculum integrates current clinical information with research advances to help students develop the knowledge, skills and attitudes to recognize these illnesses and understand the basic principles of treatment.

### William Greenleaf Eliot Division of Child Psychiatry

The **Division of Child Psychiatry** offers a varied teaching program for medical students, residents in psychiatry and fellows at St. Louis Children's Hospital and the Child Psychiatry Center. The center provides outpatient services to children with an array of mental disorders. Trainees are assigned to these various services, where they participate in diagnostic evaluations and see patients in treatment, under supervision

of a fellow and attending physician.

## For more information

Please visit the [Department of Psychiatry website](#) for more information.

# MD Courses — Psychiatry

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## Second year

### **M85 676A DISEASES OF THE NERVOUS SYSTEM: PSYCHIATRY**

Instructor: Marcie Garland, MD 314-362-2432

This course emphasizes the diagnosis of major psychiatric illnesses in adults and children. Psychiatric diseases are described in terms of epidemiology, clinical presentation, natural history, genetics, differential diagnosis and clinical management. Interviewing techniques and performance of the mental status exam will be demonstrated by patient interviews.

## Third year

### **M85 770 PSYCHIATRY CLERKSHIP**

Instructor(s): Brendan O'Connor, MD, 362-2469

During this 4-week rotation, students will further enhance their understanding of psychiatric disorders and develop necessary clinical skills through active participation in the evaluation and treatment of psychiatric patients under the supervision of resident and attending physicians, teaching conferences and lectures, and other assigned learning experiences and educational requirements. The primary experience will be in inpatient adult psychiatry; however there will also be variety experiences in outpatient settings and with the electroconvulsive therapy (ECT) service.

## **M85 771 AMBULATORY CLERKSHIP: PSYCHIATRY FOR GENERALISTS**

Instructor(s): Brendan O'Connor, MD, 362-2469

Students may elect to pursue their ambulatory medicine selective through the Department of Psychiatry. This rotation is intended to provide clinical experience in Psychiatry relevant to other medical fields, including Internal Medicine and Pediatrics. Students may request experience in psychiatry consult-liaison, outpatient adult psychiatry, outpatient child and adolescent psychiatry, and/or addiction psychiatry.

## **Fourth year**

### **Electives**

#### **M85 805 / PSYCHIATRY CONSULT SERVICE**

Instructor(s): Fay Y. Womer, MD, 314-362-2469

Location: Barnes-Jewish Hospital

Elective Contact: Fay Y. Womer, 314-362-2469

Other Information: Students should report to Renard Building 4410 at 8:00 a.m. first day. Tammie Repko is available in Renard 4408 and can be reached at 314-362-2469 for any questions or issues.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Students will participate in the evaluation and treatment of patients referred to the psychiatry consult service. They will attend departmental conferences and other educational sessions.

Student time distribution: Inpatient 90%; Conferences/Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attending psychiatrist and psychiatry residents

Patients seen/weekly: 5-10

On call/weekend responsibility: None

## **M85 810 / OUTPATIENT COMMUNITY PSYCHIATRY**

Instructor(s): Aninkunle Owoso, MD

Location: The Psychiatry Clinic and community sites

Elective Contact: Patricia Sharp, 314-362-1251

Other Information: Please e-mail one month prior to the elective to arrange meeting time and place.

Enrollment limit per period: minimum 2; maximum 3.

Valid start weeks for four-week blocks are: Weeks 9 and 13

This is a flexible clerkship where effort is made to tailor the activities to the students' interests. Students will assist in diagnosis and treatment of adult psychiatric clinic patients. The patients present with a wide variety of psychological and interpersonal problems, as encountered in an everyday office practice. In this setting, the student will have the opportunity to learn a variety of treatment techniques under supervision.

Student time distribution: Outpatient 80%; Conferences/Lectures 20%; Subspecialty Care 100%

Major teaching responsibility: Attending Psychiatrist and psychiatry residents

Patients seen/weekly: 20

On call/weekend responsibility: None

## **M85 836 / CLINICAL PSYCHIATRY – INPATIENT PSYCHIATRIC SERVICE**

Instructor(s): Michael Jarvis, MD, PhD, 314-362-1816

Location: Barnes-Jewish South

Elective Contact: Michael Jarvis, MD, PhD, 314-362-1816

Other Information: Contact Cindy Bander prior to first day of elective at 314-362-1816.

Enrollment limit per period: 3

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This is a senior rotation that provides the students with an opportunity to expand their

knowledge of inpatient clinical psychiatry by functioning as interns. Students attend all staffing and teaching conferences given to first-year psychiatry residents, take patients in rotation, and share night call with first-year residents approximately every fifth night.

Immediate supervision is provided by the inpatient attending, and additional supervision can be arranged as desired. Teaching emphasis is directed toward psychiatric diagnosis, appropriate use of psychopharmacologic agents, psychotherapeutic intervention, use of community resources and pursuit of the psychiatric scientific literature. The student will write a self selected clinical topic relevant to treatment and management of psychiatric inpatients.

Student time distribution: Inpatient 85%; Conferences/Lectures 15%

Major teaching responsibility: Clinical attending, teaching attendings and residents

Patients seen/weekly: 5-15

On call/weekend responsibility: Every fifth night

### **M85 840 / CHILD PSYCHIATRY**

Instructor(s): Anne Glowinski, MD, 314-286-2217

Location: Montclair Building, 24 S. Kingshighway, Outpatient Psychiatry Clinic

Elective Contact: Brigitte Northrop, MD, 314-286-2217

Other Information: Interested students should contact Dr. Anne Glowinski at 314-286-2217 in the Department of Psychiatry.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 9, 13, 17, 21, 25, 29, 33, 37, and 41 or contact Dr. Glowinski for modifications.

This elective in child psychiatry utilizes the Child Psychiatry Outpatient Clinic and the consult-liason service at St. Louis Children's Hospital. It provides experience in age-appropriate diagnostic and treatment methods in children and adolescents. A paper on topic of student's choosing is required.



Student time distribution: Outpatient 75%; Conferences/Lectures 25%; Subspecialty Care 100%

Major teaching responsibility: Attendings and fellows

Patients seen/weekly: 15-20

On call/weekend responsibility: No, but can shadow fellow during call if requested by student

### **M85 844 / FORENSIC PSYCHIATRY**

Instructor(s): Michael R. Jarvis, MD, PhD

Location: Barnes-Jewish Hospital Plaza, West Pavilion, Suite 15430

Elective Contact: Cindy Bander, 314-362-1816, [banderc@wustl.edu](mailto:banderc@wustl.edu)

Other Information: Students should report to Barnes-Jewish Hospital Plaza, West Pavilion, Suite 15430, at 9:00 a.m. on the first day of the elective.

Enrollment limit per period: 1

Valid starting weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The medical student will be actively involved in many aspects of forensic psychiatry including civil litigation, workman's compensation, malpractice, civil commitment, and guardianship. There may be opportunities to be involved in criminal forensic issues. The student will work with Drs. Jarvis, Harbit, and Garland, within the Department of Psychiatry but will primarily meet with Dr. Jarvis a minimum of 2 hours a week. They will also work with The BJH Manager of Case Management and The City of St Louis Probate Court. The student will also be assigned readings of landmark case, textbooks, psychiatric expert opinions, legal filing with the probate court and attend civil hearings.

The student will learn relevant criminal statutes regarding competency and civil commitment, causation in civil litigation, the concept of medical malpractice and risk assessment of violence and suicide. There may be the opportunity to witness sexually violent predator evaluations and/or treatment. The student will be required to research and write an opinion on a specific approved topic in forensic psychiatry. The

objectives will be measured by attendance and by formal evaluation of the student's participation and knowledge during the supervision discussion. It will also be determined by the originality, thoroughness and quality of the research paper.

Student time distribution: Inpatient 50%; Conferences/Lectures 50%

Major teaching responsibility: Dr. Jarvis, Dr. Harbit, Dr. Garland, Jim Hoerchler, Lisa Johnson, St. Louis Probate Court

Patients seen/weekly: No active patient treatment

On call/weekend responsibility: None

### **M85 855 / INTRODUCTION TO EATING DISORDERS**

Instructor(s): Kimberli McCallum, MD, 314-968-1900, ext. 111

Location: 231 W. Lockwood Ave., Suite 201, St. Louis, MO 63119

Elective Contact: Kimberli McCallum, MD, 314-968-1900 ext. 111

Other Information: Students report to Dr. McCallum's office, 231 W. Lockwood Ave., Suite 201, St. Louis, MO 63119, 9:00 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 9, 13, 21, 29, and 33

Students will learn the basics of assessment, participate in groups that focus on family education, gain experience in interdisciplinary psychiatric team work, attend case discussions with psychiatrists, and participate in treatment planning. Students will be able to describe core symptoms, recommend treatment options, and discuss the medical, nutritional, and psychiatric components of treatment.

Student time distribution: Inpatient 80%; Day Program 10%; Conferences/Lectures 10%; Primary Care 20%; Subspecialty Care 80%

Major teaching responsibility: Kimberli McCallum, M.D.

Patients seen/weekly: 5

On call/weekend responsibility: Second Saturday of each month

### **M85 870 / PSYCHIATRIC ONCOLOGY**

Instructor(s): Monica Bishop, MD, 314-362-2469, and Eugene Rubin, MD

Location: Center for Outpatient Health (COH), Suite 441

Elective Contact: Cristina Gonzalez, 314-362-8251

Other Information: Students should contact Cristina Gonzalez at 314-362-8251, prior to the first day to coordinate meeting time/place.

Enrollment limit per period: 3

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This elective will provide additional training related to consultation-liaison psychiatry with a special emphasis on caring for patients with cancer. The Institute of Medicine has identified the need to increase the availability of psychiatric services in the setting of cancer treatment, and this elective will allow students to gain additional experience working with inpatients and outpatients receiving treatment at Siteman Cancer Center. This elective will allow students to learn about the management of end of life issues, and experience the satisfaction of providing comfort to patients and families via psychotherapy and pharmacology. Opportunities also exist to focus on specific conditions, such as gynecological cancers. Dr. Bishop and Marty Clarke, PhD, PA-C will directly supervise students providing a unique opportunity for individualized teaching and autonomy.

Student time distribution: Inpatient 60%; Outpatient, 30%; Conferences/Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: The attending on the rotation

Patients seen/weekly: 12

On call/weekend responsibility: None

### **M85 880 / SCHIZOPHRENIA PRECURSORS & PRODROMAL STATES**

Instructor(s): Angela M. Reiersen, MD, 314-747-6793

Location: Dr. Reiersen's office at East Building Suite 1153-Room B, and the Washington University Child Psychiatry Clinic at 4444 Forest Park Blvd., Suite 2600.

Elective Contact: Angela M. Reiersen, MD, 314-747-6793, [reiersea@wustl.edu](mailto:reiersea@wustl.edu)

Other Information: Students should contact Dr. Reiersen via email 1-2 weeks prior to rotation to confirm schedule and obtain some preparatory reading materials.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This is an opportunity for trainees to gain experience in the evaluation of children and adolescents who may be at high risk for schizophrenia. The rotation would center around the "First Contact Assessment Service", which evaluates patients who show characteristics suggestive of prodromal schizophrenia (such as new-onset attenuated psychotic symptoms along with recent deterioration in functioning) and/or early life characteristics that may indicate risk for developing schizophrenia later in life (for example, nonspecific social/emotional/behavioral symptoms in a child/adolescent with a strong family history of schizophrenia.). Since the full symptoms of schizophrenia are often preceded by a wide range of childhood behavioral & developmental abnormalities, this rotation would also help trainees integrate information regarding the continuity between childhood development and adult psychopathology. Trainee would observe all aspects of First Contact evaluations (including semi-structured diagnostic interviews & examination of subtle neurological signs), participate in case discussions, and observe follow-up consultations involving patients with psychotic and/or complex neurodevelopmental disorders. Trainee would also be required to write a literature review on a topic relevant to the rotation.

Student time distribution: Outpatient 50%; Conferences/Lectures 50%; Subspecialty Care 100%

Major teaching responsibility: Coursemaster (psychiatry attending)

Patients seen/weekly: 2 (possibly more if enrolled during summer months)

On call/weekend responsibility: None

### **M85 889 / INTERVENTIONAL PSYCHIATRY**

Instructor(s): Charles Conway, MD; Donald Bohnencamp, MD; Pilar Cristancho, MD, Nuri Farber, MD; Michael Jarvis, PhD, MD; Yvette Sheline MD; Dragan Svrakic PhD, MD; Charles Zorumski, MD; and ECT staff

Location: Barnes-Jewish Hospital, South Campus

Elective Contact: Charles Conway, MD, 314-362-1816

Other Information: Students should call Cindy Bander 314-362-1816 prior to scheduling the elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Interventional Psychiatry involves the application of ECT (Electroconvulsive Therapy), rTMS (Repetitive Transcranial Magnetic Stimulation) and VNS (Vagus Nerve Stimulation) in the treatment of medication-resistant psychiatric illness. The student will participate in the evaluations of patients referred to the Treatment Resistant Depression Clinic supervised by Dr. Charles Conway. The student will be involved in the neuropsychiatric assessment of patients referred for ECT. In addition, the student will receive training in the application of ECT and in the clinical management of patients receiving inpatient and outpatient ECT. As cases become available, the student will be involved in rTMS and VNS evaluations and treatment. The student will be encouraged to review appropriate literature and make clinically relevant case-oriented presentations. The student will be expected to write a review of a self-selected clinic topic relevant to interventional psychiatry.

As advances in the field occur, the rotation may also involve exposure to individuals receiving other modalities of intervention, including deep brain stimulation (DBS) and magnetic seizure therapy (MST).

Student time distribution: Inpatient 70%; Outpatient 20%; Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Charles Conway, MD

Patients seen/weekly: 20

On call/weekend responsibility: None

# Research — Psychiatry

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Andrey Anokhin, PhD – Genetics of the Brain, Behavior, and Psychopathology  
Central Institute for the Deaf (CID) Building, Suite 1, 660 S. Euclid Ave  
314-286-2201  
[andrey@wustl.edu](mailto:andrey@wustl.edu)

This Research Elective is intended for students interested in cognitive neuroscience, biological psychology, psychophysiology, and behavior genetics in relation to psychopathology. Dr. Anokhin's laboratory is investigating relationships between genes, brain, and behavior in order to better understand complex etiology of mental disorders. Our main focus is on "externalizing" spectrum of psychopathology characterized by deficits in inhibitory self-regulation including ADHD, conduct disorder, and addictive behaviors. We are particularly interested in the intermediate phenotypes, or "endophenotypes", mediating genetic risk for addiction such as impulsivity, risk taking, and abnormal affective processing of social-emotional information. In our laboratory-based studies with human volunteers, including twins, we investigate individual differences in brain activity using the recording of brain oscillation (event-related brain potentials, or ERPs) during the performance of different behavioral tasks. A subsample of our twin subjects also undergoes functional magnetic resonance imaging (fMRI) scanning. Other assessments used in the lab include psychiatric diagnostic interviews, personality questionnaires, neuropsychological tests, and collection of DNA samples. For example, an ongoing longitudinal study of adolescent twins explores developmental trajectories and genetic determinants of brain activity related to inhibitory control of behavior and processing of emotional information in order to identify prospective predictors of substance abuse and associated behavioral problems. Another twin study investigates the consequences of heavy drinking during adolescence by comparing neurocognitive functioning in twins who are discordant for heavy drinking. Interested students will be

able to learn a variety of methods used in these studies, such as the recording and analysis of brain oscillations, event-related neural dynamics, startle response, and autonomic measures, administration of neuropsychological and behavioral tests, and statistical analysis of data. Format of this research elective may include: (1) directed reading; (2) participation in laboratory experiments involving human subjects; (3) analysis of existing data from various research projects; (4) designing and piloting new behavioral tests and ERP experiments. Qualifications: Reliability and responsibility, ability to commit specified amount of time per week and work on schedule which can be negotiated on an individual basis, and good computer skills.

Deanna M Barch, PhD – Cognitive and Affective Neuroscience of Schizophrenia and Depression

6612 Renard Hospital

314-747-2160

Students may participate in the conduct of clinical studies of schizophrenia and depression. Involvement in clinical studies can include training and experience in interviewing psychiatric patients, or gaining experience in the techniques of assessing cognitive and emotional function using behavioral and brain imaging methods.

Laura Jean Bierut, MD

Maternity Building

314-362-2544

This research elective will focus on analyzing data from high-risk studies of smoking and other addictions. Students will have the opportunity to examine genetic and environmental factors that place some at risk for developing nicotine, alcohol and other substance dependence and protect others from the development of these disorders.

Kevin J. Black, MD

4525 Scott Ave, Room 2106

314-362-5041

Kevin@wustl.edu

Students will participate in ongoing studies of brain imaging, movement disorders or

neuropsychiatric illnesses. Degree of participation will relate to the student's available research time, skills, and interest. See [www.nil.wustl.edu/labs/kevin](http://www.nil.wustl.edu/labs/kevin) for examples of past research.

Alison Goate, DPhil – Genetic Studies of Alzheimer's Disease

9th Floor, BJH – 1H Building

314-362-8691

Studies can involve laboratory-based projects on the genetics or cell biology of Alzheimer's disease or clinical studies involving the collection of data through telephone or personal interview of individuals with a family history of dementia.

Ginger E. Nicol, MD

4412 Renard Building

314-362-5939

Clinical research concerning metabolism and the regulation of weight and body composition in persons with mental illness, particularly during exposure to psychotropic medications. Additional projects include 1) participation in the conduct and interpretation of results from gold standard metabolic assessments in mentally ill individuals within the context of a clinical trial 2) participation in clinical studies testing the effectiveness of behavioral and medical interventions for weight loss in youth and adults 3) learning how clinical and administrative data can be used to characterize and examine psychotropic prescribing and metabolic monitoring trends in antipsychotic-treated individuals 4) learning to evaluate the cost effectiveness of various clinical approaches to the management of weight problems and metabolic risk conditions in mentally ill individuals using decision analytic techniques, and 5) participation in the development, implementation and effectiveness testing of patient safety and quality improvement (PSQI) interventions in mentally ill obese patients in Wash U outpatient psychiatry clinic settings. This elective offers the student a broad exposure to clinical research protocols, including protocols in adults and children. Students will have an opportunity to focus on a particular project of interest.

Psychiatric and Behavioral Health Sciences Concentration



Rumi Kato Price, PhD, MPE (Concentration program director); Arpana Agrawal, PhD; Kathleen B. Bucholz, PhD, MPE; Li-Shiun Chen, MD; Anne Glowinski, MD, MPE; Rick Grucza, PhD, MPE

660 S. S.Taylor TAB Bldg.

314-286-2283

Courses are held at the Institute for Public Health TAB Bldg. The Psychiatric and Behavioral Health Sciences Concentration, an integral component of the Master of Population Health Sciences (MPHS) accredited in WUSM and taught by Psychiatry faculty members, provides clinician-researchers, postdoctoral fellows, and advanced medical and other graduate students with strong conceptual and methodological skills required for the design, advanced analysis and interpretation of epidemiological and treatment-effectiveness studies. With an emphasis on a clinical approach to psychiatric and addiction health research, didactic training focuses on in-depth understanding of disease phenotypes, pathobiology and developmental trajectories; understanding the underlying biological and environmental factors and their interactions; understanding the role of psychiatric epidemiology in disease prevention and intervention; and evaluating psychiatric clinical treatment and management programs of psychopathology. A fellow/student has an option of applying for a MPHS degree program or taking appropriate courses as part of his/her training or academic program. A total of 18 credits are needed for this Concentration for a matriculated student. Currently available courses include: (1) Epidemiology of Psychiatric Disorders across the Lifespan (M19-561; Course master, A. Glowinski, MD; 3 credits): This course takes an integrated developmental approach to the epidemiology, etiology and evolving nosology of psychiatric disorders. (2) Addictions and Addictive Behaviors (M19-562; Course maser, R. Grucza; 3 credits): This course provides an overview of the principles of substance-related addictions and the processes and mechanisms that underlie addiction. Fellows/students are introduced to the epidemiology and developmental course of addiction, risk and protective influences that act on the course of addiction and its adverse health consequences. (3) Global Burden of Diseases: (M19-5656/S55-4003; Course master, RK Price; 3 credits): This course provides an overview of the current methods and research applications for studying global burden of medical and psychiatric diseases from a multidisciplinary perspective.

In addition to understanding and applying the current and advanced methodology used in studying global burden of diseases, fellow and students will learn the updated knowledge of communicable and non-communicable chronic diseases including psychiatric and addiction diseases.

Rumi Kato Price, PhD, MPE  
4560 Clayton Rd., CID Bldg.  
314-286-2282

Medical and graduate students, postdoctoral and clinical fellows will work closely with Dr. Price and her collaborators on ongoing research projects in psychiatric epidemiology, substance abuse, and prevention in the community research context. The current projects include: implementation of a sensor- and smartphone-based technology to monitor and manage post-traumatic stress disorder (PTSD) and anxiety disorder symptoms; and epidemiology and clinical studies of human trafficking in the St. Louis region and more globally. We work closely with the Institute for Public Health and collaborate on a wide range of topics related to human trafficking with multidisciplinary faculty (computer sciences, biomedical engineering, social work, nursing, women's studies, and international studies) as well as with community leaders. New technologies are introduced as they fit to specific aims. Secondary analysis studies can be arranged using archived data files. Private-domain data files include: a longitudinal study assessing the impact of war experience and trauma spectrum disorders and health services utilization on National Guard service members and their families deployment to Iraq and Afghanistan; and 30-year longitudinal study series assessing the impact of drug abuse and war trauma, PTSD and suicidality. Several public domain large general population data files are also accessible.

NOTE TO STUDENTS: There are always a number of research projects in the Department of Psychiatry. For additional information contact Dr. Rubin, 314-362-2462.

# Faculty — Psychiatry

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**Charles F Zorumski** Samuel B. Guze Professor of Psychiatry (primary appointment)

Professor of Neuroscience

Head of the Department of Psychiatry

BA Saint Louis University 1974

**Arpana Agrawal, PHD** Associate Professor of Psychiatry (primary appointment)

PHD Virginia Comm University 2004

**Aqeeb Ahmad** Instructor in Clinical Psychiatry (primary appointment)

**Dale J Anderson, MD** Instructor in Clinical Psychiatry (primary appointment)

MD Washington Univ in St. Louis 1978

**Richard H Anderson** Instructor in Clinical Psychiatry (primary appointment)

**Andrey P Anokhin, PHD, MS** Associate Professor of Psychiatry (primary appointment)

PHD Russia Academy of Science 1987

MS Moscow State University 1981

**Scott J Arbaugh, MD** Instructor in Clinical Psychiatry (primary appointment)

MD Saint Louis University 1985

BA Saint Louis University 1980

**Ahmad Beheshti Ardekani, MD** Assistant Professor of Clinical Psychiatry (primary appointment)

MD School Not Listed 1974

**Victoria Brooke Ayden** Assistant Professor of Psychiatry (Child Psychiatry) (primary appointment)

BS Northwestern University 1996

**Naazia H Azhar** Instructor in Psychiatry (primary appointment)

**Michael Roman Banton, MD** Instructor in Clinical Psychiatry (Child Psychiatry) (primary appointment)

MD Saint Louis University 1985

**Vadim Baram** Instructor in Clinical Psychiatry (primary appointment)

**Ronald Beach** Instructor in Clinical Psychiatry (primary appointment)

**Andrew Curry Belden, PHD** Assistant Professor of Psychiatry (primary appointment)

BS University of MO Columbia 2000

PHD Saint Louis University 2006

**Savita Bhat, MS** Instructor in Clinical Psychiatry (primary appointment)

MS1 School Not Listed 1989

MS St Xavier's College 1980

**Laura J Bierut** Alumni Endowed Professor of Psychiatry (primary appointment)

BA Harvard University 1982

**Monica E. Bishop** Associate Professor of Psychiatry (primary appointment)

**Kevin J. Black, MD** Professor of Psychiatry (primary appointment)

Professor of Radiology

Professor of Neurology

Professor of Neuroscience

MD Duke University 1990

BS Brigham Young University 1986

**Adam J. Bloom, PHD** Assistant Professor of Psychiatry (primary appointment)

**Assistant Professor of Anesthesiology**

PHD Washington Univ in St. Louis 2006

**Donald David Bohnenkamp, MD**Assistant Professor of Psychiatry (primary appointment)

BS Saint Louis University 2003

MD Univ of Nebraska Med Center 2007

**Kelly N Botteron, MD**Professor of Psychiatry (Child Psychiatry) (primary appointment)

**Professor of Radiology**

BA University of Kansas 1984

MD University of Kansas Medical 1988

**Susan Kathleen Boyer, MD**Instructor in Clinical Psychiatry (primary appointment)

BA Rockhurst College 1988

MD University of Missouri 1993

**Robert Harry Brady, MD**Instructor in Clinical Psychiatry (Child Psychiatry) (primary appointment)

**Adjunct Instructor in Psychiatry (Child Psychiatry)**

MD Tufts University 1995

BS University of Notre Dame 1988

**Peter Anthony Brawer, MA**Instructor in Clinical Psychiatry (primary appointment)

MA Loyola College 1999

BS University of Scranton 1997

**Steven E. Bruce, PHD**Visiting Assistant Professor of Psychiatry (primary appointment)

BA Virginia Tech 1992

PHD Virginia Comm University 1998

**Tony Wayne Buchanan, MA, PHD**Adjunct Asst Professor of Psychiatry (primary appointment)

MA University of Oklahoma 1998

PHD University of Oklahoma 2000

BA Southern Nazarene University 1995

**Kathleen K Bucholz, PHD, MS**Professor of Psychiatry (primary appointment)

PHD Yale University 1986

BA Yale University 1972

MS Yale University 1976

MS1 Yale University 1982

Joan Rachel ButcherInstructor in Clinical Psychiatry (primary appointment)

**James Byrd, MD**Instructor in Clinical Psychiatry (Child Psychiatry) (primary appointment)

MD School Not Listed 1991

BS Southeast Missouri St Unvers 1987

**Joshua W. Calhoun, MD**Instructor in Clinical Psychiatry (Child) (primary appointment)

MD University of Connecticut 1982

BS Yale University 1978

**Wilma J. Calvert, PHD, BN**Adjunct Instructor in Psychiatry (primary appointment)

PHD University of Missouri 2002

BN Oral Roberts University 1981

**Robert Michael Carney, PHD**Professor of Psychiatry (primary appointment)

**Professor of Psychological & Brain Sciences**

PHD Washington Univ in St. Louis 1978

BA University of MO Columbia 1969

**Patricia A Cavazos-Rehg, PHD**Associate Professor of Psychiatry (primary appointment)

BA University Texas San Antonio 1998

PHD State University of New York 2004

**Mina Charepool**Instructor in Psychiatry (Pending Dean's Approval) (primary appointment)

**Li-Shiun Chen, M PH, PHS, MD**Assistant Professor of Psychiatry (primary appointment)

M PH John Hopkins University 1995

PHS Johns Hopkins University 1998

MD National Taiwan University 1993

**Zhoufeng Chen**Professor of Anesthesiology (primary appointment)

**Professor of Psychiatry**

**Professor of Developmental Biology**

**Andrew Chirchirillo, PHD**Instructor in Clinical Psychiatry (Child) (primary appointment)

BA Illinois State University 1973

PHD University of MO St Louis 1981

**Theodore J Cicero, MS, PHD**John P Feighner Professor of Psychiatry (primary appointment)

**Vice Chairman for Research, Department of Psychiatry**

**Professor of Neuroscience**

MS Purdue University 1966

BS Villanova University 1964

PHD Purdue University 1969

**Martin J Clarke, MA, MS, PHD**Assistant Professor of Psychiatry (primary appointment)

MA Fielding Institute 2005

MS National Louis University 1997

BS Saint Louis University 1981

PHD Fielding Institute 2011

**William W Clendenin, MD**Assistant Professor of Clinical Psychiatry (primary appointment)

MD University of Tennessee 1963

**C. Robert Cloninger, MD**Wallace Renard Professor of Psychiatry (primary appointment)

**Professor of Psychiatry**

**Professor of Psychological & Brain Sciences**

**Professor of Genetics**

BA University of Texas Austin 1966

MD Washington Univ in St. Louis 1983

**David M Conner, MD**Instructor in Clinical Psychiatry (primary appointment)

MD University of Oklahoma 1983

**John Nicholas Constantino**Blanche F Ittleson Professor of Psychiatry (Child Psychiatry) (primary appointment)

**Professor of Pediatrics**

BA Cornell University 1984

**Charles Richard Conway, MD**Professor of Psychiatry (primary appointment)

MD University of Missouri Columbi 1995

**Linda B Cottler, PHD, M PH**Adjunct Professor of Psychiatry (primary appointment)

**Adjunct Professor of Anthropology**

BA Emmanuel College 1977

PHD Washington Univ in St. Louis 1987

M PH Boston University 1980

**Douglas Floyd Covey, MA**Professor of Pharmacology in Developmental Biology (primary appointment)

**Professor of Anesthesiology**

**Professor of Psychiatry**

BS Loyola College 1967

MA Johns Hopkins University 1969

Lucia del Pilar Cristancho Pimiento **Assistant Professor of Psychiatry** (primary appointment)

**Jack L Croughan, MD** **Associate Professor of Clinical Psychiatry** (primary appointment)

BA University of Kansas 1964

MD University of Kansas Medical 1968

Carlos Cruchaga **Associate Professor of Psychiatry** (primary appointment)

**Associate Professor of Neurology**

**Alejandro M Datuin, MD, AA** **Assistant Professor of Clinical Psychiatry (On Staff at Malcolm Bliss Mental Health Center)** (primary appointment)

MD University of Santo Tomas 1956

AA University of Santo Tomas 1951

**Mary A Davis, MD** **Assistant Professor Emeritus of Clinical Psychiatry** (primary appointment)

**Asst Prof Emeritus of Clinical Psychiatry** (primary appointment)

BA Ohio State University 1947

MD Washington Univ in St. Louis 1952

**Jon Todd Dean, MD** **Instructor in Clinical Psychiatry** (primary appointment)

BA University of Texas Austin 1982

MD University of Texas Austin 1987

**Paul Dewald, MD** **Assistant Professor of Clinical Psychiatry** (primary appointment)

MD University of Rochester 1945

BA Swarthmore College 1942

**Plaridel C Deza, MD** **Assistant Professor of Clinical Psychiatry (On Staff at Malcolm Bliss Mental Health Center)** (primary appointment)

MD University of Santo Tomas 1956

**Carie Kollmeyer Dinehart, MD** **Instructor in Clinical Psychiatry** (primary appointment)

BA Saint Louis University 1999

MD Saint Louis University 2003

**Joseph D Dougherty, PHD** **Assistant Professor of Genetics** (primary appointment)

**Assistant Professor of Psychiatry**

BS Truman State University 1999

PHD University of California 2005

**James Earl Edwards, MD** **Assistant Professor of Clinical Psychiatry (Child Psychiatry)** (primary appointment)

MD University of Tennessee 1962

BA University of Tennessee 1959

**Sarah Ann Eisenstein, PHD** **Assistant Professor of Psychiatry** (primary appointment)

**Assistant Professor of Radiology**

PHD University of Georgia 2008

**Nuri Bradford Farber, MD** **Professor of Psychiatry** (primary appointment)

BA Washington Univ in St. Louis 1985

MD Washington Univ in St. Louis 1989

**Beverly J. Field, PHD, B MUS** **Associate Professor of Anesthesiology** (primary appointment)

**Associate Professor of Psychiatry**

BA University of MO Columbia 1987

PHD Washington Univ in St. Louis 1993

B MUS Southern Illinois University 1972

**Robert T. Fitzgerald, MS** **Instructor in Psychiatry (Child)** (primary appointment)

BS Abilene Christian University 1998

MS Saint Louis University 2000

**Ellen E Fitzsimmons-Craft, MS PSYC, PSYD**Instructor in Psychiatry (primary appointment)

MS PSYC University North Carolina 2010

PSYD University North Carolina 2014

BS1 University of Notre Dame 2008

**Cynthia Florin, MD**Instructor in Clinical Psychiatry (primary appointment)

MD Columbia University 1984

BS Grinnell College 1976

**Kenneth E Freedland**Professor of Psychiatry (primary appointment)

**Professor of Psychological & Brain Sciences**

BS University of Oregon 1975

**Darrin Friesen, MD**Instructor in Clinical Psychiatry (primary appointment)

MD Washington Univ in St. Louis 1996

BA School Not Listed 1990

Lara A Fuchs**Instructor in Clinical Psychiatry** (primary appointment)

**Michael S Gaffrey, PHD**Assistant Professor of Psychiatry (primary appointment)

PHD Univ of Wisconsin Milwaukee 2009

Nick S. Garg**Instructor in Clinical Psychiatry (Child Psychiatry)** (primary appointment)

**Marcie Epstein Garland, MD**Assistant Professor of Psychiatry (primary appointment)

MD University of MO Kansas City 2008

BA University of MO Kansas City 2008

Dawn Lee Garzon**Adjunct Instructor in Psychiatry** (primary appointment)

**Fred W Gaskin**Associate Professor of Clinical Psychiatry (primary appointment)

BS University of Minnesota 1964

**Luis Giuffra, MS, PHD**Professor of Clinical Psychiatry (primary appointment)

MS School Not Listed 1985

PHD Yale University 1991

BS School Not Listed 1983

**Paul E Glaser, PHD, MD**Professor of Psychiatry (Child Psychiatry) (primary appointment)

PHD Washington Univ in St. Louis 1996

MD Washington Univ in St. Louis 1996

MS1 University of Illinois Chicago 1986

BS1 University of Illinois Chicago 1986

**Anne L Glowinski, MS, MD**Professor of Psychiatry (Child Psychiatry) (primary appointment)

BS University of Houston 1988

MS Washington Univ in St. Louis 2001

MD Baylor University 1992

**Mark Gold, MD**Adjunct Professor of Psychiatry (primary appointment)

MD University of Florida 1975

**David Goldmeier, MD**Instructor in Clinical Psychiatry (primary appointment)

BA Dartmouth College 1978

MD Washington Univ in St. Louis 1982

**Julia D. Grant, PHD, MA**Associate Professor of Psychiatry (primary appointment)

PHD Pennsylvania State University 1997

BA Davidson College 1989

MA Wake Forest University 1993

**Deanna Greene, PHD, MS**Assistant Professor of Psychiatry (primary appointment)

**Assistant Professor of Radiology**



PHD University of CA Los Angeles 2010

BA University of CA San Diego 2003

MS University of CA Los Angeles 2006

**Richard Grucza, MS, PHD** Associate Professor of Psychiatry (primary appointment)

MS Pennsylvania State University 1991

PHD Washington Univ in St. Louis 2000

BS Rochester Institute of Techno 1989

**Dong Hyun Han** Visiting Instructor in Psychiatry (primary appointment)

**Oscar Marcos Harari, PHD, MA** Assistant Professor of Psychiatry (Pending Executive Faculty Approval) (primary appointment)

PHD University of Granada 2009

BA Universidad del Buenos Aires 1997

MA Universidad del Buenos Aires 1999

**Melissa A. Harbit, MD** Associate Professor of Psychiatry (primary appointment)

MD University of Iowa 1997

BS University of Iowa 1993

**Michael P. Harms** Assistant Professor of Psychiatry (primary appointment)

**Dehra Anne Harris, MD** Assistant Professor of Psychiatry (Child Psychiatry) (primary appointment)

MD University of Arkansas 2000

BS Washington Univ in St. Louis 1996

**Sarah McConnell Hartz, MD, PHD** Assistant Professor of Psychiatry (primary appointment)

BA Knox College 1996

MD University of Iowa 2005

PHD University of Illinois 2002

**Steven Arthur Harvey, MD** Instructor in Clinical Psychiatry (primary appointment)

BA Washington Univ in St. Louis 1988

MD Washington Univ in St. Louis 1992

**Andrew C Heath, PHD** Spencer T. Olin Professor of Psychology in Psychiatry (primary appointment)

**Associate Professor of Psychological & Brain Sciences**

**Professor of Genetics**

PHD Oxford University 1983

**Celeste Eileen Herleth** Instructor in Psychiatry (primary appointment)

BA1 Loyola University 2005

**Tamara G Hershey** Professor of Psychiatry (primary appointment)

**Adjunct Professor of Psychological & Brain Sciences (Courtesy)**

**Professor of Neurology**

**Professor of Radiology**

BA Earlham College 1988

**Frederick G Hicks** Assistant Professor of Clinical Psychiatry (primary appointment)

**Joshua Wade Hogins** Instructor in Clinical Psychiatry (primary appointment)

**Sheldon G Holstad, PHD, PHS** Assistant Professor of Clinical Pharmacy in Psychiatry (On Staff at Jewish Hospital and St Louis College of Pharmacy) (primary appointment)

PHD University of Iowa 1986

PHS University of Iowa 1986

BS University of Iowa 1984

**Barry Allen Hong, MDI** Professor of Psychiatry (primary appointment)

**Professor of Psychological & Brain Sciences**



**Vice Chairman for Clinical Affairs, Department of Psychiatry**

**Professor of Medicine**

BA Concordia University 1969

MDI Concordia University 1972

**Linda S Horne, MD**Instructor in Clinical Psychiatry (primary appointment)

MD Ohio State University 1986

James J Hudziak**Adjunct Professor of Psychiatry** (primary appointment)

Yukitoshi Izumi**Professor of Psychiatry** (primary appointment)

**Aleksandar Janca, MD**Adjunct Professor of Psychiatry (primary appointment)

MD School Not Listed

**Michael R Jarvis, MD**Professor of Psychiatry (primary appointment)

**Vice Chairman for Clinical Affairs, Department of Psychiatry**

MD Washington Univ in St. Louis 1985

Mark C. Johnson**Associate Professor of Clinical Psychiatry** (primary appointment)

La Rhonda Jones**Instructor in Clinical Psychiatry (Child Psychiatry)** (primary appointment)

Wajiha Parveen Karatela**Instructor in Clinical Psychiatry (Child)** (primary appointment)

Celeste Marie Karch**Assistant Professor of Psychiatry** (primary appointment)

**Saaid Khojasteh, MD**Assistant Professor of Clinical Psychiatry (primary appointment)

MD School Not Listed 1981

**Neha Navsaria Kirtane, PHD, MA**Assistant Professor of Psychiatry (primary appointment)

PHD Temple University 2008

MA Columbia University 2003

BA Bryn Mawr College 1999

**Valerie S. Knopik, MA, PHD**Adjunct Assistant Professor of Psychiatry (primary appointment)

MA University of Colorado Boulder 1998

BA Wesleyan College 1994

PHD University of Colorado Boulder 2000

**Sara L Kornfield, PHD**Assistant Professor of Psychiatry (primary appointment)

PHD Drexel University 2010

BA Columbia University 2003

Maria Kovacs**Visiting Professor of Psychiatry** (primary appointment)

**Suzanne Nicole L'Ecuyer, MD**Instructor in Psychiatry (primary appointment)

MD University of Louisville 2016

**Eric J Lenze, MD**Professor of Psychiatry (primary appointment)

MD Washington Univ in St. Louis 1994

**Shannon N Lenze, PHD, MA**Assistant Professor of Psychiatry (primary appointment)

PHD University of Pittsburgh 2007

MA University of Pittsburgh 2003

**F. Timothy Leonberger, PHD, MS**Instructor in Clinical Medical Psychology in Psychiatry (On Staff at Malcolm Bliss Mental Health Center) (primary appointment)

BA University of Illinois 1977

PHD Univ of Southern Mississippi 1986

MS Louisiana St University 1983

**Christina Lessov-Schlaggar, PHD**Assistant Professor of Psychiatry (primary appointment)

PHD Oregon Health Science Unvers 2000

**Nigel C Lester, MD**Instructor in Psychiatry (primary appointment)

MD University of Bristol 1994

**Collins E Lewis, MD**Associate Professor Emeritus of Psychiatry (primary appointment)

**Assoc Prof Emeritus Of Psychiatry** (primary appointment)

BA Rutgers University 1967

MD Harvard University 1971

Penelope Alatheia Lind**Adjunct Instructor in Psychiatry** (primary appointment)

**Jay L Liss, MD****Associate Professor of Clinical Psychiatry** (primary appointment)

MD Washington Univ in St. Louis 1966

BA Washington Univ in St. Louis 1963

**Joan L Luby, MD****Professor of Psychiatry (Child Psychiatry)** (primary appointment)

BA Brown University 1981

MD Wayne State University 1985

**Philip A Ludbrook, MBBS****Professor Emeritus of Medicine** (primary appointment)

**Prof Emeritus of Medicine** (primary appointment)

**Professor Emeritus of Psychiatry**

MBBS University of Adelaide 1963

BS School Not Listed 1957

**Patrick Joseph Lustman, PHD****Professor of Psychiatry** (primary appointment)

**Professor of Psychological & Brain Sciences**

BA University of Illinois 1972

PHD Michigan State University 1980

**Michael T. Lynskey, PHD, MS****Adjunct Professor of Psychiatry** (primary appointment)

PHD School Not Listed 1997

BS School Not Listed 1987

MS University of Canterbury 1989

Colin Mackenzie**Instructor in Clinical Psychiatry** (primary appointment)

**Pamela A Madden, PHD, MS****Professor of Psychiatry** (primary appointment)

PHD University of Pittsburgh 1992

MS University of Pittsburgh 1983

BS University of Pittsburgh 1978

**Virgil Lee Malmberg, MD, MS****Instructor in Clinical Psychiatry** (primary appointment)

MD University of Missouri 1978

MS University of Illinois 1970

BS University of Illinois 1968

Daniel T. Mamah**Assistant Professor of Psychiatry** (primary appointment)

**Natasha M.V. Marrus, PHD, MD****Assistant Professor of Psychiatry** (primary appointment)

BA University of Southern Calif 1999

PHD Washington Univ in St. Louis 2007

MD Washington Univ in St. Louis 2007

BS University of Southern Calif 1999

Nicholas Gordon Martin**Adjunct Instructor in Psychiatry** (primary appointment)

**Jose Mathews, MD****Assistant Professor of Psychiatry** (primary appointment)

MD Delhi University 1993

**Gregory Warren Mattingly, MD****Assistant Professor of Clinical Psychiatry** (primary appointment)

BS University of Missouri 1985

MD Washington Univ in St. Louis 1989

**Marcia June McCabe, PHD, MA****Associate Professor of Psychiatry** (primary appointment)

PHD University of Missouri 1991

BA Washburn University 1985

MA University of Missouri 1987

**Kimberli McCallum, MD** Assistant Professor of Clinical Psychiatry (Child Psychiatry) (primary appointment)

BS Brown University 1981

MD Yale University 1986

**Scott McCormick III, MD** Assistant Professor of Clinical Psychiatry (primary appointment)

MD University of Chicago 1985

BA Coe College 1981

**Douglas E McCoy, MD** Instructor in Clinical Psychiatry (primary appointment)

BS Eastern Illinois University 1986

MD Southern Illinois University 1990

**Vivia Van Dyne McCutcheon, MS, PHD** Assistant Professor of Psychiatry (primary appointment)

BA Ohio State University 1985

MS Washington Univ in St. Louis 2001

PHD Washington Univ in St. Louis 2005

**Steven James Mennerick, PHD** Professor of Psychiatry (primary appointment)

**Professor of Neuroscience**

PHD Washington Univ in St. Louis 1995

BA Earlham College 1988

**Jay L Meyer, MD** Associate Professor of Clinical Psychiatry (primary appointment)

BA Washington Univ in St. Louis 1956

MD Saint Louis University 1960

**James R Mikolajczak, MD** Assistant Professor of Clinical Psychiatry (primary appointment)

MD Saint Louis University 1972

BS Saint Louis University 1968

**Jule P. Miller Jr** Instructor in Clinical Psychiatry (primary appointment)

**Susan Minchin, PHD, MD** Instructor in Clinical Psychiatry (primary appointment)

PHD University of Iowa 1991

MD University of Iowa 1991

BS Oregon St University 1981

**David M Montani** Instructor in Clinical Psychiatry (primary appointment)

**Grant William Montgomery** Adjunct Instructor in Psychiatry (primary appointment)

**Mary Ann Montgomery, MBA, MD** Associate Professor of Clinical Psychiatry (primary appointment)

MBA Washington Univ in St. Louis

MD Northwestern University Med 1973

BA Vassar College 1967

**Randi H Mozenter, MA** Instructor in Clinical Medical Psychology in Psychiatry (primary appointment)

BA Washington Univ in St. Louis 1980

MA Washington Univ in St. Louis 1982

**Rashmi R Nakra** Associate Professor of Clinical Psychiatry (primary appointment)

UNKNOWN Lady Hardings 1970

**Elliot C Nelson, MD** Professor of Psychiatry (primary appointment)

MD University of Illinois 1986

BA Johns Hopkins University 1982

**Ginger E. Nicol, MD** Assistant Professor of Psychiatry (Child Psychiatry) (primary appointment)

BA University of Iowa 1998

MD University of Iowa 2002

**Bruce L Nock, PHD, MS** Associate Professor of Neurobiology in Psychiatry (primary appointment)

**Associate Professor of Neuroscience**

PHD Rutgers University 1981

BA Elizabethtown College 1969

MS Bucknell University 1975

**Kevin K. Noguchi, MA, PHD**Assistant Professor of Psychiatry (primary appointment)

MA University of CA Los Angeles 1998

PHD University of CA Los Angeles 2003

BS University of CA Santa Barbara 1996

**Thomas John Nowotny, MD**Assistant Professor of Clinical Psychiatry (primary appointment)

MD Washington Univ in St. Louis 1985

BS Washington Univ in St. Louis 1980

**Brendan Joseph O'Connor, MD**Assistant Professor of Psychiatry (primary appointment)

MD Creighton University 2010

BS Creighton University 2006

Kalu Onuma**Instructor in Clinical Psychiatry** (primary appointment)

**Akinkunle Owoso, MD**Assistant Professor of Psychiatry (primary appointment)

MD University of Oklahoma 2007

BS1 University of Oklahoma 2003

Vasileios Panagopoulos**Instructor in Clinical Psychiatry** (primary appointment)

**Pablo Pastor, MD**Visiting Instructor in Psychiatry (primary appointment)

MD University of Barcelona 2001

Stephen E Peterson**Instructor in Clinical Psychiatry (Child)** (primary appointment)

**Elizabeth F Pribor, MD**Associate Professor of Clinical Psychiatry (primary appointment)

BA Emory University 1981

MD Saint Louis University 1985

**Rumi Kato Price, PHD, MA, MPE**Professor of Psychiatry (primary appointment)

PHD University of California 1988

MA University of California 1982

BA Ochanomizu Univ 1976

MPE Washington Univ in St. Louis 1990

**John R. Pruett Jr, PHD**Associate Professor of Psychiatry (Child Psychiatry) (primary appointment)

**Associate Professor of Radiology**

**Associate Professor of Psychological & Brain Sciences (Courtesy)**

PHD Washington Univ in St. Louis 2000

BA Princeton University 1990

**John S Rabun, MD**Instructor in Clinical Psychiatry (primary appointment)

BA University of Tennessee

MD University of Tennessee

Alex Taylor Ramsey**Instructor in Psychiatry** (primary appointment)

**Diane Rankin, MD**Assistant Professor of Clinical Psychiatry (primary appointment)

BA University of Colorado Boulder 1962

MD University of Colorado Boulder 1968

**Dabeeru C Rao, PHD, MS**Professor of Biostatistics (primary appointment)

**Professor of Biostatistics in Genetics**

**Director of the Division of Biostatistics**

**Tenure Held At-Large in the Medical School**

**Professor of Biostatistics in Psychiatry**

**Professor of Mathematics**

BS Indian Statistical Institute 1967

PHD Indian Statistical Institute 1971

MS Indian Statistical Institute 1968

Radhika Rao **Instructor in Clinical Psychiatry** (primary appointment)

Syed A Raza **Assistant Professor of Clinical Psychiatry (Child Psychiatry)** (primary appointment)

Chandrashekar Reddy **Instructor in Clinical Psychiatry** (primary appointment)

**Angela M. Reiersen, MD, MS PSYC** **Assistant Professor of Psychiatry (Child Psychiatry)** (primary appointment)

MD University of Southern Calif 1999

BS University of CA Davis 1994

MS PSYC Washington Univ in St. Louis 2006

Daniel B. Reising **Instructor in Clinical Psychiatry (Child Psychiatry)** (primary appointment)

**John P Rice, MA, PHD** **Professor of Mathematics in Psychiatry** (primary appointment)

**Professor of Biostatistics**

**Professor of Genetics**

BA Cornell University 1969

MA Washington Univ in St. Louis 1972

PHD Washington Univ in St. Louis 1975

**Treva Kay Rice, MA** **Professor of Biostatistics** (primary appointment)

**Professor of Psychiatry**

BS University of Texas Arlington 1981

MA University of Colorado Boulder 1984

**Cheryl Richards, MA, PHD** **Assistant Professor of Psychiatry** (primary appointment)

**Assistant Professor of Medicine**

MA University of Illinois 1981

BS Ohio University 1977

PHD University of Illinois 1987

Thomas F Richardson **Professor of Psychiatry** (primary appointment)

William M Riedesel II **Associate Professor of Clinical Psychiatry** (primary appointment)

**Stephen L. Ristvedt, MA, PHD** **Associate Professor of Anesthesiology**

**Associate Professor of Psychiatry**

BA University of Minnesota 1981

MA University of Pennsylvania 1983

PHD University of Pennsylvania 1989

Syed T Rizvi **Assistant Professor of Clinical Psychiatry (Child Psychiatry)** (primary appointment)

**John Deno Rogakos** **Instructor in Clinical Psychiatry (Child Psychiatry)** (primary appointment)

BS University of Dayton 1990

**Cynthia E Rogers, MD** **Assistant Professor of Psychiatry** (primary appointment)

BA Harvard University 1998

MD Washington Univ in St. Louis 2005

**Eugene Harold Rubin, MD** **Professor of Psychiatry** (primary appointment)

**Professor of Psychological & Brain Sciences** (courtesy)

**Vice Chairman for Education, Department of Psychiatry**

BA University of Rochester 1971

MD Washington Univ in St. Louis 1978

John Conrad Rudersdorf **Instructor in Clinical Psychiatry (Child)** (primary appointment)

**James Rutherford, MD** **Assistant Professor Emeritus of Clinical Psychiatry** (primary appointment)

**Asst Prof Emeritus of Clinical Psychiatry** (primary appointment)

BA Drake University 1975

MD University of Iowa 1980

**Jo-Ellyn M Ryall, MD** Associate Professor of Clinical Psychiatry (primary appointment)

MD Washington Univ in St. Louis 1975

**Frank Scott Saccone** Associate Professor of Psychiatry (primary appointment)

BA Rensselaer Polytechnic Instit 1990

**Berette A Salazar, MD** Assistant Professor of Clinical Psychiatry (primary appointment)

MD University of New Mexico 1982

BA Middlebury College 1973

**Carolyn E. Sartor, PHD, MS** Adjunct Assistant Professor of Psychiatry (primary appointment)

PHD Palo Alto College 2005

BS Oberlin College 1994

MS Catholic University America 1999

**Norman Sartorius** Adjunct Professor of Psychiatry (primary appointment)

**Gregory Stephen Sayuk** Associate Professor of Medicine (primary appointment)

**Associate Professor of Psychiatry**

**Jeffrey Frank Scherrer, PHD** Adjunct Associate Professor of Psychiatry (primary appointment)

PHD Saint Louis University 2004

**Bradley L Schlaggar, PHD, MDA** Ernest and Jane G Stein Professor of Neurology (primary appointment)

**Professor of Radiology**

**Professor of Psychiatry**

**Professor of Pediatrics**

**Professor of Neuroscience**

BS Brown University 1986

PHD Washington Univ in St. Louis 1994

MD Washington Univ in St. Louis 1994

**Jeffrey I Schulman, MD, MBA** Instructor in Clinical Psychiatry (Child Psychiatry) (primary appointment)

BA Yale University 1970

MD University of Kentucky 1974

MBA Washington Univ in St. Louis 1988

**Earl R Schultz, MD** Professor of Clinical Neurology (primary appointment)

**Associate Professor of Clinical Psychiatry**

MD Washington Univ in St. Louis 1955

BS University of Missouri 1953

BA Southeast Missouri St Univers 1952

**Adelita Segovia Langley** Assistant Professor of Clinical Psychiatry (Child Psychiatry) (primary appointment)

**Bryan Norbert Sewing, DOST** Instructor in Psychiatry (Pending Dean's Approval) (primary appointment)

DOST Kirksville College of Osteopat 1998

BS Texas Christian University 1991

**Paul W Sheffner** Assistant Professor of Clinical Psychiatry (primary appointment)

**Barbara Sue Silverstein, PHD** Assistant Professor of Clinical Psychiatry (Child Psychiatry) (primary appointment)

PHD Saint Louis University 1992

BS University of Missouri 1978



**Nathan M Simon, MS, MD** Professor Emeritus of Clinical Psychiatry (primary appointment)  
Prof Emeritus of Clinical Psychiatry (primary appointment)

MS Yale University 1950

MD Washington Univ in St. Louis 1955

BS Yale University 1949

**Reed Earl Simpson, MD** Assistant Professor of Clinical Psychiatry (primary appointment)

BA Wabash College 1972

MD Washington Univ in St. Louis 1976

**Judith Ann Skala, RN, RN, MA, PHD** Instructor in Psychiatry (Pending Dean's Approval) (primary appointment)

RN St Louis Community College 1981

RN 1981

MA Washington Univ in St. Louis 1992

PHD Washington Univ in St. Louis 2001

BS Washington Univ in St. Louis 1989

**Stacey L Smith, MD** Assistant Professor of Clinical Psychiatry (primary appointment)

BA Northwestern University 1986

MD Northwestern University 1991

**Timothy Eric Spiegel, MD** Assistant Professor of Psychiatry (Child Psychiatry) (primary appointment)

BS Saint Louis University 2006

MD University of Utah 2011

Wayne A Stillings Assistant Professor of Clinical Psychiatry (primary appointment)

Catherine Striley Asjunct Assistant Professor of Psychiatry (primary appointment)

Yun Ju Sung Associate Professor of Biostatistics (primary appointment)

Associate Professor of Psychiatry

**Jagdish C Suri, MD** Assistant Professor of Clinical Psychiatry (Child Psychiatry) (primary appointment)

UNKNOWN School Not Listed 1959

BS School Not Listed 1954

MD School Not Listed 1964

**Vinod Suri** Instructor in Clinical Psychiatry (Child Psychiatry) (Full-Time at Hawthorn Children's Psychiatric Hospital) (primary appointment)

UNKNOWN Punjab University 1962

**Dragan M Svrakic, MD, PHD** Professor of Psychiatry (primary appointment)

MD University of Belgrade 1978

PHD University of Belgrade 1989

**Chad M Sylvester, PHD, MD** Instructor in Psychiatry (Child) (primary appointment)

PHD Washington Univ in St. Louis 2009

MD Washington Univ in St. Louis 2009

BS University of Notre Dame 2001

**Mini Tandon, DOST** Assistant Professor of Psychiatry (Child Psychiatry) (primary appointment)

DOST Kansas Cty Univ Med/Bioscience 2002

BS Truman State University 1997

**Alexandre Todorov, M ED** Professor of Psychiatry (primary appointment)

BS Vanderbilt University 1985

M ED Vanderbilt University 1988

Dorothy J. Van Buren Associate Professor of Psychiatry (primary appointment)

**Michele Van Eerdewegh, MD**Instructor in Clinical Psychiatry (primary appointment)  
MD School Not Listed 1970

**Jeffrey A. Vander Kooi, MD**Instructor in Clinical Psychiatry (primary appointment)  
BS University of Iowa 1997  
MD University of Iowa 2002

**Garry M. Vickar**Instructor in Clinical Psychiatry (primary appointment)

**Erin Foster Voegtli, OTD**Assistant Professor of Occupational Therapy (primary appointment)  
**Assistant Professor of Neurology**  
**Assistant Professor of Psychiatry**  
OTD Washington Univ in St. Louis 2005  
BS Washington Univ in St. Louis 2003

**Mary C. Waldron**Adjunct Assistant Professor of Psychiatry (primary appointment)

**Sara Walker, MD**Instructor in Clinical Psychiatry (primary appointment)  
MD University of South Florida 2001

**Marysia Weber**Instructor in Clinical Psychiatry (primary appointment)

**Reuben R Welch II, PHD, M ED**Associate Professor of Psychiatry (primary appointment)  
PHD University of Missouri 1988  
M ED University of Missouri 1982  
BA Point Loma Nazrene College 1980

**Zila Welner, MD**Associate Professor of Clinical Psychiatry (Child Psychiatry) (primary appointment)  
MD School Not Listed 1961

**John Bair Whitfield**Adjunct Instructor in Psychiatry (primary appointment)

**Denise Wilfley, PHD**Professor of Psychiatry (primary appointment)  
**Professor of Medicine**  
**Professor of Psychological & Brain Sciences**  
**Professor of Pediatrics**  
**Scott Rudolph** University Professor  
PHD University of Missouri Columbi 1989

**Matthew Stewart Wilson**Instructor in Clinical Psychiatry (primary appointment)

**Eric Nicholas Wittrock, DOST**Instructor in Psychiatry (Child) (primary appointment)  
DOST Kansas State University 2011

**Edwin D Wolfgram, MD**Assistant Professor of Clinical Psychiatry (primary appointment)  
BS Iowa State University 1954  
MD University of Iowa 1959

**Fay Yeh Womer, MD**Associate Professor of Psychiatry (primary appointment)  
BS Washington Univ in St. Louis 1999  
MD University of Connecticut 2003

**David F Wozniak, MA**Professor of Psychiatry (primary appointment)  
**Adjunct Associate Professor of Psychological & Brain Sciences**  
MA Connecticut College 1977

**Christopher Wuertz, MD**Assistant Professor of Clinical Psychiatry (primary appointment)  
MD University of Illinois 1984

**Sean H Yutzy**Adjunct Professor of Psychiatry (primary appointment)

**Jorge Sergio Zwir, PHD, BSCS, MS**Assistant Professor of Psychiatry (primary appointment)  
PHD University of Granada 2001  
BSCS Universidad del Buenos Aires 1991  
MS Universidad del Buenos Aires 1995



# Department of Radiation Oncology

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The **Department of Radiation Oncology** was created on July 1, 2001, having been part of the Mallinckrodt Institute of Radiology for many decades. The department has a broad academic program that focuses on excellence in patient care and the development of new treatment paradigms; innovative research in each of the four divisions of clinical, physics, biology and bioinformatics; and teaching for residents in radiation oncology, medical students and allied health personnel. The department is one of the largest, most academically balanced and best equipped in the country, and is responsible for all radiation therapy procedures at Washington University Medical Center. Our faculty have gained international recognition for innovative technological advances in physics and treatment planning, biological research, computer applications and clinical investigation.

## Milestones

- Implementation of novel respiratory gating algorithms
- Development of biomarkers of DNA repair capacity of tumors
- Demonstrated the use of Proton Therapy
- Implementation of first Mevion S250 single room proton therapy system
- Implementation of real-time MRI guidance for radiation therapy treatment with the ViewRay system. Real-time MR guidance provides the ability to see tumors move in real-time during a patients entire treatment. This helps ensure that tumor targets are hit and health tissue is spared
- Acquisition of High Intensity Focused Ultrasound (HIFU) with MRI thermometry mapping

The Department of Radiation Oncology currently occupies a large, and convenient clinical facility on the lower level of the Center for Advanced Medicine. The downtown clinical facility includes nine linear accelerator rooms, three simulator rooms and a brachytherapy center with two high dose-rate treatment units. Furthermore, the facility houses the latest Gamma Knife Perfexion unit. We have advanced treatment planning computer systems for 3-D conformal and intensity-modulated radiation therapy. We have five linear accelerators with on-board CT imaging capability. The brachytherapy suite includes capability for high dose-rate remote afterloading and for image-guided permanent prostate seed implants. Interstitial and external hyperthermia treatments are also available. We recently implemented a new type of proton treatment facility, using a superconducting synchrocyclotron mounted on a gantry, and also recently implemented the world's first MRI-guided radiation therapy treatment program. Additionally, the department provides radiation therapy treatment at BJ South County, BJ West County, BJ Christian Hospital Northeast, and BJ St. Peters.

The Physics faculty have research laboratories and offices on the fourth floor of the Clinical Sciences Research Building plus designated areas adjacent to the clinical facility in the CAM building. The Radiation Biology laboratory and faculty offices are housed at the 4511 Forest Park Building and Wohl Hospital Building.

## For more information

Please visit the [Department of Radiation Oncology website](#) for more information.

# MD Courses — Radiation Oncology

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## Third year and fourth year

**M90 740 RADIATION ONCOLOGY CLERKSHIP**

Instructor: Maria Thomas, MD, PhD, 314.362.8516

The four-week clerkship in radiation oncology will provide students with an introduction to the evaluation and management of a broad range of patients referred for consultation regarding radiation therapy. Clerkship activities will take place within the Barnes-Jewish Hospital/Siteman Cancer Center complex, Christian Hospital, Barnes-Jewish West County Hospital and Barnes-Jewish South County Hospital. Students will conduct inpatient and outpatient evaluations under the supervision of radiation oncology department residents and faculty. Students will also attend and participate in regularly scheduled departmental conferences, with an additional didactic teaching component tailored to the third and fourth year student level. Students will also have the opportunity to attend the appropriate multidisciplinary conferences (such as pediatric neuro-oncology, cardiothoracic oncology, lymphoma, GYN oncology and ENT) pertaining to their rotation schedule. The clerkship will allow exposure to a variety of treatment techniques including brachytherapy, image guided radiation therapy (IGRT), proton therapy, and radiosurgery. Students will be given the opportunity to make a teaching case presentation and will meet weekly with the Coursemaster and/or the department Chairman for small-group case discussions.

Instructional materials are available for students on the rotation. (Students are NOT expected to purchase any curricular materials for the clerkship.) Student performance will be evaluated by faculty members who supervise the student over the course of the four-week clerkship.

## **Fourth year**

### **Elective**

#### **M90 840 / CLINICAL RADIATION ONCOLOGY**

Instructor(s): Maria Thomas, MD, PhD

Location: Center for Advanced Medicine, Lower Level

Elective Contact: Maria Thomas, MD, PhD, 362-8516, or Gwen Jackson 362-8567

Other Information: Students should meet the Chief Resident in the Department of Radiation Oncology in the Siteman Cancer Center on the lower level of the CAM Building.

Enrollment limit per period: 3

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The clinical division offers an elective with emphasis on the evaluation, planning of and administration of radiation therapy in patients with malignant tumors. The students have the opportunity to enhance their knowledge on the natural history, pathological, and biological features of cancer and to sharpen their clinical skills participating in the management of these patients.

Student time distribution: Inpatient 7%; Outpatient 78%; Conferences/ Lectures 15%; Subspecialty Care 100%

Major teaching responsibility: Attendings, residents and staff

Patients seen/weekly: 20-35 per physician

## Research — Radiation Oncology

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Dennis Hallahan, MD

4511 Forest Park, Room 202

314-362-9700

1. Radiation Sensitizers: The overarching hypothesis of this research is that interruption of the signaling will improve cancer response to therapy. Inhibitors of these molecular targets are presently in development at pharmaceutical companies. We study the efficacy of specific inhibitors when combined with

radiotherapy in mouse models of human cancer.

2. Radiation Protection of normal tissue: We study the mechanisms of cell death in normal tissues during cancer therapy. In particular, we have found that a signal transduction pathway required for radiation induced apoptosis in normal tissues involves glycogen synthase kinase 3beta. GSK-3beta regulates the apoptosis machinery within normal tissues. Cancer cells do not require GSK-3beta or apoptotic machinery to respond to cancer therapy. In contrast, injuries in normal tissues such as the brain and intestine require GSK-3 signaling. We have found that inhibitors of GSK-3beta prevent injury in normal tissues. These inhibitors prevent injury to the brain and improve neurocognitive function and reduce injury in the intestine of animal models. Presently, we are studying the mechanisms by which GSK-3 inhibition prevents program cell death in normal tissues. We are also studying new drugs intended for clinical trials.
3. Targeted Drug Delivery to Cancer: We have identified several peptides and over a dozen monoclonal antibodies that bind to cancer following treatment with ionizing radiation. Using this strategy, drug delivery can be targeted specifically to cancer and guided by use of a beam of radiation therapy. These targeting ligands have been conjugated to the drug delivery systems, including liposomes and nanoparticles to improve the specificity of drug delivery of cancer. We collaborate extensively with pharmaceutical companies to target drug delivery to mouse models of human cancer.
4. Immunotherapy: We characterize the immunological response of antibodies targeted by radiation. These monoclonal antibodies bind to radiation inducible neo-antigens. These antibodies can activate immune response. In addition, therapeutic agents are conjugated to the antibodies to provide cancer specific drug delivery. Identification of radiation inducible neo-antigens involves the co-precipitation of antigens from cancer by use of monoclonal antibodies. Antigens are then identified by use of proteomic technology. Humanization of these mouse monoclonal antibodies is performed with the goal of bringing antibodies into clinical trials.

Jeff Michalski, MD

Radiation Oncology, Clinical Division

314-362-8566

Broad range of opportunities for investigation in:

1. Prognostic factors and therapy outcome in a variety of patients with cancer
2. Three-dimensional treatment conformal and intensity-modulated radiation therapy in the treatment of patients with head and neck, lung, pancreas, rectal or prostate cancer.

## Faculty — Radiation Oncology

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**Dennis E Hallahan, MD** Professor of Radiation Oncology (primary appointment)

Professor of Cell Biology and Physiology

Professor of Pathology and Immunology

Elizabeth H and James S McDonnell III Distinguished Professor of Medicine

Head of the Department of Radiation Oncology

Professor of Molecular Microbiology

MD Rush University 1984

BS University of Illinois 1980

**Christopher Abraham, MS, MD** Assistant Professor of Radiation Oncology (Pending Executive Faculty Approval) (primary appointment)

MS Washington Univ in St. Louis 2011

BS Medical College Georgia 2005

MD Saint Louis University 2006

Michael Bernard Altman Assistant Professor of Radiation Oncology (primary appointment)

**Anthony John Apicelli III, PHD, MD** Assistant Professor of Radiation Oncology (primary appointment)

PHD Washington Univ in St. Louis 2009

BS Princeton University 1999

MD Washington Univ in St. Louis 2009

**Abdelkareem Azab, PHD** Assistant Professor of Radiation Oncology (primary appointment)

PHD Hebrew University 2007

Kathy Baglan Instructor in Clinical Radiation Oncology (primary appointment)

**Walter R Bosch, PHS, MS, BE** Associate Professor of Radiation Oncology (primary appointment)

PHS Washington Univ in St. Louis 1990

MS Washington Univ in St. Louis 1983

BE Washington Univ in St. Louis 1980

**Jeffrey D Bradley, MDS, Lee Kling Professor of Radiation Oncology** (primary appointment)

BA Drury College 1989

MD University of Arkansas 1993

**Bin Cai, PHD Instructor in Radiation Oncology** (primary appointment)

PHD Ohio University 2011

**David T Curiel, MD, PHD Distinguished Professor of Radiation Oncology** (primary appointment)

**Professor of Medicine**

**Professor of Obstetrics and Gynecology**

MD Emory University 1982

BA West Georgia College 1978

PHD University of Groningen 2000

**Mackenzie Daly, MD Assistant Professor of Radiation Oncology** (primary appointment)

MD University of MO Kansas City 2005

**Venkata Rao Devineni, MD Associate Professor of Clinical Radiation Oncology** (primary appointment)

MD Osmania Medical College 1973

**Todd Alan DeWees, PHD, MSSP Assistant Professor of Radiation Oncology** (primary appointment)

PHD University of MO Columbia 2009

MSSP Arizona State University 2003

BA Dana College 2001

**Igor Dmitriev Assistant Professor of Radiation Oncology** (primary appointment)

**H Michael Gach, PHD Associate Professor of Radiation Oncology** (primary appointment)

**Associate Professor of Radiology**

PHD University of Pittsburgh 1998

**Jose L Garcia, MS Assistant Professor of Radiation Oncology** (primary appointment)

MS Finch Univ of Health Sciences 1997

BS University of Puerto Rico 1995

**Hiram Alberto Gay, MD Associate Professor of Radiation Oncology** (primary appointment)

BS University of Puerto Rico 1996

MD University of Puerto Rico 2000

**Sreekrishna M Goddu, MS, PHD Associate Professor of Radiation Oncology** (primary appointment)

BS Andhra University

MS Andhra University

PHD Andhra University 1991

**Olga Leonidovna Green, MS Assistant Professor of Radiation Oncology** (primary appointment)

MS Washington Univ in St. Louis 2004

BS Washington Univ in St. Louis 2002

**Perry W Grigsby, MD Professor of Radiation Oncology** (primary appointment)

**Professor of Radiology**

**Professor of Obstetrics and Gynecology**

BS University of Kentucky 1974

MD University of Kentucky 1982

**Yuxing Gu, PHD Assistant Professor of Radiation Oncology** (primary appointment)

PHD University of MO St Louis 2014

**Lannis Hall, MD Assistant Professor of Clinical Radiation Oncology** (primary appointment)

MD Howard University 1992

BA University of Michigan 1988

**Jiayi Huang, MD** Assistant Professor of Radiation Oncology (primary appointment)

MD University of Massachusetts 2007

**Sergey Kaliberov, MD** Assistant Professor of Radiation Oncology (primary appointment)

MD First Moscow Medical Institute 1984

**Rojano Kashani, MS, PHD** Assistant Professor of Radiation Oncology (primary appointment)

MS University of Michigan 2006

PHD University of Michigan 2009

BS University of Michigan 2003

**James Alexander Kavanaugh, MS** Instructor in Radiation Oncology (primary appointment)

BS University of Saint Thomas 2008

MS Louisiana St University 2011

**Rao Fawwad Khan, PHD, MD** Associate Professor of Radiation Oncology (primary appointment)

**Associate Professor of Biomedical Engineering**

PHD McMaster University 2003

MD Quaid-Azam University 1997

**Nels C Knutson, PHD, MS** Instructor in Radiation Oncology (Pending Dean's Approval) (primary appointment)

PHD Univ of Massachusetts Lowell 2016

BS University of Montana Missoula 2009

MS Louisiana St University 2012

**Andrei Laszlo, PHD, MS** Associate Professor of Radiation Oncology (primary appointment)

PHD University of California 1979

MS University of California 1972

BS University of Chicago 1970

**Hua Li, PHD** Assistant Professor of Radiation Oncology (primary appointment)

BS Huazhong University of Science 1994

PHD Huazhong University of Science 2001

**Hui Li, MS** Associate Professor of Radiation Oncology (primary appointment)

MS Chinese Academy of Sciences 1995

**Hsiu-San Lin, PHD, MD** Professor Emeritus of Radiation Oncology (primary appointment)

**Prof Emeritus of Radiation Oncology** (primary appointment)

PHD University of Chicago 1968

MD National Taiwan University 1960

**Stephanie Markovina, MD** Assistant Professor of Radiation Oncology (primary appointment)

MD University of Wisconsin-Madison 2010

**Thomas Rolf Mazur, PHD** Instructor in Radiation Oncology (Pending Dean's Approval) (primary appointment)

PHD University of Texas Austin 2014

**Jeff Michael Michalski, MD, MBA** Carlos Perez Distinguished Professor of Radiation Oncology (primary appointment)

**Vice Chairman of Radiation Oncology**

BS Univ of Wisconsin Madison 1982

MD Univ of Wisconsin Madison 1986

MBA Washington Univ in St. Louis 2001

**Timothy John Mitchell, PHD, MS, PHD** Instructor in Radiation Oncology (primary appointment)

PHD Washington Univ in St. Louis 2011



MS Washington Univ in St. Louis 2007

BS John Carroll University 2005

PHD University of MO St Louis 2014

**Daniel F Mullen, MS, DDEntAssistant Professor of Radiation Oncology (primary appointment)**

BS University of Missouri 1972

MS University of Missouri 1984

DDEnt University of Missouri 1977

**Sasa Mutic, MSProfessor of Radiation Oncology (primary appointment)**

MS University of Colorado Boulder 1996

BS Cameron University 1994

**Robert J Myerson, MD, PHDProfessor Emeritus of Radiation Oncology (primary appointment)**

**Prof Emeritus of Radiation Oncology (primary appointment)**

BA Princeton University 1969

MD University of Miami 1980

PHD University of California 1974

**Parag J. Parikh, MDAssociate Professor of Radiation Oncology (primary appointment)**

**Associate Professor of Biomedical Engineering**

MD Washington Univ in St. Louis 2001

BS Case Western Reserve Univ 1997

**Chunjoo Park, PHD, MEAssistant Professor of Radiation Oncology (primary appointment)**

PHD University of CA Berkeley 2013

ME The Catholic Univ of Korea 2009

**Stephanie Mabry Perkins, MDAssociate Professor of Radiation Oncology (primary appointment)**

BS Union University 2001

MD University of Tenn Memphis 2005

**James Vernon Piephoff, MDInstructor in Clinical Radiation Oncology (primary appointment)**

MD University of South Carolina 1989

BS Citadel 1985

**James A Purdy, PHD, MAEmeritus Professor of Radiation Oncology (primary appointment)**

**Prof Emeritus of Radiation Oncology (primary appointment)**

PHD University of Texas Austin 1971

BS Lamar University 1967

MA University of Texas Austin 1969

**Gary A Ratkin, MDAssociate Professor of Clinical Medicine (primary appointment)**

**Instructor in Clinical Radiation Oncology**

MD Washington Univ in St. Louis 1967

BA Rice University 1963

**Michael Reilly, MS, PHDInstructor in Radiation Oncology (Pending Dean's Approval) (primary appointment)**

MS Univ of IL -Urbana-Champaign 2005

BS Univ of IL -Urbana-Champaign 2003

PHD Univ of IL -Urbana-Champaign 2009

**Keith M Rich, MDProfessor of Neurological Surgery (primary appointment)**

**Professor of Neuroscience**

**Professor of Radiation Oncology**

BA Taylor University 1974

MD Indiana University Bloomington 1977

**Michael Charles RoachAssistant Professor of Radiation Oncology (primary appointment)**

BS Vanderbilt University 2007

**Clifford Grant Robinson, MD** Associate Professor of Radiation Oncology (primary appointment)

BS University of Pittsburgh 2000

MD Case Western Reserve Univ 2004

**Buck Edward Rogers, PHD, MA** Professor of Radiation Oncology (primary appointment)

**Professor of Radiology**

BS Loyola University Chicago 1989

PHD Washington Univ in St. Louis 1995

MA Washington Univ in St. Louis 1991

**Tapan Roy, MS** Instructor in Clinical Radiation Oncology (primary appointment)

MS Baroda Medical College 1974

**Lakshmi Santanam, PHD, MS** Associate Professor of Radiation Oncology (primary appointment)

PHD Wayne State University 2003

BS University of Madras 1991

MS University of Madras 1993

**Julie K Schwarz, MD, PHD** Associate Professor of Radiation Oncology (primary appointment)

**Associate Professor of Cell Biology and Physiology**

MD Washington Univ in St. Louis 2004

PHD Washington Univ in St. Louis 2004

**Girdhar G Sharma** Assistant Professor of Radiation Oncology (primary appointment)

PHD1 Banaras Hindu University 2000

MS1 Banaras Hindu University 1992

BS1 Banaras Hindu University 1990

**Joseph Rogers Simpson, PHD** Professor Emeritus of Radiation Oncology (primary appointment)

**Prof Emeritus of Radiation Oncology** (primary appointment)

PHD University of Chicago 1967

**Christopher Spencer, MD, MA, BAS** Adjunct Instructor in Radiation Oncology (primary appointment)

MD Saint Louis University 2010

MA Truman State University 2006

BAS Truman State University 2005

**William L Straube, MEE** Associate Professor of Radiation Oncology (primary appointment)

MEE Washington Univ in St. Louis 1992

**Baozhou Sun, PHD, MS** Assistant Professor of Radiation Oncology (primary appointment)

PHD College of William and Mary 2005

BS Jilin Medical University 2000

MS College of William and Mary 2002

**Maria A Thomas, PHD, MD** Assistant Professor of Radiation Oncology (primary appointment)

BS Creighton University 2000

PHD Saint Louis University 2006

MD Saint Louis University 2008

**Wade L Thorstad, MD** Associate Professor of Radiation Oncology (primary appointment)

MD University of Texas Austin 1991

BS Trinity University 1986

**Dinesh Thotala, PHD, MS** Assistant Professor of Radiation Oncology (primary appointment)

PHD Bangalore University 1998

BS Bangalore University 1990

MS Bangalore University 1993

**Amaris Renee Tippey** Assistant Professor of Clinical Radiation Oncology (primary appointment)

**Christina Irene Tsien, MD** Professor of Radiation Oncology (primary appointment)

MD McGill University 1995

**Gregory Riccardo Vlacich, MD, PHD** Assistant Professor of Radiation Oncology (primary appointment)

MD University of Chicago 2009

PHD University of Chicago 2007

**Richard L Wahl, MD** Elizabeth E Mallinckrodt Professor of Radiology (primary appointment)

Director of the Edward Mallinckrodt Institute of Radiology

Head of the Department of Radiology

Professor of Radiation Oncology

MD Washington Univ in St. Louis 1978

**Bruce J Walz, MD** Associate Professor of Clinical Radiation Oncology (primary appointment)

BA Washington Univ in St. Louis 1962

MD Washington Univ in St. Louis 1966

**Xiaowei Wang, PHD** Associate Professor of Radiation Oncology (primary appointment)

PHD Tufts University 2000

BS Nankai University 1993

**Jeffrey F Williamson** Professor of Radiation Oncology (Pending Executive Faculty Approval)  
(primary appointment)

**Heping Yan, MD, MS** Assistant Professor of Radiation Oncology (primary appointment)

MD West China University 1979

MS West China University 1982

BS West China University 1979

**Deshan Yang, MS, PHD** Associate Professor of Radiation Oncology (primary appointment)

MS Illinois Institute of Technol 2001

BS Tsinghua University, China 1992

PHD Univ of Wisconsin Madison 2005

**Qin Yang, PHD, MD** Associate Professor of Radiation Oncology (primary appointment)

PHD Heidelberg University 1997

MD West China University 1983

**Tiezhi Zhang, MS, PHD** Assistant Professor of Radiation Oncology (primary appointment)

BS Jilin Medical University 1994

MS Drexel University 1999

PHD Univ of Wisconsin Madison 2004

**Tianyu Zhao** Assistant Professor of Radiation Oncology (primary appointment)

**Imran Zoberi, MD** Professor of Radiation Oncology (primary appointment)

MD Washington Univ in St. Louis 1996

BS University of South Dakota 1992

**Jacqueline Esthappan Zoberi, PHD** Associate Professor of Radiation Oncology (primary appointment)

PHD University of Chicago 2000

BA University of Chicago 1995

No entries found

# Department of Radiology

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The Edward Mallinckrodt Institute of Radiology (more commonly known as Mallinckrodt Institute of Radiology or MIR) serves as the **Department of Radiology** for **Washington University in St. Louis School of Medicine**, helping to guide the consulting physician in the discovery, treatment and, ultimately, the healing of disease. Established in 1930, MIR is one of the largest and most scientifically sophisticated radiology centers worldwide.

Internationally recognized for its groundbreaking research, the Institute continues to pioneer new radiological techniques for better patient care.

## Milestones

- development of the first diagnostic test for gallbladder disease
- design and construction of the first cross-sectional X-ray laminagraph
- collaboration on design and installation of the first cyclotron located in a U.S. medical center
- development of positron emission tomography (PET)
- installation of one of the world's first computed tomography (CT) and magnetic resonance (MR) scanners
- interfacing of a minicomputer with a gamma camera, improving accuracy and efficiency of nuclear medicine procedures
- establishment of the first mobile mammography van west of the Mississippi River
- integration of CT and MR scans with three-dimensional technology  
application of organic chemistry to the preparation of radiopharmaceuticals used in medical imaging

- measurement of cerebral blood flow and metabolism
- establishment of one of the largest, most comprehensive interventional radiology services in the United States
- application of PET for measuring metabolic activity in relation to cardiac blood flow
- early adoption of sequential PET/MR imaging

The Institute occupies more than 400,000 total square feet, comprising its own 12-story building, with satellite facilities in Barnes-Jewish and St. Louis Children's hospitals; the Clinical Sciences Research and East buildings; the Scott Avenue Imaging Center; the Center for Advanced Medicine; and the Knight Emergency and Trauma Center; and the South County Siteman Cancer Center. The department provides diagnostic radiology, nuclear medicine and radiation physics services for all hospitals in the Washington University Medical Center, Barnes-Jewish West County and Barnes-Jewish St. Peters hospitals. The Institute provides diagnostic radiology for the Washington University Orthopedics and Barnes-Jewish Hospital Outpatient Orthopedic center.

MIR clinical facilities are on the second floor of the Institute (general diagnostic radiology); third floor (neuroradiology); fourth floor (gastrointestinal and genitourinary radiology, and ultrasonography); and the fifth floor (MRI). A comprehensive interventional radiology center occupies the eighth floor. Nuclear medicine is on the ninth floor of the Barnes-Jewish Hospital West Pavilion. Orthopedic imaging and musculoskeletal radiology services are on the sixth floor of the Center for Advanced Medicine. The Breast Health Center, on the fifth floor of the Center for Advanced Medicine, is a multidisciplinary facility that provides a full range of breast imaging services and interventional procedures. In the north wing of St. Louis Children's Hospital is a complete pediatric radiology facility, offering ultrasound, nuclear medicine, CT and MRI and interventional radiology.

The Institute has 102 examination rooms used for diagnostic radiology. Clinical and research equipment includes two PET/CT scanners, 13 CT scanners, two PET scanners,

1 PET/MR scanner, 15 MR scanners (including an 11.7-Tesla research scanner), 12 high-end ultrasound machines plus seven portable units, nine interventional radiology systems, five digital chest units, 10 computer radiography units, two neurointerventional radiology systems and six mammography units. In addition, as part of the department's community outreach effort, the Institute cosponsors with the Alvin J. Siteman Cancer Center a mobile mammography van that provides screening services at corporate and public sites in the St. Louis area.

MIR has approximately 200,000 square feet devoted to research, with facilities in the Clinical Sciences Research Building (radiological sciences), in the East Building (electronic radiology), in the Scott Avenue Imaging Center (neurological PET, molecular pharmacology, biomedical MR imaging, optical imaging and cardiovascular imaging), and in the Center for Clinical Imaging Research (a bioimaging facility for basic and translational inpatient and outpatient clinical research).

Administrative, teaching and support functions occupy the sixth floor and the ninth through the twelfth floors of the Institute.

## For more information

Please visit the [Department of Radiology website](#) for more information.

# MD Courses — Radiology

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Michelle Miller-Thomas, MD, Coordinator of Radiology Medical Student Education;  
362-5949, [thomasm@mir.wustl.edu](mailto:thomasm@mir.wustl.edu)

## Second year

Course master: Michelle Miller-Thomas, MD, 362-5949, [thomasm@mir.wustl.edu](mailto:thomasm@mir.wustl.edu)

Eight hours of lecture are devoted to an introduction to radiology. The majority of the course is devoted to diagnostic radiology, including conventional radiography, computed tomography, ultrasound, nuclear medicine and magnetic resonance imaging. The economics of imaging and radiation biology are introduced. The course also includes review of individual teaching file cases at small group sessions and online.

## Third year

### M90 701 GENERAL RADIOLOGY CLERKSHIP

Coursemasters: Matthew Parsons, MD, 362-5950, [parsonsm@mir.wustl.edu](mailto:parsonsm@mir.wustl.edu), Michael Friedman, MD, 362-2978, [friedmanm@mir.wustl.edu](mailto:friedmanm@mir.wustl.edu)

Contact Person: Melissa Varner, Radiology Staff Library, 362-5139, [varnerm@mir.wustl.edu](mailto:varnerm@mir.wustl.edu)

This four-week introductory radiology elective will be offered to third-year medical students. Each student will rotate through four of the following radiology services: Emergency Department, Pediatric Radiology, Cardiothoracic Imaging, Breast Imaging, Abdominal Imaging, Musculoskeletal Radiology, Neuroradiology, Nuclear Medicine and Interventional Radiology. The primary course objective is to familiarize students with the scope of diagnostic and interventional radiology, including the consulting role radiologists provide to primary care and specialty providers, risks/benefits and cost effectiveness of radiologic examinations, and guidelines for ordering common studies.

Students will report each morning for a service conference. These conferences are both case-based and didactic. Students will have a predominantly observational role in conferences, as they are principally designed for radiology resident teaching. Students will then spend mornings in the reading rooms with residents, fellows and attending radiology faculty. This time will consist of interactive teaching based on daily clinical cases. Each student will keep a log of cases they see to facilitate reading and to provide a vehicle for follow-up of interesting cases. Students will present one case of interest

to their peers each Friday at 3 p.m. during the clerkship. These brief (5 to 10 minutes) presentations will be evaluated by a resident or attending radiologist.

Monday through Thursday at 3 p.m., students will meet with a designated radiology resident who will present either a didactic or case-based lecture appropriate for third-year medical student teaching.

Students will select two of their four presented cases for submission to a digital teaching file. Reading lists, references and textbooks will be provided. The first and final days of the elective are mandatory. No high honors will be awarded if a student is absent for more than five days of the rotation.

The course will accommodate four to 10 students each month. The course will not be offered if enrollment falls below four.

## **Fourth year**

### **Electives**

#### **M90 801 / GENERAL RADIOLOGY**

Instructor(s): Michael Friedman, MD, 314-362-2978, and Matthew Parsons, MD, 314-362-5950

Location: Radiology Staff Library (First floor Mallinckrodt Tower, Room 117)

Elective Contact: Missi Varner, 314-362-5139

Other Information: Students meet in Mini-Scarpellino, 1st Floor Mallinckrodt Institute of Radiology Building, 8:00 a.m. first day of elective.

Enrollment limit per period: 5

Valid start weeks for four-week blocks are: Weeks 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This four week introductory radiology elective allows students to rotate through four of the following radiology services; Emergency Radiology, Mammography, Pediatrics,



Chest, Abdominal Imaging, Musculoskeletal, Neuroradiology, Interventional Radiology and Nuclear Medicine. The primary course objective is to familiarize students with the scope of diagnostic and interventional radiology including the consulting role radiologists provide to primary care and specialty providers, risks/benefits and cost effectiveness of radiologic examinations, and guidelines for ordering common studies as well as specific disease entities and their radiologic appearance and work-up.

Students spend the majority of the day in the radiology reading rooms with residents, fellows, and faculty for interactive teaching based on daily clinical cases. Students will attend morning case-based conferences and noon didactic conferences with the residents. The students will have an observational role in conferences and in the clinical setting. At 3:00 p.m., students will convene with a radiology resident for a didactic lecture on a scheduled topic in radiology. An image-based quiz will be given in the final week of the elective covering topics presented in the daily student didactic lectures. Fridays at 3:00 p.m., students present an interesting case from the week in Power-Point format. Two Power-Point presentations will be submitted at the end of the rotation for grading.

Students will keep a logbook of interesting cases seen daily in order to provide a foundation for further reading, as well as an opportunity for clinical or radiologic follow up of cases seen in the reading room. This log will be submitted to the Coursemaster at the end of the elective.

Students taking this elective for a second time who have a special interest in a particular area of radiology pertinent to their intended career choice may tailor their experience to focus on one or more services if desired (i.e. 4th year student going into neurosurgery may spend up to 2 full weeks in neuroradiology). This will be considered on a case by case basis by the Coursemaster. These returning students will be expected to keep a log of cases seen but will be exempt from attending the daily afternoon teaching sessions. Returning 4th year students will be required to present 4 weekly presentations with the other students in the course and take the end of rotation quiz. Please see the separate course listings for Nuclear Medicine and Interventional Radiology.

Reading lists, references and text books will be provided. The first and final days of the elective are mandatory. Grades are based on daily attendance, logbook, end of rotation quiz, and Power-Point presentations. No honors will be awarded if a student is absent for more than 5 days of the rotation.

Student time distribution: Inpatient 40%; Outpatient 30%; Conferences/ Lectures 30%; Subspecialty Care 100%

Major teaching responsibility: Radiology Faculty, Fellows, and Residents

Patients seen/weekly: N/A

On call/weekend responsibility: None

### **M90 820 / CLINICAL NUCLEAR MEDICINE**

Instructor(s): Akash Sharma, MD, 314-362-2809

Location: 956 West Pavilion

Elective Contact: Akash Sharma, MD, 314-362-2809

Other Information: Students report to 956 West Pavilion, 8:00 a.m. first day of elective.

Enrollment limit per period: 1

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This four-week elective will be offered to third and fourth year medical students. The clinical service in Nuclear Medicine is divided into five subsections: outpatient general Nuclear Medicine, in-patient general Nuclear Medicine, PET, Pediatric, and Cardiac Nuclear Medicine. The recommended schedule will be to spend week 1 and 3 on the North Campus, where the emphasis will be on outpatient general and Pediatric Nuclear Medicine with some focused time spent in the PET reading room. Week 2 will be split between the in-patient general Nuclear Medicine and Cardiac services. Week 4 schedule will be determined after a preferences discussion with the student.

The primary objective of this rotation is to provide exposure to the full range of clinical nuclear medicine. Under direct supervision of the clinical staff, the student will be able to participate in the planning and interpreting of imaging studies for patients referred

to the Division. Opportunity also exists to explore instrumentation techniques, including dedicated computer applications in Nuclear Medicine.

In addition to the clinical experience, the student will attend the daily morning conference, held in the Miller Conference Room in 956 West Pavilion, from 8:30-9:30 a.m. From 12-1:00 p.m., the student will be excused to attend the daily department-wide conference. The student is not expected to do any formal presentations but may participate by preparing a case for the Friday follow-up conference. The student will also be excused to attend any conferences within the Department of Radiology, e.g. the 3:00 p.m. medical student didactic lectures, if desired.

Students may keep a log of interesting cases to use as a guide for additional reading, or for discussions with the Coursemaster or the other staff attendings.

A textbook will be provided. The first and final days of the elective are mandatory. No honors will be awarded if a student is absent for more than 5 days of the rotation.

Student time distribution: Inpatient 25%; Outpatient 50%; Conferences/ Lectures 25%; Subspecialty Care 100%

Major teaching responsibility: Attendings, fellows and residents

Patients seen/weekly: ~200

On call/weekend responsibility: None

### **M90 830 / INTERVENTIONAL RADIOLOGY**

Instructor(s): Robert Pallow, MD, 314-362-7877

Location: Mallinckrodt Institute of Radiology

Elective Contact: Robert Pallow, MD, 314-362-7877

Other Information: Students should contact Dr. Pallow to discuss meeting location and time for first day of elective.

Enrollment limit per period: 2

Valid start weeks for four-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and

Students will be exposed to all clinical and procedural aspects of interventional radiology including: patient evaluation and consultation, preparation of patients for procedures, performance of a wide range of vascular and non-vascular procedures, post-procedure patient management, and longitudinal patient follow-up. Students will actively participate in interventional procedures. Students will attend the departmental noon conference (daily) and section conferences including didactic lectures, morbidity and mortality conference, and case conferences (3-4 times per week).

Student time distribution: Inpatient 60%; Outpatient 30%; Conferences 10%

Major teaching responsibility: Attending Interventional radiology physicians will provide the majority of teaching. Fellows and residents will provide additional teaching.

Patients seen/weekly: Approximately 150 patients per week are seen in consultation or for procedures in the south campus Interventional facility

On call/weekend responsibility: None

## Research — Radiology

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Interested students should contact the appropriate individual in each division regarding the types of research projects available.

Tom Conturo, MD, PhD

2nd Floor East Building, Rm 2120

314-362-8421

Magnetic resonance (MR) imaging is a noninvasive means of providing images of the human body at high spatial resolution and contrast sensitivity. The contrast can be manipulated to depend on different properties of tissue water, enabling the study of a

variety of biological processes. In some cases, endogenous or exogenous paramagnetic MR contrast agents are used to alter the MRI contrast by perturbing the tissue water environment. Recently, new MRI hardware has also enabled techniques having high temporal resolution. Using the unique contrast properties of MRI and the higher spatial/temporal resolution, non-invasive techniques can be devised to study neuronal activity, tissue perfusion, water mobility (diffusion), and neuronal fiber pathways in the human brain. The goals of Dr. Conturo's research lab are to develop and apply MR imaging techniques for quantitative imaging of cerebral perfusion, brain function, water diffusion, and neuronal fiber pathways. These techniques utilize the MR signal effects of exogenous bolus-injected contrast agents, endogenous hemoglobin, and microscopic water diffusion. Long-term goals are to apply these methodologies toward imaging and understanding tissue structure, function, and physiology in the brain and other organs in normal and abnormal conditions. The approaches that are used in this laboratory cover a broad range of areas, including MRI physics, MRI pulse sequence development, theoretical derivations, computer simulations, image-processing, computer graphics, custom contrast agent design and synthesis, phantom studies, animal models, human studies, clinical patient studies, and comparison with other imaging modalities.

Farrokh Dehdashti, MD

Nuclear Medicine PET Facility, 10th Floor, Mallinckrodt Institute of Radiology  
314-362-1474

Positron emission tomography (PET) is an imaging technique that produces images reflective of biochemical processes of normal and abnormal tissues. PET is complementary to anatomic imaging modalities such as computed tomography (CT) and magnetic resonance imaging (MRI). The ability of PET to quantify fundamental processes, such as blood flow, oxygen metabolism, glucose metabolism, and receptor density, makes this technique very desirable to both investigators and clinicians. Dr. Dehdashti's research utilizes the conventional PET radiopharmaceutical, F-18 fluorodeoxyglucose (FDG), as well as a variety of unique PET radiopharmaceuticals such as Cu-64-diacetyl-bis[N4-methylthiosemicarbazone (Cu-64 ATSM), a hypoxic imaging tracer, and 18F-labeled 3'-deoxy-3'fluorothymidine (FLT), a proliferative

imaging tracer. Below is a partial list of the research projects relating to PET: (1) PET assessment of progesterone receptors in patients with newly diagnosed breast cancer with a new progesterone-receptor imaging tracer, 21-[<sup>18</sup>F]Fluoro-16,17-[(R)-1'-furylmethylidene)dioxy]-19-norpregn-4-ene-3,20 dione (FFNP); (2) assessment of cell proliferation with a new tracer, N-(4-(6,7-dimethoxy-3,4-dihydroisoquinolin-2(1H)-yl)butyl)-2 (2-[<sup>18</sup>F]-fluoroethoxy)-5-methylbenzamide ([<sup>18</sup>F]3c), also called [<sup>18</sup>F]ISO-1 by imaging sigma receptors in patients with various solid cancers; (3) PET assessment of tumor hypoxia using <sup>64</sup>Cu-ATSM in patients with cervical cancer (the major goal of this project is to predict prognosis); (4) FDG-PET/CT study in cervical cancer to evaluate the change in tumor FDG heterogeneity and SUVmax during chemoradiation and whether these changes are predictive of response to therapy; (5) PET using [<sup>18</sup>F]FHBG (9-[4-fluoro-3-hydroxymethyl-butyl]guanine), analog of Penciclovir, an acycloguanosine derivative and antiviral drug, for possible tracking of GvHD in patients who were prior recipients of unrelated allogeneic bone marrow transplant for any hematologic malignancy, (6), FLT-PET/CT to assess tumor cell proliferation in patient must have histologically or cytologically confirmed ER+ stage IV or metastatic invasive breast cancer.

Rob J. Gropler, MD

Room 1307 East Building

314-747-3878

Cardiovascular Imaging Research. The research in the Cardiovascular Imaging Laboratory is designed to better understand the relationship between myocardial perfusion, intermediary metabolism and mechanical function in both normal and abnormal cardiac states. The research involves the integration of several imaging techniques with diverse strengths such as PET, MRI, CT and echocardiography. The success of the research requires several paths of investigation to be pursued in parallel. For example, in order to image the biologic processes of interest requires continued technical developments for each of the imaging methods listed above. There are ongoing efforts to permit more accurate PET measurements of myocardial substrate metabolism. They include the development of novel tracers of extracted substrates, the development of acquisition schemes to assess endogenous substrate

metabolism, and the validation of mathematical approaches to correlate the tracer kinetics with the underlying metabolic processes. These studies are being pursued in small and large animal models and then in humans. Another example includes the current efforts to develop approaches to image the coronary arteries non-invasively by MRI using novel contrast agents and acquisition schemes. In addition, techniques are being developed to permit MR guided interventions on the coronary arteries. This undertaking includes the development of novel guide-wire tracking and catheter tracking schemes using both passive and active approaches. Finally, to permit assessments of myocardial oxygenation and thus, perfusion, techniques are being developed to permit BOLD imaging the myocardium. Another path of the research is to determine how this perfusional-metabolic-functional relation is altered by normal life changes and then determine how disease states alter the relationship. For example, both PET and echocardiography are being used to characterize the age and gender related changes on myocardial perfusion, substrate metabolism and function. To study the relationship in disease states, similar studies are being performed in patients with diabetes and obesity. A third path to determine the mechanisms responsible for these changes in this metabolic-functional relation and identify potential interventions that may reverse or ameliorate them. In this regard, similar imaging studies are being performed to determine the importance of nitric oxide and the PPAR $\alpha$  system in defining this metabolic-functional relation.

Stephen M. Moerlein, PharmD, PhD

1st Floor East Building

314-362-8466

Research interests lie in the general area of labeled tracer development for nuclear medicine imaging, especially positron-emission tomography (PET). Developmental effort begins with synthesis of target structures, preclinical screening that involves in vitro biochemistry and pharmacological testing, and ex vivo biodistribution studies in small animals. Promising tracers are then examined by in vivo imaging of animal subjects and tracer kinetic modeling. The final step in the transition of a radiochemical into a labeled drug takes into account radiation dosimetry, pharmaceutical quality, and the development of automated production and GMP production processes to

streamline delivery to human subjects. Each of these aspects of radiopharmaceutical development are investigated, with a primary emphasis in novel agents for evaluation of pathological processes in neurology and oncology.

Marc Raichle, MD

2nd Floor East Building

314-362-6907

We use functional imaging techniques, both positron emission tomography and functional magnetic resonance imaging, to study the normal organization of the human brain and the effect of selected diseases. The research focuses on both the methodology (imaging and experimental) and specific questions in cognitive neuroscience.

## Faculty — Radiology

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**Richard L Wahl, MD** Elizabeth E Mallinckrodt Professor of Radiology (primary appointment)

Director of the Edward Mallinckrodt Institute of Radiology

Head of the Department of Radiology

Professor of Radiation Oncology

MD Washington Univ in St. Louis 1978

**Samuel I Achilefu, PHD** Michel M Ter-Pogossian Professor of Radiology (primary appointment)

Professor of Biochemistry and Molecular Biophysics

PHD University of Nancy I 1991

**Walter John Akers, DVM, PHD** Assistant Professor of Radiology (primary appointment)

DVM University of MO Columbia 2001

BS University of MO Columbia 2004

PHD University of MO Columbia 2005

**Olagueke Kelechi Akinwande, MD** Assistant Professor of Radiology (primary appointment)

Assistant Professor of Surgery (General Surgery)

MD Ross University 2009

**Maryellen Amato, MD** Instructor in Clinical Radiology (primary appointment)



BA Notre Dame College 1976

MD Case Western Reserve Univ 1981

**Hongyu An, PHD, MS**Associate Professor of Radiology (primary appointment)

PHD Washington Univ in St. Louis 2001

BS Tianjin University 1993

MS Washington Univ in St. Louis 1999

**Beau Mark Ances, MS, PHD, MD**Associate Professor of Neurology (primary appointment)

**Associate Professor of Biomedical Engineering**

**Associate Professor of Radiology**

MS London School of Economics 1994

BS University of Pennsylvania 1993

PHD University of Pennsylvania 2000

MD University of Pennsylvania 2001

**Catherine M Appleton, MD**Associate Professor of Radiology (primary appointment)

BS University of Florida 1996

MD University of Florida 2000

**Kyongtae T Bae, ME, PHD**Adjunct Associate Professor of Radiology (primary appointment)

ME University of Iowa 1983

PHD University of Pennsylvania 1988

**Jonathan C Baker, MD**Assistant Professor of Radiology (primary appointment)

MD Washington Univ in St. Louis 2004

BS Saint Louis University 2000

**Dennis M Balfe, MD**Professor of Radiology (primary appointment)

MD Medical College of Wisconsin 1975

BS Santa Clara University 1968

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PHD Washington Univ in St. Louis 2009

BS Truman State University 2001

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**Associate Professor of Neurological Surgery**

MD University of Chicago 2000

BA Williams College 1993

PHD University of Chicago 1998

**Mikhail Y Berezin, PHD, MS**Assistant Professor of Radiology (primary appointment)

PHD Moscow Institute of Oil & Gas 1991

MS Moscow Institute of Oil & Gas 1987

**Sanjeev Bhalla, MD**Professor of Radiology (primary appointment)

MD Columbia College of Phy & Surg 1994

BS Yale University 1990

**Andrew J Bierhals, MPH, MD**Associate Professor of Radiology (primary appointment)

MPH University of Pittsburgh 1996

MD University of Pittsburgh 2000

BS University of Pittsburgh 1993

**Joelle Biernacki, MD**Instructor in Radiology (primary appointment)

MD University of MO Kansas City 1989

BA University of MO Kansas City 1988

**Kevin J. Black, MD**Professor of Psychiatry (primary appointment)

**Professor of Radiology**

**Professor of Neurology**

**Professor of Neuroscience**

MD Duke University 1990

BS Brigham Young University 1986

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**Professor of Radiology**

BA University of Kansas 1984

MD University of Kansas Medical 1988

**G. Larry Bretthorst, MS** Associate Professor of Radiology (primary appointment)

MS University of MO St Louis 1980

**Steven L Brody, MD** Dorothy R and Hubert C Moog Professor of Pulmonary Diseases in Medicine

(primary appointment)

**Professor of Radiology**

MD University of Michigan 1980

**Frank Brooks, PHD** Instructor in Radiology (primary appointment)

PHD Washington Univ in St. Louis 2008

**Meredith S Byers, MD** Assistant Professor of Radiology (primary appointment)

BA University of Texas Austin 1993

MD University of Texas Southwest 1997

**Meghan Clark Campbell** Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Radiology**

BS University of Illinois 1999

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**Professor of Pediatrics**

**Alan A and Edith L Wolff** Distinguished Professor

MD University of Missouri 1988

BA University of MO Kansas City 1988

M PH Saint Louis University 1998

**Ajay Rama Chapa, MS** Instructor in Radiology (primary appointment)

BS Bradley University 2001

MS CHICAGO MEDICAL SCHOOL 2001

**Delphine L. Chen, AB** Associate Professor of Radiology (primary appointment)

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MD1 Washington Univ in St. Louis 1999

BA Harvard Radcliff 1995

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**Wenhua Chu, MS, PHD** Instructor in Radiology (primary appointment)

BS Quigdao Ocean Univ 1982

MS Academia Sinica China 1985

PHD Academia Sinica China 1988

**Andrew Richard Coggan, MS, PHD** Adjunct Assistant Professor of Radiology (primary appointment)

MS Ball State University 1983

PHD University of Texas Austin 1986

BS Ball State University 1981

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**Assistant Professor of Physical Therapy**

BS Georgia Tech 1982

Thomas E Conturo **Associate Professor of Radiology** (primary appointment)

**Adjunct Associate Professor of Physics**

**Maurizio Corbetta, MD** **Norman J. Stupp Professor of Neurology** (primary appointment)

**Professor of Radiology**

**Associate Professor of Psychological & Brain Sciences**

**Professor of Neuroscience**

MD University of Pavia 1985

**Constance Stone Courtois, MD** **Assistant Professor of Radiology** (primary appointment)

BS Wofford College 1980

MD Medical University of Sth Car 1985

**James P Crane, MD** **Associate Vice Chancellor for Clinical Affairs** (primary appointment)

**Chief Executive Officer-Faculty Practice Plan**

**Professor of Obstetrics and Gynecology**

**Professor of Radiology**

**Associate Professor of Genetics**

MD Indiana University Bloomington 1970

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**Professor of Neurological Surgery**

BA Vanderbilt University 1975

MD University of Alabama 1980

Michael G Crowley **Instructor in Radiology** (primary appointment)

**Joseph P Culver, PHD** **Professor of Radiology** (primary appointment)

**Professor of Physics (Courtesy)**

PHD University of Pennsylvania 1997

BA Whitman College 1985

**Michael D Darcy, MD** **Professor of Radiology** (primary appointment)

**Associate Professor of Surgery (General Surgery)**

MD Ohio State University 1979

**Victor G Davila-Roman, MD** **Professor of Medicine** (primary appointment)

**Professor of Radiology**

**Professor of Anesthesiology**

MD University of Puerto Rico 1981

BS University of Puerto Rico 1977

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BA University of Virginia 1968

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MD University of Virginia 1972

Farrokh Dehdashti **Professor of Radiology** (primary appointment)

**Jennifer Lee Demertzis, MD** **Associate Professor of Radiology** (primary appointment)

MD Emory University 2003

BS University of Notre Dame 1999

**Steven Don** **Associate Professor of Radiology** (primary appointment)

BA Johns Hopkins University 1981

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MD Washington Univ in St. Louis 1988

BS Davenport University 1982

PHD Washington Univ in St. Louis 1988

**Adam Thomas Eggebrecht, PHD, MS**Instructor in Radiology (primary appointment)

PHD Washington Univ in St. Louis 2009

MS Washington Univ in St. Louis 2005

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**Assistant Professor of Radiology**

PHD University of Georgia 2008

**Eric Paul Eutsler, MD**Instructor in Radiology (primary appointment)

MD Drexel University 2008

BS Wilkes University 2004

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BA Oberlin College 1967

MD Johns Hopkins University 1971

**Gretchen Marie Foltz, MD**Assistant Professor of Radiology (primary appointment)

**Assistant Professor of Surgery (General Surgery)**

MD Medical College of Wisconsin 2007

BS Univ of Wisconsin Milwaukee 2002

**Kathryn Fowler, MD**Assistant Professor of Radiology (primary appointment)

BS University South Carolina 2001

MD Univ of Wisconsin Madison 2005

**Michael V Friedman**Assistant Professor of Radiology (primary appointment)

**H Michael Gach, PHD**Associate Professor of Radiation Oncology (primary appointment)

**Associate Professor of Radiology**

PHD University of Pittsburgh 1998

**Joel Richard Garbow, PHD**Professor of Radiology (primary appointment)

PHD University of CA Berkeley 1983

**Heather Vallhonrat Garrett**Assistant Professor of Radiology (primary appointment)

BA University of Virginia 1996

**Charles F Garvin**Instructor in Clinical Radiology (primary appointment)

BA University of MO Columbia 1980

**Edward M Geltman, MD**Professor of Medicine (primary appointment)

**Assistant Professor of Radiology**

BS Mass Inst of Technology (MIT) 1967

MD New York University 1971

**Joseph Giardina, MD**Instructor in Radiology (primary appointment)

BA Williams College 2004

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BS Davenport University 1983

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BA Washington Univ in St. Louis 1971

**Brian A Gordon, MS PSYC, PHD**Instructor in Radiology (primary appointment)

MS PSYC University of Illinois 2006

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BS University of Illinois 2003

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BA Cornell University 1993

MD Washington Univ in St. Louis 1997

**Manu Shri Goyal, MD, MS**Assistant Professor of Radiology (primary appointment)

MD University of Chicago 2005

MS Oxford University 2001

BS University of Illinois Chicago 2000

**Diana Lee Gray**Professor of Obstetrics and Gynecology (primary appointment)

**Professor of Radiology**

**Associate Dean for Faculty Affairs**

**Professor of Engineering**

BS University of Illinois 1977

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PHD University of CA Los Angeles 2010

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**Perry W Grigsby, MD**Professor of Radiation Oncology (primary appointment)

**Professor of Radiology**

**Professor of Obstetrics and Gynecology**

BS University of Kentucky 1974

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**Robert John Gropler, MD**Professor of Radiology (primary appointment)

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**Associate Professor of Biomedical Engineering**

BS Allegheny College 1977

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**Professor of Radiology**

BA University of North Carolina 1961

MD University of North Carolina 1965

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MPH Saint Louis University 1996

BA Washington Univ in St. Louis 1995

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**Jay Paul Heiken, MD**Professor of Radiology (primary appointment)

MD Columbia University 1978

BA Williams College 1974

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MD Meharry Med College 1990

BS Loma Linda University 1986

**Pilar Herrero, MS, ME**Associate Professor of Radiology (primary appointment)

MS Vanderbilt University 1984

ME Washington Univ in St. Louis 1997

BS Loyola University Chicago 1981

**Tamara G Hershey**Professor of Psychiatry (primary appointment)

**Adjunct Professor of Psychological & Brain Sciences (Courtesy)**

**Professor of Neurology**

**Professor of Radiology**

BA Earlham College 1988

**Albert E Hesker, MD** Assistant Professor of Clinical Radiology (primary appointment)

MD University of MO Columbia 1964

**Travis J Hillen** Assistant Professor of Radiology (primary appointment)

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**Joseph Edward Ippolito, MD, PHD** Instructor in Radiology (primary appointment)

BS Cornell University 1998

MD Washington Univ in St. Louis 2007

PHD Washington Univ in St. Louis 2007

**William P James, MD** Assistant Professor of Radiology (primary appointment)

MD University of MO Columbia 1993

BA Washington Univ in St. Louis 1989

**Cylene Javidan, MD** Associate Professor of Radiology (primary appointment)

MD Iran Univ of Medical Sciences 1994

**Jack W Jennings, MS, PHD** Associate Professor of Radiology (primary appointment)

MS Ohio State University 1995

PHD University of South Florida 1999

**Hongjun Jin** Instructor in Radiology (primary appointment)

BS Lanzhou University 1994

**R. Gilbert Jost, MD** Professor of Radiology (primary appointment)

BA Harvard University 1964

MD Yale University 1969

**James A Junker** Instructor in Clinical Radiology (primary appointment)

**Akash Pravin Kansagra** Assistant Professor of Radiology (primary appointment)

**Pavan Kumar Kavali, MD** Instructor in Radiology (primary appointment)

BS Georgia Tech 2003

MD Morehouse College 2010

**James E. Kelly** Assistant Professor of Radiology (primary appointment)

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**Geetika Khanna, MS, MBBS** Associate Professor of Radiology (primary appointment)

MS University of Iowa 2006

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**Instructor in Radiology**

PHD Washington Univ in St. Louis 2006

BS Kangwon National University 1996

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**Seung Kwon Kim** Assistant Professor of Radiology (primary appointment)

**Assistant Professor of Surgery (General Surgery)**

**Joseph W. Klaesner, PHD, MS** Professor of Physical Therapy (primary appointment)

**Professor of Radiology**

BS1 Marquette University 1987

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PHD Vanderbilt University 1995

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**Richard Laforest, PHD, MS** Associate Professor of Radiology (primary appointment)

PHD University of Laval 1994



MS University of Laval 1991

**Susan M Langhorst, ME, PHD** Director Office of Radiation Safety (primary appointment)

**Assistant Professor of Radiology**

ME University of MO Columbia 1979

BS MO S&T (formerly UofMO Rolla) 1976

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**Suzanne Elizabeth Lapi, MS, PHD** Adjunct Associate Professor of Radiology (primary appointment)

BS Simon Fraser University 2001

MS Simon Fraser University 2003

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**Daniel Joseph Leary Jr, MD** Assistant Professor of Clinical Radiology (primary appointment)

MD Washington Univ in St. Louis 1966

BS Saint Louis University 1962

**Jin-Moo Lee, MD** Professor of Neurology (primary appointment)

**Professor of Radiology**

MD Cornell University 1993

Michelle Lee Assistant Professor of Radiology (primary appointment)

**Paula M Leiva, MD** Instructor in Radiology (primary appointment)

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PHD University of Missouri Columbi 2007

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BS Henan Normal University 1997

**Jeremiah Robert Long, MD** Assistant Professor of Radiology (primary appointment)

BS University of Notre Dame 1999

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MBBS Tamilnadu Medical University 1995

MS PGIMER 1999

**Daniel Scott Marcus, PHD** Associate Professor of Radiology (primary appointment)

BS Washington Univ in St. Louis 1995

PHD Washington Univ in St. Louis 2001

BA Washington Univ in St. Louis 1995

**Joanne Markham, MS** Associate Professor of Radiology (primary appointment)

BA Centre College 1963

MS Washington Univ in St. Louis 1973

**Ben R Mayes Jr, MD** Assistant Professor of Clinical Radiology (primary appointment)

MD Washington Univ in St. Louis 1966

William H McAlister Professor of Radiology (primary appointment)

**Professor of Radiology in Pediatrics**

**Mark P. McAvoy, MEE, PHD** Assistant Professor of Radiology (primary appointment)

MEE Southern Illinois University 1993

PHD Southern Illinois University 1998

BS University of Illinois 1991

**Jonathan E McConathy, PHD, MD** Adjunct Assistant Professor of Radiology (primary appointment)

PHD Emory University 2003

BS University of North Carolina 1995

MD Emory University 2004

Robert Carolin McKinstry III **Professor of Radiology** (primary appointment)

**Professor of Pediatrics**

**Vincent Michael Mellnick, MD** **Assistant Professor of Radiology** (primary appointment)

BS University of Notre Dame 2002

MD University of Texas Houston 2006

**Christine Onsy Menias, MD** **Adjunct Professor of Radiology** (primary appointment)

BS Marquette University 1990

MD George Washington University 1995

**Mary Ann Middleton, MD** **Assistant Professor of Radiology** (primary appointment)

MD Medical College of Wisconsin 1982

BS Univ of Wisconsin Whitewater 1974

**William D Middleton, MD** **Professor of Radiology** (primary appointment)

MD Duke University 1981

BS Duke University 1977

**Francis M Miezyn, MS** **Associate Professor of Neurology** (primary appointment)

**Associate in Psychology**

**Associate Professor of Radiology**

MS Univ of Wisconsin Madison 1972

BS Univ of Wisconsin Madison 1969

Michelle M Miller-Thomas **Assistant Professor of Radiology** (primary appointment)

**Stephen M Moerlein, MA, PHARM D** **Associate Professor of Radiology** (primary appointment)

**Associate Professor of Biochemistry and Molecular Biophysics**

MA Washington Univ in St. Louis 1979

BS University of Illinois 1976

PHARM D University of Florida 2008

**Barbara S Monsees, MD** **Professor of Radiology** (primary appointment)

MD Washington Univ in St. Louis 1975

BA Brandeis University 1971

**Stephen M Moore, MEE** **Assistant Professor of Radiology** (primary appointment)

BS Washington Univ in St. Louis 1981

BS Washington Univ in St. Louis 1981

MEE Washington Univ in St. Louis 1984

**Christopher J Moran, MD** **Professor of Radiology** (primary appointment)

**Professor of Neurological Surgery**

MD Saint Louis University 1974

BS University of Notre Dame 1970

**Michael Jeffrey Mueller, PHD, MHS** **Professor of Physical Therapy** (primary appointment)

**Division Director of Research in Physical Therapy**

**Professor of Radiology**

PHD Washington Univ in St. Louis 1992

BS Washington Univ in St. Louis 1979

MHS Washington Univ in St. Louis 1984

Vamsi R. Narra **Professor of Radiology** (primary appointment)

**Jennifer Lynn Nicholas, MA, MD, MHA** **Assistant Professor of Radiology (Pending Executive Faculty Approval)** (primary appointment)

BA Miami University 1991



MA University of Colorado Boulder 1994

MD Duke University 2004

MHA University of North Carolina 2003

John Hart Niemeyer **Instructor in Clinical Radiology** (primary appointment)

**Gary H Omell, MD** **Assistant Professor of Clinical Radiology** (primary appointment)

MD University of Tennessee 1967

**Matthew S Parsons, MD** **Assistant Professor of Radiology** (primary appointment)

MD University of Cincinnati 2000

BA Miami University 1995

**Michael K Pasque, MD** **Professor of Surgery (Cardiothoracic Surgery)** (primary appointment)

**Professor of Radiology**

**Professor of Biomedical Engineering**

MD University of Oklahoma 1978

**Michael W Penney, MD** **Associate Professor of Radiology** (primary appointment)

MD University of AR Little Rock 1996

BS University of Arkansas 1992

**Joel S Perlmutter, MD** **Professor of Neurology** (primary appointment)

**Professor of Radiology**

**Professor of Occupational Therapy**

**Professor of Neuroscience**

**Professor of Physical Therapy**

MD University of MO Columbia 1979

BA Princeton University 1975

**Steven E Petersen, PHD** **James S McDonnell Professor of Cognitive Neuroscience in Neurology**  
(primary appointment)

**Professor of Neuroscience**

**Professor of Radiology**

**Professor of Psychology**

**Professor of Biomedical Engineering**

**Associate Professor of Neurological Surgery (Neuropsychology)**

PHD California Institute Technolo 1982

BA University of Montana Missoula 1974

**Linda R Peterson, MD** **Associate Professor of Medicine** (primary appointment)

**Associate Professor of Radiology**

BS Georgetown University 1986

MD Washington Univ in St. Louis 1990

**Daniel D Picus, MD** **Professor of Radiology** (primary appointment)

**Professor of Surgery (General Surgery)**

**Vice Chair for Diagnostic Radiology in Radiology**

MD University of Chicago 1981

BS1 University of Illinois 1977

BS University of Illinois 1977

**David Gerard Politte, MEE, D SC** **Assistant Professor of Radiology** (primary appointment)

MEE Washington Univ in St. Louis 1983

BS Washington Univ in St. Louis 1981

D SC Washington Univ in St. Louis 1999

**Maria Rosana Ponisio, MD** **Instructor in Radiology** (primary appointment)

MD La Plata University 1990

**Steven Paul Poplack, MD** Associate Professor of Radiology (primary appointment)

BS Stanford University 1984

MD Boston University 1988

**John R. Pruett Jr, PHD** Associate Professor of Psychiatry (Child Psychiatry) (primary appointment)

Associate Professor of Radiology

Associate Professor of Psychological & Brain Sciences (Courtesy)

PHD Washington Univ in St. Louis 2000

BA Princeton University 1990

**James D Quirk, MA** Assistant Professor of Radiology (primary appointment)

BS Mass Inst of Technology (MIT) 1994

MA Washington Univ in St. Louis 1998

**Edward Floyd Ragsdale, MD** Instructor in Clinical Radiology (primary appointment)

MD Washington Univ in St. Louis 1964

BA University of Arkansas 1960

**Marcus E Raichle, MD** Professor of Radiology (primary appointment)

Professor of Neuroscience

Professor of Neurology

Alan A and Edith L Wolff Distinguished Professor of Medicine

Professor of Psychological & Brain Sciences

Professor of Biomedical Engineering

BS University of Washington 1960

MD University of Washington 1964

**Raja Ramaswamy** Assistant Professor of Radiology (primary appointment)

Assistant Professor of Surgery (General Surgery)

BA Emory University 2004

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BS University of Chicago 1999

MD University of Pennsylvania 2004

**David E Reichert, PHD** Associate Professor of Radiology (primary appointment)

PHD University of Illinois 1994

BS Roanoke College 1986

**Kathryn Ann Robinson, MD** Assistant Professor of Radiology (primary appointment)

MD State Univ of NY Stonybrook 2001

**Buck Edward Rogers, PHD, MA** Professor of Radiation Oncology (primary appointment)

Professor of Radiology

BS Loyola University Chicago 1989

PHD Washington Univ in St. Louis 1995

MA Washington Univ in St. Louis 1991

**Henry D Royal, MD** Professor of Radiology (primary appointment)

BS Providence College 1970

MD Saint Louis University 1974

**Brian G Rubin, MD** Professor of Surgery (General Surgery) (primary appointment)

Professor of Radiology

MD University of Vermont 1984

BA Colgate University 1979

**David A Rubin, MD** Professor of Radiology (primary appointment)

BA Brown University 1984

MD University of Pennsylvania 1988

**Chara Elaine Rydzak, MD, PHD** Assistant Professor of Radiology (primary appointment)

MD Harvard University 2010

PHD Harvard University 2010

**Nael E. A. Saad, MBBCH** Associate Professor of Radiology (primary appointment)

Associate Professor of Surgery (General Surgery)

MBBCH Ain Shams University 1998

**Luis A Sanchez** Professor of Surgery (General Surgery) (primary appointment)

**Gregorio A. Sicard** Distinguished Professor

Professor of Radiology

**Robert F Scheible, MD** Assistant Professor of Clinical Radiology (primary appointment)

BA Johns Hopkins University 1968

MD Washington Univ in St. Louis 1972

**Bradley L Schlaggar, PHD, MDA** Ernest and Jane G Stein Professor of Neurology (primary appointment)

Professor of Radiology

Professor of Psychiatry

Professor of Pediatrics

Professor of Neuroscience

BS Brown University 1986

PHD Washington Univ in St. Louis 1994

MD Washington Univ in St. Louis 1994

**Sally J Schwarz** Professor of Radiology (primary appointment)

**Janice Semenkovich, MD** Associate Professor of Radiology (primary appointment)

MD Washington Univ in St. Louis 1981

**Aseem Sharma, MBBS** Associate Professor of Radiology (primary appointment)

MBBS All-India Inst of Medical Sci 1992

**Vijay Sharma, MS, PHD** Professor of Radiology (primary appointment)

MS Panjab University 1983

PHD Panjab University 1987

**Anup Shashindra Shetty, MD** Instructor in Radiology (primary appointment)

BS Duke University 2003

MD University of Texas Southwest 2007

**Joshua S Shimony, MD, PHD** Associate Professor of Radiology (primary appointment)

MD University of Illinois 1995

BS Technion - Israel Inst. of Tec 1982

PHD University of Tennessee 1988

**Koresh Isaac Shoghi, MS, PHD** Associate Professor of Radiology (primary appointment)

MS University of CA Los Angeles 2000

PHD University of CA Los Angeles 2005

BS University of CA Los Angeles 1996

**Monica Shokeen, PHD** Assistant Professor of Radiology (primary appointment)

PHD Washington Univ in St. Louis 2006

BS School Not Listed 1997

**Hui Hua Shu, MD** Instructor in Radiology (primary appointment)

MD University of MO Kansas City 1987

BA University of MO Kansas City 1986

**Barry Alan Siegel** Professor of Radiology (primary appointment)

Vice Chair for Nuclear Medicine in Radiology

**Professor of Medicine**

BA Washington Univ in St. Louis 1966

**Cary Lynn Siegel, MD** Professor of Radiology (primary appointment)

MD Davenport University 1987

BS Davenport University 1983

Marilyn J Siegel Professor of Radiology (primary appointment)

**Professor of Radiology in Pediatrics**

**Celette Sugg Skinner, MA** Adjunct Assistant Professor of Radiology (primary appointment)

BA Furman University 1980

MA Wheaton College 1982

Christopher D Smyser Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Radiology**

**Abraham Z Snyder, MD, PHD** Professor of Radiology (primary appointment)

**Associate Professor of Neurology**

BA Columbia University 1970

MD State University of New York 1981

PHD Rockefeller University 1977

**Steven Lee Solomon, MD** Assistant Professor of Clinical Radiology (primary appointment)

MD University of Chicago 1985

BA Northwestern University 1981

**Sheng-Kwei Song, MS, PHD** Professor of Radiology (primary appointment)

MS University of Alabama 1986

PHD Washington Univ in St. Louis 1990

BS Tamkang University 1981

**William Marshall Spees, PHD** Assistant Professor of Radiology (primary appointment)

BS Truman State University 1993

PHD Washington Univ in St. Louis 1999

**Robert Peter Stachecki, MD** Instructor in Radiology (primary appointment)

BS University of Notre Dame 2003

MD Georgetown University 2007

**James Derek Stensby, MD** Assistant Professor of Radiology (primary appointment)

MD Emory University 2008

BS Emory University 2003

**Yi Su, PHD** Assistant Professor of Radiology (primary appointment)

BS University of Science & Tech 1999

PHD Mayo Clinic 2006

**Alexander L Sukstansky, MS, D SC** Associate Professor of Radiology (primary appointment)

MS Kharkov State University 1971

D SC Donetsk State University 1991

**Peng Sun, PHD, MS** Instructor in Radiology (primary appointment)

PHD Beijing University 2005

MS Beijing Inst Of Technology 2002

BS Harbin Engineering University 1999

**Yuan-Chuan Tai, MEE, PHD** Associate Professor of Radiology (primary appointment)

BS National Tsing Hua University 1988

MEE University of Texas Arlington 1992

PHD University of CA Los Angeles 1998

**Chandrakant Tailor, MD** Assistant Professor of Clinical Radiology (primary appointment)

MD Medical College of India 1970

**Rui Tang, PHD, MS**Instructor in Radiology (primary appointment)

PHD Wayne Community College 2009

MS Washington Univ in St. Louis 2004

BS University of Science & Tech

Sharlene A Teefey**Professor of Radiology** (primary appointment)

**Robert W Thompson, MD**Professor of Surgery (General Surgery) (primary appointment)

**Professor of Cell Biology and Physiology**

**Professor of Radiology**

BA Hope College 1979

MD University of Michigan 1983

Malcolm Tobias**Instructor in Radiology (Pending Dean's Approval)** (primary appointment)

**Jerry Tobler, MD, PHD**Instructor in Clinical Radiology (primary appointment)

MD Yale University 1983

PHD California Institute Technolo 1978

BS Cornell University 1973

**Zhude Tu, MS, PHD**Associate Professor of Radiology (primary appointment)

MS Beijing Normal University 1991

PHD Beijing Normal University 1995

MS1 University of St Thomas 2000

BS Beijing Normal University 1988

**Suresh Vedantham, MD**Professor of Radiology (primary appointment)

**Professor of Surgery (General Surgery)**

BA Northwestern University 1988

MD University of Chicago 1992

**Andrei G Vlassenko, MD, PHD**Assistant Professor of Radiology (primary appointment)

MD Moscow Med Stomatology Inst 1987

PHD Institute of Neurology 1991

**Katie Dieu Thu Vo**Associate Professor of Radiology (primary appointment)

BS Mass Inst of Technology (MIT) 1986

BA Wellesley College 1986

**Jerold W Wallis, MS, MD**Associate Professor of Radiology (primary appointment)

**Associate Professor of Biomedical Engineering**

MS Stanford University 1981

MD Stanford University 1981

BS Yale University 1976

Yong Wang**Assistant Professor of Obstetrics and Gynecology** (primary appointment)

**Assistant Professor of Radiology**

**Jie Wen, PHD**Instructor in Radiology (primary appointment)

PHD University of Science & Tech 2012

**Philip J Weyman, MD**Associate Professor of Clinical Radiology (primary appointment)

BA Yale University 1968

MD Yale University 1972

**Kimberly N Wiele, MD**Assistant Professor of Radiology (primary appointment)

BA University of MO Kansas City 1981

MD University of MO Kansas City 1981

**Franz J Wippold II, MD**Professor of Radiology (primary appointment)

BA Westminster College 1973

MD Saint Louis University 1977

**Pamela K Woodard, MD** Professor of Radiology (primary appointment)

BA Duke University 1986

MD Duke University 1990

**Jinbin Xu, ME** Instructor in Radiology (primary appointment)

BS Taiyuan University of Tech 1991

ME Taiyuan University of Tech 1994

**Dmitriy A Yablonskiy, D SC, PHD, MS** Professor of Radiology (primary appointment)

**Adjunct Professor of Physics**

D SC Institute for Physics and Eng 1981

PHD Institute for Physics and Eng 1973

MS Kharkov State University 1970

**Motoyo Yano, MD, PHD** Assistant Professor of Radiology (primary appointment)

BS Tufts University 2000

MD University of Chicago 2007

PHD University of Chicago 2005

**Catherine A Young, JD** Instructor in Radiology (primary appointment)

JD University of Texas Austin 1995

**Allyson R Zazulia, MD** Professor of Neurology (primary appointment)

**Associate Dean for Continuing Medical Education**

**Professor of Radiology**

BS University of Maryland 1990

MD Georgetown University 1994

**Shiyong Zhao, PHD, MME** Adjunct Associate Professor of Radiology (primary appointment)

PHD University of South Carolina 1991

BA University of Science & Tech 1982

MME Shanghai Jiao Tong University 1984

**Jie Zheng, PHD** Associate Professor of Radiology (primary appointment)

PHD University of Cincinnati 1994

BS Beijing University 1986

**Dong Zhou, PHD, MS** Instructor in Radiology (primary appointment)

BS Shandong University 1990

PHD Washington Univ in St. Louis 2004

MS Shandong University 1995

MS School Not Listed 1995

BS School Not Listed 1990

**Dequan Zou, D SC, MS, ME** Professor of Physical Therapy (primary appointment)

**Professor of Radiology**

BS Harbin Engineering University 1982

D SC Washington Univ in St. Louis 1993

MS Washington Univ in St. Louis 1991

ME Harbin Engineering University 1984

**Darryl Adam Zuckerman, MD** Assistant Professor of Radiology (primary appointment)

**Assistant Professor of Surgery (General Surgery)**

MD State Univ of NY Syracuse 1983

BA New York University 1979

No entries found



# Mary Culver Department of Surgery

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The formal instruction in surgery begins in the third year with the required, 12-week Integrated Surgical Disciplines Clerkship. During this surgical clerkship, students are assigned to clinical rotations, mostly within the [Department of Surgery](#), with some exposure to other surgical-related disciplines outside the department. The clerkship allows students opportunities to participate in the care of surgical patients, both in- and outpatient; spend time in the operating rooms; and attend seminars, teaching conferences and didactic sessions on a regular basis. In the fourth year, students may select “subinternship” electives within the Division of General Surgery, which include a variety of general surgical specialties. In addition to the general surgery subinternships, electives are available in pediatric surgery, transplant surgery, vascular surgery, cardiovascular and thoracic surgery, urologic surgery, and plastic and reconstructive surgery.

## For more information

Please visit the [Department of Surgery website](#) for more information.

## MD Courses — Surgery

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### Third year

#### **M95 790 INTEGRATED SURGICAL DISCIPLINES CLERKSHIP**

During the 12-week surgery clerkship, students are assigned to three 4-week rotations,

one of which is a required 4-week general surgery rotation at Barnes-Jewish Hospital (plus one option at the Veterans Administration Medical Center). In addition to the general surgery rotation, each student is assigned two four-week elective rotations from a variety of surgical specialties and/or related disciplines. The 12-week clerkship focuses on the diagnosis, care, and management of surgical patients. The student is an active participant in the daily care of patients on each service and attends clinics, rounds, operating rooms, call nights, and teaching conferences. Central to the 12-week clerkship are small-group didactic sessions with assigned faculty members and a lecture/workshop series that covers a wide range of surgical topics and specialties as well as provides opportunity for practice of basic clinical skills in simulated settings.

## Fourth year

There is ample opportunity for fourth-year students to participate in elective rotations within each division of the Department of Surgery. Many of the fourth-year surgery electives are structured to allow the student to participate as a “subintern,” facilitating experiences in preoperative, intraoperative and postoperative patient management. Generally, the minimum duration of a fourth-year elective rotation in the Department of Surgery is four weeks. Research electives are also available.

## Electives

### **M95 814 / ACTING INTERNSHIP, TRAUMA SERVICE**

Instructor(s): Stephen Eaton, MD; John Kirby, MD; Douglas Schuerer, MD; and Kareem Husain, MD

Location: 1411 Queeny Tower

Elective Contact: Jennifer Richter, 314-362-7775

Other Information: This is NOT a “preceptor” elective. However, students may elect to make prior arrangements to work more closely with particular attendings on this service (based on availability).

Enrollment limit per period: 1

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.



The student on this elective will function as a subintern on the Trauma and Acute Care Surgical Service within the Section of Acute and Critical Care Surgery. Student involvement in all aspects of clinical surgery is accomplished by student attendance in the outpatient office, preoperative patient evaluation, in-hospital patient management, and postoperative outpatient follow-up after discharge. Practical experience will focus on the initial evaluation and resuscitation of traumatized patients and other emergency care patients. The student will also participate in regular rounds, conferences, and in-house call. Note: If a student desires to work more closely with a "specific attending," he/she must make special arrangements with the faculty member prior to beginning this elective. If you have any questions regarding this notice, please call Doug Brown in the Surgical Education Office 314-362-8029.

Student time distribution: Inpatient 80%, Outpatient 10%, Conferences/ Lectures 10%;  
Primary Care 20%, Subspecialty Care 80%

Major teaching responsibility: Attendings, residents and fellows

Patients seen/weekly: 30

On call/weekend responsibility: Yes

### **M95 818 / SURGICAL NIGHT FLOAT & ER SUBINTERNSHIP**

Instructor(s): John Kirby, MD; and L. Michael Brunt, MD

Location: ER

Elective Contact: Doug Brown, 314-362-8029

Other Information: Student should contact instructor prior to first day of elective.

Enrollment limit per period: 2

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This subinternship is specifically designed to give senior medical students an intern level experience in managing acute on-call problems in surgical patients and in evaluating urgent and emergent problems in the ED. The rotation will be divided into two, two week segments – one segment in the ED and the second on night float call on the surgical floors. Students will gain experience evaluating and managing the types of acute problems they will encounter as surgical interns as first responders to

patients with acute abdominal pain, chest pain, hypotension, mental status changes, and other ER/on-call type problems. They will be assigned to the on call surgical resident and will have a structured experience in order to maximize development of their diagnostic, management, and case presentation skills in the acute care setting so that they may more smoothly make the transition to a surgical internship.

Student time distribution: Inpatient 50%, Outpatient 50%, Conferences/ Lectures TBD;  
Primary Care 100%

Major teaching responsibility: John Kirby, MD and Surgical Residents

Patients seen/weekly: 20-30 each week

On call/weekend responsibility: No weekend call, rotation is nighttime based Tuesday through Friday for Floor two-week component and Tuesday, Wednesday, and Friday for ED two-week component

### **M95 820 / CARDIOTHORACIC SURGERY**

Instructor(s): Hersh Maniar, MD; Michael Avidan, MBBCH; Umar Boston, MD; Stephen Broderick, MD; Traves Crabtree, MD; Ralph Damiano, MD; Charl De Wet, MD; Pirooz Eghtesady, MD, PhD; Dan Kreisel, MD, PhD; Sasha Krupnick, MD; Jennifer Lawton, MD; Bryan Meyers, MD; Marc Moon, MD; Michael K. Pasque, MD; G. Alexander Patterson, MD; Varun Puri, MD; Stephano Schena, MD; and Scott Silvestry, MD

Location: 3106G Queeny Tower

Elective Contact: Hersh Maniar, MD; Secretary, Leslie Wiley at 314-362-7431

Other Information: Students should contact Leslie Wiley at 314-362-7431 prior to the first day of elective. Students should report to 3106G Queeny Tower, 9:30 a.m. first day of elective.

Enrollment limit per period: 3

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37 and 41.

The senior elective in cardiothoracic surgery is a four-week clinical rotation with two week blocks divided between adult cardiac, pediatric cardiothoracic, and general thoracic surgery according to the student's preference. Students will participate in morning work rounds, attend the operative procedures of their choice, and attend

weekly conferences and teaching rounds. Students will be introduced not only to the surgical procedures but also to the postoperative care of the surgical patients.

On the pediatric and adult cardiac services, students will be introduced to the principles of cardiopulmonary bypass, repair of congenital heart defects, ventricular assist devices, cardiac transplantation, coronary artery bypass surgery (on and off pump), valve repair and replacement, complex aortic surgery, the MAZE procedures and others.

On the adult cardiac surgery service, students will function as subinterns under the direct supervision of a faculty member.

On the thoracic surgical rotation students will have the opportunity of performing bronchoscopy, esophagoscopy, gastroscopy, and participate in surgical resections of lung cancer and esophageal cancer, as well as surgery for emphysema and for benign esophageal conditions. Students will also participate in lung transplantation surgery.

Student time distribution: Inpatient 80%, Outpatient 10%, Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attendings and residents

Patients seen/weekly: 20

On call/weekend responsibility: One in three, no weekend call

## **M95 830 / PLASTIC RECONSTRUCTIVE SURGERY**

Instructor(s): Kamlesh Patel, MD

Location: 11th Floor Northwest Tower

Elective Contact: Mary Darden, 314-747-1193

Other Information: Mary will e-mail the student a schedule approximately 10 days before the start date. The student will meet with Dr. Patel @ 6:30 a.m. on the first day of the rotation unless other arrangements have been made. Enrollment limit per period: 4 per block weeks 1-13; 2 per block weeks 17-41

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The period on plastic surgery may either be spent as a clinical clerkship or conducting a research project. The purpose of the clinical clerkship is to familiarize the student with the basic principles of Plastic Surgery. The student will have successive assignments to each of the attending staff and the ward resident services during the four weeks. This will expose the student to the breadth and depth of plastic surgery. Alternatively, if the student has identified a focus of interest, the student may participate on those services of special interest, such as hand or pediatric plastic surgery. The student will assume an active role on the plastic surgery service and will participate in the total management of a wide variety of surgical problems including congenital anomalies, microvascular surgery, surgery of the upper extremity, peripheral nerve surgery, cosmetic surgery, and general reconstructive plastic surgery. Research projects should be student-motivated and need to be approved prior to scheduling and confirming the research rotation. Student will perform a 10-15 minute case presentation.

Student time distribution: Inpatient 70%, Outpatient 20%, Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attendings and residents

Patients seen/weekly: 12

On call/weekend responsibility: One day per week, one weekend per month.

### **M95 832 / PLASTIC SURGERY EXTERNSHIP (Visiting Students Only)**

Instructor(s): Kamlesh Patel, MD, 314-747-0541

Location: 11th Floor Northwest Tower

Elective Contact: Mary Darden, 314-747-1193

Other Information: Mary will e-mail the student a schedule approximately 10 days before the start date. The student will meet with Dr. Patel at 6:30 a.m. on the first day of the rotation unless other arrangements have been made.

Enrollment limit per period: Varies

Flexible start days for 3 to 4-week blocks are available beginning

July 1, through December 31. Certain rotation dates/weeks may be limited depending on the number of students requesting rotations.

Students rotate on four different Plastic Surgery Services for one week each to maximize exposure to all faculty. If the student has transportation, they will travel to Barnes West County office on two days. Services include: breast reconstruction, hand, nerve, cosmetic and general reconstruction. Participation in conferences is expected. Student will perform a 10-15 minute case presentation.

Student time distribution: Inpatient 70%, Outpatient 20%, Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attendings and residents

Patients seen/weekly: 12

On call/weekend responsibility: one day per week, one weekend per month

### **M95 850 / UROLOGY**

Instructor(s): Gerald Andriole, MD, 314-362-8212

Location: Wohl Hospital

Elective Contact: Sally Wahlbrink, 314-362-8212

Other Information: Students should contact Dr. Andriole's office at 314-362-8212 prior to first day for room assignment.

Enrollment limit per period: 2

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

A four-week clinical clerkship in pediatric and/or adult urology will offer the interested student experience with a spectrum of problems in clinical urology. The student will learn the basic diagnostic procedures and management of surgical and non-surgical aspects of patient care under the supervision of the attending staff and house staff. Clinical conferences are held three days per week.

Student time distribution: Inpatient 65%, Outpatient 25%, Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Several attendings, chief resident and resident staff

Patients seen/weekly: >20

On call/weekend responsibility: Two Saturdays per month

## **M95 862 / ACTING INTERNSHIP, COLON AND RECTAL SURGERY**

Instructor(s): Steve Hunt, MD; Elisa Birnbaum, MD; Matthew Mutch, MD; Paul Wise, MD; Matthew Silveira, MD; and Sekhar Dharmarajan, MD 314-747-6156

Location: 14102 Queeny Tower, South Campus

Elective Contact: Emily Stroisch, 314-454-7182

Other Information: This is NOT a “preceptor” elective. However, students may elect to make prior arrangements to work more closely with a specific attending on this elective (based on availability).

Enrollment limit per period: 1

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This subinternship elective is designed to give students in-depth experience in the clinical management of patients on the Colorectal Surgery Service. Students work closely with the attendings within the Section of Colon and Rectal Surgery, and clinical exposure is focused on a wide range of benign and malignant colorectal diseases. There is exposure to radiation oncology and the specialized areas of nursing related to care of patients with colorectal cancer and inflammatory bowel disease. The course will offer opportunities for students to gain experience in preoperative, intraoperative and postoperative, patient management under house staff, fellows, and faculty guidance, as well as ample opportunity to attend and participate in conferences. Notice: If a student desires to work more closely with a specific attending, he/she must make special arrangements with the Colorectal Surgery Office prior to beginning this elective.

Student time distribution: Inpatient 75%, Outpatient 20%, Conferences/ Lectures 5%; Subspecialty Care 100%

Major teaching responsibility: Steven Hunt, MD, and colorectal fellows

Patients seen/weekly: 25-50

On call/weekend responsibility: Every fifth night or negotiable

## **M95 863 / ACTING INTERNSHIP, SURGICAL ONCOLOGY AND ENDOCRINE SURGERY**

Instructor(s): Timothy Eberlein, MD; Rebecca Aft, MD; Amy Cyr, MD; William

Gillanders, MD; Julie Margenthaler, MD; and Jeffrey Moley, MD

Location: 11th Floor Northwest Tower

Elective Contact: Doug Brown, 314-362-8029; Amy Cyr, MD, 314-747-8708

Other Information: This is NOT a “preceptor” elective. However, students may elect to make prior arrangements to work more closely with a specific attending (based on availability).

Enrollment limit per period: 1

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This subinternship elective is designed to give students in-depth experience in the clinical management of patients on the Endocrine and Surgical Oncology Service (Unit I Service). Students will serve as clerks and will be responsible for patient management with house staff under the guidance of the chief resident and attending surgeons. Clinical exposure is focused on thyroid, parathyroid and adrenal surgery, as well as breast oncology, melanoma, and soft-tissue sarcomas. The course will offer opportunities for students to gain experience in preoperative, intraoperative, and postoperative patient management. There will be opportunity for students to evaluate patients, decide on a diagnostic and management strategy and provide care under house staff and faculty guidance, as well as ample opportunity to attend and participate in conferences. Note: If a student desires to work more closely with a “specific attending,” he/she must make special arrangements with the faculty member prior to beginning this elective. If you have any questions regarding this notice, please call Doug Brown in the Surgical Education Office 314-362-8029.

Student time distribution: Inpatient 75%, Outpatient 15%, Conferences/ Lectures 10%

Major teaching responsibility: Attendings, chief resident, and junior residents

Patients seen/weekly: 20-40 (varies)

On call/weekend responsibility: Every third or fourth night with a resident who will directly supervise

## **M95 864 / ETHICAL CHALLENGES IN SURGERY AND MEDICINE**

Instructor(s): Mary Klingensmith, MD

Location: Surgical Education Office – 9th Floor Wohl  
Elective Contact: Douglas Brown, PhD, 314-304-8638

Other Information:

Enrollment limit per period: 1

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This elective will involve exploration of the ethical challenges discussed during didactic conferences and in clinical settings within the Department of Surgery at Washington University in St. Louis School of Medicine. The student will be guided through readings, discussions, and projects by department faculty members with expertise in clinical ethics. The elective will result in a finished manuscript to be published, with the student as co-author, in the journal Surgery. This elective provides the opportunity to work closely with faculty mentors and should appeal to any student interested in the ethical and humanitarian challenges facing physicians in particular and society in general.

Student time distribution: Conferences/Lectures 100%

Major teaching responsibility:

Patients seen/weekly: NA

On call/weekend responsibility: NA

### **M95 871 / ACTING INTERNSHIP, VASCULAR SURGERY**

Instructor(s): Chandu Vemuri, MD; Nanette Reed, Luis A. Sanchez, Gregorio A. Sicard, Mohammed Zayed, Jeffrey Jim, Patrick J. Geraghty, Brian G. Rubin and Robert W. Thompson, 314-362-3511

Location: 5103 Queeny Tower

Elective Contact: Students should contact Dr. Vemuri's office prior to the start of this rotation at 314-362-3511

Assistant: Theresa Belgeri, 314-362-5707, [belgerit@wudosis.wustl.edu](mailto:belgerit@wudosis.wustl.edu)

Other Information: This is NOT a "preceptor" elective. However, students may elect to make prior arrangements to work more closely with Dr. Vemuri 314-362-7841 or other



attendings on this service (based on availability).

Enrollment limit per period: 1

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This subinternship elective is designed to give students in-depth experience in the clinical management of patients on the Vascular Surgery Service. The elective will offer opportunities for students to gain experience in preoperative, intraoperative and postoperative, management of patients with surgically treated vascular diseases/conditions. Students will serve as clerks and will be responsible for patient management with house staff under the guidance of the chief resident and attending surgeons. There will be opportunity for students to evaluate patients, decide on a diagnostic and management strategy and provide care under house staff and faculty guidance, as well as ample opportunity to attend and participate in conferences.

Notice: If a student desires to work more closely with a "specific attending," he/she must make special arrangements with the faculty member prior to beginning this elective. If you have any questions regarding this notice, please call Doug Brown in the Surgical Education Office 314-362-8029.

Student time distribution: Inpatient 70%, Outpatient 20%, Conferences/ Lectures 10%;  
Primary Care 10%, Subspecialty Care 90%

Major teaching responsibility: Attending, fellows, chief resident, and junior residents

Patients seen/weekly: 100+ (varies)

On call/weekend responsibility: Student's option

### **M95 879 / ACTING INTERNSHIP, HEPATOBILIARY PANCREATIC SURGERY**

Instructor(s): Steven Strasberg, MD; William Hawkins, MD; Ryan Fields, MD; and Majella Doyle, MD

Location: 11th Floor Northwest Tower

Elective Contact: Chelsey Hermann, 314-454-5625

Other Information: This is NOT a "preceptor" elective. However, students may elect to make prior arrangements to work more closely with a specific attending on this service (based on availability).

Enrollment limit per period: 1

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This subinternship elective is designed to give students in-depth experience in the clinical management of patients on the Hepatobiliary/Pancreatic (Unit II) Service. The Unit II Service is a busy upper gastrointestinal service with a focus on hepatobiliary and pancreatic diseases and their treatment. The course will offer opportunities for students to gain experience in preoperative, intraoperative, and postoperative patient management. Students will serve as clerks and will be responsible for patient management with house staff under the guidance of the fellow, chief resident and attending surgeons. There will be opportunity for students to evaluate patients, decide on a diagnostic and management strategy, and provide care under house staff and faculty guidance, as well as ample opportunity to attend and participate in conferences. Note: If a student desires to work more closely with a specific attending, he/she must make special arrangements with the faculty member prior to beginning this elective

Student time distribution: Inpatient 75%, Outpatient 15%, Conferences/ Lectures 10%;  
Primary Care 100%

Major teaching responsibility: Attending, chief resident, fellow and junior residents

Patients seen/weekly: Varies

On call/weekend responsibility: Every third or fourth night with a resident who will directly supervise.

### **M95 880 / PEDIATRIC SURGERY**

Instructor(s): Kate Bernabe, M.D; Martin Keller, M.D.; Jacqueline Saito, M.D.; Pat Dillon, M.D.; Brad Segura, MD, and Brad Warner, MD.

Location: 5S40 St. Louis Children's Hospital

Elective Contact: Stacy Pokorny, 454-4169

Other Information: Students should report at 6:00 a.m. on the first day of the rotation.

Enrollment limit per period: 1

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The student will participate as a subintern in all aspects of pediatric surgical patient care and will be exposed to a wide variety of pediatric surgical cases. This includes the preoperative and postoperative evaluation of patients as well as the care of pediatric trauma patients. Daily rounds are made with both the resident and attending staff and active participation is expected in the pediatric surgery clinic and the operating room. Weekly conferences include Mortality and Morbidity, Radiology, Pathology and case presentations with the student expected to prepare a conference presentation on a topic of interest.

Student time distribution: Inpatient 60%, Outpatient 30%, Conferences/ Lectures 10%;  
Subspecialty Care 100%

Major teaching responsibility: Attendings

Patients seen/weekly: 35

On call/weekend responsibility: Optional

### **M95 891 / ORGAN TRANSPLANTATION**

Instructor(s): William Chapman, MD; Surendra Shenoy, MD, PhD; Majella Doyle, MD; Yiing Lin, MD; and Jason Wellen, MD

Location: Barnes-Jewish Hospital

Elective Contact: Mary Hampton 314-362-7792, Kiesha Cleark 314-747-2456

Other Information: Student should contact instructor if interested in scheduling elective.

Enrollment limit per period: 2

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

The care of transplant patients requires the integration of multiple diverse medical and surgical disciplines. This elective clerkship in organ transplantation encompasses the preoperative evaluation and management of adult and pediatric recipients of liver, kidney, and pancreas. Students participate in procurement of allografts from cadaveric or living donors, organ preservation, and transplantation. Emphasis is also placed on postoperative care, multimodality immunosuppression and management of allograft rejection. Basic hepatic and renal physiology, fluid and electrolyte balance, and

transplantation immunology are stressed. Rotation provides an elaborate exposure to different facets of management of end stage renal and liver disease. Management of the complications of diabetes, hypertension, portal hypertension, and infectious problems are an integral part of pre- and post-transplant care. This course is designed to offer the student an overview of the field of organ transplantation, however, in addition to transplant surgery, students will also get some exposure to vascular access and hepatobiliary surgery. The student functions as a member of the transplant team and assumes appropriate responsibilities under supervision.

Student time distribution: Inpatient 80%, Outpatient 10%, Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Full attending and resident staff

Patients seen/weekly: 40

On call/weekend responsibility: Yes

### **M95 893 / ACTING INTERNSHIP, MINIMALLY INVASIVE SURGERY**

Instructor(s): L. Michael Brunt, MD 314-454-8877

Location: 11th Floor Northwest Tower

Elective Contact: Student should contact Dr. Brunt at 314-454-8877 prior to the first day of the elective

Other Information: This is NOT a "preceptor" elective. However, students may elect to make prior arrangements to work more closely with Dr. Brunt on this elective (based on availability).

Enrollment limit per period: 1

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

This subinternship elective in minimally invasive surgery is offered by L. Michael Brunt, MD, a member of the Section of Minimally Invasive Surgery in the General Surgery Division. Surgeons in the Minimally Invasive Surgery group regularly perform the following procedures laparoscopically: cholecystectomy, splenectomy, adrenalectomy, hiatal hernia repair, inguinal hernia repair, ventral hernia repair and gastric bypass for morbid obesity. The medical student electing this rotation will

participate in the outpatient office and direct patient care, assist and observe in a wide range of laparoscopic procedures and participate in teaching rounds and conferences. During this rotation, the student will also have the opportunity to observe and participate in minimally invasive surgical procedures performed by various surgeons within the Division of General Surgery and will function as an acting intern. Notice: If a student desires to work more closely with a "specific attending," he/she must make special arrangements with the faculty member prior to beginning this elective. If you have any questions regarding this notice, please call Doug Brown in the Surgical Education Office 314-362-8029.

Student time distribution: Inpatient/Operating Room 60%, Outpatient 30%,  
Conferences/ Lectures 10%; Subspecialty Care 100%

Major teaching responsibility: Attending and residents

Patients seen/weekly: ~25 (varies)

On call/weekend responsibility: One call weekend which consists of morning rounds and home call. No in-house call.

### **M10 820 / CRITICAL CARE**

Instructor(s): Heidi Atwell, DO, 314-362-1196, Course Master; Walter Boyle, MD; Grant Bochicchio, MD; Stephanie Bonne, MD; Anne Drewry, MD; Stephen Eaton, MD; Daniel Emmert, MD; Alex Evers, MD; Brian Fuller, MD; Thomas J. Graetz, MD; Richard Hotchkiss, MD; Kareem Husain, MD; Jacob Keeperman, MD; Paul Kerby, MD; John Kirby, MD; Isaac Lynch, MD; John Mazuski, MD; Tiffany Osborn, MD; Patricia Penkoske, MD. Adnan Sadiq, MD; Doug Schuerer, MD; Jessica Smith, MD; Robert Southard, MD; George Tseng, MD; Brian Wessman, MD; and Robert Winfield, MD

Location: Barnes-Jewish Hospital, South Campus

Elective Contact: Barbara McKinney, 314-747-3581

Other Information: Students should meet in the 4400 Surgical Intensive Care Unit, 4th Floor of Barnes-Jewish Hospital, at 7:30 a.m. on the first day of the elective.

Enrollment limit per period: 4

Valid start weeks for 4-week blocks are: Weeks 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, and 41.

Students on this rotation are integral members of the multidisciplinary intensivist-led critical care team in the Surgical Intensive Care Unit (SICU). Students learn an organ systems-based approach for evaluation and management of critically ill and injured patients, and application of evidence-based principles in delivery of state-of-the-art critical care. Emphasis is placed on critical care knowledge and techniques used at the bedside in the clinical management of serious traumatic and surgical conditions. Students become familiar with resuscitation and cardiopulmonary support, including methods for non-invasive and invasive hemodynamic monitoring, and techniques for airway management and pulmonary support in respiratory failure. Basic knowledge and skills in the management of neurologic injuries, liver and/or renal failure, and life-threatening infections in the surgical patient are also taught, as is the importance of treatments to alleviate anxiety and pain, maintain fluid and electrolyte balance, and provide adequate nutrition. Practical experience is gained in placement of vascular access devices, interpretation of laboratory data, and use of guidelines, protocols and quality assurance tools in the management of critically ill patients.

Student time distribution: Inpatient 80%, Conferences/Lectures 20%; Subspecialty Care 100%

Major teaching responsibility: ICU Attendings

Patients seen/weekly: 50

On call/weekend responsibility: Variable

## Research — Surgery

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L. Michael Brunt, MD

1160 Northwest Tower, Barnes-Jewish Hospital

314-454-8877

Minimally invasive surgery, including endocrine applications. Minimum rotation length:

four weeks. Under the auspices of the Washington University Institute for Minimally Invasive Surgery (WUIMIS), a number of surgeons are investigating the physiologic consequences of laparoscopic surgery and new applications for procedures and technologies. Dr. Brunt is currently investigating clinical outcomes of various laparoscopic surgical procedures, laparoscopic hiatal hernia surgery and adrenal surgery, and is carrying out education related research of skills training for senior medical students planning to enter a surgical internship.

#### Division of Plastic and Reconstructive Surgery

660 S. Euclid, Box 8238

314-747-0541

The Division of Plastic Surgery offers many opportunities for research projects on various topics related to plastic surgery. A project will be designed with the student prior to his/her rotation on plastic surgery so that all of the materials and methods will be available at the beginning of the rotation. The basic science laboratories investigate primarily nerve injury and regeneration including nerve transplantation. The student will be encouraged to design and complete his/her own research study during the elective. Minimum rotation length is six weeks. The research rotation can be conducted in the plastic surgery laboratories under the direction of Drs. Moore, Snyder-Warwick, Wood or Mackinnon.

Ongoing projects include:

- (1) influence of growth factors and blood flow on nerve regeneration;
- (2) neural tissue engineering;
- (3) diagnostic potential of biomarkers to identify nerve injury; and
- (4) investigation of glial cells at the neuromuscular junction during development, maintenance, aging, and following nerve injury.

Additional clinical and educational research opportunities in various fields of plastic surgery are available with Drs. Fox, Myckatyn, Patel, Tung, and Woo.

These various projects include:

- (1) in vivo tissue generation and tissue differentiation;
- (2) the mechanical, structural and biochemical effects of stress on scar tissue

maturation;

(3) in vivo anatomy of craniofacial deformities;

(4) outcome analysis of methods of cleft lip and palate management;

(5) breast reconstruction (3D imaging of breasts after cosmetic or reconstructive surgery, interpretation of angiograms of the breast to measure nipple perfusion);

(6) use of nerve transfer to improve hand function in patients with cervical spinal cord injury/quadriplegia; and

(7) surgical education (specifically web-based multi-media strategies for peripheral nerve surgery education).

## Faculty — Surgery

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**Timothy J Eberlein, MD, MA** Bixby Professor of Surgery (General Surgery) (primary appointment)

Head of the Department of Surgery

Director of The Alvin J. Siteman Cancer Center

Professor of Pathology and Immunology

Spencer T. and Ann W. Olin Distinguished Professor

MD University of Pittsburgh 1977

MA Harvard University 1996

BS University of Pittsburgh 1973

**Rebecca L Aft, PHD, MD** Professor of Surgery (General Surgery) (primary appointment)

PHD Univ of Wisconsin Madison 1983

BS Univ of Wisconsin Madison 1978

MD Washington Univ in St. Louis 1992

**Olaguoke Kelechi Akinwande, MD** Assistant Professor of Radiology (primary appointment)

Assistant Professor of Surgery (General Surgery)

MD Ross University 2009

**Dorothy A Andriole** Associate Professor of Surgery (General Surgery) (primary appointment)

Assistant Dean for Student Affairs and Medical Education

BA New York University 1976

**Gerald L Andriole, MD** Robert Killian Royce, M.D. Distinguished Professor of Urologic Surgery (primary appointment)

MD Jefferson Medical College 1978

BS Pennsylvania State University 1976

**Jeffrey Michael Arbeit, MD** Professor of Surgery (Urologic Surgery) (primary appointment)



**Professor of Cell Biology and Physiology**

BS Boston University 1972

MD Rush University 1976

**Christopher Thomas Arett, MD** Assistant Professor of Surgery (Urologic Surgery) (Pending Executive Faculty Approval) (primary appointment)

MD Washington Univ in St. Louis 2003

BS Washington Univ in St. Louis 1999

**Kenneth J Arnold, MD** Assistant Professor of Clinical Surgery (General Surgery) (primary appointment)

MD Washington Univ in St. Louis 1968

BA University of Notre Dame 1964

**Paul F Austin, MD** Professor of Surgery (Urologic Surgery) (primary appointment)

BA Murray St University 1987

MD University of Kentucky 1991

**Michael Simon Avidan, MBBCH** Professor of Anesthesiology (primary appointment)

**Professor of Surgery (Cardiothoracic Surgery)**

MBBCH University of the Witwatersra 1991

**Michael Magdi Awad, PHD, MD** Associate Professor of Surgery (General Surgery) (primary appointment)

**Associate Dean for Medical Education**

PHD Brown University 2001

MD Brown University 2001

BS Brown University 1994

**Jeffrey Allen Bailey, MD, M PA** Adjunct Assistant Professor of Surgery (General Surgery) (primary appointment)

MD Saint Louis University 1996

M PA Golden Gate University 1986

**Parul Bakhshi** Assistant Professor of Occupational Therapy (primary appointment)

**Assistant Professor of Surgery (Public Health Sciences)**

**Keki Rohonton Balsara, MD** Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

BS1 University of Pennsylvania 1998

MD University of Pennsylvania 2003

**Joaquin Barnoya, MS, MD** Associate Professor of Surgery (General Surgery) (primary appointment)

**Associate Professor of Medicine**

MS Harvard University 2001

MD Universidad de San Carlos 1998

**Kenneth J Bennett, MD** Associate Professor of Clinical Surgery (General Surgery) (primary appointment)

MD Tulane University 1965

**Sam B Bhayani, MD** Professor of Surgery (Urologic Surgery) (primary appointment)

BS Cornell University 1992

MD Washington Univ in St. Louis 1996

**Lawrence J Billy** Instructor in Clinical Surgery (General Surgery) (primary appointment)

BA Youngstown St University 1962

**Elisa H Birnbaum, MD** Professor of Surgery (General Surgery) (primary appointment)

MD University of Illinois 1985

BS Univ of Wisconsin Madison 1981

**Jeffrey Alan Blatnik, MD** Assistant Professor of Surgery (General Surgery) (primary appointment)

MD Case Western Reserve Univ 2007

**Grant Bochicchio, MD, M PH** Professor of Surgery (General Surgery) (primary appointment)

MD Pennsylvania State University 1993

M PH University of Pittsburgh 1989

**Walter A Boyle III, MD** Professor of Anesthesiology (primary appointment)

Assistant Professor of Developmental Biology

Professor of Surgery (General Surgery)

MD University of CA San Francisco 1977

**Keith E Brandt, MD** William G. Hamm Professor of Surgery (Plastic and Reconstructive Surgery)

(primary appointment)

MD Univ Texas Health Science Ctr 1983

BS Texas A&M University 1979

**Anoop k Brar, PHD** Instructor in Surgery (Cardiothoracic Surgery) (Pending Dean's Approval)

(primary appointment)

PHD University of Edinburgh 1983

BS University of Edinburgh 1979

**L. Michael Brunt, MD** Professor of Surgery (General Surgery) (primary appointment)

MD Johns Hopkins University Medic 1980

BA University of Mississippi 1976

**Donald William Buck, MD** Assistant Professor of Surgery (Plastic and Reconstructive Surgery)

(primary appointment)

BS Indiana University Bloomington 2002

MD Johns Hopkins University 2006

**Sara Anne Buckman, MD, PHARM D** Assistant Professor of Surgery (General Surgery) (primary appointment)

MD Univ of Wisconsin Madison 2008

PHARM D Univ of Wisconsin Madison 1999

**John B Buettner, MD** Instructor in Clinical Surgery (General Surgery) (primary appointment)

MD Washington Univ in St. Louis 1967

**Arnold D Bullock, MD** Professor of Surgery (Urologic Surgery) (primary appointment)

**Alan A and Edith L Wolff** Distinguished Professor

MD Johns Hopkins University 1987

BS Xavier University Louisiana 1983

**David Anthony Caplin, MD** Instructor in Clinical Surgery (Plastic and Reconstructive Surgery)

(primary appointment)

MD University of Cincinnati 1975

BA Kenyon College 1971

**Kenneth R Carson** Assistant Professor of Medicine (primary appointment)

Assistant Professor of Surgery (Public Health Sciences)

**Ebony Boyce Carter, MS, MD** Assistant Professor of Obstetrics and Gynecology (primary appointment)

Assistant Professor of Surgery (Public Health Sciences)

MS University of Michigan 2002

BS Stanford University 2000

MD Duke University 2006

**Diego Casali** Assistant Professor of Surgery (Cardiothoracic Surgery) (Pending Executive Faculty Approval) (primary appointment)

**Su-Hsin Chang, MA** Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

MA Mass Inst of Technology (MIT) 2004

BA National Chengchi University 1995

**Will C Chapman, MD** Eugene M. Bricker Professor of Surgery (General Surgery) (primary appointment)

MD University of South Carolina 1984

BA University of North Carolina 1980

**Alexander Chi Chen, MD** Associate Professor of Medicine (primary appointment)

Associate Professor of Surgery (Cardiothoracic Surgery)

MD University of MO Kansas City 2001

**Heidi Atwell Coco, DOST** Assistant Professor of Anesthesiology (primary appointment)

Assistant Professor of Surgery (Cardiothoracic Surgery)

BS Truman State University 2000

DOST Kirksville College of Osteopat 2005

**John E. Codd, MD** Professor of Clinical Surgery (Cardiothoracic Surgery) (primary appointment)

BA Gonzaga University 1954

MD Saint Louis University 1963

**Graham A Colditz, MBBS, DRPH** Niess-Gain Professor of Surgery (General Surgery) (primary appointment)

Professor of Medicine

Deputy Director for the Institute of Public Health

BS University of Queensland 1977

MBBS University of Queensland 1979

DRPH Harvard University 1986

**H. Groves Cooke III, MS, DDENT** Instructor in Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)

MS George Washington University 1975

BA De Paul University 1967

DDENT Washington Univ in St. Louis 1971

**Douglas E Coplen, MD** Associate Professor of Surgery (Urologic Surgery) (primary appointment)

BA Wabash College 1981

MD Indiana University Bloomington 1985

**James L Cox, MD** Everts A. Graham Professor Emeritus of Surgery (Cardiothoracic Surgery) (primary appointment)

Everts A. Graham Prof Emer of Surg (Card Surg) (primary appointment)

BS University of Mississippi 1964

MD1 University of Tennessee 1967

MD University of Tennessee 1967

UNKNOWN Duke University 1978

Michael Crittenden Associate Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Brian P. Cupps, PHD** Associate Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

PHD Texas A&M University 1994

**Amy Cyr, MD** Assistant Professor of Surgery (General Surgery) (primary appointment)

BA Creighton University 1997

MD Univ of Nebraska Med Center 2002

**Ralph James Damiano Jr, MD** Everts Ambrose Graham Professor of Surgery (Cardiothoracic

**Surgery** (primary appointment)

BA Dartmouth College 1976

MD Duke University 1980

**Michael D Darcy, MD** Professor of Radiology (primary appointment)

**Associate Professor of Surgery (General Surgery)**

MD Ohio State University 1979

Charl Johan De Wet **Associate Professor of Anesthesiology** (primary appointment)

**Associate Professor of Surgery (Cardiothoracic Surgery)**

**Alana C Desai** Assistant Professor of Surgery (Urologic Surgery) (primary appointment)

BS Marquette University 1997

**Patrick A Dillon** Associate Professor of Surgery (Pediatric Surgery) (primary appointment)

**Associate Professor of Pediatrics**

BA Brown University 1983

**Julianne Elizabeth Donnelly, MD** Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

MD University of Kansas 2009

**Maria Bernadette Majella Doyle, MD** Associate Professor of Surgery (General Surgery) (primary appointment)

MD Trinity College Dublin 1996

BS Trinity College Dublin 1990

**Bettina Drake, M PH, PHD** Associate Professor of Surgery (Public Health Sciences) (primary appointment)

M PH Univ Texas Health Science Ctr 2003

BS Baylor University 2001

PHD University of South Carolina 2006

**Eleanor Lynn Powell Drew, AB** Assistant Professor of Surgery (General Surgery) (primary appointment)

AB Brown University 2005

Joseph W Eades **Assistant Professor of Clinical Surgery (Plastic and Reconstructive Surgery)** (primary appointment)

**J. Chris Eagon, MD, MS** Associate Professor of Surgery (General Surgery) (primary appointment)

MD Harvard University 1988

MS University of Utah 1997

BA Williams College 1984

**Stephen Ray Eaton, MD** Assistant Professor of Surgery (General Surgery) (primary appointment)

BS1 Southern Illinois University 1997

MS1 Southern Illinois University 2000

MD Ross University 2005

**Shaina Rose Eckhouse, MD** Assistant Professor of Surgery (General Surgery) (Pending Executive Faculty Approval) (primary appointment)

MD Univ Texas Health Sci San Anto 2008

**Pirooz Eghtesady, MD, MS, D SC** Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Professor of Pediatrics**

MD University of CA Los Angeles 1993

MS University of CA Los Angeles 1987

BS University of CA Los Angeles 1987

D SC University of CA Los Angeles 1993

**Daniel Emmert, MD** Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

MD Saint Louis University 2005

**Sean Jason English** Assistant Professor of Surgery (General Surgery) (Pending Executive Faculty Approval) (primary appointment)

**Christopher R. Erwin, MS, PHD** Associate Professor of Surgery (Pediatric Surgery) (primary appointment)

MS University of CA Davis 1978

PHD University of Iowa 1983

BS University of CA Davis 1976

**John Matthew Felder III** Assistant Professor of Surgery (Plastic and Reconstructive Surgery) (Pending Executive Faculty Approval) (primary appointment)

**Ryan Courtney Fields, MD** Assistant Professor of Surgery (General Surgery) (primary appointment)

BS Davenport University 1998

MD Duke University 2003

**Robert S Figenshau, MD** Taylor Family and Ralph V. Claman, M.D. Professor of Surgery (Urologic Surgery) (primary appointment)

MD University of Minnesota 1987

BS Macalester College 1981

**Timothy Peter Fleming** Professor of Surgery (General Surgery) (primary appointment)

**Gretchen Marie Foltz, MD** Assistant Professor of Radiology (primary appointment)

**Assistant Professor of Surgery (General Surgery)**

MD Medical College of Wisconsin 2007

BS Univ of Wisconsin Milwaukee 2002

**Ida K Fox, MD** Associate Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)

BS Haverford College 1994

MD University of Rochester 1999

**Bradley D. Freeman, MD** Professor of Surgery (General Surgery) (primary appointment)

MD Duke University 1988

BS University of Central Florida 1984

**Anja G. Fuchs, PHD** Assistant Professor of Surgery (General Surgery) (primary appointment)

BS School Not Listed 1994

PHD University of Manchester 2006

**Feng Gao, PHD** Associate Professor of Surgery (Public Health Science) (primary appointment)

**Associate Professor of Biostatistics**

**Associate Professor of Medicine**

PHD Emory University 2003

**Andrew E. Gelman, PHD** Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Professor of Pathology and Immunology**

PHD University of Pennsylvania 2006

BS University of CA Los Angeles 1996

**Patrick J Geraghty, MD** Professor of Surgery (General Surgery) (primary appointment)

BS Northwestern University 1989

MD Northwestern University 1991

**William Ewald Gillanders, MD, MS** Professor of Surgery (General Surgery) (primary appointment)

**Vice Chair for Research, Department of Surgery**

MD Duke University 1991

BA Williams College 1987

MS1 Medical University of Sth Car 2006

BA1 Williams College 1987

MS Medical Univ South Carolina 2006

**Sean C. Glasgow, MD** Assistant Professor of Surgery (General Surgery) (Pending Executive Faculty Approval) (primary appointment)

BS Duke University 1995

MD Duke University 1999

**Katherine LuBell Glover-Collins** Assistant Professor of Surgery (General Surgery) (Pending Executive Faculty Approval) (primary appointment)

**Simon P Goedegebuure, PHD, MA** Associate Professor of Surgery (General Surgery) (primary appointment)

PHD Erasmus University Rotterdam 1989

MA School Not Listed 1985

BS School Not Listed 1982

**Melody Serene Goodman, MS, PHD** Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

BS State Univ of NY Stonybrook 1999

MS Harvard University 2003

PHD Harvard University 2006

**Thomas J Graetz, MD** Assistant Professor of Anesthesiology (primary appointment)  
Assistant Professor of Surgery (Cardiothoracic Surgery)

MD Saint Louis University 2005

**Robert Lee Grubb III, MD** Associate Professor of Surgery (Urologic Surgery) (primary appointment)

MD Emory University 1996

BS Davidson College 1992

**Jun Guo, PHD, MS** Assistant Professor of Surgery (Pediatric Surgery) (primary appointment)

PHD Shanghai Medical University 2000

MS Dalian Medical University 1997

**Steven William Guyton** Associate Professor of Clinical Surgery (Cardiothoracic Surgery) (primary appointment)

**Bruce Lee Hall, MD** Professor of Surgery (General Surgery) (primary appointment)  
Professor of Health Care Management (Olin School of Business)

Fellow in the Center for Health Policy

BA Princeton University 1984

MD Duke University 1992

**David A. Hardy** Instructor in Surgery (Urologic Surgery) (primary appointment)

**William G. Hawkins, MD** Professor of Surgery (General Surgery) (primary appointment)

**Neidorff Family and Robert C Packman** Professor

MD State Univ of NY Stonybrook 1995

BA New York University 1991

**Michael E Hayek, MS, MD** Instructor in Clinical Surgery (General Surgery) (primary appointment)

BA Saint Louis University 1976

MS Saint Louis University 1978

MD University of Missouri 1982

**Mark Francis Heiland** Assistant Professor of Clinical Surgery (General Surgery) (primary appointment)

**Mohammad Anas Helwani, MD** Assistant Professor of Anesthesiology (primary appointment)



**Assistant Professor of Surgery (Cardiothoracic Surgery)**

MD Damascus University 1998

**Virginia M Herrmann, MD** Professor of Surgery (General Surgery) (primary appointment)

**Professor of Medicine**

MD Saint Louis University 1974

**Elizabeth Hilliker, MA** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

**Assistant Professor of Surgery (General Surgery)**

BA Washington Univ in St. Louis 1965

MA Washington Univ in St. Louis 1970

Richard S Hotchkiss Professor of Anesthesiology (primary appointment)

**Professor of Surgery (General Surgery)**

**Professor of Developmental Biology**

**Professor of Medicine**

**Steven R Hunt, MD** Associate Professor of Surgery (General Surgery) (primary appointment)

BA Dartmouth College 1992

MD Stanford University 1997

**Kareem D. Husain** Assistant Professor of Surgery (General Surgery) (primary appointment)

BS University of Notre Dame 1995

Mohsen Ibrahim Instructor in Surgery (Cardiothoracic Surgery) (primary appointment)

**Obeid Noor Ilahi, MD** Associate Professor of Surgery (General Surgery) (primary appointment)

MD Aga Khan University 1992

Akinobu Itoh Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Aimee S. James, PHD, MA, M PH** Associate Professor of Surgery (General Surgery) (primary appointment)

PHD University of Houston 1999

MA University of Houston 1998

M PH University of Texas Houston 2000

BA Goucher College 1995

David P. Jaques Professor of Surgery (General Surgery) (primary appointment)

**Jeffrey Jim, MS, MD** Associate Professor of Surgery (General Surgery) (primary appointment)

BS University of Southern Calif 1996

MS University of Southern Calif 1999

MD University of CA Irvine 2003

**Cassandra Johnson, PHD** Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

BS1 University of Maryland 1998

PHD Harvard University 2003

MS1 Harvard University 2000

**Puja Kachroo, MD, MS** Instructor in Surgery (Cardiothoracic Surgery) (primary appointment)

BS Boston University 2001

MD Ross Univ School of Medicine 2007

MS Columbia University 2003

**Demetrios Katsikas, MD** Instructor in Clinical Surgery (Urological Surgery) (primary appointment)

BS University of Michigan 1985

MD Wayne State University 1989

**Martin S Keller, MD** Associate Professor of Surgery (Pediatric Surgery) (primary appointment)

**Associate Professor of Pediatrics**

BS University of Pennsylvania 1985

MD University of Vermont 1990

**Andrew M Kim, MS, DDENT**Assistant Professor of Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)

**Instructor in Clinical Otolaryngology**

MS Ohio State University 1987

BA California State University 1978

DDENT Washington Univ in St. Louis 1984

**Seung Kwon Kim**Assistant Professor of Radiology (primary appointment)

**Assistant Professor of Surgery (General Surgery)**

**Allison A King, MD**Associate Professor of Occupational Therapy (primary appointment)

**Associate Professor of Pediatrics**

**Associate Professor of Pediatrics**

**Associate Professor of Education (Courtesy)**

**Associate Professor of Surgery (General Surgery)**

**Associate Professor of Medicine**

**Associate Professor of Medicine**

MD University of MO Columbia 1996

**John P. Kirby, MD, MS**Associate Professor of Surgery (General Surgery) (primary appointment)

BS University of Illinois 1988

MD University of Illinois 1993

MS University of Illinois 1999

**Grant Michael Kleiber**Assistant Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)

BS University of Notre Dame 2004

**Saul Klein**Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)

**Mary E Klingensmith, MD**Professor of Surgery (General Surgery) (primary appointment)

**Mary Culver** Distinguished Professor

**Vice Chairman for Education, Department of Surgery**

**Sr Associate Dean for Education**

**Sr Associate Dean for Education**

BA Wellesley College 1988

MD Duke University 1992

**Benjamin D. Kozower, MD**Professor of Surgery (Cardiothoracic Surgery) (Pending Executive Faculty Approval) (primary appointment)

BS University of Rochester 1993

MD University of Rochester 1997

**David Paul Krajcovic, MD**Instructor in Clinical Surgery (General Surgery) (primary appointment)

MD Washington Univ in St. Louis 1969

BA Washington Univ in St. Louis 1965

**Daniel Kreisel, MD, PHD**Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Professor of Pathology and Immunology**

MD Mount Sinai School of Medicine 1995

PHD University of Pennsylvania 2002

**Hing Hung H Lai, MD**Associate Professor of Surgery (Urologic Surgery) (primary appointment)

**Associate Professor of Anesthesiology**

MD Cornell University 1999

**John M Lasala, MD**Professor of Medicine (primary appointment)



**Professor of Surgery (Cardiothoracic Surgery)**

BA Drew University 1975

MD University of Connecticut 1983

**Constance Wye Leng Lee, MD**Instructor in Surgery (Pediatric Surgery) (primary appointment)

MD University of Virginia 2006

BS University of Virginia 2001

Jerome F Levy**Professor Emeritus of Surgery (General Surgery)** (primary appointment)

**Prof Emeritus of Surgery (General Surg)** (primary appointment)

Wenjun Li**Assistant Professor of Surgery (Cardiothoracic Surgery)** (primary appointment)

**Yiing Lin, PHD, MD**Assistant Professor of Surgery (General Surgery) (primary appointment)

PHD Washington Univ in St. Louis 2005

MD Washington Univ in St. Louis 2005

BS Duke University 1997

**Erin Lynn Linnenbringer, PHD**Instructor in Surgery (Public Health Sciences) (primary appointment)

BS1 Washington Univ in St. Louis 2000

MS1 Northwestern University 2003

PHD University of Michigan 2014

**Ying Liu, MD, PHD**Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

MD Southeast U Medical School 1995

PHD Texas Tech University 2006

**Rebecca Lobb, PHS**Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

PHS Harvard University 2009

**Alan M Londe, MD**Instructor in Clinical Surgery (General Surgery) (primary appointment)

MD Washington Univ in St. Louis 1961

**Stanley L London, MD**Associate Professor Emeritus of Clinical Surgery (General Surgery) (primary appointment)

**Assoc Prof Emeritus of Clin Surg (Gen Surg)** (primary appointment)

MD Washington Univ in St. Louis 1949

**Esther Jiaxin Lu, PHD, MS**Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

**Assistant Professor of Biostatistics**

PHD Medical College of Wisconsin 2007

MS National Univ of Singapore 2002

BS Nankai University 1997

**Mark A Ludwig, MD**Instructor in Clinical Surgery (General Surgery) (primary appointment)

MD University of Chicago 1976

BA Emory University 1972

**Jingqin Luo, PHD, MS**Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

**Assistant Professor of Biostatistics**

**Assistant Professor of Medicine**

PHD Duke University 2006

MS Renmin University of China 2001

MS1 Duke University 2003

BS Renmin University of China 1998

**Susan E Mackinnon, MD**Sydney M., Jr. and Robert H. Shoenberg Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)

**Professor of Otolaryngology**

**Professor of Occupational Therapy**

BA Queens College 1971

MD Queen's University 1975

**Hersh Maniar, MD** Associate Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Associate Professor of Medicine**

MD University of Illinois 1998

BS University of Michigan 1994

**Peter Bruce Manning, MD** Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

BS Bucknell University 1978

MD University of Michigan 1982

**Scott R. Manson, PHD** Instructor in Surgery (Urologic Surgery) (primary appointment)

BS University of Illinois 1999

PHD Washington Univ in St. Louis 2007

**Julie Ann Margenthaler, MD** Professor of Surgery (General Surgery) (primary appointment)

MD Southern Illinois University 1997

BA Boston University 1993

**Muhammad Faraz Masood, MD** Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

MD Dow Medical College Karachi 2001

**John E. Mazuski, PHD, MD** Professor of Surgery (General Surgery) (primary appointment)

PHD University of Minnesota 1993

MD University of CA Los Angeles 1981

**Patricia A McGuire, MD** Instructor in Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)

MD University of Missouri 1985

**Spencer J Melby** Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

BS Brigham Young University 1997

**Bryan F Meyers, MD** Patrick and Joy Williamson Endowed Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

MD University of Chicago 1986

**Jerry R Meyers, MD** Assistant Professor of Clinical Surgery (General Surgery) (primary appointment)

MD Washington Univ in St. Louis 1966

BA University of Texas Austin 1962

**Kevin Joseph Mitchell** Instructor in Clinical Surgery (General Surgery) (primary appointment)

BS Howard University 1981

**Jeffrey F Moley, MD** Professor of Surgery (General Surgery) (primary appointment)

MD Columbia University 1980

BA Harvard University 1976

**Marc R Moon, MD** John M Shoenberg Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

BS University of Michigan 1983

MD Wayne State University 1988

**Amy M. Moore, MD** Assistant Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)

MD Virginia Comm University 2004

**Julian C Mosley, MD** Instructor in Clinical Surgery (General Surgery) (primary appointment)

BS Saint Louis University 2000

MD Washington Univ in St. Louis 1972

**Nabil A Munfakh, MD** Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

MD University of Michigan 1985

BS University of Michigan 1981

**Matthew G Mutch, MD** Professor of Surgery (General Surgery) (primary appointment)

MD Washington Univ in St. Louis 1994

BA St Olaf College 1990

**Terence M. Myckatyn, MD** Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)

BS Univ of Northern British Colu 2003

MD Univ of Northern British Colu 1997

Neal Neuman **Instructor in Clinical Surgery (Urologic Surgery)** (primary appointment)

**Thomas E Niesen, MD** Instructor in Clinical Surgery (General Surgery) (primary appointment)

BS Tulane University 1975

MD Tulane University 1979

**Richard James Nissen, DDENT, MS** Assistant Professor of Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)

DDENT University of Iowa 1983

MS Washington Univ in St. Louis 1985

BS Iowa State University 1979

Anthony Ian Nunez **Instructor in Clinical Surgery (Cardio Surgery)** (primary appointment)

**Nadia Mariana Obeid, MS, MD** Instructor in Surgery (General Surgery) (primary appointment)

BS University of Michigan 2003

MS Wayne State University 2005

MD Wayne State University 2009

**George A Oliver, MD** Assistant Professor Emeritus of Clinical Surgery (General Surgery) (primary appointment)

**Asst Prof Emeritus of Clin Surg (Gen Surg)** (primary appointment)

**Asst Prof Emeritus of Clin Surgery (Gen Surg)** (primary appointment)

BA Washington Univ in St. Louis 1948

MD Washington Univ in St. Louis 1952

**Margaret Olsen, PHD, MPH** Professor of Medicine (primary appointment)

**Professor of Surgery (Public Health Sciences)**

PHD University of Pennsylvania 1986

MPH Saint Louis University 2001

BS Southern Illinois University 1976

**Tiffany Medlin Osborn, M PH, MD** Associate Professor of Surgery (General Surgery) (primary appointment)

**Associate Professor of Emergency Medicine in Medicine**

M PH London Hygiene & Tropical Med 2009

BS University of Houston 1992

MD Univ Texas Health Sci San Anto 1997

**Sharad P Parikh** Instructor in Clinical Surgery (General Surgery) (primary appointment)

UNKNOWN University of Pune 1967

**Yikyung Park, PHD** Associate Professor of Surgery (Public Health Sciences) (primary appointment)

MS1 EWHA Womans University 1996

PHD Harvard University 2005

BS EWHA Womans University 1994

**Charles L Parks**Instructor in Clinical Surgery (General Surgery) (primary appointment)

BS University of South Dakota 1967

**Diana C. Parra Perez, MS, PHD**Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Surgery (Prevention and Control)**

MS Saint Louis University 2008

PHD Washington Univ in St. Louis 2013

BA Universidad del Rosario 2001

**Jeffrey Andrew Parres, MD**Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)

MD University of Missouri 1987

**Michael K Pasque, MD**Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Professor of Radiology**

**Professor of Biomedical Engineering**

MD University of Oklahoma 1978

**Kamlesh Babulal Patel, MD**Assistant Professor of Surgery (Plastic and Reconstructive Surgery)

(primary appointment)

MD University of Arizona 2005

BS University of MO Kansas City 2000

G. Alexander Patterson**Joseph C Bancroft** Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Enrique Pedro Perinetti, PHD, MD**Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)

PHD School Not Listed 1975

MD School Not Listed 1969

**Orlando Petrucci, MD, PHD, MS**Assistant Professor of Sugery (Cardiothoracic Surgery) (Pending Executive Faculty Approval) (primary appointment)

MD University of Campinas 1991

PHD University of Campinas 2004

MS University of Campinas 2001

**Daniel D Picus, MD**Professor of Radiology (primary appointment)

**Professor of Surgery (General Surgery)**

**Vice Chair for Diagnostic Radiology in Radiology**

MD University of Chicago 1981

BS1 University of Illinois 1977

BS University of Illinois 1977

**Mary Politi, M PHIL**Associate Professor of Surgery (General Surgery) (primary appointment)

M PHIL George Washington University 2004

BS Barnard College 2001

**William G Powderly, MD**J. William Campbell Professor of Medicine (primary appointment)

**Director for the Institute of Public Health**

MD National University of Irelan 1979

Laurie Jean Punch**Assistant Professor of Surgery (General Surgery) (primary appointment)**

**Varun Puri, MD, MS**Associate Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

MD Washington Univ in St. Louis 2009

MS Creighton University 2007

**Raja Ramaswamy**Assistant Professor of Radiology (primary appointment)

**Assistant Professor of Surgery (General Surgery)**

BA Emory University 2004

**Ricardo Rao, MD**Instructor in Clinical Surgery (General Surgery) (primary appointment)

MD University of Missouri 1987

BA University of CA San Diego 1983

**Antonella Luisa Rastelli, MD**Associate Professor of Medicine (primary appointment)

**Associate Professor of Surgery (General Surgery)**

BA University of Verona 1984

MD University of Verona 1991

**Nanette Rahee Reed, MD**Assistant Professor of Surgery (General Surgery) (Pending Executive Faculty Approval) (primary appointment)

MD Baylor College of Medicine 2004

BS University of Notre Dame 2000

**Frank O Richards**Assistant Professor Emeritus of Clinical Surgery (General Surgery) (primary appointment)

**Asst Prof Emeritus of Clin Surg (Gen Surg)** (primary appointment)

**Asst Prof Emeritus of Clin Surgery (Gen Surg)** (primary appointment)

BA Talladega College 1944

**Clare H Ridley, MD**Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

MD Washington Univ in St. Louis 2008

BA Columbia College of Phy & Surg 2002

**Shale M Rifkin, MD**Assistant Professor of Clinical Surgery (General Surgery) (primary appointment)

MD Washington Univ in St. Louis 1948

**Brian G Rubin, MD**Professor of Surgery (General Surgery) (primary appointment)

**Professor of Radiology**

MD University of Vermont 1984

BA Colgate University 1979

**Nael E. A. Saad, MBBCH**Associate Professor of Radiology (primary appointment)

**Associate Professor of Surgery (General Surgery)**

MBBCH Ain Shams University 1998

**Adnan Sadiq, MD**Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

MD Royal College of Surgeons 2001

BS State Univ of NY Buffalo 1996

**Jacqueline Mitsouko Saito, MD**Assistant Professor of Surgery (Pediatric Surgery) (primary appointment)

BS Harvard Radcliff 1989

MD Columbia University 1993

**Arghavan Salles, MD, PHD**Assistant Professor of Surgery (General Surgery) (Pending Executive Faculty Approval) (primary appointment)

MD Stanford University 2006

BA University of Southern Calif 2002

PHD Stanford University 2014

**Luis A Sanchez**Professor of Surgery (General Surgery) (primary appointment)

**Gregorio A. Sicard**Distinguished Professor

**Professor of Radiology**

**Donald C Sauer, MD**Assistant Professor Emeritus of Clinical Surgery (General Surgery) (primary

appointment)

**Asst Prof Emeritus of Clin Surg (Gen Surg)** (primary appointment)

MD Washington Univ in St. Louis 1960

**Stefano SchenaAssistant Professor of Surgery (Cardiothoracic Surgery)** (primary appointment)

**Douglas J Schuerer, MDProfessor of Surgery (General Surgery)** (primary appointment)

BS Allegheny College 1991

MD University of Pittsburgh 1995

**Richard B Schuessler, MS, PHDProfessor of Surgery (Cardiothoracic Surgery)** (primary appointment)

**Associate Professor of Biomedical Engineering**

BS University of Missouri 1973

MS University of Missouri 1974

PHD Clemson University 1977

**Maryls E Schuh, MDInstructor in Clinical Surgery (General Surgery)** (primary appointment)

BS1 University of North Dakota 1977

BS University of North Dakota 1973

MD Washington Univ in St. Louis 1979

**Homayoun Sedighi, DDENTAssistant Professor of Clinical Surgery (Plastic and Reconstructive Surgery)** (primary appointment)

BA Indiana University Bloomington 1983

DDENT Washington Univ in St. Louis 1987

**Debra L Seoane, MDInstructor in Clinical Surgery (General Surgery)** (primary appointment)

MD University of Miami 1986

**Courtney Shands III, MDInstructor in Clinical Surgery (Urologic Surgery)** (primary appointment)

MD Vanderbilt University 1982

BA Stanford University 1978

**Surendra Shenoy, MDProfessor of Surgery (General Surgery)** (primary appointment)

BS Kasturba Medical College 1980

MD Kasturba Medical College 1984

**Matthew Leon Silviera, MDAssistant Professor of Surgery (General Surgery)** (primary appointment)

MS1 Temple University 2010

BS Pennsylvania State University 2001

MD Temple University 2005

**David Siroospour, MDAssistant Professor of Clinical Surgery (General Surgery)** (primary appointment)

MD School Not Listed 2000

**Jason Andrew SnyderAssistant Professor of Surgery (General Surgery) Pending Executive Faculty Approval** (primary appointment)

**Alison K Snyder-Warwick, MDAssistant Professor of Surgery (Plastic and Reconstructive Surgery)** (primary appointment)

MD Washington Univ in St. Louis 2004

**Dirk M Spitzer, PHDAssistant Professor of Surgery (General Surgery)** (primary appointment)

BS School Not Listed 1995

PHD Technische U Braunschweig 1999

**Alan Joel Stein, MDAssistant Professor of Clinical Surgery (Urologic Surgery)** (primary appointment)

BS Univ of Wisconsin Madison 1972



MD Wayne State University 1976

Daniel Charles Stoeckel **Instructor in Clinical Surgery** (primary appointment)

**Steven M Strasberg, MD** **Pruett Professor of Surgery (General Surgery)** (primary appointment)

**Associate Professor of Cell Biology and Physiology**

MD University of Toronto 1963

**Herbert Sunshine, MD** **Instructor in Clinical Surgery (Urologic Surgery)** (primary appointment)

BA Washington Univ in St. Louis 1950

MD Washington Univ in St. Louis 1954

**Siobhan Sutcliffe, MHS, PHD, MS** **Associate Professor of Surgery (Public Health Sciences)** (primary appointment)

MHS Johns Hopkins University 2001

BS Princeton University 1998

PHD Johns Hopkins University 2005

MS Johns Hopkins University 2004

**Marissa Morningstar Tenenbaum, MD** **Assistant Professor of Surgery (Plastic and Reconstructive Surgery)** (primary appointment)

BS Univ of Wisconsin Madison 1998

MD Washington Univ in St. Louis 2002

**Robert W Thompson, MD** **Professor of Surgery (General Surgery)** (primary appointment)

**Professor of Cell Biology and Physiology**

**Professor of Radiology**

BA Hope College 1979

MD University of Michigan 1983

**Adetunji Toriola, PHD** **Assistant Professor of Surgery (General Surgery)** (primary appointment)

PHD University of Tampere 2011

**Ralph J Torrence, MD** **Assistant Professor of Surgery (Urologic Surgery)** (primary appointment)

MD Georgetown University 1983

**Erica J Traxel, MD** **Assistant Professor of Surgery (Urologic Surgery)** (primary appointment)

BS Texas A&M University 1998

MD Beaufort Technical College 2002

Thomas H Tung **Professor of Surgery (Plastic and Reconstructive Surgery)** (primary appointment)

**Isaiah Turnbull, MD, MS** **Assistant Professor of Surgery (General Surgery)** (primary appointment)

MD Washington Univ in St. Louis 2008

MS Washington Univ in St. Louis 2008

BS University of Oregon 1998

**Suresh Vedantham, MD** **Professor of Radiology** (primary appointment)

**Professor of Surgery (General Surgery)**

BA Northwestern University 1988

MD University of Chicago 1992

**Ramakrishna Venkatesh, MS** **Professor of Surgery (Urologic Surgery)** (primary appointment)

MS1 School Not Listed 1991

MS Bangalore University 1991

**Gino J Vricella, MD** **Assistant Professor of Surgery (Urologic Surgery)** (primary appointment)

BS Saint Louis University 2012

MD University of MO Columbia 2006

**Howard S Walker, MD** **Instructor in Clinical Surgery (Cardiothoracic Surgery)** (primary appointment)

BA Citadel 1971

MD Beaufort Technical College 1974

**Jean S Wang, PHD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Surgery (General Surgery)**

PHD John Hopkins University 2009

Brad W. Warner **Jessie L. Ternberg, M.D., PhD. Distinguished Professor of Pediatric Surgery in Surgery (Pediatric Surgery)** (primary appointment)

**Professor of Pediatrics**

**Erika Waters, M PH, MS PSYC** Associate Professor of Surgery (Public Health Sciences) (primary appointment)

M PH Johns Hopkins University 2007

MS PSYC Rutgers University 2003

BS Arizona State University 1999

**Leonard B Weinstock** Associate Professor of Clinical Medicine (primary appointment)

**Assistant Professor of Clinical Surgery (General Surgery)**

BA University of Vermont 1977

**Michael D Weiss, MD** Assistant Professor of Surgery (General Surgery) (primary appointment)

MD Ohio College of Podiatric Medicine 1981

BS1 Ohio State University 1977

**Jason R Wellen** Assistant Professor of Surgery (General Surgery) (primary appointment)

BS Emory University 1998

**Brad C White, MD** Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)

BS Illinois State University 1986

MD Loyola University Chicago 1993

Bruce I White **Instructor in Clinical Surgery (Plastic and Reconstructive Surgery)** (primary appointment)

**Anke Christiane Winter, MD, MS** Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

**Assistant Professor of Anesthesiology**

MD RWTH Aachen University, 2006

MS Harvard University 2010

**Paul Edward Wise, MD** Associate Professor of Surgery (General Surgery) (primary appointment)

BS Georgetown University 1992

MD John Hopkins University 1996

**Matthew D Wood, MS, PHD** Assistant Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)

MS Washington Univ in St. Louis 2008

BS Saint Louis University 2005

BS Washington Univ in St. Louis 2009

PHD Washington Univ in St. Louis 2009

**Yan Yan, MHS, MD** Professor of Surgery (Public Health Sciences) (primary appointment)

**Professor of Biostatistics**

MHS Johns Hopkins University 1995

MD Nanjing Medical University 1983

**William D Yates, MD** Instructor in Clinical Surgery (General Surgery) (primary appointment)

MD Northwestern University 1985

BA Northwestern University 1983

**Robert A Young, MD, MS, JD** Instructor in Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)



MD Ohio State University 1978

MS Ohio State University 1975

BA University of Michigan 1973

JD Saint Louis University 1997

**Alan Zajarias, MD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Surgery (Cardiothoracic Surgery)**

MD National Autonomous U of Mex 2000

**Mohamed A Zayed, PHD, MD** Assistant Professor of Surgery (General Surgery) (primary appointment)

BS University North Carolina 2002

PHD University of North Carolina 2007

MD University of North Carolina 2009

**Darryl Adam Zuckerman, MD** Assistant Professor of Radiology (primary appointment)

**Assistant Professor of Surgery (General Surgery)**

MD State Univ of NY Syracuse 1983

BA New York University 1979

No entries found

## Policies

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The information provided here is intended to assist university students, faculty and staff in locating university policies related to the educational mission. These policies, procedures and guidelines exist to assist Washington University students, faculty and administrators in doing the business of Washington University in St. Louis in ways that are effective, consistent and compliant and to provide a safe, effective and supportive environment in which to learn, teach and work.

## Washington University Policies

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Organized here are the university-wide policies, procedures and guidelines available to

assist School of Medicine students, faculty, staff and administrators in doing the business of Washington University in St. Louis in ways that are effective, consistent and compliant. Additional university-wide policies are available on the [Washington University website](#).

## Non-Discrimination Statement

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Washington University encourages and gives full consideration to all applicants for admission, financial aid, and employment. The University does not discriminate in access to, or treatment or employment in, its programs and activities on the basis of race, color, age, religion, sex, sexual orientation, gender identity or expression, national origin, veteran status, disability or genetic information. Inquiries about compliance should be addressed to the University's Vice Chancellor for Human Resources, Washington University, Campus Box 1184, One Brookings Drive, St. Louis, MO 63130. The School of Medicine is committed to recruiting, enrolling and educating a diverse student body.

## Sexual Harassment Policy

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[Washington University's Sexual Harassment Policy](#) is available on the Human Resources website.

# Drug and Alcohol Policy

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Washington University's [Drug and Alcohol Policy](#) is available on the Human Resources Website.

# Discriminatory Harassment Policy

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Washington University's [Discriminatory Harassment Policy](#) is available on the Human Resources website.

# HIPAA Policies

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Washington University's [Health Insurance Portability and Accountability Act \(HIPAA\) Policies](#) are available on the Information Security & HIPAA Privacy website.

# Computer Use Policy

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[Washington University's Computer Use Policy](#) is available in the Compliance and Policies section of the university's website.

## Academic Integrity Policy for Graduate Students

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The [Academic Integrity Policy for Graduate Students Policy](#) is available on the Graduate School of Arts & Sciences website.

## Disability Resource Center

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Learn about [disability resources at Washington University](#) on the Cornerstone Center for Advanced Learning website.

## Policy Governing Alcohol Service at Events Sponsored by Graduate Student Organizations

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The [Policy on Alcohol Service at Graduate Student Events](#) is available on the Professional and Graduate Student Coordinating Committee website.

## Policy on Consensual Faculty-Student Relationships

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The [Policy on Consensual Faculty-Student Relationships](#) is available on the Compliance and Policies section of the Washington University website.

## University Judicial Code

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The [University Judicial Code](#) is available in the Policies section of the Washington University website.

## Washington University School of Medicine Policies

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Washington University School of Medicine is committed to providing a safe,

professional and supportive environment in which to learn. The policies organized here pertain to professionalism, appropriate conduct and student rights. They exist to protect students and employees as they conduct their daily responsibilities.

# Policies Related to Professionalism and Conduct

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[Research Integrity Policy](#)

[Policy Against Abusive Conduct](#)

[Guidelines for Professional Conduct in Teacher/Learner Relationships and Policy Against Medical Student Mistreatment](#)

[Tobacco-Free Policy](#)

## Research Integrity Policy

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[<< Back to Policies Related to Professionalism and Conduct](#)

Allegations of breach of research integrity policy are the primary responsibility of the Research Integrity Committee of the School of Medicine. Complaints regarding students enrolled for the M.D. degree will be directed promptly to that committee. The

Research Integrity Committee will promptly investigate the charges and report its conclusions and recommendations to the Dean, who will refer the issue to CAPES as a breach of professional integrity if further action is warranted.

For further information, visit the [Research Integrity Policy](#) posted on the Washington University website.

## Policy Against Abusive Conduct

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<< Back to [Policies Related to Professionalism and Conduct](#)

Please visit the Human Resources website for the [Policy Against Abusive Conduct](#).

## Guidelines for Professional Conduct in Teacher/Learner Relationships and Policy Against Medical Student Mistreatment

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<< Back to [Policies Related to Professionalism and Conduct](#)

Washington University School of Medicine Guidelines for Professional Conduct in Teacher/Learner Relationships and Policy against Medical Student Mistreatment.

## I. Preamble

The goal of the Washington University Medical Center is to provide patient care, medical education, and biomedical research of the highest quality. Accomplishing this goal depends in part on an atmosphere of mutual respect and collegiality among all those who work and study here. The current document focuses on the special issues presented by the teacher/learner relationship, and applies to all years of the medical school curriculum.

## II. The Teacher and Learner Relationship

Effective learning is possible only in an environment where students can trust their teachers to treat them fairly and with respect. For purposes of this policy, a teacher shall be defined as any person subject to School of Medicine policies, such as a member of the School of Medicine faculty, to whom a student is assigned during a course or clinical rotation. A teacher may also be defined as an attending physician, fellow, resident, research mentor, student, nurse or other person charged with supervising the education of a student.

One manner in which the teacher/learner relationship is unique is that students may be vulnerable, depending on many of their teachers for evaluations and recommendations. In addition, medical education includes mastering not just pathophysiology but also the essentials of professional behavior, as set forth in our [Guiding Principles of Professionalism](#).

We also recognize that students learn professional behavior primarily by observing the actions of their teacher role models. Unprofessional, offensive, disrespectful or abusive behavior by teachers is antithetical to standards of professional conduct that medical students are expected to master. These behaviors by teachers may also be self-perpetuating, as students come to believe that such behavior is appropriate when they assume the role of teacher. As we strive to create an environment of mutual respect, all faculty, staff and students are expected to abide by the [Policy Against Abusive Conduct](#).



Behaving in ways that embody the ideal student-teacher relationship fosters respectful behavior, minimizes the likelihood of student mistreatment, and optimizes the educational experience for students. The following practices are examples of ways in which teachers and learners can encourage a positive learning environment conducive to the exchange of ideas among all who participate in the learning process:

### ***A. Teachers***

- Be prepared and on time.
- Provide learners with most current materials.
- Treat students fairly, respectfully, and without bias related to their race, color, age, religion, sex, sexual orientation, gender identity or expression, national origin, veteran status, disability or genetic information.
- Give students timely, constructive and accurate feedback.
- Distinguish between the Socratic method, where insightful questions are a stimulus to learning and discovery, and over-aggressive questioning, where detailed questions are repeatedly presented with the endpoint of embarrassment or humiliation of the student.

### ***B. Learners***

- Treat teachers, peers, patients and members of the health care team fairly, respectfully, and without bias related to their race, color, age, religion, sex, sexual orientation, gender identity or expression, national origin, veteran status, disability or genetic information.
- Treat fellow students as colleagues, not competitors.
- Take responsibility for maximizing your educational experience by addressing conflicts and discomforts which may impede your learning.
- Be an enthusiastic learner.
- Be trustworthy and honest.

- Be prepared and punctual
- Know your limitations and ask for help when needed.
- Put the patients welfare first and ahead of your educational needs
- Know and understand your patients' medical history, diagnoses, treatment and status.
- Take the initiative to educate yourself about your patients' illness.
- Be compassionate.
- Respect patients' privacy.

### **III. Student Mistreatment**

The School of Medicine prohibits behavior that is abusive or which mistreats students or others in the learning environment. We take issues of mistreatment seriously and aspire to a culture of zero tolerance for instances of abuse, mistreatment, and disrespect. WUSM is committed to maintaining an environment free from discrimination, harassment of any type, and abuses of authority. The Association of American Medical Colleges (AAMC) has defined Mistreatment in previous Graduation Questionnaires as follows: Mistreatment arises when behavior shows disrespect for the dignity of others and unreasonably interferes with the learning process. It can take the form of physical punishment, sexual harassment, psychological cruelty, and discrimination based on race, religion, ethnicity, sex, age or sexual orientation. The behaviors listed below are provided as examples of mistreatment and offensive behavior by the AAMC. However, we recognize that there are nuances to interpersonal interactions. Students who feel they may have been subjected to mistreatment are encouraged to follow the procedures outlined in Section IV of this policy. The goal of this process is to provide the best learning environment possible.

#### ***Examples of Potential Mistreatment***

- Public humiliation

- Threats of physical harm
- Physical harm (e.g., hit, slapped, kicked)
- Requirements to perform personal services (e.g., shopping, babysitting)
- Offensive sexist remarks/names
- Denial of opportunities for training or rewards based solely on gender, race, sexual orientation or ethnicity
- Lower evaluations or grades because of gender, race, sexual orientation or ethnicity rather than performance
- Unwanted sexual advances
- Being asked to exchange sexual favors for grades or other rewards
- Racially or ethnically offensive remarks/names
- Offensive remarks/names related to sexual orientation

#### **IV. Steps for Reporting Student Mistreatment**

The University takes allegations of student mistreatment by faculty, residents, staff or other students very seriously and strongly encourages its faculty, staff, and students who are witness to such conduct to report it immediately, without fear of retaliation, to any of the following three deans: the Senior Associate Dean for Education, the Associate Dean for Student Affairs, or the Associate Dean for Medical Student Education. These individuals will offer guidance and support to the student and discuss informal and formal options to resolve the matter, which are described below. (See section VI. Additional Resources).

Students may also consult with the Student Ombudsperson as a confidential resource. The Student Ombudsperson can provide guidance as well as mediation, directly or indirectly, between the student and the offender.

Students may also choose to report student mistreatment via a link on the Canvas learning management system student commons homepage or via the Oasis

curriculum management system. The end of clerkship and elective surveys have questions regarding mistreatment where incidents can be reported in real time. These reports are confidential. The Office of Medical Student Affairs will receive all reports and will follow up with the reporting individual, if identified, to offer guidance, support and options for resolution to the student. If sufficient information is provided, the report will be passed on to the clerkship director and department chair after student evaluations are finalized for the course or clerkship in which the event occurred. Reports will be reviewed quarterly by a Learning Climate Committee. This committee will be chaired by the Associate Dean of Student affairs and will consist of a medical student, advisory dean or deans, the director of GME (or designee), a hospital staff member, and the student ombudsperson. Aggregate reports will generally be forwarded to department chairs quarterly for monitoring purposes.

***Confidentiality and Anonymous Reporting:***

The University will strive to protect, to the greatest extent possible, the confidentiality of persons reporting mistreatment and of those accused of mistreatment. Because the University may have certain legal obligations, e.g. in response to allegations of sexual harassment, the University cannot guarantee complete confidentiality where it would conflict with the University's obligation to investigate meaningfully or, where warranted, take corrective action. Even when some disclosure of the University's information or sources is necessary, it will be limited to the extent possible. The University will keep confidential all records of complaints, responses and investigations, to the extent permitted by law.

If the student is not comfortable reporting to one of the individuals identified above, the student may choose an intermediary that can then directly communicate the incident with these individuals while maintaining anonymity. Students may also submit anonymous reports via the Oasis curriculum management system in real time or when filling out course evaluations. Anonymous reports will be shared with the clerkship director and department chair.

**If a student insists on confidentiality or anonymity, the University may be limited in**

**its ability to respond and take action with respect to the report.**

### *Bias Report and Support System (BRSS)*

In addition, Washington University developed a system through which students, faculty, staff and community members who have experienced or witnessed what they perceive as incidents of bias, prejudice or discrimination involving a student can report their experiences to the university's Bias Report and Support System (BRSS) team. If, for any reason, students want to provide identifying information when filing a report, they have the option to fill out the **BRSS form** anonymously online by selecting the "For Information Only" option. Please note that a brief description of the incident will be included in the quarterly summary report. If an individual submitting a report selects the "For Support and Referral" option, a member of the BRSS team will meet with the individual and refer that person to the appropriate university policy and administrator. *Note that these non-anonymous BRSS reports on the WUSM campus are sent to the Assistant Provost, who assists WUSM students in navigating their programs and connects them with the relevant policies and contacts within those programs.*

## **V. Informal and Formal Options for Possible Resolution**

### **Informal Options**

If you feel comfortable dealing with the situation without assistance, you can communicate either orally or in writing with the person whose behavior is offensive. The most useful communication will have three parts:

1. A factual description of the incident(s) including date, time, place and specific action.
2. A description of the writer's feelings, including any consequences of the incident.
3. A request that the conduct cease.

Frequently, such a communication will cause the offensive behavior to stop,

particularly when the person may not be aware that the conduct is offensive.

If you would like to proceed informally, but with the assistance of someone else, you may:

1. Ask the person's supervisor, e.g., department chair, dean, director, housing office representative, academic advisor, or a trained WUSM faculty member to speak to the person whose behavior was offensive. The purpose of such conversations is the cessation of offensive behavior. You should note that these individuals may be obligated to report the incident or conduct you disclose to the University for further investigation and action.
2. Consult with one of the Advisors listed in Additional Resources who are specifically charged with responding to mistreatment inquiries and complaints. These individuals are thoroughly familiar with WUSM's mistreatment policy and are available to consult with victims, those accused of engaging in mistreatment, witnesses and supervisors of parties to a complaint. They can provide information about informal actions that might remedy the situation and discuss University policies and procedures for resolving complaints.
3. Ask the Advisor to mediate or arrange for mediation. Mediation is discussion and negotiation, with the help of a third party, designed to permit the parties to reach a mutually agreeable resolution of a dispute. If a person complaining of mistreatment seeks mediation, the person accused of mistreatment agrees, and the Advisor concludes that the mediation would be consistent with the University's legal obligations in responding to and preventing discrimination or discriminatory harassment, then the Advisor may mediate or arrange for mediation.

## **Formal Options**

Should informal resolution be unsuccessful or inappropriate under the particular circumstances alleged, the student will be referred to the applicable University policies and procedures for filing a formal complaint. The University will initiate an

investigation into the allegations under the appropriate policy and take disciplinary action as contemplated by the applicable procedures. For example, if a student asserts that a faculty member has engaged in mistreatment in the form of sexual harassment, the University's Sexual Harassment Policy would be followed.

## **VI. Education**

The School of Medicine will provide ongoing education to promote a respectful and positive learning environment. The purpose of this education will be to provide definitions and standards for an optimal learning environment, to inform students and educators of policies and processes for reporting offensive behavior and learner mistreatment. This educational information will be provided by the Learning Climate Committee. The policy will be posted in the Bulletin, clerkship and course master handbooks and will be reviewed with students at orientations. In addition, educational sessions may be provided at departmental and division meetings, resident sessions, staff meetings and curriculum committee meetings.

## **VII. Additional Resources**

### **List of Advisors**

Tessa Madden, MD, MPH

Evan Schwarz, M.D.

Yumi Turmelle, MD, MPH

Senior Associate Dean for Education

Associate Dean for Medical Student Education

Associate Dean for Student Affairs

Student Ombudsperson (Confidential Advisor)

## Related Policies

[Washington University Discrimination and Discriminatory Harassment Policy](#)

[Washington University Sexual Assault Policy](#)

[Washington University Sexual Harassment Policy](#)

[Washington University School of Medicine Abusive Conduct Policy](#)

[WUSTL/Diversity Bias Report Form](#)

[Assessing Academic Achievement and Professionalism \(MD Program\)](#)

# Tobacco-Free Policy

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[<< Back to Policies Related to Professionalism and Conduct](#)

Please visit the [Healthy Living website](#) for the [Tobacco-Free Policy](#).

# Policies Related to Student Rights, Procedures and Services

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[Students with Disabilities Policy](#)



[Policy on Student Rights Under Family Educational Rights and Privacy Act \(FERPA\)](#)

[Student Academic Records and Transcripts](#)

[Bloodborne Pathogens Policy](#)

[Liability Insurance](#)

# Students with Disabilities Policy

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[<< Back to Policies Related to Student Rights, Procedures and Services](#)

It is the goal of Washington University to assist students with disabilities in removing the barriers their disabilities may pose and provide support in facing the challenge of pursuing an education at Washington University.

Washington University recognizes and accepts its professional, legal and moral responsibility to avoid discrimination in the acceptance and education of qualified students with disabilities and to provide reasonable accommodations to such students consistent with the principles embodied in the law. These guidelines apply to students seeking admittance as well as to those who become disabled while they are enrolled. Washington University makes every effort to insure that all qualified applicants and students can participate in and take full advantage of all programs and opportunities offered within the University. Washington University encourages and gives full consideration to all applicants for admission. Washington University does not discriminate in access to its programs and activities on the basis of age, sex, sexual orientation, race, disability, religion, color, or national origin.

All students in educational programs at the School of Medicine, those seeking

admittance, as well as those who become disabled while they are enrolled, must possess those intellectual, ethical, physical, and emotional capabilities required to undertake the full curriculum and to achieve the levels of competence required by the faculty and the profession.

In this regard, we will be guided by the principles outlined below.

## **A. Responsibilities of the student**

### **1. Disclosure of disability**

It is the responsibility of a student who has a disability to disclose it and request accommodation from the Dean for Student Affairs or Program Director. The School encourages students with disabilities to identify themselves as early as possible in order to optimize the mobilization of resources and available accommodations.

### **2. Diagnosis of disability**

Students who are in academic difficulty that might be a consequence of a disability are encouraged to avail themselves of diagnostic services that may lead to accommodations. Furthermore, such students are encouraged to explore with the administration of their academic unit the possibility of a disability if the inquiry is relevant to educational performance and there is evidence of educational performance problems.

### **3. Documentation of disability and request for accommodation**

The disability, its functional impact and requested accommodation(s) must be documented. If the student discloses a disability and requests accommodation, the School requires documentation of the disability from a qualified professional. The student is financially responsible, unless there are extraordinary and compelling circumstances, for the costs related to the documentation by an appropriately educated and trained professional. The information provided by the professional must be factual, objective and technically valid, and must establish clearly that the disability substantially limits one or more of the student's major life activities. The professional(s) who evaluate the student should identify options for management of the disability. Based on this

information, the affected student then should request in writing the accommodations which he or she requests be made. The Dean for Student Affairs or Program Director and the student should work together to arrive at reasonable accommodations. The School may also require a second expert opinion for which the School may be financially responsible under extraordinary and compelling circumstances. The School reserves the right to request as much detailed information from the student and/or the professional(s) as is necessary to assess the scope of the disability and/or the reasonable accommodations.

## **B. Responsibilities of the school**

### **1. Review of requests for accommodation**

Requests for accommodations will usually be reviewed by the Dean for Student Affairs or Program Director. An ad hoc assessment team may be convened which may include the Dean for Student Affairs, the educational Program Director (or curriculum supervisor), selected members of the Disabilities Oversight Committee (See Section B.5 below) and other consultants as appropriate to the individual circumstances. The assessment team usually should include: (1) individuals who understand the curriculum in question; (2) a person who is knowledgeable about the Americans with Disabilities Act; (3) a person with authority to authorize accommodations and cause them to be implemented.

### **2. Responsibilities for accommodation**

The School of Medicine is responsible for the costs incurred in making accommodations which are not unduly burdensome or unreasonable. Accommodations may include but may not be limited to academic modifications which do not fundamentally alter the nature of the program, auxiliary services, modifications of the circumstances and methods of qualification examinations, classroom modifications and others. The School's responsibility to accommodate ends when a student with a disability: (1) refuses reasonable accommodations; (2) is unable, with reasonable accommodations, to fulfill the essential requirements of the program; (3) fulfills the essential requirements and graduates; or (4) transfers to another institution. The School is not required to

provide an accommodation which fundamentally alters the nature of the program, is unduly burdensome or is unreasonable.

### **3. Confidentiality**

Information pertaining to a student's disability and accommodations will be maintained in a file that is kept confidential and separate from the student's academic record. Appropriate faculty, staff and administrators may be informed regarding the disability, limitations, restrictions, and accommodations when they have a need to know such information.

### **4. Application of the CAPES policies**

The policies and procedures of the School regarding promotion and retention are contained in the CAPES Policies for each academic unit. These policies and procedures govern the relationship between the School and all students, including those with disabilities. The School is not obligated to retain a student with a disability who poses a significant threat to the health or safety of others when there is no reasonable accommodation that either eliminates or sufficiently reduces that risk.

### **5. Disabilities Oversight Committee**

There shall exist a standing Disabilities Oversight Committee composed of members designated by the Dean of the School of Medicine. The committee shall have the following responsibilities: periodic review of requests for accommodations and accommodations granted, provide recommendations regarding accommodations for disabilities, to serve as requested on disability appeals committee. This group serves as a resource regarding issues of significance to the institution and to students with disabilities.

## **C. Appeals**

A student with a disability who believes that a request for accommodation has been improperly denied or who perceives that he or she has been discriminated against on the basis of a disability should direct his or her appeal to the Dean of the School of Medicine. As needed, the Dean of the School of Medicine may assemble an advisory group to review appeals and make recommendations. This group may include, but

may not be limited to, the following: the chair of the committee that oversees academic evaluation and advancement of students for the particular academic unit, students, and/or representatives of the Disabilities Oversight Committee.

# Policy on Student Rights Under Family Educational Rights and Privacy Act (FERPA)

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<< Back to [Policies Related to Student Rights, Procedures and Services](#)

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

1. **The right to inspect and review the student's education records within 45 days of the day the University receives a request for access.** Students should submit to the registrar, dean, head of the academic department or other appropriate official, written requests that identify the record(s) they wish to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. **The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.** Students may ask the University to amend a record that they believe is inaccurate or misleading. They should write the University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or

misleading. If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. **The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.** One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if that official needs to review an education record in order to fulfill his or her professional responsibility. Upon request, the University discloses education records without consent to officials of another school in which a student seeks or intends to enroll.
4. **The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA.**

The name and address of the Office that administers FERPA is:

Family Policy Compliance Office  
U.S. Department of Education  
400 Maryland Avenue, S.W.  
Washington, D.C. 20202-4605

# Student Academic Records and Transcripts

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<< Back to [Policies Related to Student Rights, Procedures and Services](#)

The Family Educational Rights and Privacy Act of 1974 (FERPA) provides current and former students of the University with specific rights of access to and control over their student record information. In compliance with the statute, appropriate federal regulations, and guidelines recommended by the American Association of Collegiate Registrars and Admission Officers (AACRAO), the University has adopted procedures that implement these rights.

A copy of the University policies regarding educational records and the release of student record information may be obtained [online](#).

Transcript requests may be made in person or by writing to the Registrar's Office. The written request must include your name, signature, date of birth and approximate dates of attendance. Either fax to (314) 362-4658 or a scanned request with signature can be sent via email to [wusmregistrar@wustl.edu](mailto:wusmregistrar@wustl.edu). Note: The School of Medicine does not presently charge for transcripts.

## Bloodborne Pathogens Policy

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<< Back to [Policies Related to Student Rights, Procedures and Services](#)

In 1992, the Executive Faculty of the School of Medicine formally adopted a Medical

Campus policy on Human Immunodeficiency Virus (HIV) and Hepatitis B Virus (HBV) infections. This policy was updated in 2001 to include Hepatitis C Virus (HCV) infections. The purpose of the policy is to provide guidelines to prevent or reduce the transmission of these infectious agents between patients and health care workers (HCWs). It is an ethical and moral obligation for the student/employees to report BBP infections.

The policy deals with 1) the University's responsibilities to infected patients (including obligation to treat, confidentiality and appropriate serologic testing), 2) appropriate health and safety precautions and procedures for faculty, students and staff (including compliance with CDC guidelines, blood and body fluid precautions and handling of needles or sharp instruments), and 3) the University's responsibilities to faculty, staff, or students who are infected with HIV, HBV, or HCV infection – including admission to medical school, participation in clinical rotations, serologic testing confidentiality and medical treatment.

The policy makes a distinction between Category I activities – those involving no risk of transmission from infected HCWs to patients, such as routine history/physical examinations, minor surface suturing, elective phlebotomy; and Category II – procedures for which bloodborne virus transmission is theoretically possible but unlikely such as minor local procedures, central venous lines, other specialty procedures; and Category III – procedures for which there is definite risk of bloodborne virus transmission such as General Surgery, CT surgery, Neurosurgery, etc. and non-elective procedures performed in the Emergency Department.

In 2012 a committee was formed including representation from Administration, Legal – Risk Management, Infectious Disease, Occupational Health, and the Director of Student Health. The SHS Director meets with the infected student and discusses the need for restricted activities and proper follow-up.



# Liability Insurance

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## Standards for Satisfactory Academic Progress for Financial Aid Eligibility

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When a student is enrolled in the curriculum of the MD program, the following policy applies regarding standards for Satisfactory Academic Performance (SAP).

NOTE (for Non-MD students): Students enrolled in other School of Medicine degree programs should refer to the policies of their primary program (**Applied Health Behavior Research, Audiology and Communication Sciences, Biostatistics, Clinical Investigation, Genetic Epidemiology, Occupational Therapy, Physical Therapy, and Population Health Sciences**) or through the links in the Admission section.

Federal law and regulations require that all students receiving financial assistance from Federal Title IV funds maintain Satisfactory Academic Progress (SAP). This policy presents the standards adopted by the Washington University School of Medicine and applies to all MD students.

Annually, at the end of each spring term, the School of Medicine at Washington University in St. Louis evaluates SAP. If a student is not maintaining progress, they will be notified by the Committee on Academic and Professional Evaluation of Students (CAPES) and the Director of Financial Aid and will be ineligible, or 'suspended', for federal aid for future terms unless you appeal your status and it is approved by CAPES and the Director of Financial Aid.

In order to be compliant in maintaining SAP, and thus eligible for financial aid, students must be satisfactorily progressing toward their academic objectives. Federal regulations require the following measurements for determining SAP: time frame and quantitative/qualitative requirements.

### **Time frame requirement:**

The Maximum Time Frame of full-time enrollment for completion of each program is as follows:

- Four-year MD program: 6 years
- Five-year MD program: 7.5 years
- MA/MD program: 7.5 years (or nine years if a two-year MA is pursued)

Periods of non-enrollment are NOT counted in the measurement of satisfactory academic progress but all periods of attendance, regardless of whether or not the student received Title IV aid, are counted.

This policy is applied in the context of each individual student's enrollment status in order to accommodate the student who does not enroll on a full-time basis. For example, if a student enrolls in a four-year program, the full-time student would meet the 150 percent maximum rule (as per Title IV guidelines) after six years of full-time enrollment, and the half-time student is expected to complete in twelve years. If a student vacillates between full-time and half-time enrollment, that student would have a maximum time frame between six and 12 years, and the maximum time frame for that student would be continuously adjusted.

If a student reaches a point where they cannot complete their program within the 150% maximum, the student becomes ineligible for aid.

### **Quantitative/qualitative requirement:**

Academic requirements for the MD degree include the satisfactory completion of the

curriculum designated by the faculty. The progress of each student working toward an MD degree is monitored carefully by the Committee on Academic and Professional Evaluation of Students (CAPES). Refer to the Assessing Academic Achievement section in the Bulletin under 'Policies' for more information.

A student failing to meet the standards of satisfactory progress as determined by CAPES shall be placed on financial aid suspension. The student will be eligible for aid when they achieve SAP or the student may appeal. Students who choose to appeal must state the reasons for failing to meet SAP (e.g. injury/illness of the student, death in the family or other special circumstance) and what has changed in the student's situation so that he or she can now make SAP. If the student successfully appeals, the student will be placed on financial aid probation and may receive financial assistance for one semester. At the conclusion of this period, the student must have achieved compliance with each standard or be progressing per their individual academic plan to receive additional aid. A student who does not achieve compliance with each standard by the conclusion of the probationary period is suspended from financial aid eligibility.

The Office of Student Financial Aid must notify a student of implementation of probationary status and/or suspension.

The Director of Student Financial Aid shall have primary responsibility for enforcement of this policy. The Office of Student Financial Aid shall ascertain at the time of each disbursement of funds and prior to certification of a financial aid application that the student is in compliance with the policy.

## **Standards for Satisfactory Academic Progress for Financial Aid Eligibility: MD**

# Students

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When a student is enrolled in the curriculum of the MD program, the following policy applies. Students enrolled in other School of Medicine degree programs should refer to the policies of their primary program through the links to the left.

Federal law and regulations require that all students receiving financial assistance from Federal Title IV funds maintain satisfactory academic progress (SAP). This policy presents the standards adopted by the Washington University School of Medicine and applies to all MD students.

The School of Medicine at Washington University in St. Louis evaluates SAP annually, at the end of each spring term. If you are not maintaining progress, you will be notified by the Committee on Academic and Professional Evaluation of Students (CAPES) and the Director of Financial Aid and will be ineligible, or 'suspended', for federal aid for future terms unless you appeal your status and it is approved by CAPES and the Director of Financial Aid.

In order to be considered to be maintaining SAP, and thus eligible for financial aid, students must be satisfactorily progressing toward their academic objectives. Federal regulations require three measurements for determining SAP; qualitative, quantitative and timeframe.

The Maximum Time Frame of full-time enrollment for completion of each program is as follows:

- Four-year MD program: 6 years
- Five-year MD program: 7.5 years
- MA/MD program: 7.5 years (or nine years if a two-year MA is pursued)

Periods of non-enrollment are NOT counted in the measurement of satisfactory academic progress but all periods of attendance, regardless of whether the student

received Title IV aid, are counted.

This policy is applied in the context of each individual student's enrollment status in order to accommodate the student who does not enroll on a full-time basis. For example, if a student enrolls in a four-year program, the full-time student would meet the 150 percent maximum after six years of full-time enrollment, and the half-time student is expected to complete in twelve years. If a student vacillates between full-time and half-time enrollment, that student would have a maximum time frame between six and 12 years, and the maximum time frame for that student would be continuously adjusted.

If you reach a point where you cannot complete your program within the 150% maximum, students become ineligible for aid.

### **Quantitative/qualitative requirement:**

Academic requirements for the MD degree include the satisfactory completion of the curriculum designated by the faculty. The progress of each student working toward an MD degree is monitored carefully by the Committee on Academic Evaluation of Students (CAES). Refer to the Assessing Academic Achievement section in the Bulletin under 'Policies' for more information.

A student failing to meet the standards of progress as determined by CAPES shall be placed on financial aid suspension. The student will be eligible for aid when they achieve SAP or the student may appeal. Students who choose to appeal must state the reasons for failing to meet SAP (e.g. injury/illness of the student, death in the family or other special circumstance) and what has changed in the student's situation so that he or she can now make SAP. If the student successfully appeals, the student will be placed on financial aid probation and may receive financial assistance for one semester. At the conclusion of this period, the student must have achieved compliance with each standard or be progressing per their individual academic plan to receive additional aid. A student who does not achieve compliance with each standard by the conclusion of the probationary period is suspended from financial aid eligibility.

The Office of Student Financial Aid must notify a student of implementation of probationary status and/or suspension.

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## Other Policies — School of Medicine

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[Needle Stick/Human Blood and Body Fluid Exposure Policy](#)

[Pharmaceutical and Medical Device Industry Policy](#)

[Student Constitution and Bylaws](#)

## Needle Stick/Human Blood and Body Fluid Exposure Policy

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[<< Back to Other Policies](#)

All exposures to human blood and body fluids will be reported immediately to the Health Service. The Health Service maintains a 24 hour reporting system. During

working hours, 8 a.m. – 4 p.m., the office can be reached at 362-3523 or 362-3528.

After hours the Health Service can be contacted through a digital beeper at 871-2966.

## Procedure

Cleanse wound immediately with soap and water. If a mucous membrane has been exposed, rinse with copious amounts of water.

1. Identify the source of exposure.
2. Call the Health Service for further instructions. Source patient will be evaluated for HIV, Hepatitis B and Hepatitis C. The responsibility of acquiring patient consent for testing will be the responsibility of the physician in charge of the case. The employee will notify the physician. All source patient charges will be the responsibility of the Health Service.
3. Complete the Injury/Exposure Report form
4. Employees and students will report to the Health Service for follow-up. Individuals will be evaluated for:
  1. HIV or Serum Sample Save
  2. Hepatitis B Vaccination
  3. HbsAB (+test in past eliminates further testing)
  4. HCV
  5. Td
  6. PEP Prophylaxis

## Human blood and body fluid exposures

### Procedure

1. Clean area with soap and water.

2. Call Employee Health (362-3528) or Student Health (362-3523) or after hours call the Digital Beeper (871-2966).
3. Keep source or patient available for HIV, HbsAg, and HCV testing.
4. Follow the instruction given by the Health Service. Complete an incident report.

Always wear Personal Protective Equipment (PPE)!

## Pharmaceutical and Medical Device Industry Policy

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<< Back to [Other Policies](#)

For the [Pharmaceutical and Medical Device Industry Policy](#), please visit the Faculty Practice Plan website.

## Student Constitution and Bylaws

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## MD Program Policies

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Provided here are policies related to students in the medical degree program. Included are policies covering professionalism, student evaluation, absences and leaves, payment and technical standards. Additional School of Medicine policies are available within the [Washington University School of Medicine](#) section.

# Assessing Academic Achievement and Professionalism

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[Committee on Academic and Professional Evaluation of Students \(CAPES\)](#)

[The Academic and Professional Evaluation of Students](#)

[Grading System](#)

[Individual Study Program](#)

[Tutorial Assistance Program](#)

[Indications for Review of Academic Performance](#)

[Procedures Concerning Review of Academic Performance](#)

[Indications for Review of Professional Integrity](#)

[Procedures Concerning Review of Professional Integrity](#)

[Appeals Process for the CAPES Decisions](#)

# Committee on Academic and Professional Evaluation of Students (CAPES)

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<< [Back to Assessing Academic Achievement and Professionalism](#)

## Responsibility of the committee

Overall academic and professional evaluation of students at the Washington University School of Medicine will be made by the Committee on the Academic and Professional Evaluation of Students (CAPES). The deliberations of the CAPES are generally positive in approach and are committed to the ultimate aim of assisting students to successfully complete the courses of study required by the School. The principle that careful selection of students will minimize attrition from the School is strongly endorsed by the CAPES. The CAPES has several important roles, including but not limited to:

- A. At the annual end-of-year CAPES meeting, the Committee will vote to recommend promotion of students who have successfully completed all of the requirements of the current academic year to the studies of the subsequent year.
- B. Recommending to the Executive Faculty those students who have successfully completed all the prescribed requirements of the School and are qualified to

receive the Doctor of Medicine degree;

C. Requiring entry of a student into an individualized program of study (ISP);

D. Deciding upon matters of disciplinary action, including instances of unprofessional behavior, brought to the CAPES; and

E. Deciding upon matters of student status and remediation as contemplated by these procedures.

It is also the ultimate responsibility of the CAPES to decide whether each student meets the academic and ethical standards necessary to enter the profession of medicine.

The rules governing operation of the CAPES apply to students in the following categories:

A. Students who are engaged in the preclinical and clinical education requirements for the MD degree;

B. Students in dual and joint degree programs including but not limited to the MD and MPHS, the MD/MSCI, the MA/MD and the MD/PhD (MSTP) programs taking the pre-clinical or clinical portion of their MD education.

C. Students in all years of the Five Year MD program.

## **Membership of the CAPES**

### **A. Appointed and ex officio membership**

There will be 12 voting faculty members of the CAPES, and membership will be appointed for a four-year term by the Dean of the School of Medicine following

nomination of suitable individuals by the department heads and Associate Deans.

A faculty member may be reappointed to serve on the CAPES. Membership will include both clinical and preclinical departments. In addition, the CAPES membership will include, in ex officio capacity, the Registrar (non-voting) and the Associate Dean for Student Affairs (non-voting). The Senior Associate Dean, the Associate Deans for Medical Student Education, Admissions and Diversity Programs and the Director of the Student Health Service may attend the CAPES meetings as non-voting participants.

## **B. Chair**

A faculty member will be appointed by the Dean from within the CAPES committee to serve as chair. The term of the chair will be four years. The chair may be reappointed.

## **C. Guests**

1. A course master who is not a member of the CAPES but who has submitted a Fail/Incomplete grade for a student which is to be discussed at a meeting of the CAPES will be present at the meeting to provide information concerning the students performance. Alternatively, a course master may send a designated representative or may submit additional information in writing. In the event that a course master or designated representative is not present or sufficient information has not been forwarded, final action for that student will be deferred until adequate information concerning the students performance is available.
2. Similarly, when the committee is addressing issues of professionalism, the individual filing the professionalism concern form will be present for the meeting or in some instances may instead be allowed to submit information in writing.

Any faculty, administrator or staff may be invited at the discretion of the chair.

## Meeting frequency

The CAPES meetings must occur in a timely manner after final examinations or re-examinations (i.e., as soon as practical after grades are submitted to the Registrar). Generally grades will be submitted to the Registrar within 10 days of the completion of an examination. A meeting of the Committee also may be convened at any time such that timely review of a matter to be determined by CAPES and action thereupon is provided.

## Quorum for the CAPES meetings

Seven voting members must be present to consider academic or disciplinary actions.

## Procedures for making changes to this document

Major revisions in this document will be approved by the Academic Affairs Committee.

# The Academic and Professional Evaluation of Students

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<< Back to [Assessing Academic Achievement and Professionalism](#)

In order to continue their studies at the Washington University School of Medicine, students must demonstrate the ability to synthesize and apply knowledge and the capability of becoming a safe and effective physician. In addition, they must demonstrate the principles of professionalism including sound judgment, honesty and integrity, responsibility, a sensitivity and compassion for individual needs, and compliance with applicable laws, policies and regulations. Serious or repeated breaches of these principles will be referred to the CAPES for review. See [Guiding](#)

# Grading System

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<< Back to [Assessing Academic Achievement and Professionalism](#)

## A. First and Second year

Courses in the first-year and second-year curriculum are evaluated on a Pass (P) or Fail (F) basis. For purposes of the final official grade records of the School of Medicine, grades used for the first year and second year are:

- P = Pass, indicating satisfactory performance
- F = Fail, any grade of F remains on the students academic record. When the course is repeated or remediated the new grade will appear as a separate entry in addition to the failing grade.
- L = Successful audit
- NG = Course credit earned, students not graded
- W = Withdrawal from a course
- Z = Unsuccessful audit

Valid temporary grades include:

- E = Temporary grade, makeup of failed exam pending
- I = Incomplete, temporary grade pending completion of course requirements, replaced with an F if not removed within one year. In rare instances, the CAPES

may grant an extension. Incomplete indicates that, because of a delay excused by the course master, the student has not completed the requirements to pass a course.

## B. Subsequent years

For purposes of the final official grade records of the School of Medicine, the following grades are used for subsequent years:

- H = Honors, reflecting a truly outstanding performance
- HP = High Pass, awarded for excellent/very good work
- P = Pass, indicating satisfactory performance
- F = Fail, any grade of F remains on the students academic record. In clinical clerkships that have a subject examination, students must score at or above the 10th percentile of the national pool of students taking the examination to pass the clerkship. If a student fails a shelf examination for the second time in a third year clerkship an F is recorded on the permanent record.

When the course is repeated or remediated the new grade will appear as a separate entry in addition to the failing grade.

- Cr/NCr = Credit/No Credit for select second and fourth-year courses
- L = Successful audit
- NG = Course credit earned, students not graded
- W = Withdrawal from a course
- Z = Unsuccessful audit

Valid temporary grades include:

- E = Temporary grade, makeup of failed exam pending. Does not apply to block long courses in second year. In clinical clerkships that have a subject

examination, students must score at or above the 10th percentile of the national pool of students taking the examination to pass the clerkship. If a student fails the subject examination once, the grade of E will be recorded. Upon successfully retaking the subject examination the new grade will replace the grade of E on the permanent academic record. If the shelf examination is failed a second time, the grade of F is recorded on the permanent academic record.

- I = Incomplete, temporary grade pending completion of course requirements, replaced with an F if not removed within one year. In rare instances, the CAPES may grant an extension. Incomplete indicates that, because of a delay excused by the course master, the student has not completed the requirements to pass a course.

## **C. Grade reporting**

Final grades will be submitted to the Registrar by course masters within 10 working days (Monday through Friday excluding university holidays) of the final examination or final class meeting for the first two years. For third and fourth years, grades are due within 10 working days of the receipt of standardized examination scores or the last day of the rotation if no examination is given. A web-based University system, WEBSTAC, provides timely access to grades for the first two years. Grades and evaluations of student clinical performance are submitted on a standardized form and are available for review in the Office of the Registrar throughout the academic year. Final grades for the clinical clerkships and electives are recorded in the University student information system at the end of the academic year and are subsequently available on WEBSTAC and appear on the transcript.

## **D. Grade point average, class ranking and grade distributions**

The School of Medicine does not calculate grade point averages. Hours of credit appearing on the transcript reflect clock hours scheduled for the course or clinical rotation. For the purpose of residency applications only, students are placed in the upper, middle or lower third of the class according to a formula which considers weighting of courses and each academic year. This ranking is not recorded on the



permanent academic record and therefore does not appear on transcripts. It may appear in the Medical Student Performance Evaluation (MSPE)/students deans letter. At the conclusion of the academic year, when all the official grades have been received, the official transcript, in addition to listing courses and grades achieved, gives the grade distribution in each course with the exception of elective and selective courses.

## **E. Grade appeals**

A student who wishes to appeal his/her grade with the course master should file his/her request for review by completing the grade appeal form which includes the basis for the appeal. This should be filed within 10 working days after the grade is posted. If reasons beyond the students control delay the resolution of the appeal past the deadline, the Registrar must be notified so that the final transcripts, grade distributions and class rankings for match can be held pending resolution of the matter. If this notice is not received by the Registrar prior to the deadline, the new grade cannot be accepted. Students participating in the residency match should also notify the office of career counseling that a grade appeal is in process. The course master will consider the appeal. He/she will indicate the resolution of the appeal on the grade appeal form and forward it to the Registrar and Associate Dean for Student Affairs. A copy of the grade appeal form is available in the Registrars Office and is also included in this document.

**NO GRADE CHANGES ARE PERMITTED FOR THE ACADEMIC YEAR AFTER JULY 15.**

## **F. Remediation**

A. Occasionally, in order to remediate a failed course in the first or second year, students are permitted to complete equivalent coursework at other institutions with the permission of the responsible department and written notification to the Registrar.

B. When a students performance indicates review by the CAPES, with input from

course master(s) concerned, the CAPES may invoke requirements for the remediation of individual courses that are different from those determined by individual course masters concerned. In such cases, the CAPES determination will supersede the course masters as the CAPES is considering the students global academic performance and history. The CAPES may also require the student repeat an academic year or portion thereof if it is judged necessary given the academic history.

## Individual Study Program

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<< Back to [Assessing Academic Achievement and Professionalism](#)

The educational program is designed to assist the specialized needs

of all medical students in an individualized and personalized manner. Tutorial assistance is available to any student at any time as detailed below. Occasionally students who have difficulty in handling the normal academic course load will enter an Individual Study Program (ISP), requiring five years to complete rather than four years.

The following rules govern students engaged in an ISP:

A. The intent of an ISP is to optimize the prospect that the student will successfully complete the curriculum. Entry into an ISP may occur in one of three ways: 1) a student may request an ISP, or after careful consideration of the students academic performance at intervals throughout the curriculum, the CAPES may either 2) recommend or 3) require entry into an ISP.

B. The specific program of any ISP (i.e. the content and sequences

of courses) will be determined by the Associate Dean for Student Affairs with input from the student, relevant course masters and the CAPES. The specific recommendations of the CAPES will generally be adopted. The plan for execution of an ISP, once established, will be recorded in the students file in the Registrars office and a copy provided to the student.

C. Unless extenuating circumstances exist, ISP students are required to take the examinations for a particular course in their usual temporal relationship to the coursework. Requests for exceptions due to unusual circumstances should be recorded in the students file in the Office of the Associate Dean for Student Affairs. Approval of such requests is considered according to the Washington University School of Medicine Guidelines for Exam Administration found in the Policies section of the School of Medicine website.

D. In the event that a single Fail or Incomplete grade is recorded for a student after entry into an ISP, the CAPES will again review the students record. The consequences may include remediation, repeat of the course, or dismissal from the School.

E. Students on an ISP who have not successfully completed and received a grade of Pass or above in all required courses of the first- and second-year curricula by the start of the second six-week period in the year of the clinical clerkship may be dismissed from the School.

## Tutorial Assistance Program

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<< Back to [Assessing Academic Achievement and Professionalism](#)

Students experiencing difficulty in any course may request tutorial assistance. Such requests should initially be directed toward the course masters and thereafter to the Associate Dean for Student Affairs. Students who are repeating courses will be offered the opportunity for tutorial assistance. The CAPES may also require it. There is no charge to the student for tutorial assistance.

# Indications for Review of Academic Performance

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<< Back to [Assessing Academic Achievement and Professionalism](#)

## General

Indications for Academic Review refers to guidelines used at the School in the event that a student fails a course or fails to complete a course in the requisite time.

- A. In the event of any initial failure of a course offered at the School, the student will meet with the Associate Dean for Student Affairs to formulate a plan to remediate such failure, in coordination with the course master.
  
- B. If the Registrar has recorded a Fail or Incomplete grade in two or more courses in a single year or cumulatively three courses between years, the students academic performance will be referred to the CAPES for review and determination of a course of action.
  
- C. Refer to The Individual Study Program (ISP) section for additional guidelines pertaining to students engaged in an ISP.

D. When the performance of a student is referred to the CAPES for potential academic review, the following rules will apply:

1. No student may take more than three years to complete the coursework required for the first two years. Time periods included in a leave of absence are not counted in these three years. See the section entitled
2. Individualized Study Program for more information.  
In the absence of extenuating circumstances, or an approved leave of absence no student may take more than two academic years to complete the coursework required in any individual curricular year.
3. The maximum number of attempts to pass any individual course during enrollment in the School will be three.

E. Throughout the enrollment of a student, it is within the jurisdiction of the CAPES to terminate the enrollment of a student who has demonstrated serious academic failure or breaches of professionalism.

F. If a student enrolled in a joint or dual degree program is found in violation of the other programs academic or professional integrity policy or is found to have committed any disciplinary violations, including violations of the University Judicial Code, such matters may be brought to the attention of CAPES for review and further action. Notwithstanding decisions made by the other schools or programs, CAPES reserves the right to take further action against a student found in violation of such policies. If a student enrolled in a joint or dual degree program is not making satisfactory academic progress or is not meeting academic performance expectations of the other program or school such that the students status in that school or program may be impacted, CAPES reserves the right to determine whether any action should be taken with respect to the students status at WUSM.

G. It is the responsibility of students who feel that personal concerns, health problems, or any other factors may be adversely affecting their academic performance to bring such matters to the attention of the Director of the Student

Health Service or the Associate Dean for Student Affairs for possible accommodations.

## First year

A. Failure of any examination that comprises a significant portion of the final grade (typically 20% or more) must be reported by the course master to the Associate Dean for Student Affairs. In the event of a failure of a single exam within the course, the course master may allow one attempt at remediation of this examination at a time prescribed by the course master. The scheduling of a remedial examination will be agreed upon by the course master and student but in general should not extend beyond 30 days after the end of the course. Days of recess for Winter Break or Spring Break will not be counted in the 30 days. A grade of E will be submitted by the course master if the remedial examination is not accomplished within the course dates. This grade will stand on the academic record until it is replaced with a valid final grade of Pass or Fail. Grades of E that are not resolved within 30 days will be replaced with a grade of Fail (F). In rare circumstances the Associate Dean for Student Affairs may approve an extension of this deadline. If the student successfully remediates the examination, and has otherwise passed the course, a Pass (P) will be recorded by the Registrar. A student may remediate only one examination in any course.

B. If a student has received a Fail/Incomplete grade in a single first-year course, the Associate Dean for Student Affairs will meet with the student to formulate a plan from the following options:

1. Enroll in and successfully complete, at the level designated by the course master, a summer course at a different institution, such course being completed and passed by the beginning of classes for the second year.
2. A student who, for a single course, fails the re-examination taken to remediate a failed course or fails to successfully complete an approved summer course will be referred for the CAPES to review and propose a recommended course of action. The CAPES may require such a student

to enter an ISP or may be dismissed from the School. Alternatively, the CAPES may permit a second re-examination. If this second re-examination is failed, the student will be dismissed from the School.

C. A student for whom the Registrar has recorded a Fail/Incomplete grade in two or more courses during the first year will be referred to the CAPES for determination of a course of action. The Committee may decide to permit the student to take re-examinations, if a re-examination has not already been taken, in the courses for which Failed/Incomplete grades have been recorded. Such re-examinations will generally occur during the inter-academic year break. If such a re-examination is failed, the student may be required to enter an ISP or be dismissed from the School.

D. The Associate Dean for Student Affairs may also request that the CAPES review performance of a student who has demonstrated poor academic performance by failing two or more examinations.

In such instances, the CAPES may recommend a course of action.

E. All first year courses must be completed before the start of the second year curriculum in the next academic year.

## **Second year**

A. The Associate Dean for Student Affairs will meet with students in the following categories regarding taking a re-examination, according to the schedule listed under the next section (B):

1. a student for whom an Incomplete or a final grade of Fail has been recorded in a single interval examination in a year-long course, OR
2. a student for whom a Fail or Incomplete grade has been recorded in one block-long course.

B. The schedule for re-examinations:

1. in year-long courses will generally be offered during the inter-academic year break, prior to entry into the third year.
2. for students who have failed one block-long course will be generally offered at a time determined by the course master and the Associate Dean for Student Affairs. All re-examinations must be offered to students and completed by them prior to the start of the next academic year.
3. for students who fail a re-examination of a single block-long course will be referred to the CAPES to determine a course of action. The CAPES may decide that the student must enter an ISP. Alternatively, a second re-examination may be offered. If the examination is failed for a third time, enrollment will be terminated.

C. Students in the second year for whom the Registrar has recorded Fail/Incomplete grades under the following categories will be referred to the CAPES for review and resolution of a recommended course of action:

1. one year-long course OR
2. two or more block-long courses OR
3. an interval examination in one year-long course and one block-long courses OR
4. two interval examinations in year-long courses OR
5. students for whom the Registrar has recorded a Fail/Incomplete grade in any re-examination.

D. At review by the CAPES for students referred to above, the Committee may decide to permit the student to take re-examinations, if a re-examination has not already been taken, in the courses for which Failed/Incomplete grades have been recorded. Such re-examinations will generally occur during the inter-academic year break. The CAPES may allow the student to defer beginning the clinical



rotations so that re-examinations may be taken up to six weeks after the beginning of the usual cycle of clinical clerkships. Such extra time, used for study and preparation, will ordinarily mean that the student will not have the usual unscheduled time in the elective year. In the event that a Fail/Incomplete grade is recorded at a re-examination, the CAPES may require that a student enter an Individualized Study Program or that enrollment in the School of Medicine be terminated.

In the event that the CAPES decides not simply to permit re-examination, the CAPES may require that the student enter an Individualized Study Program as detailed previously, or that the student will be dismissed from the School.

E. No student will be permitted to begin clinical rotations of the third year until all first- and second- year courses have been successfully completed.

## **Cumulative academic review/academic warning**

Prior to promotion to the clerkship year, the CAPES will review the cumulative academic record of each student brought forth by the Associate Dean for Student Affairs to determine whether the students academic performance justifies advancement to the clinical phase of the medical education without warning. Typically, multiple remediated examinations and/or failing grades during the first two years of the curriculum would raise concerns about the students fund of knowledge and readiness to participate in clinical care of patients. Students with overall records indicating globally poor performance may be dismissed, may be required to repeat specific preclinical course work, may be advanced to the third year with academic warning or may be placed on probation.

Upon written notification of advancement with academic warning into the clerkship year, the student must meet with the Associate Dean for Student Affairs:

A. to review the planned clerkship schedule in order to consider schedule changes

to facilitate successful clinical experiences;

B. to pursue available resources for academic intervention; and

C. to address any additional problems that may arise. It is recommended that these students seek tutorial assistance through each clerkship course master.

A third-year student who has received an academic warning after the first two years and then fails any component of a clinical clerkship may be dismissed from the School.

Contingencies for continued enrollment on probationary status and for return to good standing will be specified by the CAPES in each individual case.

## **Third and subsequent years**

A. Regarding performances beyond the second year, the Associate Dean for Student Affairs will meet with a student for whom a single Fail/Incomplete/E grade has been entered regarding the requirements stipulated by the relevant course master to remediate the academic encumbrance. Options will generally include a re-examination or repeating all or a portion of the course. If a Fail grade has been entered following the prescribed remediation, the student will be referred to the CAPES to determine a course of action. When such a student is referred to the CAPES, the CAPES may permit a re-examination or re-taking or repeating all or a portion of the course. If the course is failed a third time, the student will be dismissed from the School.

B. Any student who fails to achieve a passing grade (defined as greater than or equal to 10th percentile as reported by the NBME) on any two or more subject (shelf) examinations conducted as part of the evaluation of clerkships will be referred to the CAPES for review and course of action.

C. A student for whom the Registrar has recorded a single failing grade in the clinical clerkships or electives maybe referred to the CAPES for review and course

of action.

D. A student who fails any clinical component of a clerkship or elective will have a Fail recorded on the Permanent Academic Record. At the discretion of the course master or CAPES, the student must repeat either the portion failed or the entire clerkship or elective in order to remove the academic encumbrance. The failing grade will remain on the academic record. If the course is remediated the second grade will also be recorded.

E. A failing grade for clinical clerkships will be recorded on the Permanent Academic Record when a student fails the subject examination (defined as scoring at less than the 10th percentile as reported by the NBME) for the second time. A failing grade will be recorded when a student fails any clinical portion of the clinical clerk/ship or elective. In both events, the failing grade remains on the Permanent Academic Record. When the course is remediated the new grade will also appear on the Permanent Academic Record.

F. The Associate Dean for Student Affairs may also request that the CAPES review performance of a student who has demonstrated poor academic performance in two or more courses at interval evaluations conducted throughout the course when such performance has been reported to the Associate Dean. In such instances, the CAPES may determine a course of action.

G. For students referred to the CAPES, the Committee may endorse or amend the remediation recommendations of course masters from whom Fail/Incomplete grades have been entered. In the event that a student fails such a course of remediation, as defined by the course master and approved by the CAPES, the CAPES may require that the rotation be repeated or that enrollment of a student in the School be terminated. Students will generally be permitted three attempts to achieve a passing grade in any clerkship course. If three failing examination grades or final clerkship grades have been submitted for a course, the student will be dismissed from the School.

H. A student who advances to the clinical years with academic warning and who fails any component of a clerkship will be referred to the CAPES for action including possible dismissal from the School. See Cumulative Academic Review/Academic Warning.

## Procedures Concerning Review of Academic Performance

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<< Back to [Assessing Academic Achievement and Professionalism](#)

Actions for Academic Review shall be referred to the CAPES for consideration by the Associate Dean for Student Affairs or Registrar.

A. The Associate Dean for Student Affairs will convene a meeting of the CAPES. He/she shall notify the student in writing of the course(s) for which Academic Review is scheduled and the date and time at which the CAPES will address the matter.

B. The Associate Dean for Student Affairs, the Registrar, the course master(s) or their designated representatives, shall present the matter to the CAPES in a closed and confidential CAPES meeting.

C. For students referred for course or examination failure, the CAPES meetings will have, in addition to the grade report forms for the course for which the student is referred to the CAPES, a complete record of the student's academic performance and the student file.

D. All students to be considered at a CAPES meeting will be asked to be available

to appear before the Committee to provide additional information relevant to the concern. If the student fails to be available to appear at the meeting, the Committee may postpone the meeting or may conduct the meeting and impose sanctions without the student present. Failure of a student to appear or provide information requested by the CAPES may result in the committee's filing a professionalism concern form. Meetings may be rescheduled at the discretion of the CAPES Chair.

E. If there are extenuating circumstances or contributing factors that the student feels the CAPES should consider, it is the student's responsibility to bring them to the attention of CAPES in a timely manner before a determination is made regarding the student's status.

F. The student shall be permitted, upon request in advance of the CAPES meeting, to appear before the CAPES on his or her own behalf. At the student's request, he or she may be accompanied by a member of the faculty or staff of the School of Medicine for guidance and support. Alternatively, again following request, the student may be accompanied by a fellow student enrolled in the School of Medicine.

G. A record of the CAPES meeting shall be preserved for purposes of review by the School of Medicine's Appeals Committee, as necessary.

H. When a student is considered by CAPES, their entire academic and professionalism record will be considered in deliberations regarding student status.

I. Action taken by the CAPES for poor academic performance may include dismissal. Sanctions short of dismissal from the school include but are not limited to warning, probation, defined penalty, and suspension. Additional consequences may include a program of remediation or additional oversight. The CAPES may also rule that the Dean's letter/MSPE should include a citation regarding the matter. The CAPES decision shall be by simple majority vote unless the vote is for

dismissal, in which case, a three-fourths majority will be required. The decision of the CAPES shall be communicated, in writing, to the student by the Registrar's office.

J. After the meeting, the Associate Dean for Student Affairs will inform the student verbally of the decision of the CAPES. The Registrar will inform the student in writing of the result within ten working days.

## Indications for Review of Professional Integrity

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<< Back to [Assessing Academic Achievement and Professionalism](#)

Matters involving possible breaches of professional integrity shall be brought to the attention of the Associate Dean for Student Affairs. The individual(s) raising the questions of possible misconduct shall present them in writing to the Associate Dean for Student Affairs by completing a Professionalism Concern Form providing other detailed written information as necessary. Individuals submitting such forms are reminded of the need for confidentiality regarding all matters of misconduct.

Behaviors inappropriate to the medical profession shall include, but are not limited to breaches of personal confidence and trust including cheating or unauthorized use of materials during examinations; abuse, misrepresentations or other seriously improper conduct in relation to patients or colleagues including breaches of confidentiality; other misconduct in violation of University policies or the University Student Judicial Code; illegality; substance abuse; failure of judgment including that related to non-compliance in the treatment of any personal medical condition; and misrepresentation or failure in personal actions or in meeting

obligations, so as to raise serious unresolved doubts about the integrity of the student to enter the practice of medicine. See the Guiding Principles of Professionalism link under the Policies section on the School of Medicine website.

# Procedures Concerning Review of Professional Integrity

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<< Back to [Assessing Academic Achievement and Professionalism](#)

At the discretion of the Associate Dean for Student Affairs, in cases of serious or repeated breaches of professionalism raising concern about a pattern of behavior, the Associate Dean for Student Affairs will convene a meeting with the Associate Dean for Admissions, the Associate Dean for Medical Student Education or the Senior Associate Dean for Medical Education to review the complaint(s) and to decide whether further action is necessary.

If further inquiry is deemed necessary, the Associate Dean for Student Affairs and either the Associate Dean for Medical Student Education or Admissions, or the Senior Associate Dean for Medical Education will discuss the complaint with the student. If the two Associate Deans deem that further action is warranted, the Associate Dean for Student Affairs will follow the procedures below:

A. The Associate Dean for Student Affairs will convene a meeting of the CAPES. If the person bringing the complaint is a member of CAPES, he or she will not vote but may participate in the discussion. If the person bringing the complaint is not a member of CAPES, he or she will be asked to present the complaint and will then be excused. The CAPES chairperson will be responsible for overseeing the procedure of the meeting. The Registrar will attend the meeting to record the

minutes. The CAPES shall, whenever possible, convene within one to two weeks after the initial meeting between the student and the Associate Dean for Student Affairs.

B. The purpose of the CAPES meeting is to provide fair and prompt review of the inquiry. The Committee is not positioned in an adversarial role against the student, but simply serves to review the evidence as presented and determine its decision regarding disciplinary action, if necessary.

C. Prior to the meeting, the Associate Dean for Student Affairs will forward information concerning the matter to the Committee. In addition, the Associate Dean for Student Affairs will inform the student in writing regarding the time, date and place of the meeting. A copy of the complaint will be provided to the student. Such notification shall also state that the proceedings are confidential, and that the student may bring a faculty member, staff member or fellow student of the School of Medicine for guidance and support. If this person is not a fact witness to the complaint he/she may not address the committee.

D. Any student to be considered at a CAPES meeting will be asked to be available to appear before the Committee to provide additional information relevant to the concern. If the student fails to be available for the meeting, the Committee may postpone the meeting or may conduct the meeting and impose sanctions without the student present. Failure of a student to appear or provide information requested by the CAPES may result in the committee's drawing adverse conclusions. Meetings may be rescheduled at the discretion of the CAPES Chair.

E. The CAPES will consider evidence which tends to prove or disprove the alleged conduct. If the CAPES finds that the student engaged in misconduct, it may consider additional evidence of prior conduct, evidence as to the charged student's character, the student's entire academic and disciplinary record, or any other evidence which could assist the CAPES in determining an appropriate sanction. The Chair of the CAPES will rule on whether or not evidence or testimony will be considered. The CAPES has neither the advantages nor limitations inherent



in a court of law.

F. During the meeting the student will have access to the written evidence presented and may present evidence and fact witness(es) on his or her own behalf. The student should be prepared to discuss the circumstances of the complaint after which the CAPES will excuse the student from the room.

G. The decision as to whether the student committed the alleged act will be made solely on the basis of evidence and testimony presented at the meeting. Innocence of the student will be presumed. A CAPES member must find in favor of the student unless the member is persuaded that it is more likely than not that the student engaged in the misconduct alleged.

H. Action taken by the CAPES for breaches of professional integrity may include dismissal. Sanctions short of dismissal from the School include but are not limited to advancement with academic warning, other warning, probation, defined penalty, suspension, fine and restitution. Additional consequences may include a program of remediation or additional oversight. The CAPES may also rule that the MSPE/ Deans letter should include a citation regarding the matter. Contingencies for continued enrollment on probationary status and for return to good standing will be specified by the CAPES in each individual case.

I. A simple majority will prevail, except when the motion is to dismiss from the School where three-fourths majority will be required.

J. After the meeting and decision of the CAPES, the Associate Dean for Student Affairs will inform the student verbally of the result. The Registrar will inform the student in writing of the result within ten working days.

K. The record of such proceedings will be held confidentially with access restricted to Committee members, the student involved, and relevant members of the Administration.

L. The University does not tolerate retaliation against individuals who bring forward complaints or who participate in the CAPES process.

M. Unless it is determined by the Associate Dean for Student Affairs that extraordinary circumstances exist, the student will be permitted to continue in the usual academic activities during the CAPES proceedings. However, if there is a reasonable basis for believing that the continued presence of the student on campus or in clinical rotations poses a substantial threat to the student, to patients or to the rights of others to engage in their normal University functions and activities, the procedure outlined under section B of Leave of Absence Policy applies.

N. Should a student be referred to the CAPES for an issue(s) involving both academic performance and professionalism concerns, the procedures for Professionalism Concerns will be followed.

## Appeals Process for the CAPES Decisions

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<< Back to [Assessing Academic Achievement and Professionalism](#)

The School of Medicine has the right and responsibility to assure that each student, during the time of enrollment, demonstrates levels of academic achievement and ethical stature appropriate to the practice of medicine. The School must also ensure provision of fairness in discharging those rights and responsibilities.

Within 14 working days of the date on which an academic or disciplinary decision is rendered by the CAPES, the student may request, in writing to the Registrar, that the School of Medicines Appeals Committee review the record of the CAPES decision to

determine that the appropriate CAPES procedures were followed or that the Appeals Committee request that the CAPES consider additional, new relevant information which was not previously presented to the CAPES for good cause. The letter to the Registrar should include the basis for the appeal as well as any new relevant information and an explanation as to why it was not timely presented to the CAPES.

An Appeals Committee, composed of faculty members appointed by the Dean of the School of Medicine, shall be created to review appeal of decisions by the CAPES. Members of the CAPES Committee may not be appointed to the Appeals Committee. A quorum of this committee shall consist of five members.

The Appeals Committee shall review the record of the CAPES decision solely to determine whether the pertinent CAPES procedures were followed and whether all relevant information was considered by the CAPES. If the appeal is based on a contention that all relevant information was not presented to the CAPES, the written appeal must provide the Appeals Committee with adequate reason why the student did not present this information at the CAPES meeting in question. In all cases, the Appeals Committee shall not substitute its judgment of the facts or its opinions of the merit of matter for those of the CAPES.

On all appeals the Appeals Committee may either (1) remand the matter to the CAPES for reconsideration with its explanation for the remand, or (2) deny the appeal. If the matter is remanded to the CAPES, all documents, minutes of the Appeals Committee meeting, and information submitted by or for the student in support of the appeal will be made available to the CAPES. The Appeals Committee shall provide its decision in writing to the Dean, the student, the CAPES, the Associate Dean for Student Affairs and the Registrar. The Associate Dean for Student Affairs shall determine whether the student may continue his or her curriculum pending the Appeals Committee review of a CAPES decision.

Within 10 working days of the date of an Appeals Committee's decision or referral back to the CAPES, the student may request, in writing, that the Dean of the School of Medicine review the decision of the Appeals Committee. The decision of the Dean shall

be final.

# Glossary of Terms

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<< Back to [Assessing Academic Achievement and Professionalism](#)

The following definitions are applied when the indicated terms are used in relation to the foregoing rules concerning review of academic performance and professional integrity:

## **Academic Warning, Advancement with**

A supervised status that may be imposed if a students cumulative academic review indicates that special oversight is warranted. See section on Cumulative Academic Review/Academic Warning for additional information.

## **Action, Disciplinary**

An action, including counseling and penalties, taken by the School of Medicine, after consideration of the disciplinary problem.

## **Administrative Withdrawal**

Termination of a students enrollment from or eligibility to return to the School of Medicine by the University where the student has:

A. failed to register and has not sought a leave of absence; or

B. not returned from an approved leave of absence within the designated period of time and where an extension of the leave of absence has not been timely requested and approved by the CAPES.

### **Dismissal, Academic**

Involuntary separation of a student from the School of Medicine because he/she has not met the academic requirements.

### **Dismissal, Disciplinary**

Involuntary separation of a student from the School of Medicine as a result of action taken because of misconduct.

### **Good Standing**

As a record or transcript notation, it signifies that the student is eligible to continue, to return, or to transfer elsewhere. It implies good academic standing as well as good citizenship and replaces such terms previously used as honorable dismissal, honorable withdrawal, withdrawn, voluntary withdrawal, eligible to return and clear record.

### **Grade, Incomplete**

Indicates there is still a possibility of credit after further work. Used when the instructor is not prepared to give a final mark for the term in view either of sickness of the student or some justifiable delay in the completion of certain work. It is accompanied by a note that explains the circumstances and indicates how and when the incomplete may be resolved. A definitive mark for the term is recorded on the official transcript when the work is completed and the incomplete grade is removed. In case the work is not completed within the time allowed, the recorded grade will be changed to fail.

## **Permanent Academic Record**

The all-inclusive abstract of academic achievement. This is also commonly referred to as the official educational record or official transcript.

## **Probation**

Probation status may be for academic and for disciplinary reasons. Academic probation is the result of unsatisfactory scholarship. It is not a penalty but a warning and provides an opportunity to improve. Usually the student is required to make regular specified improvement in his record in order to avoid dismissal.

Disciplinary probation is the middle status between good standing and suspension or dismissal. The student remains enrolled but under stated conditions according to school policies. Disciplinary probation covers a stated trial period during which it is determined whether the student is returned to good standing having met the stated requirements or dismissed from enrollment at the end of the period for failure to meet the stated requirements.

## **Professionalism Concern Form**

A form completed by a member of the University community to communicate an instance of unprofessional behavior to the Associate Dean for Student Affairs. Serious or repeated instances of unprofessional behavior may be referred to the CAPES by the Associate Dean for Student Affairs.

## **Suspension**

Suspension is an involuntary separation of the student from the school but it differs from dismissal from enrollment in that it implies and states a time limit when return will be possible. Thus, suspension may extend for a specified time, until a specified date or until a stated condition is met.

## Withdrawal

A release from enrollment. A student may request that they be allowed to withdraw from enrollment. Such requests are directed to the Registrar or the Associate Dean for Student Affairs. When a student has requested withdrawal status, the school, by action of the CAPES, will determine whether the withdrawal will be annotated with good standing or not in good standing in the official academic record. Such annotations may be accompanied by explanations in the official educational record.

## Forms

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<< Back to [Assessing Academic Achievement and Professionalism](#)

Grade Appeal form and Professional Concern form are available on the following links:

[Grade Appeal Form](#)

[Professional Concern Form](#)

## Policies Related to Evaluation

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[United States Medical Licensing Exam \(USMLE\)](#)

# United States Medical Licensing Exam (USMLE)

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<< Back to [Policies Related to Evaluation](#)

Students who matriculated prior to 2014 and who anticipate practicing clinical medicine are required to take the USMLE Step 1 and 2 examinations. Beginning with the class matriculating in 2014, all students are required to take the USMLE Step 1, Step 2CK and Step 2 CS prior to graduation.

The USMLE is designed to “assess a physician’s ability to apply knowledge, concepts, and principles, and to demonstrate fundamental patient-centered skills, that are important in health and disease and that constitute the basis of safe and effective patient care.” The USMLE represents a single uniform examination for medical licensure in the United States, and as such, is a minimum requirement for obtaining a medical license.

The USMLE consists of four separate examinations. “Step 1 assesses whether you understand and can apply important concepts of the sciences basic to the practice of medicine, with special emphasis on principles and mechanisms underlying health, disease, and modes of therapy. Step 1 ensures mastery of not only the sciences that provide a foundation for the safe and competent practice of medicine in the present, but also the scientific principles required for maintenance of competence through lifelong learning.” Step 1 is taken after completing the second year at WUSM.



Step 2 consists of two separate examinations, Step 2 CK (Clinical Knowledge) and Step 2 CS (Clinical Skills) which are taken at different times. “Step 2 assesses whether you can apply medical knowledge, skills, and understanding of clinical science essential for the provision of patient care under supervision and includes emphasis on health promotion and disease prevention. Step 2 ensures that due attention is devoted to principles of clinical sciences and basic patient-centered skills that provide the foundation for the safe and competent practice of medicine.” Step 2 exams are taken after completing the third year but prior to graduation from WUSM.

“Step 3 assesses whether you can apply medical knowledge and understanding of biomedical and clinical science essential for the unsupervised practice of medicine, with emphasis on patient management in ambulatory settings. Step 3 provides a final assessment of physicians assuming independent responsibility for delivering general medical care.” Step 3 is taken following graduation and during internship/residency training.

Further information can be obtained from the USMLE Bulletin of Information published by the National Board of Medical Examiners, and is available, along with application forms and information, at <http://www.usmle.org>.

## Guidelines for Exam Administration

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<< Back to [Policies Related to Evaluation](#)

Following are general guidelines for exams administered in the undergraduate medical curriculum. Additional requirements may be posed by the individual course director.

### Expectations for students

- Take the exam during the originally scheduled time, excepting extenuating circumstances. Students are required to take all examinations at the specified time. A student may be excused from this rule for extenuating circumstances at the discretion of the Associate Dean for Student Affairs. Extenuating circumstances are normally defined as sudden personal illness. Doctor appointments of a routine nature or vacation time are not considered to be extenuating circumstances for which students can be exempted from the regularly scheduled exam date. Such occasions will be promptly reported to the Associate Dean for Student Affairs. In the event of inability to attend a scheduled examination due to sudden illness the student is required to inform the course director prior to the examination and to be evaluated by the Student Health Service. In the event that the student cannot reach the relevant course director, the student should contact the Associate Dean for Student Affairs.
- Students are expected to be punctual and should be assembled in the designated exam area before the official start time of the exam. Tardiness will not be excused except in extenuating circumstances. For purposes of the exam, “tardiness” will be defined by the course director or exam proctor.
- Not share study materials, exchange information, collaborate or communicate with others during the exam.
- Place all personal items in designated area. (Cell phones must be turned off and pagers set on pulse.
- Hand their registration card, laminated sheet and pen to the proctor prior to leaving the room.

## **Special accommodations**

Any student needing accommodation for exams should review the school’s Students with Disability Policy in advance of exams. Students needing accommodations should meet with the Associate Dean for Student Affairs in advance of exams to discuss his or her request. The Associate Dean for Student Affairs will inform course directors of approved exam accommodations.

## Expectations for faculty

- Exams should be proctored by the course director or a designee appointed by the course director comfortable with proctoring and exam administration guidelines. Exams will not be proctored by Office of Medical Education/Office of Medical Student Education Staff. NBME subject exams are proctored by the Office of Student Affairs.
- Administration should be fair to all students.
- If the faculty member answers a substantive question or clarifies an issue, the same should be communicated to ALL students, including those in separate rooms or at different times.
- Reasonable adjustments should be offered to students who require special accommodations, including a separate testing room or additional time. Course directors are notified of these students through the Associate Dean for Student Affairs.
- If a student behaves inappropriately, the course director should notify the Associate Dean for Student Affairs immediately (see below for examples of inappropriate behaviors).
- All requirements of students should be communicated to all students PRIOR to the start of the exam.

## Cheating

**The following examples are intended to be representative of behaviors that constitute cheating in the context of an exam. This is not intended to be an all-inclusive list.**

- Looking at or copying from another student's test.
- Collaborating with another student during the test without authorization.
- Using lecture notes or textbooks during an exam without authorization.

- Possessing crib notes during an exam.
- Using signals/signs to obtain answers from others.
- Utilizing a calculator, cell/smart phone, smart watch, computer, or any other device or learning aid without authorization. This includes storing, receiving, and/or accessing course matter stored on such devices.
- Obtaining assistance in answering questions on a take-home exam without authorization.
- Obtaining advance copies of exams or quizzes by any means.
- Having someone else take an exam in your place.
- Feigning illness or submitting misleading statements to avoid taking an exam at the scheduled time.
- Changing an answer on a graded test and claiming the question response was incorrectly marked wrong.

# Preclerkship Narrative Assessment Policy

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<< Back to [Policies Related to Evaluation](#)

## Background

Narrative assessment can be used as a tool to provide meaningful insights about the knowledge, clinical competence, and professional development of our students.

Through this policy we aim to systematically provide students in the pre-clinical phase of the curriculum with feedback on their performance on the following Competency-Based Learning Objectives (CBLOs):

- Interpersonal and Communication Skills 3 (ICS-3) – Communicate effectively with members, including both physician and non-physician professionals, of the health care team
- Professionalism 1 (PROF-1) – Maintain a professionally appropriate demeanor, exhibit high standards of professional integrity, and demonstrate an awareness of potential conflicts of interest
- Professionalism 4 (PROF-4) – Work collaboratively and effectively in inter-professional teams
- Practice-Based Learning and Improvement 1 (PBLI-1) – Demonstrate the skills needed for lifelong learning including the ability to identify and address personal strengths and weaknesses to incorporate formative feedback, and to self-assess knowledge and performance to develop a self-improvement plan
- Practice-Based Learning and Improvement 3 (PBLI-3) – Participate in the education of peers and other members of the health care team

## Assessment criteria

*Narrative assessment must be provided in preclinical courses in which students work in small groups of 12 or less for at least 3 separate mandatory sessions. For activities in which a given instructor supervises more than one small group they will provide narrative feedback when they can observe each individual small group for a minimum of 30 minutes (taken together, across all small group sessions).*

Narrative assessment can be provided in courses that do not meet these criteria, provided that the instructor demonstrates the nature of the interaction allows for meaningful feedback regarding the indicated CBLOs.

# Policies Related to Absences and Leaves

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[Absence Policy for MD Students on Clinical Clerkships](#)

[Absence Policy for MSTP Students on Clinical Clerkships](#)

[Absence Policy for MD Students on Fourth-Year Electives](#)

[Leave of Absence Policy](#)

[Policy on Student Status and Benefits During Research Years or Leave of Absence](#)

## Absence Policy for MD Students on Clinical Clerkships

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[<< Back to Policies Related to Absences and Leaves](#)

The profession of medicine requires the utmost commitment of time and energy to patient care and research activities. While the development of this commitment begins in the preclinical years, it is further practiced and developed during the clinical clerkship.

The clinical clerkship year at Washington University School of Medicine comprises 48 weeks of required core clinical experiences. All students on the clinical clerkships have a scheduled 2-week winter recess break, a 3-day spring break and a 2-week break between the end of the third-year clinical clerkships and the start of fourth-year

elective rotations (or free time prior to graduation for MSTP students). During every clinical clerkship, each student is expected to participate fully in all activities of the clerkship up until the designated end time of the clerkship or the start time of a holiday break. This regularly requires participation beyond formal weekday hours to include evening and nighttime call and clinical responsibilities on weekends.

If a student is ill or has a personal emergency, (s)he should notify the clerkship course master's office and the resident supervising his/her clinical team the morning of the absence. If the absence extends beyond two consecutive days, the student should also notify the Office of Student Affairs.

It is recognized that a student may, on a very occasional basis, desire to be excused from clinical activities for professional or significant personal events. For the third year, the Curriculum Evaluation Committee agreed upon the following guidelines regarding the maximum number of days of excused absences (including illness) from clerkships: Students may miss up to 5 days on a 12-week clerkship, 3 days on a 4- or 6-week clerkship, and 1 day for a 2-week clerkship without making up the missed time. Students must recognize that clerkship teaching, learning and evaluation are dependent on the student's presence and participation in every aspect of the clerkship. While students will not be graded down only because of an excused absence, time spent away from the clerkship may decrease learning and impede effective evaluation; students are encouraged to make up missed work on rotations in which this can result in meaningful learning and should discuss this option with the clerkship director. It is the responsibility of the student to directly contact the clinical clerkship course director in writing (by letter or e-mail) to obtain permission for any planned absences well in advance of the planned absence.

At the discretion of the course director, any student who misses portions of the clinical clerkship experiences due to planned and/or unplanned absences that exceed the maximum time may be required to utilize winter recess, spring break or free time at the end of the third year clinical clerkships to complete the 48 weeks of mandatory clinical clerkships.

# Absence Policy for MSTP Students on Clinical Clerkships

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<< Back to [Policies Related to Absences and Leaves](#)

MSTP students are allowed to miss up to three days of any four-week clerkship, and up to nine days of any 12-week clerkship for any reason including interviews. This is a substantially more flexible policy than we have towards the M.D. students, in which we limit the number of days off to three in a four-week period, and five in a twelve-week period. We recognize that for some MSTP students entering competitive specialties with limited interview dates it may be necessary for them to plan far enough ahead in their training to schedule a month for either a very light elective or a free month to allow appropriate flexibility for interviews. The committee also agreed that the MSTP students should be encouraged to:

1. talk with Dr. Kathryn Diemer early for assistance in residency planning;
2. seriously consider coming out of lab a month earlier to allow flexibility for interviewing; and
3. delaying graduation by one year to increase flexibility. When absences are necessary on a clerkship, advanced discussion with the clerkship director will better allow placement on a team to allow maximum educational value. We believe this policy strikes an appropriate balance between increased flexibility for the MSTP students and assuring a meaningful educational experience on the core clerkships.



# Absence Policy for MD Students on Fourth-Year Electives

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<< [Back to Policies Related to Absences and Leaves](#)

The profession of medicine requires the utmost commitment of time and energy to patient care and research activities. While the development of this commitment begins in the preclinical years, it is further practiced and developed during the clinical clerkship and elective years.

The elective year at Washington University School of Medicine encompasses a 44-week time block and requires students take a minimum of 36 weeks of elective experiences. All students have a scheduled two-week winter recess and a three-day spring break during the academic year. During each elective, each student is expected to participate fully in all activities of the elective up until the designated end time of the elective or the start time of a holiday break. This could require participation beyond formal weekday hours to include evening and nighttime call and clinical responsibilities on weekends.

If a student is ill or has a personal emergency, (s)he should notify the elective course master's office and the resident supervising his/her clinical team the morning of the absence. If the absence extends beyond two consecutive days, the student should also notify the Office of Student Affairs.

It is recognized that a student may, on a very occasional basis, desire to be excused from clinical activities for professional absences or significant personal events. For the fourth year, the Curriculum Evaluation Committee agreed upon the following guidelines regarding the maximum number of days of excused absences (including illness) from electives: During interview season, students will be allowed to miss up to five days in a four-week rotation; any additional days off would require approval by the

Associate Dean for Medical Student Education and the elective course director. Days off in excess of three days are to be used for residency interviews.

The rest of the elective year follows the third-year absence policy: Students may miss up to five days on a twelve-week rotation, three days on a four-week rotation, and one day for a two-week rotation without making up the missed time. Students must recognize that elective teaching, learning and evaluation are dependent on the student's presence and participation in every aspect of the elective. While students will not be graded down because of an excused absence alone, time spent away from the elective may decrease learning and impede effective evaluation. Because of these meaningful learning experiences, students are encouraged to make up missed work on rotations and should discuss this option with the course master. It is the responsibility of the student to directly contact the course director in writing (by letter or e-mail) to obtain permission for any planned absences well in advance of the planned absence.

At the discretion of the course director, any student who misses portions of the elective experience due to planned and/or unplanned absences that exceed the maximum time may be required to utilize winter recess, spring break or free time to complete the elective.

The required fourth-year Capstone course has a separate absence policy. Please refer to the course syllabus for details.

## Leave of Absence Policy

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<< [Back to Policies Related to Absences and Leaves](#)

I. A student may request a leave of absence for academic or personal reasons by submitting a statement in writing to the Office of Student Affairs. Such a statement should include indication of the beginning and anticipated ending dates and a brief statement of the reason (academic or personal). Requests for leave of absence must be approved by the Associate Dean for Student Affairs. Leaves of absence shall be granted for no more than one year, but in unusual cases may be renewed by the CAPES for additional years after discussion with the Associate Dean for Student Affairs. Students requiring a personal leave of absence for medical reasons must submit a supporting letter from the Director of the Student Health Service. A written statement of medical clearance will be required before the student may return from such a leave.

II. If there is a reasonable basis for believing that the continued presence of the student on campus or in clinical rotations poses a substantial threat to the student, to patients or to the rights of others to engage in their normal University functions and activities. The following procedure applies:

A. The Chancellor or his designate may impose an involuntary leave of absence when there is evidence that a student has committed an offense under these rules or the University's Judicial Code and there is evidence that the continued presence of the student on the University campus or as a participant in a clinical rotation poses a substantial threat to himself or herself, to patients or to the rights of others to continue their normal University function and activities.

B. Imposition of the involuntary leave of absence may result in denial of access to the campus, prohibition of class attendance and/or prohibition of participation in clinical rotations.

C. If an involuntary leave of absence is imposed, the suspending authority shall prepare a written notice of the imposition and shall have the notice mailed certified or personally presented to the student. The written notice shall include a brief statement of the reasons therefore, and a brief statement of the procedures provided for resolving cases of involuntary leave of absence under these rules.

D. The student shall be given an opportunity to appear personally before the suspending authority within five (5) business days from the date of service of the notice of imposition of the involuntary leave of absence. If the student asks to appear personally before the suspending authority, only the following issues shall be considered:

1. Whether the suspending authority's information concerning the student's conduct is reliable; and
2. Whether under all the circumstances, there is a reasonable basis for believing that the continued presence of the student on campus or in clinical rotations poses a substantial threat to the student, to patients or to the rights of others to engage in their normal University functions and activities.

E. Within one week of the date of imposition of the involuntary leave of absence, the suspending authority shall either file a statement of charges against the student with the University Judicial Board, and shall have the statement or charges served, by mail or personal service, upon the student and the dean of the school or college or director of the program in which the student is enrolled or initiate proceedings under these rules to convene a Disciplinary Committee.

F. A temporary suspension shall end when

1. rescinded by the suspending authority, or
2. upon the failure of the suspending authority to promptly file a statement of charges with the University Judicial Board or a Disciplinary Committee, or
3. when the case is heard and decided by the University Judicial Board, or the Disciplinary Committee.

Return of students from involuntary leave of absence requires clearance of both the Director of the Student Health Service and the Associate Dean for Student

Affairs.

III. Students receiving financial aid should be advised that at the end of sixty (60) days or more leave of absence, the grace period for loan repayment during a leave of absence may be exhausted. In such cases there will be an obligation for the student to start payments. According to the Federal rules under which loans are made, the use of a grace period during a leave of absence will generally mean that the schedule for loan repayment may be changed. Students who are receiving financial assistance should consult with the Financial Aid Office to determine the implications of a Leave of Absence for their financial aid.

IV. A student returning from a leave of absence of one year duration or less will maintain the same tuition rate. Students returning after more than one year leave of absence will assume the tuition rate of the class they are rejoining. Appeals of this policy should be submitted in writing to the registrar. Please refer to the section on Registration, Payment of Financial Obligations, Withdrawal and Refund Policy regarding policies on the effect of a leave of absence on tuition and other financially related matters.

## Policy on Student Status and Benefits During Research Years or Leave of Absence

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<< Back to [Policies Related to Absences and Leaves](#)

MD/PhD

Student status is maintained while in the research phase of the MD/PhD program. Students are registered in the graduate school during the research years. Both student health and disability coverage are provided by the Division of Biology and Biomedical Sciences.

## **MA/MD**

Student status is maintained while in the research phase of the MA/MD program. Students are registered in the graduate school during the research year. Both student health and disability coverage are provided.

## **Five-Year MD Program**

### **Research year here**

Student status is maintained throughout the approved research year. In exceptional circumstances, a second research year may be permitted. The student may receive a stipend, but may not be considered an employee of the university. Students are registered in the School of Medicine. Both disability and student health coverage are required and are payable by the student. Outside funding often covers such fees.

### **Research year away**

Student status is maintained throughout the approved research year. Students are registered in the School of Medicine. Both disability and student health coverage are optional with proof of like coverage. The cost of either elected coverage is payable by the student. Outside funding often allows these costs.

## **Leave of absence**

### **Leave of absence year here**

Student status is not maintained during the leave of absence though benefits of

student health coverage and disability insurance are optional throughout an approved leave. Costs are payable by the MD program students. MD/MA and MD/PhD students may request support for these costs from the Division of Biology and Biomedical Sciences if funds are available. The Office of Financial Aid should be consulted for information regarding loan repayment and grace periods when on a leave of absence.

### **Leave of absence year away**

Same as Leave of Absence Year Here.

A student returning from a leave of absence of one year duration or less will maintain the same tuition rate. Students returning after more than one year leave of absence will assume the tuition rate of the class they are rejoining. Appeals of this policy should be submitted in writing to the registrar.

## **Other Policies — MD Program**

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[Guiding Principles of Professionalism](#)

[Technical Standards Statement](#)

[Dress Code](#)

[Duty Hour Policy for Medical Students](#)

[Payments and Withdrawal & Refunds Policy](#)

# Guiding Principles of Professionalism

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<< Back to [Other Policies — MD Program](#)

## A. Preamble

Medicine is one of the oldest of the learned professions. A professional is one who is in command of a specialized body of knowledge and skills, and is given specific rights not typically allowed to the public. Along with those rights, the professional has specific responsibilities or duties not generally expected of the public.

The singularity of medicine is that it deals with human health. Patients are potentially at their most vulnerable when establishing a relationship with a physician. That the patient's relationship with his/her physician involves a dependency that encompasses life and death adds further to the uniqueness of this relationship.

The label of professional is not a right but must be earned. The special contract physicians have with society has professionalism as its foundation. Professionalism consists of fundamentally important qualities including altruism, compassion and empathy, respect for patients and health care workers, commitment to ongoing excellence, honesty, trustworthiness, integrity, accountability, recognition of limits, collaboration, and duty to society.

Professional development is an on-going process at all levels of training and practice. The purpose of this document is to outline those elements of professionalism expected of our medical students. It is not meant to be all encompassing, providing exact guidelines for all possible situations. Rather, four broad categories of professional behaviors are described below, with specific principles cited for each in bold print, and examples provided for some of the principles in regular text. While this document was developed with medical students in mind, it is generally applicable to all medical professionals.



## B. Professional responsibility

1. Students have a responsibility to actively participate in their education and to work to improve the educational environment for future students.
2. Students should have a willingness to pursue life-long, self-directed learning, which is an essential attribute of any professional.
3. Students should act responsibly in their personal and academic lives with regard to meeting deadlines, financial obligations and other comparable responsibilities.
4. Preparation for class and during clinical rotations sets a good example for peers, maximizes every student's learning opportunity, and demonstrates respect for the teachers and peers.
  1. Respecting one's peers in a classroom or in the hospital setting includes behaviors such as arriving on time, exhibiting respectful body language, listening attentively, turning off cell phones and allowing all present to engage in discussion.
5. Students should report to the appropriate supervisor potentially serious errors that others have committed.
6. Students should contribute to their community.
  1. Students are encouraged to participate in the first- and second-year teaching groups.
  2. These provide a service to the larger St. Louis community, while teaching students how to communicate with people of diverse backgrounds.
  3. Students are encouraged to serve at the Saturday Neighborhood Health Clinic and other community service and teaching activities.
7. Students should be aware of the larger social and economic context in which disease occurs, and take advantage of opportunities to deepen their knowledge about this topic.

## C. Competence and self-improvement

1. In order to function at the expected level, students should attend to their own physical and emotional health.
  1. The experience of being a medical student can be physically and emotionally challenging. Students need to be able to identify when they are overwhelmed to the point where they may not be able to function appropriately. Students are encouraged to seek educational assistance and/or the emotional support of others in these instances.
2. Recognizing and admitting errors in patient care are key to being a good physician.
  1. Students should view mistakes as part of learning. Assuming responsibility for mistakes is critical for professional development.
  2. Developing productive strategies for dealing with mistakes and non-confrontational ways of correcting them is essential.
3. Feedback, advice and criticism from residents, fellows and faculty fosters personal and professional development, and should be taken in the context of mentoring.
  1. Students should assume that opinions of their faculty/residents/fellows that may seem unclear are usually solidly founded, and accept feedback regarding their performance openly and maturely from individuals more experienced than they.
  2. Students should provide suggestions and examples for improving the mentoring environment by forthrightly evaluating their instructors.
4. Students should identify and correct errors in patient care as soon as possible or notify those who can correct it.
5. Students should balance personal and professional interests.
  1. Students should not over-commit.

2. Students should communicate schedule conflicts to course directors, lecturers, and/or house staff.

## **D. Respect for others and professional relationships**

1. Students should conduct themselves with manners and consideration of all others, and be respectful of others' time.
2. While individual effort is important in developing a medical knowledge base, much of what students learn in medical school will depend on a collaborative effort with their peers.
  1. From the first day of medical school, students should encourage each other and collaborate with their peers when appropriate in the learning environments of lectures, small group discussions, and lab sessions. In doing so, they are laying the foundation for the truly collaborative nature of medicine.
  2. During the clinical years, students should understand that their peers are a valuable resource. Likewise, a student should assist peers in patient care responsibilities.
  3. In all cases, students should respect the work and learning opportunities of their classmates and they should share educational opportunities with their peers. Professional behaviors include listening to other's presentations, and encouraging others' opportunities to present, ask/answer questions, admit patients, participate in surgical cases/procedures, or perform duties.
3. Respect for the ethnic and cultural diversity of classmates provides for a more nurturing environment for all.
  1. Students should be aware that their classmates come from a wide variety of religious and ethnic backgrounds and that they will have differing lifestyles and viewpoints. This diversity is an important resource in our community, contributing to personal and professional growth of all.
  2. Students should be sensitive to the importance of these issues and should

seek opportunities to enhance appreciation of multiple cultures through dialog, educational opportunities, etc.

4. Students should be supportive of peers during difficult times in their personal and professional lives.
  1. Students must appreciate that their peers may have issues in their personal or professional lives (e.g. family, medical, academic, or administrative problems) that may affect their interactions with others. In these circumstances, students should make every attempt to be sympathetic and to offer their support to those students.
5. Participation and teamwork enhances the educational experience.
  1. The learning process is a partnership between students and faculty. Students should actively participate in this partnership by providing feedback to professors by way of evaluations and surveys.
  2. Contributing to the overall functioning of the team maximizes both learning and patient care in the clinical setting.
6. Understanding the appropriate venues for feedback to house staff/fellows/faculty is critical to successfully resolving conflicts .
  1. Students should be aware of the hierarchy of the team, and appropriate mechanisms for handling disagreement with faculty/residents/fellows. Conflicts can be translated into productive outcomes if handled appropriately.
  2. [www.universitycompliance.wustl.edu/codeofconduct](http://www.universitycompliance.wustl.edu/codeofconduct)
7. Maintaining a professional relationship with teachers (including faculty/residents/fellows and TAs) is important, especially during times when these teachers are in a position to grade or evaluate the student.
  1. Students should avoid behaviors that could potentially be construed as attempting to influence the faculty, for example running personal errands.
  2. The University has specific codes and regulations regarding romantic

relationships between a student and a teacher, including faculty/resident/fellows ([www.wustl.edu/policies/consent.html](http://www.wustl.edu/policies/consent.html))

Students engaged in such relationships should review these codes and avoid any situation that can cause potential conflict of interest in the academic setting.

8. Patients should be treated as individuals in the context of their family, culture and community. Personal bias should be subordinated when possible to further the therapeutic relationship.
  1. Use of offensive language or gestures is unacceptable.
  2. At times, some religious beliefs will require the use of alternative care approaches.
  3. Students, like practicing physicians, should not refuse to participate in the care of a patient with a communicable disease unless this represents a meaningful threat to the student's own health. In contrast, a student who is verbally or physically threatened by a patient may ask to be excused from care of that patient.
9. Students should treat hospital staff with appreciation and respect as they are vital members of the health care team.

## **E. Honesty and integrity**

1. Student work should be original.
  1. Only authorized resources should be used during examinations, quizzes or graded course work. WUSM has a zero tolerance policy for plagiarism. [link to University's definition]
  2. When students are aware that a classmate has submitted work that is not their own (cheated), they should discuss this situation with the Course Master and/or the Associate Dean for Student Affairs.
2. Students must respect patients' rights and maintain confidentiality, in accordance with HIPAA guidelines.

1. Students should be ever aware that patients are ill and have the right to refuse care, particularly when poorly provided.
  2. Patient information should only be discussed with appropriate people at appropriate times.
  3. Patient records should not be photocopied carelessly or removed from appropriate areas.
  4. Patient information should be disposed of appropriately to prevent careless transmission of patient information.
3. Students should clearly communicate their abilities and level of training to patients.
    1. If a student does not know the answer to a patient's question, it is his/her responsibility to admit this lack of knowledge.
    2. Even if other members of the health care team introduce students to patients as "doctor," the student should never do so as it leads to a false perception of expertise on the patient's part.
    3. Students should always be truthful with the house staff and other medical staff in terms of patient care and never compromise patient care as a consequence of personal gain.
  4. Students should not participate in any aspect of patient care if under the influence of a substance that may compromise his/her judgment or otherwise cause the patient harm. Likewise, students should report any member of the health care team who may be participating in patient care while under the influence of a judgment-impairing substance.
  5. Any student who is impaired by physical or psychological illness should excuse him/herself from patient care responsibilities, and should also respect recommendations to do so from colleagues or supervisors.
  6. Although students are often tired or under stress, they should attempt to maintain an appropriate level of composure at all times.

7. Students should be appropriately attired for all patient care duties.
8. Students should carefully consider their participation in benefits provided by pharmaceutical companies or other medically-related businesses.
9. Students should respect the laws of federal, state and local governments in both professional and private life.

## Washington University School of Medicine Professionalism Concern Form

Please see Appendix B in the “Rules Governing Review of Student Performance” booklet.

# Technical Standards Statement

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<< Back to [Other Policies — MD Program](#)

Graduates of Washington University with a Doctor of Medicine degree are expected to have broad competence in the basic skills that underlie the general practice of medicine and surgery. All graduates must be able to take a history, examine a person, synthesize the findings into a diagnosis and plan of evaluation and treatment independently. Thus, medical students must possess the requisite sensory, motor, communicative and cognitive capabilities to accomplish these requirements in a reliable manner in order to be competent and safe medical practitioners.

# Dress Code

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<< [Back to Other Policies — MD Program](#)

While Washington University School of Medicine does not have a written dress code, it is expected that all students will dress in attire that is appropriate for a professional.

Appropriate attire in the clinical setting is especially important, not only because the student will be part of the team representing the medical profession to patients, but also because the student will be representing the School of Medicine.

Appropriate attire for male students on the clinical services includes man-tailored shirt and tie, trousers or slacks and closed toe shoes. Appropriate attire for female students includes a dress, a blouse, tailored shirt or sweater, slacks or skirt, and closed-toe shoes. Both men and women should wear a short white jacket with the appropriate identification card clearly visible.

# Duty Hour Policy for Medical Students

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<< [Back to Other Policies — MD Program](#)

\* This policy applies to fourth-year students as well.

Clerkship directors and directors of other clinical rotations are responsible for monitoring and ensuring that duty hours are adjusted as necessary. Duty hours are defined as all clinical and academic activities related to medical student education



including patient care (both inpatient and outpatient), administrative duties (completion of paperwork, dictation of charts, etc.), the provision for transfer of patient care (check-in, check-out, etc.), time spent in-house while on call, and scheduled academic activities (i.e., required academic conferences). Time spent reading, doing write ups, etc, after leaving the hospital (or after having been told you can leave) does not count toward duty hours. Student duty hours are set taking into account the effects of fatigue and sleep deprivation on learning and patient care.

- Students must not be scheduled for more than 80 clinical duty hours during a seven-day week, averaged over a four-week period.
- Students must have a minimum average of four 24-hour periods off over four weeks.
- Students must not be on overnight call more frequently than every third night.
- Students cannot be on call for more than 24 successive hours, with an added period of up to 4 hours for continuity, educational debriefing, and didactic activities. No new patients should be assigned to students after the 24-hour call limit.
- All WUSM third- and fourth-year students will have all official Washington University holidays off, regardless of whether the students' team is on-call or post-call the day of the holiday. On the work day directly preceding the holiday, students will be dismissed by 5 p.m., and will not be assigned call duties, or regular clinical duties, until the day following the holiday at the time set forth by the clerkship director, chief resident, or fourth-year elective course master.
- Students are strongly encouraged to discuss issues pertaining to days off with the resident at the beginning of the clerkship, or fourth-year elective, and to contact the respective clerkship director, elective course master, or resident, in writing (by letter or email) to obtain permission for any planned absences well in advance of the planned absence.
- Individual clerkship directors and directors of clinical rotations may choose to implement duty hour guidelines that are more restrictive than the above.

However, duty hours may not exceed the above regulations.

- If you encounter a duty hour violation, please discuss first with the clerkship director or elective coursemaster. If the issue is not resolved to satisfaction, you may approach Deans Michael Awad, Lisa Moscoso, or Alison Whelan.

# Payments and Withdrawal & Refunds Policy

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<< [Back to Other Policies — MD Program](#)

The University billing system provides a central financial account against which most student expenses incurred at the University will be posted, including but not limited to tuition, housing charges, parking, library fines, etc. This policy, when referring to tuition and other charges, includes any and all charges posted to this account.

All payments of tuition and other University charges are due and payable on the dates specified in the published calendars of the programs in the School of Medicine. Failure of a student to register when required, and pay tuition and other charges incurred on or before the date specified in the published calendar, will result in a late fee of \$50 to be added to the amount due. The late fee will be imposed seven days after the due date if full payment has not been received. Tuition and other charges are usually payable twice a year, at the start of the academic year, and again at the middle of the academic year, as listed on the schedule on the academic calendar.

In addition to the \$50 late fee, any payment due from the student and not paid by the specified date will accrue interest at the current market rate in effect on the first business day of the month in which the payment is due. This fee will be imposed on

any accounts not paid in full within 30 days of the due date. Any amount not paid when due (plus accrued interest thereon) must be paid in full within three months of the due date to avoid potential suspension from classes.

If a student fails to make payments within three months of the original due date, the School will not release the student's academic record, grade reports or transcript, pending settlement of the unpaid account. A student who has not satisfied all of his/her delinquent financial obligations to Washington University (tuition, University housing, parking, etc.) one month before the end of the academic year will not be allowed to progress to the next academic year, nor can they be issued a diploma.

Federal financial aid funds for the next academic year cannot be disbursed until all prior year balances are paid in full.

Students who rely on financial aid funds to meet their obligations should submit their applications for processing according to application deadlines published by the Office of Financial Aid. Deadlines allow for receipt of financial aid funds by payment due dates if applications are filed by the deadline. The Office of Student Financial Aid will assist students with loan applications and financial planning upon request.

A student who withdraws or takes a leave of absence from the School will receive a pro rata refund of tuition and appropriate fees. The refund will be based on the ratio of the class days enrolled (from the first day of classes to the termination date) to the total number of class days in the term for which tuition and fees were paid. It is understood that the date on which a student formally notifies the Registrar's Office in writing of the decision to withdraw or take a leave of absence from the School of Medicine shall be regarded as the termination date, with no retroactive clause to be accepted. A prospective date will be accepted, however. If tuition and fees were paid entirely or in part by financial aid from the School, the refund will be applied first to the total repayment of the accounts from which financial aid was drawn, with any remaining refund balance given to the student. Financial aid received in excess of the costs of tuition and fees must be refunded by the student to the School on the same pro rata basis as calculated for the tuition refund outlined above – per "Return of Title

IV” Federal guidelines. Any questions about these policies may be directed to either the Office of the Registrar or Financial Aid.

## Applied Health Behavior Research Policies

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Standards for Satisfactory Academic Progress for Financial Aid Eligibility

For additional policies, please visit the [Applied Health Behavior Research website](#).

## Audiology and Communication Sciences Policies

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Standards for Satisfactory Academic Progress for Financial Aid Eligibility

For additional policies, please visit the [Program in Audiology and Communication Sciences website](#).

# Biology and Biomedical Sciences Policies

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For additional policies, please visit the [Division of Biology and Biomedical Sciences website](#).

# Biomedical Engineering Policies

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For additional policies, please visit the [Biomedical Engineering website](#).

# Biostatistics Policies

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[Standards for Satisfactory Academic Progress for Financial Aid Eligibility](#)

For additional policies, please visit the [Division of Biostatistics website](#).

# Clinical Investigation Policies

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Standards for Satisfactory Academic Progress for Financial Aid Eligibility

For additional policies, please visit the [Clinical Research Training Center website](#).

## Doctor of Philosophy Policies

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For additional policies, please visit the [Division of Biology and Biomedical Sciences website](#).

## Genetic Epidemiology Policies

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Standards for Satisfactory Academic Progress for Financial Aid Eligibility

For additional policies, please visit the [Genetic Epidemiology website](#).

## Occupational Therapy Policies

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Standards for Satisfactory Academic Progress for Financial Aid Eligibility

For additional policies, please visit the Program in [Occupational Therapy website](#).

## Physical Therapy Policies

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[Standards for Satisfactory Academic Progress for Financial Aid Eligibility](#)

For additional policies, please visit the [Program in Physical Therapy website](#).

## Population Health Sciences Policies

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[Standards for Satisfactory Academic Progress for Financial Aid Eligibility](#)

For additional policies, please visit the [Master of Population Health Sciences website](#).

## Public Health

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For additional policies, please visit the [Master of Public Health website](#).

# People

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Washington University Medical Center is one of the nation's biggest academic medical centers and among the largest employers in the St. Louis metropolitan area.

## 2015-2016 By the Numbers

Total Students: 1,348

- MD, MD/PhD, MA/MD: 598
- Applied Health Behavior: 13
- Audiology and Communication Sciences: 71
- Clinical Investigation: 92
- Genetic Epidemiology: 39
- Occupational Therapy: 276
- Physical Therapy: 241
- Population Health Sciences: 18
- Faculty: 1,983

Non-faculty Assistants and Others: 144

Staff: 7,004

Total Employees: 9,204

Affiliated Private Practice Faculty: 1,389



Residents: 805

Clinical Fellows: 302

# Leadership

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Please visit the [About](#) section for [Officers of the School of Medicine](#) and other leadership groups of the school and university.

# Faculty

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The All Faculty listing in the Bulletin of the School of Medicine is drawn from the Washington University Human Resources Management System (HRMS) and provides academic appointments and education details. To update or change a faculty member's Bulletin listing, please contact the HRMS representative for your department, division or program.

For faculty contact information, please visit the [Washington University online directory](#).

*by Last Name*

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

**Elliot Efram Abbey, MD** Professor of Clinical Medicine (primary appointment)

MD New York University 1975

BA Cornell University 1971

**Camille N. Abboud, MD** Professor of Medicine (primary appointment)

MD American University of Beirut 1974

BS American University of Beirut 1970

Basem Abdeen **Instructor in Clinical Medicine** (primary appointment)

Khaled M Abdel-Hamid **Instructor in Clinical Medicine** (primary appointment)

**Shabaana Abdul Khader, PHD** Associate Professor of Molecular Microbiology (primary appointment)

PHD Madurai Kamaraj University 2002

Haley J Abell **Instructor in Genetics**

**Dana Ray Abendschein, PHD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Cell Biology and Physiology**

PHD Purdue University 1978

BS State University of New York 1974

**Enyo Ama Ablordeppey, M PH, MD** Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Emergency Medicine in Medicine**

M PH University of Pittsburgh 2007

MD University of Pittsburgh 2007

**Grazia Abou Ezzi, MS, PHD, MS** Instructor in Medicine (primary appointment)

MS University of Paris 2009

BS Holy Spirit Univ of Kaslik 2006

PHD University of Nice 2013

MS University of Nice 2008

**Christopher Abraham, MS, MD** Assistant Professor of Radiation Oncology (Pending Executive Faculty Approval) (primary appointment)

MS Washington Univ in St. Louis 2011

BS Medical College Georgia 2005

MD Saint Louis University 2006

Philip Mulayara Abraham **Instructor in Pediatrics** (primary appointment)

**Marc Bruce Abrams, DENT** Instructor in Clinical Otolaryngology (primary appointment)

BA University of MO Kansas City 1968

DENT University of MO Kansas City 1972

**Barry K Abramson, MD** Instructor in Clinical Medicine (primary appointment)

BA Johns Hopkins University 1981

MD University of Miami 1985

**Yousef Abu-Amer, MS** Professor of Orthopaedic Surgery (primary appointment)

**Professor of Cell Biology and Physiology**

BS Hebrew University 1985

MS Hebrew University 1987

**Nada A Abumrad, PHD** Robert C Atkins Professor of Obesity Research in Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

BS American University of Beirut 1972

PHD State University of New York 1978

**Aninda Bhat Acharya, MD** Instructor in Clinical Neurology (primary appointment)

MD1 University of Kansas 1996

BS University of Kansas 1992

MD University of Kansas 1996

**Samuel I Achilefu, PHD** Michel M Ter-Pogossian Professor of Radiology (primary appointment)  
Professor of Biochemistry and Molecular Biophysics  
PHD University of Nancy I 1991

**Susan E Adams, PHD, MD** Assistant Professor of Clinical Pediatrics (primary appointment)  
BS University of Kansas 1977  
PHD University of Kansas Medical 1984  
BA University of Kansas 1977  
MD Washington Univ in St. Louis 1991

**Susan R Adams, MD** Instructor in Clinical Medicine (primary appointment)  
BA Carleton College 1985  
MD University of Missouri 1989

William S Adams Associate Professor of Clinical Pediatrics (primary appointment)  
Muyibat A Adelani Assistant Professor of Orthopaedic Surgery (primary appointment)

**Foluso O Ademuyiwa, M PH, MBBS** Assistant Professor of Medicine (primary appointment)  
M PH Johns Hopkins University 2001  
MBBS University of Ibadan 1999

**Douglas R Adkins** Professor of Medicine (primary appointment)  
BS Wright State University 1982

**Benard C Adler, MD** Prof Emeritus Of Clinical Otolaryngology (primary appointment)  
BS Washington Univ in St. Louis 1937  
MD Washington Univ in St. Louis 1937

**Azadeh Afshari, MS, DDENT** Instructor in Clinical Otolaryngology (primary appointment)  
BS West Virginia University 2004  
MS Univ of Texas Med Sch Houston 2013  
DDENT Univ of Texas Med Sch Houston 2014

**Rebecca L Aft, PHD, MD** Professor of Surgery (General Surgery) (primary appointment)  
PHD Univ of Wisconsin Madison 1983  
BS Univ of Wisconsin Madison 1978  
MD Washington Univ in St. Louis 1992

Sirajuddin Agha Assistant Professor of Anesthesiology (primary appointment)

**Randy Agolia, MD** Instructor in Clinical Pediatrics (primary appointment)  
MD St. Louis University Group of 1995

**Arpana Agrawal, PHD** Associate Professor of Psychiatry (primary appointment)  
PHD Virginia Comm University 2004

**Philip Patrick Ahern, PHD** Instructor in Pathology and Immunology (primary appointment)  
PHD Oxford University 2010

Aqeeb Ahmad Instructor in Clinical Psychiatry (primary appointment)

**Fahd Aqeeb Ahmad, MD** Assistant Professor of Pediatrics (primary appointment)  
MD University of MO Columbia 2006

**Homaa Ahmad, MD** Assistant Professor of Medicine (primary appointment)  
MD Johns Hopkins University Medic 2003  
BA Johns Hopkins University 1999

Nawal Mona Ahmed Instructor in Clinical Otolaryngology (DDS) (primary appointment)

**Gail G Ahumada, MD, MA** Assoc Prof Emeritus Of Clinical Medicine (primary appointment)  
BA Stanford University 1961  
MD University of California 1972  
MA Stanford University 1962

**Walter John Akers, DVM, PHD** Assistant Professor of Radiology (primary appointment)

DVM University of MO Columbia 2001

BS University of MO Columbia 2004

PHD University of MO Columbia 2005

**Abdulla Akfaly, MD**Instructor in Clinical Medicine (primary appointment)

MD Aleppo University 1991

**Olaguoke Kelechi Akinwande, MD**Assistant Professor of Radiology (primary appointment)

**Assistant Professor of Surgery (General Surgery)**

MD Ross University 2009

**Gustav Akk, PHD**Assistant Professor of Anesthesiology (primary appointment)

BS Moscow State University 1991

PHD State Univ of NY Buffalo 1997

**Natalia S Akopyants**Instructor in Molecular Microbiology (primary appointment)

**Ghadah Abdulaziz Al Ismail**Instructor in Medicine (primary appointment)

**Ziyad Al-Aly**Assistant Professor of Medicine (primary appointment)

**Etihad S. Al-Falahi**Instructor in Clinical Pediatrics (primary appointment)

**Ream Al-Hasani, PHD**Instructor in Anesthesiology (primary appointment)

PHD University of Surrey 2009

**Muhammad Taher Al-Lozi, MD**Professor of Neurology (primary appointment)

MD University of Panjab 1980

**Bassam Albarcha**Instructor in Clinical Medicine (primary appointment)

**Suzanne G Albrecht**Instructor in Clinical Pediatrics (primary appointment)

**Amber Salter Albright, PHD, M PH**Assistant Professor of Biostatistics (primary appointment)

**Assistant Professor of Neurology**

PHD University of Alabama-Birmingham 2015

M PH University of North Texas Health 2005

**Alexander William Aleem, MD**Assistant Professor of Orthopaedic Surgery (Pending Executive

**Faculty Approval)** (primary appointment)

MD Washington Univ in St. Louis 2010

BS Johns Hopkins University 2006

**Jorge M Alegre, MD**Instructor in Clinical Medicine (primary appointment)

MD School Not Listed 1965

**Jennifer Marie Alexander-Brett, MD, PHD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

MD Washington Univ in St. Louis 2007

PHD Washington Univ in St. Louis 2007

BS University of Nebraska 1999

**Tarek Alhamad, MD, MS**Assistant Professor of Medicine (primary appointment)

MD Damascus U. Medical School 2006

MS Pennsylvania State University 2013

**Alaa Ali**Instructor in Medicine (primary appointment)

**Muhammad A Ali, MD**Instructor in Clinical Medicine (primary appointment)

MD School Not Listed 1985

**Kari Leigh Allen, MA, PHD**Assistant Professor of Anatomy (primary appointment)

**Assistant Professor of Anthropology (Courtesy)**

MA New Mexico St University 2008

PHD Duke University 2014

**Paul M Allen, PHD, MS**Robert L. Kroc Professor of Pathology and Immunology (primary appointment)

PHD University of Michigan 1981

BS University of Michigan 1974

MS University of Michigan 1977

**Henry W Allhoff, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BA University of Missouri 1976

OD Illinois College of Optometry 1981

**Ardis Kay Allison, DOST** Instructor in Clinical Pediatrics (primary appointment)

DOST Oklahoma St University 1980

Florence Michelle Almiron-Torralba Instructor in Clinical Medicine (primary appointment)

**David Hershel Alpers, MD** William B Kountz Professor of Gerontology in Medicine (primary appointment)

MD Harvard University 1960

BA Harvard University 1956

**Denis Ian Altman, MBChB** Associate Professor of Clinical Neurology (primary appointment)  
Assistant Professor of Clinical Pediatrics

MBChB University of the Witwatersra 1975

Michael Bernard Altman Assistant Professor of Radiation Oncology (primary appointment)

**Lizette Alvarez-Montero, MD** Instructor in Clinical Neurology (primary appointment)

MD School Not Listed 1991

BA Washington Univ in St. Louis 1987

Jamaluddin Faisal Amanullah Instructor in Clinical Medicine (primary appointment)

**Gaya K Amarasinghe, PHD** Associate Professor of Pathology and Immunology (primary appointment)

Associate Professor of Biochemistry and Molecular Biophysics

Associate Professor of Molecular Microbiology

PHD University of Maryland 2001

**Ferdinand Enginco Amarillo, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

PHD Florida State University 2010

**Maryellen Amato, MD** Instructor in Clinical Radiology (primary appointment)

BA Notre Dame College 1976

MD Case Western Reserve Univ 1981

**Patricia J Amato** Professor of Clinical Pediatrics (primary appointment)

BS Notre Dame College 1979

**Amit P. Amin, MD** Assistant Professor of Medicine (primary appointment)

MD Government Medical College 1998

**Manik A Amin, MD** Assistant Professor of Medicine (primary appointment)

MD Government Medical College 1997

**Navinkumar J Amin, MS** Associate Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MS University of Bombay 1966

**Shilpa S Amin** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA University of MO Kansas City 1994

**Mohamad T Amjad, MD** Professor of Clinical Pediatrics (primary appointment)

BS School Not Listed 1957

MD School Not Listed 1961

**Hongyu An, PHD, MS** Associate Professor of Radiology (primary appointment)

PHD Washington Univ in St. Louis 2001

BS Tianjin University 1993

MS Washington Univ in St. Louis 1999

Ping An **Assistant Professor of Genetics** (primary appointment)

**Jagruti Shah Anadkat, MD** Assistant Professor of Pediatrics (primary appointment)

BS Ohio State University 2000

MD Northeastern University 2005

**Milan J. Anadkat, MD** Associate Professor of Medicine (Dermatology) (primary appointment)

MD Ohio University 2001

BS University of Akron 1997

**Dhanalakshmi Subramanian Anbukumar, PHD** Instructor in Medicine (primary appointment)

PHD Saint Louis University 2010

BA Saint Louis University 2003

**Beau Mark Ances, MS, PHD, MD** Associate Professor of Neurology (primary appointment)

**Associate Professor of Biomedical Engineering**

**Associate Professor of Radiology**

MS London School of Economics 1994

BS University of Pennsylvania 1993

PHD University of Pennsylvania 2000

MD University of Pennsylvania 2001

Kristen Minette Andersen **Instructor in Clinical Pediatrics** (primary appointment)

**Adam Lee Anderson, MD** Assistant Professor of Medicine (primary appointment)

BS University of Illinois Chicago 2006

MD University of Illinois Chicago 2010

**Dale J Anderson, MD** Instructor in Clinical Psychiatry (primary appointment)

MD Washington Univ in St. Louis 1978

**Neil William Anderson, MD** Assistant Professor of Pathology and Immunology (primary appointment)

MD University of Wisconsin-Madison 2009

BS1 University of Wisconsin-Madison 2005

Richard H Anderson **Instructor in Clinical Psychiatry** (primary appointment)

**Scott J Anderson, MD, PHD** Instructor in Clinical Medicine (primary appointment)

BA University of California 1975

MD Duke University 1982

PHD Duke University 1981

**Usha P Andley, MS** Professor of Ophthalmology and Visual Sciences (primary appointment)

**Assistant Professor of Biochemistry and Molecular Biophysics**

BS Delhi University 1970

MS Delhi University 1972

**Dorothy A Andriole** Associate Professor of Surgery (General Surgery) (primary appointment)

**Assistant Dean for Student Affairs and Medical Education**

BA New York University 1976

**Gerald L Andriole, MD** Robert Killian Royce, M.D. Distinguished Professor of Urologic Surgery (primary appointment)

MD Jefferson Medical College 1978

BS Pennsylvania State University 1976

**Dana E Ankney, MD** Instructor in Clinical Pediatrics (primary appointment)



MD Wake Forest University 2005

BA Washington Univ in St. Louis 2001

**Andrey P Anokhin, PHD, MS** Associate Professor of Psychiatry (primary appointment)

PHD Russia Academy of Science 1987

MS Moscow State University 1981

Muhammad Jaffer Ansari **Assistant Professor of Clinical Medicine** (primary appointment)

**George Ansstas, MD** Assistant Professor of Medicine (primary appointment)

MD Tishreen Univ College of Med 2001

**Alison Lynne Antes Schuelke, PHD, MS** Assistant Professor of Medicine (primary appointment)

PHD University of Oklahoma 2010

BS Indiana State University 2005

MS University of Oklahoma 2007

**E. James Anthony, MD, MS, PHD** Prof Emeritus Of Psychiatry (child Psych) (primary appointment)

MD School Not Listed 1949

UNKNOWN School Not Listed 1941

MS School Not Listed 1941

BS School Not Listed 1938

PHD School Not Listed 1948

**Lucinda L. Antonacci-Fulton, MS** Academic Rank held in Genetics (primary appointment)

**Instructor in Genetics**

MS Southern Ill Univ Edwardsville 1992

BS Southern Ill Univ Edwardsville 1991

Amal F. Antoun **Instructor in Clinical Pediatrics** (primary appointment)

**Shafkat Anwar, MD** Assistant Professor of Pediatrics (primary appointment)

MD George Washington University 2005

**Anthony John Apicelli III, PHD, MD** Assistant Professor of Radiation Oncology (primary appointment)

PHD Washington Univ in St. Louis 2009

BS Princeton University 1999

MD Washington Univ in St. Louis 2009

**John K Appelbaum, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD Washington Univ in St. Louis 1984

BA Saint Louis University 1980

Murray Howard Appelbaum **Instructor in Clinical Otolaryngology (DMD)** (primary appointment)

**Catherine M Appleton, MD** Associate Professor of Radiology (primary appointment)

BS University of Florida 1996

MD University of Florida 2000

**Rajendra Apte, PHD, MD** Paul A. Cibis Distinguished Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Developmental Biology**

**Professor of Medicine**

PHD University of Texas Southwest 1997

MD University of Bombay 1993

Tomas Ismael Aquino **Assistant Professor of Clinical Obstetrics and Gynecology** (primary appointment)

Gabriel C Araujo **Instructor in Clinical Neurology** (primary appointment)

**Scott J Arbaugh, MD** Instructor in Clinical Psychiatry (primary appointment)

MD Saint Louis University 1985

BA Saint Louis University 1980

**Jeffrey Michael Arbeit, MD** Professor of Surgery (Urologic Surgery) (primary appointment)

**Professor of Cell Biology and Physiology**

BS Boston University 1972

MD Rush University 1976

Ana Marie Arbelaez Perez **Associate Professor of Pediatrics** (primary appointment)

**Ahmad Beheshti Ardekani, MD** Assistant Professor of Clinical Psychiatry (primary appointment)

MD School Not Listed 1974

**Christopher Thomas Arett, MD** Assistant Professor of Surgery (Urologic Surgery) (Pending Executive Faculty Approval) (primary appointment)

MD Washington Univ in St. Louis 2003

BS Washington Univ in St. Louis 1999

**Kenneth J Arnold, MD** Assistant Professor of Clinical Surgery (General Surgery) (primary appointment)

MD Washington Univ in St. Louis 1968

BA University of Notre Dame 1964

**Suzanne V Arnold, MD, MHA** Adjunct Assistant Professor of Medicine (primary appointment)

MD Ohio State University 2004

MHA Ohio State University 2004

**Vivek Kumar Arora, PHD, MD** Assistant Professor of Medicine (primary appointment)

PHD University of Texas Southwest 2004

MD University of Texas Southwest 2004

BS Northwestern University 1996

**Neva P Arribas, MD, AA** Assoc Prof Emeritus Of Clin Ophthal & VIs Sci (primary appointment)

MD School Not Listed 1954

AA School Not Listed 1949

Jennifer L. Arter **Assistant Professor of Clinical Pediatrics** (primary appointment)

**Maksym Artomov, MS, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

MS University of Chicago 2005

PHD Mass Inst of Technology (MIT) 2009

**Saira M Asadullah, MD** Instructor in Clinical Medicine (primary appointment)

MD Aga Khan University 1992

**Phillip V. Asaro, MD** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD Saint Louis University 1981

**Yasmin Asvat, MA, PHD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MA San Diego St University 2006

PHD University of South Florida 2013

BA University of Toronto 2004

BA1 University of Toronto 2004

**Umeshkumar Athiraman, MD** Instructor in Anesthesiology (Pending Dean's Approval) (primary appointment)

MD M.G.R. Medical University 2013

**Elizabeth L Atkinson, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Hahnemann University 1994

**Jeffrey Jay Atkinson** Assistant Professor of Medicine (primary appointment)



**Assistant Professor of Pediatrics**

BS1 Loyola College 1990

MD1 Hahnemann University 1994

BS Loyola College 1990

**John Patterson Atkinson, MD** Samuel Grant Professor of Medicine (primary appointment)

**Professor of Molecular Microbiology**

BA University of Kansas 1965

MD University of Kansas 1969

**Stephanie Jane Attarian, BBA, MD** Instructor in Pediatrics (primary appointment)

BBA East Tennessee State University 2004

MD University of Tennessee 2009

**Robert K Atteberry** Instructor in Clinical Pediatrics (primary appointment)

**Crystal Lynn Atwood, MD** Instructor in Medicine (primary appointment)

MD University of Illinois Chicago 2009

**Adrienne Denise Atzemis, MD** Associate Professor of Pediatrics (primary appointment)

MD Creighton University 2000

BS John Carroll University 1996

**Chandra Aubin** Associate Professor of Emergency Medicine in Medicine (primary appointment)

**Jacob D AuBuchon** Assistant Professor of Anesthesiology (primary appointment)

**Sarah Elizabeth Aubuchon, MD** Instructor in Clinical Pediatrics (primary appointment)

BA University of MO Kansas City 2007

MD University of MO Kansas City 2008

**Paul F Austin, MD** Professor of Surgery (Urologic Surgery) (primary appointment)

BA Murray St University 1987

MD University of Kentucky 1991

**James G Avery, MD** Associate Professor of Clinical Medicine (primary appointment)

MD University of Tennessee 1990

**Michael Simon Avidan, MBChB** Professor of Anesthesiology (primary appointment)

**Professor of Surgery (Cardiothoracic Surgery)**

MBChB University of the Witwatersrand 1991

**Michael Magdi Awad, PHD, MD** Associate Professor of Surgery (General Surgery) (primary appointment)

**Associate Dean for Medical Education**

PHD Brown University 2001

MD Brown University 2001

BS Brown University 1994

**Sylvia Awadalla, MD** Professor of Neurology (primary appointment)

MD Ohio State University 1985

**Victoria Brooke Ayden** Assistant Professor of Psychiatry (Child Psychiatry) (primary appointment)

BS Northwestern University 1996

**Sara Ayers, MD** Instructor in Clinical Pediatrics (primary appointment)

MD University of Missouri 1998

**Abdelkareem Azab, PHD** Assistant Professor of Radiation Oncology (primary appointment)

PHD Hebrew University 2007

**Riad Azar, MD** Associate Professor of Medicine (primary appointment)

MD Saint Josephs University 1994

**Fariba Azarpour, MD** X (primary appointment)

MD School Not Listed 1971

**Naazia H Azhar**Instructor in Psychiatry (primary appointment)

**Sangeeta Kaur Babar, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS Rensselaer Poly Institute 2001

MD Albany Medical College 2003

**Hilary M Babcock, MPH, MD**Associate Professor of Medicine (primary appointment)

BA Brown University 1989

MPH Saint Louis University 2006

MD University of Texas Southwest 1994

**Richard G. Bach, MD, MS**Professor of Medicine (primary appointment)

MD New York University 1984

MS New York University 1980

BS Georgetown University 1977

**Leonard B Bacharier, MD**Professor of Pediatrics (primary appointment)

**Professor of Medicine**

MD Washington Univ in St. Louis 1992

BA Johns Hopkins University 1988

**Kyongtae T Bae, ME, PHD**Adjunct Associate Professor of Radiology (primary appointment)

ME University of Iowa 1983

PHD University of Pennsylvania 1988

**Jacques Ulrich Baenziger, MD**Professor Emeritus of Biochemistry and Molecular Biophysics (primary appointment)

**Prof Emeritus of Biochem & Molecular Biophysic** (primary appointment)

MD Washington Univ in St. Louis 1975

BA New College of Florida 1969

**Jill M Baer, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

BS University of Kentucky 1972

MD University of Kentucky 1975

**Maria Quintos Baggstrom, MD**Associate Professor of Medicine (primary appointment)

BA Williams College 1991

MD University of Texas Houston 1996

**Kathy Baglan**Instructor in Clinical Radiation Oncology (primary appointment)

**Om Parkash Bahl**Assistant Professor of Clinical Medicine (primary appointment)

**Donald M Bailey**Adjunct Instructor in Medicine (primary appointment)

**Jeffrey Allen Bailey, MD, M PA**Adjunct Assistant Professor of Surgery (General Surgery) (primary appointment)

MD Saint Louis University 1996

M PA Golden Gate University 1986

**Sean B Bailey, MD, MS**Instructor in Clinical Otolaryngology (primary appointment)

MD Tulane University 1987

MS Tulane University 1988

BS Tulane University 1981

**Thomas C Bailey, MD**Professor of Medicine (primary appointment)

BA William Jewell College 1980

MD Washington Univ in St. Louis 1984

**Gregory Eden Baker, MD**Instructor in Clinical Medicine (primary appointment)

MD Mayo Clinic 2001

**Jonathan C Baker, MD**Assistant Professor of Radiology (primary appointment)

MD Washington Univ in St. Louis 2004

BS Saint Louis University 2000

Parul Bakhshi **Assistant Professor of Occupational Therapy** (primary appointment)

**Assistant Professor of Surgery (Public Health Sciences)**

Dustin M Baldrige, MD **Instructor in Pediatrics** (primary appointment)

MD Baylor University 2011

Megan Tierney Baldrige, MD, PHD **Assistant Professor of Medicine** (primary appointment)

**Assistant Professor of Molecular Microbiology**

MD Baylor College of Medicine 2011

PHD Baylor College of Medicine 2009

Dennis M Balfe, MD **Professor of Radiology** (primary appointment)

MD Medical College of Wisconsin 1975

BS Santa Clara University 1968

Fred J Balis, MS, MD **Assistant Professor of Clinical Medicine** (primary appointment)

MS Cornell University 1985

MD Washington Univ in St. Louis 1989

BS University of Vermont 1981

Clarence William Balke, MD **Professor of Medicine** (primary appointment)

BS Haverford College 1975

MD Temple University 1981

Robert H Baloh, MD, PHD **Adjunct Assistant Professor of Neurology** (primary appointment)

MD Washington Univ in St. Louis 2001

BS Brown University 1995

PHD Washington Univ in St. Louis 2005

MD1 Washington Univ in St. Louis 2001

Keki Rohonton Balsara, MD **Assistant Professor of Surgery (Cardiothoracic Surgery)** (primary appointment)

BS1 University of Pennsylvania 1998

MD University of Pennsylvania 2003

Sirine A. Baltagi **Assistant Professor of Pediatrics** (primary appointment)

David T Balzer, MD **Professor of Pediatrics** (primary appointment)

MD Saint Louis University 1985

BS University of MO Columbia 1981

Sonya Bamba, MD **Assistant Professor of Ophthalmology and Visual Sciences** (primary appointment)

MD Saint Louis University 2007

David Ban, MD **Associate Professor of Clinical Medicine** (primary appointment)

BA Kalamazoo College 1976

MD University of Oregon 1980

James William Banks, MD **Instructor in Clinical Medicine** (primary appointment)

MD Marshall University 1984

Dhruv Bansal, MD **Instructor in Medicine** (primary appointment)

MD University of New Mexico 2011

Michael Roman Banton, MD **Instructor in Clinical Psychiatry (Child Psychiatry)** (primary appointment)

MD Saint Louis University 1985

Jianxin Bao, PHD **Adjunct Associate Professor of Otolaryngology** (primary appointment)

PHD University of Florida 1992

Abraham Barake **Associate Professor of Clinical Medicine** (primary appointment)

BS University of Maryland 1976

Vadim Baram **Instructor in Clinical Psychiatry** (primary appointment)

**Thomas J Baranski, PHD, MD** **Associate Professor of Medicine** (primary appointment)

**Associate Professor of Developmental Biology**

BS Univ of Wisconsin Madison 1985

PHD Washington Univ in St. Louis 1992

MD Washington Univ in St. Louis 1992

**Peggy Barco, MED** **Assistant Professor of Occupational Therapy** (primary appointment)

**Assistant Professor of Medicine**

MED Washington Univ in St. Louis 1987

**Angela L Bard, MD** **Associate Professor of Clinical Pediatrics** (primary appointment)

MD Indiana University Bloomington 1981

BS Indiana University Bloomington 1976

Rachel Hannah Bardowell **Assistant Professor of Medicine** (primary appointment)

**Philip M Barger, MD** **Associate Professor of Medicine** (primary appointment)

MD Case Western Reserve Univ 1989

**Wayne Morris Barnes, PHD** **Associate Professor of Biochemistry and Molecular Biophysics**

(primary appointment)

BA University of CA Riverside 1969

PHD Univ of Wisconsin Madison 1974

Alan Roy Barnette **Adjunct Instructor in Pediatrics** (primary appointment)

**Joaquin Barnoya, MS, MD** **Associate Professor of Surgery (General Surgery)** (primary appointment)

**Associate Professor of Medicine**

MS Harvard University 2001

MD Universidad de San Carlos 1998

**Robert L Barrack, MD** **Charles F and Joanne Knight Distinguished Professor of Orthopaedic**

**Surgery** (primary appointment)

MD Vanderbilt University 1980

**Michael James Barratt, PHD** **Instructor in Pathology and Immunology** (primary appointment)

PHD KINGS COLLEGE LONDON 1994

**Ernie-Paul Barrette, MA** **Associate Professor of Medicine** (primary appointment)

BS University of Rhode Island 1982

MA Harvard University 1984

**Melissa Anne Barrow, PHD** **Instructor in Pathology and Immunology** (primary appointment)

PHD University of Queensland 2003

**Perry J Bartels, D** **DENT** **Instructor in Clinical Otolaryngology** (primary appointment)

DENT Marquette University 1991

BA Ripon College 1986

**Thomas Joseph Bartholet, MD** **Instructor in Clinical Medicine** (primary appointment)

MD1 Brown University 1994

BS Georgetown University 1990

MD Dartmouth College 1992

**Nancy Lee Bartlett, MS, MD** **Koman Professor of Medical Oncology in Medicine** (primary appointment)

MS Mass Inst of Technology (MIT) 1979

MD Washington Univ in St. Louis 1986

BS Stanford University 1978

**Robert W Barton** **Assistant Professor of Clinical Medicine** (primary appointment)

BS University of Chicago 1962

**Ruteja A. Barve, MS, PHD**Instructor in Genetics (primary appointment)

MS Washington Univ in St. Louis 2008

PHD Washington Univ in St. Louis 2014

BS University of Pune 1995

Amanda Marie Musto Bashir**Instructor in Pediatrics** (primary appointment)

**Donald R Bassman, MD**Instructor in Clinical Orthopaedic Surgery (primary appointment)

BA Washington Univ in St. Louis 1971

MD Washington Univ in St. Louis 1975

**Steven Bassnett, PHD**Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Cell Biology and Physiology**

BS University of Wales 1982

PHD University of East Anglia 1987

Amy J Bastian**Adjunct Assistant Professor of Physical Therapy** (primary appointment)

**Kevin W Baszis, MD**Assistant Professor of Pediatrics (primary appointment)

MD University of MO Kansas City 2004

Maria S Baszis**Instructor in Clinical Pediatrics** (primary appointment)

**Randall John Bateman, MD**Professor of Neurology (primary appointment)

**Charles F and Joanne Knight Distinguished Professor of Neurology**

BS1 Washington Univ in St. Louis 1995

MD Case Western Reserve Univ 2000

BS Washington Univ in St. Louis 1995

**Luis Francisco Zirnberger Batista, PHD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Developmental Biology**

BS University of SAO Paulo 2003

PHD University of SAO Paulo 2008

**Natalie Christine Battle, MD**Instructor in Medicine (primary appointment)

MD Washington Univ in St. Louis 2010

**Adam Quentin Bauer, PHD, MS**Instructor in Radiology (primary appointment)

PHD Washington Univ in St. Louis 2009

BS Truman State University 2001

MS Washington Univ in St. Louis 2005

**Amy Lynn Bauernfeind, PHD, M PHIL**Assistant Professor of Anatomy (primary appointment)

**Assistant Professor of Anthropology (Courtesy)**

PHD George Washington University 2014

M PHIL George Washington University 2011

**M. Carolyn Baum, MA, PHD**Professor of Occupational Therapy (primary appointment)

**Professor of Neurology (Occupational Therapy)**

**Elias Michael Executive Director of the Program in Occupational Therapy**

BS University of Kansas 1966

MA Webster University 1979

PHD Washington Univ in St. Louis 1993

**Margaret Elizabeth Baum, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD John Hopkins Univeresity 2001

**Aimee M Baumann-Dudenhoeffer, MD**Instructor in Pediatrics (primary appointment)

BA Cornell University 2000

MD Washington Univ in St. Louis 2005

**Susan L Baumer, MD** Associate Professor of Clinical Pediatrics (primary appointment)

MD University of Pennsylvania 1975

**Frederick D Bauschard, MD** Assistant Professor of Clinical Medicine (Dermatology) (primary appointment)

MD University of Pittsburgh 1968

**Michael D Bavlsik** Assistant Professor of Clinical Medicine (primary appointment)

**Christie A. Bayer, MD** Instructor in Clinical Pediatrics (primary appointment)

MD University of MO Columbia 1990

BA Saint Louis University 1986

**Susan Joy Bayliss, MD** Professor of Medicine (Dermatology) (primary appointment)

**Professor of Pediatrics**

BA University of Texas Austin 1970

MD University of Texas Galveston 1974

**Ronald Beach** Instructor in Clinical Psychiatry (primary appointment)

**Wandy L. Beatty, PHD** Assistant Professor of Molecular Microbiology (primary appointment)

BS Montana State University 1989

PHD Univ of Wisconsin Madison 1994

**Michael William Bebbington** Professor of Obstetrics and Gynecology (Pending Executive Faculty Approval) (primary appointment)

**Paul Douglas Becherer, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BA Southern Illinois University 1971

OD School Not Listed 1975

**Julia M. Becker, MD** Instructor in Clinical Pediatrics (primary appointment)

MD University of Missouri 1997

**Robert L Becker, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD Washington Univ in St. Louis 1969

BA Cornell University 1965

**Stanley C Becker, PHD, MD, MA** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Washington Univ in St. Louis 1948

PHD Washington Univ in St. Louis 1951

MD University of Chicago 1955

MA Washington Univ in St. Louis 1950

**William L Becker, MD, MA** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Earlham College 1982

MD Washington Univ in St. Louis 1987

MA Washington Univ in St. Louis 1987

**Bahaa Ahmad Bedair, MD** Instructor in Medicine (primary appointment)

MD Washington Univ in St. Louis 2013

**Jeffrey John Bednarski, MD, PHD** Assistant Professor of Pediatrics (primary appointment)

BS Duke University 1995

MD Davenport University 2003

PHD Davenport University 2003

**Earl C Beeks Jr, MD** Associate Professor of Clinical Pediatrics (primary appointment)

MD University of Missouri 1981



BS Howard University 1977

**Saba Beg, MD**Instructor in Medicine (primary appointment)

MD Government Medical College 2004

**Avraham Beigelman, MD**Associate Professor of Pediatrics (primary appointment)

MD Hebrew University 2000

**James E Belcher, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS University of Texas Austin 1972

MD Washington Univ in St. Louis 1976

**Andrew Curry Belden, PHD**Assistant Professor of Psychiatry (primary appointment)

BS University of MO Columbia 2000

PHD Saint Louis University 2006

**Joe E Belew, MD**Associate Professor of Clinical Obstetrics and Gynecology (primary appointment)

BA Central Methodist College 1953

MD Saint Louis University 1957

**Richard C Bell**Instructor in Clinical Medicine (Dermatology) (primary appointment)

BA Northwestern University 1984

C. Elliott Bell JrInstructor in Clinical Medicine (primary appointment)

**Arbi Ben Abdallah, PHD**Assistant Professor of Anesthesiology (primary appointment)

PHD Washington Univ in St. Louis 2011

William Waite BenedictInstructor in Clinical Medicine (primary appointment)

Bruno Antonio Benitez ViloriaInstructor in Medicine (primary appointment)

**Kenneth J Bennett, MD**Associate Professor of Clinical Surgery (General Surgery) (primary appointment)

MD Tulane University 1965

**Walter F Benoist, MD**Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1972

BA University of Pennsylvania 1968

Max Prely BenzaquenInstructor in Clinical Neurology (primary appointment)

**Tammie Lee Smith Benzinger, MD, PHD**Associate Professor of Radiology (primary appointment)  
Associate Professor of Neurological Surgery

MD University of Chicago 2000

BA Williams College 1993

PHD University of Chicago 1998

**George Richard Benzinger III, MD**Associate Professor of Anesthesiology (primary appointment)

MD University of Chicago 2000

**Kathleen Mary Berchelmann, MD**Assistant Professor of Pediatrics (primary appointment)

BS Amherst College 1998

MD University of Connecticut 2003

Louise E BerdanInstructor in Clinical Pediatrics (primary appointment)

**Gregg Jonathan Berdy, MD**Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Duke University 1979

MD Saint Louis University 1983

**Susan Berdy, MD**Assistant Professor of Clinical Medicine (primary appointment)

BA Brown University 1980

MD Saint Louis University 1984

**Mikhail Y Berezin, PHD, MS**Assistant Professor of Radiology (primary appointment)

PHD Moscow Institute of Oil & Gas 1991

MS Moscow Institute of Oil & Gas 1987

**Christine R. Berg, MS, BSOT, PHD** Associate Professor of Occupational Therapy (primary appointment)

**Associate Professor of Neurology**

MS Boston University 1980

BSOT Tufts University 1976

PHD Washington Univ in St. Louis 1999

**Daniel Ralph Berg, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 2000

**Douglas E Berg, PHD** Alumni Prof Emeritus of Molecular Microbiology (primary appointment)

BS Cornell University 1964

PHD University of Washington 1969

**Martin Bergmann** Assoc Prof Emeritus Of Clin Surg (Cardio Surg) (primary appointment)

BA Washington Univ in St. Louis 1942

**Michael A Berk, MD** Professor of Clinical Medicine (primary appointment)

BA Northwestern University 1974

MD Indiana University Bloomington 1979

**Lynda Cheryl Berkowitz, MS** Instructor in Otolaryngology (primary appointment)

**Instructor in Audiology and Communication Sciences**

BS University of Illinois 1981

MS Washington Univ in St. Louis 1983

**John Rutledge Bermingham Jr, PHD** Associate Professor of Genetics (primary appointment)

BS Yale University 2016

PHD University of Colorado Boulder 2016

**Cory Thomas Bernadt, PHD, MD** Assistant Professor of Pathology and Immunology (primary appointment)

PHD University of Nebraska 2004

MD University of Nebraska 2006

BS Nebraska Wesleyan University 1998

**Carlos Bernal-Mizrachi, MD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Cell Biology and Physiology**

MD Universidad del Valle Med Sch 1990

**Lisa Marie Bernhard, MD** Instructor in Obstetrics and Gynecology (Pending Dean's Approval) (primary appointment)

MD Louisiana St University 1985

BA Vanderbilt University 1981

**Paul M Bernier, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BS Indiana State University 1983

OD University of Missouri 1987

**Aaron M Bernstein, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD University of Chicago 1952

BA Washington Univ in St. Louis 1948

**Keith A Bernstein, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Missouri 1987

BA University of MO Kansas City 1987

**Marc Jordan Bernstein, MD** Associate Professor of Clinical Medicine (primary appointment)

BA Haverford College 1988



MD Washington Univ in St. Louis 1992

**Douglas R Berson, MD**Instructor in Clinical Medicine (primary appointment)

BA Lehigh University 1981

MD University of Pennsylvania 1983

**Mary Ellen Bertrand, MD**Associate Professor of Neurology (primary appointment)

**Associate Professor of Pediatrics**

BS McKendree College 1987

MD Southern Illinois University 1993

**Stephen M Beverley, PHD**Marvin A Brennecke Professor of Molecular Microbiology (primary appointment)

**Head of the Department of Molecular Microbiology**

PHD University of California 1979

BS California Institute Technolo 1973

**Sanjeev Bhalla, MD**Professor of Radiology (primary appointment)

MD Columbia College of Phy & Surg 1994

BS Yale University 1990

**Pavan Kumar Bhamidipati, MD**Instructor in Clinical Medicine (primary appointment)

MD Guntur Medical College 2007

**Anita R. Bhandiwad, MD**Assistant Professor of Medicine (primary appointment)

MD Northwestern University 1998

**Mythili C. Bharadwaj**Instructor in Clinical Medicine (primary appointment)

UNKNOWN University of Madras 1988

**Shobha Bhaskar, MBBS**Assistant Professor of Pediatrics (primary appointment)

MBBS Bangalore University 1994

**Priya Narayana Bhat, MS, MD**Assistant Professor of Pediatrics (primary appointment)

MS University of AL Huntsville 2000

BS University of AL Huntsville 1999

MD University of South Alabama 2004

**Savita Bhat, MS**Instructor in Clinical Psychiatry (primary appointment)

MS1 School Not Listed 1989

MS St Xavier's College 1980

**Deeptha Bhattacharya, PHD**Assistant Professor of Pathology and Immunology (primary appointment)

BS Indiana University Bloomington 1996

PHD University of CA Berkeley 2001

**Rakhee Kapadia Bhayani, MD**Associate Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1999

**Sam B Bhayani, MD**Professor of Surgery (Urologic Surgery) (primary appointment)

BS Cornell University 1992

MD Washington Univ in St. Louis 1996

**Anjali Maruti Bhorade, MD**Associate Professor of Ophthalmology and Visual Sciences (primary appointment)

**Associate Professor of Occupational Therapy**

MD University of Chicago 1999

**Stanley I Biel, MD**Instructor in Clinical Medicine (primary appointment)

BA Rockford College 1974

MD University of Illinois 1978

**Frank Joseph Bier, OD**Adjunct Instructor in Ophthalmology and Visual Sciences (primary

appointment)

OD University of MO St Louis 1984

BS University of Missouri 1979

**Andrew J Bierhals, MPH, MD** Associate Professor of Radiology (primary appointment)

MPH University of Pittsburgh 1996

MD University of Pittsburgh 2000

BS University of Pittsburgh 1993

**Joelle Biernacki, MD** Instructor in Radiology (primary appointment)

MD University of MO Kansas City 1989

BA University of MO Kansas City 1988

**Laura J Bierut** Alumni Endowed Professor of Psychiatry (primary appointment)

BA Harvard University 1982

Scott W Biest Associate Professor of Obstetrics and Gynecology (primary appointment)

**Ronald C Bilchik, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BS University of Toledo 1963

MD Washington Univ in St. Louis 1967

**Joseph John Billadello, MD** Associate Professor of Medicine (primary appointment)

MD Georgetown University 1978

**Lawrence J Billy** Instructor in Clinical Surgery (General Surgery) (primary appointment)

BA Youngstown St University 1962

**Ellen F Binder, MD** Professor of Medicine (primary appointment)

**Professor of Occupational Therapy**

MD Washington Univ in St. Louis 1981

BA Davenport University 1977

**Aaron Birenbaum, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1948

**William D Birenbaum, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Missouri 1983

BA Washington Univ in St. Louis 1978

**Clifford Allen Birge, MD** Assistant Professor of Clinical Medicine (primary appointment)

BA Amherst College 1956

MD Washington Univ in St. Louis 1961

**Stanley J Birge, MD** Associate Professor of Medicine (primary appointment)

BA Amherst College 1959

MD Washington Univ in St. Louis 1963

**Thomas M Birkenmeier, MD** Assistant Professor of Medicine (primary appointment)

BA Washington Univ in St. Louis 1978

MD Washington Univ in St. Louis 1982

**Mark Gerald Birkmann** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BA University of Missouri 1988

Jean E Birmingham Associate Professor of Clinical Pediatrics (primary appointment)

**Elisa H Birnbaum, MD** Professor of Surgery (General Surgery) (primary appointment)

MD University of Illinois 1985

BS Univ of Wisconsin Madison 1981

Alan J Birtwistle Assistant Professor of Clinical Neurology (primary appointment)

**Kumar Sanjeev Bishnupuri, MS** Instructor in Medicine (primary appointment)

BS Tilka Manjhi Bhagalpur Univ 1988

MS Banaras Hindu University 1992

Monica E. Bishop **Associate Professor of Psychiatry** (primary appointment)

**Joseph T Black, MD** **Professor of Clinical Neurology** (primary appointment)

MD School Not Listed 1965

BA University of Rochester 1961

**Kevin J. Black, MD** **Professor of Psychiatry** (primary appointment)

**Professor of Radiology**

**Professor of Neurology**

**Professor of Neuroscience**

MD Duke University 1990

BS Brigham Young University 1986

**Lynn Bennett Blackburn, MA, PHD** **Assistant Professor of Clinical Neurology** (primary appointment)

MA Indiana University Bloomington 1970

BS Univ of Wisconsin Madison 1968

PHD Indiana University Bloomington 1972

Huldah C Blamoville **Associate Professor of Clinical Pediatrics** (primary appointment)

**Valerie Blanc, PHD** **Instructor in Medicine** (primary appointment)

PHD University of Bordeaux 2 1996

**Melvin S Blanchard, BBA, MD** **Professor of Medicine** (primary appointment)

**Director of Residency Program, Department of Internal Medicine**

BBA Trevecca Nazarene College 1987

MD University of Tennessee 1994

**Merilda O Blanco-Guzman, MD** **Instructor in Medicine** (primary appointment)

MD PUCMM FACULTAT DE CIENCIAS DEL 2004

**Marghuretta Dakota Bland, MS** **Assistant Professor of Physical Therapy** (primary appointment)

**Assistant Professor of Neurology**

**Assistant Professor of Occupational Therapy**

MS Washington Univ in St. Louis 2008

BS Canisius College 2004

**Elizabeth Joy Blaney, MD** **Assistant Professor of Medicine** (primary appointment)

MD Ohio State University 2007

BA Eastern Michigan University 2003

Kevin J Blanton **Instructor in Clinical Pediatrics** (primary appointment)

**Jeffrey Alan Blatnik, MD** **Assistant Professor of Surgery (General Surgery)** (primary appointment)

MD Case Western Reserve Univ 2007

**Terra Rupert Blatnik, MD** **Assistant Professor of Orthopaedic Surgery** (primary appointment)

MD Case Western Reserve Univ 2007

BS Allegheny College 2003

**Andrew N Blatt, MA, MD** **Assistant Professor of Clinical Ophthalmology and Visual Sciences** (primary appointment)

BA Duke University 1987

MA Washington Univ in St. Louis 1991

MD Washington Univ in St. Louis 1992

**Joshua Andrew Blatter, M PH, MD** **Assistant Professor of Pediatrics** (primary appointment)

M PH University of Pittsburgh 2014

MD University of Pittsburgh 2008

**Pablo M Blazquez Gamez, PHD** Assistant Professor of Otolaryngology (primary appointment)  
PHD University of Seville 1998

**Kevin Jay Blinder, MD** Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD University of MO Kansas City 1985

**Morey A Blinder, MD** Professor of Medicine (primary appointment)

**Professor of Pathology and Immunology**

MD Saint Louis University 1981

BS University of Notre Dame 1977

**Adam J. Bloom, PHD** Assistant Professor of Psychiatry (primary appointment)

**Assistant Professor of Anesthesiology**

PHD Washington Univ in St. Louis 2006

**Gordon R Bloomberg** Prof Emeritus of Pediatrics (primary appointment)

BA University of Illinois 1955

BS University of Illinois 1955

**Jeffrey D Bloss** Adjunct Associate Professor of Obstetrics and Gynecology (primary appointment)

**Donald Allen Blum** Assistant Professor of Clinical Medicine (primary appointment)

**Kendall Jay Blumer, PHD** Professor of Cell Biology and Physiology (primary appointment)

BA Rice University 1977

PHD Duke University 1986

**Trina Blythe, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

BA Harvard Radcliff 1992

MD Albany Medical College 1996

**James C Bobrow, MD** Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Yale University 1966

MD Johns Hopkins University Medic 1970

**Grant Bochicchio, MD, M PH** Professor of Surgery (General Surgery) (primary appointment)

MD Pennsylvania State University 1993

M PH University of Pittsburgh 1989

**Imre Bodo** Adjunct Instructor in Medicine (primary appointment)

**Ljiljana Bogunovic, MD** Assistant Professor of Orthopaedic Surgery (primary appointment)

MD Cornell University 2009

**George M Bohigian, MD** Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Saint Louis University 1965

**Barbara Ann Bohne, PHD** Prof Emeritus of Otolaryngology (primary appointment)

PHD Washington Univ in St. Louis 1971

**Donald David Bohnenkamp, MD** Assistant Professor of Psychiatry (primary appointment)

BS Saint Louis University 2003

MD Univ of Nebraska Med Center 2007

**Irving Boime, PHD, MS** Professor of Developmental Biology (primary appointment)

**Professor of Reproductive Biology in Obstetrics and Gynecology**

PHD Washington Univ in St. Louis 1970

MS Purdue University 1966

BS St Louis College of Pharmacy 1964

**Richard Gerald Bolanos** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Joshua P Boldt** Instructor in Clinical Pediatrics (primary appointment)

**Indra Bole**Instructor in Medicine (primary appointment)

BS University of Maryland 2008

**Michael Bolger**Instructor in Clinical Medicine (primary appointment)

**Isaac Boniuk**Professor Emeritus of Clinical Ophthalmology and Visual Sciences (primary appointment)

**Prof Emeritus of Clin Ophthalmol & Vis Sci** (primary appointment)

BS Dalhousie University 1958

**James Scott Bonner, MD**Instructor in Clinical Neurology (primary appointment)

MD University of Missouri 1980

BA Drury College 1976

**Azad Bonni, MD, PhD**Edison Professor of Neurobiology (primary appointment)

**Head of the Department of Neuroscience**

MD Queen's University 1986

PHD Harvard University 1996

**Matthew James Bonzelet, MD**Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 2009

**Adrianus C Boon, PHD, MS**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

**Assistant Professor of Molecular Microbiology**

PHD Erasmus University Rotterdam 2003

MS University of Amsterdam 1997

**Ingrid B Borecki, PHD, MS**Adjunct Professor of Genetics (primary appointment)

PHD University of Hawaii 1981

MS University of Hawaii 1980

BS University of Illinois 1977

**Bernita Born-Wolf, OD, BN**Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD University of MO St Louis 1987

BN Saint Louis University 1978

**Benjamin A Borowsky**Professor of Clinical Medicine (primary appointment)

**Jonathan D Bortz**Instructor in Clinical Medicine (primary appointment)

**Walter R Bosch, PHS, MS, BE**Associate Professor of Radiation Oncology (primary appointment)

PHS Washington Univ in St. Louis 1990

MS Washington Univ in St. Louis 1983

BE Washington Univ in St. Louis 1980

**Ron Bose, PHD**Associate Professor of Medicine (primary appointment)

**Associate Professor of Cell Biology and Physiology**

PHD Cornell University 1998

PHD1 Cornell University 1998

**Matthew S Bosner, MD**Assistant Professor of Clinical Medicine (primary appointment)

BS Muhlenberg College 1979

MD University of Texas Austin 1983

**Paul J Botelho, MD**Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

MD Boston University 1992

BA Holy Cross College 1988

**Kathryn L Botney**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA Washington Univ in St. Louis 1980

**Kelly N Botteron, MD** Professor of Psychiatry (Child Psychiatry) (primary appointment)  
**Professor of Radiology**

BA University of Kansas 1984

MD University of Kansas Medical 1988

**Laila M Bottros, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Ain Shams University 1977

**Michael M Bottros** Assistant Professor of Anesthesiology (primary appointment)

**Lawrence V Boveri, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD University of Missouri 1988

**Bryan R Bowen, OD** Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD University of MO St Louis 2001

BS University of MO Columbia 1994

**William G Bowen, MD** Associate Professor of Clinical Medicine (primary appointment)

BS Davidson College 1970

MD University of North Carolina 1974

**Jessica Naomi Bowers** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Angela N Bowman, PHD** Assistant Professor of Developmental Biology (primary appointment)

BA University of Pennsylvania 2006

PHD Stanford University 2012

**Gregory R. Bowman, PHD** Assistant Professor of Biochemistry and Molecular Biophysics (primary appointment)

BS Cornell University 2006

PHD Stanford University 2010

**Lyndsey Jean Bowman, PHD** Adjunct Instructor in Medicine (primary appointment)

PHD St Louis College of Pharmacy 2005

**Martin I Boyer, MS** Carol B and Jerome T Loeb Professor of Orthopaedic Surgery (primary appointment)

MS University of Toronto 1993

**Susan Kathleen Boyer, MD** Instructor in Clinical Psychiatry (primary appointment)

BA Rockhurst College 1988

MD University of Missouri 1993

**Walter A Boyle III, MD** Professor of Anesthesiology (primary appointment)

**Assistant Professor of Developmental Biology**

**Professor of Surgery (General Surgery)**

MD University of CA San Francisco 1977

**Jeffrey D Bradley, MDS.** Lee Kling Professor of Radiation Oncology (primary appointment)

BA Drury College 1989

MD University of Arkansas 1993

**Joseph P Bradley, MD** Assistant Professor of Otolaryngology (primary appointment)

MD University of Kansas Medical 2008

BS Washington Univ in St. Louis 2003

**Richard V Bradley, MD** Assoc Prof Emeritus Of Clin Surg (Gen Surg) (primary appointment)

**Assoc Prof Emeritus Of Clin Surgery (gen Surg)** (primary appointment)

BS Pennsylvania State University 1945

MD Washington Univ in St. Louis 1952

**Robert J Bradshaw, MD** Instructor in Clinical Pediatrics (primary appointment)

BA Emory University 1976

BS Emory University 1976



MD Saint Louis University 1980

**Robert Harry Brady, MD**Instructor in Clinical Psychiatry (Child Psychiatry) (primary appointment)

**Adjunct Instructor in Psychiatry (Child Psychiatry)**

MD Tufts University 1995

BS University of Notre Dame 1988

Sabina A Braithwaite**Associate Professor of Emergency Medicine In Medicine (Pending Executive Faculty Approval)** (primary appointment)

Celeste Capers Brancato**Assistant Professor of Pediatrics** (primary appointment)

**Keith E Brandt, MD**William G. Hamm Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)

MD Univ Texas Health Science Ctr 1983

BS Texas A&M University 1979

**Gregory Harris Branham, MD**Professor of Otolaryngology (primary appointment)

BS University of South Carolina 1979

MD University of South Carolina 1983

**Anoop k Brar, PHD**Instructor in Surgery (Cardiothoracic Surgery)(Pending Dean's Approval) (primary appointment)

PHD University of Edinburgh 1983

BS University of Edinburgh 1979

**Richard D. Brasington Jr, MD**Professor of Medicine (primary appointment)

BA Harvard University 1974

MD Duke University 1980

**Rebekah Arletta Braslow, MD**Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

BS Stanford University 1981

MD Yale University 1987

**Alan C Braverman, MD**Alumni Endowed Professor of Cardiovascular Disease in Medicine (primary appointment)

MD University of Missouri 1985

**Peter Anthony Brawer, MA**Instructor in Clinical Psychiatry (primary appointment)

MA Loyola College 1999

BS University of Scranton 1997

**Andrea Lynn Bredemeyer, PHD**Instructor in Medicine (primary appointment)

PHD Washington Univ in St. Louis 2006

BA Colby College 1999

**Sean Michael Breit, MD**Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Ohio State University 2002

**Daniel C Brennan, MD**Professor of Medicine (primary appointment)

**Alan A and Edith L Wolff Distinguished Professor**

MD University of Iowa 1985

BS Cornell College 1981

**Audrey Brenot, PHD**Instructor in Medicine (primary appointment)

PHD University of Paris 2001

BS University of Paris 1996

**Tamara L. Brent, PHD, MD**Professor of Molecular Microbiology (primary appointment)

**Alumni Endowed Professor of Molecular Microbiology**

PHD Johns Hopkins University Medic 1991

MD Johns Hopkins University Medic 1991

BA Johns Hopkins University 1983

**Thomas J. Brett** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Cell Biology and Physiology**

**Assistant Professor of Biochemistry and Molecular Biophysics**

BS North Dakota State University 1992

**G. Larry Bretthorst, MS** Associate Professor of Radiology (primary appointment)

MS University of MO St Louis 1980

**Paul C Bridgman, MS, PHD** Professor of Neuroscience (primary appointment)

**Associate Professor of Biomedical Engineering**

MS University of CA San Diego 1976

BA University of San Diego 1974

PHD Purdue University 1980

**Keith Happ Bridwell** Albert Key Distinguished Professor of Orthopaedic Surgery (primary appointment)

**Professor of Neurological Surgery**

BA Washington Univ in St. Louis 1973

**Matthew Brinkmeier, MD** Instructor in Medicine (primary appointment)

MD Washington Univ in St. Louis 2007

**David L Brody, MD, PHD** Professor of Neurology (primary appointment)

**Associate Professor of Biomedical Engineering (Courtesy)**

BA Stanford University 1992

MD Johns Hopkins University 2000

PHD Johns Hopkins University 2000

**Steven L Brody, MD** Dorothy R and Hubert C Moog Professor of Pulmonary Diseases in Medicine (primary appointment)

**Professor of Radiology**

MD University of Michigan 1980

**Thomas J Broekelmann, MS** Instructor in Cell Biology and Physiology (primary appointment)

MS University of MO St Louis 1982

BA University of MO St Louis 1977

Larry G Brokering Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

**Igor Brondz, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD School Not Listed 1978

**Rita Thomas Brookheart** Instructor in Medicine (primary appointment)

**Instructor in Pediatrics**

BA Sweet Briar College 2003

Christopher B. Brooks Associate Professor of Emergency Medicine in Medicine (primary appointment)

**Frank Brooks, PHD** Instructor in Radiology (primary appointment)

PHD Washington Univ in St. Louis 2008

**Robert Henry Brophy IV, MS, MD** Associate Professor of Orthopaedic Surgery (primary appointment)

BS Stanford University 1994

MS Stanford University 1995

MD Washington Univ in St. Louis 2001

BA Stanford University 1994



**Angela L Brown, MD** Associate Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1992

**David L. Brown, MD** Professor of Medicine (primary appointment)

BA University of Texas Austin 1977

MD Baylor University 1982

**Lawrence R Brown, MD** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

BS Univ of Wisconsin Madison 1982

MD Washington Univ in St. Louis 1990

**Marc Richard Brown, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BA University of Missouri 1974

OD School Not Listed 1980

**Marybeth Brown, PHD, MA** Adjunct Associate Professor of Physical Therapy (primary appointment)

PHD University of Southern Calif 1984

BS Russell Sage College 1967

MA University of Southern Calif 1974

**Robert J Brown, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD Washington Univ in St. Louis 1983

BS St Peters College 1977

**Sarah Michelle Brown** Assistant Professor of Pediatrics (primary appointment)

Assistant Professor of Pathology and Immunology

Instructor in Anesthesiology

**Yolette V Brown, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

BS City University of New York 1973

MD Washington Univ in St. Louis 1982

**Earline A Brownridge** Instructor in Clinical Pediatrics (primary appointment)

**Seth J Brownridge, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1982

BA Washington Univ in St. Louis 1978

**Bernard H Brownstein, PHD** Assoc Prof Emeritus of Anesthesiology (primary appointment)

PHD University of California 1968

BA Occidental College 1961

**George John Broze Jr, MD** Professor of Medicine (primary appointment)

Professor of Cell Biology and Physiology

Professor of Pathology and Immunology

MD University of Washington 1972

**Robert M Bruce, MD** Professor of Clinical Medicine (primary appointment)

MD University of Minnesota 1968

BS University of Minnesota 1968

BA Washington Univ in St. Louis 1964

**Steven E. Bruce, PHD** Visiting Assistant Professor of Psychiatry (primary appointment)

BA Virginia Tech 1992

PHD Virginia Comm University 1998

**Michael Raymond Bruchas, PHD** Associate Professor of Anesthesiology (primary appointment)

Associate Professor of Neuroscience

PHD Creighton University 2004

Janice E Brunstrom-Hernandez **Adjunct Associate Professor of Neurology** (primary appointment)

**Elizabeth M Brunt, MD** **Prof Emeritus of Pathology & Immunol** (primary appointment)

MD University of Texas Galveston 1981

BS Georgetown University 1974

**L. Michael Brunt, MD** **Professor of Surgery (General Surgery)** (primary appointment)

MD Johns Hopkins University 1980

BA University of Mississippi 1976

**Kathleen S Brunts, MD** **Instructor in Clinical Medicine** (primary appointment)

MD Saint Louis University 1981

BS Western Michigan University 1977

**Bruce L Bryan, MD, BE** **Assistant Professor of Clinical Obstetrics and Gynecology** (primary appointment)

MD School Not Listed

BE Purdue University 1973

**Robert Charles Bucelli, PHD, MD** **Assistant Professor of Neurology** (primary appointment)

PHD State Univ of NY Buffalo 2007

BS Canisius College 2001

MD State Univ of NY Buffalo 2007

**Tony Wayne Buchanan, MA, PHD** **Adjunct Asst Professor of Psychiatry** (primary appointment)

MA University of Oklahoma 1998

PHD University of Oklahoma 2000

BA Southern Nazarene University 1995

**Craig Alan Buchman, MD** **Lindburg Professor of Otolaryngology** (primary appointment)

**Head of the Department of Otolaryngology**

BA University of Georgia 1986

MD University of Florida 1990

**Kathleen K Bucholz, PHD, MS** **Professor of Psychiatry** (primary appointment)

PHD Yale University 1986

BA Yale University 1972

MS Yale University 1976

MS1 Yale University 1982

**Jacob M Buchowski, MD, MS** **Professor of Orthopaedic Surgery** (primary appointment)

**Professor of Neurological Surgery**

BS Yale University 1996

MD Johns Hopkins University 2000

MS Yale University 1996

**Donald William Buck, MD** **Assistant Professor of Surgery (Plastic and Reconstructive Surgery)** (primary appointment)

BS Indiana University Bloomington 2002

MD Johns Hopkins University 2006

**Stanley Buck, MD** **Instructor in Clinical Medicine** (primary appointment)

MD Washington Univ in St. Louis 1977

BS Princeton University 1973

**Kathryn Ann Bucklen, MD** **Assistant Professor of Pediatrics** (primary appointment)

MD Wake Forest University 2001

**Virginia D Buckles, PHD, MS** **Professor of Neurology** (primary appointment)

PHD Univ of Wisconsin Madison 1981

BS California St Poly Pomona 1974

MS California St Poly Pomona 1977

**Sara Anne Buckman, MD, PHARM D** Assistant Professor of Surgery (General Surgery) (primary appointment)

MD Univ of Wisconsin Madison 2008

PHARM D Univ of Wisconsin Madison 1999

Tara M. Budetti **Instructor in Clinical Pediatrics** (primary appointment)

Philip J Budge **Assistant Professor of Medicine** (primary appointment)

**John B Buettner, MD** Instructor in Clinical Surgery (General Surgery) (primary appointment)

MD Washington Univ in St. Louis 1967

**Lorena Buffa, MD** Instructor in Clinical Pediatrics (primary appointment)

MD University of MO Columbia 1998

**Richard S Buller** Associate Professor of Pediatrics (primary appointment)

BS Michigan Tech University 1972

**Rebecca Kay Bullivant, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

BS Eastern Illinois University 1988

MD University of Illinois 1992

**Arnold D Bullock, MD** Professor of Surgery (Urologic Surgery) (primary appointment)

**Alan A and Edith L Wolff** Distinguished Professor

MD Johns Hopkins University 1987

BS Xavier University Louisiana 1983

**Michelle A. Burack, PHD, MD** Adjunct Instructor in Neurology (primary appointment)

PHD University of Virginia 2000

MD Washington Univ in St. Louis 2002

BS Duke University 1990

**Max H Burgdorf, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1974

BA Washington Univ in St. Louis 1970

**Peter M Burgers, PHD, MS** Marvin A. Brennecke Professor of Biological Chemistry (primary appointment)

PHD Leiden University 1977

MS Leiden University 1972

**Dean B Burgess, MD** Professor Emeritus of Clinical Ophthalmology and Visual Sciences (primary appointment)

**Prof Emeritus of Clin Ophthalmol & Vis Sci** (primary appointment)

MD University of California 1967

BA Occidental College 1963

**Andreas H Burkhalter, MS, PHD** Professor of Neuroscience (primary appointment)

**Associate Professor of Biomedical Engineering**

**Associate Professor of Neurobiology in Neurological Surgery**

MS University of Zurich 1973

PHD University of Zurich 1977

**Allen Cole Burks, MD** Instructor in Medicine (primary appointment)

MD Saint Louis University 2007

BS University of Central Arkansas 2002

**Tamara Lavon Burlis** Associate Professor of Physical Therapy (primary appointment)

**Associate Director for Clinical Education in Physical Therapy**

**Assistant Director of Professional Curriculum in Physical Therapy**

**Associate Professor of Medicine**

BA Wartburg College 1988

BS Washington Univ in St. Louis 1988

**Scott H Burner, MD** Associate Professor of Emergency Medicine in Medicine (primary appointment)

MD Medical University of Sth Car 1978

**Carey-Ann Dawn Burnham, PHD** Associate Professor of Pathology and Immunology (primary appointment)

**Associate Professor of Pediatrics**

**Associate Professor of Molecular Microbiology**

BS University of Alberta 2002

PHD University of Alberta 2007

**Candice Marie Burns** Instructor in Pediatrics (primary appointment)

BS Lee College 2004

**Garrett C Burris, MD** Associate Professor of Clinical Neurology (primary appointment)

**Associate Professor of Clinical Pediatrics**

BS School Not Listed 1964

MD Saint Louis University 1968

**Robert Burstein, MD** Prof Emeritus Of Clinical Ob & Gyn (primary appointment)

MD Washington Univ in St. Louis 1948

**Harold Burton, PHD** Professor of Neuroscience (primary appointment)

**Professor of Radiology**

**Professor of Biomedical Engineering**

**Professor of Cell Biology and Physiology**

PHD Univ of Wisconsin Madison 1968

BA University of Michigan 1964

**Donald F Busiek, MD** Instructor in Clinical Medicine (primary appointment)

BA Saint Louis University 1974

MD University of Missouri 1983

Joan Rachel Butcher Instructor in Clinical Psychiatry (primary appointment)

Melvin J Butler Instructor in Clinical Medicine (primary appointment)

**Derek E Byers, MD** Associate Professor of Medicine (primary appointment)

BS University of Oklahoma 1993

MD University of Texas Southwest 2001

**Meredith S Byers, MD** Assistant Professor of Radiology (primary appointment)

BA University of Texas Austin 1993

MD University of Texas Southwest 1997

**James Byrd, MD** Instructor in Clinical Psychiatry (Child Psychiatry) (primary appointment)

MD School Not Listed 1991

BS Southeast Missouri St Unvers 1987

**Jonathan Nicholas Byrd, MD** Instructor in Clinical Medicine (primary appointment)

BS1 Tulane University 2007

MD Washington Univ in St. Louis 2011

**Minji Byun, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

PHD Washington Univ in St. Louis 2009

BS Pohang Univ of Science & Tech 2002

Galileu Cabral Associate Professor of Clinical Medicine (primary appointment)

**Kelley S. Caddel, MD**Instructor in Clinical Pediatrics (primary appointment)

BA Indiana University Bloomington 1998

MD George Washington University 2008

**William Todd Cade, PHD, MS**Professor of Physical Therapy (primary appointment)

**Professor of Medicine**

**Associate Director of Postdoctoral Fellowships in Physical Therapy**

PHD University of Maryland 2002

MS University of Miami 1994

**Alison Gale Cahill, MD**Associate Professor of Obstetrics and Gynecology (primary appointment)

MD University of Connecticut 2002

**Bin Cai, PHD**Instructor in Radiation Oncology (primary appointment)

PHD Ohio University 2011

**Nigel John Cairns, PHD**Professor of Neurology (primary appointment)

**Professor of Pathology and Immunology**

PHD University of London 1995

**Cheryl Ann Caldwell, DPT, MHS**Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

BS University of Colorado Boulder 1976

DPT Washington Univ in St. Louis 2002

MHS Washington Univ in St. Louis 1988

**Archna Calfee, MD**Instructor in Clinical Pediatrics (primary appointment)

BA Case Western Reserve Univ 1997

MD Washington Univ in St. Louis 2001

**Ryan Patrick Calfee, MD**Associate Professor of Orthopaedic Surgery (primary appointment)

BS University of Virginia 1997

MD Washington Univ in St. Louis 2001

**Joshua W. Calhoun, MD**Instructor in Clinical Psychiatry (Child) (primary appointment)

MD University of Connecticut 1982

BS Yale University 1978

**David J Callahan**Assistant Professor of Clinical Neurology (primary appointment)

**Assistant in Clinical Pediatrics**

**Wilma J. Calvert, PHD, BN**Adjunct Instructor in Psychiatry (primary appointment)

PHD University of Missouri 2002

BN Oral Roberts University 1981

**Alejandra Camacho-Soto**Instructor in Neurology (Pending Dean's Approval) (primary appointment)

BA Georgetown University 2005

**Greta Camel, MD**Asst Prof Emeritus Of Medicine (primary appointment)

MD Univ of Wisconsin Madison 1949

**John William Campbell, MD**Professor of Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1973

MD Washington Univ in St. Louis 1977

**Kirstin Lee Campbell, MD**Assistant Professor of Pediatrics (primary appointment)

MD Washington Univ in St. Louis 2006

BA Johns Hopkins University 2002

**Meghan Clark Campbell**Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Radiology**

BS University of Illinois 1999

**Jian Li Campian, PHD, MS, MD** Assistant Professor of Medicine (primary appointment)  
Assistant Professor of Neurological Surgery  
PHD University of Louisville 2003  
MS Peking Union Medical College 2000  
MD Tianjin Medical University 1997

**Samuel A Canaan Jr, MD, MA** Asst Prof Emeritus of Clin Ophthal & Vis Sci (primary appointment)  
MD Meharry Med College 1954  
BA University of Iowa 1942  
MA Columbia University 1948

**Joseph Edward Cargas** Assistant Professor of Clinical Pediatrics (primary appointment)

**Maria J Canizares** Instructor in Clinical Medicine (Dermatology) (primary appointment)  
BA Saint Louis University 1996

**Rosemary L Cannistraro, MD** Instructor in Clinical Medicine (primary appointment)  
MD Saint Louis University 1992

**Charles E Canter, MD** Professor of Pediatrics (primary appointment)  
BS Brown University 1974  
BS1 Brown University 1976  
MD Saint Louis University 1979

**Russell C. Cantrell, MD** Instructor in Clinical Neurology (primary appointment)  
BS School Not Listed 1985  
MD University of Tennessee 1989

**Dengfeng Cao, MD** Associate Professor of Pathology and Immunology (primary appointment)  
MD Peking Union Medical College 1996

**Yuqing Cao** Associate Professor of Anesthesiology (primary appointment)

**Michael G Caparon Jr, PHD** Professor of Molecular Microbiology (primary appointment)  
PHD University of Iowa 1985  
BS Michigan State University 1981

**David Anthony Caplin, MD** Instructor in Clinical Surgery (Plastic and Reconstructive Surgery)  
(primary appointment)  
MD University of Cincinnati 1975  
BA Kenyon College 1971

**Douglas A Carano, DDENT** Instructor in Clinical Otolaryngology (DDS) (primary appointment)  
DDENT University of Iowa 1984  
BS University of Iowa 1981

**Rebecca Goodwin Carey** Adjunct Instructor in Medicine (primary appointment)

**John R Carlile, MD** Assistant Professor of Clinical Pediatrics (primary appointment)  
BS University of Kansas 1972  
MD University of Kansas Medical 1975

**M. Richard Carlin** Assoc Prof Emer Of Clin Surg (Urologic Surg) (primary appointment)  
BA Dartmouth College 1943

**Abigail L Carlson, MD** Instructor in Medicine (primary appointment)  
MD Johns Hopkins University 2010

**Kim Alan Carmichael, MD** Associate Professor of Medicine (primary appointment)  
MD Virginia College 1978

**Michael J. Carney, MD** Instructor in Clinical Pediatrics (primary appointment)  
BS University of Notre Dame 1987  
MD University of MO Columbia 1991

**Robert Michael Carney, PHD** Professor of Psychiatry (primary appointment)



**Professor of Psychological & Brain Sciences**

PHD Washington Univ in St. Louis 1978

BA University of MO Columbia 1969

**Christopher Robert Carpenter, MD** Associate Professor of Emergency Medicine in Medicine

(primary appointment)

MD Wayne State University 1994

**Danielle Marie Ho Carpenter, MD** Assistant Professor of Pathology and Immunology (primary appointment)

MD Saint Louis University 2009

BS Saint Louis University 2002

**David A Carpenter, MD** Professor of Neurology (primary appointment)

BS Amherst College 1979

MD Washington Univ in St. Louis 1983

**David B Carr, MD** Professor of Medicine (primary appointment)

**Professor of Neurology**

**Alan A and Edith L Wolff** Distinguished Professor of Geriatric Medicine

BA University of MO Columbia 1981

MD University of MO Columbia 1985

**Javier A Carrero-Brewer, PHD, MA** Assistant Professor of Pathology and Immunology (primary appointment)

PHD Washington Univ in St. Louis 2005

MA University of Puerto Rico 2000

BS Emory University 1996

**Scott Carrizales, MD** Assistant Professor of Medicine (Dermatology) (primary appointment)

MD Uniformed Serv U of Health Sciences 1996

**Kenneth R Carson** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Surgery (Public Health Sciences)**

**Alexandre Carter, PHD, MD** Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Occupational Therapy**

PHD Harvard University 2003

MD Harvard University 2003

**Ebony Boyce Carter, MS, MD** Assistant Professor of Obstetrics and Gynecology (primary appointment)

**Assistant Professor of Surgery (Public Health Sciences)**

MS University of Michigan 2002

BS Stanford University 2000

MD Duke University 2006

**Diego Casali** Assistant Professor of Surgery (Cardiothoracic Surgery) (Pending Executive Faculty Approval) (primary appointment)

**Arthur L Casey, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD University of Missouri 1977

**Amanda Fishback Cashen, MD** Associate Professor of Medicine (primary appointment)

BS1 Yale University 1995

BS Yale University 1995

MD Washington Univ in St. Louis 1999

**Anil Govind Cashikar, MS** Assistant Professor of Cell Biology and Physiology (primary appointment)

MS Madurai Kamaraj University 1991

BS Bangalore University 1989

**Rubilinda Q Casino, MD**Instructor in Clinical Pediatrics (primary appointment)

MD University of Santo Tomas 1979

BS University of Santo Tomas 1979

**Timothy James Casper**Instructor in Pediatrics (primary appointment)

BS University of Dayton 2005

**Carmen F Castellano**Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BA University of MO St Louis 1977

BS Illinois College of Optometry 1980

**Chesney Dawn Castleberry, MD**Assistant Professor of Pediatrics (primary appointment)

MD University Texas San Antonio 2005

**Mario Castro, MD, M PH**Professor of Medicine (primary appointment)

**Professor of Radiology**

**Professor of Pediatrics**

**Alan A and Edith L Wolff Distinguished Professor**

MD University of Missouri 1988

BA University of MO Kansas City 1988

M PH Saint Louis University 1998

**Valeria Cavalli**Associate Professor of Neuroscience (primary appointment)

**Laura Francesca Cavallone**Assoc Professor of Anesthesiology (primary appointment)

**Patricia A Cavazos-Rehg, PHD**Associate Professor of Psychiatry (primary appointment)

BA University Texas San Antonio 1998

PHD State University of New York 2004

**Lilibeth Maria Cayabyab-Loe**Assistant Professor of Clinical Medicine (primary appointment)

**Marina Cella, MD**Associate Professor of Pathology and Immunology (primary appointment)

MD University of Genova 1989

**Chad Phadung Chadaratana, MD**Instructor in Clinical Otolaryngology (primary appointment)

MD School Not Listed 1964

**Murali M Chakinala, MD**Associate Professor of Medicine (primary appointment)

BS Duke University 1990

MD Vanderbilt University 1994

**Grant A Challen, PHD**Assistant Professor of Medicine (primary appointment)

PHD University of Queensland 2006

**Aaron Mark Chamberlain, B MUS**Assistant Professor of Orthopaedic Surgery (primary appointment)

B MUS University of Utah 2002

**Kari Terece Chambers**Instructor in Medicine (primary appointment)

BS Truman State University 2000

**Tattamangalam P Chandrika**Associate Professor of Clinical Pediatrics (primary appointment)

**Chih-Hao Chang, MS, PHD, MS**Instructor in Pathology and Immunology (primary appointment)

MS National Taiwan University 2015

BS National Taiwan University 2015

PHD Oxford University 2015

MS Oxford University 2015

**Kae Pyng Chang, MD**Instructor in Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1991

MD University of Missouri 1995



**Shih Chung Chang, MD, MBA** Assoc Prof Emeritus of Ob & Gyn (primary appointment)  
MD School Not Listed 1968  
MBA Washington Univ in St. Louis 1994

**Su-Hsin Chang, MA** Assistant Professor of Surgery (Public Health Sciences) (primary appointment)  
MA Mass Inst of Technology (MIT) 2004  
BA National Chengchi University 1995

**Monica Chang-Panesso, MD** Instructor in Medicine (primary appointment)  
MD Texas Tech University 2009

**Earl S Changar, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)  
OD School Not Listed 1957

**William T Chao, MD** Instructor in Clinical Pediatrics (primary appointment)  
BS University of Illinois 1975  
MD University of Illinois 1979

**Ajay Rama Chapa, MS** Instructor in Radiology (primary appointment)  
BS Bradley University 2001  
MS CHICAGO MEDICAL SCHOOL 2001

**Will C Chapman, MD** Eugene M. Bricker Professor of Surgery (General Surgery) (primary appointment)  
MD University of South Carolina 1984  
BA University of North Carolina 1980

**Douglas Char** Professor of Emergency Medicine in Medicine (primary appointment)  
BS Boston College 1983  
Mina Charepool Instructor in Psychiatry (Pending Dean's Approval) (primary appointment)  
Siroth Charnond Instructor in Clinical Medicine (primary appointment)

**Lewis Robert Chase, MD** Professor of Medicine (primary appointment)  
BA Princeton University 1960  
MD Harvard University 1964

**Alexander Chi Chen, MD** Associate Professor of Medicine (primary appointment)  
**Associate Professor of Surgery (Cardiothoracic Surgery)**  
MD University of MO Kansas City 2001

**Chien-Huan Chen, PHD, MD** Associate Professor of Medicine (primary appointment)  
PHD Johns Hopkns University Medic 1999  
MD National Taiwan University 1993

**David Yuan-Sou Chen, MD, PHD** Instructor in Medicine (primary appointment)  
BS University of Michigan 2003  
MD Washington Univ in St. Louis 2012  
PHD Washington Univ in St. Louis 2012

**Delphine L. Chen, AB** Associate Professor of Radiology (primary appointment)  
**Associate Professor of Medicine**  
MD1 Washington Univ in St. Louis 1999  
BA Harvard Radcliff 1995  
AB Harvard Radcliff 1995

**Edward C. Chen, MD** Instructor in Clinical Medicine (primary appointment)  
MD Saint Louis University 2005

**Feng Chen, PHD** Associate Professor of Medicine (primary appointment)  
**Associate Professor of Cell Biology and Physiology**  
BS Fudan University 1991

PHD University of Utah 1998

Jenny Chen **Instructor in Ophthalmology and Visual Sciences** (primary appointment)

**Li-Shiun Chen, M PH, PHS, MD** **Assistant Professor of Psychiatry** (primary appointment)

M PH John Hopkins University 1995

PHS Johns Hopkins University 1998

MD National Taiwan University 1993

**Ling Chen, MPH, PHD** **Assistant Professor of Biostatistics** (primary appointment)

**Assistant Professor of Medicine**

BS Beijing Medical University 1996

MPH University South Carolina 2003

PHD University of MO Columbia 2009

Michael B Chen **Assistant Professor of Clinical Obstetrics and Gynecology** (primary appointment)

**Phyllis Chen, MD** **Instructor in Clinical Medicine** (primary appointment)

MD Northwestern University Med 1992

**Qing Chen, MD, MS** **Instructor in Clinical Medicine** (primary appointment)

MD Nanjing Medical University 1983

UNKNOWN School Not Listed 1983

MS Nanjing Medical University 1988

**Shiming Chen, PHD** **Professor of Ophthalmology and Visual Sciences** (primary appointment)

**Professor of Developmental Biology**

BS Beijing University 1981

PHD State University of New York 1992

**Yasheng Chen, PHD** **Assistant Professor of Neurology** (primary appointment)

BA Tianjin University 1993

PHD Washington Univ in St. Louis 2002

**Ying Chen, PHD, MD** **Assistant Professor of Medicine** (primary appointment)

PHD Vanderbilt University 2004

MD Shanghai Medical University 1996

Zhoufeng Chen **Professor of Anesthesiology** (primary appointment)

**Professor of Psychiatry**

**Professor of Developmental Biology**

**Ziwei Chen, PHD, MS, MBBS** **Assistant Professor of Anesthesiology** (primary appointment)

PHD Peking University 2001

MS Dalian Medical University 1998

MBBS Dalian Medical University 1995

**Glenn S Cheng, MD** **Instructor in Clinical Pediatrics** (primary appointment)

MD University Texas San Antonio 1988

BS University of Texas Austin 1984

Steven Chih Nung Cheng **Associate Professor of Medicine** (primary appointment)

**Praveen R Chenna, MBBS** **Assistant Professor of Medicine** (primary appointment)

BS Washington Univ in St. Louis 1998

MBBS Sri Ramachandra Medical Colleg 2005

**Mathew Amprayil Cherian, MBBS** **Instructor in Medicine** (primary appointment)

MBBS Christian Medical College 2000

**Rebecca D Chernock** **Assistant Professor of Pathology and Immunology** (primary appointment)

**Assistant Professor of Otolaryngology**

BS Brown University 1999

**James M Cheverud** **Prof Emeritus of Anatomy** (primary appointment)

BA Northwestern University 1975

**Milan G Chheda, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Neurology**

MD Albert Einstein College of Med 2002

**John Jeonhwan Chi, MS, MD** Assistant Professor of Otolaryngology (primary appointment)

BS Columbia University 2001

MS City College 2003

MD SUNY DOWNSTATE MED BROOKLYN 2007

**Luqi Chi, MD** Associate Professor of Neurology (primary appointment)

MD Huabei Medical College for Coa 1984

**Wak S Chia, MD** Instructor in Clinical Pediatrics (primary appointment)

MD School Not Listed 1974

John N Chiapell Instructor in Clinical Otolaryngology (primary appointment)

**Rebecca Joy Chibnall, AA, MD** Assistant Professor of Medicine (Dermatology) (primary appointment)

AA Washington Univ in St. Louis 2007

MD University of California 2012

**Michael R Chicoine, MD** Professor of Neurological Surgery (primary appointment)

**August A. Busch, Jr. Distinguished Professor**

MD University of California 1990

**Jonathan C Chiles, MD** Assistant Professor of Pediatrics (primary appointment)

MD University of MO Kansas City 2004

BA University of MO Kansas City 2004

**Kelly Lynne Chilson, MD** Associate Professor of Anesthesiology (primary appointment)

MD University of MO St Louis 1999

**Sri Sankar Chinta** Instructor in Pediatrics (primary appointment)

MS1 Washington University 2015

**Andrew Chirchirillo, PHD** Instructor in Clinical Psychiatry (Child) (primary appointment)

BA Illinois State University 1973

PHD University of MO St Louis 1981

Phillip Ruben Chisholm Instructor in Clinical Medicine (primary appointment)

**Ronald J Chod** Adjunct Associate Professor of Obstetrics and Gynecology (primary appointment)

BA University of Texas Austin 1978

**Jaebok Choi, MS, PHD, BE** Assistant Professor of Medicine (primary appointment)

MS Univ of Nebraska at Omaha 2001

PHD Baylor University 2006

BE Kyung Pook National University 1996

Kyunghye Choi Associate Professor of Pathology and Immunology (primary appointment)

**Richard A Chole, MD, PHD** Professor of Otolaryngology (primary appointment)

**Professor of Developmental Biology**

**Professor of Audiology and Communication Sciences**

MD University of Southern Calif 1969

PHD University of Minnesota 1977

**Hyemi Chong, MD** Instructor in Medicine (primary appointment)

BA Yale University 2003

MD University of Texas Southwest 2011

**Courtney Darcey Chrisler, MD** Instructor in Medicine (primary appointment)

BS Northwestern University 2003

MD Washington Univ in St. Louis 2007

**Camaryn E Chrisman Robbins, MD, M PH**Assistant Professor of Obstetrics and Gynecology

(primary appointment)

MD Wake Forest University 2004

M PH University of Michigan 1998

**Matthew Christopher, MD, PHD**Instructor in Medicine (primary appointment)

MD Washington Univ in St. Louis 2010

PHD Washington Univ in St. Louis 2010

BA Saint Louis University 1993

**Christine M Chu**Assistant Professor of Obstetrics and Gynecology (primary appointment)

**Wenhua Chu, MS, PHD**Instructor in Radiology (primary appointment)

BS Quigdao Ocean Univ 1982

MS Academia Sinica China 1985

PHD Academia Sinica China 1988

**Philip Chu Pak-Yu**Instructor in Clinical Medicine (primary appointment)

**Duck Sung Chun, MD**Instructor in Clinical Medicine (primary appointment)

MD Seoul National University

**Jeffrey Peter Ciaramita**Instructor in Clinical Medicine (primary appointment)

**Theodore J Cicero, MS, PHD**John P Feighner Professor of Psychiatry (primary appointment)

**Vice Chairman for Research, Department of Psychiatry**

**Professor of Neuroscience**

MS Purdue University 1966

BS Villanova University 1964

PHD Purdue University 1969

**Thomas Michael Ciesielski, MD**Instructor in Medicine (primary appointment)

MD Oregon Health Science Unvers 2010

**Vincenza Cifarelli, PHD, MS**Instructor in Medicine (primary appointment)

PHD University of Pittsburgh 2011

MS Universita de Modena e Reggio 2005

**Matthew Aaron Ciorba, MD**Assistant Professor of Medicine (primary appointment)

MD University of Iowa 2001

**Cara Alessandra Cipriano, MD**Assistant Professor of Orthopaedic Surgery (primary appointment)

MD University of Pennsylvania 2007

BS Williams College 2003

**John R. Cirrito, PHD**Associate Professor of Neurology (primary appointment)

BA Boston College 1998

PHD Washington Univ in St. Louis 2004

**Geoffrey Cislo, MD**Assistant Professor of Medicine (primary appointment)

MD University of Michigan 1996

**Roberto Civitelli, MD**Sydney M and Stella H Schoenberg Professor of Medicine (primary appointment)

**Professor of Orthopaedic Surgery**

**Professor of Cell Biology and Physiology**

BS University of Siena 1980

MD University of Siena 1980

**Amy Lynn Clark, DOST**Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)

DOST Kirksville College of Osteopat 2009

BA Saint Louis University 2004

**Billie Ruth Clark, PHD** Professor of Physical Therapy (primary appointment)

**Professor of Neurology**

BS Saint Louis University 1974

PHD Saint Louis University 1988

**Christine M Clark** Adjunct Instructor in Audiology and Communication Sciences (primary appointment)

BA Fontbonne College 1979

**William W. Clark** Professor of Otolaryngology (primary appointment)

**Professor of Education**

**Director of the Program in Audiology and Communication Sciences**

**Professor of Audiology and Communication Sciences**

**Martin J Clarke, MA, MS, PHD** Assistant Professor of Psychiatry (primary appointment)

MA Fielding Institute 2005

MS National Louis University 1997

BS Saint Louis University 1981

PHD Fielding Institute 2011

**William W Clendenin, MD** Assistant Professor of Clinical Psychiatry (primary appointment)

MD University of Tennessee 1963

**David B Clifford** Melba and Forest Seay Professor of Clinical Neuropharmacology in Neurology (primary appointment)

**Professor of Medicine**

**Paul F Cliften, MS, PHD** Associate Professor of Genetics (primary appointment)

MS Utah St University 1995

BS Utah St University 1992

PHD University of California 1999

**Dorothy Jean Cline, MD** Instructor in Clinical Medicine (Dermatology) (primary appointment)

BA University of Missouri 1973

MD Saint Louis University 1977

**John C Clohisy, MD** Daniel C. and Betty B. Viehmann Distinguished Professor of Orthopaedic Surgery (primary appointment)

MD Northwestern University 1989

**C. Robert Cloninger, MD** Wallace Renard Professor of Psychiatry (primary appointment)

**Professor of Psychiatry**

**Professor of Psychological & Brain Sciences**

**Professor of Genetics**

BA University of Texas Austin 1966

MD Washington Univ in St. Louis 1983

**James Close, MD** Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1984

**Andrew Stephen Cluster, MD** Instructor in Pediatrics (primary appointment)

BS University of Maryland 2006

MD University of Texas Southwest 2010

**William Edward Clutter, MD** Associate Professor of Medicine (primary appointment)

**Associate Director of the House Staff Training Program, Department of Internal Medicine**

BS Ohio State University 1972

MD Ohio State University 1975

**Lawrence A Coben, MD** Assoc Prof Emeritus Of Neurology (primary appointment)

MD Case Western Reserve Univ 1954

BS Case Western Reserve Univ 1948

**Heidi Atwell Coco, DOST**Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

BS Truman State University 2000

DOST Kirksville College of Osteopat 2005

**John E. Codd, MD**Professor of Clinical Surgery (Cardiothoracic Surgery) (primary appointment)

BA Gonzaga University 1954

MD Saint Louis University 1963

**Andrew Richard Coggan, MS, PHD**Adjunct Assistant Professor of Radiology (primary appointment)

MS Ball State University 1983

PHD University of Texas Austin 1986

BS Ball State University 1981

**Albert Murray Cohen, MD**Assistant Professor of Anesthesiology (primary appointment)

MD Baylor University 1977

**Barak Alon Cohen**Professor of Genetics (primary appointment)

**Alvin Goldfarb** Distinguished Professor of Computational Biology

BS Cornell University 1992

**Bruce H Cohen, MD**Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Harvard University 1976

MD Johns Hopkins University 1980

**Darryl S Cohen, DOST**Assistant Professor of Clinical Pediatrics (primary appointment)

DOST School Not Listed 1981

BA University of North Texas 1976

**Gene C Cohen**Instructor in Clinical Otolaryngology (DDS) (primary appointment)

BS University of Missouri 1971

**Shari J Cohen**Assistant Professor of Clinical Medicine (primary appointment)

**Sheldon C Cohen, DDENT**Instructor in Clinical Otolaryngology (primary appointment)

BS Washington Univ in St. Louis 1973

DDENT Southern Illinois University 1976

**William Mark Cohen, MS, DDENT**Instructor in Clinical Otolaryngology (DMD) (primary appointment)

MS University of North Carolina 1991

DDENT Washington Univ in St. Louis 1988

**Zachary Robert Cohen, MD**Assistant Professor of Anesthesiology (Pending Executive Faculty Approval) (primary appointment)

MD University of Illinois 2010

**Barbara A Cohan, MD**Professor of Pediatrics (primary appointment)

BA University of Michigan 1974

MD New York University 1978

**Brian G Cohn, MD**Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD University of Alabama 2003

**Susan R Colbert-Threats, MD**Assistant Professor of Clinical Medicine (primary appointment)

BS Northwestern University 1986

MD University of Illinois 1991

**Graham A Colditz, MBBS, DRPH**Niess-Gain Professor of Surgery (General Surgery) (primary appointment)

**Professor of Medicine**



**Deputy Director for the Institute of Public Health**

BS University of Queensland 1977

MBBS University of Queensland 1979

DRPH Harvard University 1986

Danita L Cole **Instructor in Clinical Medicine** (primary appointment)

**F. Sessions Cole, MD** **Park J White, M.D. Professor of Pediatrics** (primary appointment)

**Vice Chair of the Department of Pediatrics**

**Professor of Cell Biology and Physiology**

**Assistant Vice Chancellor for Children's Health, Washington University School of Medicine**

MD Yale University 1973

BA Amherst College 1969

**John C. Cole, MD, PHD** **Instructor in Clinical Pediatrics** (primary appointment)

BA Washington Univ in St. Louis 1995

MD Washington Univ in St. Louis 2003

PHD Washington Univ in St. Louis 2003

**Patricia L Cole, MA, MD** **Associate Professor of Clinical Medicine** (primary appointment)

BA Mount Holyoke College 1972

MA Brown University 1975

MD Harvard University 1981

**Roger Barto Cole, MS, MD, PHD** **Instructor in Clinical Medicine** (primary appointment)

MS Yale University 2001

MD Washington Univ in St. Louis 2008

PHD Yale University 2004

BS Rice University 1997

Sarah F Cole **Instructor in Clinical Medicine** (primary appointment)

**Lloyd W Coleman, MS, PHD** **Instructor in Medicine** (primary appointment)

MS Iowa State University 1976

PHD Iowa State University 1984

BS Northeast Missouri St Univrsty 1973

Laura Ann Colletti-Mann **Associate Professor of Medicine** (primary appointment)

Lora Pearlman Collier **Instructor in Clinical Pediatrics** (primary appointment)

**Brian Tyler Collins, MD** **Associate Professor of Pathology and Immunology** (primary appointment)

MD University of MO Columbia 1988

**Vicente M Colon-Alcaraz, MD** **Assistant Professor of Clinical Obstetrics and Gynecology** (primary appointment)

BA University of Puerto Rico 1978

MD School Not Listed 1982

Marco Colonna **Robert Rock Belliveau MD Professor of Pathology** (primary appointment)

**Professor of Medicine**

**Berdale S. Colorado, MS, DOST** **Assistant Professor of Orthopaedic Surgery** (primary appointment)

**Assistant Professor of Neurology**

MS Des Moines Universtiy 2009

DOST Des Moines Universtiy 2009

BS University of Iowa 2004

**Nicholas J Colosi, MD** **Assistant Professor of Clinical Ophthalmology and Visual Sciences** (primary appointment)

MD Saint Louis University 1968

BA La Salle University 1964

**Kim David Colter, MS, MD**Instructor in Clinical Medicine (primary appointment)

MS University of CA Berkeley 1974

MD Washington Univ in St. Louis 1978

BS MO S&T (formerly UofMO Rolla) 1973

**Eric S Colton, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS University of CA Irvine 1987

MD Saint Louis University 1996

**Bryanne Noel Colvin**Instructor of Pediatrics (Pending Dean's Approval) (primary appointment)

**Arthur Hamilton Combs, MD**Associate Professor of Clinical Medicine (primary appointment)

MD New York Medical College 1975

**Paul Kevin Commean**Assistant Professor of Radiology (primary appointment)

**Assistant Professor of Physical Therapy**

BS Georgia Tech 1982

**Susan Conger**Instructor in Clinical Pediatrics (primary appointment)

**David M Conner, MD**Instructor in Clinical Psychiatry (primary appointment)

MD University of Oklahoma 1983

**Shayna N Conner, MD**Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD University of MO Columbia 2008

BA George Washington University 2003

**Anne Maureen Connolly, MD**Professor of Neurology (primary appointment)

**Professor of Pediatrics**

MD Indiana University Bloomington 1984

BS Saint Mary's College 1980

**John Michael Conoyer, MD**Instructor in Clinical Otolaryngology (primary appointment)

BS Southeast Missouri St Univers 1971

MD Vanderbilt University 1975

**Donald Franklin Conrad**Assistant Professor of Genetics (primary appointment)

**Assistant Professor of Pathology and Immunology**

**Glenn C Conroy, M PHIL, PHD**Professor of Anatomy (primary appointment)

**Professor of Anthropology**

M PHIL Yale University 1972

PHD Yale University 1974

BA University of CA Berkeley 1970

**John Nicholas Constantino**Blanche F Ittleson Professor of Psychiatry (Child Psychiatry) (primary appointment)

**Professor of Pediatrics**

BA Cornell University 1984

**Thomas E Conturo**Associate Professor of Radiology (primary appointment)

**Adjunct Associate Professor of Physics**

**Charles Richard Conway, MD**Professor of Psychiatry (primary appointment)

MD University of Missouri Columbi 1995

**H. Groves Cooke III, MS, DDENT**Instructor in Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)

MS George Washington University 1975

BA De Paul University 1967

DDENT Washington Univ in St. Louis 1971

**Daniel Horatio Cooper, MD**Assistant Professor of Medicine (primary appointment)

MD Loyola University Chicago 2003



BS Washington Univ in St. Louis 1999

**John A Cooper, PHD** Professor of Cell Biology and Physiology

**Head of the Department of Biochemistry**

**Professor of Biochemistry and Molecular Biophysics**

BS Brown University 1977

PHD Johns Hopkins University 1983

**Matthew Cooper, PHD** Instructor in Medicine (primary appointment)

PHD University of Surrey 2008

BS University of Surrey 2004

**Megan A Cooper, PHD, MD** Assistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Pathology and Immunology**

BA College of Wooster 1995

PHD Ohio State University 2002

MD Ohio State University 2004

**Nathan Richard Copeland, MD** Instructor in Medicine (primary appointment)

MD University of Arizona 2012

BS University of Arizona 2006

**Douglas E Coplen, MD** Associate Professor of Surgery (Urologic Surgery) (primary appointment)

BA Wabash College 1981

MD Indiana University Bloomington 1985

**Maurizio Corbetta, MD** Norman J. Stupp Professor of Neurology (primary appointment)

**Professor of Radiology**

**Associate Professor of Psychological & Brain Sciences**

**Professor of Neuroscience**

MD University of Pavia 1985

**Joseph C. Corbo, MD, PHD, AB** Associate Professor of Pathology and Immunology (primary appointment)

**Associate Professor of Genetics**

**Associate Professor of Ophthalmology and Visual Sciences**

MD University of California 1999

PHD University of California 1997

BS Stanford University 1990

AB Stanford University 1990

**Suzanne Marie Cornbleet, MA, DPT** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

MA Washington Univ in St. Louis 1987

BS University of Colorado Boulder 1975

DPT Washington Univ in St. Louis 2003

**Lynn Anne Cornelius, MD, BN** Winfred A and Emma R Showman Professor of Dermatology in Medicine (primary appointment)

MD University of Missouri 1984

BN University of Delaware 1977

**Juan C Corvalan, MD** Asst Prof Emeritus Of Clinical Psychiatry (primary appointment)

MD School Not Listed 1965

BA School Not Listed 1957

**Pamela Ann Coslick-Fada, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD University of Missouri 1987

**Ferdinand Louis Coste III, DOST** Assistant Professor of Pediatrics (primary appointment)

DOST NY Coll of Osteopathic Med 2004

BS Cornell University 1998

**John Bernard Costello, MD** Instructor in Clinical Medicine (primary appointment)

BA Saint Louis University 1974

MD Saint Louis University 1977

**Linda B Cottler, PHD, M PH** Adjunct Professor of Psychiatry (primary appointment)

**Adjunct Professor of Anthropology**

BA Emmanuel College 1977

PHD Washington Univ in St. Louis 1987

M PH Boston University 1980

**Catherine E Cottrell, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

**Assistant Professor of Genetics**

BS Ohio State University 2001

PHD Ohio State University 2007

**Steven Michael Couch, MD** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

MD University of MO Kansas City 2006

**Carrie Christine Coughlin, MD** Assistant Professor of Medicine (Dermatology) (primary appointment)

**Assistant Professor of Pediatrics**

MD Washington Univ in St. Louis 2010

BA Yale University 2005

**Martha Laurin Council, MD** Assistant Professor of Medicine (Dermatology) (primary appointment)

BS Louisiana St University 2000

MD Washington Univ in St. Louis 2004

**Constance Stone Courtois, MD** Assistant Professor of Radiology (primary appointment)

BS Wofford College 1980

MD Medical University of Sth Car 1985

**Andrea Michele Coverstone, MD** Instructor in Pediatrics (primary appointment)

MD Saint Louis University 2009

**Douglas Floyd Covey, MA** Professor of Pharmacology in Developmental Biology (primary appointment)

**Professor of Anesthesiology**

**Professor of Psychiatry**

BS Loyola College 1967

MA Johns Hopkins University 1969

**Sudha Mahajan Cowsik, MS, PHD** Instructor in Biochemistry and Molecular Biophysics (primary appointment)

MS Panjab University 1970

PHD Institute of Medical Science 1976

BS Panjab University 1969

**James L Cox, MD** Everts A. Graham Professor Emeritus of Surgery (Cardiothoracic Surgery) (primary appointment)

**Everts A. Graham Prof Emer of Surg (Card Surg)** (primary appointment)

BS University of Mississippi 1964

MD1 University of Tennessee 1967

MD University of Tennessee 1967

UNKNOWN Duke University 1978

**Thomas E Cox, MD** Professor of Anesthesiology (primary appointment)

BA Johns Hopkins University 1981

MD University of Virginia 1985

**Daniel W Coyne, MD** Professor of Medicine (primary appointment)

MD Case Western Reserve Univ 1983

BA Saint Louis University 1979

Mary Michaeleen Cradock Assistant Professor of Clinical Pediatrics (primary appointment)

Clarissa S. Craft Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Cell Biology and Physiology**

**Johnetta M Craig, MBA** Instructor in Clinical Medicine (primary appointment)

BS University of Missouri 1980

MBA University of Pennsylvania 1994

**James P Crane, MD** Associate Vice Chancellor for Clinical Affairs (primary appointment)

**Chief Executive Officer-Faculty Practice Plan**

**Professor of Obstetrics and Gynecology**

**Professor of Radiology**

**Associate Professor of Genetics**

MD Indiana University Bloomington 1970

BS Indiana University Bloomington 1966

John Bruce Crane II Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

**John Jeffrey Cras, MD, MS** Assistant Professor of Medicine (primary appointment)

MD Georgetown University 2003

MS Georgetown University 1998

BS Loyola College 1994

**Charles Crecelius, MD, PHD** Assistant Professor of Clinical Medicine (primary appointment)

BA Carleton University 1976

MD Saint Louis University 1984

PHD Saint Louis University 1984

**Sharon Cresci, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Genetics**

MD New York University 1986

BS State Univ of NY Binghamton 1982

**Stephen R Crespín, MD** Associate Professor of Clinical Medicine (primary appointment)

MD Harvard University 1965

**Jeffrey S Crippin, MD** Professor of Medicine (primary appointment)

BS University of Notre Dame 1980

MD University of Kansas 1984

Robert D Crist Instructor in Clinical Obstetrics and Gynecology (primary appointment)

Lucia del Pilar Cristancho Pimiento Assistant Professor of Psychiatry (primary appointment)

Susan R Criswell Associate Professor of Neurology (primary appointment)

Michael Crittenden Associate Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Andrew Cronyn, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Albert Einstein College of Med 1996

BA Princeton University 1987

**Seth Daniel Crosby, MD** Assistant Professor of Genetics (primary appointment)

MD University Texas San Antonio 1989

BS University of California 1984

**Betty Cross, MD** Instructor in Clinical Pediatrics (primary appointment)

BS University of Kansas 1979

MD University of Kansas 1983

**Dorothy Anne Cross, MD** Professor of Neurology (primary appointment)

MD University of Alabama 1980

Veronica Lynn Cross Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Dewitte T Cross III, MD** Professor of Radiology (primary appointment)

**Professor of Neurological Surgery**

BA Vanderbilt University 1975

MD University of Alabama 1980

**Erika C Crouch, MD, PHD** Professor of Pathology and Immunology (primary appointment)

MD University of Washington 1979

PHD University of Washington 1978

**Jack L Croughan, MD** Associate Professor of Clinical Psychiatry (primary appointment)

BA University of Kansas 1964

MD University of Kansas Medical 1968

Michael G Crowley Instructor in Radiology (primary appointment)

**Beth Elaine Crowner, MS, DPT, BS PT, M PP** Associate Professor of Physical Therapy (primary appointment)

**Division Director of Clinical Practice in Physical Therapy**

**Associate Professor of Neurology**

MS Washington Univ in St. Louis 1989

DPT Washington Univ in St. Louis 2007

BS PT Washington Univ in St. Louis 1989

M PP University of MO St Louis 1997

Carlos Cruchaga Associate Professor of Psychiatry (primary appointment)

**Associate Professor of Neurology**

Nicole Cruz Instructor in Clinical Neurology (primary appointment)

**Paulina Cruz Bravo, MD** Instructor in Medicine (primary appointment)

MD Universidad Automoma de Madrid 2009

**Philip E Cryer, MD** Professor Emeritus of Medicine (primary appointment)

**Prof Emeritus of Medicine** (primary appointment)

**Adjunct Professor of Medicine**

BA Northwestern University 1962

MD Northwestern University Med 1965

**Phillip S. Cuculich, MD** Associate Professor of Medicine (primary appointment)

MD Vanderbilt University 2001

**Susan Margaret Culican, PHD, MD** Associate Professor of Ophthalmology and Visual Sciences (primary appointment)

BA Washington Univ in St. Louis 1990

PHD Washington Univ in St. Louis 1998

MD Washington Univ in St. Louis 1998

Kevin M Cullison Instructor in Emergency Medicine in Medicine (Pending Dean's Approval) (primary appointment)

**Joseph P Culver, PHD** Professor of Radiology (primary appointment)

**Professor of Physics (Courtesy)**

PHD University of Pennsylvania 1997

BA Whitman College 1985

**Robert Culverhouse, PHD, MA**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Biostatistics**

PHD Washington Univ in St. Louis 1998

MA University of CA Berkeley 1987

BA Vanderbilt University 1983

**Clayton Cummings, BSBA, MD**Instructor in Pediatrics (primary appointment)

BSBA University of MO Columbia 1996

MD University of MO Columbia 2000

**Lenise Andrea Cummings-Vaughn, MS, MD**Assistant Professor of Medicine (primary appointment)

MS San Francisco St University 1998

BS Williams College 1995

MD Saint Louis University 2005

**Brian P. Cupps, PHD**Associate Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

PHD Texas A&M University 1994

**David Rex Curfman, MD**Instructor in Clinical Neurology (primary appointment)

BS Purdue University 2007

MD Case Western Reserve Univ 2011

**David T Curiel, MD, PHD**Distinguished Professor of Radiation Oncology (primary appointment)

**Professor of Medicine**

**Professor of Obstetrics and Gynecology**

MD Emory University 1982

BA West Georgia College 1978

PHD University of Groningen 2000

**Philip L Custer, MD**Professor of Ophthalmology and Visual Sciences (primary appointment)

BS Vanderbilt University 1974

MD Vanderbilt University 1978

**Robert B Cusworth, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Rochester 1974

**Amy Cyr, MD**Assistant Professor of Surgery (General Surgery) (primary appointment)

BA Creighton University 1997

MD Univ of Nebraska Med Center 2002

**Sylvia Lin Czuppon**Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Ralph G Dacey Jr, MD**Henry G and Edith R Schwartz Professor of Neurological Surgery (primary appointment)

**Head of the Department of Neurological Surgery**

BA Harvard University 1970

MD University of Virginia 1974

**Sonika M Dahiya, MD**Assistant Professor of Pathology and Immunology (primary appointment)

MD Kasturba Medical College 2000

**Aarti Sudhir Dalal, DOST**Instructor in Pediatrics (primary appointment)

DOST Rowan College 2007

BA Boston University 2002

**Ann Marie Dale, PHD**Associate Professor of Medicine (primary appointment)

**Associate Professor of Occupational Therapy**

BS University of MO Columbia 1983

PHD Saint Louis University 2009

**Jeanenne M Dallas**Instructor in Occupational Therapy (primary appointment)

**Instructor in Neurology**

BS University of Central Arkansas 1979

**Mackenzie Daly, MD**Assistant Professor of Radiation Oncology (primary appointment)

MD University of MO Kansas City 2005

Tracey M. DalyInstructor in Clinical Pediatrics (primary appointment)

**Ralph James Damiano Jr, MD**Evarts Ambrose Graham Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

BA Dartmouth College 1976

MD Duke University 1980

**Sarah Marie Dance, MD**Instructor in Anesthesiology (primary appointment)

MD Univ of Nebraska Med Center 2009

**William H Danforth, MD**Professor of Medicine (primary appointment)

**Vice Chairman and Chancellor Emeritus**

BA Princeton University 1947

MD Harvard University 1951

**Erik D. Daniels, MD**Instructor in Clinical Medicine (primary appointment)

MD Howard University 1989

**John S Daniels, MA, MD**Associate Professor of Clinical Medicine (primary appointment)

MA University of Arkansas 1974

BA Washington Univ in St. Louis 1970

MD University of Arkansas 1974

Peter G DanisInstructor in Clinical Medicine (primary appointment)

**Rand E Dankner, MD**Associate Professor of Clinical Medicine (primary appointment)

BA University of Pennsylvania 1974

MD Baylor University 1978

**Maria Cristina Dans, MD**Assistant Professor of Medicine (primary appointment)

BA Princeton University 1989

MD Washington Univ in St. Louis 1999

**Gautam Dantas**Associate Professor of Pathology and Immunology (primary appointment)

**Associate Professor of Biomedical Engineering**

**Associate Professor of Molecular Microbiology**

BS Macalester College 2000

Michael E DanterAssistant Professor of Clinical Pediatrics (primary appointment)

**Bhajan Shewaldas Dara, MD**Instructor in Clinical Medicine (primary appointment)

MD Sindh Medical College 1987

**Michael D Darcy, MD**Professor of Radiology (primary appointment)

**Associate Professor of Surgery (General Surgery)**

MD Ohio State University 1979

**Rachel S Darken, MD, PHD**Associate Professor of Neurology (primary appointment)

MD Cornell University 2004

PHD Cornell University 2003

BA University of Texas Austin 1996

**Lakshman Darsi, MBBS**Assistant Professor of Medicine (primary appointment)

MBBS Guntur Medical College 1985



**Koushik Kumar Das, MD** Assistant Professor of Medicine (primary appointment)

MD Columbia University 2016

**Sundeep Das** Instructor in Clinical Medicine (primary appointment)

**Jessica L Dashner, MS** Instructor in Occupational Therapy (primary appointment)

**Instructor in Nuerology**

BS McKendree College 2000

MS Washington Univ in St. Louis 2002

**Alejandro M Datuin, MD, AA** Assistant Professor of Clinical Psychiatry (On Staff at Malcolm Bliss Mental Health Center) (primary appointment)

MD University of Santo Tomas 1956

AA University of Santo Tomas 1951

**Yasmeen Daud, MD** Associate Professor of Pediatrics (primary appointment)

MD University of MO Kansas City 2000

**Carlos Colton Daughaday** Professor of Medicine (primary appointment)

**Bakul Dave, MD** Assistant Professor of Anesthesiology (primary appointment)

MD1 University of Toledo 1997

MD BJ Medical College 1984

**David L Davidson** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

**John D Davidson, MD** Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1952

**Lisa S. Davidson, MS, PHD** Associate Professor of Otolaryngology (primary appointment)

**Associate Professor of Audiology and Communication Sciences**

BS East Tennessee State Universi 1985

MS Washington Univ in St. Louis 1987

PHD Washington Univ in St. Louis 2003

**Nicholas O Davidson, MBBS** Professor of Medicine (primary appointment)

**Professor of Developmental Biology**

MBBS King's College London 1974

**Richard Davidson, DDENT, MS** Instructor in Clinical Otolaryngology (DMD) (primary appointment)

BA Washington Univ in St. Louis 1966

DDENT Washington Univ in St. Louis 1970

MS University of Missouri 1979

**Victor G Davila-Roman, MD** Professor of Medicine (primary appointment)

**Professor of Radiology**

**Professor of Anesthesiology**

MD University of Puerto Rico 1981

BS University of Puerto Rico 1977

**Albert Augustus Davis, PHD, MD** Instructor in Neurology (primary appointment)

BS Emory University 2002

PHD Emory University 2009

MD Vanderbilt University 2011

**Andrea Jill Davis, MD, MSN** Instructor in Clinical Medicine (primary appointment)

MD St George's University 2004

MSN Arizona State University 2000

BS Randolph Macon College 1997

**John C Davis, MD** Associate Professor of Clinical Pediatrics (primary appointment)

MD University of Michigan 1980

**Kasey L. Davis, PHD, MS**Instructor in Clinical Pediatrics (primary appointment)

PHD University of Indianapolis 2007

BS McKendree College 2002

MS University of Indianapolis 2004

**Mary A Davis, MD**Assistant Professor Emeritus of Clinical Psychiatry (primary appointment)

**Asst Prof Emeritus of Clinical Psychiatry** (primary appointment)

BA Ohio State University 1947

MD Washington Univ in St. Louis 1952

**Ray S Davis, MD**Professor of Clinical Pediatrics (primary appointment)

MD University of Louisville 1978

**Sheldon L Davis**Assistant Professor of Clinical Otolaryngology (primary appointment)

**Thomas Edward Davis**Instructor in Clinical Medicine (primary appointment)

**Thomas Keefe Davis, MD**Assistant Professor of Pediatrics (primary appointment)

MD St. George's University 2004

BS Regis University 1999

**Gene Layton Davis Jr, MBA, MD**Assistant Professor of Clinical Radiology (primary appointment)

BA University of Virginia 1968

MBA Webster University 1991

MD University of Virginia 1972

**Jeffrey G Dawson, MD**Professor of Pediatrics (primary appointment)

BA Northwestern University 1982

MD University of Louisville 1982

**Brian Keith Day, MD, PHD**Assistant Professor of Neurology (primary appointment)

MD University of Kentucky 2007

PHD University of Kentucky 2005

BS Harvard University 1997

**Caroline Elizabeth Day, M PH**Instructor in Clinical Medicine (primary appointment)

M PH San Diego St University 2005

BS University of Colorado Boulder 1990

**Gregory Scott Day, MS, MD**Instructor in Neurology (primary appointment)

MS Queen's University 2006

MD Queen's University 2009

BS Queen's University 2003

**Gabriela De Bruin**Assistant Professor of Neurology (primary appointment)

**Thomas M De Fer, MD**Professor of Medicine (primary appointment)

MD University of Missouri 1989

**Lisa De Las Fuentes, MD**Associate Professor of Medicine (primary appointment)

**Associate Professor of Biostatistics**

MD University of Texas Southwest 1996

BA Stanford University 1991

**Vincent R De Mello**Assistant Professor of Clinical Medicine (primary appointment)

**Charl Johan De Wet**Associate Professor of Anesthesiology (primary appointment)

**Associate Professor of Surgery (Cardiothoracic Surgery)**

**Anne V Dean**Instructor in Clinical Medicine (primary appointment)

**Jon Todd Dean, MD**Instructor in Clinical Psychiatry (primary appointment)

BA University of Texas Austin 1982

MD University of Texas Austin 1987

**Brian J. DeBosch, PHD, MD**Assistant Professor of Pediatrics (primary appointment)



**Assistant Professor of Cell Biology and Physiology**

PHD Washington Univ in St. Louis 2008

MD Washington Univ in St. Louis 2008

BS University of Michigan 2001

**James Allen Declue, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Illinois College of Optometry 1949

**Jane E. Defalco, MS, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MS Rutgers University 1978

MD Case Western Reserve Univ 1984

BA Rutgers University 1977

**Melissa DeFoe, MD** Instructor in Medicine (primary appointment)

MD Univ of Texas Med Sch Houston 2013

**Ryan Michael DeGeeter, DPT** Instructor in Physical Therapy (primary appointment)

**Instructor in Orthopedic Surgery**

BS Ball State University 2007

DPT Washington Univ in St. Louis 2010

**John James Deguire, MD** Instructor in Ophthalmology and Visual Sciences (primary appointment)

BA Washington Univ in St. Louis 1983

MD University of Illinois 1988

Farrokh Dehdashti Professor of Radiology (primary appointment)

**Louis P Dehner, MD** Professor of Pathology and Immunology (primary appointment)

**Professor of Pathology in Pediatrics**

MD Washington Univ in St. Louis 1966

BA Washington Univ in St. Louis 1962

**Angeline Diane DeiSanti, MD** Assistant Professor of Medicine (primary appointment)

MD University of MO Columbia 2003

BS University of MO Columbia 1998

**Jennifer A. Delaney, MD** Instructor in Clinical Medicine (primary appointment)

BA Georgetown University 1992

MD Washington Univ in St. Louis 1997

**James Albert Delmez, MD** Professor of Medicine (primary appointment)

MD University of Rochester 1973

BA Washington Univ in St. Louis 1969

**Rowena Bayudan Delos Santos** Assistant Professor of Medicine (primary appointment)

BS Creighton University 2000

**Bethany L Dement, MD** Instructor in Medicine (primary appointment)

MD Southeast Missouri St Univ 2001

**Jennifer Lee Demertzis, MD** Associate Professor of Radiology (primary appointment)

MD Emory University 2003

BS University of Notre Dame 1999

Maureen Elaine Dempsey Instructor in Clinical Pediatrics (primary appointment)

**David G. DeNardo, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

BS Willamette University 1999

PHD Baylor University 2005

Panyue Deng Assistant Professor of Cell Biology and Physiology (primary appointment)

Andrea Denny Instructor in Neurology (Pending Dean's Approval) (primary appointment)

**Leanne Michelle DePalma, MD**Instructor in Pediatrics (primary appointment)

MD University of Louisville 2008

BS University of Notre Dame 2004

Amber Zimmer Deptol**Instructor in Medicine** (primary appointment)

**Alana C Desai**Assistant Professor of Surgery (Urologic Surgery) (primary appointment)

BS Marquette University 1997

Sunny Desai**Instructor in Clinical Medicine** (primary appointment)

**Gerry Deschamps, MD**Instructor in Clinical Pediatrics (primary appointment)

MD University of Missouri 1983

BA Washington Univ in St. Louis 1976

**Teresa Deshields, PHD, MS**Associate Professor of Clinical Medicine (primary appointment)

PHD University of Georgia 1985

BA Meredith College 1981

MS University of Georgia 1983

**George J Despotis**Associate Professor of Pathology and Immunology (primary appointment)

**Associate Professor of Anesthesiology**

BA Greenville College 1981

**Vladimir Novak Despotovic, MD**Assistant Professor of Medicine (primary appointment)

MD Michigan State University 2004

**Robert H Deusinger, PHD, MS**Assoc Prof Emeritus of Physical Therapy (primary appointment)

PHD University of Iowa 1981

MS University of Massachussetts 1968

BS Slippery Rock University 1967

**Susan S. Deusinger, PHD, MA**Prof Emeritus of Physical Therapy (primary appointment)

PHD Washington Univ in St. Louis 1987

MA Washington Univ in St. Louis 1980

BS University of Kansas 1969

**Michelle R Devera, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA Washington Univ in St. Louis 1985

MD Washington Univ in St. Louis 1993

**Venkata Rao Devineni, MD**Associate Professor of Clinical Radiation Oncology (primary appointment)

MD Osmania Medical College 1973

**Paul Dewald, MD**Assistant Professor of Clinical Psychiatry (primary appointment)

MD University of Rochester 1945

BA Swarthmore College 1942

**Todd Alan DeWees, PHD, MSSP**Assistant Professor of Radiation Oncology (primary appointment)

PHD University of MO Columbia 2009

MSSP Arizona State University 2003

BA Dana College 2001

**Neelendu Dey, MD**Assistant Professor of Medicine (primary appointment)

MD Yale University 2005

BS Harvard University 2000

**Plaridel C Deza, MD**Assistant Professor of Clinical Psychiatry (On Staff at Malcolm Bliss Mental Health Center) (primary appointment)

MD University of Santo Tomas 1956

**Amar Dhand, PHD, MD**Adjunct Assistant Professor of Neurology (primary appointment)

BS Dartmouth College 2001

PHD Oxford University 2006

MD Harvard University 2008

**Rajat Dhar** Associate Professor of Neurology (primary appointment)

**Vikas Ramnath Dharnidharka, MD** Professor of Pediatrics (primary appointment)

UNKNOWN St Xavier's College 1982

MD Topiwala National Med College 1991

**Marc I Diamond, MD** Adjunct Professor of Neurology (primary appointment)

MD University of San Francisco 1993

**Michael Diamond, MD** Professor of Medicine (primary appointment)

**Professor of Molecular Microbiology**

**Professor of Pathology and Immunology**

**Herbert S Gasser Professor**

BA Columbia College 1985

MD Harvard University 1994

**Aaron DiAntonio, M PHIL** Professor of Developmental Biology (primary appointment)

**Alan A and Edith L Wolff** Professor of Developmental Biology

M PHIL Cambridge University 1989

BA Harvard University 1988

**Judith A Dibble, MD** Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1986

**Donald V. Dichsen, MD** Instructor in Clinical Pediatrics (primary appointment)

MD University of Nebraska 1964

BA School Not Listed 1961

**Jeffrey M Dicke, MD** Professor of Obstetrics and Gynecology (primary appointment)

MD Ohio State University 1978

BA University of Toledo 1975

**Shelby Marie Dickson, MD** Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD University of MO Columbia 2011

BS University of MO St Louis 2004

**Lizbeth H Didriksen** Assistant Professor of Clinical Pediatrics (primary appointment)

**Brian K Dieckgraefe, PHD** Associate Professor of Medicine (primary appointment)

PHD Washington Univ in St. Louis 1987

BA University of Kansas 1982

**Paul E Diehl, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Illinois College of Optometry 1959

**Kathryn M Diemer, MD** Associate Professor of Medicine (primary appointment)

**Assistant Dean for Career Counseling**

BA University of Missouri 1984

MD University of Missouri 1985

**James A Diestelhorst, MD** Instructor in Clinical Medicine (primary appointment)

BS Southern Illinois University 1964

MD University of Missouri 1967

**Russell B Dieterich, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA Knox College 1965

MD University of Illinois 1970

**Dennis J. Dietzen, PHD** Professor of Pediatrics (primary appointment)

**Professor of Pathology and Immunology**

PHD Indiana University Bloomington 1992

**Krikor T Dikranian, PHD, MD** Professor of Anatomy (primary appointment)

**Professor of Physical Therapy**

PHD Medical University - Sofia 1992

MD Medical University - Varna 1978

**Patrick A Dillon** Associate Professor of Surgery (Pediatric Surgery) (primary appointment)

**Associate Professor of Pediatrics**

BA Brown University 1983

**Mary C Dinauer, MD, PHD** Professor of Pediatrics (primary appointment)

**Professor of Pathology and Immunology**

BA Lawrence University 1975

MD University of Chicago 1981

PHD University of Chicago 1979

**Tulay F Dincer, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD School Not Listed 1977

**Carie Kollmeyer Dinehart, MD** Instructor in Clinical Psychiatry (primary appointment)

BA Saint Louis University 1999

MD Saint Louis University 2003

**Li Ding, PHD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Genetics**

PHD University of Utah 1998

**John F Dipersio, MD, PHD** Virginia E and Sam J Golman Professor of Medicine (primary appointment)

**Professor of Pediatrics**

**Professor of Pathology and Immunology**

MD University of Rochester 1980

PHD University of Rochester 1980

BA Williams College 1973

**Michael N Diringer, MA, MD** Professor of Neurology (primary appointment)

**Professor of Anesthesiology**

**Professor of Occupational Therapy**

**Professor of Neurological Surgery**

MA University of Louisville 1978

MD University of Kentucky 1982

Richard M Divalerio Instructor in Clinical Medicine (primary appointment)

Abhinav Diwan Associate Professor of Medicine (primary appointment)

**Associate Professor of Cell Biology and Physiology**

Kathleen Koller Dixon Instr Emeritus in Physical Therapy (primary appointment)

**Sergej Djuranovic, PHD** Assistant Professor of Cell Biology and Physiology (primary appointment)

PHD University of Tübingen 2007

Igor Dmitriev Assistant Professor of Radiation Oncology (primary appointment)

**Matthew Barrett Dobbs, MD** Dr Asa C and Mrs Dorothy W Jones Professorship in Orthopaedic Surgery (primary appointment)

MD University of Iowa 1995

**Deborah E Dobson, PHD** Associate Professor of Molecular Microbiology (primary appointment)

PHD University of CA Berkeley 1981

BS University of Illinois 1976

**Martin A Docherty, MD** Assistant Professor of Emergency Medicine in Medicine (primary

appointment)

BS Edinburgh University 1978

MD Saint Louis University 1983

Allan Doctor **Professor of Pediatrics** (primary appointment)

**Associate Professor of Biochemistry and Molecular Biophysics**

Jonathan Noel Dodd **Instructor in Clinical Neurology** (primary appointment)

**Karen W Dodson, PHD** **Instructor in Molecular Microbiology** (primary appointment)

PHD Washington Univ in St. Louis 1990

BA University of Missouri 1983

**William Edwin Dodson, MD** **Prof Emeritus of Neurology** (primary appointment)

MD Duke University 1967

Roland Ellwood Dolle **Associate Professor of Biochemistry and Molecular Biophysics** (primary appointment)

**Irl Joseph Don, MD** **Associate Professor of Clinical Medicine** (primary appointment)

MD Washington Univ in St. Louis 1972

**Steven Don** **Associate Professor of Radiology** (primary appointment)

BA Johns Hopkins University 1981

**James W Donnelly, MD** **Instructor in Clinical Medicine (Dermatology)** (primary appointment)

BA Northwestern University 1982

MD Washington Univ in St. Louis 1986

**Julianne Elizabeth Donnelly, MD** **Assistant Professor of Anesthesiology** (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

MD University of Kansas 2009

**Joseph M Dooley Jr, MD** **Associate Professor of Clinical Neurology** (primary appointment)

BS Saint Louis University 1954

MD Saint Louis University 1958

**Balraj Doray** **Assistant Professor of Medicine** (primary appointment)

BS Southern Illinois University 1993

**Alla Dorfman, MD** **Instructor in Clinical Pediatrics** (primary appointment)

MD Chervovtzy State School of Med 1986

Gerald W. Dorn II **Philip and Sima K Needleman Professor of Medicine** (primary appointment)

Ian G Dorward **Assistant Professor of Neurological Surgery** (primary appointment)

**Nico U. Dosenbach, MD, PHD** **Assistant Professor of Neurology** (primary appointment)

**Assistant Professor of Pediatrics**

**Assistant Professor of Occupational Therapy**

BA Columbia University 2000

MD Washington Univ in St. Louis 2008

PHD Washington Univ in St. Louis 2008

Catherine J Doty **Instructor in Clinical Pediatrics** (primary appointment)

**Charles H Dougherty** **Professor of Clinical Pediatrics** (primary appointment)

BA Holy Cross College 1969

**Joseph D Dougherty, PHD** **Assistant Professor of Genetics** (primary appointment)

**Assistant Professor of Psychiatry**

BS Truman State University 1999

PHD University of California 2005

Matthew P Dougherty **Instructor in Clinical Pediatrics** (primary appointment)

**Joshua L Dowling, MD** **Professor of Neurological Surgery** (primary appointment)

MD Tulane University 1989

BA Yale University 1985

**Joan Catherine Downey, M PH, MD**Assistant Professor of Pediatrics (primary appointment)

**Assistant Dean, College of Arts & Sciences**

M PH Harvard University 1985

MD Harvard University 1985

**Maria Bernadette Majella Doyle, MD**Associate Professor of Surgery (General Surgery) (primary appointment)

MD Trinity College Dublin 1996

BS Trinity College Dublin 1990

**Bettina Drake, M PH, PHD**Associate Professor of Surgery (Public Health Sciences) (primary appointment)

M PH Univ Texas Health Science Ctr 2003

BS Baylor University 2001

PHD University of South Carolina 2006

**Andrew J. Drescher, MD**Assistant Professor of Otolaryngology (primary appointment)

MD University of Michigan 2002

BS Yale University 1998

**Eleanor Lynn Powell Drew, AB**Assistant Professor of Surgery (General Surgery) (primary appointment)

AB Brown University 2005

**Anne Meredith Drewry, MD**Assistant Professor of Anesthesiology (primary appointment)

MD Washington Univ in St. Louis 2006

**Robert C Drews, MD**Prof Emeritus Of Clinical Ophthalmol & Vls Sci (primary appointment)

BA Washington Univ in St. Louis 1952

MD Washington Univ in St. Louis 1955

UNKNOWN School Not Listed 1992

BA1 Washington Univ in St. Louis 1952

**William H Dribben, MD**Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD University of North Carolina 1990

BA University of North Carolina 1985

**Julie Kosto Drobish, MD**Assistant Professor of Anesthesiology (Pending Executive Faculty Approval) (primary appointment)

BS Pennsylvania State University 2006

MD Washington Univ in St. Louis 2009

**Alexander W Dromerick, MD**Adjunct Associate Professor of Neurology (primary appointment)

**Adjunct Associate Professor of Occupational Therapy**

**Adjunct Associate Professor of Physical Therapy**

BA University of Virginia 1980

MD University of Maryland 1986

**Norman Steven Druck, MD**Assistant Professor of Clinical Otolaryngology (primary appointment)

BA Washington Univ in St. Louis 1967

MD University of Illinois 1970

**Todd Druley, MD, PHD**Assistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Genetics**

**Assistant Professor of Developmental Biology**

MD University of Illinois Chicago 2002

BS University of Illinois 1994



PHD University of Illinois Chicago 2002

**George Robert Drysdale, PHD, MS** Prof Emeritus Of Biochemistry & Molec Biophys (primary appointment)

BS School Not Listed 1948

PHD Univ of Wisconsin Madison 1952

MS Univ of Wisconsin Madison 1950

**Robert E Drzymala, PHD** Prof Emeritus of Radiation Oncology (primary appointment)

BS Northern Illinois University 1972

PHD University of Oklahoma 1977

**Erik R Dubberke, MPH, MD** Associate Professor of Medicine (primary appointment)

BA Augustana University College 1995

MPH Saint Louis University 2008

MD University of Illinois 1999

**James Matthew DuBois, D SC, MA, PHD** Steven J Bander Professor of Medical Ethics and Professionalism (primary appointment)

**Professor of Psychological & Brain Sciences**

D SC University of Vienna 1997

MA University of Rhode Island 1990

PHD Intrnl Academy of Philosophy 1992

BA Franciscan University Stubenv 1989

**Nicole Marie Ducharme, DOST** Instructor in Clinical Medicine (primary appointment)

DOST Univ of Health Sciences KC 2003

Robert Kelso Duddy Instructor in Clinical Orthopaedic Surgery (primary appointment)

**Carolyn Dufault, PHD** Instructor in Medicine (primary appointment)

**Assistant Dean for Office of Education**

PHD Washington Univ in St. Louis 2009

**Maria C Dumadag-Sabio, MD** Instructor in Clinical Medicine (primary appointment)

BA University of Missouri 1988

MD University of Missouri 1988

Edward Harry DuMontier Instructor in Clinical Medicine (primary appointment)

**William C Dunagan, MD, MS** Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1983

MS University of Texas Austin 1980

BS University of Texas Austin 1978

**James R Duncan, MD, PHD** Professor of Radiology (primary appointment)

MD Washington Univ in St. Louis 1988

BS Davenport University 1982

PHD Washington Univ in St. Louis 1988

**Jennifer Gries Duncan, MD** Associate Professor of Pediatrics (primary appointment)

MD University of Chicago 1997

BS Vanderbilt University 1993

**Ryan Patrick Duncan, DPT, MS** Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Neurology**

DPT Washington Univ in St. Louis 2012

BS Maryville University 2007

MS Maryville University 2008

**Eric James Duncavage** Assistant Professor of Pathology and Immunology (primary appointment)

BS Vanderbilt University 1998

**Lakshmi Vljaya Dundoo, MS**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MS School Not Listed 1992

BS School Not Listed 1986

UNKNOWN School Not Listed 1992

**Gavin P. Dunn**Assistant Professor of Neurological Surgery (primary appointment)

**Assistant Professor of Pathology and Immunology**

**Jennifer M Dunn, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 2000

BS Duke University 1996

**Julia Passyn Dunn, MD, MS**Assistant Professor of Medicine (primary appointment)

MD University of South Alabama 2002

MS Vanderbilt University 2010

**Kirsten F Dunn, MD**Instructor in Medicine (primary appointment)

MD Saint Louis University 2012

**William Michael Dunne Jr, PHD**Adjunct Professor of Pathology and Immunology (primary appointment)

BS Univ of Wisconsin Madison 1975

PHD Univ of Wisconsin Madison 1981

**Katherine Dunsky**Assistant Professor of Otolaryngology (Pending Executive Faculty Approval) (primary appointment)

**Michael Joseph Durkin**Instructor in Medicine (primary appointment)

BA Illinois Wesleyan University 2004

M PH1 University of North Carolina 2015

**Nicole Marie Durko, DOST**Assistant Professor of Anesthesiology (primary appointment)

DOST Midwestern University 2001

BS St Xavier University 1995

**Susan K. Dutcher, PHD**Professor of Genetics (primary appointment)

**Professor of Cell Biology and Physiology**

**Interim Director of the McDonnell Genome Institute**

PHD University of Washington 1980

BA Colorado College 1974

**Christopher J. Dy, M PH**Assistant Professor of Orthopaedic Surgery (primary appointment)

M PH University of Miami 2008

BS University of Miami 2004

**Tiffany Biason Dy, MD**Instructor in Medicine (primary appointment)

BS University of Miami 2005

MD Univ Texas Health Science Ctr 2009

**Joseph W Eades**Assistant Professor of Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)

**William Charles Eades Jr**Associate Professor of Medicine (primary appointment)

**J. Chris Eagon, MD, MS**Associate Professor of Surgery (General Surgery) (primary appointment)

MD Harvard University 1988

MS University of Utah 1997

BA Williams College 1984

**Gammon Marie Earhart, MS, PHD**Professor of Physical Therapy (primary appointment)

**Professor of Neuroscience**

**Professor of Neurology**



**Associate Director of Movement Science PhD Program in Physical Therapy**  
**Executive Director of the Program in Physical Therapy**

MS Beaver College 1996

BS Beaver College 1994

PHD Washington Univ in St. Louis 2000

**Dayna S Early, MD** Professor of Medicine (primary appointment)

BA University of Missouri 1986

MD University of Missouri 1990

**Adam C. Eaton, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

BS University of Illinois 1992

MD Washington Univ in St. Louis 1997

**Royal J Eaton, MD** Instructor in Clinical Medicine (primary appointment)

BA University of Missouri 1960

MD University of Missouri 1964

**Stephen Ray Eaton, MD** Assistant Professor of Surgery (General Surgery) (primary appointment)

BS1 Southern Illinois University 1997

MS1 Southern Illinois University 2000

MD Ross University 2005

Lori L Eberhart Instructor in Clinical Pediatrics (primary appointment)

**Timothy J Eberlein, MD, MA** Bixby Professor of Surgery (General Surgery) (primary appointment)

**Head of the Department of Surgery**

**Director of The Alvin J. Siteman Cancer Center**

**Professor of Pathology and Immunology**

**Spencer T. and Ann W. Olin Distinguished Professor**

MD University of Pittsburgh 1977

MA Harvard University 1996

BS University of Pittsburgh 1973

**Charles S Eby** Professor of Pathology and Immunology (primary appointment)

**Professor of Medicine**

BS Duke University 1977

**Shaina Rose Eckhouse, MD** Assistant Professor of Surgery (General Surgery) (Pending Executive Faculty Approval) (primary appointment)

MD Univ Texas Health Sci San Anto 2008

**Brian T. Edelson, MD, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

UNKNOWN Brown University 1995

MD Washington Univ in St. Louis 2004

PHD Washington Univ in St. Louis 1995

Julia D Edgar Adjunct Instructor of Otolaryngology (primary appointment)

**Robert W Edmonds, MD** Assistant Professor Emeritus of Clinical Pediatrics (primary appointment)

**Asst Prof Emeritus of Clinical Pediatrics** (primary appointment)

MD Washington Univ in St. Louis 1960

BA University of Missouri 1956

**Charmaine E. Edwards** Instructor in Clinical Medicine (primary appointment)

BS Alcorn State University 1987

**Dorothy F Edwards, PHD** Adjunct Associate Professor of Occupational Therapy

**Adjunct Associate Professor of Neurology**

PHD Washington Univ in St. Louis 1980

**James Earl Edwards, MD** Assistant Professor of Clinical Psychiatry (Child Psychiatry) (primary appointment)

MD University of Tennessee 1962

BA University of Tennessee 1959

**John R. Edwards, PHD** Assistant Professor of Medicine (primary appointment)

PHD Columbia University 2003

**Stilianos Efstratiadis** Assistant Professor of Clinical Medicine (primary appointment)

**Takeshi Egawa, PHD, MD** Assistant Professor of Pathology and Immunology (primary appointment)

PHD Osaka University 2002

MD Osaka University 1994

**Adam Thomas Eggebrecht, PHD, MS** Instructor in Radiology (primary appointment)

PHD Washington Univ in St. Louis 2009

MS Washington Univ in St. Louis 2005

**Russell E Eggebrecht, MD** Associate Professor of Clinical Medicine (primary appointment)

BS University of Illinois 1967

MD Washington Univ in St. Louis 1971

**Pirooz Eghtesady, MD, MS, D SC** Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Professor of Pediatrics**

MD University of CA Los Angeles 1993

MS University of CA Los Angeles 1987

BS University of CA Los Angeles 1987

D SC University of CA Los Angeles 1993

**Tamara Kay Ehlert, MD** Instructor in Clinical Otolaryngology (primary appointment)

BA Northwestern University 1979

MD Univ of Wisconsin Madison 1983

**Ali A Ehsani, MD** Professor of Medicine (primary appointment)

MD Tehran University 1965

**Zamir Eidelman** Associate Professor of Clinical Medicine (primary appointment)

**John Robert Eigenbrodt, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD University of Missouri 1988

BS Southern Ill Univ Edwardsville 1985

**Arthur Z Eisen, MS, MD** Professor of Medicine (Dermatology) (primary appointment)

MS Brown University 1953

BA State Univ of NY Buffalo 1951

MD University of Pennsylvania 1957

**Seth A Eisen, MD, MS** Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1966

MS Harvard University 1989

BA Reed College 1963

**David Louis Eisenberg, MD, M PH** Associate Professor of Obstetrics and Gynecology (primary appointment)

BS University of Pittsburgh 1999

MD University of Alabama 2003

M PH Northwestern University 2009

**Lawrence N Eisenman, MD, PHD** Associate Professor of Neurology (primary appointment)

MD Northwestern University 1997

PHD Northwestern University 1997

**Sarah Ann Eisenstein, PHD**Assistant Professor of Psychiatry (primary appointment)

**Assistant Professor of Radiology**

PHD University of Georgia 2008

**Linda G Eissenberg, PHD**Assistant Professor of Medicine (primary appointment)

BA University of Tennessee 1977

PHD University of North Carolina 1982

**Josiah O. Ekunno**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS School Not Listed 1965

**Lamice R. El-Kholy**Instructor in Clinical Medicine (primary appointment)

UNKNOWN School Not Listed 1982

**Samir Khattab El-Mofty, MS, PHD**Professor of Oral Pathology (primary appointment)

**Professor of Pathology and Immunology**

**Professor of Otolaryngology**

UNKNOWN School Not Listed 1955

DDENT1 Washington Univ in St. Louis 1987

MS University of Pennsylvania 1966

PHD Temple University 1976

**Sven Gustav Eliasson, MD, MLA, PHD**Prof Emeritus Of Neurology (primary appointment)

BS University of Lund 1949

MD School Not Listed 1954

MLA Washington Univ in St. Louis 1991

PHD School Not Listed 1952

**John Ellena, MD**Associate Professor of Clinical Medicine (primary appointment)

MD Southern Illinois University 1983

BS Southern Illinois University 1980

**Thomas E Ellenberger, DVM, PHD**Professor of Biochemistry and Molecular Biophysics (primary appointment)

**Chairman of the Executive Council of the Division of Biology and Biomedical Sciences**

DVM Iowa State University 1983

PHD Harvard University 1989

**Alysa G. Ellis**Assistant Professor of Pediatrics (primary appointment)

BA University of MO Kansas City 2004

**Charlene Ann Ellsworth, PHD, MD**Instructor in Clinical Medicine (primary appointment)

PHD Mass Inst of Technology (MIT) 2004

MD Washington Univ in St. Louis 2008

**Mohamed Elsafi**Assistant Professor of Clinical Otolaryngology (primary appointment)

**Elliot L Elson, PHD**Emeritus Professor of Biochemistry and Molecular Biophysics (primary appointment)

**Prof Emeritus of Biochem & Molec Biophysics** (primary appointment)

PHD Stanford University 1966

BA Harvard University 1959

**Amged Eltahir, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Khartoum 1985

AB1 Saint Louis University 2006

**Alexis M Elward, MPH, MD**Professor of Pediatrics (primary appointment)

**Vice Chair of Quality Improvement and Safety in Pediatrics**

MPH Saint Louis University 2006

BA Loyola College 1988

MD University of Maryland 1994

**Jill Elizabeth Elwing, MD** Assistant Professor of Medicine (primary appointment)

BS University of MO Columbia 1996

MD University of MO Columbia 2000

**Amanda R. Emke** Assistant Professor of Pediatrics (primary appointment)

BS St Marys University 1998

**Daniel Emmert, MD** Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

MD Saint Louis University 2005

**Nicholas Earl Engelbrecht** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

**Sarah K England, PHD** Professor of Obstetrics and Gynecology (primary appointment)

**Professor of Cell Biology and Physiology**

**Alan A and Edith L Wolff** Professor of Medicine

PHD Medical College of Wisconsin 1993

BA Carleton College 1988

**Sean Jason English** Assistant Professor of Surgery (General Surgery) (Pending Executive Faculty Approval) (primary appointment)

**Jack R. Engsborg, PHD, MS** Professor of Occupational Therapy (primary appointment)

**Professor of Neurological Surgery**

**Professor of Orthopaedic Surgery**

BS Univ of Wisconsin La Crosse 1973

PHD University of Iowa 1985

MS Univ of Wisconsin La Crosse 1978

MS1 Univ of Wisconsin La Crosse 1979

**James Michael Epstein, MD** Instructor in Clinical Medicine (primary appointment)

BS University of Notre Dame 1965

MD Washington Univ in St. Louis 1969

**Jay S Epstein, MS, MD** Professor of Clinical Pediatrics (primary appointment)

BA Emory University 1977

MS Emory University 1978

MD Emory University 1983

**Lawrence W Ernst, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD University of Missouri 1990

**Christopher R. Erwin, MS, PHD** Associate Professor of Surgery (Pediatric Surgery) (primary appointment)

MS University of CA Davis 1978

PHD University of Iowa 1983

BS University of CA Davis 1976

**Prabakaran Esakky, MS, PHD** Instructor in Obstetrics and Gynecology (primary appointment)

MS Sri Paramakalyani College 1997

BS Sri Paramakalyani College 1995

PHD Natl Inst Resrch Reprod Health 2007

**Juan Escandon, MD** Assistant Professor of Clinical Neurology (primary appointment)

BS School Not Listed 1985

MD School Not Listed 1989

**Diane M Eschmann, MD**Instructor in Clinical Pediatrics (primary appointment)

MD University of Missouri 1993

BA Saint Louis University 1989

Gerome V Escota**Assistant Professor of Medicine** (primary appointment)

Jennifer Ess**Instructor in Clinical Pediatrics** (primary appointment)

**Laura Ann Esswein, MD**Instructor in Clinical Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1987

MD University of Missouri 1991

**Michele Marie Estabrook, MA, MD**Professor of Pediatrics (primary appointment)

BA Bates College 1976

MA Stanford University 1979

MD Case Western Reserve Univ 1983

**Kelly Eileen Estes, MD, MPH, MS**Assistant Professor of Orthopaedic Surgery (Pending Executive Faculty Approval) (primary appointment)

MD Wright State University 2012

BS Kalamazoo College 2005

MPH Wright State University 2012

MS Columbia University 2016

**Neil A Ettinger, MD**Assistant Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1983

BS Vanderbilt University 1979

**Eric Paul Eutsler, MD**Instructor in Radiology (primary appointment)

MD Drexel University 2008

BS Wilkes University 2004

**Bradley A Evanoff, MD**Richard A and Elizabeth Henby Sutter Professor of Occupational, Industrial, and Environmental Medicine in Medicine (primary appointment)

**Professor of Occupational Therapy**

**Assistant Dean for Clinical and Translational Research**

BA Cornell University 1982

MD Washington Univ in St. Louis 1986

Lawrence Glennon Evans Jr**Instructor in Orthopaedic Surgery** (primary appointment)

**Alex S Evers**Henry E Mallinckrodt Professor of Anesthesiology (primary appointment)

**Head of the Department of Anesthesiology**

**Professor of Developmental Biology**

**Professor of Medicine**

BS Yale University 1974

Carol Jane Evers**Instructor in Clinical Medicine** (primary appointment)

**Eugene Evra, MD**Instructor in Clinical Neurology (primary appointment)

MD Smolensk State Medical Academy 1996

**Gregory A Ewald, MD**Associate Professor of Medicine (primary appointment)

MD Northwestern University 1989

**Renee D Ewing, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Southern Illinois University 1984

BA University of MO St Louis 1979

**Elisa Fabbrini, PHD**Adjunct Assistant Professor of Medicine (primary appointment)

PHD La Sapienza University 2006

**Roberta Faccio, PHD**Professor of Orthopaedic Surgery (primary appointment)

**Professor of Cell Biology and Physiology**

PHD University of Bari 2000

**Raymond F Fada Jr, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD University of Missouri 1989

BS University of Michigan 1984

**Brian T Faddis, MS, PHD** Assistant Professor of Otolaryngology (primary appointment)

**Assistant Professor of Audiology and Communication Sciences**

MS University of California 1989

BS University of California 1982

PHD University of California 1994

**Mitch N Faddis, MD** Associate Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1993

BS Kansas State University 1985

**Nuri Bradford Farber, MD** Professor of Psychiatry (primary appointment)

BA Washington Univ in St. Louis 1985

MD Washington Univ in St. Louis 1989

**Elliott H Farberman, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Saint Louis University 1973

BA University of Rochester 1969

**Cathleen Rae Faris, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

BA University of Kansas 1977

MD University of Kansas 1982

Akinrinola Fatoki Instructor in Clinical Medicine (primary appointment)

**Justin C. Fay, PHD** Associate Professor of Genetics (primary appointment)

PHD University of Chicago 2001

Adam Ross Fedyk Instructor in Clinical of Ophthalmology & Visual Sciences (primary appointment)

**Todd A Fehniger, MD, PHD** Associate Professor of Medicine (primary appointment)

MD Ohio State University 2002

PHD Ohio State University 2000

James J Fehr III Professor of Anesthesiology (primary appointment)

**Professor of Pediatrics**

Robert M Feibel Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

**Steven Edward Feit, MD** Assistant Professor of Anesthesiology (primary appointment)

MD University of MO Columbia 1982

BA Indiana State University 1978

Mary F Feitosa Associate Professor of Genetics (primary appointment)

John Matthew Felder III Assistant Professor of Surgery (Plastic and Reconstructive Surgery)

(Pending Executive Faculty Approval) (primary appointment)

**David Feldman, MD** Instr Emeritus In Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1943

**Mario Federico Feldman, PHD** Associate Professor of Molecular Microbiology (primary appointment)

PHD Universidad del Buenos Aires 2004

Richard A. Felkel Jr Instructor in Clinical Pediatrics (primary appointment)

**Thomas A Ferguson** Professor of Ophthalmology and Visual Sciences (primary appointment)



**Associate Professor of Pathology and Immunology**

BA Kent St University 1974

**Thomas W Ferkol, MD** Professor of Pediatrics (primary appointment)

**Professor of Cell Biology and Physiology**

**Alexis Hartmann MD** Professor of Pediatrics

MD Ohio State University 1985

BA Case Western Reserve Univ 1981

**James A Fernandez** Instructor in Clinical Otolaryngology (primary appointment)

BS University of Notre Dame 1977

Isabel Fernandez-Holtzman Instructor in Clinical Pediatrics (primary appointment)

**Herman L Ferrell** Instructor in Clinical Medicine (primary appointment)

BS University of Arkansas 1973

**Beverly J. Field, PHD, B MUS** Associate Professor of Anesthesiology (primary appointment)

**Associate Professor of Psychiatry**

BA University of MO Columbia 1987

PHD Washington Univ in St. Louis 1993

B MUS Southern Illinois University 1972

**Melanie Erin Fields, MD** Instructor in Pediatrics (primary appointment)

BS Tulane University 2003

MD Univ of Texas Med Sch Houston 2008

**Ryan Courtney Fields, MD** Assistant Professor of Surgery (General Surgery) (primary appointment)

BS Davenport University 1998

MD Duke University 2003

**Jeffrey T Fierstein, MD** Assistant Professor of Clinical Otolaryngology (primary appointment)

MD School Not Listed 1971

BA Dartmouth College 1968

**Robert S Figenshau, MD** Taylor Family and Ralph V. Claman, M.D. Professor of Surgery (Urologic Surgery) (primary appointment)

MD University of Minnesota 1987

BS Macalester College 1981

**Mayte Ideliz Figueroa, MD** Associate Professor of Pediatrics (Pending Executive Faculty Approval) (primary appointment)

MD Mount Sinai School of Medicine 1992

**Brian N. Finck, PHD** Associate Professor of Medicine (primary appointment)

BS University of Illinois 1994

PHD University of Illinois 2000

**Mitchell Evan Fingerman, MD** Assistant Professor of Anesthesiology (primary appointment)

MD University of Connecticut 2004

**Debra Fink, MS, DDENT** Instructor in Clinical Otolaryngology (DMD) (primary appointment)

MS University of Scranton 1981

DDENT Washington Univ in St. Louis 1988

BA Barnard College 1971

**Kurt W Finklang, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BS University of Missouri 1977

OD State University of New York 1981

Charles Coleman Finley Adjunct Research Associate Professor of Otolaryngology (primary appointment)

**Gregory K Finn, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1992

BA Hendrix College 1985

**Jill B Firszt, MS, PHD** Professor of Otolaryngology (primary appointment)

**Professor of Audiology and Communication Sciences**

MS University of Illinois 1982

BS University of Illinois 1978

PHD University of Illinois 1998

**Lewis Conrad Fischbein, MD** Associate Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1974

**Keith C Fischer, MD** Associate Professor of Radiology (primary appointment)

BA Oberlin College 1967

MD Johns Hopkins University 1971

**Peter Uwe Fischer, MS** Associate Professor of Medicine (primary appointment)

MS Free University of Berlin 1991

**Marsha Nicole Fisher, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD University of Missouri 1992

BA Washington Univ in St. Louis 1988

**Emily Faith Fishman, MD** Instructor in Pediatrics (primary appointment)

BS Youngstown St University 2005

MD Northeast Ohio Medical U 2009

**Norman Fishman, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD School Not Listed 1974

BA School Not Listed 1970

**Anna M Fitz-James, MD, M PH** Assistant Professor of Clinical Pediatrics (primary appointment)

MD George Washington University 1981

M PH School Not Listed 1994

BA University of Massachusetts 1975

**Robert T. Fitzgerald, MS** Instructor in Psychiatry (Child) (primary appointment)

BS Abilene Christian University 1998

MS Saint Louis University 2000

**Sean C. Fitzmaurice, MD** Instructor in Emergency Medicine in Medicine (primary appointment)

MD Saint Louis University 1995

BS Georgetown University 1989

**James Alexander John Fitzpatrick, PHD** Associate Professor of Neuroscience (primary appointment)

**Associate Professor of Cell Biology and Physiology**

PHD University of Bristol 2003

**Susan M Fitzpatrick, PHD** Adjunct Associate Professor of Neuroscience (primary appointment)

**Adjunct Associate Professor of Occupational Therapy**

BS St Johns University 1978

PHD Cornell University 1984

**Ellen E Fitzsimmons-Craft, MS PSYC, PSYD** Instructor in Psychiatry (primary appointment)

MS PSYC University North Carolina 2010

PSYD University North Carolina 2014

BS1 University of Notre Dame 2008

**James M Fleckenstein, MD** Associate Professor of Medicine (primary appointment)

MD Saint Louis University 1985

BS Xavier University 1981



**Jaquelyn F Fleckenstein, MD** Professor of Medicine (primary appointment)

MD Saint Louis University 1985

BA Cornell University 1981

**Julian B Fleischman, PHD** Assoc Prof Emeritus Of Molecular Microbiology (primary appointment)

BS Yale University 1955

PHD Harvard University 1960

**Timothy Peter Fleming** Professor of Surgery (General Surgery) (primary appointment)

**Edward B Fliasher, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Saint Louis University 1978

BA Northwestern University 1974

**Julaine Marie Florence, DPT, MS** Professor of Neurology (primary appointment)

**Professor of Physical Therapy**

DPT Washington Univ in St. Louis 2002

MS Washington Univ in St. Louis 1983

BS Washington Univ in St. Louis 1975

**Avegail Gascon Flores, MD** Assistant Professor of Medicine (primary appointment)

MD University of Pittsburgh 2007

**Cynthia Florin, MD** Instructor in Clinical Psychiatry (primary appointment)

MD Columbia University 1984

BS Grinnell College 1976

**Justin Douglas Floyd, DOST** Assistant Professor of Clinical Medicine (primary appointment)

DOST Kirksville College of Osteopat 2000

BS University of Arizona 1996

**Gretchen Marie Foltz, MD** Assistant Professor of Radiology (primary appointment)

**Assistant Professor of Surgery (General Surgery)**

MD Medical College of Wisconsin 2007

BS Univ of Wisconsin Milwaukee 2002

**Emily Fondahn, MD** Assistant Professor of Medicine (primary appointment)

MD Northwestern University 2008

**Frank Donald Fontana, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Illinois College of Optometry 1950

**Luigi Fontana, MD, PHD** Professor of Medicine (primary appointment)

MD University of Verona 1994

PHD University of Padova 2004

**Andria L Ford, MD** Associate Professor of Neurology (primary appointment)

MD University of Oklahoma 2002

BS Duke University 1998

**Shanon Alex Forseter** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Rebecca Hope Foster** Instructor in Clinical Pediatrics (primary appointment)

**Rosemary Foster, MD** Instructor in Anesthesiology (Pending Dean's Approval) (primary appointment)

MD Saint Louis University 2013

**Kathryn Fowler, MD** Assistant Professor of Radiology (primary appointment)

BS University South Carolina 2001

MD Univ of Wisconsin Madison 2005

**Glennon Joseph Fox, MD** Instructor in Clinical Medicine (primary appointment)

MD University of MO Columbia 1984

**Ida K Fox, MD** Associate Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)

BS Haverford College 1994

MD University of Rochester 1999

**Judy Ann Frain, BN, MSN, PHD** Adjunct Assistant Professor of Medicine (primary appointment)

BN Webster University 2003

MSN Saint Louis University 2004

PHD University of MO St Louis 2013

**Myrto Frangos, MD** Instructor in Clinical Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1981

MD Saint Louis University 1985

**Bennett David Frank, MD, PHD** Instructor in Clinical Neurology (primary appointment)

MD Beaufort Technical College 1988

PHD Beaufort Technical College 1987

BA Washington Univ in St. Louis 1982

**Bruce S Frank, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BS Mass Inst of Technology (MIT) 1972

MD Washington Univ in St. Louis 1976

**Victoria J Fraser, MD** Adolphus Busch Professor of Medicine (primary appointment)

**Head of the Department of Internal Medicine**

BS William Woods College 1978

MD University of MO Columbia 1983

**John Lawrence Frater, MD** Associate Professor of Pathology and Immunology (primary appointment)

MD Medical College of Ohio 1996

BS University of Notre Dame 1992

Sharon Glave Frazee Adjunct Assistant Professor of Pediatrics (primary appointment)

**William A Frazier III** Professor of Biochemistry and Molecular Biophysics (primary appointment)

**Professor of Cell Biology and Physiology**

**Professor of Biomedical Engineering**

BA Johns Hopkins University 1969

**John Murray Fredrickson, MD** Prof Emeritus Of Otolaryngology (primary appointment)

MD University of British Columbia 1957

**Kenneth E Freedland** Professor of Psychiatry (primary appointment)

**Professor of Psychological & Brain Sciences**

BS University of Oregon 1975

**Bradley D. Freeman, MD** Professor of Surgery (General Surgery) (primary appointment)

MD Duke University 1988

BS University of Central Florida 1984

**James Matthew Freer, MD** Assistant Professor of Medicine (primary appointment)

BS Truman State University 1998

MD University of MO Columbia 2002

**Daved H Fremont, PHD** Professor of Pathology and Immunology (primary appointment)

**Professor of Biochemistry and Molecular Biophysics**

BS Univ of Wisconsin Madison 1986

PHD University of CA San Diego 1993

**Anthony Raymond French, PHD** Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Pathology and Immunology**

**Associate Professor of Biomedical Engineering**

PHD University of Illinois 1995

**Deborah Frenchie, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1993

BA Washington Univ in St. Louis 1984

**Carl Frieden, PHD**Professor of Biochemistry and Molecular Biophysics (primary appointment)

BA Carleton College 1951

PHD Univ of Wisconsin Madison 1955

**David Alan Friedman, MD**Assistant Professor of Anesthesiology (primary appointment)

BS University of Kansas 1981

MD University of Kansas 1985

**Michael V Friedman**Assistant Professor of Radiology (primary appointment)

**Ernst R Friedrich**Prof Emeritus Of Ob & Gyn (primary appointment)

UNKNOWN School Not Listed 1951

**Darrin Friesen, MD**Instructor in Clinical Psychiatry (primary appointment)

MD Washington Univ in St. Louis 1996

BA School Not Listed 1990

**Stuart Howard Friess, MD**Associate Professor of Pediatrics (primary appointment)

MD Mount Sinai School of Medicine 1999

BS Brown University 1985

**Ashley Elizabeth Frith, MD**Assistant Professor of Medicine (primary appointment)

MD University of AR Med Sciences 2008

**Stephanie Ann Fritz, MD, MS**Assistant Professor of Pediatrics (primary appointment)

MD Medical College of Wisconsin 2001

MS Washington Univ in St. Louis 2008

BS Univ of Wisconsin Milwaukee 1997

**Brian R. Froelke, MD**Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD University of Cincinnati 2002

Qiang Fu

**Robert P. Fucetola, MA, PHD**Professor of Neurology (primary appointment)

**Adjunct Professor of Psychological & Brain Sciences**

BA Washington Univ in St. Louis 1991

MA Washington Univ in St. Louis 1993

PHD Washington Univ in St. Louis 1997

**Anja G. Fuchs, PHD**Assistant Professor of Surgery (General Surgery) (primary appointment)

BS School Not Listed 1994

PHD University of Manchester 2006

**Lara A Fuchs**Instructor in Clinical Psychiatry (primary appointment)

**Katherine C Fuh, MD**Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD Georgetown University 2005

**Brian M Fuller, MD**Assistant Professor of Emergency Medicine in Medicine (primary appointment)

**Assistant Professor of Anesthesiology**

**Assistant Professor of Anesthesiology**

MD University of Alabama 2003

BA University of Alabama 1998

**Michael Paul Fuller, MD**Associate Professor of Clinical Medicine (primary appointment)

MD University of Utah 1994  
BA Brigham Young University 1990  
Robert S. Fulton **Academic Rank held in Genetics** (primary appointment)  
**Instructor in Genetics**  
Suzanne Furesz **Instructor in Clinical Medicine** (primary appointment)  
Harrison W. Gabel, PHD, AB **Assistant Professor of Neuroscience** (primary appointment)  
PHD Harvard University 2008  
AB Princeton University 2001  
H Michael Gach, PHD **Associate Professor of Radiation Oncology** (primary appointment)  
**Associate Professor of Radiology**  
PHD University of Pittsburgh 1998  
Gary Gaddis, PHD, MD **Professor of Emergency Medicine in Medicine (Pending Executive Faculty Approval)** (primary appointment)  
PHD Indiana State University 1984  
MD Indiana University School of M 1986  
Michael S Gaffrey, PHD **Assistant Professor of Psychiatry** (primary appointment)  
PHD Univ of Wisconsin Milwaukee 2009  
Brian F Gage, MD **Professor of Medicine** (primary appointment)  
MD University of California 1988  
BS Stanford University 1984  
Carrie S Gaines, OD **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary appointment)  
OD University of Missouri 1988  
BS University of Missouri 1984  
Daniel Gaitan, MD **Associate Professor of Clinical Medicine** (primary appointment)  
BS University of AL Birmingham 1980  
MD University of Mississippi 1986  
Andrew E Galakatos, MD **Professor of Clinical Obstetrics and Gynecology** (primary appointment)  
BS St Louis College of Pharmacy 1960  
MD University of Missouri 1965  
Eric A Galburt, PHD **Assistant Professor of Biochemistry and Molecular Biophysics** (primary appointment)  
PHD University of Washington 2002  
Arthur H Gale, MD **Associate Professor of Clinical Medicine** (primary appointment)  
MD University of Missouri 1959  
John P Galgani Jr, MD **Associate Professor of Clinical Pediatrics** (primary appointment)  
MD Saint Louis University 1982  
BS Massachusetts College of Phar 1977  
Rafael Galindo, PHD **Assistant Professor of Neurology** (primary appointment)  
PHD University of New Mexico 2005  
BS University of New Mexico 1996  
Gilbert Gallardo, MS, PHD **Assistant Professor of Neurology** (primary appointment)  
MS Univ of Texas San Antonio 2002  
BS University of Texas El Paso 1999  
PHD University of Texas Southwest 2008  
Roberto Galletto, MS, PHD **Assistant Professor of Biochemistry and Molecular Biophysics** (primary appointment)  
MS University of Genova 1996

PHD University of Texas Galveston 2002

Maria Virginia Ganninger **Instructor in Clinical Pediatrics** (primary appointment)

**Lawrence A Gans, MD** **Assistant Professor of Clinical Ophthalmology and Visual Sciences** (primary appointment)

BA Columbia University 1972

MD Case Western Reserve Univ 1977

**Feng Gao, PHD** **Associate Professor of Surgery (Public Health Science)** (primary appointment)

**Associate Professor of Biostatistics**

**Associate Professor of Medicine**

PHD Emory University 2003

**Charles M Gaona, MA**

MA Air Force Institute Tech 2005

BA University of Colorado Boulder 1994

**Joel Richard Garbow, PHD** **Professor of Radiology** (primary appointment)

PHD University of CA Berkeley 1983

**Jane M. Garbutt, MHS, MBChB** **Professor of Medicine** (primary appointment)

**Professor of Pediatrics**

MHS University of Toronto 1988

MBChB Bristol University 1977

**John A Garcia, MD** **Instructor in Clinical Medicine** (primary appointment)

BA Carleton College 1985

MD University of Illinois 1990

**Jose L Garcia, MS** **Assistant Professor of Radiation Oncology** (primary appointment)

MS Finch Univ of Health Sciences 1997

BS University of Puerto Rico 1995

**Tessa D Gardner, MD** **Assistant Professor of Clinical Pediatrics** (primary appointment)

MD Harvard University 1972

BS Mass Inst of Technology (MIT) 1968

Nick S. Garg **Instructor in Clinical Psychiatry (Child Psychiatry)** (primary appointment)

**Marcie Epstein Garland, MD** **Assistant Professor of Psychiatry** (primary appointment)

MD University of MO Kansas City 2008

BA University of MO Kansas City 2008

**Stephen M Garnett, OD** **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary appointment)

OD Indiana University Bloomington 1980

BS Indiana University Bloomington 1978

**Heather Vallhonrat Garrett** **Assistant Professor of Radiology** (primary appointment)

BA University of Virginia 1996

**Jacquelyn B Garrett, MD** **Instructor in Clinical Medicine (Dermatology)** (primary appointment)

MD Howard University 1985

BS Howard University 1983

Caryn Garriga **Assistant Professor of Clinical Pediatrics** (primary appointment)

**Francisco J Garriga, MD** **Instructor in Clinical Medicine** (primary appointment)

MD Washington Univ in St. Louis 1970

BS University of Puerto Rico 1966

**Charles F Garvin** **Instructor in Clinical Radiology** (primary appointment)

BA University of MO Columbia 1980

**Sarah Kathryn Garwood, MD** **Assistant Professor of Pediatrics** (primary appointment)

BS Truman State University 1998

MD University of MO St Louis 2002

Karen J Garzia **Instructor in Clinical Pediatrics** (primary appointment)

Dawn Lee Garzon **Adjunct Instructor in Psychiatry** (primary appointment)

**Fred W Gaskin** **Associate Professor of Clinical Psychiatry** (primary appointment)

BS University of Minnesota 1964

**Felicitas Z Gatachalian, MD** **Instructor in Clinical Medicine** (primary appointment)

MD University of Santo Tomas 1976

BS University of Santo Tomas 1970

**Joseph H Gatewood, MD** **Instructor in Emergency Medicine in Medicine** (primary appointment)

MD University of Chicago 1970

BA Swarthmore College 1966

**Joseph P. Gaut, PHD, MD** **Assistant Professor of Pathology and Immunology** (primary appointment)

**Assistant Professor of Medicine**

BA Washington Univ in St. Louis 1996

PHD Washington Univ in St. Louis 2004

MD Washington Univ in St. Louis 2004

**Narasimhan Gautam, MS, PHD** **Professor of Anesthesiology** (primary appointment)

**Professor of Genetics**

MS School Not Listed 1979

BS School Not Listed 1977

PHD University of Bombay 1985

**Karen Marie Gauvain, MD** **Assistant Professor of Pediatrics** (primary appointment)

BS University of MO St Louis 1989

MD Saint Louis University 1998

**Hiram Alberto Gay, MD** **Associate Professor of Radiation Oncology** (primary appointment)

BS University of Puerto Rico 1996

MD University of Puerto Rico 2000

William A Gay **Prof Emeritus of Surgery (Cardio Surg)** (primary appointment)

**William D Gay, LLB, DDEnt** **Assoc Prof Emeritus of Otolaryngology** (primary appointment)

LLB La Salle University 1973

DDEnt University of Tennessee 1966

**Avihu Gazit, MD** **Associate Professor of Pediatrics** (primary appointment)

MD Technion - Israel Inst. of Tec 1997

**William M Gee, MD** **Instructor in Clinical Medicine** (primary appointment)

MD Washington Univ in St. Louis 1981

BA Cornell College 1977

**Stefanie Geisler, MD** **Instructor in Neurology** (primary appointment)

MD Humboldt University 2001

**Richard A Geisman, MD** **Instructor in Clinical Medicine** (primary appointment)

MD Tulane University 1983

BS Saint Louis University 1979

**Richard H Gelberman, MD** **Professor of Orthopaedic Surgery** (primary appointment)

BA University of North Carolina 1965

MD University of Tennessee 1969

**Barbara Geller, MD** **Prof Emeritus of Psychiatry (Child Psychiatry)** (primary appointment)

BA Barnard College 1960



MD Albert Einstein College of Med 1964

**Elliot Field Gellman, MD** Professor of Clinical Pediatrics (primary appointment)

MD University of MO Columbia 1961

BA Iowa State University 1957

**Andrew E. Gelman, PHD** Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Professor of Pathology and Immunology**

PHD University of Pennsylvania 2006

BS University of CA Los Angeles 1996

**Edward M Geltman, MD** Professor of Medicine (primary appointment)

**Assistant Professor of Radiology**

BS Mass Inst of Technology (MIT) 1967

MD New York University 1971

**Ige A George, MBBS** Instructor in Medicine (primary appointment)

MBBS Christian Medical College 1998

Preeti George **Instructor in Anesthesiology** (primary appointment)

**Patrick J Geraghty, MD** Professor of Surgery (General Surgery) (primary appointment)

BS Northwestern University 1989

MD Northwestern University 1991

**Robert W Gereau, PHD** Dr Seymour and Rose T Brown Professor of Anesthesiology (primary appointment)

**Professor of Neuroscience**

PHD Emory University 1995

BS Southwest Missouri St Universi 1991

**Chiara G.I. Ghetti, MD** Associate Professor of Obstetrics and Gynecology (primary appointment)

MD Indiana University Indianopoli 1997

**Armin Ghobadi, MD** Assistant Professor of Medicine (primary appointment)

MD Iran Univ of Medical Sciences 2001

N. Rex Ghormley **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary appointment)

**Nupur Ghoshal, PHD, MD** Assistant Professor of Neurology (primary appointment)

BA Iowa State University 1995

PHD Northwestern University Med 2001

MD Northwestern University Med 2003

**Joseph Giardina, MD** Instructor in Radiology (primary appointment)

BA Williams College 2004

MD New York Medical College 2010

Erin A Gibbons **Assistant Professor of Anesthesiology** (primary appointment)

**Matthew John Gibfried, MD** Instructor in Clinical Medicine (primary appointment)

MD University of MO Columbia 2003

**Stephen James Giddings, MD, PHD** Associate Professor of Medicine (primary appointment)

MD University of Rochester 1976

PHD Dartmouth College 1973

BA Dartmouth College 1968

**David S Gierada** Professor of Radiology (primary appointment)

BS Davenport University 1983

**Ralph V Gieselmann, MD** Prof Emeritus Of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1947

Nicole Marie Gilbert **Instructor in Obstetrics and Gynecology** (primary appointment)

**Susan Gilfillan, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

BA University of Denver 1982

PHD Stanford University 1990

**William Ewald Gillanders, MD, MS** Professor of Surgery (General Surgery) (primary appointment)

**Vice Chair for Research, Department of Surgery**

MD Duke University 1991

BA Williams College 1987

MS1 Medical University of Sth Car 2006

BA1 Williams College 1987

MS Medical Univ South Carolina 2006

**Jason R Gillihan, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Southern Illinois University 2006

**Yehuda Ginosar, MD** Professor of Anesthesiology (primary appointment)

MD University of London 1986

**Thomas J Girard, PHD** Assistant Professor of Medicine (primary appointment)

BS Univ of Wisconsin Oshkosh 1979

PHD Iowa State University 1985

**Margo Renee Girardi, MD** Assistant Professor of Medicine (primary appointment)

MD Saint Louis University 2005

BS University of Illinois 2001

**Gardar T Gislason** Adjunct Instructor in Medicine (primary appointment)

**Luis Giuffra, MS, PHD** Professor of Clinical Psychiatry (primary appointment)

MS School Not Listed 1985

PHD Yale University 1991

BS School Not Listed 1983

**Josephine Lee Aguhob Glaser** Instructor in Clinical Medicine (primary appointment)

**Paul E Glaser, PHD, MD** Professor of Psychiatry (Child Psychiatry) (primary appointment)

PHD Washington Univ in St. Louis 1996

MD Washington Univ in St. Louis 1996

MS1 University of Illinois Chicago 1986

BS1 University of Illinois Chicago 1986

**Sean C. Glasgow, MD** Assistant Professor of Surgery (General Surgery) (Pending Executive Faculty Approval) (primary appointment)

BS Duke University 1995

MD Duke University 1999

**Harvey S Glazer** Professor of Radiology (primary appointment)

BA Washington Univ in St. Louis 1971

**John F Gleeson Jr** Instructor in Pediatrics (primary appointment)

**Marye J Gleva, MD** Professor of Medicine (primary appointment)

MD University of Washington 1988

BA Wellesley College 1984

**Katherine LuBell Glover-Collins** Assistant Professor of Surgery (General Surgery) (Pending Executive Faculty Approval) (primary appointment)

**Anne L Glowinski, MS, MD** Professor of Psychiatry (Child Psychiatry) (primary appointment)

BS University of Houston 1988

MS Washington Univ in St. Louis 2001

MD Baylor University 1992

**Thomas James Goblirsch, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Loyola University Chicago 1985



BS University of Notre Dame 1980

**Sreekrishna M Goddu, MS, PHD** Associate Professor of Radiation Oncology (primary appointment)

BS Andhra University

MS Andhra University

PHD Andhra University 1991

**Joel Goebel, MD** Professor of Otolaryngology (primary appointment)

**Vice Chairman of Otolaryngology**

MD Washington Univ in St. Louis 1980

BS University of Notre Dame 1976

**Simon P Goedegebuure, PHD, MA** Associate Professor of Surgery (General Surgery) (primary appointment)

PHD Erasmus University Rotterdam 1989

MA School Not Listed 1985

BS School Not Listed 1982

**George W Gokel, PHD** Adjunct Professor of Molecular Biology and Pharmacology (primary appointment)

PHD University of Southern Calif 1971

**Andrew S Gold, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Iowa 1989

BS University of Illinois 1985

**Mark Gold, MD** Adjunct Professor of Psychiatry (primary appointment)

MD University of Florida 1975

**Anne Carol Goldberg, MD** Professor of Medicine (primary appointment)

BA Harvard University 1973

MD University of Maryland 1977

**Daniel E Goldberg, MD** David M and Paula L Kipnis Distinguished Professor (primary appointment)

**Professor of Molecular Microbiology**

MD Washington Univ in St. Louis 1985

**Gregory I Goldberg, PHD** Professor of Medicine (Dermatology) (primary appointment)

**Professor of Biochemistry and Molecular Biophysics**

PHD Weizmann Institute of Science 1977

**Richard I Goldberg, DENT** Instructor in Clinical Otolaryngology (DMD) (primary appointment)

DENT Washington Univ in St. Louis 1988

BA Washington Univ in St. Louis 1981

**Seth Goldberg, MD** Assistant Professor of Medicine (primary appointment)

BS University of South Florida 1999

MD University of South Florida 2003

**Judith P Golden, PHD** Assistant Professor of Anesthesiology (primary appointment)

PHD Saint Louis University 1994

BS Hofstra University 1984

**Barry Steven Goldenberg, DENT, MS** Instructor in Clinical Otolaryngology (DMD) (primary appointment)

BA Fairleigh Dickinson University 1975

DENT Washington Univ in St. Louis 1982

MS University of Missouri 1987

**Joseph K Goldenberg, MD** Associate Professor of Clinical Pediatrics (primary appointment)

MD University of MO Kansas City 1980

**Charles A Goldfarb, MD** Professor of Orthopaedic Surgery (primary appointment)

BA Williams College 1992

MD University of Alabama 1996

**Gordon Goldman, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS University of Toledo 1962

MD Saint Louis University 1966

**David Goldmeier, MD**Instructor in Clinical Psychiatry (primary appointment)

BA Dartmouth College 1978

MD Washington Univ in St. Louis 1982

**James M Goldring, MD, PHD**Instructor in Clinical Neurology (primary appointment)

MD Washington Univ in St. Louis 1986

PHD Washington Univ in St. Louis 1977

**Matthew I Goldsmith, MD, MS**Associate Professor of Pediatrics (primary appointment)

**Assistant Professor of Genetics**

BS University of Toronto 1987

MD University of Toronto 1995

MS University of Toronto 1990

Scott Ryan Goldsmith**Instructor in Medicine** (primary appointment)

**Benjamin M Goldstein, MD**Associate Professor of Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1960

MD Washington Univ in St. Louis 1964

**Paul T Golumbek, MD, PHD**Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Pediatrics**

MD Johns Hopkins University Medic 1995

BA University of Maryland 1984

PHD Johns Hopkins University 1995

**Yong-feng Gong, MS, PHD**Instructor in Medicine (primary appointment)

MS China Medical University 2005

PHD Zhejiang Medical University 2009

**Debra Ann Gonzalez, MD**Assistant Professor of Otolaryngology (primary appointment)

MD Cornell University 1987

BS Wellesley College 1982

**Maria Cristina Gonzalez-Mayda, MD**Assistant Professor of Medicine (primary appointment)

MD University of Puerto Rico 2008

BS University of Puerto Rico 2004

**Vivian Maria Gonzalez-Perez, PHD**Instructor in Anesthesiology (primary appointment)

PHD University of Valparaiso 2009

**Misty Lynn Good, MD**Assistant Professor of Pediatrics (Pending Executive Faculty Approval)  
(primary appointment)

MD American U of Carribean SchMed 2005

Daniel M Goodenberger**Professor of Medicine** (primary appointment)

Gary M Goodman**Assistant Professor of Clinical Pediatrics** (primary appointment)

**Melody Serene Goodman, MS, PHD**Assistant Professor of Surgery (Public Health Sciences)  
(primary appointment)

BS State Univ of NY Stonybrook 1999

MS Harvard University 2003

PHD Harvard University 2006

**Brian A Gordon, MS PSYC, PHD**Instructor in Radiology (primary appointment)

MS PSYC University of Illinois 2006

PHD University of Illinois 2010

BS University of Illinois 2003

**J. Eric Gordon, MD** Professor of Orthopaedic Surgery (primary appointment)

MD University of CA Davis 1988

**James M Gordon, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD University of Minnesota 1966

BA University of Minnesota 1962

**Jeffrey I Gordon, MD** Professor of Pathology and Immunology (primary appointment)

**Dr Robert J Glaser Distinguished University Professor**

**Director of the Center for Genome Sciences**

**Professor of Medicine**

**Professor of Developmental Biology**

BA Oberlin College 1969

MD University of Chicago 1973

**Mae Etsuko Gordon, MS, PHD** Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Biostatistics**

MS Univ of Wisconsin Madison 1970

PHD Univ of Wisconsin Madison 1979

BA Portland St University 1967

**Mary Jo Gorman, MBA** Instructor in Clinical Medicine (primary appointment)

MBA Washington Univ in St. Louis 1996

BA Saint Louis University 1981

**Jaya Goswami, MA, MD** Instructor in Pediatrics (primary appointment)

MA State University of New York 2008

BS Calcutta University 2004

MD SUNY DOWNSTATE MED BROOKLYN 2012

**David I Gottlieb, PHD, MA** Prof Emeritus of Neurobiology (primary appointment)

PHD Washington Univ in St. Louis 1971

MA Univ of Wisconsin Madison 1969

BA Harpur College 1964

**James Dean Gould, MD** Instructor in Clinical Otolaryngology (primary appointment)

BA University of Virginia 1989

MD University of Virginia 1993

**Jennifer E Gould, MD** Associate Professor of Radiology (primary appointment)

BA Cornell University 1993

MD Washington Univ in St. Louis 1997

**Ramaswamy Govindan, MD** Professor of Medicine (primary appointment)

MD University of Madras 1986

**Siddhesh Gowda** Associate Professor of Clinical Medicine (primary appointment)

**Bella Goyal** Instructor in Pathology and Immunology (Pending Dean's Approval) (primary appointment)

**Manu Shri Goyal, MD, MS** Assistant Professor of Radiology (primary appointment)

MD University of Chicago 2005

MS Oxford University 2001

BS University of Illinois Chicago 2000

**Ronald M Grady, MD, MA** Associate Professor of Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1989

BA Princeton University 1984

MA Washington Univ in St. Louis 1989

**Thomas J Graetz, MD**Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

MD Saint Louis University 2005

**Barry A Graff, MD**Assistant Professor of Anesthesiology (primary appointment)

BA Macmurray College 1973

MD Saint Louis University 1976

**Laquita A Graham, MD**Instructor in Clinical Pediatrics (primary appointment)

MD Saint Louis University 1996

BA Washington Univ in St. Louis 1991

**Andrea Granados, MD**Instructor in Pediatrics (primary appointment)

MD Universidad Nacional de Columb 2015

**Mark Gilbert Grand, MD**Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BS Tufts University 1964

MD Yale University 1968

**Dorothy K. Grange**Professor of Pediatrics (primary appointment)

BA Mount Holyoke College 1976

**Gregory Alan Grant, PHD**Professor of Biochemistry in Medicine (Dermatology) (primary appointment)

**Professor of Developmental Biology**

PHD Univ of Wisconsin Madison 1975

BS Iowa State University 1971

**Julia D. Grant, PHD, MA**Associate Professor of Psychiatry (primary appointment)

PHD Pennsylvania State University 1997

BA Davidson College 1989

MA Wake Forest University 1993

**Michael Anne Gratton**Professor of Otolaryngology (Pending Executive Faculty Approval) (primary appointment)

**Diana Lee Gray**Professor of Obstetrics and Gynecology (primary appointment)

**Professor of Radiology**

**Associate Dean for Faculty Affairs**

**Professor of Engineering**

BS University of Illinois 1977

**Margaret Rosanna Gray-Swain, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Washington Univ in St. Louis 2002

**Jonathan M Green, MD**Professor of Medicine (primary appointment)

**Associate Dean for Human Studies**

**Professor of Pathology and Immunology**

BS University of Michigan 1982

MD Wayne State University 1986

**Kenneth O Green, MD**Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD University of Missouri 1960

**Olga Leonidovna Green, MS**Assistant Professor of Radiation Oncology (primary appointment)

MS Washington Univ in St. Louis 2004

BS Washington Univ in St. Louis 2002

**Ted Allen Green, MD**

MD University of Illinois 1994

Michael Jonathan Greenberg **Assistant Professor of Biochemistry and Molecular Biophysics**  
(primary appointment)

**Deanna Greene, PHD, MS** **Assistant Professor of Psychiatry** (primary appointment)

**Assistant Professor of Radiology**

PHD University of CA Los Angeles 2010

BA University of CA San Diego 2003

MS University of CA Los Angeles 2006

Aaron Greenspan **Instructor in Clinical Medicine** (primary appointment)

**Mark H Gregory, MD** **Assistant Professor of Clinical Medicine** (primary appointment)

MD University of Vermont 1986

**Kevin William Greulich, MD** **Instructor in Ophthalmology and Visual Sciences** (primary appointment)

MD University of Michigan 1999

BS University of Notre Dame 1995

**Valerie Janet Gribben** **Instructor in Pediatrics** (primary appointment)

BA University of AL Birmingham 2008

**Walter Blake Gribben, MD** **Instructor in Medicine** (primary appointment)

MD University of Alabama 2010

**Richard T Griffey Jr, MD** **Associate Professor of Emergency Medicine in Medicine** (primary appointment)

MD Norfolk General Hospital 1977

**Nicholas Wayne Griffin, PHD** **Instructor in Pathology and Immunology** (primary appointment)

PHD Washington Univ in St. Louis 2010

**Malachi Griffith, PHD** **Academic Rank held in Genetics** (primary appointment)

**Assistant Professor of Genetics**

PHD University of British Columbia 2010

BS University of Winnipeg 2002

BS1 University of Winnipeg 2002

**Obi Lee Griffith, PHD** **Assistant Professor of Medicine** (primary appointment)

**Assistant Professor of Genetics**

PHD British Columbia Open Univ 2008

**Perry W Grigsby, MD** **Professor of Radiation Oncology** (primary appointment)

**Professor of Radiology**

**Professor of Obstetrics and Gynecology**

BS University of Kentucky 1974

MD University of Kentucky 1982

**Russell J.I. Groener, MBChB** **Associate Professor of Anesthesiology** (primary appointment)

MBChB University of Cape Town 1983

**Scott D. Groesch, MD** **Instructor in Clinical Medicine** (primary appointment)

MD Washington Univ in St. Louis 1994

**Georgeann Keh-Teng Groh, MD** **Instructor in Pediatrics** (primary appointment)

BS Rice University 2001

MD Baylor College of Medicine 2006

**Jesse Brookshire Groh, MD** **Instructor in Clinical Pediatrics** (primary appointment)

MD Baylor University 2006

BA Rice University 2002

**John R Groll, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Illinois 1988

BA Illinois Wesleyan University 1984

**Steven J Grondalski, OD**Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Penn College of Optometry 1987

**Ann Marie Gronowski, PHD**Professor of Pathology and Immunology (primary appointment)

**Professor of Obstetrics and Gynecology**

BS University of Illinois 1985

PHD Univ of Wisconsin Madison 1992

**Robert John Gropler, MD**Professor of Radiology (primary appointment)

**Associate Professor of Medicine**

**Associate Professor of Biomedical Engineering**

BS Allegheny College 1977

MD University of Cincinnati 1981

**Richard Warren Gross, PHD, AB, MD**Professor of Medicine (primary appointment)

**Professor of Developmental Biology**

**Professor of Chemistry**

PHD Washington Univ in St. Louis 1982

AB Columbia University 1972

MD New York University 1976

**Brenda Jean Grossman, MS, MD**Professor of Pathology and Immunology (primary appointment)

**Professor of Medicine**

MS Saint Louis University 2003

MD Medical College Georgia 1980

BS Ohio University 1976

**Jessica Rosenbaum Grubb, MD**Assistant Professor of Medicine (primary appointment)

BA John Hopkins University 1992

MD University of Maryland 1996

**Robert Lee Grubb III, MD**Associate Professor of Surgery (Urologic Surgery) (primary appointment)

MD Emory University 1996

BS Davidson College 1992

**Robert L Grubb Jr, MD**Professor of Neurological Surgery (primary appointment)

**Professor of Radiology**

BA University of North Carolina 1961

MD University of North Carolina 1965

**Richard Grucza, MS, PHD**Associate Professor of Psychiatry (primary appointment)

MS Pennsylvania State University 1991

PHD Washington Univ in St. Louis 2000

BS Rochester Institute of Techno 1989

**Royal Gene Grueneich, PHD**Assistant Professor of Clinical Neurology (primary appointment)

PHD University of Minnesota 1979

BA School Not Listed 1973

**Brian Anthony Grus, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Pennsylvania 1992

BS University of Pittsburgh 1988



**Chi Gu, PHD** Associate Professor of Biostatistics (primary appointment)

**Associate Professor of Genetics**

BS Nanjing Medical University 1982

PHD Washington Univ in St. Louis 1992

**Yuxing Gu, PHD** Assistant Professor of Radiation Oncology (primary appointment)

PHD University of MO St Louis 2014

**Anthony Herbert Guarino, MA, MD** Associate Professor of Anesthesiology (primary appointment)

MA Yale University 1988

MD University of Maryland 1992

BA Yale University 1986

**Rejean Michael Guerriero, MD** Assistant Professor of Neurology (primary appointment)

BS Bates College 2001

MD University of New England 2009

**Ryan C Guffey, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Wayne State University 2007

**Farshid Guilak, MS, MPH** Professor of Orthopaedic Surgery (primary appointment)

**Professor of Development Biology**

**Professor of Biomedical Engineering**

MS Rensselaer Poly Institute 1987

MPH Columbia University 1990

BS Rensselaer Poly Institute 1985

**Kristin Guilliams, MD** Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Pediatrics**

MD University of Virginia 2006

BS Furman University 2002

**Guner B Gulmen, PHD** Assistant Professor of Clinical Medicine (primary appointment)

PHD University of Minnesota 1974

**Vyjanthanath R. Gunasingham, MD** Instructor in Clinical Medicine (primary appointment)

MD School Not Listed 1982

BS School Not Listed 1975

**Subhadra C Gunawardana, PHD** Associate Professor of Cell Biology and Physiology (primary appointment)

PHD Cornell University 2002

**Mark Cobb Gunby, DOST** Assistant Professor of Clinical Medicine (primary appointment)

BS University of Tulsa 1981

DOST Oklahoma St University 1988

**Joseph Donald Gunn, MD** Associate Professor of Pediatrics (primary appointment)

MD University of Virginia 1989

**Jun Guo, PHD, MS** Assistant Professor of Surgery (Pediatric Surgery) (primary appointment)

PHD Shanghai Medical University 2000

MS Dalian Medical University 1997

**Jitendra K Gupta, MS** Instr Emeritus In Clinical Medicine (primary appointment)

MS School Not Listed 1963

UNKNOWN School Not Listed 1963

**Munish C Gupta, MD** Mildred B. Simon Distinguished Professor of Orthopaedic Surgery (primary appointment)

BS Northwestern University 1982

MD Northwestern University Med 1986

**Punita Gupta, MPH, MD**Instructor in Radiology (primary appointment)

MPH Saint Louis University 1996

BA Washington Univ in St. Louis 1995

MD University of Illinois 2000

**Santosh K Gupta, DC**Associate Professor of Clinical Pediatrics (primary appointment)

UNKNOWN School Not Listed 1963

DC University of London 1966

UNKNOWN1 University of London 1970

**Christina A. Gurnett, PHD, MD**Associate Professor of Neurology (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Assistant Professor of Pediatrics**

PHD University of Iowa 1998

BS University of Notre Dame 1991

MD University of Iowa 1998

**Maria Gurrieri, MD, DIP**Instructor in Clinical Medicine (primary appointment)

MD Catholic University 1989

DIP School Not Listed 1982

**Reena Gurung, MD**Instructor in Medicine (primary appointment)

MD Kathmandu University 2007

**Christine Hilleary Gustus, MS**Instructor in Otolaryngology (primary appointment)

**Instructor in Audiology and Communication Sciences**

MS Washington Univ in St. Louis 1975

**Alexandra Gutierrez, MD, M PH**Associate Professor of Medicine (primary appointment)

MD Case Western Reserve Univ 2000

M PH Harvard University 2006

BS Brown University 1996

Fernando R Gutierrez**Professor of Radiology** (primary appointment)

David H Gutmann**Donald O. Schnuck Family Professor of Neurology** (primary appointment)

**Professor of Genetics**

**Professor of Neurological Surgery**

**Professor of Pediatrics**

Steven William Guyton**Associate Professor of Clinical Surgery (Cardiothoracic Surgery)** (primary appointment)

**Chandra Prakash Gyawali, MBBS, MD**Professor of Medicine (primary appointment)

MBBS University of Calicut 1985

MD University of Calicut 1990

Allah B Haafiz**Adjunct Associate Professor of Pediatrics** (primary appointment)

**Ramsey R Hachem, MD**Professor of Medicine (primary appointment)

**Tracey C Marshall - Dr. Elbert P Trulock Distinguished Professor of Medicine**

MD1 University of Texas Southwest 1997

MD University of Texas Southwest 1997

BA1 Southern Methodist University 1992

BA Southern Methodist University 1992

**Brian P Hackett, PHD, MD**Professor of Pediatrics (primary appointment)

BA Middlebury College 1975

PHD Boston College 1984

MD Saint Louis University 1986

Matthew D Hageman**Instructor in Clinical Medicine** (primary appointment)



**Andrea Ruth Hagemann, MD** Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD Washington Univ in St. Louis 2004

BA Princeton University 2000

**Ian Sean Hagemann, PHD, MD** Assistant Professor of Pathology and Immunology (primary appointment)

**Assistant Professor of Obstetrics and Gynecology**

PHD Washington Univ in St. Louis 2008

MD Washington Univ in St. Louis 2008

BA Princeton University 2000

Jennifer Christine Hagopian **Adjunct Instructor in Medicine** (primary appointment)

**Ashfaq H Hakim, MD, MBBS** Instructor in Clinical Medicine (primary appointment)

MD RNT Medical College 1973

MBBS RNT Medical College 1968

**Carmen Marie Halabi, PHD, MD** Instructor in Pediatrics (primary appointment)

BS University of Iowa 2001

PHD University of Iowa 2009

MD University of Iowa 2009

**Ilia Gueorguev Halatchev, MD** Assistant Professor of Medicine (primary appointment)

MD Oregon Health Science Unvers 2007

**Sarah Eliza Halcomb, MD** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD Royal College of Surgeons 2000

**Angela Marie Hall, PHD** Assistant Professor of Medicine (primary appointment)

PHD Univ of Minnesota Twin Cities 2005

BS University of MO Columbia 1999

**Bruce Lee Hall, MD** Professor of Surgery (General Surgery) (primary appointment)

**Professor of Health Care Management (Olin School of Business)**

**Fellow in the Center for Health Policy**

BA Princeton University 1984

MD Duke University 1992

**Ira McCarthy Hall, PHD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Genetics**

**Associate Director of the Genome Center**

BS University of CA Berkeley 1998

PHD Cold Spring Harbor Laboratory 2003

**Kathleen Hall, PHD** Professor of Biochemistry and Molecular Biophysics (primary appointment)

BS University of Minnesota 1974

PHD University of CA Berkeley 1985

**Lannis Hall, MD** Assistant Professor of Clinical Radiation Oncology (primary appointment)

MD Howard University 1992

BA University of Michigan 1988

**Laura Evelyn Hall, MD** Instructor in Pediatrics (primary appointment)

MD University of Toledo 2010

BS Allegheny College 2005

**Dennis E Hallahan, MD** Professor of Radiation Oncology (primary appointment)

**Professor of Cell Biology and Physiology**

**Professor of Pathology and Immunology**

**Elizabeth H and James S McDonnell III Distinguished Professor of Medicine**

**Head of the Department of Radiation Oncology**

**Professor of Molecular Microbiology**

MD Rush University 1984

BS University of Illinois 1980

**Mark E. Halstead, MD Associate Professor of Orthopaedic Surgery (primary appointment)**

**Associate Professor of Pediatrics**

BS Univ of Wisconsin Madison 1994

MD Univ of Wisconsin Madison 1998

**Yasir A Hamad Instructor in Medicine (primary appointment)**

**Duncan Lee Hamilton, MD Instructor in Anesthesiology (primary appointment)**

MD University of Nottingham 1992

**Kim P Hamlin, MD Assistant Professor of Pediatrics (primary appointment)**

MD University of MO St Louis 2001

BS University of MO St Louis 1997

**Stephanie M Hammer, MD Instructor in Clinical Medicine (primary appointment)**

MD Chicago St University 1995

**Roman E Hammes, MD Instructor in Clinical Pediatrics (primary appointment)**

MD University of Iowa 1954

BA University of Iowa 1950

**Melanie G Hampton, MD Assistant Professor of Clinical Pediatrics (primary appointment)**

BS Georgetown College 1976

MD University of Louisville 1981

**Dong Hyun Han Visiting Instructor in Psychiatry (primary appointment)**

**Edward B. Han, PHD Assistant Professor of Neuroscience (primary appointment)**

**Assistant Professor of Anesthesiology**

PHD University of CA San Diego 2004

BS Cornell University 1995

**Martha B. Han, PHD Assistant Professor of Neuroscience (primary appointment)**

BS Yale University 2000

PHD University of CA San Diego 2008

**Se Young Han Instructor in Medicine (primary appointment)**

**Joseph Hanaway, MD Assistant Professor of Clinical Neurology (primary appointment)**

BA McGill University 1956

MD McGill University 1960

**Elinor F Hancock, MD Instructor in Clinical Pediatrics (primary appointment)**

MD Meharry Med College 1982

BA Fisk University 1975

**Scott A Handley, PHD Assistant Professor of Pathology and Immunology (primary appointment)**

PHD Washington Univ in St. Louis 2006

BS Southwest Missouri St University 1998

**Thomas Joseph Hannan, DVM Instructor in Pathology and Immunology (primary appointment)**

BA Georgetown University 1989

BA1 Georgetown University 1989

DVM Tufts University 1995

**Ted H Hansen, MS, PHD Prof Emeritus of Pathology & Immunol (primary appointment)**

BS Michigan State University 1970

MS University of Michigan 1972

PHD University of Michigan 1975

**Jason M. Hanson, MD**Instructor in Clinical Otolaryngology (primary appointment)

MD Northwestern University 1992

**Phyllis I Hanson, PHD**Professor of Cell Biology and Physiology (primary appointment)

**Gerty T Cori Professor**

PHD Stanford University 1993

BA Yale University 1985

**Robin D Hanson**Instructor in Clinical Pediatrics (primary appointment)

BA Johns Hopkins University 1985

**Suzanne M Hanson**Assistant Professor of Clinical Pediatrics (primary appointment)

**Charles B Hantler, MA, MD**Professor of Anesthesiology (primary appointment)

MA Davenport University 1973

MD Davenport University 1977

BS Davenport University 1971

**Hoosna Haque, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS University of Texas Arlington 1992

MD Beaufort Technical College 1996

**Zahirul Haque**Instructor in Clinical Medicine (primary appointment)

**Oscar Marcos Harari, PHD, MA**Assistant Professor of Psychiatry (Pending Executive Faculty Approval) (primary appointment)

PHD University of Granada 2009

BA Universidad del Buenos Aires 1997

MA Universidad del Buenos Aires 1999

**Melissa A. Harbit, MD**Associate Professor of Psychiatry (primary appointment)

MD University of Iowa 1997

BS University of Iowa 1993

**William B Hardin Jr, MD**Asst Prof Emeritus Of Clinical Neurology (primary appointment)

BA Rice University 1953

BA1 Rice University 1953

MD University of Texas Austin 1957

**David A. Hardy**Instructor in Surgery (Urologic Surgery) (primary appointment)

**Lisa Adel Harker**Instructor in Clinical Neurology (primary appointment)

**Archie B Harmon Jr, MA, PHD**Instructor in Otolaryngology (primary appointment)

MA University of Central Florida 2006

BA University of Florida 2002

PHD Florida State University 2010

**Michael P. Harms**Assistant Professor of Psychiatry (primary appointment)

**George J Harocopos, MD**Associate Professor of Ophthalmology and Visual Sciences (primary appointment)

**Assistant Professor of Pathology and Immunology**

MD University of Virginia 2000

BA Harvard University 1995

**Simon Haroutounian, PHD, MA**Assistant Professor of Anesthesiology (primary appointment)

PHD Hebrew University 2011

MA Hebrew University 2005

**Alexander D Harris, OD, MA**Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BA University of Evansville 1969

OD University of Missouri 1986

MA Washington Univ in St. Louis 1972

Charles A. Harris **Assistant Professor of Medicine** (primary appointment)

**Assistant Professor of Developmental Biology**

**Charles R Harris** **Instructor in Clinical Ophthalmology and Visual Sciences** (primary appointment)

UNKNOWN University of Missouri 1971

BS University of Missouri 1970

**Dehra Anne Harris, MD** **Assistant Professor of Psychiatry (Child Psychiatry)** (primary appointment)

MD University of Arkansas 2000

BS Washington Univ in St. Louis 1996

**Lydia-Ann Lynell Harris, PHD** **Instructor in Medicine** (primary appointment)

PHD State University of New York 2011

**Michael Dennison Harris** **Assistant Professor of Physical Therapy** (primary appointment)

**Assistant Professor of Orthopaedic Surgery**

BS University of Utah 2007

**Michael Raymond Harris, MS** **Professor of Pediatrics** (primary appointment)

MS Saint Louis University 1976

**Elizabeth Avis Harrison, MD** **Instructor in Clinical Pediatrics** (primary appointment)

BA Vanderbilt University 2002

MD Washington Univ in St. Louis 2006

**Thomas J. Harrison Jr, MD** **Instructor in Clinical Pediatrics** (primary appointment)

BA Saint Louis University 1970

MD University of Missouri 1979

**Kathryn Ming Hart** **Instructor in Biochemistry and Molecular Biophysics** (primary appointment)

**William M Hart Jr, PHD, MD** **Prof Emeritus of Ophthalmol & Vis Sci** (primary appointment)

PHD University of Maryland 1970

MD University of Maryland 1970

BA Dartmouth College 1963

**William Hartel** **Instructor in Clinical Otolaryngology** (primary appointment)

**David E Hartenbach** **Associate Professor of Clinical Pediatrics** (primary appointment)

BA Saint Louis University 1983

Laura Hartman

**Mary E Hartman, M PH, MD** **Assistant Professor of Pediatrics** (primary appointment)

M PH University of Pittsburgh 2006

BA Mount Holyoke College 1994

MD University of Rochester 1999

**Richard Alan Hartman, MD** **Associate Professor of Clinical Obstetrics and Gynecology** (primary appointment)

MD University of Missouri 1978

**Thomas D Hartnett, MD** **Asst Prof Emeritus of Clinical Psychiatry** (primary appointment)

BS Loyola University 1955

MD University of Ottawa 1959

**Jack Hartstein, MD** **Professor of Clinical Ophthalmology and Visual Sciences** (primary appointment)

BA University of Missouri 1953

MD University of Cincinnati 1955

**John Edward Hartweger** **Instructor in Clinical Pediatrics** (primary appointment)

**Sarah McConnell Hartz, MD, PHD** **Assistant Professor of Psychiatry** (primary appointment)

BA Knox College 1996

MD University of Iowa 2005

PHD University of Illinois 2002

**Alan A Harvey** Assistant Professor of Clinical Otolaryngology (primary appointment)

**Steven Arthur Harvey, MD** Instructor in Clinical Psychiatry (primary appointment)

BA Washington Univ in St. Louis 1988

MD Washington Univ in St. Louis 1992

**James Larry Harwell, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1958

MD University of Missouri 1961

**Jeffrey A Haspel** Assistant Professor of Medicine (primary appointment)

BS Binghamton University 1994

**Anisa Hassan, MD** Instructor in Clinical Medicine (primary appointment)

MD Dow Medical College Karachi 1976

**Anjum Hassan, MD** Associate Professor of Pathology and Immunology (primary appointment)

MD Aga Khan University 1989

MD1 School Not Listed 1989

**Jason J Hassenstab, PHD, MS PSYC** Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Psychological & Brain Sciences**

PHD Fordham University 2009

MS PSYC Fordham University 2005

**Mary Kent Hastings, MS, DPT** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

MS Washington Univ in St. Louis 1993

BS University of Illinois 1990

DPT Washington Univ in St. Louis 2002

**Thomas F Hastings, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Missouri 1986

BA Rockhurst College 1981

**J Michael Hatlelid, MD** Associate Professor of Clinical Neurology (primary appointment)

MD Washington Univ in St. Louis 1977

BA St Johns University 1970

**Sherrie M Haft, MD** Professor of Pediatrics (primary appointment)

MD University of Texas Austin 1984

BS University of Texas Austin 1977

**Jay Fredrick Hauser, DENT** Instructor in Clinical Otolaryngology (primary appointment)

DENT University of Iowa 1988

BA University of Tulsa 1983

**James J Havranek, PHD** Assistant Professor of Biochemistry and Molecular Biophysics (primary appointment)

PHD Stanford University 2008

**William G. Hawkins, MD** Professor of Surgery (General Surgery) (primary appointment)

**Neidorff Family and Robert C Packman Professor**

MD State Univ of NY Stonybrook 1995

BA New York University 1991

**Robert J Hayashi, MD** Professor of Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1986

BS Stanford University 1982

**Michael E Hayek, MS, MD**Instructor in Clinical Surgery (General Surgery) (primary appointment)

BA Saint Louis University 1976

MS Saint Louis University 1978

MD University of Missouri 1982

**Ericka V. Hayes, MD**Associate Professor of Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1998

BS Washington Univ in St. Louis 1994

**Heather Hayes, M ED, PHD**Associate Professor of Otolaryngology (primary appointment)

Associate Professor of Audiology and Communication Sciences

Director of Deaf Education Studies in Audiology and Communication Sciences

M ED Smith College 2005

BA Emory University 1995

PHD Washington Univ in St. Louis 2009

**Marcie Harris Hayes, MS, DPT**Associate Professor of Physical Therapy (primary appointment)

Associate Professor of Orthopaedic Surgery

BS Southwest Missouri St University 1994

MS Northwestern University 1996

DPT Washington Univ in St. Louis 2003

**Damon Joseph Louis Hays, MD**Instructor in Clinical Orthopaedic Surgery (primary appointment)

BS Truman State University 1998

MD Ohio University 2003

**Mai He**Associate Professor of Pathology and Immunology (Pending Executive Faculty Approval)

(primary appointment)

Richard D HeadAssociate Professor of Genetics (primary appointment)

Associate Professor of Pathology and Immunology

**Andrew C Heath, PHD**Spencer T. Olin Professor of Psychology in Psychiatry (primary appointment)

Associate Professor of Psychological & Brain Sciences

Professor of Genetics

PHD Oxford University 1983

**Krysta Lynn Heath, MD**Instructor in Medicine (primary appointment)

MD University of AR Med Sciences 2011

**George Heberton, MD**Instructor in Medicine (primary appointment)

MD Univ of Texas Med Sch Houston 2013

**Jay Paul Heiken, MD**Professor of Radiology (primary appointment)

MD Columbia University 1978

BA Williams College 1974

**Mark Francis Heiland**Assistant Professor of Clinical Surgery (General Surgery) (primary appointment)

**James N Heins, MD**Professor of Clinical Medicine (primary appointment)

Adjunct Professor of Medicine

MD University of Louisville 1961

BA University of Louisville 1957

**Laura Elaina Heitsch**Assistant Professor of Emergency Medicine in Medicine (primary appointment)

Assistant Professor of Neurology

**Jason M Held, PHD**Assistant Professor of Medicine (primary appointment)

Assistant Professor of Anesthesiology



PHD University of San Francisco 2006

BS Duke University 2001

**Daniel Luke Helsten, MD** Associate Professor of Anesthesiology (primary appointment)

MD University of Kentucky 2001

BS University of Kentucky 1997

**Mohammad Anas Helwani, MD** Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

MD Damascus University 1998

**Kenneth Edmond Hembra, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Jefferson Medical College 2011

**Jeffrey P. Henderson, PHD, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Molecular Microbiology**

PHD Washington Univ in St. Louis 2002

BS Univ of Wisconsin Madison 1994

MD Washington Univ in St. Louis 2002

**Katherine Eileen Henderson** Assistant Professor of Clinical Medicine (primary appointment)

BS Univ of Wisconsin Madison 1993

**Kristina Louise Henderson, MD** Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 1991

BA Saint Louis University 1982

**Kara E Hennelly, MD** Assistant Professor of Pediatrics (primary appointment)

MD UMICCSOM 2015

**Nathan Henninger** Instructor in Clinical Pediatrics (primary appointment)

**William L Herbold, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD School Not Listed 1967

BS School Not Listed 1967

**Celeste Eileen Herleth** Instructor in Psychiatry (primary appointment)

BA1 Loyola University 2005

**Daniel Robert Herleth** Instructor in Clinical Medicine (primary appointment)

**Cheryl R Herman, MD** Assistant Professor of Radiology (primary appointment)

MD Meharry Med College 1990

BS Loma Linda University 1986

**Catherine Hermann** Instructor in Clinical Medicine (primary appointment)

**Leonel F. Hernandez Aya, MD** Assistant Professor of Medicine (primary appointment)

MD Universidad Nacional de Columb 2007

**Mary Jo Hernandez-Zipfel, MD** Instructor in Clinical Pediatrics (primary appointment)

BS University of North Carolina 1996

MD University of Florida 2001

**Robert E Herold, MD** Assistant Professor of Anesthesiology (primary appointment)

BA Wabash College 1970

MD Washington Univ in St. Louis 1974

**Pilar Herrero, MS, ME** Associate Professor of Radiology (primary appointment)

MS Vanderbilt University 1984

ME Washington Univ in St. Louis 1997

BS Loyola University Chicago 1981

**Cynthia Joan Herrick, MD** Assistant Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 2006

BS Princeton University 2002

**Andreas Herrlich, PHD, MD**Associate Professor of Medicine (primary appointment)

PHD Freie University 1998

MD Freie University 1994

**Virginia M Herrmann, MD**Professor of Surgery (General Surgery) (primary appointment)

**Professor of Medicine**

MD Saint Louis University 1974

**Tamara G Hershey**Professor of Psychiatry (primary appointment)

**Adjunct Professor of Psychological & Brain Sciences (Courtesy)**

**Professor of Neurology**

**Professor of Radiology**

BA Earlham College 1988

**John C Herweg, MD**Assoc Dean Emeritus (primary appointment)

BS Drury College 1943

MD Washington Univ in St. Louis 1945

**Godofredo M Herzog**Assoc Prof Emeritus Of Clinical Ob & Gyn (primary appointment)

BS Louisiana St University 1953

**Jacques A Herzog, MD**Assistant Professor of Clinical Otolaryngology (primary appointment)

BA University of Missouri 1980

MD University of MO Kansas City 1980

**Albert E Hesker, MD**Assistant Professor of Clinical Radiology (primary appointment)

MD University of MO Columbia 1964

Jennifer Kristen Hester**Instructor in Clinical Medicine** (primary appointment)

**Jonathan W Heusel, MD, PHD**Associate Professor of Pathology and Immunology (primary appointment)

MD Washington Univ in St. Louis 1995

PHD Washington Univ in St. Louis 1995

**John E Heuser**Prof Emeritus of Cell Biology/Physiol (primary appointment)

BS Harvard University 1964

Laurel D Hibbs**Instructor in Clinical Obstetrics and Gynecology** (primary appointment)

**Christina Kim Ahn Hickey, MD**Instructor in Pediatrics (primary appointment)

MD Washington Univ in St. Louis 2009

**Scot G Hickman, MD**Professor of Medicine (primary appointment)

BA Duke University 1966

MD Washington Univ in St. Louis 1970

Robert Jerome Hickok**Asst Prof Emeritus of Physical Therapy** (primary appointment)

Frederick G Hicks**Assistant Professor of Clinical Psychiatry** (primary appointment)

**Tunde Hidvegi, MS, PHD**Associate Professor of Pediatrics (primary appointment)

MS Eötvös Loránd University 1980

PHD Eötvös Loránd University 1988

**Stuart T. Higano, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Massachusetts 1984

SueLin Ming Hilbert**Assistant Professor of Emergency Medicine in Medicine** (primary appointment)

**Charles F Hildebolt, MA, PHD**Prof Emeritus of Radiology (primary appointment)

MA Washington Univ in St. Louis 1985

PHD Washington Univ in St. Louis 1987



**Laura Hill, MD**Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)

MD University of Illinois Chicago 2002

**Travis J Hillen**Assistant Professor of Radiology (primary appointment)

**Elizabeth Hilliker, MA**Assistant Professor of Emergency Medicine in Medicine (primary appointment)

**Assistant Professor of Surgery (General Surgery)**

BA Washington Univ in St. Louis 1965

MA Washington Univ in St. Louis 1970

**Jennifer M Hinton**Instructor in Clinical Pediatrics (primary appointment)

**Paul Flack Hintze, MD**Assistant Professor of Clinical Medicine (primary appointment)

MD University of Utah 1978

BS Brigham Young University 1974

**Angela Christine Hirbe, MD, PHD**Assistant Professor of Medicine (primary appointment)

BS Washington Univ in St. Louis 2001

MD Washington Univ in St. Louis 2009

PHD Washington Univ in St. Louis 2009

**Keiko Hirose, MD**Associate Professor of Otolaryngology (primary appointment)

**Associate Professor of Audiology and Communication Sciences**

**Associate Professor of Pediatrics**

**Vice Chairman of Otolaryngology**

MD Harvard University 1993

**Gary E Hirshberg, MD**Professor Emeritus of Anesthesiology (primary appointment)

BA Princeton University 1968

MD Hahnemann University 1972

**Stanley P Hmiel, MD, M PHIL, PHD**Professor of Pediatrics (primary appointment)

MD Case Western Reserve Univ 1989

BS Case Western Reserve Univ 1980

M PHIL Cambridge University 1981

PHD Case Western Reserve Univ 1987

**Sandra Jean Hodel**Instructor in Clinical Pediatrics (primary appointment)

**Dee Hodge III, MD**Professor of Pediatrics (primary appointment)

BA Occidental College 1974

MD University of CA San Francisco 1978

**Didier Hodzic, PHD**Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

**Assistant Professor of Cell Biology and Physiology**

BS University of Liege 1991

PHD University of Liege 1998

**James R Hoekel, OD**Instructor in Ophthalmology and Visual Sciences (primary appointment)

BS University of MO Columbia 1990

OD University of MO St Louis 1994

**Grant S. Hoekzema, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1992

**John T Hoff, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS Xavier University 2002

MD Medical College of Wisconsin 2006

**J. Langston Hoffman, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1999

BS Univ of Wisconsin Madison 1994

**Lawrence M Hoffman, DDEnt**Instructor in Clinical Otolaryngology (DMD) (primary appointment)

BA Indiana University Bloomington 1972

DDEnt Washington Univ in St. Louis 1976

**Robert J Hoffman, MD**Professor of Clinical Pediatrics (primary appointment)

MD Saint Louis University 1976

BS University of Illinois 1972

**Russell G. Hoffmann, PHD**Instructor in Clinical Pediatrics (primary appointment)

PHD University of Florida 1995

**Sandra S Hoffmann, MD**Instructor in Clinical Medicine (primary appointment)

BA University of Kansas 1972

MD University of Kansas 1976

**Kathleen M Hogan, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA Westminster College 1985

MD University of Missouri 1989

**Robert Edward Hogan III, MD**Professor of Neurology (primary appointment)

MD University of MO Columbia 1989

Joshua Wade Hogins**Instructor in Clinical Psychiatry** (primary appointment)

**Nancy Melberg Holekamp, MD**Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Johns Hopkins University 1989

BA Wellesley College 1985

**Nicholas Alan Holekamp, MD**Instructor in Clinical Pediatrics (primary appointment)

MD Saint Louis University 1987

BA Dartmouth College 1982

**Nilsson Holguin, MS, PHD**Instructor in Orthopaedic Surgery (primary appointment)

MS Stony Brook University 2007

PHD Stony Brook University 2010

**Abby Solomon Hollander, MD**Associate Professor of Pediatrics (primary appointment)

BA Cornell University 1982

MD University of Cincinnati 1986

**Carey Lane Holleran, MS, PHD**Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Neurology**

MS Duquesne University 2004

BS Duquesne University 2003

PHD University of Indianapolis 2014

**John Otto Holloszy, MD**Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1957

Robert Franklyn Holloway Jr**Instructor in Clinical Obstetrics and Gynecology** (primary appointment)

**Nancy E Holmes, MD**Professor of Clinical Pediatrics (primary appointment)

MD University of Missouri 1976

BA University of Kansas 1972

**William F Holmes, PHD**Assoc Prof Emeritus Of Biological Chemistry (primary appointment)

PHD University of Pennsylvania 1960

BA Princeton University 1953

**Sheldon G Holstad, PHD, PHS**Assistant Professor of Clinical Pharmacy in Psychiatry (On Staff at Jewish Hospital and St Louis College of Pharmacy) (primary appointment)

PHD University of Iowa 1986

PHS University of Iowa 1986

BS University of Iowa 1984

**Christopher Vincent Holthaus** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

**Lori Rachel Holtz, MD** Assistant Professor of Pediatrics (primary appointment)

MD Ohio State University 2003

**Sumner Holtz** Associate Professor of Clinical Radiology (primary appointment)

**David Michael Holtzman, MD** Andrew B. and Gretchen P. Jones Professor of Neurology (primary appointment)

**Head of the Department of Neurology**

**Professor of Developmental Biology**

MD Northwestern University 1985

BS Northwestern University 1983

**Gregory William Holtzman, MS, DPT** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Associate Director of Clinical Practice in Physical Therapy**

BA Emory University 1995

MS Washington Univ in St. Louis 2001

DPT Washington Univ in St. Louis 2007

**Michael J Holtzman** Selma and Herman Seldin Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

**Rochelle LeAnn Holtzman, PHD, MS** Instructor in Clinical Pediatrics (primary appointment)

PHD University of Kansas 2010

BS Loyola University 2003

MS University of Kansas 2006

**Timothy E. Holy, MA, PHD** Associate Professor of Neuroscience (primary appointment)

MA Princeton University 1992

BA Rice University 1991

PHD Princeton University 1997

**Neal Holzum** Instructor in Clinical Medicine (primary appointment)

**Hitoshi Honda** Adjunct Assistant Professor of Medicine (primary appointment)

**Augustine Richard Hong** Assistant Professor in Ophthalmology and Visual Sciences (primary appointment)

BA University of Illinois 2004

**Barry Allen Hong, MD** Professor of Psychiatry (primary appointment)

**Professor of Psychological & Brain Sciences**

**Vice Chairman for Clinical Affairs, Department of Psychiatry**

**Professor of Medicine**

BA Concordia University 1969

MDI Concordia University 1972

**Bruce Jay Hookerman, MD** Assistant Professor Emeritus of Clinical Medicine (Dermatology) (primary appointment)

**Asst Prof Emeritus of Clin Medicine (Derm)** (primary appointment)

MD Saint Louis University 1968

BA Dartmouth College 1964

**J. Joseph Horan, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Saint Louis University 1971

BA Wesleyan University 1967

**Amjad Horani, MD**Assistant Professor of Pediatrics (primary appointment)

BS Hebrew University-Hadassah Med 2015

MD Hebrew University-Hadassah Med 2004

**Barbra A Horn, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1982

BA Clark University 1975

**Linda S Horne, MD**Instructor in Clinical Psychiatry (primary appointment)

MD Ohio State University 1986

**Caroline Clare Horner, MD**Associate Professor of Pediatrics (primary appointment)

MD Saint Louis University 2000

BA Washington Univ in St. Louis 1993

**Ian Kerst Hornstra, PHD, MD**Associate Professor of Medicine (Dermatology) (primary appointment)

PHD University of Florida 1993

MD University of MO Kansas City 1986

BA University of MO Kansas City 1985

**Jennifer A. Horst, MD**Instructor in Pediatrics (primary appointment)

BS University of Missouri Columbi 2003

MD University of Missouri Columbi 2007

Timothy Adam HorwedelAdjunct Instructor in Medicine (primary appointment)

Pooya HosseinzadehAssistant Professor of Orthopaedic Surgery (Pending Executive Faculty Approval) (primary appointment)

**Terri L Hosto, BSW, MSW**Instructor in Neurology (primary appointment)

BSW University of Illinois 1981

MSW University of Michigan 1986

Richard S HotchkissProfessor of Anesthesiology (primary appointment)

Professor of Surgery (General Surgery)

Professor of Developmental Biology

Professor of Medicine

**Jianghui Hou, PHD**Associate Professor of Medicine (primary appointment)

PHD Edinburgh University 2003

BS Nanjing University 1999

**William Edward Houck, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD University of Cincinnati 1981

BS Brown University 1977

**Dennis Emil Hourcade, MA, PHD**Professor of Medicine (primary appointment)

BS Mass Inst of Technology (MIT) 1971

MA Harvard University 1974

PHD Harvard University 1978

**Stacey L House**Instructor in Emergency Medicine in Medicine (primary appointment)

BS Yale University 1999

**Jacqueline Howard**Instructor in Clinical Medicine (primary appointment)

UNKNOWN School Not Listed 1995

Matthew A HowardAdjunct Assistant Professor of Neurological Surgery (primary appointment)

David Thomas HowellInstructor in Clinical Medicine (primary appointment)

**Randall A Howell, MD** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

BS Kansas State University 1974

MD Kansas State University 1978

**Christine M Hrach, MD, BSW** Assistant Professor of Pediatrics (primary appointment)

MD Saint Louis University 2002

BSW Saint Louis University 1998

**Keith A Hruska, MD** Professor of Pediatrics (primary appointment)

**Professor of Cell Biology and Physiology**

**Professor of Medicine**

BS Creighton University 1965

MD Creighton University 1969

**Paul W. Hruz, PHD, MD** Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Cell Biology and Physiology**

PHD Medical College of Wisconsin 1993

MD Medical College of Wisconsin 1994

BS Marquette University 1987

**Chyi-Song Hsieh** Associate Professor of Medicine (primary appointment)

**Associate Professor of Pathology and Immunology**

**Alan A and Edith L Wolff** Distinguished Professor

**Chung Hsu, MD, PHD** Adjunct Professor of Neurology (primary appointment)

MD National Taiwan University 1970

PHD University of Virginia 1975

**Fong Fu Hsu, PHD, MS** Professor of Medicine (primary appointment)

PHD University of Utah 1986

MS Tsinghua University, China 1975

**Hawpeng Stephen Hsu, MS, MD** Assistant Professor of Anesthesiology (primary appointment)

BA Georgia St University 1991

MS Emory University 1993

MD Taipei Medical University 1983

**Kevin Hsueh, MD** Instructor in Medicine (primary appointment)

BS Williams College 2003

BS1 Williams College 2003

MD New York University 2008

**Hongzhen Hu, PHD** Associate Professor of Anesthesiology (primary appointment)

PHD Ohio State University 2004

**Raymond J Hu** Instructor in Clinical Medicine (primary appointment)

**David H Hua** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS University of California 1990

**Frederick Szujuei Huang, MD** Associate Professor of Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1990

MD Baylor University 1994

**Henry V Huang, PHD** Associate Professor of Molecular Microbiology (primary appointment)

PHD California Institute Technolo 1977

**Jiayi Huang, MD** Assistant Professor of Radiation Oncology (primary appointment)

MD University of Massachussetts 2007

**Jing-Wei Huang, MD** Professor of Ophthalmology and Visual Sciences (primary appointment)

MD National Taiwan University 1981

**Wei-Wei Huang**Instructor in Clinical Medicine (Dermatology) (primary appointment)

**Yafei Huang, PHD, MS**Instructor in Medicine (primary appointment)

PHD Univ of Texas Med Sch Houston 2007

MS Beijing Medical University 2000

**Dee Jay Hubbard, MA, PHD**Adjunct Assistant Professor of Otolaryngology (Speech Pathology) (primary appointment)

MA University of Iowa 1965

BS Kansas State University 1962

PHD University of Iowa 1967

**John W Hubert, MD**Associate Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1975

BA Wabash College 1971

**Richard W Hudgens, MD**Prof Emeritus of Psychiatry (primary appointment)

MD Washington Univ in St. Louis 1956

BA Princeton University 1952

**James J Hudziak**Adjunct Professor of Psychiatry (primary appointment)

**Donald V Huebener, MA, DDENT, MS**Prof Emeritus of Surgery (primary appointment)

MA Washington Univ in St. Louis 1975

DDENT Washington Univ in St. Louis 1969

MS Case Western Reserve Univ 1971

**Elizabeth Stack Huebner, MD**Assistant Professor of Medicine (primary appointment)

BA Washington Univ in St. Louis 1995

MD Loyola University Chicago 2000

**Rocco Hueneke**Assistant Professor of Anesthesiology (primary appointment)

**James E Huettner, PHD**Professor of Cell Biology and Physiology (primary appointment)

**Professor of Biomedical Engineering**

PHD Harvard University 1987

BS Indiana University 1980

BA Indiana University 1981

**Douglas Lee Huff, OD**Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD So Cal College of Optometry 1981

BS School Not Listed 1980

**Laura Huff, MD**Assistant Professor of Medicine (Dermatology) (primary appointment)

MD U of Colorado Health Sci Ctr 2011

BS Colorado St University 2006

**Jing Hughes, MD**Instructor in Medicine (primary appointment)

MD University of Pennsylvania 2009

BS Stanford University 2002

**Laura Hulbert, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Washington Univ in St. Louis 1981

BA Washington Univ in St. Louis 1976

**Monica L Hulbert**Associate Professor of Pediatrics (primary appointment)

BS Indiana University Bloomington 1996

**Rebecca L Hulett**Assistant Professor of Radiology (primary appointment)

**Timothy Everett Hullar, MD**Adjunct Professor of Otolaryngology (primary appointment)

BS Stanford University 1990

MD Harvard University 1996



**Scott James Hultgren, PHD** Helen L Stoever Professor of Molecular Microbiology (primary appointment)

BS Indiana University Bloomington 1981

PHD Northwestern University 1987

Theresa Human **Instructor in Clinical Neurology** (primary appointment)

Benjamin Duane Humphreys **Associate Professor of Medicine** (primary appointment)

**David A Hunstad, MD** Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Molecular Microbiology**

MD Washington Univ in St. Louis 1995

BA Carleton College 1991

**Devyani M. Hunt, MD** Associate Professor of Orthopaedic Surgery (primary appointment)

**Associate Professor of Neurology**

MD University of Texas Houston 2000

BS University of Texas Austin 1995

**Jane Alyce Hunt, MD** Instructor in Pediatrics (primary appointment)

MD Washington Univ in St. Louis 2014

BS Washington Univ in St. Louis 2014

Linda Ann Hunt **Adjunct Associate Professor of Neurology**

**Adjunct Associate Professor of Occupational Therapy**

**Steven R Hunt, MD** Associate Professor of Surgery (General Surgery) (primary appointment)

BA Dartmouth College 1992

MD Stanford University 1997

**Eva A Hurst, MD** Associate Professor of Medicine (Dermatology) (primary appointment)

MD Washington Univ in St. Louis 2002

**Mark Albert Hurt, MD** Instructor in Clinical Medicine (Dermatology) (primary appointment)

MD University of Missouri 1982

BS Southeast Missouri St Univer 1978

**Kareem D. Husain** Assistant Professor of Surgery (General Surgery) (primary appointment)

BS University of Notre Dame 1995

**Thy N Huskey, MD** Associate Professor of Neurology (primary appointment)

MD Northwestern University Med 1996

BS Northwestern University 1993

**Jennifer L Hyde, PHD** Instructor in Medicine (primary appointment)

BS University of Queensland 2005

PHD University of Queensland 2011

**Krzysztof L Hyrc, PHD, MS** Assistant Professor of Neurology (primary appointment)

PHD Jagiellonian University 1987

MS Jagiellonian University 1981

Mohsen Ibrahim **Instructor in Surgery (Cardiothoracic Surgery)** (primary appointment)

**Catherine Ifune, MD, PHD** Associate Professor of Anesthesiology (primary appointment)

MD Washington Univ in St. Louis 1997

PHD Washington Univ in St. Louis 1990

BS California Institute Technolo 1985

Richard G. Ihnat **Instructor in Clinical Medicine** (primary appointment)

**Richard J Iken, MD** Instructor in Clinical Pediatrics (primary appointment)

BA Univ of Wisconsin Madison 1972

MD University of MO Columbia 1978

Maxenia Garcia Ilagan **Assistant Professor of Biochemistry and Molecular Biophysics** (primary

appointment)

**Assistant Professor of Developmental Biology**

**Obeid Noor Ilahi, MD** Associate Professor of Surgery (General Surgery) (primary appointment)

MD Aga Khan University 1992

**Shin-Ichiro Imai** Professor of Developmental Biology (primary appointment)

**Professor of Medicine**

**Carl S Ingber, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Boston University 1972

BA University of Rochester 1968

**Donald R Ingram, MD** Asst Prof Emeritus Of Clin Otolaryngology (primary appointment)

BS University of Illinois 1954

MD University of Illinois 1956

**Joseph Edward Ippolito, MD, PHD** Instructor in Radiology (primary appointment)

BS Cornell University 1998

MD Washington Univ in St. Louis 2007

PHD Washington Univ in St. Louis 2007

**Belinda K. Ireland, MD** Adjunct Assistant Professor of Medicine (primary appointment)

MD University of MO Columbia 1976

**Susan Allison Ironstone, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Tel-Aviv University 2009

**Warren Isakow, MD** Associate Professor of Medicine (primary appointment)

MD University of the Witwatersra 1998

**Jill Christine Isenberg, MS PSYC** Instructor in Clinical Neurology (primary appointment)

BA Wake Forest University 1998

MS PSYC Wake Forest University 2003

**Keith E Isenberg, MD** Prof Emeritus of Psychiatry (primary appointment)

BA Wabash College 1974

MD Indiana University Bloomington 1978

**Selma E.h.o. Ishag, PHD, MD** Assistant Professor of Anesthesiology (primary appointment)

PHD University of Khartoum 1996

MD University of Khartoum 1987

**Hassan Issa, MD** Instructor in Medicine (primary appointment)

MD Tishreen Univ College of Med 2003

**Michael J Isserman, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences

(primary appointment)

MD Washington Univ in St. Louis 1975

**Eva Susanne Istvan** Assistant Professor of Medicine (primary appointment)

**HHMI Specialist II**

BS University of Houston 1993

**Akinobu Itoh** Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Renee A. Ivens, DPT, MHS** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

BS Maryville University 1984

DPT Washington Univ in St. Louis 2006

MHS Washington Univ in St. Louis 1996

**Yukitoshi Izumi** Professor of Psychiatry (primary appointment)

**Carolyn M Jachna, MD** Assistant Professor of Medicine (primary appointment)

BS Washington Univ in St. Louis 1993



MD Northwestern University Med 1998

**Ryan Scott Jackson, MD** Assistant Professor of Otolaryngology (primary appointment)

MD Saint Louis University 2009

BA Saint Louis University 2004

**Ronald R Jackups Jr.** Assistant Professor of Pathology and Immunology (primary appointment)

**Assistant Professor of Pediatrics**

BS Washington Univ in St. Louis 2000

**Jeffrey H Jacob, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BA University of Missouri 1975

OD So Cal College of Optometry 1980

BS So Cal College of Optometry 1978

**Saji Jacob, MD, MS** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD School Not Listed 1993

UNKNOWN School Not Listed 1996

MS Kerala University 1989

Sindhu Saji Jacob Assistant Professor of Neurology (primary appointment)

**Daryl Jacobs, MD, ME** Instructor in Clinical Medicine (primary appointment)

BS Washington Univ in St. Louis 1977

MD Washington Univ in St. Louis 1983

ME Carnegie Mellon University 1979

**Myron H Jacobs, MD** Instructor in Clinical Medicine (primary appointment)

BA Vanderbilt University 1965

MD Louisiana St Univ Hlth Sci 1969

**Arnold Scott Jacobson, DDENT, MS** Instructor in Clinical Otolaryngology (DMD) (primary appointment)

DDENT Washington Univ in St. Louis 1976

BA University of Missouri 1970

MS University of Missouri 1977

**Steven Jacobson, MD** Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 1985

**Meagan A. Jacoby, MD** Assistant Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 2005

**Mark F Jacquin, PHD** Professor of Neurology (primary appointment)

BS Brandeis University 1975

PHD City University of New York 1980

**David M Jaffe, MD** Adjunct Professor of Pediatrics (primary appointment)

MD University of Chicago 1978

BA Stanford University 1972

Sue E Jagler Instructor in Clinical Pediatrics (primary appointment)

**Sanjay Jain** Associate Professor of Medicine (primary appointment)

**Associate Professor of Pathology and Immunology**

BA University of California 1990

**Siddharth Vinod Jain, MD** Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Pediatrics**

MD D.Y. Patil Medical College 2003

**Sudhir Kumar Jain, MBBS** Associate Professor of Medicine (primary appointment)

MBBS Maulana Azad Medical College 1986

Patricia A Jamerson **Instructor in Clinical Pediatrics** (primary appointment)  
**Aimee S. James, PHD, MA, M PH** **Associate Professor of Surgery (General Surgery)** (primary appointment)  
PHD University of Houston 1999  
MA University of Houston 1998  
M PH University of Texas Houston 2000  
BA Goucher College 1995  
**William P James, MD** **Assistant Professor of Radiology** (primary appointment)  
MD University of MO Columbia 1993  
BA Washington Univ in St. Louis 1989  
**Aleksandar Janca, MD** **Adjunct Professor of Psychiatry** (primary appointment)  
MD School Not Listed  
**James W Janetka** **Associate Professor of Biochemistry and Molecular Biophysics** (primary appointment)  
BS University of Illinois 1990  
David P. Jaques **Professor of Surgery (General Surgery)** (primary appointment)  
George Jarad **Assistant Professor of Medicine** (primary appointment)  
**Michael R Jarvis, MD** **Professor of Psychiatry** (primary appointment)  
**Vice Chairman for Clinical Affairs, Department of Psychiatry**  
MD Washington Univ in St. Louis 1985  
**Daniel Ragin Jasper, MD** **Instructor in Clinical Medicine** (primary appointment)  
BA University of Texas Austin 1990  
MD Saint Louis University 1994  
**Anuja Java, MD** **Instructor in Medicine** (primary appointment)  
MD Government Medical College 2002  
**Cylene Javidan, MD** **Associate Professor of Radiology** (primary appointment)  
MD Iran Univ of Medical Sciences 1994  
Patrick Y Jay **Associate Professor of Pediatrics** (primary appointment)  
**Associate Professor of Genetics**  
Yasang Maina Jayasih **Instructor in Clinical Pediatrics** (primary appointment)  
**Donna Beth Jeffe, MA** **Professor of Medicine** (primary appointment)  
MA Washington Univ in St. Louis 1990  
BA Washington Univ in St. Louis 1972  
**Christopher M. Jenkins, PHD** **Assistant Professor of Medicine** (primary appointment)  
PHD Vanderbilt University 1997  
BS Michigan State University 1991  
**Jack W Jennings, MS, PHD** **Associate Professor of Radiology** (primary appointment)  
MS Ohio State University 1995  
PHD University of South Florida 1999  
Susan Jerger **Adjunct Research Professor of Otolaryngology** (primary appointment)  
**Xuntian Jiang, PHD** **Assistant Professor of Medicine** (primary appointment)  
PHD China Pharmaceutical Univ 1992  
Sharon Leslie Jick **Instructor in Clinical Ophthalmology and Visual Sciences** (primary appointment)  
**Jeffrey Jim, MS, MD** **Associate Professor of Surgery (General Surgery)** (primary appointment)  
BS University of Southern Calif 1996  
MS University of Southern Calif 1999  
MD University of CA Irvine 2003  
**Hongjun Jin** **Instructor in Radiology** (primary appointment)

BS Lanzhou University 1994

**Shannon M. Joerger, MD**Instructor in Pediatrics (primary appointment)

BS Southern Ill Univ Edwardsville 1995

MD University of Missouri-Columbi 2007

**William Steven Joffe, MD**Asst Prof Emeritus Of Clin Ophthal & Vls Sci (primary appointment)

**Asst Prof Emeritus Of Clin Ophthal & Vls Sci** (primary appointment)

BA Washington Univ in St. Louis 1959

MD Washington Univ in St. Louis 1963

**Morris Joftus, MD**Assistant Professor of Clinical Medicine (primary appointment)

MD University of Illinois 1967

**Audrey Ragan Odom John, PHD, MD**Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Molecular Microbiology**

BS Duke University 1996

PHD Duke University 2002

MD Duke University 2003

**Cassandra Johnson, PHD**Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

BS1 University of Maryland 1998

PHD Harvard University 2003

MS1 Harvard University 2000

**Denise R Johnson, MD**Associate Professor of Clinical Pediatrics (primary appointment)

BA Oakwood College 1979

MD Loma Linda University 1984

**Eric Keith Johnson, MD**Instructor in Medicine (primary appointment)

MD Univ of Wisconsin Madison 1999

**Jeffrey E Johnson, MD**Professor of Orthopaedic Surgery (primary appointment)

MD Georgetown University 1980

BA Duke University 1976

**Joyce D Johnson, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

MD Case Western Reserve Univ 1982

BS Oberlin College 1977

**Mark C Johnson, MD**Associate Professor of Pediatrics (primary appointment)

MD Johns Hopkins University 1982

Mark C. JohnsonAssociate Professor of Clinical Psychiatry (primary appointment)

**Michael K Johnson, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Saint Louis University 1975

BS Ohio State University 1970

**Reuben D Johnson, BE, MD**Assistant Professor of Emergency Medicine in Medicine (primary appointment)

BE Georgia Tech 1996

BS1 Morehouse College 1996

MD Howard University College of M 2002

**Staci R. Johnson, MD**Instructor in Clinical Pediatrics (primary appointment)

MD Southern Illinois University 2002

**Stephen L Johnson**Professor of Genetics (primary appointment)

BA Vanderbilt University 1983

William F JohnsonAdjunct Instructor in Medicine (primary appointment)

**William Lee Johnson, MD**Associate Professor of Clinical Pediatrics (primary appointment)

**Adjunct Associate Professor of Pediatrics**

MD University of Missouri 1981

BS University of Missouri 1977

**Eugene Malcolm Johnson Jr, PhD** Prof Emeritus of Neurology (primary appointment)

PHD University of Maryland 1970

BS University of Maryland 1966

**Glen P Johnston** Assoc Prof Emeritus Of Clin Ophthal & Vls Sci (primary appointment)

**Angela Marie Jones, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Universidad Nacional de Columb 1989

**Katherine McMullin Jones, MD** Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)

BA Amherst College 2001

MD Washington Univ in St. Louis 2007

**La Rhonda Jones** Instructor in Clinical Psychiatry (Child Psychiatry) (primary appointment)

**Larry A Jones, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

BA Johns Hopkins University 1972

MD Johns Hopkns University Medic 1976

**Sushma Jonna, MD** Instructor in Medicine (primary appointment)

MD Saint Louis University 2013

**Amy M Joseph** Associate Professor of Medicine (primary appointment)

BA Johnston Community College 1977

**Daniel Paul Joseph** Associate Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BS Cornell University 1981

**Barbara Jost, MS** Instructor in Clinical Medicine (primary appointment)

MS Northwestern University 1995

BS University of Missouri 1993

**R. Gilbert Jost, MD** Professor of Radiology (primary appointment)

BA Harvard University 1964

MD Yale University 1969

**Sandy Lynn Jost** Adjunct Instructor in Obstetrics and Gynecology (primary appointment)

**Sarah C. Jost** Adjunct Assistant Professor of Neurological Surgery (primary appointment)

**Mark J Jostes, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

BS Rockhurst College 1976

MD University of Missouri 1981

**Randall S Jotte** Associate Professor of Emergency Medicine in Medicine (primary appointment)

**Heather Robin Joyce, MD** Instructor in Clinical Pediatrics (primary appointment)

MD University of MO Columbia 2006

BS University of MO Columbia 2002

**Yo-EI S Ju, MD** Assistant Professor of Neurology (primary appointment)

MD Columbia University 2005

BS Harvard University 2001

**William G Juergens Jr, MD** Assoc Prof Emeritus Of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1961

**Neringa Juknis, MD** Associate Professor of Neurology (primary appointment)

BA School Not Listed 1985

MD Kaunas Medical Institute 1989

**Samuel F. Julian, MD**Instructor in Pediatrics (primary appointment)

MD University of Texas Southwest 2007

BS University of Texas Austin 2001

**Erzsebet Jung, MD**Instructor in Clinical Pediatrics (primary appointment)

MD School Not Listed 1987

**Emily Susan Jungheim, MD**Associate Professor of Obstetrics and Gynecology (primary appointment)

BS University of Illinois 1997

MD Loyola University Chicago 2001

**James A Junker**Instructor in Clinical Radiology (primary appointment)

**Puja Kachroo, MD, MS**Instructor in Surgery (Cardiothoracic Surgery) (primary appointment)

BS Boston University 2001

MD Ross Univ School of Medicine 2007

MS Columbia University 2003

**Brad S Kahl, MD**Professor of Medicine (primary appointment)

BS University of Wisconsin-Madison 1989

MD Tufts University 1994

**Caroline Holleck Kahle, MD**Assistant Professor of Medicine (primary appointment)

MD University of North Carolina 2006

**Lawrence I Kahn, MD**Prof Emeritus Of Pediatrics (primary appointment)

BA University of Alabama 1941

MD Louisiana St Univ Hlth Sci 1945

**Timothy N Kaiser**Assistant Professor of Clinical Otolaryngology (primary appointment)

**Aadil Kausarali Kakajiwala, MBBS**Instructor in Pediatrics (primary appointment)

MBBS Topiwala National Med College 2008

**Sergey Kaliberov, MD**Assistant Professor of Radiation Oncology (primary appointment)

MD First Moscow Medical Institute 1984

**Krishna Priya Kalyam, MD**Instructor in Ophthalmology and Visual Sciences (primary appointment)

MD Robert Wood Johnson Medical Sc 2012

BS Rutgers University 2008

**Sona Sharad Kamat**Instructor in Clinical Medicine (primary appointment)

**Vinay Gopal Kamat, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Pennsylvania 1994

**Stephen A Kamenetzky, MD**Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Washington Univ in St. Louis 1967

MD1 School Not Listed 1970

MD Washington Univ in St. Louis 1970

**Daniel Thomas Kane, MD**Assistant Professor of Anesthesiology (primary appointment)

MD Washington Univ in St. Louis 1989

**Deborah Shipley Kane, MD**Assistant Professor of Emergency Medicine in Medicine (primary appointment)

BA University of MO Kansas City 2006

MD University of MO Kansas City 2006

**Ivan M Kangrga, MD**Professor of Anesthesiology (primary appointment)

MD University of Belgrade 1982

**Akash Pravin Kansagra**Assistant Professor of Radiology (primary appointment)

**Patricia F Kao, BE, MD** Associate Professor of Medicine (Pending Executive Faculty Approval)  
(primary appointment)

MS2 Ohio State University 1997

BE Princeton University 1994

MD Case Western Reserve Univ 2001

**Humeyra Karacal, MD** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

MD Hacettepe University 1994

**Menelaos Karanikolas, MD** Associate Professor of Anesthesiology (primary appointment)

MD Athens University Med School 1988

Wajiha Parveen Karatela Instructor in Clinical Psychiatry (Child) (primary appointment)

Celeste Marie Karch Assistant Professor of Psychiatry (primary appointment)

Eugenia Kardaris Instructor in Clinical Otolaryngology (DDS) (primary appointment)

**Robert S Karsh, MD** Professor of Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1951

MD Washington Univ in St. Louis 1952

**Roanne Kay Karzon, MS, PHD** Adjunct Assistant Professor of Audiology and Communication Science (primary appointment)

Adjunct Assistant Professor of Otolaryngology

MS University of Virginia 1976

PHD Washington Univ in St. Louis 1982

BA University of Connecticut 1974

**Rojano Kashani, MS, PHD** Assistant Professor of Radiation Oncology (primary appointment)

MS University of Michigan 2006

PHD University of Michigan 2009

BS University of Michigan 2003

**Victoria Kaskutas, MHS** Associate Professor of Occupational Therapy (primary appointment)  
Associate Professor of Medicine

BS University of Illinois 1980

MHS Washington Univ in St. Louis

Thomas J Kasper Instructor in Clinical Pediatrics (primary appointment)

**Michael A Kass, MD, MS** Bernard Becker Professor of Ophthalmology and Visual Sciences (primary appointment)

Senior Associate Dean for Human Research Protection

MD Northwestern University 1966

MS Northwestern University Med 1966

BS Northwestern University 1963

**Andrew M. Kates, MD** Associate Professor of Medicine (primary appointment)

BS Tufts University 1990

MD Tufts University 1994

**Demetrios Katsikas, MD** Instructor in Clinical Surgery (Urological Surgery) (primary appointment)

BS University of Michigan 1985

MD Wayne State University 1989

**Shashi Krishna Katukoori, MS** Instructor in Medicine (primary appointment)

BS Kakatiya Medical College 2004

MS Eastern Kentucky University 2010

Richard T. Katz Professor of Clinical Neurology (primary appointment)

**David A Katzman, MD** Instructor in Clinical Medicine (primary appointment)



MD Saint Louis University 1991

BA Brown University 1986

**Andrew L. Kau, MD, PHD** Assistant Professor of Medicine (primary appointment)

BS Emory University 1998

MD Washington Univ in St. Louis 2006

PHD Washington St University 2006

**Charles Kaufman, PHD, MD** Assistant Professor of Medicine (Pending Executive Faculty Approval)  
(primary appointment)

**Assistant Professor of Developmental Biology**

PHD University of Chicago 2003

MD University of Chicago 2005

BA Washington Univ in St. Louis 1997

**Jenny E Kaufman** Instructor in Clinical Pediatrics (primary appointment)

BS University of Michigan 1999

**Robert L Kaufman, MD** Assistant Professor of Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1959

MD Washington Univ in St. Louis 1963

**Tejbeer Kaur, PHD, BAS, PHARMD** Instructor in Otolaryngology (primary appointment)

PHD Southern Illinois University 2012

BAS Delhi University 2005

PHARMD Delhi University 2007

**Pavan Kumar Kavali, MD** Instructor in Radiology (primary appointment)

BS Georgia Tech 2003

MD Morehouse College 2010

**James Alexander Kavanaugh, MS** Instructor in Radiation Oncology (primary appointment)

BS University of Saint Thomas 2008

MS Louisiana St University 2011

**Jack Kayes, MD** Professor Emeritus of Clinical Ophthalmology and Visual Sciences (primary appointment)

**Prof Emeritus of Clin Ophthalmol & Vis Sci** (primary appointment)

MD Washington Univ in St. Louis 1957

BA Yale University 1953

**Elizabeth Jane Keath, PHD** Assistant Professor of Medicine (primary appointment)

BA University of MO St Louis 1978

PHD Saint Louis University 1985

**Robert S Kebler, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Saint Louis University 1984

BS Muhlenberg College 1980

**Dalius Kedainis, MD** Instructor in Clinical Medicine (primary appointment)

MD Kaunas University of Medicine 1998

**Elizabeth A Keegan Garrett, MD, M PH** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Oregon Health Science Univer 2005

M PH Harvard University 2003

BA Mount Holyoke College 1998

**Jay Donovan Keener, MD** Associate Professor of Orthopaedic Surgery (primary appointment)

BS West Virginia University 1991

MD West Virginia University 1998

**Jacob Brian Keeperman, MD** Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Emergency Medicine in Medicine**

MD Loyola University Chicago 2006

Eirini Kefalogianni **Instructor in Medicine** (primary appointment)

**Vladimir Jivkov Kefalov, PHD** Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Neuroscience**

PHD Boston University 1999

**Jesse Wade Keller** Instructor in Medicine (primary appointment)

BS University of Tulsa 2005

**Martin S Keller, MD** Associate Professor of Surgery (Pediatric Surgery) (primary appointment)

**Associate Professor of Pediatrics**

BS University of Pennsylvania 1985

MD University of Vermont 1990

**Sarah Lynn Keller, MD** Assistant Professor of Obstetrics and Gynecology (primary appointment)

BA University of Notre Dame 1985

MD Southern Illinois University 1989

Robert V Kellow **Assistant Professor of Clinical Pediatrics** (primary appointment)

**Brian Adams Kelly, MD** Assistant Professor of Orthopaedic Surgery (Pending Executive Faculty Approval) (primary appointment)

MD Columbia University 2009

BA Williams College 2002

**Brian J Kelly, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD School Not Listed 1972

BS School Not Listed 1964

**Daniel P Kelly, MD** Adjunct Professor of Medicine (primary appointment)

BS University of Illinois 1978

MD University of Illinois 1982

**James E. Kelly** Assistant Professor of Radiology (primary appointment)

BS University of Notre Dame 1999

**Jeannie Chen Kelly, MD** Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD Columbia University 2009

**John J Kelly, MD** Associate Professor of Medicine (primary appointment)

BS Rockhurst College 1959

MD Saint Louis University 1963

**Michael Patrick Kelly, MD** Assistant Professor of Orthopaedic Surgery (primary appointment)

**Assistant Professor of Neurological Surgery**

BS Boston College 1999

MD University of Massachusetts 2005

James Scott Kemp **Professor of Pediatrics** (primary appointment)

**Michele E Kemp, MD** Associate Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1981

BA Washington Univ in St. Louis 1977

**Charlotte J Kennedy, PHD, MD** Assistant Professor of Clinical Medicine (primary appointment)

PHD Washington Univ in St. Louis 1992

MD Washington Univ in St. Louis 1992

BA Agnes Scott College 1984

**Robert M Kennedy** Professor of Pediatrics (primary appointment)



BS Georgia Tech 1975

**Rainer Kentner, MD**Assistant Professor of Anesthesiology (primary appointment)

MD University of Tuebingen 1987

**Joseph L Kenzora, MD**Associate Professor of Medicine (primary appointment)

MD University of New Mexico 1975

**Deborah Lynn Kerber**Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BS Southeast Missouri St Univers 1986

**Paul William Kerby, MBBS**Assistant Professor of Anesthesiology (primary appointment)

BS King's College London 2001

MBBS King's College London 2004

**Martin Hurley Kerrigan**Assistant Professor of Medicine (primary appointment)

BS Saint Josephs University 2001

**Daniel Kerschensteiner, PHD**Associate Professor of Ophthalmology and Visual Sciences (primary appointment)

**Associate Professor of Neuroscience**

**Associate Professor of Biomedical Engineering (Courtesy)**

PHD Georg August University 2004

**Nicholas Kessides, MD**Instructor in Anesthesiology (primary appointment)

MD University of Maryland 2010

Salah G. Keyrouz**Associate Professor of Neurology** (primary appointment)

**Associate Professor of Neurological Surgery**

**Syed Ahmed Khader**Instructor in Clinical Neurology (primary appointment)

BS School Not Listed 1989

Ahmed Sultan Khan**Adjunct Instructor in Medicine** (primary appointment)

**Rao Fawwad Khan, PHD, MD**Associate Professor of Radiation Oncology (primary appointment)

**Associate Professor of Biomedical Engineering**

PHD McMaster University 2003

MD Quaid-Azam University 1997

**Geetika Khanna, MS, MBBS**Associate Professor of Radiology (primary appointment)

MS University of Iowa 2006

MBBS All-India Inst of Medical Sci 1997

Sangeeta Khanna**Instructor in Clinical Ophthalmology and Visual Sciences** (primary appointment)

**Evan David Kharasch, PHD**Russell and Mary Shelden Professor of Anesthesiology (primary appointment)

**Professor of Biochemistry and Molecular Biophysics**

PHD Northwestern University Med 1983

**Shahrdad Khodamoradi, MD**Assistant Professor of Anesthesiology (primary appointment)

MD Washington Univ in St. Louis 1990

**Saaid Khojasteh, MD**Assistant Professor of Clinical Psychiatry (primary appointment)

MD School Not Listed 1981

**Lynnette C Khoo-Summers, MS, DPT**Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

MS Washington Univ in St. Louis 1998

DPT Washington Univ in St. Louis 2008

BA Colorado St University 1990

**Thomas B Kibby, MD**Instructor in Emergency Medicine in Medicine (primary appointment)

MD Eastern Virginia Med School 1979

**Daniel Jason Kichura, MD**Instructor in Medicine (primary appointment)

MD Israel Institute of Technology 2012

**George Kichura, MD**Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 1993

**William F Kiefer Jr, OD**Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Illinois College of Optometry 1975

BA Princeton University 1967

BS Illinois College of Optometry 1973

**Mary Kiehl, AS**Assistant Professor of Clinical Medicine (primary appointment)

BA University of California 1985

AS Long Beach City College 1976

**Kenneth Richard Kilian, MD**Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 1984

**Kent Leon Killian, MD**Instructor in Clinical Pediatrics (primary appointment)

MD Saint Louis University 1990

BA Saint Louis University 1986

**Charles Kilo, MD**Professor of Medicine (primary appointment)

**Professor of Pathology and Immunology**

MD Washington Univ in St. Louis 1959

**Charles John Kilo, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1991

BA University of Kansas 1987

**Albert H Kim, MA, PHD, MD**Assistant Professor of Neurological Surgery (primary appointment)

**Assistant Professor of Neurology**

**Assistant Professor of Developmental Biology**

BA Harvard University 1994

MA Washington Univ in St. Louis 1999

PHD New York U. School of Medicine 2002

MD New York U. School of Medicine 2003

**Albert J Kim, MD**Instructor in Emergency Medicine in Medicine (primary appointment)

BS University of Chicago 2005

MD Northwestern University 2009

**Alfred Kim**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

**Andrew M Kim, MS, DDENT**Assistant Professor of Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)

**Instructor in Clinical Otolaryngology**

MS Ohio State University 1987

BA California State University 1978

DDENT Washington Univ in St. Louis 1984

**Brian Kim, MD**Assistant Professor of Medicine (Dermatology) (primary appointment)

**Assistant Professor of Anesthesiology**

**Assistant Professor of Pathology and Immunology**

MD University of Washington 2007

BS Haverford College 2001

**Joong Hee Kim, PHD, MS**Instructor in Neurology (primary appointment)

## **Instructor in Radiology**

PHD Washington Univ in St. Louis 2006

BS Kangwon National University 1996

PHD1 Washington Univ in St. Louis 2006

MS Kangwon National University 2000

Seung Kwon Kim **Assistant Professor of Radiology** (primary appointment)

## **Assistant Professor of Surgery (General Surgery)**

**Sungsu Kim** **Instructor in Genetics** (primary appointment)

BS Korea University 2000

Helen Young Kim-James **Instructor in Clinical Medicine (Dermatology)** (primary appointment)

**Rosa Anne Kincaid** **Instructor in Clinical Medicine** (primary appointment)

BA City College 1970

**Allison A King, MD** **Associate Professor of Occupational Therapy** (primary appointment)

**Associate Professor of Pediatrics**

**Associate Professor of Pediatrics**

**Associate Professor of Education (Courtesy)**

**Associate Professor of Surgery (General Surgery)**

**Associate Professor of Medicine**

**Associate Professor of Medicine**

MD University of MO Columbia 1996

**Donald Kevin King, MD** **Assistant Professor of Clinical Medicine** (primary appointment)

BA Fairfield University 1966

MD Johns Hopkins University Medic 1970

**Erin L King, MD** **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)

MD Washington Univ in St. Louis 2003

BA Stanford University 1997

**Kevin Patrick King, MD** **Instructor in Clinical Medicine** (primary appointment)

MD Saint Louis University 2006

**Tessa Marie King, MD** **Assistant Professor of Anesthesiology** (primary appointment)

MD University of Kansas 1997

MD1 University of Kansas 1997

BA School Not Listed 1993

**Tinna P King** **Instructor in Clinical Medicine** (primary appointment)

BA University of Missouri 1988

**Phillip Lee Kintner, MD** **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)

MD Southern Illinois University 1986

**John P. Kirby, MD, MS** **Associate Professor of Surgery (General Surgery)** (primary appointment)

BS University of Illinois 1988

MD University of Illinois 1993

MS University of Illinois 1999

**Erik Paul Kirk, MS, PHD** **Adjunct Assistant Professor of Medicine** (primary appointment)

MS University of Kansas 2001

PHD University of Kansas 2004

**Nigar Kirmani, MD** **Professor of Medicine** (primary appointment)

MD King Edward Medical College 1973

**Sonya Kirmani, MD** **Instructor in Pediatrics** (primary appointment)

BS Northwestern University 2006

MD University of Iowa 2010

**Neha Navsaria Kirtane, PHD, MA**Assistant Professor of Psychiatry (primary appointment)

PHD Temple University 2008

MA Columbia University 2003

BA Bryn Mawr College 1999

**Sameer M. Kirtane, MD**Instructor in Clinical Medicine (primary appointment)

MD Jefferson Medical College 2008

**John M Kissane**Retiree - Professor of Pathology and Immunology (primary appointment)

**Maleewan Kitcharoensakkul**Instructor in Pediatrics (primary appointment)

**Asko I Kivikoski, D SC, MD**Assoc Prof Emeritus Of Ob & Gyn (primary appointment)

BA School Not Listed 1954

UNKNOWN School Not Listed 1954

D SC School Not Listed 1967

MD School Not Listed 1958

**Laurie Klabi, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD University of Missouri 1991

BA University of Missouri 1987

**Joseph W. Klaesner, PHD, MS**Professor of Physical Therapy (primary appointment)

**Professor of Radiology**

BS1 Marquette University 1987

BS Marquette University 1987

PHD Vanderbilt University 1995

MS Vanderbilt University 1993

**Michael K Klebert, BN, PHD, MSN**Instructor in Medicine (primary appointment)

BA Southern Illinois University 1979

BN Southern Illinois University 1981

PHD University of MO St Louis 2008

MSN University of Texas Austin 1987

**Eynav Yafit Klechevsky, PHD**Assistant Professor of Pathology and Immunology (primary appointment)

PHD Baylor University 2007

**Grant Michael Kleiber**Assistant Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)

BS University of Notre Dame 2004

**Robert E Kleiger**Professor of Medicine (primary appointment)

**Jacob Klein, MD**Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD School Not Listed 1968

BS Muhlenberg College 1964

**Robyn Sue Klein, PHD**Professor of Medicine (primary appointment)

**Professor of Pathology and Immunology**

**Professor of Neuroscience**

PHD Albert Einstein College of Med 1993

**Samuel Klein, MD, MS**Danforth Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

BA Brandeis University 1974

MD Temple University 1979

MS Mass Inst of Technology (MIT) 1984

**Sandra E. Klein, BE, MD**Associate Professor of Orthopaedic Surgery (primary appointment)

BE University of Missouri 1994

MD Washington Univ in St. Louis 2001

Saul Klein **Instructor in Clinical Surgery (Urologic Surgery)** (primary appointment)

**Mark Alan Kleindorfer, OD** **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary appointment)

OD Indiana University Bloomington 1979

BS Indiana University Bloomington 1977

**June Leslie Kleinfeld, DDENT** **Instructor in Clinical Otolaryngology (DMD)** (primary appointment)

DDENT Washington Univ in St. Louis 1985

**George R Kletzker, MD** **Assistant Professor of Clinical Otolaryngology** (primary appointment)

BA University of Missouri 1980

MD University of Missouri 1984

**Mary E Klingensmith, MD** **Professor of Surgery (General Surgery)** (primary appointment)

**Mary Culver Distinguished Professor**

**Vice Chairman for Education, Department of Surgery**

**Sr Associate Dean for Education**

**Sr Associate Dean for Education**

BA Wellesley College 1988

MD Duke University 1992

**Vivian Marie Kloke, OD** **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary appointment)

OD University of Missouri 1990

Linda Marie Kluth **Instructor in Clinical Medicine** (primary appointment)

**Vitaly A Klyachko, PHD, MS** **Associate Professor of Cell Biology and Physiology** (primary appointment)

**Associate Professor of Biomedical Engineering**

**Associate Professor of Neuroscience**

PHD Univ of Wisconsin Madison 2002

MS Moscow State University 1998

BS Moscow State University 1997

Paula J Knapp-Baker **Instructor in Clinical Medicine** (primary appointment)

**Kathleen Marie Kniepmann, M PH, DED** **Assistant Professor of Occupational Therapy** (primary appointment)

**Assistant Professor of Neurology**

M PH Harvard University 1981

BA Washington Univ in St. Louis 1974

BS Washington Univ in St. Louis 1974

DED Harvard University 1980

Richard D Knight **Instructor in Clinical Pediatrics** (primary appointment)

**Shirley M Knight, MD** **Professor of Clinical Pediatrics** (primary appointment)

BA Dillard University 1976

MD Washington Univ in St. Louis 1980

**Teresa Lee Knight, MS, MD** **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)

MS Saint Louis University 1994

MD Saint Louis University 1998

BA University of CA Berkeley 1992

Justin Knittel **Assistant Professor of Anesthesiology** (primary appointment)

**Eric Knoche, MD** **Assistant Professor of Medicine** (primary appointment)

MD Washington Univ in St. Louis 2006

BS Davidson College 2001

**Kathryn Knoop**Instructor in Medicine (primary appointment)

**Harry L Knopf**Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Harvard University 1963

**Valerie S. Knopik, MA, PHD**Adjunct Assistant Professor of Psychiatry (primary appointment)

MA University of Colorado Boulder 1998

BA Wesleyan College 1994

PHD University of Colorado Boulder 2000

**Norman P Knowlton Jr**Prof Emeritus Of Clinical Medicine (primary appointment)

BS Harvard University 1942

**Ronald Joseph Knox, OD**Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD School Not Listed 1956

**Nels C Knutson, PHD, MS**Instructor in Radiation Oncology (Pending Dean's Approval) (primary appointment)

PHD Univ of Massachusetts Lowell 2016

BS University of Montana Missoula 2009

MS Louisiana St University 2012

**Ira Joe Kodner, MD**Prof Emeritus of Surgery (General Surg) (primary appointment)

MD Washington Univ in St. Louis 1967

BA Washington Univ in St. Louis 1963

**Carolyn Koenig, MD**Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 2002

**Joel S Koenig, MD**Professor of Clinical Pediatrics (primary appointment)

MD Vanderbilt University 1982

**Kenneth A Koerner, MD**Associate Professor of Clinical Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1935

MD Washington Univ in St. Louis 1941

**Ismail Kola, PHD**Adjunct Professor of Medicine (primary appointment)

PHD School Not Listed 1985

UNKNOWN Rhodes College 1982

BS Rhodes College 1982

**Marin H Kollef, MD**Professor of Medicine (primary appointment)

BS US Military Academy 1979

MD University of Rochester 1983

**Hermann M Koller, MD**Instructor in Medicine (primary appointment)

MD Washington Univ in St. Louis 1978

BS Stanford University 1974

**Sri Devi Kolli, MBBS**Instructor in Clinical Medicine (primary appointment)

MBBS Guntur Medical College 1989

**Nikoleta S. Kolovos, MD**Associate Professor of Pediatrics (primary appointment)

MD University of Pittsburgh 1996

BS University of Pittsburgh 1991

**Mary E. Koly, MD**Instructor in Clinical Medicine (primary appointment)

BA University of MO Kansas City 1995

MD University of MO Kansas City 1995

**Yosuke Komatsu**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Helga Komen**Instructor in Anesthesiology (primary appointment)



**Katherine L Komendowski, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD School Not Listed 1984

BS Marymount College 1980

**Ramakrishna Kommagani, PHD** Assistant Professor of Obstetrics and Gynecology (Pending Executive Faculty Approval) (primary appointment)

PHD Wright State University 2009

**Jamie L Kondis, MD** Instructor in Pediatrics (primary appointment)

BS Westminster College 2002

MD Indiana University South Bend 2006

**Kevin L Konzen** Assistant Professor of Clinical Medicine (primary appointment)

**Raphael Kopan, MS, PHD** Adjunct Professor of Developmental Biology (primary appointment)

MS Tel Aviv University 1984

PHD University of Chicago 1989

**Robert G Kopitsky, MD** Assistant Professor of Clinical Medicine (primary appointment)

BS Emory University 1978

MD Duke University 1982

**Kevin Marc Korenblat, MD** Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1996

**Phillip E Korenblat** Professor of Clinical Medicine (primary appointment)

**Michael S Kornfeld, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Washington Univ in St. Louis 1986

BS University of Arizona 1981

**Stephen K Kornfeld, PHD, MD** Professor of Developmental Biology (primary appointment)

PHD Stanford University 1991

MD Stanford University 1991

**Stuart A Kornfeld** David C and Betty Farrell Professor of Medicine (primary appointment)

**Professor of Biochemistry and Molecular Biophysics**

BA Dartmouth College 1958

**Sara L Kornfield, PHD** Assistant Professor of Psychiatry (primary appointment)

PHD Drexel University 2010

BA Columbia University 2003

**Alex H Kosloff, MD** Instructor in Clinical Medicine (primary appointment)

BS Washington Univ in St. Louis 1975

MD Saint Louis University 1980

**Alok K. Kothari, MD**

MD University of Illinois Chicago 2009

BS1 Washington Univ in St. Louis 2003

BS Washington Univ in St. Louis 2003

**Lawrence M Kotner, MD** Assoc Prof Emeritus of Radiology (primary appointment)

BA Washington Univ in St. Louis 1965

MD Washington Univ in St. Louis 1968

**Paul Thomas Kotzbauer** Associate Professor of Neurology (primary appointment)

**Associate Professor of Developmental Biology**

**Attila Kovacs** Associate Professor of Medicine (primary appointment)

BS School Not Listed 1981

**Maria Kovacs** Visiting Professor of Psychiatry (primary appointment)

**Sandor J Kovacs, MD, MS, PHD** Professor of Medicine (primary appointment)

**Adjunct Professor of Physics**

**Professor of Biomedical Engineering**

**Professor of Cell Biology and Physiology**

MD University of Miami 1979

MS California Institute Technolo 1972

PHD California Institute Technolo 1977

BS Cornell University 1969

**Edward H. Kowert** **Assoc Prof Emeritus of Clinical Psychiatry** (primary appointment)

**Beth Ann Kozel, MD, PHD** **Adjunct Assistant Professor of Pediatrics** (primary appointment)

BA Washington Univ in St. Louis 1996

MD Washington Univ in St. Louis 2004

PHD Washington Univ in St. Louis 2004

**Alexander Kozlov, MS, PHD** **Instructor in Biochemistry and Molecular Biophysics** (primary appointment)

MS Moscow State University 1983

PHD Moscow State University 1994

**Benjamin D. Kozower, MD** **Professor of Surgery (Cardiothoracic Surgery) (Pending Executive Faculty Approval)** (primary appointment)

BS University of Rochester 1993

MD University of Rochester 1997

**Thomas Errol Kraemer, OD** **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary appointment)

BS Indiana University Bloomington 1970

OD Indiana University Bloomington 1972

BA Millikin University 1968

**James M Krafcik** **Instructor in Clinical Pediatrics** (primary appointment)

**Aldi T Kraja** **Associate Professor of Genetics** (primary appointment)

**David Paul Krajcovic, MD** **Instructor in Clinical Surgery (General Surgery)** (primary appointment)

MD Washington Univ in St. Louis 1969

BA Washington Univ in St. Louis 1965

**Robert S Kramer, MD** **Instructor in Clinical Orthopaedic Surgery** (primary appointment)

BA Harvard University 1979

MD Washington Univ in St. Louis 1983

**Joseph F Kras, D DENT, MD** **Associate Professor of Anesthesiology** (primary appointment)

D DENT Loyola University Chicago 1982

MD Hahnemann University 1991

**Claudia Krasnoff, MA, MD** **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)

MA Johns Hopkins University 1990

MD University of Maryland 1994

**Mark S Krasnoff, MD** **Instructor in Clinical Medicine** (primary appointment)

BA Amherst College 1987

MD Johns Hopkns University Medic 1991

**Frederick Thier Kraus** **Adjunct Professor of Obstetrics and Gynecology** (primary appointment)

BS College of William and Mary 1951

**Lily Tadayyon Kregenow** **Instructor in Clinical Pediatrics** (primary appointment)

**Daniel Kreisel, MD, PHD** **Professor of Surgery (Cardiothoracic Surgery)** (primary appointment)

**Professor of Pathology and Immunology**

MD Mount Sinai School of Medicine 1995



PHD University of Pennsylvania 2002

**Friederike H. Kreisel, MD** Associate Professor of Pathology and Immunology (primary appointment)

MD Goethe University 1995

**Geraldine J. Kress, PHD** Instructor in Neurology (primary appointment)

PHD Washington Univ in St. Louis 2009

**Katherine L Kreusser, MD** Professor of Clinical Pediatrics (primary appointment)

MD Indiana University Bloomington 1978

BS University of Pennsylvania 1973

**Andrzej Modest Krezel, PHD, MS** Associate Professor of Biochemistry and Molecular Biophysics (Pending Executive Faculty Approval) (primary appointment)

PHD Univ of Wisconsin Madison 1991

MS University of Warsaw 1986

**Hannah Rachel Krigman, MD** Associate Professor of Pathology and Immunology (primary appointment)

BA Amherst College 1983

MD University of North Carolina 1988

**Kristen Louise Kroll, PHD** Associate Professor of Developmental Biology (primary appointment)

PHD University of CA Berkeley 1994

BA Northwestern University 1988

**Ronald J Krone, MD** Professor of Medicine (primary appointment)

**John E Simon Scholar in Medicine**

MD University of Chicago 1966

BS University of Michigan 1962

**Catherine P Krucylak, MD** Assistant Professor of Anesthesiology (primary appointment)

BA Rutgers University 1982

MD U Medical-Dental Of New Jersey 1986

**Elaine Susan Krul, PHD** Adjunct Associate Professor of Medicine (primary appointment)

PHD McGill University 1982

**Kilannin Cathleen Krysiak, PHD** Instructor in Medicine (primary appointment)

PHD Washington Univ in St. Louis 2014

BS University of Illinois 2006

**Thomas Kuciejczyk-Kernan, MD** Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 1986

BS University of Illinois 1982

**Ralph F Kuhlman, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD University of Illinois 1964

**Robert E Kuhlman, MD** Asst Prof Emeritus Of Clinical Ortho Surg (primary appointment)

BA Washington Univ in St. Louis 1953

MD Washington Univ in St. Louis 1956

**Frederick Matthew Kuhlmann, MD** Instructor in Medicine (primary appointment)

MD Emory University 2002

BS Emory University 1998

**Anthony Kulczycki Jr, MD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Molecular Microbiology**

MD Harvard University 1970

**Ashok Kumar, MD** Assistant Professor of Clinical Neurology (primary appointment)

MD Dow Medical College Karachi 1985

**Terrance T. Kummer, PHD, MD**Assistant Professor of Neurology (primary appointment)

PHD Washington Univ in St. Louis 2006

MD Washington Univ in St. Louis 2006

BS University of Minnesota 1999

**Robin A. Kundra, PHD, MD**Instructor in Clinical Medicine (primary appointment)

PHD Washington Univ in St. Louis 2000

MD Washington Univ in St. Louis 2000

BS University of Georgia 1992

**Denise Kung, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

MD Yale University 1991

BA University of Missouri 1986

**David I. Kuperman**Instructor in Clinical Medicine (primary appointment)

BA Hendrix College 1997

**Lindsay M Kuroki, MD**Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD Brown University 2009

**Howard I. Kurz, MEE, MD**Professor of Medicine (primary appointment)

MEE Princeton University 1980

MD New York Medical College 1984

BS Mass Inst of Technology (MIT) 1979

BS1 Mass Inst of Technology (MIT) 1979

**Linda C Kurz, MA**Res Assoc Prof Emeritus of Biochem & Mol Bio (primary appointment)

MA Washington Univ in St. Louis 1970

BA Washington Univ in St. Louis 1968

**Vladimir Kushnir, MD**Assistant Professor of Medicine (primary appointment)

MD Ohio State University 2006

BS University of Utah 2002

**Sebla Bulent Kutluay, PHD**Assistant Professor of Molecular Microbiology (primary appointment)

PHD Michigan State University 2009

**Jennie H Kwon, DOST**Instructor in Medicine (primary appointment)

BA Univ of IL -Urbana-Champaign 2005

DOST Chicago Coll of OsteopathicMed 2009

BS Univ of IL -Urbana-Champaign 2005

**George B Kyei, MS, MD, PHD**Assistant Professor of Medicine (primary appointment)

MS University of Ghana Medical Sc 2003

MD University of Ghana Medical Sc 1998

PHD University of New Mexico 2007

**Michael Kyriakos, MD**Professor of Pathology and Immunology (primary appointment)

MD Albert Einstein College of Med 1962

**Paul B L'Ecuyer, MD**

MD University of MO Columbia 1989

**Suzanne Nicole L'Ecuyer, MD**Instructor in Psychiatry (primary appointment)

MD University of Louisville 2016

**Adam J. LaBore, MD**Associate Professor of Orthopaedic Surgery (primary appointment)

**Associate Professor of Neurology**

MD Loyola University Chicago 1998

BS Louisiana College 1994

**Michael J Lachtrup**Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

**Jennifer S Ladage, MD**Instructor in Clinical Pediatrics (primary appointment)

MD Saint Louis University 1991

BS Valparaiso University 1987

**Christine Marie Ladd, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD University of Missouri 1990

BA Saint Louis University 1986

**Jack H Ladenson, PhD**Oree M Carroll and Lillian B Ladenson Professor of Clinical Chemistry in Pathology and Immunology (primary appointment)

**Professor of Clinical Chemistry in Medicine**

PHD University of Maryland 1971

BS Pennsylvania State University 1964

**Stacie Sharon Laff, MD**Instructor in Clinical Pediatrics (primary appointment)

BA Lawrence University 1989

MD School Not Listed 1993

**Richard Laforest, PhD, MS**Associate Professor of Radiology (primary appointment)

PHD University of Laval 1994

MS University of Laval 1991

**Albert Max Lai, PhD, M PHIL**Associate Professor of Medicine (primary appointment)

PHD Columbia University 2007

M PHIL Columbia University 2005

**Hing Hung H Lai, MD**Associate Professor of Surgery (Urologic Surgery) (primary appointment)

**Associate Professor of Anesthesiology**

MD Cornell University 1999

Li-Ling LaiInstructor in Clinical Pediatrics (primary appointment)

**Anand Lakshminarasimhachar, MBBS**Assistant Professor of Anesthesiology (primary appointment)

MBBS Bangalore University 1994

**Roop Lal, MS**Instructor in Clinical Medicine (primary appointment)

MS Osmania Medical College 1971

Tony C LamInstructor in Clinical Obstetrics and Gynecology (primary appointment)

**Robert Louis Lamberg, MD**Associate Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Washington Univ in St. Louis 1976

BS University of MO St Louis 1972

Irena LanInstructor in Medicine (primary appointment)

**William M Landau, MD**Prof Emeritus of Neurology (primary appointment)

MD Washington Univ in St. Louis 1947

**Robert Craig Lander, MD**Instructor in Clinical Orthopaedic Surgery (primary appointment)

MD University of Illinois 1972

BA University of Michigan 1968

**Michael A. Lane, MD, MS**Assistant Professor of Medicine (primary appointment)

MD Drexel University 2004

MS John Hopkins University 2000

BA Colgate University 1995

**Barbara A Lanfer, M ED**Adjunct Instructor in Audiology and Communication Sciences (primary appointment)

BA Fontbonne University 1975

M ED University of MO St Louis 1998

**Catherine Eckels Lang, MS, PHD** Professor of Physical Therapy (primary appointment)

**Professor of Neurology**

**Professor of Occupational Therapy**

MS University of Vermont 1997

PHD Washington Univ in St. Louis 2001

BS University of Vermont 1993

**Gabriel David Lang, MD** Assistant Professor of Medicine (primary appointment)

MD University of Illinois Chicago 2009

**Susan M Langhorst, ME, PHD** Director Office of Radiation Safety (primary appointment)

**Assistant Professor of Radiology**

ME University of MO Columbia 1979

BS MO S&T (formerly UofMO Rolla) 1976

PHD University of MO Columbia 1982

**Vanessa Mae Lanier** Instructor in Physical Therapy (primary appointment)

**Instructor in Orthopaedic Surgery**

BS Washington Univ in St. Louis 2007

**Gregory Mark Lanza, PHD, MS** Oliver M Langenberg Distinguished Professor of Science and

**Practice of Medicine** (primary appointment)

**Professor of Biomedical Engineering**

BA Colby College 1975

PHD University of Georgia 1981

MS University of Georgia 1978

**Suzanne Elizabeth Lapi, MS, PHD** Adjunct Associate Professor of Radiology (primary appointment)

BS Simon Fraser University 2001

MS Simon Fraser University 2003

PHD Simon Fraser University 2007

**Paul Arthur Lapoint, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD School Not Listed 1963

**Demetrios G Lappas, MD** Prof Emeritus Of Anesthesiology (primary appointment)

MD Aristotle University 1961

**Gina N LaRossa, MD** Assistant Professor of Medicine (primary appointment)

MD Yale University 2007

BS Yale University 2001

**Douglas P. Larsen, MD** Associate Professor of Neurology (primary appointment)

**Associate Professor of Pediatrics**

BA Brigham Young University 1999

MD University of Utah 2003

**David Ernfrid Larson, PHD** Academic Rank held in Genetics (primary appointment)

**Instructor in Genetics**

BS Indiana State University 2003

PHD Washington Univ in St. Louis 2007

**Shane Joseph LaRue, MD** Assistant Professor of Medicine (primary appointment)

MD Medical College of Wisconsin 2005

**John M Lasala, MD** Professor of Medicine (primary appointment)

**Professor of Surgery (Cardiothoracic Surgery)**

BA Drew University 1975

MD University of Connecticut 1983

**Andrei Laszlo, PHD, MS** Associate Professor of Radiation Oncology (primary appointment)

PHD University of California 1979

MS University of California 1972

BS University of Chicago 1970

**Chakrapol Lattanand, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Hahnemann University 2000

**Steven A Lauter, MD** Associate Professor of Medicine (primary appointment)

MD Wayne State University 1971

BS Wayne State University 1967

**Kory J. Lavine, PHD, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Development Biology**

PHD Washington Univ in St. Louis 2008

BS University of Rochester 2001

MD Washington Univ in St. Louis 2008

**Steven Jay Lavine** Professor of Medicine (primary appointment)

BA Temple University 1972

**Russell K Lawrence, MD** Adjunct Instructor in Pediatrics (primary appointment)

MD Baylor College of Medicine 2002

BS University of Texas Austin 1998

**Steven J Lawrence, MS** Associate Professor of Medicine (primary appointment)

MS University of London 2004

BS Rose Hulman Institute 1992

**Heather A Lawson, PHD, MA** Assistant Professor of Genetics (primary appointment)

BA Univ of Wisconsin Milwaukee 2002

PHD Pennsylvania State University 2008

MA Pennsylvania State University 2004

**Leland M Laycob, MD** Instructor in Clinical Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1964

MD University of Missouri 1968

**Patricia Lazaroff, BN, MSN** Adjunct Instructor in Obstetrics and Gynecology (primary appointment)

BN School Not Listed 1972

MSN Saint Louis University 1974

**Richard Lee Lazaroff** Professor of Clinical Pediatrics (primary appointment)

**Daniel Joseph Leary Jr, MD** Assistant Professor of Clinical Radiology (primary appointment)

MD Washington Univ in St. Louis 1966

BS Saint Louis University 1962

**Caroline Kim Lee, MD** Associate Professor of Pediatrics (primary appointment)

BA Wellesley College 1995

MD University of Virginia 1999

**Caroline Martz Lee, PHD, MD** Instructor in Medicine (primary appointment)

BS Knox College 2003

PHD University of North Carolina 2009

MD University of North Carolina 2011

**Chris Cheng-Fu Lee, PHD, MD** Associate Professor of Anesthesiology (primary appointment)

PHD Beijing Medical University 1991

MD Hubei Medical University 1985

**Constance Wye Leng Lee, MD** Instructor in Surgery (Pediatric Surgery) (primary appointment)

MD University of Virginia 2006

BS University of Virginia 2001

**Eileen May Lee, MD** Assistant Professor of Medicine (primary appointment)

BA University of Iowa 2002

MD University of Iowa 2006

**Gary G Lee, DOST** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS School Not Listed 1970

DOST School Not Listed 1976

**Jin-Moo Lee, MD** Professor of Neurology (primary appointment)

**Professor of Radiology**

MD Cornell University 1993

**Kim Lynette Lee** Instructor in Clinical Medicine (primary appointment)

BS Washington Univ in St. Louis 1979

**Michelle Lee** Assistant Professor of Radiology (primary appointment)

**Sena Lee, PHD** Assistant Professor of Medicine (Dermatology) (primary appointment)

PHD Rockefeller University 2002

**Steven F Lee, MD** Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

MD University of Maryland 1987

BS University of Maryland 1983

**Wang Sik Lee, PHD, MA** Assistant Professor of Medicine (primary appointment)

PHD Korea University Medical Coll 1990

MA Korea University Medical Coll 1982

BA Korea University Medical Coll 1978

**Yi-Shan Lee, MD, PHD** Asst Professor of Pathology and Immunology (primary appointment)

MD National Taiwan University 2000

PHD Duke University 2008

**Stephen S Lefrak, MD** Prof Emeritus of Medicine (primary appointment)

MD State University of New York 1965

BA Colgate University 1960

**Robert B Lehman** Instructor in Clinical Medicine (primary appointment)

BA Texas Tech University 1977

**Paula M Leiva, MD** Instructor in Radiology (primary appointment)

MD Univ Nacional de Cuyo 2000

**Fanee J Lekkas** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Walter Lemann III, MD** Associate Professor of Clinical Neurology (primary appointment)

MD Tulane University 1979

BS Yale University 1975

**Deborah J. Lenschow, MD, PHD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Pathology and Immunology**

MD University of Chicago 1998

PHD1 University of Chicago 1995

PHD University of Chicago 1995

MD1 University of Chicago 1998

**Eric J Lenze, MD** Professor of Psychiatry (primary appointment)

MD Washington Univ in St. Louis 1994

**Shannon N Lenze, PHD, MA** Assistant Professor of Psychiatry (primary appointment)

PHD University of Pittsburgh 2007

MA University of Pittsburgh 2003

**David Seamus Leonard, MBChB, MHA** Assistant Professor of Otolaryngology (primary



appointment)

MBCHB National University of Ireland 2000

BA Dartmouth College 1995

MHA Harvard University 2012

**Kathryn B Leonard, MD**Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)

MD Saint Louis University 2010

**F. Timothy Leonberger, PHD, MS**Instructor in Clinical Medical Psychology in Psychiatry (On Staff at Malcolm Bliss Mental Health Center) (primary appointment)

BA University of Illinois 1977

PHD Univ of Southern Mississippi 1986

MS Louisiana St University 1983

**Christina Lessov-Schlaggar, PHD**Assistant Professor of Psychiatry (primary appointment)

PHD Oregon Health Science Unvers 2000

**Nigel C Lester, MD**Instructor in Psychiatry (primary appointment)

MD University of Bristol 1994

**Alison M Leston, MD, PHD**Assistant Professor of Clinical Neurology (primary appointment)

MD Washington Univ in St. Louis 2001

BS University of Illinois 1990

PHD University of Chicago 2000

**Daisy W Leung, PHD**Assistant Professor of Pathology and Immunology (primary appointment)

Assistant Professor of Biochemistry and Molecular Biophysics

PHD University of Texas Southwest 2005

BS Amherst College 1997

**Eric Claude Leuthardt, MD**Professor of Neurological Surgery (primary appointment)

Professor of Neuroscience

Professor of Mechanical Engineering and Applied Science.

BS Saint Louis University 1995

MD University of Pennsylvania 1999

**Marc Stephen Levin, MD**Professor of Medicine (primary appointment)

MD Columbia University 1981

**Laurence A Levine, DDENT, MD, MA**Associate Professor of Clinical Otolaryngology (primary appointment)

DDENT New York University 1967

MD Albany Medical College 1971

MA Hofstra University 1963

**Mark D Levine, MD**Associate Professor of Emergency Medicine in Medicine (primary appointment)

MD New York University 1996

BA Washington Univ in St. Louis 1991

**Edward S Levy, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Washington Univ in St. Louis 1991

BA Duke University 1987

Jerome F LevyProfessor Emeritus of Surgery (General Surgery) (primary appointment)

Prof Emeritus of Surgery (General Surg) (primary appointment)

**Kenneth C Levy**Instructor in Clinical Pediatrics (primary appointment)

BA Emory University 1983

Morton A LevyAssoc Prof Emeritus Of Clinical Medicine (primary appointment)

**Philip Thaler Levy, MD**Adjunct Instructor in Pediatrics (primary appointment)

MD Tel-Aviv University 2003

BS Rutgers University 2001

**Amanda Lark Lewis, PHD** Assistant Professor of Molecular Microbiology (primary appointment)

**Assistant Professor of Obstetrics and Gynecology**

BS Cal Polytec San Luis Obispo 2001

PHD University of San Diego 2006

**Collins E Lewis, MD** Associate Professor Emeritus of Psychiatry (primary appointment)

**Assoc Prof Emeritus Of Psychiatry** (primary appointment)

BA Rutgers University 1967

MD Harvard University 1971

**Lawrence M Lewis, AA, MD** Professor of Emergency Medicine in Medicine (primary appointment)

AA University of Florida 1972

MD University of Miami 1976

**Scott W Lewis** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BS1 So Cal College of Optometry 1975

**Warren Graybill Lewis, PHD** Instructor in Medicine (primary appointment)

BS State Univ of NY Buffalo 1998

PHD Scripps Research Institute 2005

**Timothy J Ley** Lewis T and Rosalind B Apple Professor of Medicine (primary appointment)

**Professor of Genetics**

BA Drake University 1974

**Ellen Li, PHD, MD**

PHD Washington Univ in St. Louis 1980

BS Stanford University 1974

MD Washington Univ in St. Louis 1980

**Hua Li, PHD** Assistant Professor of Radiation Oncology (primary appointment)

BS Huazhong University of Science 1994

PHD Huazhong University of Science 2001

**Hui Li, MS** Associate Professor of Radiation Oncology (primary appointment)

MS Chinese Academy of Sciences 1995

**Li Li, MD, PHD** Instructor in Clinical Medicine (primary appointment)

MD Shanghai Medical University 1988

PHD Loyola University Chicago 1998

**Mingjie Li, MD, PHD** Assistant Professor of Neurology (primary appointment)

MD Heilong jiang Coll of Trad Med 1983

PHD Kochi Medical School 1989

**Shunqiang Li, PHD** Assistant Professor of Medicine (primary appointment)

PHD Chinese Academy of Med Science 1999

**Tingting Li, MD** Associate Professor of Medicine (primary appointment)

MD State Univ of NY Buffalo 1999

**Weikai Li, PHD, MS** Assistant Professor of Biochemistry and Molecular Biophysics (primary appointment)

PHD Yale University 2004

MS University of Tenn Chattanooga 1998

BS East China Univ of Sci & Tech 1993

**Wenjun Li** Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Min Lian, PHD** Assistant Professor of Medicine (primary appointment)

PHD Texas Tech University 2006



Stephen Yuan-Tung Liang **Assistant Professor of Medicine** (primary appointment)  
Steve Ming-Che Liao, MD **Assistant Professor of Pediatrics** (primary appointment)  
BS University of CA Los Angeles 1999  
MD Saint Louis University 2003  
Jeffery Lichtenhan, BA **Assistant Professor of Otolaryngology** (primary appointment)  
BAS University of Kansas 2000  
Amy K Licis, MD **Assistant Professor of Neurology** (primary appointment)  
MD Washington Univ in St. Louis 2004  
BS Rice University 2000  
James Walter Lieber **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary appointment)  
BS Wayne State University 1976  
David M Lieberman, MD **Assoc Prof Emeritus Of Clinical Medicine** (primary appointment)  
MD Vanderbilt University 1949  
Huiping C Lieser, PHD, MA **Instructor in Occupational Therapy** (primary appointment)  
PHD Kansas State University 2001  
MA Kansas State University 1994  
Charles H Lieu, MD **Instructor in Clinical Medicine** (primary appointment)  
MD State Univ of NY Buffalo 1993  
Judith E Lieu, MD **Associate Professor of Otolaryngology** (primary appointment)  
BS University of CA Davis 1988  
MD Washington Univ in St. Louis 1992  
Barry Light, MD **Associate Professor of Clinical Pediatrics** (primary appointment)  
BA University of Missouri 1973  
MD University of Missouri 1980  
Anna Lijowska, MD **Assistant Professor of Pediatrics** (primary appointment)  
MD Jagiellonian University 1988  
Stephen Bradley Lillard, MD **Instructor in Clinical Medicine** (primary appointment)  
MD Univ of Health Sciences KC 1970  
Michael Lillmars, DENT **Instructor in Clinical Otolaryngology (DDS)** (primary appointment)  
DENT Northwestern University 1984  
BA Drury College 1979  
Efrem S Lim, PHD **Instructor in Molecular Microbiology** (primary appointment)  
PHD University of Washington 2012  
BS University of Michigan 2008  
Kian-Huat Lim, PHD, MD **Assistant Professor of Medicine** (primary appointment)  
PHD Duke University 2006  
MD National Taiwan University 1999  
David D Limbrick Jr **Professor of Neurological Surgery** (primary appointment)  
**Professor of Pediatrics**  
BS College of William and Mary 1995  
Congxing Lin **Instructor in Medicine** (primary appointment)  
Hsiu-San Lin, PHD, MD **Professor Emeritus of Radiation Oncology** (primary appointment)  
**Prof Emeritus of Radiation Oncology** (primary appointment)  
PHD University of Chicago 1968  
MD National Taiwan University 1960  
Huawen Lin **Instructor in Genetics** (primary appointment)  
BS School Not Listed 1998

**John Chao-Chun Lin, MD** Assistant Professor of Pediatrics (primary appointment)

MD University of Virginia 1998

BS University of Virginia 1994

**Michael Fu-Yen Lin** Assistant Professor of Radiology (primary appointment)

BS Northwestern University 1995

**Michael Yun Lin, MD** Associate Professor of Medicine (primary appointment)

MD University of Iowa 1994

BA Harvard University 1990

**Yiing Lin, PHD, MD** Assistant Professor of Surgery (General Surgery) (primary appointment)

PHD Washington Univ in St. Louis 2005

MD Washington Univ in St. Louis 2005

BS Duke University 1997

**John T Lind, MS** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

BS Indiana University Indianapoli 1999

MS Purdue University 2000

Penelope Alatha Lind Adjunct Instructor in Psychiatry (primary appointment)

**Kathryn Jesseca Lindley, MD** Assistant Professor of Medicine (primary appointment)

BS University of Illinois 2003

MD Emory University 2007

**Brian Richard Lindman, MD, MA** Associate Professor of Medicine (primary appointment)

MD Vanderbilt University 2003

BS Duke University 1997

MA Reformed Theological Seminary 2001

**Christopher J Lingle** Professor of Anesthesiology (primary appointment)

Professor of Neuroscience

BS University of Oregon 1972

**Daniel C Link, MD** Alan A and Edith L Wolff Distinguished Professor of Medicine (primary appointment)

Professor of Pathology and Immunology

MD Univ of Wisconsin Milwaukee 1985

**Erin Lynn Linnenbringer, PHD** Instructor in Surgery (Public Health Sciences) (primary appointment)

BS1 Washington Univ in St. Louis 2000

MS1 Northwestern University 2003

PHD University of Michigan 2014

**Robert D Lins** Instructor in Clinical Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1965

**Michael Brayer Lippmann, MD** Professor of Medicine (primary appointment)

MD State University of New York 1977

BA State University of New York 1973

**Mauricio Lisker-Melman, MD** Professor of Medicine (primary appointment)

MD National Autonomous U of Mex 1980

**Jay L Liss, MD** Associate Professor of Clinical Psychiatry (primary appointment)

MD Washington Univ in St. Louis 1966

BA Washington Univ in St. Louis 1963

Mary Kathryn Liszewski Assistant Professor of Medicine (primary appointment)

**Howard S Lite, MD** Instructor in Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1977

MD University of Missouri 1983

**Patricia Elizabeth Litkowski, MD**Instructor in Medicine (primary appointment)

MD Washington Univ in St. Louis 2013

**Adam Daniel Littich, MD**Instructor in Medicine (primary appointment)

MD Saint Louis University 2009

**Blake Allen Little, MD**Instructor in Clinical Pediatrics (primary appointment)

MD University of MO Kansas City 1986

**John Russell Little Jr**Prof Emeritus of Medicine (primary appointment)

BA Cornell University 1952

**Marina Litvin**Assistant Professor of Medicine (primary appointment)

BA Washington Univ in St. Louis 2003

**Chang Liu, PHD, MD**Assistant Professor of Pathology and Immunology (primary appointment)

PHD Oregon Health Science Unvers 2010

MD Peking Union Medical College 2004

**Jianmei Liu, MS**Instructor in Clinical Medicine (primary appointment)

MS Shanghai Medical University 1987

**Qianjin Liu, MD, PHD**Assistant Professor of Anesthesiology (primary appointment)

MD Nanjing Medical University 1983

PHD Saint Louis University 1997

**Qin Liu, PHD**Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Ophthalmology and Visual Sciences**

PHD Chinese Academy of Sciences 2004

BS Wuhan University 1998

**Ta-Chiang Liu, MD, PHD**Assistant Professor of Pathology and Immunology (primary appointment)

MD National Yang-Ming University 1997

PHD Imperial College 2003

**Xinping Liu, MS, PHD**Instructor in Medicine (primary appointment)

MS Southeast Missouri St Unvers 1999

BS School Not Listed 1986

PHD Washington Univ in St. Louis 2005

**Yangjian Liu**Instructor in Developmental Biology (primary appointment)

**Ying Liu, MD, PHD**Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

MD Southeast U Medical School 1995

PHD Texas Tech University 2006

**Yongjian Liu, PHD, MS**Assistant Professor of Radiology (primary appointment)

PHD University of Missouri Columbi 2007

MS Zhejiang Medical University 2000

BS Henan Normal University 1997

**Rebecca Lobb, PHS**Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

PHS Harvard University 2009

**Adam Edward Locke, PHD**Assistant Professor of Medicine (primary appointment)

PHD Emory University 2010

BA Lawrence University 2003

**Albert C Lockhart, MHS, MD**Professor of Medicine (primary appointment)

BA Rice University 1989

MHS Duke University 2001

MD University of Texas Dallas 1993

**Ellen M Lockhart**Professor of Anesthesiology (primary appointment)

**Vice Chairman of Anesthesiology**

**Amy Loden, MD**Instructor in Medicine (primary appointment)

MD University of MO Columbia 2010

**Jennifer K Lodge, PHD**Professor of Molecular Microbiology (primary appointment)

**Vice Chancellor for Research**

**Vice Chancellor for Research**

**Associate Dean for Research**

**Associate Dean for Research**

BS Oberlin College 1979

PHD Washington Univ in St. Louis 1988

**Irfan J Lodhi, PHD, MS**Assistant Professor of Medicine (primary appointment)

PHD University of Michigan 2007

BS University of Michigan 1993

MS Wayne State University 1996

**Lola J Loeb, MA, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MA California State Dominguez 1992

MD KANSAS U SCHOOL OF MEDICINE 2000

BS Loyola Marymount University 1988

**Arthur D Loewy, PHD**Professor of Anatomy and Neuroscience (primary appointment)

BA Lawrence University 1964

PHD Univ of Wisconsin Madison 1969

**Beverly A Logan-Morrison**Instructor in Clinical Medicine (primary appointment)

BA Webster University 1976

**Timothy M Lohman**Brennecke Professor of Biophysics in Biochemistry and Molecular Biophysics (primary appointment)

BA Cornell University 1973

**Andrea Loiselle, MD, M PH**Assistant Professor of Medicine (primary appointment)

BS University of California 1995

MD Drexel University 2005

M PH California State University 1999

**Jane Loitman, MS, MD**Assistant Professor of Clinical Neurology (primary appointment)

**Instructor in Clinical Medicine**

MS Georgetown University 1988

MD University of Minnesota 1992

BA Tufts University 1982

**Alan M Londe, MD**Instructor in Clinical Surgery (General Surgery) (primary appointment)

MD Washington Univ in St. Louis 1961

**Stanley L London, MD**Associate Professor Emeritus of Clinical Surgery (General Surgery) (primary appointment)

**Assoc Prof Emeritus of Clin Surg (Gen Surg)** (primary appointment)

MD Washington Univ in St. Louis 1949

**Fanxin Long, PHD**Professor of Orthopaedic Surgery (primary appointment)

**Professor of Developmental Biology**

**Professor of Medicine**

PHD Tufts University 1997

**Jeremiah Robert Long, MD**Assistant Professor of Radiology (primary appointment)

BS University of Notre Dame 1999

MD Georgetown University 2004

**Gregory D Longmore, MD, MS** Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

MD McGill University 1983

BS University of Western Ontario 1977

MS University of Toronto 1979

**Maurice J Lonsway Jr, MD** Prof Emeritus Of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1950

BA Washington Univ in St. Louis 1946

**Dwight C Look, MD** Professor of Medicine (primary appointment)

MD University of MO Kansas City 1985

BA University of MO Kansas City 1985

**James F Loomis Jr, MD, MBA** Instructor in Clinical Medicine (primary appointment)

MD University of Arkansas 1985

BA Hendrix College 1981

MBA Washington Univ in St. Louis 1997

**Glenn Lopate, MD** Professor of Neurology (primary appointment)

BS Colorado St University 1983

MD Ohio State University 1987

**Ramon Alberto Lorca** Instructor in Obstetrics and Gynecology (Pending Dean's Approval) (primary appointment)

BS Universidad Catolica Del Norte 2001

**Jerry L Lowder, MD** Associate Professor of Obstetrics and Gynecology (primary appointment)

MD East Carolina University 1999

**Robert Douglas Lowe, DDEnt** Instructor in Clinical Otolaryngology (DMD) (primary appointment)

DDEnt Washington Univ in St. Louis 1982

BA Washington Univ in St. Louis 1977

**Jeffrey A Lowell, MD** Prof Emeritus of Surgery (primary appointment)

BA Oberlin College 1981

MD Yale University 1985

**Esther Jiaxin Lu, PHD, MS** Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

**Assistant Professor of Biostatistics**

PHD Medical College of Wisconsin 2007

MS National Univ of Singapore 2002

BS Nankai University 1997

**Olga Y. Lubman, PHD** Instructor in Pathology and Immunology (primary appointment)

BA Goucher College 1998

PHD Washington Univ in St. Louis 2002

BS Goucher College 1998

**Anthony J Lubniewski, MD** Professor of Ophthalmology and Visual Sciences (primary appointment)

BS University of Florida 1980

MD University of Florida 1985

**Herbert Lubowitz, MD** Associate Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1958

BA Clark University 1954

**Joan L Luby, MD** Professor of Psychiatry (Child Psychiatry) (primary appointment)

BA Brown University 1981

MD Wayne State University 1985

**Brendan Patrick Lucey, MD** Assistant Professor of Neurology (primary appointment)

BA University of Vermont 1999

MD John Hopkins University 2003

**Philip A Ludbrook, MBBS** Professor Emeritus of Medicine (primary appointment)

**Prof Emeritus of Medicine** (primary appointment)

**Professor Emeritus of Psychiatry**

MBBS University of Adelaide 1963

BS School Not Listed 1957

**Kenneth M Ludmerer, MA** Professor of Medicine (primary appointment)

**Mabel Dorn-Reeder Distinguished Professor of the History of Medicine**

MA Johns Hopkins University 1971

**Mark A Ludwig, MD** Instructor in Clinical Surgery (General Surgery) (primary appointment)

MD University of Chicago 1976

BA Emory University 1972

**Lauren Michelle Ludwig Lee, MD** Instructor in Clinical Medicine (primary appointment)

MD University of MO Kansas City 2008

**Gregg T Lueder, MD** Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Pediatrics**

MD University of Iowa 1985

BS Iowa State University 1981

**Susan L Luedke, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Rochester 1972

**Scott J Luhmann, MD** Professor of Orthopaedic Surgery (primary appointment)

MD University of Minnesota 1991

BA Gustavus Adolphus College 1986

**Peter David Lukasiewicz, PHD** Janet and Bernard Becker Professor of Ophthalmology (primary appointment)

**Professor of Neuroscience**

PHD University of Michigan 1984

BS Brown University 1977

**Clifford James Luke, PHD** Associate Professor of Pediatrics (Pending Executive Faculty Approval) (primary appointment)

PHD University of Surrey 1999

BS University of Liverpool 1994

**Jingqin Luo, PHD, MS** Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

**Assistant Professor of Biostatistics**

**Assistant Professor of Medicine**

PHD Duke University 2006

MS Renmin University of China 2001

MS1 Duke University 2003

BS Renmin University of China 1998

**Patrick Joseph Lustman, PHD** Professor of Psychiatry (primary appointment)

**Professor of Psychological & Brain Sciences**

BA University of Illinois 1972

PHD Michigan State University 1980

**Barbara A Lutey, MD, MLS** Assistant Professor of Medicine (primary appointment)

BA Indiana University Bloomington 1982



MD University of Iowa 1999  
MLS Indiana University Bloomington 1983  
Christopher Raymond Lynch **Instructor in Clinical Medicine** (primary appointment)  
**John P Lynch, MD** **Professor of Medicine** (primary appointment)  
BA Saint Louis University 1983  
MD Georgetown University 1989  
**Michael T. Lynskey, PHD, MS** **Adjunct Professor of Psychiatry** (primary appointment)  
PHD School Not Listed 1997  
BS School Not Listed 1987  
MS University of Canterbury 1989  
**Alan P Lyss, MD** **Associate Professor of Clinical Medicine** (primary appointment)  
MD Washington Univ in St. Louis 1976  
BA Washington Univ in St. Louis 1972  
Carl A Lyss **Assistant Professor of Clinical Medicine** (primary appointment)  
**Cynthia Xiuguang Ma, PHD, MD** **Associate Professor of Medicine** (primary appointment)  
PHD University of Cincinnati 1997  
MD Beijing Medical University 1990  
**Hongming Ma, MS, PHD** **Instructor in Medicine** (primary appointment)  
BA Qufu Normal University 1993  
MS Fudan University 1996  
PHD Ocean University of China, Qin 2004  
**Liang Ma, PHD** **Associate Professor of Medicine (Dermatology)** (primary appointment)  
**Associate Professor of Developmental Biology**  
PHD University of CA Los Angeles 1995  
BA University of CA Berkeley 1989  
Ningning Ma **Instructor in Medicine** (primary appointment)  
**Richard W Maack, MD** **Instructor in Clinical Otolaryngology** (primary appointment)  
BS Muhlenberg College 1981  
MD University of Maryland 1985  
**Robert R Mac Donald III, MD** **Instructor in Clinical Otolaryngology** (primary appointment)  
MD Washington Univ in St. Louis 1993  
BA Duke University 1989  
**Shannon L. Macauley-Rambach, PHD** **Assistant Professor of Neurology** (primary appointment)  
PHD Washington Univ in St. Louis 2009  
BS Middlebury College 1999  
**Luigi Maccotta, MD, PHD** **Assistant Professor of Neurology** (primary appointment)  
BS St Peters College 1994  
MD Washington Univ in St. Louis 2005  
PHD Washington Univ in St. Louis 2005  
**Donna Alexandra MacDuff, PHD** **Instructor in Pathology and Immunology** (primary appointment)  
PHD University of Minnesota 2008  
**Matthew R. MacEwan, PHD** **Assistant Professor of Neurosurgery (Pending Executive Faculty Approval)** (primary appointment)  
PHD Washington Univ in St. Louis 2015  
BS Case Western Reserve Univ 2004  
Colin Mackenzie **Instructor in Clinical Psychiatry** (primary appointment)  
**Lisa Marie Mackey** **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary appointment)

BA University of Kansas 1989

**Susan E Mackinnon, MD** Sydney M., Jr. and Robert H. Shoenberg Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)

**Professor of Otolaryngology**

**Professor of Occupational Therapy**

BA Queens College 1971

MD Queen's University 1975

**George Andrew Macones, MD, MS** Mitchell and Elaine Yanow Professor of Obstetrics and Gynecology (primary appointment)

**Head of the Department of Obstetrics and Gynecology**

MD Jefferson Medical College 1988

BS University of Pennsylvania 1984

MS University of Pennsylvania 2006

**Julie Kathleen MacPhee, MD** Instructor in Clinical Medicine (primary appointment)

MD Albert Einstein College of Med 2008

BS Trinity College 2003

John C. Madden Instructor in Clinical Pediatrics (primary appointment)

**Pamela A Madden, PHD, MS** Professor of Psychiatry (primary appointment)

PHD University of Pittsburgh 1992

MS University of Pittsburgh 1983

BS University of Pittsburgh 1978

**Tessa E Madden, MD, M PH** Associate Professor of Obstetrics and Gynecology (primary appointment)

BS Smith College 1995

MD Washington Univ in St. Louis 2001

M PH Johns Hopkins University Med 2006

**Blair B Madison, PHD** Assistant Professor of Medicine (primary appointment)

PHD University of Michigan 2005

BS Washington Univ in St. Louis 1998

**Jeffrey A Magee, PHD, MD** Assistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Genetics**

PHD Washington Univ in St. Louis 2005

MD Washington Univ in St. Louis 2005

**William Edwin Magee, MD** Associate Professor of Clinical Medicine (primary appointment)

MD Duke University 1950

**Leonard B Maggi Jr, PHD** Assistant Professor of Medicine (primary appointment)

BA Cornell College 1995

PHD Saint Louis University 2001

BA1 Cornell College 1995

Jambunathan Mahadevan Instructor in Clinical Medicine (primary appointment)

**Christopher A Maher, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Director of The Genome Institute**

PHD Stony Brook School of Medicine 2006

**Nicole Maher, PHD** Instructor in Medicine (primary appointment)

PHD Case Western Reserve Univ 2007

BA Ithaca College 1998

Mohamed Mahjoub Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Cell Biology and Physiology**



**Robert John Mahoney, MD** Associate Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1997

BA Princeton University 1993

**Baijayanta Maiti** Instructor in Neurology (Pending Dean's Approval) (primary appointment)

**Elaine Michelle Majerus, MD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Cell Biology and Physiology**

BA Washington Univ in St. Louis 1986

MD Saint Louis University 1998

BS Washington Univ in St. Louis 1986

**John E Majors, PhD** Prof Emeritus of Biochem & Molecular Biophysic (primary appointment)

PHD Harvard University 1977

BS University of Washington 1970

**Majesh Makan, MD** Associate Professor of Medicine (primary appointment)

MD Univ of Panama School of Med 1984

**Kamlesh R Makwana, DDENT** Instructor in Clinical Otolaryngology (DDS) (primary appointment)

BA Univ of Wisconsin Madison 1992

DDENT Marquette University 1996

**Ranjan P Malhotra, MD** Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

MD University of Missouri 1995

**Mohsin Ilyas Malik, MBBS** Instructor in Clinical Medicine (primary appointment)

MBBS Army Medical College 1999

**Virgil Lee Malmberg, MD, MS** Instructor in Clinical Psychiatry (primary appointment)

MD University of Missouri 1978

MS University of Illinois 1970

BS University of Illinois 1968

**Andrew F. Malone** Assistant Professor of Medicine (primary appointment)

BA Trinity College Dublin 2000

MBCB1 Royal College of Surgeons 2005

**Jay Randolph Malone, MD** Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)

BS University of Oklahoma 2005

MD University of Oklahoma 2009

**Horacio M Maluf** Associate Professor of Pathology and Immunology (primary appointment)

**Daniel T. Mamah** Assistant Professor of Psychiatry (primary appointment)

**Maria Maminta-Streiff** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Mark John Manary, MD** Helene B. Roberson Professor of Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1982

BS Mass Inst of Technology (MIT) 1977

**Mary Elizabeth Mani** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA Washington Univ in St. Louis 1980

**Naganathan B Mani, MBBS, MS** Assistant Professor of Radiology (primary appointment)

MBBS Tamilnadu Medical University 1995

MS PGIMER 1999

**Hersh Maniar, MD** Associate Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Associate Professor of Medicine**

MD University of Illinois 1998

BS University of Michigan 1994

**Shivaprasad Gowda Manjappa, MBBS**Instructor in Clinical Medicine (primary appointment)  
MBBS Medical College of India 2004

**Caroline Mann, MS, MD**Associate Professor of Medicine (Dermatology) (primary appointment)  
BS Indiana University Bloomington 1986  
MS Sarah Lawrence College 1988

MD Indiana University Bloomington 1993

**Douglas L. Mann, MD**Tobias and Hortense Lewin Professor of Medicine (primary appointment)  
**Professor of Cell Biology and Physiology**

MD Temple University 1979

BA Lafayette College 1973

**Marshall S Manne, DDENT, MS**Instructor in Clinical Otolaryngology (DDS) (primary appointment)

DDENT Washington Univ in St. Louis 1960

BA Washington Univ in St. Louis 1956

MS Indiana University Bloomington 1964

**Peter Bruce Manning, MD**Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

BS Bucknell University 1978

MD University of Michigan 1982

**Scott R. Manson, PHD**Instructor in Surgery (Urologic Surgery) (primary appointment)

BS University of Illinois 1999

PHD Washington Univ in St. Louis 2007

**George Mansour, MD**Instructor in Medicine (primary appointment)

MD Tishreen Univ College of Med 2010

**John F Mantovani, MD**Associate Professor of Clinical Neurology (primary appointment)

**Assistant Professor of Clinical Pediatrics**

BA University of Evansville 1971

MD University of Missouri 1974

**Tanying Mao, MD**Instructor in Anesthesiology (primary appointment)

MD Baylor College of Medicine 2010

**Xianrong Mao, MS**Instructor in Genetics (primary appointment)

MS Chinese Academy of Sciences 1996

Soe S Mar**Associate Professor of Neurology** (primary appointment)

**Associate Professor of Pediatrics**

**Daniel Scott Marcus, PHD**Associate Professor of Radiology (primary appointment)

BS Washington Univ in St. Louis 1995

PHD Washington Univ in St. Louis 2001

BA Washington Univ in St. Louis 1995

**Elaine Rene Mardis, PHD**Adjunct Professor of Genetics (primary appointment)

BS University of Oklahoma 1984

PHD University of Oklahoma 1989

**Julie Ann Margenthaler, MD**Professor of Surgery (General Surgery) (primary appointment)

MD Southern Illinois University 1997

BA Boston University 1993

**Robert P Margolis, MD**Assistant Professor of Clinical Neurology (primary appointment)

MD Saint Louis University 1975

BA Kent St University 1971

**Sarah K Margolis, MD**Associate Professor of Clinical Medicine (primary appointment)

MD State University of New York 1989

BA Barnard College 1984

**Todd P Margolis, PHD, MD** Alan A and Edith L Wolff Distinguished Professor (primary appointment)

**Head of the Department of Ophthalmology and Visual Sciences**

PHD University of CA San Francisco 1983

BS Stanford University 1977

MD University of CA San Francisco 1984

**Joanne Markham, MS** Associate Professor of Radiology (primary appointment)

BA Centre College 1963

MS Washington Univ in St. Louis 1973

**Stephanie Markovina, MD** Assistant Professor of Radiation Oncology (primary appointment)

MD University of Wisconsin-Madison 2010

**Natasha M.V. Marrus, PHD, MD** Assistant Professor of Psychiatry (primary appointment)

BA University of Southern Calif 1999

PHD Washington Univ in St. Louis 2007

MD Washington Univ in St. Louis 2007

BS University of Southern Calif 1999

**Jonas Marschall, MD** Adjunct Assistant Professor of Medicine (primary appointment)

MD University of Basel 1996

**Bess Adkins Marshall, MD** Professor of Pediatrics (primary appointment)

**Professor of Cell Biology and Physiology**

BS Vanderbilt University 1982

MD Vanderbilt University 1986

**Garland R Marshall** Professor of Biochemistry and Molecular Biophysics (primary appointment)

**Professor of Biomedical Engineering**

BS California Institute Technolo 1962

**Jay Phillips Marshall II, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD University of Missouri 1972

BA De Paul University 1968

**Ann G Martin** Associate Professor of Medicine (Dermatology) (primary appointment)

BS University of Notre Dame 1977

**Carolyn Marie Martin, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

BA Lindenwood College 1970

MD Washington Univ in St. Louis 1976

**Jeffrey Wackher Martin, MD** Associate Professor in Orthopaedic Surgery (Pending Executive Faculty Approval) (primary appointment)

MD Case Western Reserve Univ 1981

**John Barlow Martin, MD** Assoc Prof Emeritus Of Clinical Ob & Gyn (primary appointment)

BA Amherst College 1951

MD Washington Univ in St. Louis 1955

**Megan Spokes Martin, MD** Instructor in Pediatrics (primary appointment)

BA University of Notre Dame 2007

MD University of Kansas 2012

**Nathan Russell Martin, MD** Assistant Professor of Medicine (primary appointment)

MD University of Texas Southwest 2005

BA University of Pennsylvania 2001

Nicholas Gordon Martin Adjunct Instructor in Psychiatry (primary appointment)

**Philip Latham Martin, MD** Associate Professor of Clinical Otolaryngology (primary appointment)

MD Saint Louis University 1968

**Thomas F Martin, MD** Associate Professor of Clinical Medicine (primary appointment)

MD Saint Louis University 1965

BS Saint Louis University 1961

**Wade H Martin III, MD** Associate Professor of Medicine (primary appointment)

BA University of Kansas 1973

MD University of Kansas 1977

**Jerald Arthur Maslanko, MD** Instructor in Clinical Medicine (primary appointment)

MD Emory University 1975

**Mary Vest Mason, MD, MBA** Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1994

MBA Washington Univ in St. Louis 1999

BS University of Illinois 1990

**Muhammad Faraz Masood, MD** Assistant Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

MD Dow Medical College Karachi 2001

**Joan Alice Mass, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD Temple University 1977

BA Washington Univ in St. Louis 1971

**Leslie Stewart Massad, MD** Professor of Obstetrics and Gynecology (primary appointment)

BS Williams College 1980

MD Duke University 1984

**Matthew J Matava, MD** Professor of Orthopaedic Surgery (primary appointment)

**Professor of Physical Therapy**

BA University of MO Kansas City 1986

MD University of MO Kansas City 1987

**Alicia B Matayoshi** Instructor in Clinical Otolaryngology (DDS) (primary appointment)

**Stanley Mathew, MBBS** Instructor in Clinical Medicine (primary appointment)

MBBS Kerala University 1991

**F. Scott Mathews, PHD** Prof Emeritus of Biochem & Molec Biophysics (primary appointment)

BS University of California 1955

PHD University of Minnesota 1959

**Jose Mathews, MD** Assistant Professor of Psychiatry (primary appointment)

MD Delhi University 1993

**Patrice Mathews, MD** Instructor in Clinical Pediatrics (primary appointment)

BA Trinity University 1984

MD University of Oklahoma 1988

**Amit Mathur, MBBS** Professor of Pediatrics (primary appointment)

MBBS Delhi University 1982

BS Delhi University 1976

**Scot J. Matkovich, PHD** Assistant Professor of Medicine (primary appointment)

BA University of Melbourne 1995

BS University of Melbourne 1996

PHD University of Melbourne 2000

**Anthony J-P Mattaline, DOST** Assistant Professor of Clinical Medicine (primary appointment)

BA St Edwards University 1979

BS Northeast Missouri St Univrsty 1981

DOST School Not Listed 1985

**Caline Mattar, MD**Instructor in Medicine (primary appointment)

MD American University of Beirut 2010

BS American University of Beirut 2006

**Claire Matthews, MA, PHD**Adjunct Assistant Professor of Otolaryngology (Speech Pathology)

(primary appointment)

MA University of Kansas 1978

BA University of Kansas 1969

PHD University of Kansas 1980

**Gregory Warren Mattingly, MD**Assistant Professor of Clinical Psychiatry (primary appointment)

BS University of Missouri 1985

MD Washington Univ in St. Louis 1989

**Henry E Mattis, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1975

**Marvin M Maurer Jr, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1968

MD Washington Univ in St. Louis 1972

**Thin Thin Maw, MS, MBBS**Assistant Professor of Medicine (primary appointment)

MS Long Island University Brookl 2008

MBBS Institute of Medicine 2004

**Ariane E May, MD**Associate Professor of Clinical Pediatrics (primary appointment)

BA Tufts University 1983

MD School Not Listed 1993

**Kara H Mayes**Instructor in Clinical Medicine (primary appointment)

**Ben R Mayes Jr, MD**Assistant Professor of Clinical Radiology (primary appointment)

MD Washington Univ in St. Louis 1966

**Thomas Rolf Mazur, PHD**Instructor in Radiation Oncology (Pending Dean's Approval) (primary appointment)

PHD University of Texas Austin 2014

**John E. Mazuski, PHD, MD**Professor of Surgery (General Surgery) (primary appointment)

PHD University of Minnesota 1993

MD University of CA Los Angeles 1981

**Pietro Mazzoni, PHD, MD**Associate Professor of Neurology (primary appointment)

PHD Mass Inst of Technology (MIT) 1994

BS University of CA San Diego 1988

MD Harvard University 1995

**Gabriel Mbalaviele, PHD, MA**Associate Professor of Medicine (primary appointment)

PHD University of Paris 1992

MA School Not Listed 1987

**James P Mc Carter, MD, PHD**Adjunct Professor of Genetics (primary appointment)

MD Washington Univ in St. Louis 1998

BA Princeton University 1989

PHD Washington Univ in St. Louis 1998

**Audrey McAlinden, PHD**Associate Professor of Orthopaedic Surgery (primary appointment)

**Associate Professor of Cell Biology and Physiology**

PHD University of London 1998

**Rebecca P McAlister, MD**Professor of Obstetrics and Gynecology (primary appointment)

**Associate Dean for Graduate Medical Education**

MD University of Kentucky 1979

BS University of Kentucky 1977

William H McAlister **Professor of Radiology** (primary appointment)

**Professor of Radiology in Pediatrics**

James Patterson McAllister, PHD **Professor of Neurological Surgery** (primary appointment)

PHD Purdue University 1976

BA Earlham College 1970

John D McAllister, MD **Professor of Anesthesiology** (primary appointment)

**Professor of Pediatrics**

MD University of Manitoba 1980

BS University of Manitoba 1982

Steven Joseph McAnany, MD **Assistant Professor of Orthopaedic Surgery (Pending Executive Faculty Approval)** (primary appointment)

MD Mount Sinai School of Medicine 2010

Christopher M McAndrew, MD **Assistant Professor of Orthopaedic Surgery** (primary appointment)

MD University of Tennessee 2004

Jina L McAtee **Assistant Professor of Clinical Pediatrics** (primary appointment)

Mark P. McAvoy, MEE, PHD **Assistant Professor of Radiology** (primary appointment)

MEE Southern Illinois University 1993

PHD Southern Illinois University 1998

BS University of Illinois 1991

Megan McBride **Instructor in Clinical Pediatrics** (primary appointment)

Sarah Howe McBride, PHD, MS **Adjunct Instructor in Orthopaedic Surgery** (primary appointment)

BS Clemson University 2004

PHD Case Western Reserve Univ 2011

MS Case Western Reserve Univ 2008

Jennifer Ann McCabe **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)

BS Saint Louis University 2001

Marcia June McCabe, PHD, MA **Associate Professor of Psychiatry** (primary appointment)

PHD University of Missouri 1991

BA Washburn University 1985

MA University of Missouri 1987

Kimberli McCallum, MD **Assistant Professor of Clinical Psychiatry (Child Psychiatry)** (primary appointment)

BS Brown University 1981

MD Yale University 1986

Timothy Joseph McCann, MD **Instructor in Clinical Medicine** (primary appointment)

BS Saint Louis University 1980

MD American Univ of the Caribbean 1984

Scott A McClain, DDENT **Instructor in Clinical Otolaryngology (DDS)** (primary appointment)

BS Graceland College 1987

DDENT University of Missouri 1991

Donte D McClary, MD **Instructor in Clinical Medicine** (primary appointment)

MD Meharry Med College 1998

BS Xavier University 1993

Jonathan E McConathy, PHD, MD **Adjunct Assistant Professor of Radiology** (primary appointment)

PHD Emory University 2003

BS University of North Carolina 1995

MD Emory University 2004



**Jeremy James McCormick, MD** Assistant Professor of Orthopaedic Surgery (primary appointment)

MD Loyola University Chicago 2003

BS Dartmouth College 1999

**Molly Ann McCormick** Assistant Professor of Anesthesiology (primary appointment)

**Scott McCormick III, MD** Assistant Professor of Clinical Psychiatry (primary appointment)

MD University of Chicago 1985

BA Coe College 1981

**Carolyn Kay McCourt, MD** Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD Creighton University 2001

BS Creighton University 1997

**Douglas E McCoy, MD** Instructor in Clinical Psychiatry (primary appointment)

BS Eastern Illinois University 1986

MD Southern Illinois University 1990

**Leslie Rose McCrary-Etuk, MD** Instructor in Clinical Medicine (primary appointment)

MD New York Medical College 2001

**Vivia Van Dyne McCutcheon, MS, PHD** Assistant Professor of Psychiatry (primary appointment)

BA Ohio State University 1985

MS Washington Univ in St. Louis 2001

PHD Washington Univ in St. Louis 2005

**Eric Martin McDade, DOST** Assistant Professor of Neurology (primary appointment)

BA Canisius College 1998

DOST Chicago Coll of OsteopathicMed 2004

**Daniel S McDonald, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS Yale University 1984

MD University of Missouri 1989

**Douglas J. McDonald, MD** Professor of Orthopaedic Surgery (primary appointment)

BS St Johns University 1978

MD University of Minnesota 1982

**Jay R. McDonald, MD** Assistant Professor of Medicine (primary appointment)

MD Oregon Health Science Unvers 1998

BA Duke University 1991

BS Portland St University 1994

**Debra Ann McDonnell, MS, DPT, AS** Associate Professor of Emergency Medicine in Medicine (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Associate Professor of Physical Therapy**

BS Washington Univ in St. Louis 1990

MS Washington Univ in St. Louis 1990

DPT Washington Univ in St. Louis 2005

AS Oakton Community College 2000

**Mary Kate McDonnell, DPT, MHS** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Associate Director of Residencies and Fellowships in Physical Therapy**

BS Saint Louis University 1981

DPT Washington Univ in St. Louis 2003

MHS Washington Univ in St. Louis 1985

**Cheryl Riddle McDonough, MD** Instructor in Medicine (primary appointment)

BS Vanderbilt University 1997

MD University of Tennessee 2001

**Colleen McEvoy, MD**Assistant Professor of Medicine (primary appointment)

BS Fairfield University 2004

MD University of MO Columbia 2008

Steven D McGaughey**Instructor in Pediatrics** (primary appointment)

Carli Laura McGe**Instructor in Pediatrics** (primary appointment)

Patricia Navarro McGee**Assistant Professor of Physical Therapy** (primary appointment)

**Assistant Professor of Orthopaedic Surgery**

**Bryan Edward McGill, MD**Instructor in Neurology (primary appointment)

**Instructor in Pediatrics**

MD Baylor University 2008

BS Denison University 1999

**Janet B McGill, MA, MD**Professor of Medicine (primary appointment)

BS University of Michigan 1972

MA Northern Michigan University 1980

MD Michigan State University 1979

**Murray D McGrady, MD**Instructor in Clinical Otolaryngology (primary appointment)

MD University of Illinois 1986

BS University of Illinois 1982

**Mark E. McGranahan, MD**Instructor in Clinical Pediatrics (primary appointment)

MD Saint Louis University 1997

**Patricia A McGuire, MD**Instructor in Clinical Surgery (Plastic and Reconstructive Surgery)  
(primary appointment)

MD University of Missouri 1985

**Leslie Denise McIntosh, PHD, MA**Assistant Professor of Pathology and Immunology (primary appointment)

PHD Saint Louis University 2008

BA Texas A&M University 1993

MA Saint Louis University 2006

**Jonathan L McJunkin, MD**Assistant Professor of Otolaryngology (primary appointment)

BS Northwestern University 2001

MD Jefferson Medical College 2005

**Oliver McKee, MD**Instructor in Clinical Medicine (Dermatology) (primary appointment)

MD School Not Listed 1981

BA McGill University 1975

**Clark R McKenzie, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Missouri 1989

BA University of Missouri 1989

Heather McKenzie**Assistant Professor of Anesthesiology** (primary appointment)

**John W McKinney, MD**Instructor in Clinical Otolaryngology (primary appointment)

BA School Not Listed

BS Southeast Missouri St Unvers 1975

MD University of Missouri 1979

**Joseph K McKinney, MD**Assoc Prof Emeritus Of Clinical Psychiatry (primary appointment)

MD Washington Univ in St. Louis 1958

BA Westminster College 1954

**Thomas Casey McKinney, MD**Professor of Clinical Pediatrics (primary appointment)



MD Washington Univ in St. Louis 1980

BA Illinois Wesleyan University 1976

Robert Carolin McKinstry III **Professor of Radiology** (primary appointment)

**Professor of Pediatrics**

Robert M McMahon **Instructor in Clinical Medicine** (primary appointment)

**William A McManus, MD** **Assistant Professor of Pediatrics** (primary appointment)

MD Saint Louis University 1986

BA Carroll College 1980

**Marie Elizabeth McNeely, PHD** **Assistant Professor of Physical Therapy** (primary appointment)

**Assistant Professor of Neurology**

BS Ohio Wesleyan University 2008

PHD Washington Univ in St. Louis 2012

**Colleen Patricia McNicholas, DOST** **Assistant Professor of Obstetrics and Gynecology** (primary appointment)

DOST Kirksville College of Osteopat 2007

BS Benedictine University 2003

Christopher Clayton McPherson **Assistant Professor of Clinical Pediatrics** (primary appointment)

**Amy McQueen** **Assistant Professor of Medicine** (primary appointment)

BA University of CA San Diego 1996

**Robert Paul Mecham, PHD** **Alumni Endowed Professor of Cell Biology and Physiology** (primary appointment)

**Professor of Medicine**

**Professor of Biomedical Engineering**

**Professor of Pediatrics**

PHD Boston University 1977

BS University of Utah 1973

**Denise Andrea Meckler, MD** **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)

MD Ohio State University 1992

**Gerald Medoff, MD** **Professor Emeritus of Medicine** (primary appointment)

**Prof Emeritus of Medicine** (primary appointment)

MD Washington Univ in St. Louis 1962

BA School Not Listed 1958

Nalini K Mehta **Instructor in Clinical Pediatrics** (primary appointment)

**Neha Mehta-Shah, MD** **Assistant Professor of Medicine** (primary appointment)

MD Northwestern University Med 2009

**Konrad Meissner, MBBS** **Adjunct Instructor in Anesthesiology** (primary appointment)

MBBS University of Leipzig 1998

**Spencer J Melby** **Assistant Professor of Surgery (Cardiothoracic Surgery)** (primary appointment)

BS Brigham Young University 1997

**Vincent Michael Mellnick, MD** **Assistant Professor of Radiology** (primary appointment)

BS University of Notre Dame 2002

MD University of Texas Houston 2006

**Anibal G Melo, MD** **Instructor in Clinical Medicine** (primary appointment)

MD Washington Univ in St. Louis 1991

**Gary Jay Meltz, MD** **Instructor in Clinical Medicine** (primary appointment)

BA University of Missouri 1972

MD University of Miami 1977

**Karyn Naomi Meltz Steinberg, PHD**Instructor in Medicine (primary appointment)  
PHD Emory University 2009

**Robert S Mendelsohn**Associate Professor of Clinical Medicine (primary appointment)

**David F Mendelson, MD**Asst Prof Emeritus Of Clinical Neurology (primary appointment)  
MD Indiana University Bloomington 1948

**Maithilee D Menezes, MD**Assistant Professor of Otolaryngology (primary appointment)  
BS Grinnell College 1997  
MD Grinnell College 2002

**Christine Onsy Menias, MD**Adjunct Professor of Radiology (primary appointment)  
BS1 Marquette University 1990  
MD George Washington University 1995

**Steven James Mennerick, PHD**Professor of Psychiatry (primary appointment)  
**Professor of Neuroscience**  
PHD Washington Univ in St. Louis 1995  
BA Earlham College 1988

**Paul A Mennes, MD**Professor of Clinical Medicine (primary appointment)  
BS Univ of Wisconsin Madison 1966  
MD Washington Univ in St. Louis 1970

**P Aravindaksha Menon**Instructor in Clinical Pediatrics (primary appointment)

**David Norman Menton, PHD**Assoc Prof Emeritus Of Anatomy (primary appointment)  
PHD Brown University 1966

**Ronald L Mera, MD**Instructor in Clinical Medicine (primary appointment)  
MD School Not Listed 1976  
BS School Not Listed 1970

**Robert W Mercer, PHD**Professor of Cell Biology and Physiology (primary appointment)  
BA San Jose State University 1974  
PHD Syracuse University 1980

**Sarah J. Mermelstein, MD**Instructor in Pediatrics (primary appointment)  
MD Drexel University 2007  
BA Indiana University Bloomington 2002

**Theodore Merrims, MD**Instr Emeritus In Clinical Ob & Gyn (primary appointment)  
MD Washington Univ in St. Louis 1954  
BS Washington Univ in St. Louis 1949

**Diane F Merritt, MD**Professor of Obstetrics and Gynecology (primary appointment)  
MD New York University 1975  
BS Miami University 1971

**Sara Hargarten Mesick, MD**Instructor in Anesthesiology (Pending Dean's Approval) (primary appointment)  
MD Washington Univ in St. Louis 2012

**Elizabeth Sarah Messer, MD**Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)  
BS Washington Univ in St. Louis 2009  
MD University of Illinois Chicago 2013

**John P Metzler**Associate Professor of Orthopaedic Surgery (primary appointment)  
**Associate Professor of Neurology**  
BS Texas A&M University 1991

**Adam Vogeler Meyer, MD**Assistant Professor of Medicine (primary appointment)  
MD Baylor College of Medicine 2009

**Claire Elizabeth Meyer, MD** Assistant Professor of Medicine (primary appointment)

BS Roanoke College 2004

MD Washington Univ in St. Louis 2009

**Gretchen Ann Meyer, PHD, MS** Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Neurology**

**Assistant Professor of Orthopaedic Surgery**

PHD University of CA San Diego 2011

BS Washington Univ in St. Louis 2004

MS Washington Univ in St. Louis 2004

**Jay L Meyer, MD** Associate Professor of Clinical Psychiatry (primary appointment)

BA Washington Univ in St. Louis 1956

MD Saint Louis University 1960

**Mary Shaughnessy Meyer, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Saint Louis University 2003

BA Saint Louis University 1999

**Bryan F Meyers, MD** Patrick and Joy Williamson Endowed Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

MD University of Chicago 1986

**Jerry R Meyers, MD** Assistant Professor of Clinical Surgery (General Surgery) (primary appointment)

MD Washington Univ in St. Louis 1966

BA University of Texas Austin 1962

**Rabya Mian, MBBS** Instructor in Clinical Medicine (primary appointment)

MBBS King Edward Medical College 1999

**Craig Anthony Micchelli, PHD** Associate Professor of Developmental Biology (primary appointment)

PHD Univ of Wisconsin Madison 1999

BS Univ of Wisconsin Madison 1993

**Scott Micek, MD** Adjunct Instructor in Medicine (primary appointment)

MD University of Iowa 1999

**Gina Michael** Instructor in Clinical Medicine (primary appointment)

BS University of Missouri 1978

**Jeff Michael Michalski, MD, MBA** Carlos Perez Distinguished Professor of Radiation Oncology (primary appointment)

**Vice Chairman of Radiation Oncology**

BS Univ of Wisconsin Madison 1982

MD Univ of Wisconsin Madison 1986

MBA Washington Univ in St. Louis 2001

**Andrew Philip Michelson, MD** Instructor in Medicine (primary appointment)

MD Case Western Reserve Univ 2013

BS Case Western Reserve Univ 2007

**Peter Howard Michelson, MD, MS** Associate Professor of Pediatrics (primary appointment)

MD Jefferson Medical College 1983

MS University of Pittsburgh 2007

BS Bowdoin College 1978

**William Samuel Micka, MD** Instructor in Clinical Medicine (primary appointment)

BA Saint Louis University 1999

MD Saint Louis University 2003

**John Neal Middelkamp, MD** Prof Emeritus of Pediatrics (primary appointment)

BS University of Missouri 1946

MD Washington Univ in St. Louis 1948

**Jerry N Middleton, MD** Instructor Emeritus in Clinical Obstetrics and Gynecology (primary appointment)

**Instr Emeritus in Clinical Ob & Gyn** (primary appointment)

MD Washington Univ in St. Louis 1963

BA Westminster College 1959

**Mary Ann Middleton, MD** Assistant Professor of Radiology (primary appointment)

MD Medical College of Wisconsin 1982

BS Univ of Wisconsin Whitewater 1974

**William D Middleton, MD** Professor of Radiology (primary appointment)

MD Duke University 1981

BS Duke University 1977

**Jenny Lynn Miele, MD** Instructor in Clinical Pediatrics (primary appointment)

BS Valparaiso University 2001

MD University of Illinois at Chic 2005

**Francis M Miezín, MS** Associate Professor of Neurology (primary appointment)

**Associate in Psychology**

**Associate Professor of Radiology**

MS Univ of Wisconsin Madison 1972

BS Univ of Wisconsin Madison 1969

**Mary Kay Migneco, OD** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

BS University of Missouri 1986

OD University of MO St Louis 1991

BS1 University of Missouri 1986

**James R Mikolajczak, MD** Assistant Professor of Clinical Psychiatry (primary appointment)

MD Saint Louis University 1972

BS Saint Louis University 1968

**Jeffrey D Milbrandt, PHD, MD** James S McDonnell Professor of Genetics (primary appointment)

**Professor of Medicine**

**Professor of Neurology**

**Professor of Pathology and Immunology**

**Head of the Department of Genetics**

PHD University of Virginia 1983

MD Washington Univ in St. Louis 1978

BS Univ of Nebraska at Kearney 1974

**Barry David Milder, MD** Associate Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Washington Univ in St. Louis 1973

**Benjamin Milder, MD** Prof Emeritus Of Clinical Ophthalmol & VIs Sci (primary appointment)

MD Washington Univ in St. Louis 1939

**Anna Noel Miller, MD** Associate Professor of Orthopaedic Surgery (Pending Executive Faculty Approval) (primary appointment)

BA Rice University 2001

MD Baylor University 2005

**Brent William Miller, MD** Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1990

BS Stanford University 1986

**Charles William Miller** **Assistant Professor of Clinical Medicine (Dermatology)** (primary appointment)

**Christopher A Miller, PHD** **Instructor in Medicine** (primary appointment)

PHD Baylor University 2011

BS Truman State University 2005

BS1 Truman State University 2005

**Donna C Miller, MD** **Instructor in Clinical Pediatrics** (primary appointment)

MD University of Miami 1982

**Gary Arthur Miller, MD** **Associate Professor of Orthopaedic Surgery** (primary appointment)

MD Jefferson Medical College 1977

BA University of Chicago 1973

**Heidi B Miller, MD** **Instructor in Clinical Medicine** (primary appointment)

BS Yale University 1994

MD Harvard University 2000

**J. Philip Miller** **Professor of Biostatistics** (primary appointment)

**Professor of Medicine**

**Tenure Held At-Large in the Medical School**

BA Washington Univ in St. Louis 1965

**James D. Miller, PHD, MA** **Instructor in Audiology and Communication Sciences** (primary appointment)

**Instructor in Otolaryngology**

PHD Indiana University Bloomington 1957

MA Indiana University Bloomington 1953

BS Univ of Wisconsin Madison 1951

**James E Miller, MD** **Prof Emeritus Of Clinical Ophthal & VIs Sci** (primary appointment)

MD University of Alabama 1949

BS Tulane University 1946

**Lara Elizabeth Miller, DOST** **Instructor in Clinical Medicine** (primary appointment)

DOST Midwestern University 2000

BS Carleton College 1996

**Mark James Miller, PHD** **Associate Professor of Medicine** (primary appointment)

**Associate Professor of Pathology and Immunology**

BS University of California 1991

PHD University of California 1996

**Mark L. Miller, BE** **Assistant Professor of Orthopaedic Surgery** (primary appointment)

BE Stanford University 2004

**Shondra Michelle Miller, PHD** **Assistant Professor of Genetics** (primary appointment)

PHD University of Texas Southwest 2008

BA University of Arkansas 2003

**Suzanne Lee Miller, MD** **Instructor in Clinical Pediatrics** (primary appointment)

BS University of Illinois 1974

MD University of Illinois 1978

**Timothy M Miller** **Clayson Professor of Neurology** (primary appointment)

**Jule P. Miller Jr** **Instructor in Clinical Psychiatry** (primary appointment)

**Jennifer Elaine Miller-Katsafanas, DPT, BBA** **Assistant Professor of Physical Therapy** (primary appointment)

**Assistant Professor of Obstetrics and Gynecology**

BA University of MO St Louis 1996

DPT Washington Univ in St. Louis 2012

BBA University of MO St Louis 1996

Michelle M Miller-Thomas **Assistant Professor of Radiology** (primary appointment)

**Jeffrey R Millman, PHD** **Assistant Professor of Medicine** (primary appointment)

**Assistant Professor of Biomedical Engineering**

PHD Mass Inst of Technology (MIT) 2011

BS North Carolina State University 2005

**Jason C Mills, MD, AB, PHD** **Professor of Medicine** (primary appointment)

**Professor of Developmental Biology**

**Professor of Pathology and Immunology**

MD University of Pennsylvania 1997

BA Washington Univ in St. Louis 1989

AB Washington Univ in St. Louis 1989

PHD University of Pennsylvania 1997

MD1 University of Pennsylvania 1997

**Lauren Elizabeth Milton, PHD** **Instructor in Occupational Therapy (Pending Dean's Approval)**  
(primary appointment)

BS1 Saint Louis University 2001

PHD Washington Univ in St. Louis 2008

**Susan Minchin, PHD, MD** **Instructor in Clinical Psychiatry** (primary appointment)

PHD University of Iowa 1991

MD University of Iowa 1991

BS Oregon St University 1981

**Graeme Mindel, MS, MBBCH** **Instructor in Clinical Medicine** (primary appointment)

MS University of the Witwatersra 1992

MBBCH University of the Witwatersra 1992

**Jeffrey H Miner, PHD** **Professor of Medicine** (primary appointment)

**Professor of Cell Biology and Physiology**

PHD California Institute Technolo 1991

**Jonathan J Miner, MD** **Instructor in Medicine** (primary appointment)

MD University of Oklahoma 2010

**Marian A Minor, PHD, M PH** **Associate Professor of Occupational Therapy** (primary appointment)

PHD University of Missouri 1989

BS University of Kansas 1965

M PH University of Missouri 1979

**Khurram Rehman Mirza, MBBS** **Instructor in Medicine** (primary appointment)

MBBS King Edward Medical College 2002

**Elizabeth Tracy Mishler, MA, AUD** **Instructor in Audiology and Communication Sciences** (primary appointment)

**Instructor in Otolaryngology**

MA Northwestern University 1981

BS Northwestern University 1980

AUD A.T. Still U of Health Science 2007

**Tehmtan S Mistry, MD** **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)

MD University of Bombay 1968

**Kevin Joseph Mitchell** **Instructor in Clinical Surgery (General Surgery)** (primary appointment)



BS Howard University 1981

**Timothy John Mitchell, PHD, MS, PHD**Instructor in Radiation Oncology (primary appointment)

PHD Washington Univ in St. Louis 2011

MS Washington Univ in St. Louis 2007

BS John Carroll University 2005

PHD University of MO St Louis 2014

**Yoshiko Mito, MS, PHD**Assistant Professor of Pathology and Immunology (primary appointment)

MS University of Tokyo 2002

BS University of Tokyo 2000

PHD University of Washington 2007

**Robi D. Mitra, PHD**Associate Professor of Genetics (primary appointment)

**Alvin Goldfarb** Distinguished Professor of Computational Biology

PHD Mass Inst of Technology (MIT) 2000

**Makedonka Mitreva, PHD, MS**Associate Professor of Medicine (primary appointment)

**Associate Professor of Genetics**

PHD Wageningen University 2001

MS University of Skopje - Macedon 1994

**Bettina Mittendorfer, PHD, MS**Professor of Medicine (primary appointment)

PHD University of Texas Austin 1999

MS University of Vienna 1999

**Duane L Mitzel, MD**Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BS University of California 2000

MD Washington Univ in St. Louis 1977

**Eugene James Mobley**Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

**Robert L Mobley, OD**Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Illinois College of Optometry 1958

**Stephen M Moerlein, MA, PHARMD**Associate Professor of Radiology (primary appointment)

**Associate Professor of Biochemistry and Molecular Biophysics**

MA Washington Univ in St. Louis 1979

BS University of Illinois 1976

PHARMD University of Florida 2008

**Durga Prasanna Mohapatra, PHD**Associate Professor of Anesthesiology (primary appointment)

PHD University of Erlangen 2011

**C. Scott Molden, MD**Instructor in Clinical Medicine (primary appointment)

BA De Paul University 1968

MD Case Western Reserve Univ 1972

**Jeffrey F Moley, MD**Professor of Surgery (General Surgery) (primary appointment)

MD Columbia University 1980

BA Harvard University 1976

**Kelle Harbert Moley**James Crane Professor of Obstetrics and Gynecology (primary appointment)

**Associate Professor of Cell Biology and Physiology**

**Vice Chairman for Basic Research, Department of Obstetrics and Gynecology**

BA Wellesley College 1984

**Hector D Molina-Vicenty, MD**Associate Professor of Medicine (primary appointment)

**Associate Professor of Pathology and Immunology**

BS University of Puerto Rico 1982

MD University of Puerto Rico 1985

Christopher Molitor **Instructor in Clinical Pediatrics** (primary appointment)

**David W. Molter, MD** **Professor of Otolaryngology** (primary appointment)

BS Duke University 1980

MD Duke University 1988

**Cynthia L Monaco, MD, PHD** **Instructor in Medicine** (primary appointment)

BS Texas Tech University 2000

MD University of Texas Southwest 2009

PHD University of Texas Southwest 2009

**Michael David Monaco, MD** **Instructor in Medicine** (primary appointment)

MD Univ Texas Health Science Ctr 2009

Joseph B Monahan **Adjunct Assistant Professor of Biochemistry and Molecular Biophysics**

(primary appointment)

Steven M Mondschein

**Kelly Renee Monk, PHD** **Associate Professor of Developmental Biology** (primary appointment)

PHD University of Cincinnati 2006

**Ilya E. Monosov, MS, PHD** **Assistant Professor of Neuroscience** (primary appointment)

MS NewSchool Architecture Design 2005

BS University of CA San Diego 2004

PHD Brown University 2009

**Jennifer Marie Monroy, MD** **Assistant Professor of Medicine** (primary appointment)

BS Incarnate Word College 2003

MD Univ Texas Health Science Ctr 2008

**Barbara S Monsees, MD** **Professor of Radiology** (primary appointment)

MD Washington Univ in St. Louis 1975

BA Brandeis University 1971

David M Montani **Instructor in Clinical Psychiatry** (primary appointment)

**Austin F Montgomery, MD** **Instructor in Clinical Medicine** (primary appointment)

MD University of Pittsburgh 1954

BA Washington Univ in St. Louis 1950

BS University of Missouri 1952

Grant William Montgomery **Adjunct Instructor in Psychiatry** (primary appointment)

**Mary Ann Montgomery, MBA, MD** **Associate Professor of Clinical Psychiatry** (primary appointment)

MBA Washington Univ in St. Louis

MD Northwestern University Med 1973

BA Vassar College 1967

Gail Lynn Moolsintong **Instructor in Clinical Pediatrics** (primary appointment)

**Marc R Moon, MD** **John M Shoenberg Professor of Surgery (Cardiothoracic Surgery)** (primary appointment)

BS University of Michigan 1983

MD Wayne State University 1988

**Sung Ho Moon, MS, PHD** **Instructor in Medicine** (primary appointment)

BS Yonsei University 1997

MS Yonsei University 1999

PHD Washington Univ in St. Louis 2006

**Amy M. Moore, MD** **Assistant Professor of Surgery (Plastic and Reconstructive Surgery)** (primary appointment)



MD Virginia Comm University 2004

**Blake William Moore, PHD** Prof Emeritus Of Biochemistry In Psychiatry (primary appointment)

BS University of Akron 1948

PHD Northwestern University 1952

**Darlene A. Moore, MD** Instructor in Clinical Pediatrics (primary appointment)

BS Eastern Illinois University 1974

MD University of Illinois 1978

**Nathan Moore, MD** Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 2013

BS Texas College 2007

**Robert Paul Moore, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Washington Univ in St. Louis 2004

**Stephen M Moore, MEE** Assistant Professor of Radiology (primary appointment)

BS1 Washington Univ in St. Louis 1981

BS Washington Univ in St. Louis 1981

MEE Washington Univ in St. Louis 1984

Timothy D Moore Instructor in Clinical Medicine (primary appointment)

**Alvaro Mora, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Universidad de Antioquia

**Christopher J Moran, MD** Professor of Radiology (primary appointment)

**Professor of Neurological Surgery**

MD Saint Louis University 1974

BS University of Notre Dame 1970

**Stewart Edward Moreland, DDENT** Instructor in Clinical Otolaryngology (DMD) (primary appointment)

BA University of Missouri 1978

DDENT Washington Univ in St. Louis 1983

**Joshua L. Morgan, PHD** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

**Assistant Professor of Neuroscience**

BA Florida Southern College 2001

PHD Washington Univ in St. Louis 2007

**Kerri A Morgan, PHD, MS** Assistant Professor of Occupational Therapy (primary appointment)

**Assistant Professor of Neurology**

PHD Washington Univ in St. Louis 2015

MS Washington Univ in St. Louis 1998

BA Texas Christian University 1996

**Mary R Morgan, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1990

BA Miami University 1984

**Daniel Morgensztern, MD** Associate Professor of Medicine (primary appointment)

MD FTE Souza Marques 1995

**Sharon Celeste Morley, MD, PHD** Assistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Pathology and Immunology**

MD Harvard University 2002

PHD Harvard University 2002

**Jeffrey Stuart Mormol** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS Indiana University Bloomington 1986

**Jose Moron-Concepcion, PHD** Associate Professor of Anesthesiology (primary appointment)

**Associate Professor of Neuroscience**

PHD University of Barcelona 1998

**Daniel R. Morra** Instructor in Clinical Pediatrics (primary appointment)

**Donald G Morris, MS, MD** Instructor in Clinical Medicine (primary appointment)

BA Benedictine College 1987

MS Saint Louis University 1989

MD University of Missouri 1993

**John Carl Morris, MD** Harvey A and Dorismae Hacker Friedman Distinguished Professor of Neurology (primary appointment)

**Professor of Physical Therapy**

**Professor of Pathology and Immunology**

**Professor of Occupational Therapy**

MD University of Rochester 1974

BA Ohio Wesleyan University 1970

**Samantha A Morris, PHD** Assistant Professor of Developmental Biology (primary appointment)

**Assistant Professor of Genetics**

BS1 University of London 2002

PHD Cambridge University 2007

**Stephanie Morris, MD** Instructor in Neurology (primary appointment)

MD University of Phoenix 2011

BS University of Arizona 2007

**Aubrey R Morrison, MBBS** Professor of Medicine (primary appointment)

**Professor of Developmental Biology**

MBBS University of London 1970

**Jeremiah J Morrissey, PHD** Professor of Anesthesiology (primary appointment)

PHD Saint Louis University 1974

BA Macmurray College 1969

**Michael Justin Morrissey, PHD** Instructor in Clinical Neurology (primary appointment)

PHD Saint Louis University 2005

**Nima Mosammaparast, MD, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

MD University of Virginia 2006

PHD University of Virginia 2005

BS University of Rochester 1998

**Lisa Mae Moscoso, MD, PHD** Associate Professor of Pediatrics (primary appointment)

**Associate Dean for Student Affairs**

MD Washington Univ in St. Louis 1998

PHD Washington Univ in St. Louis 1998

BS Univ of Wisconsin Madison 1989

**Julian C Mosley, MD** Instructor in Clinical Surgery (General Surgery) (primary appointment)

BS Saint Louis University 2000

MD Washington Univ in St. Louis 1972

**Krista L Moulder, PHD** Associate Professor of Neurology (primary appointment)

PHD Washington Univ in St. Louis 2001

**Hawnwan P Moy, MD** Instructor in Emergency Medicine in Medicine (primary appointment)

MD Loyola University Chicago 2008

**Randi H Mozenter, MA** Instructor in Clinical Medical Psychology in Psychiatry (primary

appointment)

BA Washington Univ in St. Louis 1980

MA Washington Univ in St. Louis 1982

**Richard Gerard Mrad**Instructor in Clinical Medicine (primary appointment)

BA University of Missouri 1981

**Mike Max Mueckler, PHD**Professor of Cell Biology and Physiology (primary appointment)

**Professor of Medicine**

BA Univ of Wisconsin Madison 1976

PHD Univ of Wisconsin Madison 1982

**Janet Gwen Mueller, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

BA Kansas State University 1985

MD Washington Univ in St. Louis 1992

**Kristen L Mueller, MD**Instructor in Emergency Medicine in Medicine (primary appointment)

MD Medical College of Wisconsin 2010

Margaret M MuellerInstructor in Clinical Pediatrics (primary appointment)

**Michael Jeffrey Mueller, PHD, MHS**Professor of Physical Therapy (primary appointment)

**Division Director of Research in Physical Therapy**

**Professor of Radiology**

PHD Washington Univ in St. Louis 1992

BS Washington Univ in St. Louis 1979

MHS Washington Univ in St. Louis 1984

Steven MuethInstructor in Clinical Pediatrics (primary appointment)

Faquir MuhammadInstructor in Clinical Medicine (primary appointment)

**Joshua Mutambuki Muia, PHD**Instructor in Medicine (primary appointment)

BA University of Nairobi 2003

PHD Western Michigan University 2010

**Daniel Kast Mullady, MD**Associate Professor of Medicine (primary appointment)

MD University of Connecticut 2001

**Daniel F Mullen, MS, DDENT**Assistant Professor of Radiation Oncology (primary appointment)

BS University of Missouri 1972

MS University of Missouri 1984

DDENT University of Missouri 1977

Monalisa MullickAssistant Professor of Medicine (primary appointment)

**Michael E Mullins, MD**Associate Professor of Emergency Medicine in Medicine (primary appointment)

MD Hahnemann University 1987

**Steven Robert Mumm, PHD, MS**Associate Professor of Medicine (primary appointment)

BS University of Missouri 1978

PHD Saint Louis University 1992

MS University of Missouri 1984

**Nabil A Munfakh, MD**Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

MD University of Michigan 1985

BS University of Michigan 1981

Manohara MunimuddappaInstructor in Clinical Pediatrics (primary appointment)

**Robert F Munsch**Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

BA University of Colorado Boulder 1974

**Mark C. Murawski, MD**

BS Villanova University 1995

MD Saint Louis University 1999

**Nathaniel H Murdock, MD** Associate Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD Meharry Med College 1963

BS Howard University 1958

George E Murphy **Prof Emeritus Of Psychiatry** (primary appointment)

**Kenneth M Murphy, MD, PHD** Professor of Pathology and Immunology (primary appointment)

**Howard Hughes Medical Institute Investigator in Pathology and Immunology**

**Eugene Opie First Centennial Professor of Pathology and Immunology**

MD Johns Hopkins University 1984

PHD Johns Hopkins University 1984

**Kevin J Murphy, MD** Professor of Clinical Pediatrics (primary appointment)

MD Saint Louis University 1978

BS Birmingham Southern College 1974

**Theresa L Murphy, PHD** Associate Professor of Pathology and Immunology (primary appointment)

BS University of Arizona 1978

PHD Johns Hopkins University Medic 1983

**David J Murray, MD** Carol B. and Jerome T. Loeb Professor of Anesthesiology (primary appointment)

MD University of Saskatchewan 1978

BS University of Saskatchewan 1973

Nancy Tye Murray **Professor of Otolaryngology** (primary appointment)

**Professor of Audiology and Communication Sciences**

Gian Marco Musarra **Assistant Professor of Pediatrics** (primary appointment)

**Guido Musch, MD**

MD University of Milan 1993

**Amy Musiek, MD** Associate Professor of Medicine (Dermatology) (primary appointment)

MD Vanderbilt University 2004

BS College of William and Mary 1999

**Erik S Musiek, MD, PHD PMCG** Assistant Professor of Neurology (primary appointment)

MD Vanderbilt University 2007

PHD PMCG Vanderbilt University 2005

BS College of William and Mary 1999

**Helen I-Yun Mussemann, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA Rice University 1992

MD Beaufort Technical College 1996

**David G Mutch, MD** Ira C and Judith Gall Professor of Obstetrics and Gynecology (primary appointment)

BA Carleton College 1976

MD Washington Univ in St. Louis 1980

**Matthew G Mutch, MD** Professor of Surgery (General Surgery) (primary appointment)

MD Washington Univ in St. Louis 1994

BA St Olaf College 1990

Umadevi Muthyalal **Instructor in Clinical Medicine** (primary appointment)

**Sasa Mutic, MS** Professor of Radiation Oncology (primary appointment)

MS University of Colorado Boulder 1996

BS Cameron University 1994

**Terence M. Myckatyn, MD** Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)

BS Univ of Northern British Colu 2003

MD Univ of Northern British Colu 1997

**John A Myers, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Southern Illinois Universtiy S 1997

BA Washington Univ in St. Louis 1993

**Raymond I Myers, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Indiana University Bloomington 1970

BS University of Notre Dame 1966

**Robert J Myerson, MD, PHD** Professor Emeritus of Radiation Oncology (primary appointment)  
**Prof Emeritus of Radiation Oncology** (primary appointment)

BA Princeton University 1969

MD University of Miami 1980

PHD University of California 1974

**Indira U Mysorekar, MS, PHD** Associate Professor of Obstetrics and Gynecology (primary appointment)

**Associate Professor of Pathology and Immunology**

MS University of Lund 1995

BS University of Lund 1994

PHD Washington Univ in St. Louis 2002

**Randall Earl Nacker** Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

**Rakesh Nagarajan, PHD, MD** Adjunct Associate Professor of Pathology and Immunology (primary appointment)

PHD Washington Univ in St. Louis 2002

BA1 University of Virginia 1994

MD Washington Univ in St. Louis 2002

BA University of Virginia 1994

**Elna M Nagasako, PHD, MD** Assistant Professor of Medicine (primary appointment)

BS Pomona College 1991

PHD University of Rochester 2001

MD Washington Univ in St. Louis 2007

**Peter Nagele** Associate Professor of Anesthesiology (primary appointment)

**Associate Professor of Genetics**

**Venkata S. Nagireddi** Instructor in Clinical Pediatrics (primary appointment)

**Robert T Naismith II, MD** Associate Professor of Neurology (primary appointment)

MD Case Western Reserve Univ 1998

**Tasnim A Najaf, MD** Assistant Professor of Pediatrics (primary appointment)

MD Dow Medical College Karachi 1991

**Ayesha Najib** Instructor in Clinical Pediatrics (primary appointment)

**Rashmi R Nakra** Associate Professor of Clinical Psychiatry (primary appointment)

UNKNOWN Lady Hardings 1970

**Ilke Nalbantoglu, MD** Assistant Professor of Pathology and Immunology (primary appointment)

MD Ege University 2000

**Jyotirmaya Nanda** Instructor in Clinical Medicine (primary appointment)

Shannon Nanna

Nicola Napoli **Adjunct Research Assistant Professor of Medicine** (primary appointment)

Vamsi R. Narra **Professor of Radiology** (primary appointment)

**Alison C Nash** **Professor of Clinical Pediatrics** (primary appointment)

BS Howard University 1977

**Michael J. Naughton, MD** **Associate Professor of Medicine** (primary appointment)

MD State Univ of NY Buffalo 1993

BA Williams College 1989

**Rosanne S Naunheim, MD** **Associate Professor of Emergency Medicine in Medicine** (primary appointment)

MD University of Chicago 1978

BA Carleton College 1970

Robert F Nease Jr **Adjunct Associate Professor of Medicine** (primary appointment)

**Philip Needleman, PHD** **Adjunct Professor of Molecular Biology and Pharmacology** (primary appointment)

PHD University of Maryland 1964

**Burton M Needles, MD** **Instructor in Clinical Medicine** (primary appointment)

BS City College 1970

MD Loyola University Chicago 1974

**John Gail Neely, MD** **Professor of Otolaryngology** (primary appointment)

**Professor of Occupational Therapy**

BS University of Central Oklahom 1962

MD University of Oklahoma 1965

Lynn G Nelms **Instructor in Clinical Pediatrics** (primary appointment)

**Christopher A Nelson, PHD** **Instructor in Pathology and Immunology** (primary appointment)

PHD Washington Univ in St. Louis 1995

BS Univ of Wisconsin Madison 1985

**Clarice Michelle Nelson, MD** **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)

MD University of Kansas Medical 2011

**Donald Michael Nelson, MD, PHD** **Virginia Lang Professor of Obstetrics and Gynecology** (primary appointment)

MD Washington Univ in St. Louis 1977

BA Cornell College 1971

PHD Washington Univ in St. Louis 1977

**Elliot C Nelson, MD** **Professor of Psychiatry** (primary appointment)

MD University of Illinois 1986

BA Johns Hopkins University 1982

**J. Roger Nelson, MD** **Asst Prof Emeritus Of Clinical Medicine** (primary appointment)

MD Washington Univ in St. Louis 1953

BA Washington Univ in St. Louis 1949

**Jeffrey Jerome Nepple** **Assistant Professor of Orthopaedic Surgery** (primary appointment)

BS Truman State University 2003

**Jeanne M Nerbonne, PHD** **Professor of Medicine** (primary appointment)

**Alumni Endowed Professor of Molecular Biology and Pharmacology in Developmental Biology**

BS Framingham State College 1974

PHD Georgetown University 1978

April Erwin Nesin **Instructor in Clinical Pediatrics** (primary appointment)

Neal Neuman **Instructor in Clinical Surgery (Urologic Surgery)** (primary appointment)



**Rosalind J Neuman, PHD, MA** Prof Emeritus of Psychiatry (primary appointment)

PHD Washington Univ in St. Louis 1981

BA Washington Univ in St. Louis 1960

MA Washington Univ in St. Louis 1974

**Tara Marie Neumayr, MD** Assistant Professor of Pediatrics (primary appointment)

BA Duke University 1999

MD Univ South Dakota Vermillion 2003

**Elizabeth P. Newberry, PHD** Assistant Professor of Medicine (primary appointment)

PHD Washington Univ in St. Louis 1995

BA Knox College 1988

**Rodney D Newberry, MD** Professor of Medicine (primary appointment)

BA Washington Univ in St. Louis 1987

MD Washington Univ in St. Louis 1991

**Jason Guy Newland, MS, MD** Associate Professor of Pediatrics (Pending Executive Faculty Approval) (primary appointment)

MS University of Cincinnati 2011

MD University of Oklahoma 2000

**Matthew Newman, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Vanderbilt University 1956

MD Columbia University 1959

**Amy C Ney, MD** Instructor in Clinical Medicine (Dermatology) (primary appointment)

MD University of Virginia 2001

BS Mary Washington College 1997

**Khai Ngo, MD** Instructor in Clinical Pediatrics (primary appointment)

MD School Not Listed 1974

**Khanh Nguyen, MD** Instructor in Medicine (primary appointment)

MD University of Illinois Chicago 2013

BS Loyola University Chicago 2008

**Nguyet Minh Nguyen, MD** Assistant Professor of Medicine (primary appointment)

MD Wayne State University 1993

BS1 University of Michigan 1989

BS University of Michigan 1989

Ellen Margaret Nicastro **Instructor in Clinical Pediatrics** (primary appointment)

**Jennifer Lynn Nicholas, MA, MD, MHA** Assistant Professor of Radiology (Pending Executive Faculty Approval) (primary appointment)

BA Miami University 1991

MA University of Colorado Boulder 1994

MD Duke University 2004

MHA University of North Carolina 2003

**Johanna Grant Nicholas, MA, PHD** Associate Professor of Otolaryngology (primary appointment)  
**Associate Professor of Audiology and Communication Sciences**

MA University of Northern Colorado 1982

PHD Washington Univ in St. Louis 1990

BA University of Northern Colorado 1978

**Colin G Nichols, PHD** Professor of Cell Biology and Physiology (primary appointment)

**Carl F Cori Professor**

BS University of Leeds 1982

PHD University of Leeds 1985

Paul F Nichols III **Assistant Professor of Clinical Ophthalmology and Visual Sciences** (primary appointment)

**Ginger E. Nicol, MD** **Assistant Professor of Psychiatry (Child Psychiatry)** (primary appointment)

BA University of Iowa 1998

MD University of Iowa 2002

Ramzi T Nicolas **Adjunct Associate Professor of Pediatrics** (primary appointment)

**Joan M Niehoff, MD** **Associate Professor of Anesthesiology** (primary appointment)

MD University of MO Columbia 1982

BA University of MO Kansas City 1982

**Carl Helge Nielsen, MD** **Professor of Anesthesiology** (primary appointment)

MD University of Copenhagen 1979

**Susan Searles Nielsen, MA, PHD** **Assistant Professor of Neurology** (primary appointment)

MA University of Washington 2000

PHD University of Washington 2004

John Hart Niemeyer **Instructor in Clinical Radiology** (primary appointment)

**Thomas E Niesen, MD** **Instructor in Clinical Surgery (General Surgery)** (primary appointment)

BS Tulane University 1975

MD Tulane University 1979

**Daniel C Nieva, MD** **Assistant Professor of Anesthesiology** (primary appointment)

MD University of Iowa 2003

**Richard James Nissen, DDENT, MS** **Assistant Professor of Clinical Surgery (Plastic and Reconstructive Surgery)** (primary appointment)

DDENT University of Iowa 1983

MS Washington Univ in St. Louis 1985

BS Iowa State University 1979

**Anne Fagan Niven, PHD** **Professor of Neurology** (primary appointment)

BA Wellesley College 1984

PHD University of CA San Diego 1992

**Bruce L Nock, PHD, MS** **Associate Professor of Neurobiology in Psychiatry** (primary appointment)  
**Associate Professor of Neuroscience**

PHD Rutgers University 1981

BA Elizabethtown College 1969

MS Bucknell University 1975

**Joan P Noelker, MD** **Instructor in Emergency Medicine in Medicine** (primary appointment)

MD Royal College of Surgeons 2010

BA University of Virginia 2004

**Michael Justin Noetzel, MD** **Professor of Neurology** (primary appointment)

**Professor of Pediatrics**

**Vice Chair of Pediatric and Developmental Neurology**

BA Yale University 1973

MD University of Virginia 1977

**Kevin K. Noguchi, MA, PHD** **Assistant Professor of Psychiatry** (primary appointment)

MA University of CA Los Angeles 1998

PHD University of CA Los Angeles 2003

BS University of CA Santa Barbara 1996

Amit Noheria **Assistant Professor of Medicine** (primary appointment)

**Lemuel Benedict R Non, MD** **Instructor in Medicine** (primary appointment)



BS Mindanao State University 2003  
MD University of the Philippines 2008  
**Michael L Nonet, PHD** Associate Professor of Neuroscience (primary appointment)  
BS University of CA Davis 1984  
PHD Mass Inst of Technology (MIT) 1989  
**Scott Monroe Nordlicht, MD** Professor of Medicine (primary appointment)  
BA Columbia University 1969  
MD State University of New York 1973  
**Tracy Wynette Norfleet, MD** Instructor in Clinical Medicine (primary appointment)  
MD Louisiana St Univ Hlth Sci 2002  
**Charles C Norland, MD** Prof Emeritus Of Clinical Medicine (primary appointment)  
BS Washington St University 1955  
UNKNOWN University of Chicago 1966  
MD Washington Univ in St. Louis 1959  
**David Craig Norman, MD** Assistant Professor of Clinical Pediatrics (primary appointment)  
MD School Not Listed 1992  
BS University of Illinois 1988  
**Scott Norris, MD** Assistant Professor of Neurology (primary appointment)  
BA Washington Univ in St. Louis 2000  
MD University of MO Columbia 2008  
**Barbara Jean Norton, MHS** Professor of Physical Therapy (primary appointment)  
**Associate Director for Education Technology in Physical Therapy**  
**Professor of Neurology**  
MHS Washington Univ in St. Louis 1985  
**Karen K Norton, MD** Associate Professor of Clinical Pediatrics (primary appointment)  
BS Loyola University 1985  
MD Louisiana St University 1989  
**Deborah Veis Novack, PHD, MD** Associate Professor of Medicine (primary appointment)  
**Associate Professor of Pathology and Immunology**  
BA Princeton University 1987  
PHD Washington Univ in St. Louis 1995  
MD Washington Univ in St. Louis 1995  
**Thomas John Nowotny, MD** Assistant Professor of Clinical Psychiatry (primary appointment)  
MD Washington Univ in St. Louis 1985  
BS Washington Univ in St. Louis 1980  
Douglase Susumu Nozaki Instructor in Clinical Pediatrics (primary appointment)  
Anthony Ian Nunez Instructor in Clinical Surgery (Cardio Surgery) (primary appointment)  
**Christian J Nunez, MD** Instructor in Pediatrics (primary appointment)  
BA Washington Univ in St. Louis 2005  
MD University of Illinois 2013  
Marlynn Nunez Instructor in Clinical Obstetrics and Gynecology (primary appointment)  
**Sabrina Nunez, PHD** Assistant Professor of Medicine (primary appointment)  
PHD Stony Brook School of Medicine 2007  
**Ryan M. Nunley, MD** Associate Professor of Orthopaedic Surgery (primary appointment)  
MD University of North Carolina 2002  
BA Vanderbilt University 1998  
**Gilbert H Nussbaum, MA** Assoc Prof Emeritus Of Radiation Oncology (primary appointment)  
UNKNOWN Harvard University 1962

MA Harvard University 1962

BS City College 1960

**Samuel R Nussbaum, MD** Professor of Clinical Medicine (primary appointment)

MD School Not Listed 1973

**Brian Nussenbaum, MD** Christy J. and Richard S. Hawes III Professor of Otolaryngology (primary appointment)

**Vice Chair for Clinical Affairs, Department of Otolaryngology**

MD New York University 1994

BA State Univ of NY Binghamton 1990

**Oroma Beatrice Afiong Nwanodi** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Muhammad Akram Nyazee** Instructor in Clinical Medicine (primary appointment)

UNKNOWN1 Nishtar Medical College Multa 1974

UNKNOWN Govt College Sarhodha 1968

**Sydney Marie Nykiel-Bailey** Assistant Professor of Anesthesiology (primary appointment)

BS Saint Louis University 2001

**Laura James Nywening, MD** Instructor in Obstetrics and Gynecology (primary appointment)

BS University of Florida 2007

MD University of Florida 2011

**Kevin Sullivan O'Bryan, MD** Instructor in Pediatrics (primary appointment)

MD University of Michigan 2010

**Brendan Joseph O'Connor, MD** Assistant Professor of Psychiatry (primary appointment)

MD Creighton University 2010

BS Creighton University 2006

**Shawn David O'Connor, MD** Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)

MD Medical College Georgia 2010

BS University of Georgia 2006

**G Patrick O'Donnell, MD** Instructor in Clinical Medicine (primary appointment)

BA University of Kansas 1972

MD School Not Listed 1977

**Regis James O'Keefe, MD, PHD** Fred C Reynolds Professor of Orthopaedic Surgery (primary appointment)

**Head of the Department of Orthopaedic Surgery**

MD Harvard University 1985

BA Yale University 1981

PHD University of Rochester 2000

**Karen Laurel O'Malley, MS, PHD** Professor of Neuroscience (primary appointment)

MS Portland St University 1973

BA Sonoma State University 1971

PHD University of Texas Austin 1980

**Julie O'Neal, PHD** Instructor in Medicine (primary appointment)

BS University of MO Columbia 1999

PHD Washington Univ in St. Louis 2009

**Patricia L O'Neal** Prof Emeritus Of Clinical Psychiatry (primary appointment)

**Jerome H O'Neil Jr, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Saint Louis University 1981

BA University of Missouri 1977

**Patrick Ross O'Neill**Instructor in Anesthesiology (Pending Dean's Approval) (primary appointment)

**Nadia Mariana Obeid, MS, MD**Instructor in Surgery (General Surgery) (primary appointment)

BS University of Michigan 2003

MS Wayne State University 2005

MD Wayne State University 2009

**Lamar H Ochs, MD**Instr Emeritus In Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1941

MD Washington Univ in St. Louis 1944

**Andrew John Odden, MD**Assistant Professor of Medicine (primary appointment)

BS Gustavus Adolphus College 2003

MD University of Minnesota 2007

**Randall Odem, MD**Professor of Obstetrics and Gynecology (primary appointment)

MD University of Iowa 1981

**Devin Christopher Odom, MD**Instructor in Medicine (primary appointment)

MD Wake Forest University 2010

**Justin O Ogbeven, MBBS**Instructor in Clinical Pediatrics (primary appointment)

MBBS University of Lagos 1982

**Margaret A Ogden, MD**Associate Professor of Otolaryngology (primary appointment)

BA Amherst College 1997

MD Washington Univ in St. Louis 2002

**Judith Mosinger Ogilvie, PHD, MA**Adjunct Research Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

PHD Harvard University 1983

MA Harvard University 1978

BS Brown University 1976

PHD1 Harvard University 1983

**Stephen T. Oh, PHD, MD**Assistant Professor of Medicine (primary appointment)

Assistant Professor of Pathology and Immunology

PHD Northwestern University 2002

MD Northwestern University 2004

BS Harvard University 1996

**Kevin Kenneth Ohlemiller, PHD**Associate Professor of Otolaryngology (primary appointment)  
Associate Professor of Audiology and Communication Sciences

BS Indiana University Bloomington 1983

PHD Northwestern University 1990

**Chukwuma Mbonu Okoroji**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Edward Okun, MD**Prof Emeritus Of Clinical Ophthalmol & Vls Sci (primary appointment)

BS Dartmouth College 1952

MD University of Vermont 1956

**Adewole L. Okunade, PHD**Assistant Professor of Medicine (primary appointment)

BS University of Ibadan 1975

PHD University of Ibadan 1981

**Folasade Oladapo, MD**Assistant Professor of Anesthesiology (primary appointment)

MD U Medical-Dental Of New Jersey 2008

**George A Oliver, MD**Assistant Professor Emeritus of Clinical Surgery (General Surgery) (primary appointment)

**Asst Prof Emeritus of Clin Surg (Gen Surg)** (primary appointment)

**Asst Prof Emeritus of Clin Surgery (Gen Surg)** (primary appointment)

BA Washington Univ in St. Louis 1948

MD Washington Univ in St. Louis 1952

**George Charles Oliver, MD** **Professor Emeritus of Clinical Medicine** (primary appointment)

**Prof Emeritus of Clinical Medicine** (primary appointment)

BA Harvard University 1953

MD Harvard University 1957

**Paul D Olivo, PHD, MD** **Adjunct Assistant Professor of Molecular Microbiology** (primary appointment)

PHD University of Florida 1982

BA George Washington University 1972

MD University of Florida 1981

**Margaret Olsen, PHD, MPH** **Professor of Medicine** (primary appointment)

**Professor of Surgery (Public Health Sciences)**

PHD University of Pennsylvania 1986

MPH Saint Louis University 2001

BS Southern Illinois University 1976

**Eugene Merle Oltz, PHD** **Professor of Pathology and Immunology** (primary appointment)

PHD Columbia University 1987

BS Cornell University 1982

**Gary H Omell, MD** **Assistant Professor of Clinical Radiology** (primary appointment)

MD University of Tennessee 1967

**Kenan Rifat Omurtag, MD** **Assistant Professor of Obstetrics and Gynecology** (primary appointment)

MD University of MO Kansas City 2006

BA University of MO Kansas City 2006

**Robert F Onder Jr, MD** **Assistant Professor of Clinical Medicine** (primary appointment)

MD Washington Univ in St. Louis 1987

BA Washington Univ in St. Louis 1983

**Michael D Onken, PHD** **Assistant Professor of Biochemistry and Molecular Biophysics** (primary appointment)

PHD Washington Univ in St. Louis 2000

BA Washington Univ in St. Louis 1990

Kalu Onuma **Instructor in Clinical Psychiatry** (primary appointment)

**Peter J. Oppelt, MD** **Assistant Professor of Medicine** (primary appointment)

MD University of MO Columbia 2008

**S. Michael Orgel, MD** **Instructor in Clinical Medicine** (primary appointment)

BA Washington Univ in St. Louis 1960

MD Saint Louis University 1965

**Matthew J Orland, MD** **Associate Professor of Clinical Medicine** (primary appointment)

MD University of Miami 1979

BS Yale University 1975

**Margaret McCarthy Ormonde** **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)

BS University of Missouri 1983

**David M Ornitz, PHD, MD** **Alumni Endowed Professor of Developmental Biology** (primary appointment)

PHD University of Washington 1987

BS University of CA Davis 1981

MD University of Washington 1988

**Andrea Cohron Orr**Instructor in Clinical Pediatrics (primary appointment)

BS University of Georgia 2007

Valerie Orric**Instructor in Clinical Pediatrics** (primary appointment)

**Rachel C. Orscheln, MD**Assistant Professor of Pediatrics (primary appointment)

MD University of MO Columbia 1998

BS University of MO Columbia 1994

**David William Orbals, MD**Assistant Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1970

BS Saint Louis University 1966

**Cynthia M. Ortinau, MD**Assistant Professor of Pediatrics (Pending Executive Faculty Approval)  
(primary appointment)

MD University of MO Kansas City 2005

Irma I Ortiz-Arroyo**Assistant Professor of Clinical Pediatrics** (primary appointment)

**Daniel Scott Ory, MD**Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

**Alan A and Edith L Wolff** Professor of Cardiology

MD Harvard University 1986

BA Harvard University 1982

Amir Mordechai Oryan**Visiting Assistant Professor of Pediatrics** (primary appointment)

**Tiffany Medlin Osborn, M PH, MD**Associate Professor of Surgery (General Surgery) (primary appointment)

**Associate Professor of Emergency Medicine in Medicine**

M PH London Hygiene & Tropical Med 2009

BS University of Houston 1992

MD Univ Texas Health Sci San Anto 1997

**Joshua William Osbun, MD**Assistant Professor of Neurosurgery (Pending Executive Faculty Approval) (primary appointment)

BA Texas A&M University 2002

MD University of Texas Southwest 2007

Daniel Akwasi Osei**Assistant Professor of Orthopaedic Surgery** (primary appointment)

**Richard E Ostlund Jr, MD**Professor of Medicine (primary appointment)

MD University of Utah 1970

BS University of Utah 1966

Alison H Oswald**Instructor in Clinical Pediatrics** (primary appointment)

**F. Thomas Ott, MD**Asst Prof Emeritus Of Clin Ophthl & Vls Sci (primary appointment)

MD Washington Univ in St. Louis 1965

BA Southern Methodist University 1963

**Theodore Otti**Instructor in Clinical Medicine (primary appointment)

UNKNOWN School Not Listed 1983

**Jiafu Ou, MD**Assistant Professor of Medicine (primary appointment)

MD Sun Yat-Sen University 1995

**Edgar Turner Overton, MD**Adjunct Assistant Professor of Medicine (primary appointment)

MD University of Tennessee 1999

BA University of Tennessee 1992

**Robert F Owen, MD**Instr Emeritus In Clinical Medicine (primary appointment)

MD Yale University 1952

BA Princeton University 1948

**William D Owens, MD**Prof Emeritus of Anesthesiology (primary appointment)

MD Davenport University 1965

BA Westminster College 1961

**Akinkunle Owoso, MD**Assistant Professor of Psychiatry (primary appointment)

MD University of Oklahoma 2007

BS1 University of Oklahoma 2003

**Vani Pachalla, MD**Instructor in Clinical Medicine (primary appointment)

MD School Not Listed 1990

**Russell Kent Pachynski, MD**Assistant Professor of Medicine (primary appointment)

BS Stanford University 1994

MD Univ of Wisconsin Madison 2003

**Robert C Packman, MD**Professor of Clinical Medicine (primary appointment)

BS University of Missouri 1954

BA Washington Univ in St. Louis 1953

MD Washington Univ in St. Louis 1956

**Pamela B Padda, MD**Instructor in Clinical Pediatrics (primary appointment)

BA University of Michigan 1986

MD University of Illinois 1990

**Camillo Padoa-Schioppa, PHD**Associate Professor of Neuroscience (primary appointment)

**Associate Professor of Economics (Courtesy)**

PHD Mass Inst of Technology (MIT) 2002

**Jeffrey Robert Padousis, MD**Instructor in Clinical Ophthalmology and Visual Science (primary appointment)

MD Saint Louis University 2000

**Stephen C Pak, PHD**Associate Professor of Pediatrics (Pending Executive Faculty Approval) (primary appointment)

BS University of Sydney 1990

PHD University of New South Wales 1996

**Ben Julian Palanca**Assistant Professor of Anesthesiology (primary appointment)

BS University of Washington 1997

**Ross Ian Palis, MD**Instructor in Clinical Medicine (primary appointment)

BS Duke University 1998

MD Vanderbilt University 2002

**Allen S Palmer, DOST**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

DOST School Not Listed 1972

BS Ohio Northern University 1963

**Chris M Palmer, MD**Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Emergency Medicine in Medicine**

BS Virginia Tech 2004

MD SUNY - Empire State College 2008

**Hua Pan, MS**Assistant Professor of Medicine (primary appointment)

BS Huashong University of Science 1997

MS Huashong University of Science 2002

Vasileios Panagopoulos Instructor in Clinical Psychiatry (primary appointment)

**Peter D Panagos**Associate Professor of Emergency Medicine in Medicine (primary appointment)

**Associate Professor of Neurology**



BA Dartmouth College 1987

Jennifer Ann Panasci **Instructor in Clinical Pediatrics** (primary appointment)

**Anupam S Pande, MBBS, MS** **Instructor in Medicine** (primary appointment)

MBBS Byramjee Jeejeebhoy Medical Co 2009

MS University of Texas Houston 2011

**Joseph Pangelinan, PHD** **Assistant Professor in Medicine** (primary appointment)

PHD University of MO St Louis 2015

**Randal C Paniello, MS** **Professor of Otolaryngology** (primary appointment)

BS1 University of Illinois 1979

MS University of Illinois 1980

BS University of Illinois 1979

**Bijal A. Parikh, PHD, MD** **Instructor in Pathology and Immunology** (primary appointment)

PHD Rutgers University 2004

MD U Medical-Dental Of New Jersey 2006

**Parag J. Parikh, MD** **Associate Professor of Radiation Oncology** (primary appointment)

**Associate Professor of Biomedical Engineering**

MD Washington Univ in St. Louis 2001

BS Case Western Reserve Univ 1997

**Sharad P Parikh** **Instructor in Clinical Surgery (General Surgery)** (primary appointment)

UNKNOWN University of Pune 1967

Andrew Yong-Woo Park **Instructor in Medicine** (primary appointment)

**Chunjoo Park, PHD, ME** **Assistant Professor of Radiation Oncology** (primary appointment)

PHD University of CA Berkeley 2013

ME The Catholic Univ of Korea 2009

**Haeseong Park, MD, MS** **Assistant Professor of Medicine (Pending Executive Faculty Approval)**  
(primary appointment)

MD Seoul National University 2006

BS Seoul National University 2001

MS Johns Hopkns University Medic 2007

Stephanie Sun-Young Park **Instructor in Clinical Medicine** (primary appointment)

**Tae Sung Park, MD** **Shi Hui Huang Professor of Neurological Surgery** (primary appointment)

**Professor of Neuroscience**

**Professor of Pediatrics**

MD Yonsei University 1971

BS Yonsei University 1967

**Yikyung Park, PHD** **Associate Professor of Surgery (Public Health Sciences)** (primary appointment)

MS1 EWha Womans University 1996

PHD Harvard University 2005

BS EWha Womans University 1994

**Charles L Parks** **Instructor in Clinical Surgery (General Surgery)** (primary appointment)

BS University of South Dakota 1967

**David A Parks, MD, MBA** **Associate Professor of Clinical Medicine** (primary appointment)

MD Saint Louis University 1994

BS University of MO Rolla 1979

MBA Southern Illinois University 1985

**Deborah L Parks, MD** **Professor of Medicine** (primary appointment)

BA Washington Univ in St. Louis 1978

MD University of Louisville 1982

**Laura Anne Parks, MD** Associate Professor of Obstetrics and Gynecology (primary appointment)

BA University of Kansas 1998

BS University of Kansas 1998

MD University of Kansas 2004

**Diana C. Parra Perez, MS, PHD** Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Surgery (Prevention and Control)**

MS Saint Louis University 2008

PHD Washington Univ in St. Louis 2013

BA Universidad del Rosario 2001

**Jeffrey Andrew Parres, MD** Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)

MD University of Missouri 1987

**Shadi Parsaei, DOST** Instructor in Medicine (primary appointment)

BS University of Louisville 2002

DOST Chicago Coll of OsteopathicMed 2007

**Matthew S Parsons, MD** Assistant Professor of Radiology (primary appointment)

MD University of Cincinnati 2000

BA Miami University 1995

**Robert T Paschall, MD** Prof Emeritus of Pediatrics (primary appointment)

MD University of Tennessee 1974

BS University of Tennessee 1967

**Michael K Pasque, MD** Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Professor of Radiology**

**Professor of Biomedical Engineering**

MD University of Oklahoma 1978

**Pablo Pastor, MD** Visiting Instructor in Psychiatry (primary appointment)

MD University of Barcelona 2001

Dilip H. Patel Instructor in Clinical Medicine (primary appointment)

**Kamlesh Babulal Patel, MD** Assistant Professor of Surgery (Plastic and Reconstructive Surgery)

(primary appointment)

MD University of Arizona 2005

BS University of MO Kansas City 2000

**Meera Raman Patel, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD University of MO Kansas City 1996

Pravinkumar Manjibhai Patel Instructor in Medicine (primary appointment)

**Rajiv Nanu Patel, MD** Instructor in Clinical Medicine (primary appointment)

MD Saba University School of Med 2001

**Rupa R Patel** Assistant Professor of Medicine (primary appointment)

BA University of Michigan 2000

**Urvi Patel, MD** Assistant Professor of Medicine (Dermatology) (primary appointment)

BA Kent St University 2007

MD University of Tenn Memphis 2011

Vaiibhav Patel Instructor in Medicine (primary appointment)

**Anjali K Pathak, MD** Associate Professor of Ophthalmology and Visual Sciences (primary appointment)

MD1 West Virginia University 1997

BA West Virginia University 1993

BS West Virginia University 1993

MD West Virginia University 1997



**Sheel Jitendra Pathak**Instructor in Clinical Neurology (primary appointment)

**Amanullah Pathan, MS**Instructor in Clinical Medicine (primary appointment)

UNKNOWN1 School Not Listed 1969

MS School Not Listed 1969

**Debabrata Patra, PHD, MS**Assistant Professor of Orthopaedic Surgery (primary appointment)

BS University of Bombay 1985

PHD University of Pittsburgh 1993

MS University of Bombay 2005

**Bruce Patterson, PHD**Professor of Medicine (primary appointment)

PHD University of Illinois 1980

BS Southern Illinois University 1974

**G. Alexander Patterson****Joseph C Bancroft Professor of Surgery (Cardiothoracic Surgery)** (primary appointment)

**Robert Harris Paul, PHD, MS**Adjunct Assistant Professor of Neurology (primary appointment)

PHD Oklahoma St University 1998

BS California State Long Beach 1993

MS Oklahoma St University 1995

**Katrina Paumier, PHD, PHD**Assistant Professor of Neurology (Pending Executive Faculty Approval) (primary appointment)

PHD University of Cincinnati 2015

PHD University of Cincinnati 2014

**Slavica Pavlovic Djuranovic, DIP, PHD**Instructor in Cell Biology and Physiology (primary appointment)

DIP UNIVERSITY OF BELGRADE 2001

BS UNIVERSITY OF BELGRADE 1999

PHD University of Tübingen 2006

**Philip Richard Orrin Payne, MA**Professor of Medicine (primary appointment)

**Robert J Terry** Professor

**Professor of Computer Science and Engineering**

MA Columbia University 2000

BA University of CA San Diego 1999

**Jacqueline Elise Payton, PHD, MD**Assistant Professor of Pathology and Immunology (primary appointment)

PHD University of Illinois 2002

MD University of Illinois 2004

BS Bradley University 1996

**Margaret Grace Peak, MA, PHD**Adjunct Assistant Professor of Otolaryngology (Audiology) (primary appointment)

BS Maryville University 1959

MA Saint Louis University 1961

PHD Columbia University 1975

**Alan L Pearlman, MD**Prof Emeritus Of Neurology (primary appointment)

MD Washington Univ in St. Louis 1961

BA University of Iowa 1958

**Anthony Craig Pearlstone, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA Washington Univ in St. Louis 1981

MD Washington Univ in St. Louis 1985

**Chelsea Elizabeth Pearson, MD**Instructor in Clinical Medicine (primary appointment)  
MD Washington Univ in St. Louis 2013

**Susan E Pearson, MS, PHD, BFA, DOST**Instructor in Clinical Medicine (primary appointment)  
MS Central Michigan University 1984  
PHD University of Southwestern Lo 1986  
BFA Southern Methodist University 1977  
DOST School Not Listed 1992

**Toni Shih Pearson, B MUS, MD**Associate Professor of Neurology (primary appointment)  
B MUS University of Adelaide 2000  
MD University of Adelaide 1998

**William A Peck, MD**Professor of Medicine (primary appointment)  
**Alan A and Edith L Wolff** Distinguished Professor  
Director, Center for Health Policy  
Affiliated Professor of Engineering  
MD University of Rochester 1960

**Katrina Sophia Pedersen, MS, MD**Assistant Professor of Medicine (primary appointment)  
MS University of Iowa 2005  
BA Grinnell College 2003  
MD Southern Illinois University 2009

**Jonathan Erik Peelle, BAS, PHD, MS PSYC**Assistant Professor of Otolaryngology (primary appointment)  
Assistant Professor of Psychological & Brain Sciences  
BAS Houghton College 1999  
PHD Brandeis University 2005  
MS PSYC Brandeis University 2002

**David M Peeples, MD**Instructor in Clinical Neurology (primary appointment)  
BA Vanderbilt University 1982  
MD University of Chicago 1986

**Patricia A. Penkoske**Instructor in Anesthesiology (primary appointment)  
BS Lindenwood University 1969

**Michael W Penney, MD**Associate Professor of Radiology (primary appointment)  
MD University of AR Little Rock 1996  
BS University of Arkansas 1992

**Karen J Pentella, MD**Assistant Professor of Clinical Neurology (primary appointment)  
MD Ohio State University 1979  
BS Ohio State University 1975

**Jay S Pepose, PHD, MA, MD**Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)  
BA Brandeis University 1975  
PHD University of California 1980  
MA Brandeis University 1975  
MD University of CA Los Angeles 1982

**Marybeth Pereira**Associate Professor of Clinical Medicine (primary appointment)  
BA Swarthmore College 1973

**Carlos A Perez**Prof Emeritus of Radiation Oncology (primary appointment)

**Julio E Perez, MD**Professor of Medicine (primary appointment)  
BS University of Puerto Rico 1970  
MD University of Puerto Rico 1973

**Enrique Pedro Perinetti, PHD, MD**Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)

PHD School Not Listed 1975

MD School Not Listed 1969

**Stephanie Mabry Perkins, MD**Associate Professor of Radiation Oncology (primary appointment)

BS Union University 2001

MD University of Tenn Memphis 2005

**David H Perlmutter, MD**Executive Vice Chancellor for Medical Affairs (primary appointment)

Dean of the School of Medicine

Professor of Pediatrics

BS1 University of Rochester 1974

MD Saint Louis University 1978

**Joel S Perlmutter, MD**Professor of Neurology (primary appointment)

Professor of Radiology

Professor of Occupational Therapy

Professor of Neuroscience

Professor of Physical Therapy

MD University of MO Columbia 1979

BA Princeton University 1975

**John Craig Perlmutter, MD**Associate Professor of Clinical Ophthalmology and Visual Sciences

(primary appointment)

MD Cornell University 1971

BA Queens College 1967

**Monica S Perlmutter, OTD, MA, BSOT**Associate Professor of Occupational Therapy (primary appointment)

Associate Professor of Ophthalmology and Visual Sciences

OTD Washington Univ in St. Louis 2012

MA Washington Univ in St. Louis 1989

BSOT University of MO Columbia 1981

**Laurence F Perlstein, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Louisville 1974

BS Tulane University 1967

**Michael James Pernoud, DDENT**Instructor in Clinical Otolaryngology (primary appointment)

DDENT University of Missouri 1975

BA Saint Louis University 1971

**Richard J. Perrin, MD, PHD**Assistant Professor of Pathology and Immunology (primary appointment)

MD University of Illinois Chicago 2004

BS Yale University 1992

PHD University of Illinois 2001

**Alan Pestronk, MD**Professor of Neurology (primary appointment)

Professor of Pathology and Immunology

MD Johns Hopkins University 1970

BA Princeton University 1966

**Steven E Petersen, PHD**James S McDonnell Professor of Cognitive Neuroscience in Neurology (primary appointment)

Professor of Neuroscience

Professor of Radiology

**Professor of Psychology**

**Professor of Biomedical Engineering**

**Associate Professor of Neurological Surgery (Neuropsychology)**

PHD California Institute Technolo 1982

BA University of Montana Missoula 1974

**Linda R Peterson, MD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Radiology**

BS Georgetown University 1986

MD Washington Univ in St. Louis 1990

**Lindsay L Peterson, MD** Assistant Professor of Medicine (primary appointment)

BS Tulane University 2000

MD Tulane University 2006

Stephen E Peterson **Instructor in Clinical Psychiatry (Child)** (primary appointment)

**Timothy Richard Peterson** Assistant Professor of Medicine (primary appointment)

BS University of Michigan 1999

**Orlando Petrucci, MD, PHD, MS** Assistant Professor of Sugery (Cardiothoracic Surgery) (Pending Executive Faculty Approval) (primary appointment)

MD University of Campinas 1991

PHD University of Campinas 2004

MS University of Campinas 2001

**Allegra Petti** Instructor in Medicine (primary appointment)

BS Lawrence University 2003

**John David Pfeifer, MD, PHD** Professor of Pathology and Immunology (primary appointment)

**Professor of Obstetrics and Gynecology**

**Vice Chairman for Clinical Affairs of Pathology and Immunology**

MD University of California 1988

PHD University of California 1987

BA University of California 1981

**Christine T Pham** Associate Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

BS University of Florida 1981

Benjamin Allen Philip **Instructor in Occupational Therapy** (primary appointment)

**Instructor in Neurology**

**Jennifer A Philips, MD, PHD, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Molecular Microbiology**

MD University of CA San Francisco 2000

PHD University of CA San Francisco 1998

PHD University of CA San Francisco 2015

BA Columbia University 1991

Daniel Phillips **Assistant Professor of Clinical Neurology** (primary appointment)

**William J Phillips, MD** Assistant Professor of Clinical Medicine (primary appointment)

BA Ohio State University 1959

MD Washington Univ in St. Louis 1963

**Jane Phillips Conroy, PHD, MA** Professor of Anatomy (primary appointment)

**Professor of Anthropology**

PHD New York University 1978

BA Brandeis University 1969

MA New York University 1973

**Gordon W Philpott** Prof Emeritus Of Surgery (Gen Surg) (primary appointment)

**Prof Emeritus Of Surgery (general Surg)** (primary appointment)

BS Yale University 1957

**Timothy Charles Philpott, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD Washington Univ in St. Louis 1994

**Supote Phipatanakul, MD** Assistant Professor of Clinical Otolaryngology (primary appointment)

MD Chulolongkorn University 1965

**Chia Ling Phuah** Assistant Professor of Neurology (primary appointment)

MS1 Cambridge University 2007

**Laura Piccio, MD** Associate Professor of Neurology (primary appointment)

MD University of Milan 1997

**Jay Francis Piccirillo** Professor of Otolaryngology (primary appointment)

Vice Chairman for Research, Dept of Otolaryngology

Professor of Medicine

Professor of Occupational Therapy

Professor of Biostatistics

BA University of Vermont 1979

**Daniel D Picus, MD** Professor of Radiology (primary appointment)

Professor of Surgery (General Surgery)

Vice Chair for Diagnostic Radiology in Radiology

MD University of Chicago 1981

BS1 University of Illinois 1977

BS University of Illinois 1977

**Joel Picus, MD** Professor of Medicine (primary appointment)

MD Harvard University 1984

BS University of Illinois 1979

BA University of Illinois 1979

**Stephen J Pieper, MD** Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1988

**James Vernon Piephoff, MD** Instructor in Clinical Radiation Oncology (primary appointment)

MD University of South Carolina 1989

BS Citadel 1985

**Brian Pierce, MD** Instructor in Medicine (primary appointment)

MD Wayne State University 2013

**John A Pierce, MD** Prof Emeritus Of Medicine (primary appointment)

MD University of Arkansas 1948

**Linda J Pike, PHD** Alumni Endowed Professor of Biochemistry and Molecular Biophysics (primary appointment)

PHD Duke University 1980

BS University of Delaware 1975

**Aaron Juan Pile, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD School Not Listed 1983

BA Norfolk State University 1980

**Zachary Scott Pincus** Assistant Professor of Genetics (primary appointment)

Assistant Professor of Developmental Biology

**Jorge Pineda, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD School Not Listed 1972

**Roberta G Pineda, PHS, MHS**Assistant Professor of Occupational Therapy (primary appointment)

**Assistant Professor of Pediatrics**

PHS University of Florida 2006

MHS University of Florida 1994

**Jose A Pineda Soto, MD**Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Neurology**

BS Francisco Marroquin University 1988

MD Francisco Marroquin University 1993

**Christopher James Pingel, MD**Instructor in Pediatrics (primary appointment)

BS Washington Univ in St. Louis 2003

MD Saint Louis University 2007

**Bryan Douglas Piotrowski, MD**Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 2004

**Terrence L Piper, MD**Assistant Professor of Clinical Orthopaedic Surgery (primary appointment)

BA Saint Louis University 1971

MD Saint Louis University 1975

**Patrik Pipkorn, MD**Instructor in Otolaryngology (Pending Dean's Approval) (primary appointment)

MD University of Gothenburg 2007

**David William Piston, PHD, MS**Professor of Cell Biology and Physiology (primary appointment)

**Head of the Department of Cell Biology and Physiology**

PHD University of Illinois 1989

BS Grinnell College 1984

MS University of Illinois 1985

**Jessica E Pittman, MD, M PH**Assistant Professor of Pediatrics (primary appointment)

BS Oberlin College 1998

MD Washington Univ in St. Louis 2004

M PH University North Carolina 2009

**Helen Piwnica-Worms, PHD**Adjunct Professor of Cell Biology and Physiology (primary appointment)

BA St Olaf College 1979

PHD Duke University 1984

**Mitchell R Platin, MD**Assistant Professor of Anesthesiology (primary appointment)

MD Kent St University 1987

**Daniel S Plax, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1993

BA Brown University 1988

**Kathryn L. Plax, MD**Ferring Family Chair Professor of Pediatrics (primary appointment)

BA Brown University 1989

MD University of Rochester 1996

**Steven I Plax, MD**Prof Emeritus Of Clinical Pediatrics (primary appointment)

BA1 Washington Univ in St. Louis 1957

MD University of Missouri 1961

BA Washington Univ in St. Louis 1957

**Beatrice Plougastel Douglas, PHD**Instructor in Medicine (primary appointment)

PHD University of Pierre et Marie 1994

**John Samuel Plowden, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

BS Washington & Lee 1979



MD Medical College Georgia 1984

**Santiago Boye Plurad Jr, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1982

MD School Not Listed 1987

**Adrienne Rae Poe, PHD**Instructor in Anesthesiology (Pending Dean's Approval) (primary appointment)

PHD Washington St University 2011

**Doug Pogue, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1996

**Robert Francis Poirier Jr, MD**Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD American U of Carribean SchMed 1999

**Donovan Polack, MD**Assistant Professor of Clinical Medicine (primary appointment)

MD Cornell University 1979

**Gregory Polites, MD**Associate Professor of Emergency Medicine in Medicine (primary appointment)

MD University of Illinois Chicago 1996

**Mary Politi, M PHIL**Associate Professor of Surgery (General Surgery) (primary appointment)

M PHIL George Washington University 2004

BS Barnard College 2001

**Juanita C Polito-Colvin, MD**Associate Professor of Clinical Pediatrics (primary appointment)

BA University of Dallas 1975

MD Southwest Texas State Unvers 1979

**Alex Politsmakher, MD**Assistant Professor of Medicine (primary appointment)

BA Yeshiva University 1997

MD Ross Univ School of Medicine 2002

**David Gerard Politte, MEE, D SC**Assistant Professor of Radiology (primary appointment)

MEE Washington Univ in St. Louis 1983

BS Washington Univ in St. Louis 1981

D SC Washington Univ in St. Louis 1999

**Kenneth S Polonsky, MBBCH**Adjunct Professor of Medicine (primary appointment)

MBBCH University of the Witwatersra 1973

**Katherine P Ponder, MD**Professor of Medicine (primary appointment)

**Professor of Biochemistry and Molecular Biophysics**

BS Stanford University 1979

MD Washington Univ in St. Louis 1983

**Makhawadee Pongruangporn, MD**Instructor in Clinical Medicine (primary appointment)

MD Chiang Mai University 2001

**Maria Rosana Ponisio, MD**Instructor in Radiology (primary appointment)

MD La Plata University 1990

**Harish Ponnuru, MD**Instructor in Clinical Medicine (primary appointment)

BA University of MO Kansas City 1995

MD University of Missouri 1995

**Gerald Raymond Popelka**Adjunct Professor of Otolaryngology (primary appointment)

**Steven Paul Poplack, MD**Associate Professor of Radiology (primary appointment)

BS Stanford University 1984

MD Boston University 1988

**Lee S Portnoff**Assistant Professor of Clinical Medicine (Dermatology) (primary appointment)

BS Purdue University 1972

**Daniel E Potts, MD** Associate Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1972

BS Beaufort Technical College 1968

**Lisa Gayle Potts, PHD, MS** Assistant Professor of Otolaryngology (primary appointment)

**Assistant Professor of Audiology and Communication Sciences**

BS Southern Illinois University 1988

PHD Washington Univ in St. Louis 2006

MS Washington Univ in St. Louis 1991

**William G Powderly, MDJ.** William Campbell Professor of Medicine (primary appointment)

**Director for the Institute of Public Health**

MD National University of Ireland 1979

**John A Powell** Assistant Professor of Clinical Medicine (Dermatology) (primary appointment)

BS University of Notre Dame 1967

**Matthew A Powell, MD** Associate Professor of Obstetrics and Gynecology (primary appointment)

MD Michigan State University 1995

BS Washington St University 1990

**Stephanie K Powell, PHD, MS** Instructor in Clinical Neurology (primary appointment)

PHD Univ of Wisconsin Milwaukee 2004

MS Univ of Wisconsin Milwaukee 2000

**Jennifer Lynn Powers** Assistant Professor of Medicine (Pending Executive Faculty Approval)

(primary appointment)

**William John Powers, MD** Adjunct Professor of Neurology (primary appointment)

BA Dartmouth College 1971

MD Cornell University 1975

**Diana A Prablek, MD** Instructor in Clinical Medicine (primary appointment)

BA Texas Christian University 1984

MD Southwestern University 1988

**Lawrence Prablek, MD** Instructor in Clinical Medicine (primary appointment)

BS Southern Methodist University 1984

MD University of Texas Southwest 1988

**Simeon Prager, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD University of California 1991

**Vajravel M Prasad** Adjunct Instructor in Medicine (primary appointment)

**Heidi Prather, DOST** Professor of Orthopaedic Surgery (primary appointment)

**Professor of Neurology**

DOST Univ of Health Sciences KC 1991

BA Drury College 1987

**David J Prelutsky** Associate Professor of Clinical Medicine (primary appointment)

BA Northwestern University 1975

**Arthur L Prenskey, MD** Prof Emeritus Of Neurology (primary appointment)

BA Cornell University 1951

MD New York University 1955

**Rachel M. Presti, PHD, MD** Assistant Professor of Medicine (primary appointment)

BA Scripps College 1990

PHD Washington Univ in St. Louis 2001

MD Washington Univ in St. Louis 2001

**Claudia Preuschoff** Instructor in Clinical Pediatrics (primary appointment)



**Elizabeth F Pribor, MD** Associate Professor of Clinical Psychiatry (primary appointment)

BA Emory University 1981

MD Saint Louis University 1985

**Joseph L Price, PHD** Prof Emeritus of Anatomy & Neurobiology (primary appointment)

PHD Oxford University 1969

BA1 Oxford University 1966

BA University of the South 1963

**Madelon T Price, PHD** Resrch Prof Emeritus Of Neurobiology In Psych (primary appointment)

BA Washington Univ in St. Louis 1953

PHD Washington Univ in St. Louis 1973

**Rumi Kato Price, PHD, MA, MPE** Professor of Psychiatry (primary appointment)

PHD University of California 1988

MA University of California 1982

BA Ochanomizu Univ 1976

MPE Washington Univ in St. Louis 1990

**Jasmina Profirovic, PHD** Adjunct Assistant Professor of Cell Biology and Physiology (primary appointment)

PHD University of Illinois Chicago 2005

BS University of Belgrade 1997

**Michael A Province, MA** Professor of Genetics (primary appointment)

**Professor of Biostatistics**

BA University of Dallas 1973

MA Washington Univ in St. Louis 1979

**John R. Pruett Jr, PHD** Associate Professor of Psychiatry (Child Psychiatry) (primary appointment)

**Associate Professor of Radiology**

**Associate Professor of Psychological & Brain Sciences (Courtesy)**

PHD Washington Univ in St. Louis 2000

BA Princeton University 1990

**Cassandra Michelle Pruitt, MD** Associate Professor of Pediatrics (primary appointment)

MD Texas Tech University 1999

BA Emory University 1994

Aaron J Pugh **Adjunct Instructor in Medicine** (primary appointment)

**Debra D Pulley, MD, MME** Associate Professor of Anesthesiology (primary appointment)

BS Vanderbilt University 1978

MD Saint Louis University 1987

MME University of MO Columbia 1982

Laurie Jean Punch **Assistant Professor of Surgery (General Surgery)** (primary appointment)

**James A Purdy, PHD, MA** Emeritus Professor of Radiation Oncology (primary appointment)

**Prof Emeritus of Radiation Oncology** (primary appointment)

PHD University of Texas Austin 1971

BS Lamar University 1967

MA University of Texas Austin 1969

**Varun Puri, MD, MS** Associate Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

MD Washington Univ in St. Louis 2009

MS Creighton University 2007

**Mabel Louise Purkerson, MD** Prof Emeritus Of Medicine (primary appointment)

MD University of South Carolina 1956

**Edward Puro, PHD, MD, MS** Assistant Professor of Clinical Medicine (primary appointment)

PHD University of Toronto 1970

BS University of Toronto 1962

MD Washington Univ in St. Louis 1975

MS University of Toronto 1966

**Iskra Pusic, MD** Assistant Professor of Medicine (primary appointment)

MD University of Zagreb 1997

**Peter J Putnam** Assistant Professor of Clinical Pediatrics (primary appointment)

**Jenna M Putzell** Instructor in Clinical Pediatrics (primary appointment)

**Carlos Angel Puyo, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Juan N Corpas School of Medici 1989

**Usman Qayyum** Instructor in Clinical Medicine (primary appointment)

**Mujtaba A Qazil** Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

**Robert Louis Quaas** Instructor in Clinical Pediatrics (primary appointment)

BA Cornell College 1970

BS University of South Dakota 1973

**Nishath Quader, MD** Assistant Professor of Medicine (primary appointment)

BS University of Illinois Chicago 2002

MD Northwestern University 2007

**Kimberly S Quayle, MD** Professor of Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1988

**Patricia M Quinley, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Illinois 1989

BS University of Illinois 1985

**Jennifer Quinn** Instructor in Clinical Pediatrics (primary appointment)

BA University of Kentucky 1982

**James D Quirk, MA** Assistant Professor of Radiology (primary appointment)

BS Mass Inst of Technology (MIT) 1994

MA Washington Univ in St. Louis 1998

**Abdul H Qureshi, MS** Instructor in Clinical Medicine (primary appointment)

MS School Not Listed 1992

**John S Rabun, MD** Instructor in Clinical Psychiatry (primary appointment)

BA University of Tennessee

MD University of Tennessee

**Brad Alan Racette, MD** Professor of Neurology (primary appointment)

**Executive Vice Chair of Clinical Affairs, Department of Neurology**

MD Northwestern University 1992

**Susan B. Racette, PHD** Professor of Physical Therapy (primary appointment)

**Professor of Medicine**

PHD University of Chicago 1994

BS Bucknell University 1988

**Janet Sue Rader, MD**

MD University of Missouri 1983

BA Drake University 1978

**Srinivasan Raghavan** Instructor in Clinical Medicine (primary appointment)

**Edward Floyd Ragsdale, MD** Instructor in Clinical Radiology (primary appointment)

MD Washington Univ in St. Louis 1964

BA University of Arkansas 1960

**Mohammad H Rahman**Instructor in Clinical Pediatrics (primary appointment)

UNKNOWN School Not Listed 1960

**Jodie Rai, MD**Associate Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD University of Illinois 1988

BA Harvard University 1983

**Muhammad Farooq Rai, PHD**Assistant Professor of Orthopaedic Surgery (primary appointment)

PHD Freie University 2008

**Marcus E Raichle, MD**Professor of Radiology (primary appointment)

Professor of Neuroscience

Professor of Neurology

Alan A and Edith L Wolff Distinguished Professor of Medicine

Professor of Psychological & Brain Sciences

Professor of Biomedical Engineering

BS University of Washington 1960

MD University of Washington 1964

Rithwick RajagopalAssistant Professor of Ophthalmology and Visual Sciences (primary appointment)

**Mark S Rallo, OD**Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD University of Missouri 1990

BS Saint Louis University 1986

Vidya RamanInstructor in Clinical Pediatrics (primary appointment)

**Raja Ramaswamy**Assistant Professor of Radiology (primary appointment)

Assistant Professor of Surgery (General Surgery)

BA Emory University 2004

**Pathmawathy T Ramesvara, MS**Instructor in Clinical Pediatrics (primary appointment)

MS School Not Listed 1972

**Britney Martin Ramgopal, MD**Instructor in Medicine (primary appointment)

BS Oklahoma St University 2008

MD Oklahoma St University 2012

**Rajeev Ramgopal, MD**Instructor in Medicine (primary appointment)

MD University of Oklahoma 2012

BS University of Rochester 2005

**Roxane M. Rampersad, MD**Associate Professor of Obstetrics and Gynecology (primary appointment)

MD Emory University 1998

BS Emory University 1994

Alex Taylor RamseyInstructor in Psychiatry (primary appointment)

**Gwendalyn Jan Randolph, PHD**Unanue Distinguished Professof of Immunology (primary appointment)

Professor of Medicine

BS Temple University 1991

PHD State University of New York 1995

**Prabha Ranganathan, MBBS**Associate Professor of Medicine (primary appointment)

MBBS Kilpauk Medical College 1990

**Diane Rankin, MD**Assistant Professor of Clinical Psychiatry (primary appointment)

BA University of Colorado Boulder 1962

MD University of Colorado Boulder 1968

**Dabeeru C Rao, PHD, MS**Professor of Biostatistics (primary appointment)

**Professor of Biostatistics in Genetics**  
**Director of the Division of Biostatistics**  
**Tenure Held At-Large in the Medical School**  
**Professor of Biostatistics in Psychiatry**  
**Professor of Mathematics**

BS Indian Statistical Institute 1967

PHD Indian Statistical Institute 1971

MS Indian Statistical Institute 1968

**Lesley Kathryn Rao, MD**Assistant Professor of Anesthesiology (primary appointment)

MD Saint Louis University 2006

**Prabakar Kumar Rao, MD**Professor of Ophthalmology and Visual Sciences (primary appointment)

MD University of Southern Calif 1995

BA University of CA San Diego 1991

**Radhika Rao**Instructor in Clinical Psychiatry (primary appointment)

**Rakesh Rao, MD**Assistant Professor of Pediatrics (primary appointment)

MD Maulana Azad Medical College 1996

**Ricardo Rao, MD**Instructor in Clinical Surgery (General Surgery) (primary appointment)

MD University of Missouri 1987

BA University of CA San Diego 1983

**Srinivasan Dubagunta Rao**Adjunct Instructor in Medicine (primary appointment)

**U. Ramakrishna Rao, PHD**Associate Professor of Medicine (primary appointment)

BS Mysore University 1975

PHD University of Bombay 1987

**Constantine A Raptis, MD**Assistant Professor of Radiology (primary appointment)

BS University of Chicago 1999

MD University of Pennsylvania 2004

**Emanuel Rashed, MD**Instructor in Clinical Pediatrics (primary appointment)

MD Saint Louis University 1962

BS University of Illinois 1958

**Antonella Luisa Rastelli, MD**Associate Professor of Medicine (primary appointment)

**Associate Professor of Surgery (General Surgery)**

BA University of Verona 1984

MD University of Verona 1991

**Rashmi R Rathor, MD**Assistant Professor of Anesthesiology (primary appointment)

MD University of Illinois 2007

**Gary A Ratkin, MD**Associate Professor of Clinical Medicine (primary appointment)

**Instructor in Clinical Radiation Oncology**

MD Washington Univ in St. Louis 1967

BA Rice University 1963

**Jebadurai Ratnaraj, MD**Assistant Professor of Anesthesiology (primary appointment)

MD1 Northrhein Westfalen Medical 1985

MD Madurai Kamaraj University 1979

**Lee Ratner, MA, PHD**Professor of Medicine (primary appointment)

**Professor of Molecular Microbiology**

**Alan A and Edith L Wolff Professor of Oncology**

BA Harvard University 1973

MA Harvard University 1973

PHD Yale University 1979

**Gregory Ratti, MD**Instructor in Medicine (primary appointment)

MD University of Cincinnati 2013

**Valerie Ratts**Professor of Obstetrics and Gynecology (primary appointment)

**Associate Dean for Admissions**

**Daniel Rauch, PHD**Assistant Professor of Medicine (primary appointment)

PHD University of Iowa 2001

BS Augustana College 1996

BS1 Augustana College 1996

**V. Nathan Ravi, PHD, MS**Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Energy, Environmental and Chemical Engineering**

PHD Virginia Tech 1980

MS University of Bombay 1975

BS University of Bombay 1972

**Amy J. Ravin, MD**Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD University of Chicago 1996

**Wilson Z Ray**Assistant Professor of Neurological Surgery (primary appointment)

**Assistant Professor of Orthopaedic Surgery**

**Saadia Taufiq Raza, MD**Assistant Professor of Clinical Medicine (Dermatology) (primary appointment)

MD Emory University 1997

**Syed A Raza**Assistant Professor of Clinical Psychiatry (Child Psychiatry) (primary appointment)

**Babak Razani, PHD, MD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

PHD Albert Einstein College of Med 2003

MD Albert Einstein College of Med 2003

**Sheryl S Ream, MD**Instructor in Clinical Pediatrics (primary appointment)

MD Saint Louis University 1986

BA Saint Louis University 1982

**Timothy Patrick Rearden, MD, MS**Instructor in Clinical Medicine (primary appointment)

BS Southeast Missouri St Univer 1979

MD University of MO Columbia 1985

MS University of MO Columbia 1981

**Neil F. Rebbe, PHS, MD**Instructor in Clinical Pediatrics (primary appointment)

BA University of MO St Louis 1978

PHS Washington Univ in St. Louis 1983

MD Saint Louis University 1996

**Arhaanth D Reddy**Instructor in Clinical Medicine (primary appointment)

**Chandrashekar Reddy**Instructor in Clinical Psychiatry (primary appointment)

**Kavitha Reddy**Assistant Professor of Emergency Medicine in Medicine (primary appointment)

**Jonathan R Reed, MD**Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

BA Fisk University 1956

MD Meharry Med College 1965

**Nanette Rahee Reed, MD**Assistant Professor of Surgery (General Surgery) (Pending Executive Faculty Approval) (primary appointment)

MD Baylor College of Medicine 2004

BS University of Notre Dame 2000

**Timothy Reed**Instructor in Clinical Pediatrics (primary appointment)

**Katherine Marie Reeder, PHD** Adjunct Assistant Professor of Medicine (primary appointment)  
PHD University of Iowa 2007

**Dominic N Reeds** Associate Professor of Medicine (primary appointment)

BA University of Texas Austin 1992

Susan Robinson Reeds Assistant Professor of Medicine (primary appointment)

**Lester T Reese, MD** Professor of Clinical Medicine (Dermatology) (primary appointment)

BS Tulane University 1962

MD Tulane University 1966

**Kara Anne Regan, MD** Assistant Professor of Medicine (primary appointment)

BS East Carolina University 2002

MD East Carolina University 2008

**David E Reichert, PHD** Associate Professor of Radiology (primary appointment)

PHD University of Illinois 1994

BS Roanoke College 1986

Phillip D Reichert Instructor in Clinical Pediatrics (primary appointment)

**Angela M. Reiersen, MD, MS PSYC** Assistant Professor of Psychiatry (Child Psychiatry) (primary appointment)

MD University of Southern Calif 1999

BS University of CA Davis 1994

MS PSYC Washington Univ in St. Louis 2006

**Margaret Reiker, MD, PHD** Instructor in Clinical Medicine (primary appointment)

UNKNOWN Saint Louis University 1986

MD Saint Louis University 1993

PHD Saint Louis University 1991

**Michael Reilly, MS, PHD** Instructor in Radiation Oncology (Pending Dean's Approval) (primary appointment)

MS Univ of IL -Urbana-Champaign 2005

BS Univ of IL -Urbana-Champaign 2003

PHD Univ of IL -Urbana-Champaign 2009

**Eduardo Reina, MD** Instructor in Anesthesiology (Pending Dean's Approval) (primary appointment)

MD University of Illinois Chicago 2011

Angela Mary Reining Instructor in Clinical Obstetrics and Gynecology (primary appointment)

Daniel B. Reising Instructor in Clinical Psychiatry (Child Psychiatry) (primary appointment)

**David Martin Reisler, M PH, MD** Assistant Professor of Clinical Neurology (primary appointment)

M PH Johns Hopkins University Medic 1971

MD Washington Univ in St. Louis 1961

BA Harvard University 1957

**Craig K Reiss, MD** Professor of Clinical Medicine (primary appointment)

MD University of Missouri 1983

BA University of Missouri 1979

**Jacqueline Levy Reiss, MD** Instructor in Clinical Medicine (primary appointment)

BA University of MO Kansas City 1989

MD University of Missouri 1990

**Maria Sara Remedi, PHD, MS** Assistant Professor of Medicine (primary appointment)

Assistant Professor of Cell Biology and Physiology

PHD University of Cordoba 1999

MS University of Cordoba 1989



BS University of Cordoba 1987

**Catherine R Remus, MD, MSN**Assistant Professor of Clinical Pediatrics (primary appointment)

MD School Not Listed 1983

BA Luther College 1975

MSN Rush University 1978

**Kenneth Eugene Remy, MD**Assistant Professor of Pediatrics (primary appointment)

MD Jefferson Medical College 2004

**Dave A Rengachary, MD**Instructor in Clinical Neurology (primary appointment)

MD Northwestern University 2000

**Marvin Rennard, MD**Prof Emeritus Of Clinical Ob & Gyn (primary appointment)

MD Washington Univ in St. Louis 1952

**Hilary Elizabeth Lee Reno, MD, MS, PHD**Assistant Professor of Medicine (primary appointment)

MD University of Illinois 2002

MS University of Illinois 1997

PHD University of Illinois 2000

**Stacey L. Rentschler, MS, PHD, MD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Developmental Biology**

MS Mount Sinai School of Medicine 2000

PHD Mount Sinai School of Medicine 2002

MD Mount Sinai School of Medicine 2004

**Nicholas R Renz**Instructor in Emergency Medicine in Medicine (primary appointment)

BA University of MO Columbia 2004

**Michael P Rettig, PHD**Assistant Professor of Medicine (primary appointment)

BS Illinois State University 1993

PHD Purdue University 2000

Alejandro Reyes**Adjunct Assistant Professor of Pathology and Immunology** (primary appointment)

**George H Rezabek, DOST**Instructor in Clinical Pediatrics (primary appointment)

DOST School Not Listed 1988

**Edward K Rhee**Adjunct Assistant Professor of Pediatrics (primary appointment)

BA University of Pennsylvania 1986

**Noor Riaz, MD**Instructor in Pediatrics (primary appointment)

MD Washington Univ in St. Louis 2008

**William M Ricci, MD**Professor of Orthopaedic Surgery (primary appointment)

MD Duke University 1992

BS Duke University 1986

**John P Rice, MA, PHD**Professor of Mathematics in Psychiatry (primary appointment)

**Professor of Biostatistics**

**Professor of Genetics**

BA Cornell University 1969

MA Washington Univ in St. Louis 1972

PHD Washington Univ in St. Louis 1975

**Micheal Todd Rice, MD**Assistant Professor of Anesthesiology (primary appointment)

MD Univ of Texas San Antonio 2002

**Treva Kay Rice, MA**Professor of Biostatistics (primary appointment)

**Professor of Psychiatry**

BS University of Texas Arlington 1981

MA University of Colorado Boulder 1984

**Charles M Rice III, PHD**Adjunct Professor of Molecular Microbiology (primary appointment)

PHD California Institute Technolo 1981

BS University of California 1974

**Jason T. Rich, MD**Assistant Professor of Otolaryngology (primary appointment)

MD Ohio State University 2004

BS Brigham Young University 2000

**Keith M Rich, MD**Professor of Neurological Surgery (primary appointment)

**Professor of Neuroscience**

**Professor of Radiation Oncology**

BA Taylor University 1974

MD Indiana University Bloomington 1977

**Michael W Rich, MD**Professor of Medicine (primary appointment)

BA University of Illinois 1974

MD University of Illinois 1979

**Lois F. Richard, PHD**Assistant Professor of Medicine (primary appointment)

BS Murray St University 1982

PHD Saint Louis University 1998

**Cheryl Richards, MA, PHD**Assistant Professor of Psychiatry (primary appointment)

**Assistant Professor of Medicine**

MA University of Illinois 1981

BS Ohio University 1977

PHD University of Illinois 1987

**Frank O Richards**Assistant Professor Emeritus of Clinical Surgery (General Surgery) (primary appointment)

**Asst Prof Emeritus of Clin Surg (Gen Surg)** (primary appointment)

**Asst Prof Emeritus of Clin Surgery (Gen Surg)** (primary appointment)

BA Talladega College 1944

Thomas F Richardson**Professor of Psychiatry** (primary appointment)

**Justin M Richner, PHD**Instructor in Medicine (primary appointment)

BS Washington Univ in St. Louis 2006

PHD University of CA Berkeley 2011

**Clare H Ridley, MD**Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

MD Washington Univ in St. Louis 2008

BA Columbia College of Phy & Surg 2002

William M Riedesel II**Associate Professor of Clinical Psychiatry** (primary appointment)

**Terrence E Riehl, MS, PHD**Associate Professor of Medicine (primary appointment)

MS Rutgers University 1976

BS Rutgers University 1974

PHD Ohio University 1981

Amy Elizabeth Riek**Assistant Professor of Medicine** (primary appointment)

**Robert D Rifkin, MD**Professor of Medicine (primary appointment)

BS Mass Inst of Technology (MIT) 1968

MD New York University 1972

**Shale M Rifkin, MD**Assistant Professor of Clinical Surgery (General Surgery) (primary appointment)

MD Washington Univ in St. Louis 1948

**Caron E Rigden, BFA, MD**Assistant Professor of Medicine (primary appointment)

BFA Tulane University 1996



MD Tulane University 2000

**Lee A Rigg, PHD, MD** Associate Professor of Clinical Obstetrics and Gynecology (primary appointment)

BA Arizona State University 1961

PHD University of Colorado Boulder 1965

MD Washington Univ in St. Louis 1971

**Joan K. Riley, PHD** Assistant Professor of Obstetrics and Gynecology (primary appointment)

**Assistant Professor of Pediatrics**

**Instructor in Medicine**

PHD Washington Univ in St. Louis 1998

**Julie L Ring, DDENT** Instructor in Clinical Otolaryngology (DDS) (primary appointment)

DDENT University of MO Kansas City 1998

**Tracy Marie Riordan, MD** Instructor in Clinical Medicine (primary appointment)

BA Saint Louis University 1996

MD Saint Louis University 2000

**Stephen L. Ristvedt, MA, PHD** Associate Professor of Anesthesiology

**Associate Professor of Psychiatry**

BA University of Minnesota 1981

MA University of Pennsylvania 1983

PHD University of Pennsylvania 1989

Jon H Ritter **Professor of Pathology and Immunology** (primary appointment)

**Terri L Riutcel, MD** Associate Professor of Neurology (primary appointment)

BS University of MO Columbia 1991

MD Vanderbilt University 1995

**Katherine Rivera-Spoljaric, MS, MD** Associate Professor of Pediatrics (primary appointment)

BS University of Puerto Rico 1997

MS Washington Univ in St. Louis 2008

MD University of Puerto Rico 2001

**William L. Rives, MS** Assistant Professor of Pediatrics (primary appointment)

MS University of Missouri 1992

**Robert V Rivlin, MS, DDENT** Instructor in Clinical Otolaryngology (DMD) (primary appointment)

MS Fairleigh Dickinson University 1975

DDENT Washington Univ in St. Louis 1979

BA Rutgers University 1972

Syed T Rizvi **Assistant Professor of Clinical Psychiatry (Child Psychiatry)** (primary appointment)

**Necita L Roa, MD** Assoc Prof Emeritus of Anesthesiology (primary appointment)

MD University of the Philippines 1969

**Michael Charles Roach** Assistant Professor of Radiation Oncology (primary appointment)

BS Vanderbilt University 2007

**Elisha D.O. Roberson, PHD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Genetics**

BS Western Kentucky University 2004

PHD Johns Hopkins University 2009

**Clifford Grant Robinson, MD** Associate Professor of Radiation Oncology (primary appointment)

BS University of Pittsburgh 2000

MD Case Western Reserve Univ 2004

**Janis B Robinson, MA** Associate Professor of Clinical Pediatrics (primary appointment)

MA Yale University 1972

**Kathryn Ann Robinson, MD** Assistant Professor of Radiology (primary appointment)

MD State Univ of NY Stonybrook 2001

**Paul Arthur Robiolio, M PHIL, MD** Assistant Professor of Clinical Medicine (primary appointment)

M PHIL Cambridge University 1985

MD Washington Univ in St. Louis 1989

BS Haverford College 1983

**Ann Marie Rockamann** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Toby Andrew Rockefeller, MD** Assistant Professor of Pediatrics (Pending Executive Faculty Approval) (primary appointment)

BS Oklahoma St University 2005

MD University of Oklahoma 2009

**Catherine M Roe, MA** Assistant Professor of Neurology (primary appointment)

MA Southern Illinois University 1990

BA Purdue University 1986

**M. Reza Rofougaran, MD** Instructor in Clinical Medicine (primary appointment)

MD Tehran University 1988

**John Deno Rogakos** Instructor in Clinical Psychiatry (Child Psychiatry) (primary appointment)

BS University of Dayton 1990

**Buck Edward Rogers, PHD, MA** Professor of Radiation Oncology (primary appointment)

**Professor of Radiology**

BS Loyola University Chicago 1989

PHD Washington Univ in St. Louis 1995

MA Washington Univ in St. Louis 1991

**Cynthia E Rogers, MD** Assistant Professor of Psychiatry (primary appointment)

BA Harvard University 1998

MD Washington Univ in St. Louis 2005

**H. Bryan Rogers, MD** Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1965

**Sandeep Rohatgi, MD** Instructor in Clinical Pediatrics (primary appointment)

MD U Medical-Dental Of New Jersey 1993

BA Saint Louis University 1989

**Michael Dennis Rohde** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BS Valparaiso University 1983

**James R Rohrbaugh, MD** Associate Professor of Clinical Neurology (primary appointment)

**Associate Professor of Clinical Pediatrics**

MD Ohio State University 1974

BA Yale University 1971

**John W Rohrbaugh** Prof Emeritus of Psychiatry (primary appointment)

BS Heidelberg College 1968

**Chinda Vanasin Rojanasathit, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD School Not Listed 1967

**Evan Ward Roller, MD** Assistant Professor of Anesthesiology (Pending Executive Faculty Approval) (primary appointment)

MD University of Cincinnati 2010

**Felice A Rolnick, MD** Instructor in Clinical Medicine (primary appointment)

MD School Not Listed 1987

BS Union College New York 1982

**Rizwan Romee, MD**Assistant Professor of Medicine (primary appointment)

MD Gov't Gandhi Memorial Sci Coll 2004

**Arthur G. Romero**Associate Professor of Medicine (primary appointment)

BS Johns Hopkins University 1979

**Ernesto J Romo**Instructor in Emergency Medicine in Medicine (Pending Dean's Approval)  
(primary appointment)

**Ayelet Rosen, MD**Instructor in Pediatrics (primary appointment)

BS Rutgers University 2015

MD Albert Einstein College of Med 2015

**Joan Lee Rosenbaum**Professor of Pediatrics (primary appointment)

**Louis J Rosenbaum, MD**Associate Professor of Clinical Ophthalmology and Visual Sciences  
(primary appointment)

MD Washington Univ in St. Louis 1963

**Isabel L Rosenbloom**Associate Professor of Clinical Pediatrics (primary appointment)

BA Goucher College 1979

**Daniel B Rosenbluth, MD**Professor of Medicine (primary appointment)

**Professor of Pediatrics**

**Tracey C and William J Marshall** Professor of Medicine

MD Mount Sinai School of Medicine 1989

BS Columbia University 1985

**Anna Roshal**Assistant Professor of Medicine (primary appointment)

BS University of Rochester 1993

**Ilana Shaina Rosman, MD**Assistant Professor of Medicine (Dermatology) (primary appointment)

**Assistant Professor of Pathology and Immunology**

MD Washington Univ in St. Louis 2008

**Ian Ross**Instructor in Medicine (primary appointment)

**Kelly Ross, MD**Assistant Professor of Pediatrics (primary appointment)

BS University of MO Kansas City 1991

MD University of MO Columbia 1996

**William J Ross, MD**Associate Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1972

BA Miami University 1968

**Willie Ray Ross, M PH, MD**Associate Dean for Diversity (primary appointment)

**Professor of Medicine**

BS Yale University 1980

M PH Saint Louis University 2007

MD Washington Univ in St. Louis 1984

**Bruce J Roth, MD**Professor of Medicine (primary appointment)

MD Saint Louis University 1980

**Robyn Roth**Instructor in Cell Biology and Physiology (primary appointment)

BS MO State U (formerly SW MO St) 1979

**Robert J Rothbaum, MD**Centennial Professor of Pediatrics (primary appointment)

MD University of Chicago 1976

**Marcos Rothstein, MD**Professor of Medicine (primary appointment)

MD University of Zulia 1974

**Mark A Rothstein, MD**Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BA Williams College 1986

MD University of Utah 1991

**Joseph L Roti Roti, PHD** Prof Emeritus of Radiation Oncology (primary appointment)

BS Michigan Tech University 1965

PHD University of Rochester 1972

**Ernest Tuttle Rouse III, MD** Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1971

**Jeremy Rower, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Cincinnati 1997

BS University of Cincinnati 1993

**Elizabeth Yanik Rowlands, PHD, MD** Assistant Professor of Orthopaedic Surgery (Pending Executive Faculty Approval) (primary appointment)

PHD University of North Carolina 2013

BS University of Maryland 2007

MD Johns Hopkins University 2009

**Tapan Roy, MS** Instructor in Clinical Radiation Oncology (primary appointment)

MS Baroda Medical College 1974

**Henry D Royal, MD** Professor of Radiology (primary appointment)

BS Providence College 1970

MD Saint Louis University 1974

**Ella Rozin** Instructor in Clinical Pediatrics (primary appointment)

**Brian G Rubin, MD** Professor of Surgery (General Surgery) (primary appointment)

**Professor of Radiology**

MD University of Vermont 1984

BA Colgate University 1979

**David A Rubin, MD** Professor of Radiology (primary appointment)

BA Brown University 1984

MD University of Pennsylvania 1988

**Deborah C Rubin, MD** Professor of Medicine (primary appointment)

**Professor of Developmental Biology**

MD Albert Einstein College of Med 1981

BS Mass Inst of Technology (MIT) 1977

**Eugene Harold Rubin, MD** Professor of Psychiatry (primary appointment)

**Professor of Psychological & Brain Sciences (courtesy)**

**Vice Chairman for Education, Department of Psychiatry**

BA University of Rochester 1971

MD Washington Univ in St. Louis 1978

**Joshua Bennett Rubin, MD, PHD, MS** Professor of Pediatrics (primary appointment)

**Professor of Neuroscience**

**Professor of Neurology**

MD Albert Einstein College of Med 1994

BS Yale University 1982

PHD Albert Einstein College of Med 1994

MS Albert Einstein College of Med 1992

**Myra L. Rubio, MD** Associate Professor of Medicine (primary appointment)

MD Indiana University Bloomington 1998

BA Washington Univ in St. Louis 1994

**Christina M Ruby-Ziegler, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

BS Loyola University 1990

MD Northwestern University Med 1994

**Paetra Ruddy, MD** Assistant Professor of Medicine (Dermatology) (primary appointment)

BA Bard College 1997

MD University of Iowa 2011

John Conrad Rudersdorf **Instructor in Clinical Psychiatry (Child)** (primary appointment)

**Martin D Rudloff, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1981

**David Rudnick, MD** Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Developmental Biology**

BS University of Illinois 1987

MD Washington Univ in St. Louis 1994

**Daniel G. Rudolph, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Saint Louis University 1992

BS Saint Louis University 1988

Karen Elizabeth Ruecker **Instructor in Clinical Pediatrics** (primary appointment)

**Albert F Ruehl, MS, MD** Assistant Professor of Clinical Otolaryngology (primary appointment)

BS Washington Univ in St. Louis 1961

MS Washington Univ in St. Louis 1964

MD Saint Louis University 1973

**Michael B Rumelt, MD** Assistant Professor Emeritus of Clinical Ophthalmology and Visual Sciences (primary appointment)

**Asst Prof Emer of Clinical Ophthal & Vis Sci** (primary appointment)

BS Lamar University 1962

MD Washington Univ in St. Louis 1966

**Emily Lindholm Rumora, MD** Instructor in Medicine (primary appointment)

MD Dartmouth College 2013

**Brent E Ruoff, MD** Associate Professor of Emergency Medicine in Medicine (primary appointment)

BS Graceland College 1977

MD Saint Louis University 1981

**Diane Mary Rup, MA, MD** Instructor in Clinical Pediatrics (primary appointment)

BA State University of New York 1976

MA State University of New York 1979

MD Case Western Reserve Univ 1986

Michael B Rusche **Adjunct Instructor in Medicine** (primary appointment)

**John Hall Russell** Professor of Developmental Biology (primary appointment)

**Associate Dean for Graduate Education for the Division of Biology and Biomedical Sciences**

BS Juniata College 1968

**Sharman M Russell, MD** Assistant Professor in Obstetrics and Gynecology (primary appointment)

MD CHICAGO MEDICAL SCHOOL 2010

**Tonya D Russell, MD** Associate Professor of Medicine (primary appointment)

MD University of Florida 1997

**James Rutherford, MD** Assistant Professor Emeritus of Clinical Psychiatry (primary appointment)

**Asst Prof Emeritus of Clinical Psychiatry** (primary appointment)

BA Drake University 1975

MD University of Iowa 1980

**Mark A Rutherford, PHD** Assistant Professor of Otolaryngology (primary appointment)

BS University of MO St Louis 1999

PHD University of Oregon 2005

Bridget Scheve Rutledge **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)

**Rimma Ruvinskaya, MD** **Associate Professor of Neurology** (primary appointment)

BA School Not Listed 1979

MD Leningrad Inst of Peds Med 1985

Joseph F Ruwitch Jr **Professor of Clinical Medicine** (primary appointment)

**Marianna B Ruzinova, MD, PHD** **Assistant Professor of Pathology and Immunology** (primary appointment)

MD Cornell University 2005

PHD Cornell University 2004

**Jo-Ellyn M Ryall, MD** **Associate Professor of Clinical Psychiatry** (primary appointment)

MD Washington Univ in St. Louis 1975

Lisa A Ryan **Instructor in Clinical Pediatrics** (primary appointment)

**Kenneth J Rybicki, MS, MD, PHD** **Instructor in Clinical Medicine** (primary appointment)

MS Southern Illinois University 1980

MD University of Texas Austin 1987

BA Southern Illinois University 1978

PHD University of Texas Austin 1984

**Chara Elaine Rydzak, MD, PHD** **Assistant Professor of Radiology** (primary appointment)

MD Harvard University 2010

PHD Harvard University 2010

**Robin C Ryther, PHD, MD** **Assistant Professor of Neurology** (primary appointment)

PHD Vanderbilt University 2004

MD Vanderbilt University 2006

BS University of MO Columbia 1998

**Nael E. A. Saad, MBBCH** **Associate Professor of Radiology** (primary appointment)

**Associate Professor of Surgery (General Surgery)**

MBBCH Ain Shams University 1998

**Raya Saba, MD** **Instructor in Medicine** (primary appointment)

MD Damascus University 2011

**Frank Scott Saccone** **Associate Professor of Psychiatry** (primary appointment)

BA Rensselaer Polytechnic Instit 1990

**Nancy L. Saccone, PHD, MS** **Associate Professor of Genetics** (primary appointment)

**Associate Professor of Biostatistics**

PHD Brown University 1993

MS Brown University 1990

**Jerome D Sachar, MD** **Assistant Professor of Clinical Obstetrics and Gynecology** (primary appointment)

BA Amherst College 2000

MD University of Missouri 1979

Molly Sachdev **Assistant Professor of Medicine** (primary appointment)

**Justin Sadhu, MD** **Instructor in Medicine** (primary appointment)

MD Washington Univ in St. Louis 2007

**Adnan Sadiq, MD** **Assistant Professor of Anesthesiology** (primary appointment)

**Assistant Professor of Surgery (Cardiothoracic Surgery)**

MD Royal College of Surgeons 2001

BS State Univ of NY Buffalo 1996

**J. Evan Sadler, MD, PHD** **Professor of Medicine** (primary appointment)



**Professor of Biochemistry and Molecular Biophysics**

MD Duke University 1979

PHD Duke University 1978

**Mohammed Jaafar Saeed, M PH, MD**Instructor in Medicine (primary appointment)

M PH University of Kentucky 2012

MD Baghdad University 2007

**Mehrdad Saeed-Vafa, MD**Instructor in Clinical Medicine (primary appointment)

MD School Not Listed 2000

**Jose Bernardo Saenz, PHD, MD**Instructor in Medicine (primary appointment)

BA Cornell University 2003

PHD Washington Univ in St. Louis 2009

MD Washington Univ in St. Louis 2011

**Angela K Saettele, MD**Assistant Professor of Anesthesiology (primary appointment)

BS Simpson College 2004

MD University of MO Columbia 2008

**Shabbir H Safdar**Professor of Clinical Medicine (primary appointment)

UNKNOWN1 School Not Listed 1961

Scott Geoffrey SagettInstructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

Sonny Satnam SaggariInstructor in Clinical Medicine (primary appointment)

**Sudha Saha, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD School Not Listed 1963

BA Balurghat College 1957

**Shirley Ann Sahrman, MA**Professor Emeritus of Physical Therapy (primary appointment)

**Prof Emeritus of Physical Therapy** (primary appointment)

BS Washington Univ in St. Louis 1958

MA Washington Univ in St. Louis 1971

**Ahmed Sameh Said, PHD, MD**Instructor in Pediatrics (primary appointment)

PHD Ain Shams University 2009

MD Ain Shams University 2000

**Jacqueline Mitsouko Saito, MD**Assistant Professor of Surgery (Pediatric Surgery) (primary appointment)

BS Harvard Radcliff 1989

MD Columbia University 1993

Kaori A. SakuraiInstructor in Clinical Medicine (primary appointment)

Monica Sala-RabanalInstructor in Cell Biology and Physiology (primary appointment)

**Berette A Salazar, MD**Assistant Professor of Clinical Psychiatry (primary appointment)

MD University of New Mexico 1982

BA Middlebury College 1973

**Lawrence B Salkoff, PHD**Professor of Neuroscience (primary appointment)

**Professor of Genetics**

BA University of CA Los Angeles 1967

PHD University of CA Berkeley 1979

**Arghavan Salles, MD, PHD**Assistant Professor of Surgery (General Surgery) (Pending Executive Faculty Approval) (primary appointment)

MD Stanford University 2006

BA University of Southern Calif 2002

PHD Stanford University 2014

**Mickey L Salmon** Instr Emeritus In Clinical Ophthal & Vls Sci (primary appointment)

BS Centenary College 1955

**Alec N Salt, PHD, MS** Professor of Otolaryngology (primary appointment)

PHD University of Birmingham 1977

MS University of Birmingham 1974

BS University of East Anglia 1973

**Christine Joan Salter, DC** Instructor in Clinical Medicine (primary appointment)

BS Reading University 1982

DC Logan College of Chiropractic 1991

**Robert J Saltman, MD** Associate Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1980

**John Mark Samet, MD** Instructor in Clinical Medicine (primary appointment)

BS Washington & Lee 1964

MD University of Missouri 1968

**Dmitri Samovski, PHD** Instructor in Medicine (primary appointment)

PHD Hebrew University 2009

**Charles Michael Samson, MD** Assistant Professor of Pediatrics (primary appointment)

MD University of Washington 2003

BS University of North Carolina 1998

**Lawrence E Samuels** Instructor in Clinical Medicine (Dermatology) (primary appointment)

BA University of Texas Austin 1972

**Souzan Sanati, MD** Assistant Professor of Pathology and Immunology (primary appointment)

MD Iran Univ of Medical Sciences 1993

**Guadalupe Sanchez, MD** Instructor in Clinical Medicine (Dermatology) (primary appointment)

MD Harvard University 1978

BA Berry College 1974

**Luis A Sanchez** Professor of Surgery (General Surgery) (primary appointment)

**Gregorio A. Sicard** Distinguished Professor

Professor of Radiology

**Linda J Sandell, PHD, MS** Mildred B Simon Research Professor of Orthopaedic Surgery (primary appointment)

Professor of Cell Biology and Physiology

PHD Northwestern University 1980

MS University of Denver 1971

**Gretchen A Sander, MD** Instructor in Clinical Pediatrics (primary appointment)

BA Vanderbilt University 2000

MD Loyola University Chicago 2004

**Heidi L Sandige, MD, MA** Instructor in Pediatrics (primary appointment)

BA Northwestern University 1991

MD Washington Univ in St. Louis 2005

MA Yale University 1993

MA1 Washington Univ in St. Louis 2003

**Mark Steven Sands, PHD** Professor of Medicine (primary appointment)

Professor of Genetics

PHD State Univ of NY Stonybrook 1990

BS Rochester Institute of Techno 1980

**Kristen Marie Sanfilippo, MD** Assiatant Professor of Medicine (primary appointment)

MD University of MO Columbia 2007



**Pravesh Sangwan, MD, MBBS**Instructor in Pediatrics (primary appointment)

MD Gauhati Medical College 2009

MBBS Vijayanagara Inst of Med Sci 2015

Daniel Jose Santa Cruz**Instructor in Clinical Medicine (Dermatology)** (primary appointment)

**Lakshmi Santanam, PHD, MS**Associate Professor of Radiation Oncology (primary appointment)

PHD Wayne State University 2003

BS University of Madras 1991

MS University of Madras 1993

**Celia Maria Santi Grau Perez, MD, PHD**Associate Professor of Obstetrics and Gynecology (primary appointment)

MD Instituto de Montevideo 1992

BS Instituto de Montevideo 1979

PHD National Autonomous U of Mex 1998

**Paul Santiago, MD**Professor of Neurological Surgery (primary appointment)

**Professor of Orthopaedic Surgery**

BS Stanford University 1990

MD Yale University 1995

**Richard Albert Santos, PHD, MD**Assistant Professor of Medicine (primary appointment)

BS Michigan State University 1994

PHD University of Iowa 2002

MD University of Iowa 2002

**Evelio E. Sardina, MD, MS, PHD**Instructor in Clinical Medicine (primary appointment)

MD University of South Florida 1994

MS University of South Florida 1988

PHD University of South Florida 1990

BA Rutgers University 1985

**Carolyn E. Sartor, PHD, MS**Adjunct Assistant Professor of Psychiatry (primary appointment)

PHD Palo Alto College 2005

BS Oberlin College 1994

MS Catholic University America 1999

Norman Sartorius**Adjunct Professor of Psychiatry** (primary appointment)

**Yo Sasaki, PHD, MS**Assistant Professor of Genetics (primary appointment)

BS Tokyo U of Agric & Technology 1991

PHD Gunma University, Med School 1997

MS Tokyo U of Agric & Technology 1994

Diana M Sater-Roukoz**Instructor in Clinical Pediatrics** (primary appointment)

**Chihiro Sato, PHD, MS**Instructor in Neurology (primary appointment)

PHD University of Tokyo 2008

MS University of Tokyo 2005

BS University of Tokyo 2003

**Donald C Sauer, MD**Assistant Professor Emeritus of Clinical Surgery (General Surgery) (primary appointment)

**Asst Prof Emeritus of Clin Surg (Gen Surg)** (primary appointment)

MD Washington Univ in St. Louis 1960

**Scott Saunders, PHD, MD**Associate Professor of Pediatrics (primary appointment)

**Associate Professor of Developmental Biology**

PHD Stanford University 1990

MD Stanford University 1990

BS University of Minnesota 1983

**Brian J. Saville, MD**Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)

BS Washington Univ in St. Louis 1997

MD Washington Univ in St. Louis 2001

**Blaine M Sayre, M PH, MD**Professor of Clinical Pediatrics (primary appointment)

M PH University of CA Berkeley 1972

MD Washington Univ in St. Louis 1968

Gregory Stephen SayukAssociate Professor of Medicine (primary appointment)

**Associate Professor of Psychiatry**

**Lawrence R Schacht, MD**Instructor in Clinical Medicine (primary appointment)

BA University Wyoming 1971

MD Oregon Health Science Unvers 1975

**Joseph Schachter, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

MD Indiana University Bloomington 1979

BA Indiana University Bloomington 1974

**Anneliese M Schaefer, PHD, BBA**Associate Professor of Neurology (primary appointment)

PHD Washington Univ in St. Louis 2001

BBA Washington Univ in St. Louis 1985

**Andras Schaffer, MD, PHD**Assistant Professor of Pathology and Immunology (primary appointment)

**Assistant Professor of Medicine (Dermatology)**

MD University of Pecs Medical Sch 1993

PHD Cornell University 2001

**Jean E. Schaffer**Virginia Minnich Distinguished Professor of Medicine (primary appointment)

**Professor of Developmental Biology**

BA Harvard Radcliff 1982

Gerwin SchalkAdjunct Assistant Professor of Neurological Surgery (primary appointment)

Richard O. SchampInstructor in Clinical Medicine (primary appointment)

**Kenneth B Schechtman, MS, MA, PHD**Associate Professor of Biostatistics (primary appointment)

**Associate Professor of Medicine**

**Tenure Held At-Large in the Medical School**

BS City University of New York 1967

MS Purdue University 1971

MA Washington Univ in St. Louis 1978

PHD Washington Univ in St. Louis 1978

**Tim B Schedl, PHD**Professor of Genetics (primary appointment)

PHD Univ of Wisconsin Madison 1984

BA Lawrence University 1977

**Jennifer Lynn Scheer, MD**Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1994

**Robert F Scheible, MD**Assistant Professor of Clinical Radiology (primary appointment)

BA Johns Hopkins University 1968

MD Washington Univ in St. Louis 1972

**Jonathan C Schell, MD**Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

BS Saint Louis University 2001

MD Saint Louis University 2005

**Erica Lynn Scheller, DDENT**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Cell Biology and Physiology**

DDENT University of Michigan 2011

BS Michigan State University 2004

Stefano Schena **Assistant Professor of Surgery (Cardiothoracic Surgery)** (primary appointment)

**Mark Scheperle, MD** **Instructor in Clinical Medicine** (primary appointment)

BA University of Missouri 1989

MD University of Missouri 1989

**Alvin K Schergen, MD** **Instructor in Clinical Medicine** (primary appointment)

BA Washington Univ in St. Louis 1976

MD Saint Louis University 1980

**Jeffrey Frank Scherrer, PHD** **Adjunct Associate Professor of Psychiatry** (primary appointment)

PHD Saint Louis University 2004

**Thomas Schiff, DDENT** **Professor Emeritus of Diagnostic Services** (primary appointment)

DDENT University of Alabama 1961

**Joel D. Schilling, PHD, MD** **Assistant Professor of Medicine** (primary appointment)

**Assistant Professor of Pathology and Immunology**

PHD Washington Univ in St. Louis 2001

MD Washington Univ in St. Louis 2003

**Suzanne E. Schindler, PHD, MD** **Assistant Professor of Neurology** (primary appointment)

PHD Washington Univ in St. Louis 2008

MD Washington Univ in St. Louis 2008

BS Millsaps College 1999

**Bradley L Schlaggar, PHD, MDA** **Ernest and Jane G Stein Professor of Neurology** (primary appointment)

**Professor of Radiology**

**Professor of Psychiatry**

**Professor of Pediatrics**

**Professor of Neuroscience**

BS Brown University 1986

PHD Washington Univ in St. Louis 1994

MD Washington Univ in St. Louis 1994

**Howard J Schlansky, MD** **Instructor in Clinical Pediatrics** (primary appointment)

BA University of MO Kansas City 1976

MD University of MO Kansas City 1978

**Milton J Schlesinger, MS, PHD** **Prof Emeritus Of Molecular Microbiology** (primary appointment)

MS University of Rochester 1953

BS Yale University 1951

PHD University of Michigan 1959

**Paul Henry Schlesinger, MD, PHD** **Associate Professor of Cell Biology and Physiology** (primary appointment)

MD University of Chicago 1970

PHD University of Chicago 1973

BS University of Illinois 1966

**Sondra Schlesinger, PHD** **Prof Emeritus Of Molecular Microbiology** (primary appointment)

BS University of Michigan 1956

PHD University of Michigan 1960

**Margaret Ann Schmandt, MD** **Associate Professor of Clinical Pediatrics** (primary appointment)

BA University of Iowa 1982

MD Saint Louis University 1987

**Tania L Schmid, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Mississippi 1985

BA University of Mississippi 1981

**Robert Edward Schmidt, PHD, MD**Professor of Pathology and Immunology (primary appointment)

PHD Washington Univ in St. Louis 1976

BA Washington Univ in St. Louis 1969

MD Washington Univ in St. Louis 1976

**Richard Urban Schmidt Jr**Instructor in Emergency Medicine in Medicine (primary appointment)

**David Schnadower, M PH, MD**Associate Professor of Pediatrics (primary appointment)

M PH Columbia University 2005

MD National Autonomous U of Mex 1993

**John Stone Schneider, MD, BBA, M PP**Assistant Professor of Otolaryngology (primary appointment)

MD University of Chicago 2007

BBA University of Chicago 1997

M PP University of Chicago 2007

**Robert Jay Schneider, MD**Assistant Professor of Clinical Medicine (primary appointment)

MD Johns Hopkins University 1976

BA Johns Hopkins University 1973

**Jacquelyn C Schnidman, MD**Instructor in Clinical Pediatrics (primary appointment)

BA University of Missouri 1975

MD Saint Louis University 1979

**Erin R. Schockett, MD**Instructor in Clinical Medicine (primary appointment)

MD Brown University 2005

**Perry Lee Schoenecker, MD**Professor of Orthopaedic Surgery (primary appointment)

BS Univ of Wisconsin Madison 1964

MD Univ of Wisconsin Madison 1968

**James R Schreiber**Prof Emeritus of Ob & Gyn (primary appointment)

BA Rice University 1968

**Robert D Schreiber, PHD**Alumni Endowed Professor of Pathology and Immunology (primary appointment)

**Professor of Molecular Microbiology**

PHD State University of New York 1973

BA State University of New York 1968

**Richard E Schrick, MD**Instructor in Clinical Otolaryngology (primary appointment)

BS University of Missouri 1968

MD University of Missouri 1977

**Charles R Schrock, MD**Associate Professor of Anesthesiology (primary appointment)

MD University of MO Columbia 1991

**Mark Andrew Schroeder, MD**Assistant Professor of Medicine (primary appointment)

MD University of Cincinnati 2003

BS University of Toledo 1999

**Douglas J Schuerer, MD**Professor of Surgery (General Surgery) (primary appointment)

BS Allegheny College 1991

MD University of Pittsburgh 1995

**Richard B Schuessler, MS, PHD**Professor of Surgery (Cardiothoracic Surgery) (primary appointment)

**Associate Professor of Biomedical Engineering**

BS University of Missouri 1973

MS University of Missouri 1974

PHD Clemson University 1977

**Laura Graves Schuettpelz, PHD**Assistant Professor of Pediatrics (primary appointment)

**Assistant Professor of Developmental Biology**

PHD Northwestern University 2000

**Alexander E Schuetz, MD**Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 1996

BA Saint Louis University 1991

**Maryls E Schuh, MD**Instructor in Clinical Surgery (General Surgery) (primary appointment)

BS1 University of North Dakota 1977

BS University of North Dakota 1973

MD Washington Univ in St. Louis 1979

**Jeffrey I Schulman, MD, MBA**Instructor in Clinical Psychiatry (Child Psychiatry) (primary appointment)

BA Yale University 1970

MD University of Kentucky 1974

MBA Washington Univ in St. Louis 1988

**Earl R Schultz, MD**Professor of Clinical Neurology (primary appointment)

**Associate Professor of Clinical Psychiatry**

MD Washington Univ in St. Louis 1955

BS University of Missouri 1953

BA Southeast Missouri St Univers 1952

Stephen SchumanInstructor in Clinical Medicine (primary appointment)

**Frederick W Schwagger, OD**Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BS Illinois College of Optometry 1957

BS1 Washington Univ in St. Louis 2000

OD Illinois College of Optometry 1957

**Alan L Schwartz, PHD, MD**Alumni Endowed Professor of Pediatrics (primary appointment)

**Professor of Developmental Biology**

PHD Case Western Reserve Univ 1974

MD Case Western Reserve Univ 1976

**Benjamin D Schwartz, PHD, MD**Professor of Clinical Medicine (primary appointment)

**Adjunct Professor of Medicine**

BA Columbia College 1965

PHD School Not Listed 1971

MD School Not Listed 1972

**David B Schwartz, PHD, MD**Associate Professor of Medicine (primary appointment)

PHD Washington Univ in St. Louis 1986

BS University of Michigan 1980

MD Washington Univ in St. Louis 1987

**Evan Stuart Schwarz, MD**Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD University of Texas Austin 2005

BA University of Texas Austin 2001

**Julie K Schwarz, MD, PHD**Associate Professor of Radiation Oncology (primary appointment)

**Associate Professor of Cell Biology and Physiology**

MD Washington Univ in St. Louis 2004

PHD Washington Univ in St. Louis 2004

Sally J Schwarz **Professor of Radiology** (primary appointment)

**George G. Schweitzer, MS** **Instructor in Medicine** (primary appointment)

MS Southern Ill Univ Edwardsville 2007

BS Washington Univ in St. Louis 2004

**Allen Sclaroff, DDENT** **Professor of Clinical Otolaryngology (Oral Surgery)** (primary appointment)

BA University of Colorado Boulder 1968

DDENT Temple University 1972

Leslie A Scott **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)

**Mitchell G Scott, MS** **Professor of Pathology and Immunology** (primary appointment)

**Clinical Research Assistant Professor of Medicine**

MS University of Missouri 1977

Lynne M Seacord **Associate Professor of Medicine** (primary appointment)

**Homayoun Sedighi, DDENT** **Assistant Professor of Clinical Surgery (Plastic and Reconstructive Surgery)** (primary appointment)

BA Indiana University Bloomington 1983

DDENT Washington Univ in St. Louis 1987

Colleen Erika Seematter **Instructor in Clinical Pediatrics** (primary appointment)

**Christopher G Seep, OD** **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary appointment)

BA University of Missouri 1971

OD University of MO St Louis 1984

Adelita Segovia Langley **Assistant Professor of Clinical Psychiatry (Child Psychiatry)** (primary appointment)

**Jennifer K Sehn, MD** **Assistant Professor of Pathology and Immunology** (primary appointment)

MD Washington Univ in St. Louis 2011

BS Georgia Tech 2007

David Brian Seibel **Adjunct Instructor in Ophthalmology and Visual Sciences** (primary appointment)

**Karen Seibert, MA** **Professor of Anesthesiology** (primary appointment)

**Professor of Pathology and Immunology**

**Professor of Genetics**

BS Northwestern University 1981

MA University of Toledo 1983

David Seltzer **Assistant Professor of Emergency Medicine in Medicine** (primary appointment)

**Jay R Seltzer, MD** **Assistant Professor of Clinical Medicine** (primary appointment)

MD University of Missouri 1987

BA University of Missouri 1987

**Clay F Semenkovich, MD** **Irene E and Michael M Karl Professor of Endocrinology and Metabolism in Medicine** (primary appointment)

**Professor of Cell Biology and Physiology**

BA University of Virginia 1977

MD Washington Univ in St. Louis 1981

**Janice Semenkovich, MD** **Associate Professor of Radiology** (primary appointment)

MD Washington Univ in St. Louis 1981

**Deepali Prabir Sen, MD, MBBS** **Assistant Professor of Medicine** (primary appointment)



MD University of Mumbai 2003

MBBS Grant Medical College 1999

**Robert M Senior, MD, MLA**Prof Emeritus of Medicine (primary appointment)

MD George Washington University 1961

MLA Washington Univ in St. Louis 1997

BA Oberlin College 1957

**Debra L Seoane, MD**Instructor in Clinical Surgery (General Surgery) (primary appointment)

MD University of Miami 1986

**Diane S Sepich, PHD**Assistant Professor of Developmental Biology (primary appointment)

PHD University of Oregon 1994

BS University of San Diego 1981

**Joseph Michael Serial**Instructor in Clinical Medicine (primary appointment)

BS St Vincent College 1964

James Serot**Assistant Professor of Anesthesiology** (primary appointment)

**Harvey Serota, MD**Instructor in Clinical Medicine (primary appointment)

MD Johns Hopkins University 1982

BA Johns Hopkins University 1976

**James F Sertl, MD**Instructor in Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1962

MD Saint Louis University 1966

Donald G Sessions**Prof Emeritus Of Otolaryngology** (primary appointment)

**Martha Papay Sewall, MD**Instructor in Clinical Pediatrics (primary appointment)

MD University of Missouri 1985

BA University of Missouri 1983

**Bryan Norbert Sewing, DOST**Instructor in Psychiatry (Pending Dean's Approval) (primary appointment)

DOST Kirksville College of Osteopat 1998

BS Texas Christian University 1991

**Anne R Seyer, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA Saint Louis University 2002

MD Saint Louis University 2006

**Gary D Shackelford, MD**Prof Emeritus Of Radiology (primary appointment)

MD Washington Univ in St. Louis 1968

BA Northwestern University 1964

**Penelope G Shackelford, MD**Prof Emeritus Of Pediatrics (primary appointment)

BS Univ of Wisconsin Madison 1964

MD Washington Univ in St. Louis 1968

Cherilynn Maria Reynolds Shadding**Academic Rank held in Genetics** (primary appointment)

**Assistant Professor of Genetics**

**Gaurav Kirit Shah, MD**Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD University of Illinois 1993

**Purvi Shah, MD**Assistant Professor of Pediatrics (primary appointment)

MD Baylor University 2000

BA Rice University 1996

**Rajiv K Shah, MD**Assistant Profesof of Anesthesiology (Pending Executive Faculty Approval) (primary appointment)

MD University of Rochester 2010

**Snehal Paresh Shah, MD**Instructor in Pediatrics (primary appointment)

MD Ross Univ School of Medicine 2010

BA Boston College 2003

**Shabana Shahanavaz, MD**Assistant Professor of Pediatrics (primary appointment)

MD Kasturba Medical College 2002

**Sonia Malhotra Shahrawat, MD**Instructor in Anesthesiology (primary appointment)

MD Bharati Vidyapeeth Med College 2000

BS Tufts University 2001

**Rachel E. Shakofsky, MD**Instructor in Pediatrics (primary appointment)

BS University of MO Columbia 2003

MD University of MO Columbia 2007

**Courtney Shands III, MD**Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)

MD Vanderbilt University 1982

BA Stanford University 1978

**Karl Shanker, DDEnt**Instructor in Clinical Otolaryngology (DDS) (primary appointment)

DDEnt University of Missouri 1978

BA Washington Univ in St. Louis 1975

**William D Shannon, PHD, MS**Prof Emeritus of Biostatistics in Medicine (primary appointment)

PHD University of Pittsburgh 1995

MS University of Massachussetts 1989

BS School Not Listed 1985

**Jieya Shao, PHD**Assistant Professor of Medicine (primary appointment)

PHD Oklahoma St University 2002

BS Nankai University 1996

**Larry J Shapiro, MD**Spencer T and Ann W Olin Distinguished University Professor (primary appointment)

**Professor of Pediatrics**

**Executive Vice Chancellor and Dean Emeritus**

BS Washington Univ in St. Louis 1968

MD Washington Univ in St. Louis 1971

**Anshuman Sharma, MD**Professor of Anesthesiology (primary appointment)

MD Institute of Medical Science 1990

BA Government Medical College 1987

**Aseem Sharma, MBBS**Associate Professor of Radiology (primary appointment)

MBBS All-India Inst of Medical Sci 1992

**Girdhar G Sharma**Assistant Professor of Radiation Oncology (primary appointment)

PHD1 Banaras Hindu University 2000

MS1 Banaras Hindu University 1992

BS1 Banaras Hindu University 1990

Rajiv Kumar Sharma**Adjunct Instructor in Medicine** (primary appointment)

**Vijay Sharma, MS, PHD**Professor of Radiology (primary appointment)

MS Panjab University 1983

PHD Panjab University 1987

**Gerald Stephen Shatz, MD**Assistant Professor of Clinical Medicine (primary appointment)

BA Northwestern University 1970

MD Washington Univ in St. Louis 1974

**Andrey S Shaw, MD**Adjunct Professor of Pathology and Immunology (primary appointment)

BA Columbia University 1979



MD Columbia University 1984

**Eleanor Maria Shaw** Assistant Professor of Clinical Pediatrics (primary appointment)

BA University of Missouri 1978

**Paul Joseph Shaw, MA, PHD** Associate Professor of Neuroscience (primary appointment)

BA Niagara University 1985

MA San Jose State University 1990

PHD University of Chicago 1996

**Nidal Shawahin, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Jordan 1988

**Kathleen C Sheehan, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

BS University of Notre Dame 1980

PHD Saint Louis University 1986

**Vidal T. Sheen, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Louisville 1995

BA Johns Hopkins University 1991

**Paul W Sheffner** Assistant Professor of Clinical Psychiatry (primary appointment)

**David M. Sheinbein, MD** Associate Professor of Medicine (Dermatology) (primary appointment)

MD Saint Louis University 1995

**Christian T Sheline, PHD** Adjunct Research Associate Professor of Neurology (primary appointment)

BA Dartmouth College 1983

PHD University of California 1989

**Megan Elizabeth Shelton** Instructor in Clinical Pediatrics (primary appointment)

**Hua Shen, MS, PHD** Instructor in Orthopaedic Surgery (primary appointment)

MS Chinese Academy of Med Science 1996

PHD University of Konstanz 2002

**Jie Shen, MS, PHD** Assistant Professor of Orthopaedic Surgery (primary appointment)

MS University of Rochester 2011

PHD University of Rochester 2012

BS Nanjing University 2005

**Mounir M Shenouda** Instructor in Clinical Medicine (primary appointment)

**Shalini Shenoy, MD, MBBS** Professor of Pediatrics (primary appointment)

MD Kasturba Medical College 1985

BS M.G.R. Medical University 1981

MBBS Kasturba Medical College 1981

**Surendra Shenoy, MD** Professor of Surgery (General Surgery) (primary appointment)

BS Kasturba Medical College 1980

MD Kasturba Medical College 1984

**Andrew John Shepherd, PHD** Instructor in Anesthesiology (primary appointment)

PHD University of Manchester 2006

**Ross William Shepherd, MD, MBBS** Adjunct Professor of Pediatrics (primary appointment)

MD University of Queensland 1979

MBBS University of Queensland 1970

**James Banks Shepherd III, MD** Associate Professor of Ophthalmology and Visual Sciences (primary appointment)

BA Amherst College 1992

MD Columbia University 1997

**John Joseph Sheridan, MD**Instructor in Clinical Orthopaedic Surgery (primary appointment)

MD Washington Univ in St. Louis 1969

**Anup Shashindra Shetty, MD**Instructor in Radiology (primary appointment)

BS Duke University 2003

MD University of Texas Southwest 2007

**Priya Saigal Shetty, MD**Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

MD University of Michigan 2007

**Arsham Sheybani, MD**Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

MD Washington Univ in St. Louis 2008

**Steven M Shields, MD**Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BS Washington Univ in St. Louis 1981

MD Washington Univ in St. Louis 1986

**Alan Shiels, PHD**Professor of Ophthalmology and Visual Sciences (primary appointment)

**Professor of Genetics**

PHD University of London 1983

BS School Not Listed 1979

**Adrian Shifren, MBBCH, MS**Assistant Professor of Medicine (primary appointment)

MBBCH University of the Witwatersra 1996

MS Washington Univ in St. Louis 2011

BS University of the Witwatersra 1993

**Joshua S Shimony, MD, PHD**Associate Professor of Radiology (primary appointment)

MD University of Illinois 1995

BS Technion - Israel Inst. of Tec 1982

PHD University of Tennessee 1988

**Haina Shin, PHD**Assistant Professor of Medicine (primary appointment)

BA Northwestern University 2004

PHD University of Pennsylvania 2009

**Jimann Shin**Instructor in Developmental Biology (primary appointment)

BS Kyung Pook National University 2002

**Marwan Shinawi, MD**Professor of Pediatrics (primary appointment)

MD Technion - Israel Inst. of Tec 1996

**Cara L Shirai, MS**Instructor in Medicine (primary appointment)

MS Southeast Missouri St Unvers 2005

**Min-Yi Katherin Shiue**Instructor in Clinical Pediatrics (primary appointment)

BS Washington Univ in St. Louis 1992

**Koresh Isaac Shoghi, MS, PHD**Associate Professor of Radiology (primary appointment)

MS University of CA Los Angeles 2000

PHD University of CA Los Angeles 2005

BS University of CA Los Angeles 1996

**Monica Shokeen, PHD**Assistant Professor of Radiology (primary appointment)

PHD Washington Univ in St. Louis 2006

BS School Not Listed 1997

**Bernard L Shore**Professor of Clinical Medicine (primary appointment)

**Howard Newton Short, MD**Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Saint Louis University 1978

BA Washington Univ in St. Louis 1974

**Mary Ann Shortal** Adjunct Instructor in Audiology and Communication Sciences (primary appointment)

BS Washington Univ in St. Louis 1976

**Michael Shoykhet, MD, PHD** Assistant Professor of Pediatrics (primary appointment)

BA Cornell University 1996

MD University of Pittsburgh 2005

PHD University of Pittsburgh 2003

**Hui Hua Shu, MD** Instructor in Radiology (primary appointment)

MD University of MO Kansas City 1987

BA University of MO Kansas City 1986

**Gordon L Shulman, MS, PHD** Professor of Neurology (primary appointment)

BA Yale University 1975

MS University of Oregon 1977

PHD University of Oregon 1979

**Robert B Shuman** Associate Professor of Clinical Medicine (primary appointment)

BA Brandeis University 1977

**Sherry E Shuman, MD** Associate Professor of Clinical Medicine (primary appointment)

BS University of Michigan 1978

MD Wayne State University 1982

**Eli R Shuter, MD** Associate Professor of Clinical Neurology (primary appointment)

MD Washington Univ in St. Louis 1960

**Laurence David Sibley, PHD** Professor of Molecular Microbiology (primary appointment)

**Alan A and Edith L Wolff** Distinguished Professor

BA Oberlin College 1978

PHD Louisiana St University 1985

**Gregorio A Sicard, MD** Prof Emeritus of Surgery (primary appointment)

MD University of Puerto Rico 1972

BS Saint Louis University 1965

**Barry Alan Siegel** Professor of Radiology (primary appointment)

**Vice Chair for Nuclear Medicine in Radiology**

**Professor of Medicine**

BA Washington Univ in St. Louis 1966

**Cary Lynn Siegel, MD** Professor of Radiology (primary appointment)

MD Davenport University 1987

BS Davenport University 1983

**Marilyn J Siegel** Professor of Radiology (primary appointment)

**Professor of Radiology in Pediatrics**

**Carla J Siegfried, MD** Jacquelyn E and Allan E Kolker M.D. Distinguished Professor of

**Ophthalmology** (primary appointment)

BA University of MO Kansas City 1989

MD University of MO Kansas City 1989

**Jeffrey E Siegler** Instructor in Emergency Medicine in Medicine (primary appointment)

**Christine A Sigman** Instructor in Clinical Medicine (primary appointment)

**Charles D Signorelli, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD School Not Listed 1957

BS School Not Listed 1957

**Jennifer N Silva** Assistant Professor of Pediatrics (primary appointment)

BA Union College New York 1997

**Matthew J Silva, ME, PHD** Julia and Walter R Peterson Professor of Orthopaedic Research (primary appointment)

**Assistant Professor of Biomedical Engineering**

ME Cornell University 1984

PHD Mass Inst of Technology (MIT) 1996

BS Cornell University 1982

**Gary Arthur Silverman, PHD, MD** Harriet B Spoehrer Professor of Pediatrics (primary appointment)

**Head of the Department of Pediatrics**

BS Washington Jefferson College 1978

PHD University of Chicago 1982

MD University of Chicago 1984

Todd B Silverman **Instructor in Clinical Neurology** (primary appointment)

**Barbara Sue Silverstein, PHD** Assistant Professor of Clinical Psychiatry (Child Psychiatry) (primary appointment)

PHD Saint Louis University 1992

BS University of Missouri 1978

**Julie Martha Silverstein, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Neurological Surgery**

MD Drexel University 2007

BA New York University 2004

**Randy B Silverstein, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Missouri

Nicholas James Silvestros **Instructor in Ophthalmology and Visual Sciences** (primary appointment)

**Matthew Leon Silviera, MD** Assistant Professor of Surgery (General Surgery) (primary appointment)

MS1 Temple University 2010

BS Pennsylvania State University 2001

MD Temple University 2005

Connie Darlene Simmons **Instructor in Clinical Pediatrics** (primary appointment)

**Nathan M Simon, MS, MD** Professor Emeritus of Clinical Psychiatry (primary appointment)

**Prof Emeritus of Clinical Psychiatry** (primary appointment)

MS Yale University 1950

MD Washington Univ in St. Louis 1955

BS Yale University 1949

**Paul S Simons, MD** Associate Professor of Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1967

BA University of Texas Austin 1963

**Joseph Rogers Simpson, PHD** Professor Emeritus of Radiation Oncology (primary appointment)

**Prof Emeritus of Radiation Oncology** (primary appointment)

PHD University of Chicago 1967

**Kathleen Elizabeth Simpson, MD** Assistant Professor of Pediatrics (primary appointment)

MD University of MO Kansas City 2006

**Reed Earl Simpson, MD** Assistant Professor of Clinical Psychiatry (primary appointment)

BA Wabash College 1972

MD Washington Univ in St. Louis 1976

**David R Sinacore, MHS, PHD** Professor of Physical Therapy (primary appointment)

**Professor of Medicine**

MHS Washington Univ in St. Louis 1983

PHD West Virginia University 1992

BS State University of New York 1979

**Robert W Sindel, MD** Instructor in Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1969

MD Washington Univ in St. Louis 1975

**Sanford S Sineff, MD** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

BS Harvard University 1992

MD Brown University 1996

Barry A. Singer Assistant Professor of Clinical Neurology (primary appointment)

**Gary Singer, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD University of Toronto 1987

**Gautam K Singh, MBBS, MD** Professor of Pediatrics (primary appointment)

MBBS Ranchi University 1977

MD Patna Medical College 1982

**Gurcharan J Singh, MD** Instructor in Clinical Medicine (primary appointment)

BS Delhi University 1968

MD Delhi University 1975

**Itender Singh, PHD** Assistant Professor of Neurological Surgery (primary appointment)

PHD UNIVERSITY OF DELHI 2004

**Jasvinder Singh, MD** Associate Professor of Medicine (primary appointment)

MD Fiji School of Medicine 1988

**Carl Jeffrey Sippel, MD, PHD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Saint Louis University 1983

BA University of Missouri 1975

PHD Saint Louis University 1980

**David Siroospour, MD** Assistant Professor of Clinical Surgery (General Surgery) (primary appointment)

MD School Not Listed 2000

Bryan Anthony Sisk Instructor in Pediatrics (primary appointment)

**James C Sisk, MD** Assoc Prof Emeritus of Clin Medicine (Derm) (primary appointment)

BA Washington Univ in St. Louis 1943

MD Washington Univ in St. Louis 1946

**Kelsey Alayne Sisti, MD** Instructor in Pediatrics (primary appointment)

MD University of Arkansas 2009

BS University of Alaska 2005

**Harold B Sitrin, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

BA University of Rochester 1966

MD Saint Louis University 1971

**Clayton D. Skaggs** Adjunct Instructor in Obstetrics and Gynecology (primary appointment)

BS Southwest Missouri St Universi 1984

**Judith Ann Skala, RN, RN, MA, PHD** Instructor in Psychiatry (Pending Dean's Approval) (primary appointment)

RN St Louis Community College 1981

RN 1981

MA Washington Univ in St. Louis 1992

PHD Washington Univ in St. Louis 2001

BS Washington Univ in St. Louis 1989

**James B Skeath, PHD** Professor of Genetics (primary appointment)

BA Haverford College 1988

PHD Univ of Wisconsin Madison 1993

**Celette Sugg Skinner, MA** Adjunct Assistant Professor of Radiology (primary appointment)

BA Furman University 1980

MA Wheaton College 1982

**Donald A Skor, MD** Professor of Clinical Medicine (primary appointment)

MD Rush University 1978

BA Washington Univ in St. Louis 1973

**Alan Joseph Skoultchi, MD** Instructor in Clinical Pediatrics (primary appointment)

BS Duke University 1989

MD U Medical-Dental Of New Jersey 1995

**Eduardo Slatopolsky** Prof Emeritus of Medicine (primary appointment)

BS School Not Listed 1952

**Stacy Lynn Smallfield, MS, MD** Assistant Professor of Occupational Therapy (Pending Executive Faculty Approval) (primary appointment)

BS Gustavus Adolphus College 1995

MS Washington Univ in St. Louis 1996

MD Nova Southeastern University 2007

**Bradley Thomas Smith, MD** Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

MD University of AL Birmingham 2002

**Carl Hugh Smith, MD** Prof Emeritus of Pediatrics (primary appointment)

BA Swarthmore College 1955

MD Yale University 1959

**Carolyn Anne Delaney Smith** Assistant Professor of Pediatrics (primary appointment)

BA Rice University 1996

**Emily Louise Smith, MD** Asst Prof Emeritus of Radiology (primary appointment)

BA Washington Univ in St. Louis 1964

MD Washington Univ in St. Louis 1968

**Gordon Ian Smith, PHD, MS** Assistant Professor of Medicine (primary appointment)

PHD University of Aberdeen 2006

MS University College Chichester 2002

**James B Smith, MD** Assoc Prof Emeritus Of Clinical Psychiatry (primary appointment)

BA University of Missouri 1963

MD University of Missouri 1967

**Jennifer H. Smith** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS University of California 1995

Joshua C Smith Instructor in Clinical Pediatrics (primary appointment)

**Matthew Vernon Smith, MD** Assistant Professor of Orthopaedic Surgery (primary appointment)

MD Virginia Comm University 2002

**Morton Edward Smith, MD** Professor Emeritus of Ophthalmology and Visual Sciences (primary appointment)

Prof Emeritus of Ophthalmol & Vis Sci (primary appointment)

Lecturer in Ophthalmology and Visual Sciences



**Lecturer in Pathology and Immunology**

**Associate Dean Emeritus for Post-Graduate Education**

BS University of Maryland 1956

MD University of Maryland 1960

**Nancy Bloom Smith, DPT** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Orthopaedic Surgery**

DPT Washington Univ in St. Louis 2002

BS Washington Univ in St. Louis 1984

BA University of Virginia 1976

**Peter Gaillard Smith, ME, PHD** Assistant Professor of Clinical Otolaryngology (primary appointment)

BS Clemson University 1967

ME Purdue University 1970

PHD Purdue University 1972

**Raymond P Smith, MD** Instructor in Clinical Medicine (primary appointment)

BA Vassar College 1980

MD University of Virginia 1984

**Stacey L Smith, MD** Assistant Professor of Clinical Psychiatry (primary appointment)

BA Northwestern University 1986

MD Northwestern University 1991

**Timothy Robert Smith, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Mississippi 1989

BS University of Mississippi 1983

**Timothy W. Smith, MD, PHD** Associate Professor of Medicine (primary appointment)

MD Duke University 1993

PHD Oxford University 1989

BS Duke University 1986

**Christopher D Smyser** Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Radiology**

**Matthew D Smyth, MD** Professor of Neurological Surgery (primary appointment)

**Professor of Pediatrics**

MD University of CA San Francisco 1996

BA Cornell University 1992

**Barbara Joy Snider, MD** Professor of Neurology (primary appointment)

MD University of Texas Southwest 1989

**Jules M Snitzer, DENT** Instructor in Clinical Otolaryngology (DDS) (primary appointment)

DENT Washington Univ in St. Louis 1955

**Claud Randall Snowden, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Illinois College of Optometry 1974

BS Illinois College of Optometry 1972

**Abraham Z Snyder, MD, PHD** Professor of Radiology (primary appointment)

**Associate Professor of Neurology**

BA Columbia University 1970

MD State University of New York 1981

PHD Rockefeller University 1977

**Jason Andrew Snyder** Assistant Professor of Surgery (General Surgery) Pending Executive Faculty Approval (primary appointment)

**Lawrence H Snyder, AB, PHD, MD, MS** Professor of Neuroscience (primary appointment)

**Professor of Psychological & Brain Sciences**

AB Princeton University 1982

PHD University of Rochester 1992

MD University of Rochester 1992

MS University of Rochester 1992

Michael C Snyder **Adjunct Instructor in Medicine** (primary appointment)

**Alison K Snyder-Warwick, MD** Assistant Professor of Surgery (Plastic and Reconstructive Surgery)

(primary appointment)

MD Washington Univ in St. Louis 2004

**Allen D Soffer, MD** Instructor in Clinical Medicine (primary appointment)

BA Emory University

MD University of Missouri 1983

**Richard S Sohn** Assoc Prof Emeritus of Neurology (primary appointment)

BS Brooklyn College 1964

**Nareshkumar J Solanki** Assistant Professor of Clinical Pediatrics (primary appointment)

UNKNOWN University of Nairobi 1975

**Lilianna Solnica-Krezel, MS** Professor of Developmental Biology (primary appointment)

**Head of the Department of Developmental Biology**

**Alan A and Edith L Wolff** Professor of Developmental Biology

MS Medical University of Warsaw 1985

**Stephanie Rose Solomon, PHD** Adjunct Assistant Professor of Medicine (primary appointment)

PHD Emory University 2008

BS Ohio State University 2001

**Steven Lee Solomon, MD** Assistant Professor of Clinical Radiology (primary appointment)

MD University of Chicago 1985

BA Northwestern University 1981

**Rand Washburn Sommer, MD** Associate Professor of Clinical Medicine (primary appointment)

BS Davidson College 1976

MD Washington Univ in St. Louis 1980

**Mitchell S. Sommers, PHD** Professor of Psychological & Brain Sciences (primary appointment)

**Chair, Human Research Protection Office**

PHD University of Michigan 1990

BS Georgetown University 1982

**Richard Brian Sommerville, MD** Assistant Professor of Neurology (primary appointment)

MD Columbia University 2005

BS Harvard University 1999

**Sheng-Kwei Song, MS, PHD** Professor of Radiology (primary appointment)

MS University of Alabama 1986

PHD Washington Univ in St. Louis 1990

BS Tamkang University 1981

**Tammy Shim Sonn, MD** Associate Professor of Obstetrics and Gynecology (primary appointment)

MD Rush University 2004

BS University of Chicago 1999

**Umang Sood** Instructor in Pediatrics (primary appointment)

BS University of MO Kansas City 2003

**Andrea Soranno** Assistant Professor Biochemistry and Molecular Biophysics (Pending Executive Faculty Approval) (primary appointment)



**Craig H Sorce, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)  
OD University of Missouri 1992  
BA Southern Illinois University 1988

**Florentina Soto Lucas, PHD** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)  
PHD University of Alicante 1992

**Hani Charles Soudah, MD, PHD** Associate Professor of Clinical Medicine (primary appointment)  
MD School Not Listed 1983  
PHD School Not Listed 1988

**William F Southworth, MD** Assistant Professor of Clinical Medicine (primary appointment)  
BA Washington Univ in St. Louis 1969  
MD Washington Univ in St. Louis 1975

**James Joseph Spadaro Jr** Assistant Professor of Clinical Medicine (primary appointment)

**Michael L Spearman, MD** Instructor in Clinical Medicine (primary appointment)  
BS Kansas State University 1978  
MD University of Kansas Medical 1982

**Andrej Spec, MD** Instructor in Medicine (primary appointment)  
MD University of Illinois 2010

**Gershon J Spector, MD** Prof Emeritus of Otolaryngology (primary appointment)  
MD University of Maryland 1964  
BA Johns Hopkins University Medic 1960

**William Marshall Spees, PHD** Assistant Professor of Radiology (primary appointment)  
BS Truman State University 1993  
PHD Washington Univ in St. Louis 1999

**Christopher Spencer, MD, MA, BAS** Adjunct Instructor in Radiation Oncology (primary appointment)  
MD Saint Louis University 2010  
MA Truman State University 2006  
BAS Truman State University 2005

**David H. Spencer, MD, PHD** Assistant Professor of Medicine (primary appointment)  
MD University of Washington 2010  
BS University of Washington 2001  
PHD University of Washington 2008

**John Spertus** Adjunct Professor of Medicine (primary appointment)

**Tara V. Spevack, MS, PHD** Instructor in Clinical Neurology (primary appointment)  
BS McGill University 1987  
MS University of Florida 1994  
PHD University of Florida 1997

**Robert D Spewak, MD** Instructor in Clinical Pediatrics (primary appointment)  
MD Saint Louis University 1979  
BA Drake University 1975

**Michael Spezial** Instructor in Clinical Medicine (primary appointment)

**Craig A Spiegel, MD** Assistant Professor of Clinical Pediatrics (primary appointment)  
MD Case Western Reserve Univ 1982  
BA Washington Univ in St. Louis 1978

**Timothy Eric Spiegel, MD** Assistant Professor of Psychiatry (Child Psychiatry) (primary appointment)

BS Saint Louis University 2006

MD University of Utah 2011

**Philip Charles Spinella, MD** Associate Professor of Pediatrics (primary appointment)

MD New York Medical College 1995

BS Tufts University 1991

**John Charles Spitler, MD** Assistant Professor of Anesthesiology (primary appointment)

BS University of MO Columbia 1998

MD University of MO Columbia 2003

**Dirk M Spitzer, PHD** Assistant Professor of Surgery (General Surgery) (primary appointment)

BS School Not Listed 1995

PHD Technische U Braunschweig 1999

**Theresa M Spitznagle, DPT, MHS** Associate Professor of Physical Therapy (primary appointment)

**Associate Professor of Obstetrics and Gynecology**

DPT Washington Univ in St. Louis 2006

MHS Washington Univ in St. Louis 1994

BS Marquette University 1986

**Jennifer E. Sprague, PHD, MD** Assistant Professor of Pediatrics (primary appointment)

BS Indiana University Bloomington 2000

PHD Washington Univ in St. Louis 2007

MD Washington Univ in St. Louis 2007

**Mark H Spurrier, MD** Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Washington Univ in St. Louis 1980

BA Kansas State University 1976

**Mythili Srinivasan, MS** Associate Professor of Pediatrics (primary appointment)

MS Madurai Kamaraj University 1983

**Chotchai Srisuro, MD** Associate Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD School Not Listed 1967

Danielle R St Leger **Instructor in Clinical Pediatrics** (primary appointment)

Erik Christian Stabell **Instructor in Clinical Medicine** (primary appointment)

**Robert Peter Stachecki, MD** Instructor in Radiology (primary appointment)

BS University of Notre Dame 2003

MD Georgetown University 2007

Kristin Voellinger Stahl **Instructor in Clinical Neurology** (primary appointment)

**Philip Damien Stahl, PHD** Edward Mallinckrodt Jr Prof Emeritus (primary appointment)

BS West Liberty St College 1964

PHD West Virginia University 1967

**Klaus J Staisch, MD** Assoc Prof Emeritus of Clinical Ob & Gyn (primary appointment)

MD School Not Listed 1966

**Christina Leigh Stallings, MS, MA, PHD** Assistant Professor of Molecular Microbiology (primary appointment)

MS Columbia University 2002

MA Columbia University 2001

PHD Columbia University 2005

BS Mary Washington College 1999

**Sarah A Stanage** Instructor in Pediatrics (primary appointment)

BS Washington Univ in St. Louis 2001

**Thaddeus S. Stappenbeck, PHD, MD** Conan Professor of Laboratory and Genomic Medicine (primary appointment)

**Professor of Developmental Biology**

BA Northwestern University 1987

PHD Northwestern University 1994

MD Northwestern University 1995

**Susan L Stark, PHD, MS** Assistant Professor of Occupational Therapy (primary appointment)

**Assistant Professor of Neurology**

PHD University of MO Columbia 1998

BS Alma College 1988

MS Washington Univ in St. Louis 1989

**Ashley L. Steed, MD, PHD** Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)

MD Washington Univ in St. Louis 2008

PHD Washington Univ in St. Louis 2008

BS Duke University 2001

Norman P Steele Instructor in Clinical Pediatrics (primary appointment)

**Alan Joel Stein, MD** Assistant Professor of Clinical Surgery (Urologic Surgery) (primary appointment)

BS Univ of Wisconsin Madison 1972

MD Wayne State University 1976

**Paul M Stein, MD** Professor of Clinical Medicine (primary appointment)

MD Saint Louis University 1971

BA University of Rochester 1967

**Phyllis K Stein, PHD** Associate Professor of Medicine (primary appointment)

BA Barnard College 1962

PHD University of Virginia 1990

**Richard Ian Stein, PHD** Associate Professor of Medicine (primary appointment)

PHD Arizona State University 2000

**Joseph H Steinbach, PHD** Prof Emeritus of Anesthesiology (primary appointment)

PHD University of CA San Diego 1973

BA Reed College 1968

**Emily Steiner, MD** Instructor in Medicine (primary appointment)

MD University of Toledo 2013

**Holly L Steiner** Assistant Professor of Obstetrics and Gynecology (primary appointment)

BS Southern Ill Univ Edwardsville 2005

**Leena Lata Stemler, MD** Instructor in Pediatrics (primary appointment)

BA Brown University 2003

MD Brown University 2007

**James Derek Stensby, MD** Assistant Professor of Radiology (primary appointment)

MD Emory University 2008

BS Emory University 2003

**William F Stenson** Dr Nicholas V Costrini Professor of Medicine (primary appointment)

BS Providence College 1967

Barbara B Sterkel Adjunct Associate Professor of Medicine (primary appointment)

**Randall S Sterkel** Assistant Professor of Clinical Pediatrics (primary appointment)

BA Duke University 1989

**Karin Sterl, MD** Instructor in Medicine (primary appointment)

MD Luliu Hatieganu U of Med 2007

**Kara Ellen Sternhell-Blackwell, MA, MD**Assistant Professor of Medicine (Dermatology) (primary appointment)

MA Washington Univ in St. Louis 2003

MD Washington Univ in St. Louis 2005

BA Washington Univ in St. Louis 1999

Tracey Wagner StevensAssistant Professor of Anesthesiology (primary appointment)

**Sheila Stewart-Wigglesworth, PHD**Professor of Cell Biology and Physiology (primary appointment)  
**Professor of Medicine**

BS University of Minnesota 1990

PHD University of CA Los Angeles 1996

**Arthur Waldo Stickle Jr, MD**Asst Prof Emeritus Of Clin Ophthal & Vls Sci (primary appointment)

**Asst Prof Emeritus Of Clin Ophthalmol & Vls Sc** (primary appointment)

MD University of Oklahoma 1943

**Anita R Stiffelman, MD**Associate Professor of Clinical Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1983

MD New York Medical College 1987

Wayne A StillingsAssistant Professor of Clinical Psychiatry (primary appointment)

**Jennifer S Stith, MSW, MS, PHD**Professor of Physical Therapy (primary appointment)

**Associate Director of Professional Curriculum in Physical Therapy**

**Division Director for Education in Physical Therapy**

**Professor of Neurology**

BS University of California 1976

MSW Washington Univ in St. Louis 2006

MS University of Southern Calif 1979

PHD Washington Univ in St. Louis 1994

**Nathan O. Stitzel**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Genetics**

BA1 Washington Univ in St. Louis 1998

**Marissa Christine Stock, MD**

MD University of MO Kansas City 2002

**Keith Evan Stockerl-Goldstein, MD**Associate Professor of Medicine (primary appointment)

MD University of CA Los Angeles 1991

BA Washington Univ in St. Louis 1986

Daniel Charles StoeckelInstructor in Clinical Surgery (primary appointment)

**James Andrew Stokes, MD**Instructor in Clinical Medicine (primary appointment)

MD University of Missouri 1984

BA Stanford University 1976

Jeffrey R StokesProfessor of Pediatrics (Pending Executive Faculty Approval) (primary appointment)

**Janis Marie Stoll, MD**Assistant Professor of Pediatrics (primary appointment)

MD Eastern Virginia Med School 2004

**Michael Gary Stone, MD**Instructor in Clinical Medicine (primary appointment)

MD Kansas Cty Univ Med/Bioscience 2008

**Stephen I Stone, MD**Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)

BS University of Illinois Chicago 2005

MD Rosalind Franklin University 2010

**John A Stopple, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA Grinnell College 1962

MD Univ of Wisconsin Madison 1969

**Gregory A Storch, MD**Ruth L. Siteman Professor of Pediatrics (primary appointment)

**Professor of Molecular Microbiology**

**Professor of Medicine**

MD New York University 1973

BA Harvard University 1969

**Gary D Stormo, PHD, MA**Professor of Genetics (primary appointment)

**Joseph Erlanger Professor**

**Professor of Computer Science**

**Professor of Biomedical Engineering**

PHD University of Colorado Boulder 1981

BS California Institute Technolo 1972

MA University of Colorado Boulder 1975

**Molly Jean Stout, MD**Assistant Professor of Obstetrics and Gynecology (primary appointment)

BA Bryn Mawr College 2002

MD Loyola University Chicago 2007

**James Stowe, PHD, MS**Instructor in Medicine (primary appointment)

PHD Columbia, MO 2014

BA Kansas State University 2006

MS Kansas State University 2009

**Jennifer Mae Strahle, MD**Asst Prof of Neurological Surgery (primary appointment)

**Asst Prof of Orthopaedic Surgery**

**Asst Prof of Pediatrics**

MD University of Minnesota 2008

BS Bates College 2002

**Eric A Strand, MD**Associate Professor of Obstetrics and Gynecology (primary appointment)

MD Johns Hopkins University Medic 1995

**Steven M Strasberg, MD**Pruett Professor of Surgery (General Surgery) (primary appointment)

**Associate Professor of Cell Biology and Physiology**

MD University of Toronto 1963

**Robert H Strashun, MD, MA**Associate Professor of Clinical Pediatrics (primary appointment)

MD New York University 1982

BA Yeshiva University 1978

MA Yeshiva University 1978

**William L Straube, MEE**Associate Professor of Radiation Oncology (primary appointment)

MEE Washington Univ in St. Louis 1992

**M. Anne Street, MD**Assistant Professor of Clinical Pediatrics (primary appointment)

MD University of Illinois 1976

**James W Strickland, MD**Visiting Professor of Orthopaedic Surgery (primary appointment)

BS Indiana University Bloomington 1958

MD Indiana University 1962

**James F Strieter, MBA, OD**Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

MBA Southern Ill Univ Edwardsville 1988

BS School Not Listed 1953

OD School Not Listed 1954

**Catherine Striley**Asjunct Assistant Professor of Psychiatry (primary appointment)

**Cristina Strong**Assistant Professor of Medicine (Dermatology) (primary appointment)  
**Malcolm H Stroud, MD**Prof Emeritus Of Otolaryngology (primary appointment)  
UNKNOWN Birmingham University 1945  
UNKNOWN1 School Not Listed 1952  
MD University of Birmingham 1945  
**Judith M. Stucki-Simeon, MD**Instructor in Clinical Pediatrics (primary appointment)  
MD Univ of Wisconsin Madison 1987  
**Christopher Michael Sturgeon, PHD**Assistant Professor of Medicine (primary appointment)  
**Assistant Professor of Developmental Biology**  
PHD University of British Columbia 2006  
**Xinming Su**Instructor in Medicine (primary appointment)  
**Xiong Su, PHD**Assistant Professor of Medicine (primary appointment)  
**Assistant Professor of Cell Biology and Physiology**  
PHD Washington Univ in St. Louis 2004  
BS Beijing University 1998  
**Yi Su, PHD**Assistant Professor of Radiology (primary appointment)  
BS University of Science & Tech 1999  
PHD Mayo Clinic 2006  
**Brian K Suarez, PHD, MA**Prof Emeritus of Psychiatry (primary appointment)  
PHD University of CA Los Angeles 1974  
MA University of CA Los Angeles 1972  
**Rosa M Suarez-Solar**Instructor in Clinical Pediatrics (primary appointment)  
BA University of Puerto Rico 1990  
**Hamsa Subramanian**Instructor in Clinical Medicine (primary appointment)  
BS St. Joseph's Convent - Trichy 1986  
**Kanagaraj Subramanian, PHD, MS**Instructor in Medicine (primary appointment)  
PHD Heidelberg University 2007  
MS Heidelberg University 2000  
**Abbe L Sudvarg**Instructor in Clinical Obstetrics and Gynecology (primary appointment)  
**Lisa Suffian, MD**Instructor in Clinical Pediatrics (primary appointment)  
MD University of MO Kansas City 1996  
BS University of MO Kansas City 1990  
**Toshifumi Sugatani, PHD, DDENT**Instructor in Pediatrics (primary appointment)  
PHD Meiji University 2003  
DDENT Meiji University 1991  
**Alexander L Sukstansky, MS, D SC**Associate Professor of Radiology (primary appointment)  
MS Kharkov State University 1971  
D SC Donetsk State University 1991  
**Hani Suleiman, MD**Instr in Medicine (primary appointment)  
MD Regensburg University 2007  
**Kaharu Sumino, PHD, M PA, MD**Associate Professor of Medicine (primary appointment)  
PHD Yokohama City Univ Sch Med 1999  
M PA Johns Hopkins University 2008  
MD Yokohama City Univ Sch Med 1992  
**William Craig Summers, MD**Instructor in Clinical Medicine (primary appointment)  
MD University of AL Birmingham 1999  
BS University of Alabama 1994  
**Brian Patrick Sumner**Adjunct Instructor in Ophthalmology and Visual Sciences (primary



appointment)

**Walton Sumner II, MD** Associate Professor of Medicine (primary appointment)

MD Southwestern University 1985

BA Rice University 1981

**Baozhou Sun, PHD, MS** Assistant Professor of Radiation Oncology (primary appointment)

PHD College of William and Mary 2005

BS Jilin Medical University 2000

MS College of William and Mary 2002

**Peng Sun, PHD, MS** Instructor in Radiology (primary appointment)

PHD Beijing University 2005

MS Beijing Inst Of Technology 2002

BS Harbin Engineering University 1999

Yun Ju Sung Associate Professor of Biostatistics (primary appointment)

**Associate Professor of Psychiatry**

**Herbert Sunshine, MD** Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)

BA Washington Univ in St. Louis 1950

MD Washington Univ in St. Louis 1954

**In Sook Sunwoo, MD** Instr Emeritus in Neurology (primary appointment)

MD School Not Listed 1959

**Rama Suresh, MBBS** Assistant Professor of Medicine (primary appointment)

MBBS University of Madras 1993

**Jagdish C Suri, MD** Assistant Professor of Clinical Psychiatry (Child Psychiatry) (primary appointment)

UNKNOWN School Not Listed 1959

BS School Not Listed 1954

MD School Not Listed 1964

**Vinod Suri** Instructor in Clinical Psychiatry (Child Psychiatry) (Full-Time at Hawthorn Children's Psychiatric Hospital) (primary appointment)

UNKNOWN Punjab University 1962

**Noah Susman, MD** Prof Emeritus Of Clinical Radiology (primary appointment)

MD Washington Univ in St. Louis 1952

BA Washington Univ in St. Louis 1948

**Siobhan Sutcliffe, MHS, PHD, MS** Associate Professor of Surgery (Public Health Sciences) (primary appointment)

MHS Johns Hopkins University 2001

BS Princeton University 1998

PHD Johns Hopkins University 2005

MS Johns Hopkins University 2004

**Rudee Suwannasri, MD** Instructor in Clinical Medicine (primary appointment)

MD Chiang Mai University 1973

BS Chiang Mai University 1971

Bridgette B Svancarek Assistant Professor of Emergency Medicine in Medicine (primary appointment)

**Dragan M Svrakic, MD, PHD** Professor of Psychiatry (primary appointment)

MD University of Belgrade 1978

PHD University of Belgrade 1989

**Sanjay Joshua Swamidass, PHD, MA, MD** Assistant Professor of Pathology and Immunology (primary appointment)

**Assistant Professor in Computer Science and Engineering**

PHD University of California 2007

MA University of California 2006

MD University of California 2009

BS University of California 2000

**Kenneth V Swanson****Instructor in Clinical Ophthalmology and Visual Sciences** (primary appointment)

**Robert A Swarm****Professor of Anesthesiology** (primary appointment)

**Wojciech A. Swat, MS, PHD****Associate Professor of Pathology and Immunology** (primary appointment)

MS University of Warsaw 1989

PHD University of Basel 1992

**Stuart C Sweet, PHD****W. Mckim O. Marriott Professor of Pediatrics** (primary appointment)

PHD University of Michigan 1989

**Amanda Sweetland****Instructor in Clinical Pediatrics** (primary appointment)

**Elzbieta Anna Swietlicki, MS, PHD****Instructor in Medicine** (primary appointment)

MS Medical Academy Lodz 1975

PHD Medical Academy Lodz 1981

**Chad M Sylvester, PHD, MD****Instructor in Psychiatry (Child)** (primary appointment)

PHD Washington Univ in St. Louis 2009

MD Washington Univ in St. Louis 2009

BS University of Notre Dame 2001

**Susan C. Sylvia****Instructor in Clinical Pediatrics** (primary appointment)

**Martha Zorko Szabo****Assistant Professor of Anesthesiology** (primary appointment)

**Steven D Taff, MS, PHD****Assistant Professor of Occupational Therapy** (primary appointment)

**Assistant Professor of Medicine**

MS Washington Univ in St. Louis 1997

BS MO State U (formerly SW MO St) 1989

PHD University of MO St Louis 2005

**Paul H Taghert, PHD****Professor of Neuroscience** (primary appointment)

BA Reed College 1975

PHD University of Washington 1981

**Mohammad Tahir, MD****Instructor in Clinical Medicine** (primary appointment)

MD Dow Medical College Karachi 1976

**Yuan-Chuan Tai, MEE, PHD****Associate Professor of Radiology** (primary appointment)

BS National Tsing Hua University 1988

MEE University of Texas Arlington 1992

PHD University of CA Los Angeles 1998

**Chandrakant Tailor, MD****Assistant Professor of Clinical Radiology** (primary appointment)

MD Medical College of India 1970

**Benjamin R Tan, MD****Associate Professor of Medicine** (primary appointment)

BS University of the Philippines 1985

MD University of the Philippines 1990

**David Tan, MD****Associate Professor of Emergency Medicine in Medicine** (primary appointment)

MD Loma Linda University 1997

**Mini Tandon, DOST****Assistant Professor of Psychiatry (Child Psychiatry)** (primary appointment)

DOST Kansas Cty Univ Med/Bioscience 2002

BS Truman State University 1997



**Chi-Tsai Tang** Assistant Professor of Orthopaedic Surgery (primary appointment)

**Assistant Professor of Neurology**

**Rui Tang, PHD, MS** Instructor in Radiology (primary appointment)

PHD Wayne Community College 2009

MS Washington Univ in St. Louis 2004

BS University of Science & Tech

**Simon Tang, PHD, MS** Assistant Professor of Orthopaedic Surgery (primary appointment)

PHD Rensselaer Poly Institute 2007

BS University of CA Berkeley 2003

MS Rensselaer Poly Institute 2005

**Kongsak Tanphaichitr, MD** Professor of Clinical Medicine (primary appointment)

MD Siriraj Medical School 1970

**Richard S Tao, MD** Instructor in Emergency Medicine in Medicine (primary appointment)

MD Indiana State University 1995

BA Indiana State University 1991

**Phillip Irwin Tarr, MD** Melvin E Carnahan Professor of Pediatrics (primary appointment)

**Professor of Molecular Microbiology**

BA Brown University 1975

MD Yale University 1980

**Sandra L Tate, MD** Instructor in Clinical Neurology (primary appointment)

MD Southern Illinois University 1987

BA School Not Listed

**Sharlene A Teefey** Professor of Radiology (primary appointment)

**Steven L Teitelbaum, MD** Messing Professor of Pathology and Immunology (primary appointment)

**Professor of Medicine**

MD Washington Univ in St. Louis 1964

**Rene Tempelhoff, MD** Professor of Anesthesiology (primary appointment)

**Professor of Neurological Surgery**

MD University of Lyon 1974

**Marissa Morningstar Tenenbaum, MD** Assistant Professor of Surgery (Plastic and Reconstructive Surgery) (primary appointment)

BS Univ of Wisconsin Madison 1998

MD Washington Univ in St. Louis 2002

**Melissa Dawn Tepe, MD, MS** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS Yale University 1999

MD Albert Einstein College of Med 2005

MS Columbia University 2004

**Arnold S Tepper, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Missouri 1970

BS School Not Listed 1966

**Raghu P Terkonda, MD** Assistant Professor of Anesthesiology (primary appointment)

MD University of MO Columbia 1987

BS University of MO Columbia 1983

**Wanda T Terrell, MD** Associate Professor of Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1975

MD Washington Univ in St. Louis 1979

**Kristen A Terrill** Instructor in Clinical Pediatrics (primary appointment)

**Mengesha A Teshome, MD**Instructor in Neurology (primary appointment)

MD Addis Ababa University 1989

**Paul M Tesser**Associate Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

**Larissa Bryka Thackray, PHD**Assistant Professor of Medicine (primary appointment)

BS Cornell University 1991

PHD U of Colorado Health Sci Ctr 2003

**Donna T Thackrey, MD**Instructor in Clinical Pediatrics (primary appointment)

BS John Carroll University 1990

MD Wright State University 1994

**Premal H Thaker, MD, MS**Associate Professor of Obstetrics and Gynecology (primary appointment)

MD Allegheny College 1997

BA Villanova University 1995

MS University of Texas Houston 2004

**Isolde E Thalmann, PHD**Professor Emeritus of Otolaryngology (primary appointment)

**Prof Emeritus of Otolaryngology** (primary appointment)

**Resrch Prof Emeritus of Otolaryngology** (primary appointment)

BS Washington Univ in St. Louis 1968

PHD California Western 1982

**Ruediger Thalmann**Professor Emeritus of Otolaryngology (primary appointment)

**Prof Emeritus of Otolaryngology** (primary appointment)

**Lecturer in Otolaryngology**

**George K. Thampy**Instructor in Clinical Medicine (primary appointment)

**Stanley E Thawley, MD**Associate Professor of Otolaryngology (primary appointment)

MD University of Texas Galveston 1967

BA University of Texas Austin 1963

**Tama Saint The, MD**Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)

BS1 University of Kentucky 2009

MD University of Louisville 2013

BS University of Kentucky 2009

**Marie Angele Theard, MD**Assistant Professor of Anesthesiology (primary appointment)

MD University of Illinois 1989

**Daniel Leonidas Theodoro, MD**Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD Brown University 1997

**J. Allen Thiel, MD**Associate Professor of Clinical Medicine (primary appointment)

BS Rockhurst College 1956

MD Saint Louis University 1960

**Stephen Thierauf**Instructor in Clinical Pediatrics (primary appointment)

**Kwee L Thio, PHD, MD**Associate Professor of Neurology (primary appointment)

**Associate Professor of Pediatrics**

**Associate Professor of Neuroscience**

PHD Washington Univ in St. Louis 1992

MD Washington Univ in St. Louis 1992

BS Brown University 1984

**Mark S Thoele, MD**Associate Professor of Medicine (primary appointment)

BS University of Illinois 1982

MD University of Illinois 1990

**Benjamin S Thomas, MD** Adjunct Instructor in Medicine (primary appointment)

MD Mercer University Macon 2009

BS Georgia Tech 2002

**Maria A Thomas, PHD, MD** Assistant Professor of Radiation Oncology (primary appointment)

BS Creighton University 2000

PHD Saint Louis University 2006

MD Saint Louis University 2008

**Matthew A Thomas, MD** Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Harvard University 1991

BS Harvard University 1977

**Lewis J Thomas Jr, MD** Prof Emeritus Of Biomedical Computing In IBC (primary appointment)

MD Washington Univ in St. Louis 1957

BS Haverford College 1953

**Jean Alfred Thomas Sr., MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD School Not Listed 1972

**Jeffrey Bryant Thompson, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS Vanderbilt University 1989

MD University of Missouri 1994

**M. Bryant Thompson** Associate Professor of Clinical Obstetrics and Gynecology (primary appointment)

BA Eastern New Mexico University 1957

**Robert W Thompson, MD** Professor of Surgery (General Surgery) (primary appointment)

Professor of Cell Biology and Physiology

Professor of Radiology

BA Hope College 1979

MD University of Michigan 1983

**Wade L Thorstad, MD** Associate Professor of Radiation Oncology (primary appointment)

MD University of Texas Austin 1991

BS Trinity University 1986

**Dinesh Thotala, PHD, MS** Assistant Professor of Radiation Oncology (primary appointment)

PHD Bangalore University 1998

BS Bangalore University 1990

MS Bangalore University 1993

**Jean Holowach Thurston, MD** Prof Emeritus Of Pediatrics (primary appointment)

BA University of Alberta 1938

MD University of Alberta 1941

**Erik P Thyssen, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD University of Copenhagen 1984

BS University of Copenhagen 1980

**LinLin Tian, PHD** Instructor in Emergency Medicine in Medicine (primary appointment)

PHD Beijing Institute of Radiation 2009

BS Hebei Medical University 2004

**Lawrence S Tierney, MD** Associate Professor of Clinical Medicine (primary appointment)

BS University of Illinois 1984

MD University of Illinois 1988

**Jeffrey P Tillinghast, MD** Associate Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1980

Mary A Tillman **Professor of Clinical Pediatrics** (primary appointment)

Amaris Renee Tippey **Assistant Professor of Clinical Radiation Oncology** (primary appointment)

**Jeffrey B. Titus, MA, PHD** Assistant Professor of Clinical Neurology (primary appointment)

MA University of Northern Colora 1999

PHD Ball State University 2002

**Wael Toama, MD** Instructor in Medicine (primary appointment)

MD Damascus U. Medical School 2005

**Albro C Tobey, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

BS Butler University 1965

MD School Not Listed 1972

Malcolm Tobias **Instructor in Radiology (Pending Dean's Approval)** (primary appointment)

**Garry S Tobin, MD** Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1985

BS MO S&T (formerly UofMO Rolla) 1981

**Jerry Tobler, MD, PHD** Instructor in Clinical Radiology (primary appointment)

MD Yale University 1983

PHD California Institute Technolo 1978

BS Cornell University 1973

Randall W Tobler **Assistant Professor of Clinical Obstetrics and Gynecology** (primary appointment)

**Alexandre Todorov, M ED** Professor of Psychiatry (primary appointment)

BS Vanderbilt University 1985

M ED Vanderbilt University 1988

**Robert W Tolan Jr., MA, MD** Instructor in Clinical Pediatrics (primary appointment)

MA Indiana University Bloomington 1983

BA Indiana University Bloomington 1982

MD Washington Univ in St. Louis 1987

**Niraj Harish Tolia, PHD** Associate Professor of Molecular Microbiology (primary appointment)  
**Associate Professor of Biochemistry and Molecular Biophysics**

PHD Watson Sch of Biological Scien 2004

BS Imperial College 1999

**Douglas M Tollefsen, MD** Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1977

**Michael H. Tomasson, MD** Adjunct Assistant Professor of Medicine (primary appointment)

BA Wesleyan University 1986

MD Stanford University 1992

**Silvestre A Tomeldan Jr, MD** Instr Emeritus in Anesthesiology (primary appointment)

MD School Not Listed 1970

**Adetunji Toriola, PHD** Assistant Professor of Surgery (General Surgery) (primary appointment)

PHD University of Tampere 2011

**Ralph J Torrence, MD** Assistant Professor of Surgery (Urologic Surgery) (primary appointment)

MD Georgetown University 1983

**Robert R Townsend, MD, PHD, MS** Professor of Medicine (primary appointment)

**Professor of Cell Biology and Physiology**

BS Centenary College 1972

MD Tulane University 1976  
PHD Johns Hopkins University 1982  
MS Tulane University 1976  
**Elizabeth A Tracy, MD**Instructor in Clinical Medicine (primary appointment)  
BS Marquette University 1982  
MD Univ of Wisconsin Milwaukee 1986  
**Scott A. Trail, MD**Instructor in Clinical Pediatrics (primary appointment)  
BA Saint Louis University 1985  
MD University of MO Columbia 1990  
**Erica J Traxel, MD**Assistant Professor of Surgery (Urologic Surgery) (primary appointment)  
BS Texas A&M University 1998  
MD Beaufort Technical College 2002  
**Yvonne Perle Treece, AA**Instructor in Clinical Obstetrics and Gynecology (primary appointment)  
AA Pellissippi St Technical Coll 1997  
**Indi Trehan, MD, MPH**Assistant Professor of Pediatrics (primary appointment)  
MD Northwestern University 2004  
MPH Northwestern University 2004  
BS University of CA Berkeley 1998  
**Norman Edwin Trevathan III, MS, MD**Adjunct Professor of Neurology (primary appointment)  
MS Emory University 1982  
BS David Lipscomb University 1977  
MD Emory University 1982  
Doris Janet Tribune-Brown**Instructor in Clinical Medicine** (primary appointment)  
**Sandeep Kumar Tripathy, PHD**Assistant Professor of Medicine (primary appointment)  
PHD University of Chicago 1995  
**Shamik Bharat Trivedi, MD**Instructor in Pediatrics (Pending Dean's Approval) (primary appointment)  
MD University of Toledo 2009  
Heather L. True**Professor of Cell Biology and Physiology** (primary appointment)  
**Elbert P Trulock III, MD**Rosemary and I Jerome Flance Professor of Pulmonary Medicine in Medicine (primary appointment)  
MD Emory University 1978  
BS Emory University 1968  
**Linda Mei-Lin Tsai, MD**Associate Professor of Ophthalmology and Visual Sciences (primary appointment)  
MD Northwestern University 1995  
**Garland R Tschudin, MD**Instructor in Clinical Pediatrics (primary appointment)  
BA University of Missouri 1971  
MD University of Missouri 1975  
**Thomas F Tse, MD**Instructor in Clinical Medicine (primary appointment)  
BS University of Nebraska 1972  
MD Univ of Nebraska at Omaha 1976  
**Christina Irene Tsien, MD**Professor of Radiation Oncology (primary appointment)  
MD McGill University 1995  
**Zhude Tu, MS, PHD**Associate Professor of Radiology (primary appointment)  
MS Beijing Normal University 1991  
PHD Beijing Normal University 1995  
MS1 University of St Thomas 2000

BS Beijing Normal University 1988

Garth D Tubbs **Asst Prof Emeritus Of Occupational Therapy** (primary appointment)

David J Tucker **Assistant Professor of Clinical Medicine** (primary appointment)

**Dolores R Tucker, MD** **Assistant Professor of Clinical Medicine (Dermatology)** (primary appointment)

MD Washington Univ in St. Louis 1974

BS Saint Mary's College 1958

**Stacey S Tull, MD, M PH** **Assistant Professor of Clinical Medicine (Dermatology)** (primary appointment)

MD Duke University 1997

M PH Duke University 1997

Thomas H Tung **Professor of Surgery (Plastic and Reconstructive Surgery)** (primary appointment)

**John W Turk, PHD, MD** **Professor of Medicine** (primary appointment)

**Alan A and Edith L Wolff** **Professor of Endocrinology**

**Professor of Pathology and Immunology**

BA Washington Univ in St. Louis 1970

PHD Washington Univ in St. Louis 1976

MD Washington Univ in St. Louis 1976

**Michael P Turmelle, MD** **Associate Professor of Pediatrics** (primary appointment)

MD Johns Hopkins University 1998

BA Bowdoin College 1994

**Yumirle Padron Turmelle, MD, AA** **Associate Professor of Pediatrics** (primary appointment)

MD University of Florida 2000

AA Miami Dade Community College 1993

BA University of Miami 1995

**Isaiah Turnbull, MD, MS** **Assistant Professor of Surgery (General Surgery)** (primary appointment)

MD Washington Univ in St. Louis 2008

MS Washington Univ in St. Louis 2008

BS University of Oregon 1998

**Jacqueline Sue Turner, MD** **Instructor in Clinical Obstetrics and Gynecology** (primary appointment)

MD Tulane University 1983

BA Mass Inst of Technology (MIT) 1979

**Peter G Tuteur** **Assoc Prof Emeritus of Medicine** (primary appointment)

BA Johns Hopkins University Medic 1962

**Methodius Gamuo Tuuli, M PH** **Associate Professor of Obstetrics and Gynecology** (primary appointment)

M PH University of California 2003

BS University of Ghana 1997

**Robert Lawrence Tychsen** **Professor of Ophthalmology and Visual Sciences** (primary appointment)

**Professor of Neuroscience**

**Professor of Ophthalmology and Visual Sciences in Pediatrics**

**John F Hardesty MD** **Distinguished Professor of Ophthalmology and Visual Sciences**

BS Georgetown University 1975

**Stacy Lynne Tylka, DPT, MS** **Associate Professor of Physical Therapy** (primary appointment)

**Associate Professor of Orthopaedic Surgery**

**Associate Professor of Obstetrics and Gynecology**

BS Saint Louis University 2000

DPT Washington Univ in St. Louis 2009



MS Saint Louis University 2002

**Ellen Twining Tyson, MA** Asst Prof Emeritus Of Occupational Therapy (primary appointment)

MA Syracuse University 1950

BA Syracuse University 1949

**April L Tyus** Instructor in Clinical Pediatrics (primary appointment)

BA Washington Univ in St. Louis 1995

**Rosalie May Uchanski, MS, PHD** Assistant Professor of Otolaryngology (primary appointment)

**Assistant Professor of Audiology and Communication Sciences**

BS University of Illinois Chicago 1978

MS Mass Inst of Technology (MIT) 1981

PHD Mass Inst of Technology (MIT) 1988

**Robert C. Uchiyama, MD** Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 1980

**Jason Daniel Ulrich** Assistant Professor of Neurology (primary appointment)

**Emil Raphael Unanue, MD** Paul and Ellen Lacy Professor of Pathology and Immunology (primary appointment)

BS Institute of Secondary Educati 1952

MD Havana University 1960

**Fumihiko Urano, MD** Samuel E Schechter Associate Professor of Medicine (primary appointment)

**Associate Professor of Pathology and Immunology**

MD Keio University 1994

**Mwiza Ushe, MD, MS** Assistant Professor of Neurology (primary appointment)

MD Washington Univ in St. Louis 2007

MS Washington Univ in St. Louis 2007

**Elizabeth C Utterson, MD** Assistant Professor of Pediatrics (primary appointment)

BA University of Notre Dame 1994

MD Creighton University 1998

**Geoffrey L Uy, MD** Associate Professor of Medicine (primary appointment)

BA1 Cornell University 1996

BA Cornell University 1996

MD Washington Univ in St. Louis 2001

**Akshaya J Vachharajani, MBBS, MD** Associate Professor of Pediatrics (primary appointment)

MBBS Topiwala National Med College 1984

MD University of Bombay 1986

**Justin Marinus Vader, MD** Assistant Professor of Medicine (primary appointment)

MD University of Texas Southwest 2006

**Brij R Vaid, MD** Instructor in Clinical Medicine (primary appointment)

MD Rush University 1992

**Lora Maureen Valente** Associate Professor of Otolaryngology (primary appointment)

**Associate Professor of Audiology and Communication Sciences**

**Director of Audiology Studies in Audiology and Communication Sciences**

BS University of Illinois 1974

**Michael Valente, MS, PHD** Professor of Otolaryngology (Audiology) (primary appointment)

**Professor of Audiology and Communication Sciences**

MS Adelphi Univ 1972

PHD University of Illinois 1975

BA Adelphi Univ 1970

**Albert Lee Van Amburg Iii, MD** Assistant Professor of Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1968

MD Washington Univ in St. Louis 1972

Dorothy J. Van Buren **Associate Professor of Psychiatry** (primary appointment)

**Linda R Van Dillen, MS, PHD** **Professor of Physical Therapy** (primary appointment)

**Professor of Orthopaedic Surgery**

**Associate Director of Musculoskeletal Research in Physical Therapy**

MS Washington Univ in St. Louis 1985

BS University of Missouri 1979

PHD Washington Univ in St. Louis 1994

**Michele Van Eerdewegh, MD** **Instructor in Clinical Psychiatry** (primary appointment)

MD School Not Listed 1970

**David C Van Essen, PHD** **Alumni Endowed Professor of Neurobiology** (primary appointment)

**Professor of Biomedical Engineering**

PHD Harvard University 1971

**George Frederick Van Hare III, MD** **Louis Larrick Ward Professor of Pediatrics** (primary appointment)

MD University of Connecticut 1980

BS Bates College 1976

**Gregory Paul Van Stavern, MD** **Associate Professor of Ophthalmology and Visual Sciences** (primary appointment)

**Associate Professor of Neurology**

MD Pennsylvania State University 1993

BS La Salle University 1989

**Renee Bailey Van Stavern, MD** **Associate Professor of Neurology** (primary appointment)

MD Univ Texas Health Science Ctr 1997

**Brian Andrew Van Tine, MD, PHD** **Assistant Professor of Medicine** (primary appointment)

BS University of Arizona 1995

MD University of AL Birmingham 2005

PHD University of AL Birmingham 2005

**Jeffrey A. Vander Kooi, MD** **Instructor in Clinical Psychiatry** (primary appointment)

BS University of Iowa 1997

MD University of Iowa 2002

**Kelli Lynn VanDussen, PHD** **Instructor in Pathology and Immunology (Pending Dean's Approval)** (primary appointment)

PHD University of Michigan 2010

BS Grand Valley St University 2004

**Andrea Vannucci, MD** **Associate Professor of Anesthesiology** (primary appointment)

MD University of Milan 1989

**Swarup Varaday, MBBS** **Assistant Professor of Anesthesiology** (primary appointment)

MBBS Andhra University 1989

Arun S. Varadhachary **Assistant Professor of Neurology** (primary appointment)

**Gil M Vardi, MD** **Assistant Professor of Clinical Medicine** (primary appointment)

MD Tel-Aviv University 1988

**Edward F Vastola** **Prof Emeritus Of Neurology** (primary appointment)

BS Yale University 1945

**Suresh Vedantham, MD** **Professor of Radiology** (primary appointment)

**Professor of Surgery (General Surgery)**

BA Northwestern University 1988



MD University of Chicago 1992

**Emmanuel A Venkatesan, MBBS** Associate Professor of Clinical Medicine (primary appointment)

MBBS CMC, Vellore, India 1990

**Ramakrishna Venkatesh, MS** Professor of Surgery (Urologic Surgery) (primary appointment)

MS1 School Not Listed 1991

MS Bangalore University 1991

**Thomas J Veraldi, MS** Instructor in Clinical Otolaryngology (primary appointment)

MS Washington Univ in St. Louis 1988

BS Moravian College 1976

William Vermi **Adjunct Assistant Professor of Pathology and Immunology** (primary appointment)

Laird Henry Vermont **Instructor in Clinical Pediatrics** (primary appointment)

**Zachary Andrew Vesoulis, MD** Instructor in Pediatrics (primary appointment)

MD Ohio State University 2009

Garry M. Vickar **Instructor in Clinical Psychiatry** (primary appointment)

**Zevidah Vickery, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Ben-Gurion Univ of the Negev 2005

**Wayne A Viers** Associate Professor of Clinical Otolaryngology (primary appointment)

BS Phillips University 1952

**Monika Vig, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

BS Delhi University 1995

PHD Jawaharlal Nehru Univerisity 2003

**Kiran Raj Vij, MD** Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Pathology and Immunology**

MD Indira Gandhi Medical College 1993

Ravi Vij **Professor of Medicine** (primary appointment)

Anitha Vijayan **Professor of Medicine** (primary appointment)

Dennis T Villareal **Adjunct Associate Professor of Medicine** (primary appointment)

**Herbert W Virgin IV, PHD** Mallinckrodt Professor of Pathology and Immunology (primary appointment)

**Professor of Medicine**

**Head of the Department of Pathology and Immunology**

**Professor of Molecular Microbiology**

PHD Harvard University 1985

Harry John Visser **Instructor in Clinical Orthopaedic Surgery** (primary appointment)

**Gregory Riccardo Vlacich, MD, PHD** Assistant Professor of Radiation Oncology (primary appointment)

MD University of Chicago 2009

PHD University of Chicago 2007

**Andrei G Vlassenko, MD, PHD** Assistant Professor of Radiology (primary appointment)

MD Moscow Med Stomatology Inst 1987

PHD Institute of Neurology 1991

**Katie Dieu Thu Vo** Associate Professor of Radiology (primary appointment)

BS Mass Inst of Technology (MIT) 1986

BA Wellesley College 1986

**Erin Foster Voegtli, OTD** Assistant Professor of Occupational Therapy (primary appointment)

**Assistant Professor of Neurology**

**Assistant Professor of Psychiatry**

OTD Washington Univ in St. Louis 2005

BS Washington Univ in St. Louis 2003

**Gary Lee Vogel, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Ohio State University 1977

BA University of Iowa 1970

**Joseph Paul Vogel, PHD** Associate Professor of Molecular Microbiology (primary appointment)

PHD Princeton University 1993

BS2 Minnesota State University 1986

BS1 Minnesota State University 1986

BS Minnesota State University 1986

**David Edward Vollman, MD** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

MD Ohio State University 2006

**Gershon Ram Volotzky, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Tel-Aviv University 1979

**Oksana Volshteyn, MD** Professor of Neurology (primary appointment)

**Professor of Medicine**

MD Minsk State Medical Institute 1976

**Benjamin Allen Voss, MD** Instructor in Clinical Medicine (primary appointment)

MD Creighton University 2007

BA Saint Louis University 2003

BA1 Saint Louis University 2003

**Gino J Vricella, MD** Assistant Professor of Surgery (Urologic Surgery) (primary appointment)

BS Saint Louis University 2012

MD University of MO Columbia 2006

**Stanley G Vriezelaar, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Iowa 1981

**James J Wachter, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD Illinois College of Optometry 1991

BS Illinois College of Optometry 1990

**Kathryn Kerr Wade, MD** Instructor in Clinical Pediatrics

BS Saint Louis University 2000

MD Loyola University Chicago 2005

**Harry Lee Wadsworth, MD** Instructor in Clinical Medicine (primary appointment)

MD Texas Tech University 1983

BS Texas Tech University 1978

**Daniel G Wagner** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA1 Holy Cross College 1985

**Jason Cass Wagner, MD** Assistant Professor of Emergency Medicine in Medicine (primary appointment)

MD University of Colorado Denver 2001

Jean V Wagner Instructor in Clinical Pediatrics (primary appointment)

**Richard L Wahl, MD** Elizabeth E Mallinckrodt Professor of Radiology (primary appointment)

Director of the Edward Mallinckrodt Institute of Radiology

Head of the Department of Radiology

Professor of Radiation Oncology

MD Washington Univ in St. Louis 1978

**Gabriel Waksman, MS, PHD** Adjunct Professor of Biochemistry and Molecular Biophysics (primary appointment)

BS School Not Listed 1979

MS School Not Listed 1980

PHD School Not Listed 1982

**Stanley M Wald, MD** Associate Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1946

Mary C. Waldron Adjunct Assistant Professor of Psychiatry (primary appointment)

**Howard S Walker, MD** Instructor in Clinical Surgery (Cardiothoracic Surgery) (primary appointment)

BA Citadel 1971

MD Beaufort Technical College 1974

**J. Leslie Walker, MD** Asst Prof Emeritus Of Clinical Ob & Gyn (primary appointment)

MD University of Tennessee 1960

BA Vanderbilt University 1957

**Sara Walker, MD** Instructor in Clinical Psychiatry (primary appointment)

MD University of South Florida 2001

**Leonard Lewis Wall, MD, MS, PHD** Selina Okin Kim Conner Professor in Arts & Sciences and Professor of Anthropology (primary appointment)

Professor of Obstetrics and Gynecology

Professor of Obstetrics and Gynecology

Professor of Obstetrics and Gynecology

MD University of Kansas 1983

BA University of Kansas 1972

MS Monash University 2001

PHD Oxford University 1983

BS Oxford University 1974

**Lindley Bevelle Wall, MD** Assistant Professor of Orthopaedic Surgery (primary appointment)

MD Washington Univ in St. Louis 2006

BS Duke University 2002

**Colleen M Wallace, MD** Assistant Professor of Pediatrics (primary appointment)

Director, Humanities Program

MD Washington Univ in St. Louis 2001

BS University of Notre Dame 1997

**David Wallace, MD** Instructor in Clinical Medicine (primary appointment)

BA Saint Anselm College 1980

MD Saint Louis University 1984

**Jerold W Wallis, MS, MD** Associate Professor of Radiology (primary appointment)

Associate Professor of Biomedical Engineering

MS Stanford University 1981

MD Stanford University 1981

BS Yale University 1976

**David A Walls, MD** Instructor in Clinical Medicine (primary appointment)

MD Southern Illinois University 1982

BA Southern Illinois University 1979

Sarah N. Walsh Instructor in Clinical Medicine (Dermatology) (primary appointment)

Matthew John Walter Associate Professor of Medicine (primary appointment)

Associate Professor of Genetics

**William Lee Walter, MD** Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

MD Ohio State University 1954

BA De Paul University 1950

**Donald E Walter Jr, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

BS University of Houston 1971

OD University of Houston 1972

**Richard Coburn Walters, MD** Instructor in Clinical Medicine (Dermatology) (primary appointment)

BS University of Illinois 1969

MD Washington Univ in St. Louis 1973

**Stephen R Waltman, MD, MBA** Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BS Mass Inst of Technology (MIT) 1961

MD Yale University 1964

MBA Washington Univ in St. Louis

**Bruce J Walz, MD** Associate Professor of Clinical Radiation Oncology (primary appointment)

BA Washington Univ in St. Louis 1962

MD Washington Univ in St. Louis 1966

**Jennifer Anne Wambach, MD** Assistant Professor of Pediatrics (primary appointment)

BS Vanderbilt University 1997

MD Vanderbilt University 2001

**Caihong Wang, PHD** Instructor in Obstetrics and Gynecology (primary appointment)

BS Laiyang Agricultural College 1993

PHD China Agriculture University 1998

**David Wang, PHD** Associate Professor of Molecular Microbiology (primary appointment)

Associate Professor of Pathology and Immunology

BS Stanford University 1992

PHD Mass Inst of Technology (MIT) 1998

**Guoqiao Wang, MA** Assistant Professor of Biostatistics (primary appointment)

MA University of Alabama-Tuscaloo 2010

**Jean S Wang, PHD** Associate Professor of Medicine (primary appointment)

Associate Professor of Surgery (General Surgery)

PHD John Hopkins University 2009

**Lawrence L. Wang, MD, PHD** Instructor in Clinical Medicine (Dermatology) (primary appointment)

BA Harvard University 1993

MD Washington Univ in St. Louis 2001

PHD Washington Univ in St. Louis 2001

**Sarah Qian Wang** Instructor in Medicine (primary appointment)

**Shizhen Wang, PHD** Instructor in Cell Biology and Physiology (primary appointment)

PHD Tsinghua University, China 2007

**Ting Wang, PHD, MS** Associate Professor of Genetics (primary appointment)

Associate Professor of Computer Science and Engineering

Associate Professor of Biostatistics

BS School Not Listed 1997

PHD Washington Univ in St. Louis 2006

MS Washington Univ in St. Louis 2001

**Xiaoli Wang, PHD** Assistant Professor of Pathology and Immunology (primary appointment)

PHD University of Arkansas 2001

**Xiaowei Wang, PHD** Associate Professor of Radiation Oncology (primary appointment)

PHD Tufts University 2000

BS Nankai University 1993

Yong Wang Assistant Professor of Obstetrics and Gynecology (primary appointment)

**Assistant Professor of Radiology**

**Andrea Wang-Gillam, MD** Associate Professor of Medicine (primary appointment)

MD University of AR Little Rock 2001

BS Ouachita Baptist University 1993

BS1 Ouachita Baptist University 1993

**Saiama Naheed Waqar, MD** Assistant Professor of Medicine (primary appointment)

MD Aga Khan University 2001

**Mark Edward Warchol, PHD** Professor of Otolaryngology (primary appointment)

**Professor of Audiology and Communication Sciences**

**Professor of Neuroscience**

PHD Northwestern University 1989

**Jeffrey Peter Ward, MD, PHD** Instructor in Medicine (primary appointment)

MD SUNY - Empire State College 2010

BS Wilkes University 2002

PHD SUNY - Empire State College 2010

**Barbara B. Warner, MS, MD** Professor of Pediatrics (primary appointment)

MS University of Massachusetts 1981

MD University of Cincinnati 1985

BS University of Dayton 1976

Brad W. Warner **Jessie L. Ternberg, M.D., Ph.D. Distinguished Professor of Pediatric Surgery in Surgery (Pediatric Surgery)** (primary appointment)

**Professor of Pediatrics**

**Corinna Hendrell Warren, MD** Instructor in Clinical Medicine (primary appointment)

MD University of Illinois Chicago 1994

BS Southern Ill Univ Edwardsville 1990

**David K. Warren, MD, MPH** Professor of Medicine (primary appointment)

MD University of Pittsburgh 1994

MPH Saint Louis University 2005

BS Pennsylvania State University 1990

**James C Warren, MD, PHD** Prof Emeritus Of Ob & Gyn (primary appointment)

MD University of Kansas 1954

PHD University of Nebraska 1961

BA School Not Listed 1950

**Wesley Charles Warren, MS, PHD** Academic Rank held in Genetics (primary appointment)

**Associate Professor of Genetics**

MS Clemson University 1986

BS Oklahoma St University 1984

PHD University of Missouri 1990

**Lukas Delbert Wartman, MD** Assistant Professor of Medicine (primary appointment)

BS Univ of Wisconsin Madison 1998

MD Washington Univ in St. Louis 2005

**Andrzej J. Wasiak, PHD, MD** Assistant Professor of Clinical Medicine (primary appointment)

PHD Szczecin Medical School 1980

MD Szczecin Medical School 1972

**Gary Michael Wasserman, MD** Assistant Professor of Clinical Obstetrics and Gynecology (primary appointment)

MD University of Missouri 1980

**Mark S Wasserman, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA University of Missouri 1980

MD University of Missouri 1984

BS University of Missouri

**Scott P Wasserstrom, MD, MA** Instructor in Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1995

BS University of Illinois 1990

MA Washington Univ in St. Louis 1995

**Erika Waters, M PH, MS PSYC** Associate Professor of Surgery (Public Health Sciences) (primary appointment)

M PH Johns Hopkins University Medic 2007

MS PSYC Rutgers University 2003

BS Arizona State University 1999

**Mark A Watson, PHD, MD** Associate Professor of Pathology and Immunology (primary appointment)

PHD Washington Univ in St. Louis 1992

MD Washington Univ in St. Louis 1992

BA University of Pennsylvania 1985

**Michael S Watson, MS, PHD** Adjunct Professor of Pediatrics (primary appointment)

MS University of Alabama 1978

PHD University of Alabama 1981

Andrew M. Wayne Instructor in Clinical Neurology (primary appointment)

**Michael J. Weaver, MD** Instructor in Medicine (primary appointment)

MD Loyola University Chicago 2013

**Jason Dean Weber, PHD** Associate Professor of Medicine (primary appointment)

**Associate Professor of Cell Biology and Physiology**

BS Bradley University 1993

PHD Saint Louis University 1997

Marysia Weber Instructor in Clinical Psychiatry (primary appointment)

**H. James Wedner, MD** Phillip & Arleen Korenblat Professor of Allergy and Immunology in Medicine (primary appointment)

BS Cornell University 1963

MD Cornell University 1967

**Ling Wei, MD** Adjunct Research Assistant Professor of Neurology (primary appointment)

MD Beijing Medical University 1977

**Xiaochao Wei, PHD** Instructor in Medicine (primary appointment)

PHD University of Rochester 2007

**Conrad Christian Wehl, PHD, MD** Associate Professor of Neurology (primary appointment)

PHD University of Chicago 1998

BS University of Illinois 1993

MD University of Chicago 2001

**Kevin D Weikart, MD** Instructor in Clinical Medicine (primary appointment)

MD American Univ of the Caribbean 1979

**Gary J Weil, MD** Professor of Medicine (primary appointment)



**Professor of Molecular Microbiology**

MD Harvard University 1975

BA Harvard University 1971

**Katherine N Weilbaecher, MD** Professor of Medicine (primary appointment)

**Professor of Pathology and Immunology**

**Professor of Cell Biology and Physiology**

BA Harvard University 1987

MD Stanford University 1992

**Carla Joy Weinheimer, MS** Associate Professor of Medicine (primary appointment)

MS Washington Univ in St. Louis 1997

BS University of Illinois 1984

**Ashley Brooke Weinhold, MD** Instructor in Anesthesiology (primary appointment)

MD University of Arkansas 2011

**David L Weinstein** Associate Professor of Clinical Obstetrics and Gynecology (primary appointment)

**Leonard B Weinstock** Associate Professor of Clinical Medicine (primary appointment)

**Assistant Professor of Clinical Surgery (General Surgery)**

BA University of Vermont 1977

**Benjamin David Weintraub** Instructor in Clinical Pediatrics (primary appointment)

**Steven Jay Weintraub, MD, MS** Assistant Professor of Medicine (primary appointment)

BA State Univ of NY Binghamton 1978

MD University of Virginia 1985

MS University of Virginia 1981

**Edmond Weisbart** Assistant Professor of Clinical Medicine (primary appointment)

**Judith L. Weisenberg** Assistant Professor of Neurology (primary appointment)

BS Barnard College 1998

**Alan N Weiss, MD** Professor of Medicine (primary appointment)

BA Ohio State University 1963

MD Ohio State University 1966

**Calvin H Weiss, DDENT** Instructor in Clinical Otolaryngology (DDS) (primary appointment)

DDENT Saint Louis University 1946

BA University of Missouri 1943

**Don Weiss, MS, MD** Instructor in Clinical Pediatrics (primary appointment)

MS Saint Louis University 1996

BS Dickinson College 1979

MD School Not Listed 1986

**Edward P Weiss, PHD, MS** Adjunct Research Assistant Professor of Medicine (primary appointment)

BS Southern Illinois University 1989

PHD University of Maryland 2003

MS Southern Illinois University 1992

**Howard I Weiss** Assistant Professor of Clinical Neurology (primary appointment)

**Michael D Weiss, MD** Assistant Professor of Surgery (General Surgery) (primary appointment)

MD Ohio College of Podiatric Medi 1981

BS1 Ohio State University 1977

**Peter Douglas Weiss, MD** Instructor in Clinical Medicine (primary appointment)

MD Case Western Reserve Univ 1980

BA Harvard University 1975

**John Sutton Welch, PHD, MD**Assistant Professor of Medicine (primary appointment)

PHD University of CA San Diego 2002

MD San Diego St University 2004

BS Brigham Young University 1995

**Timothy P Welch, MD**Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Pediatrics**

MD University of Cincinnati 2004

**Valerie B. Welch, MD**Instructor in Clinical Pediatrics (primary appointment)

BA Baylor University 1994

MD University Texas San Antonio 1998

**Reuben R Welch II, PHD, M ED**Associate Professor of Psychiatry (primary appointment)

PHD University of Missouri 1988

M ED University of Missouri 1982

BA Point Loma Nazarene College 1980

**Jason R Wellen**Assistant Professor of Surgery (General Surgery) (primary appointment)

BS Emory University 1998

Lynn Ellis Welling**Adjunct Associate Professor of Medicine** (primary appointment)

**Samuel A Wells Jr, MD**Prof Emeritus of Surgery (primary appointment)

MD Emory University 1961

**Zila Welner, MD**Associate Professor of Clinical Psychiatry (Child Psychiatry) (primary appointment)

MD School Not Listed 1961

**Jie Wen, PHD**Instructor in Radiology (primary appointment)

PHD University of Science & Tech 2012

Michael C Wendl**Academic Rank held in Genetics** (primary appointment)

**Assistant Professor of Genetics**

**Assistant Professor of Genetics**

**Assistant Professor of Mechanical Engineering & Materials Science**

**Assistant Professor of Mathematics**

**Assistant Professor of Genetics**

**Pamela M. Wendl, DPT**Assistant Professor of Physical Therapy (primary appointment)

**Assistant Professor of Orthopaedic Surgery**

BS North Park College 1991

DPT Washington Univ in St. Louis 2007

**Alvin S Wenneker, MD**Professor of Clinical Medicine (primary appointment)

BA Washington Univ in St. Louis 1949

MD Washington Univ in St. Louis 1953

**Nicole Joy Werner, PHD, MS**Associate Professor of Neurology (primary appointment)

PHD Saint Louis University 2004

MS Saint Louis University 2000

BS Univ of Minnesota Twin Cities 1997

**Jennifer Marie Wessels, MD**Instructor in Clinical Medicine (primary appointment)

MD Saint Louis University 2009

**Brian T Wessman, MD**Assistant Professor of Anesthesiology (primary appointment)

**Assistant Professor of Emergency Medicine in Medicine**

MD Commonwealth College 2005

BS College of William and Mary 2000

**Jennifer Corinne Wessman, MD**Instructor in Pediatrics (primary appointment)



MD Commonwealth College 2005

**Peter Westervelt, MD, PHD** Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 1992

PHD Washington Univ in St. Louis 1992

**Richard D Wetzel** Prof Emeritus of Psychiatry (primary appointment)

BA Concordia University 1960

**Stephen Alan Wexler** Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

BS University of Michigan 1977

**Philip J Weyman, MD** Associate Professor of Clinical Radiology (primary appointment)

BA Yale University 1968

MD Yale University 1972

**Alexander Weymann, MD** Assistant Professor of Pediatrics (primary appointment)

MD Witten Herdecke University 1999

**Alison J Whelan, MD** Professor of Medicine (primary appointment)

**Senior Associate Dean for Education**

**Professor of Pediatrics**

MD Washington Univ in St. Louis 1986

**Andrew J White, MD** James P Keating Professor of Pediatrics (primary appointment)

**Vice Chair of Medical Education in Pediatrics**

MD University of Texas Southwest 1994

**Brad C White, MD** Instructor in Clinical Surgery (Urologic Surgery) (primary appointment)

BS Illinois State University 1986

MD Loyola University Chicago 1993

**Bruce I White** Instructor in Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)

**Frances V White, MD, MS** Associate Professor of Pathology and Immunology (primary appointment)

**Associate Professor of Pediatrics**

MD University of North Carolina 1989

MS University of North Carolina 1978

BA Princeton University 1975

**Michael Aaron White, PHD, MS** Assistant Professor of Genetics (primary appointment)

BA Brigham Young University 2000

PHD University of Rochester 2006

MS University of Rochester 2004

**Neil Harris White, MD** Professor of Pediatrics (primary appointment)

**Professor of Medicine**

MD Albert Einstein College of Med 1975

BS State Univ of NY at Albany 1971

**Nicole Izetta White** Instructor in Clinical Pediatrics (primary appointment)

**Patrick White, MD** Assistant Professor of Medicine (primary appointment)

BS Notre Dame College 2002

MD Ohio State University 2007

**Karen Whiteside** Instructor in Clinical Pediatrics (primary appointment)

**John Bair Whitfield** Adjunct Instructor in Psychiatry (primary appointment)

**Michael Peter Whyte, MD** Professor of Medicine (primary appointment)

**Professor of Pediatrics**

## **Professor of Genetics**

MD State University of New York 1972

BA New York University 1968

**Burton M Wice, PHD** Associate Professor of Medicine (primary appointment)

PHD Washington Univ in St. Louis 1992

**Martin B Wice, MD, MS** Associate Professor of Neurology (primary appointment)

MD Northwestern University 1977

BS Grinnell College 1972

MS University of Washington 1983

**Cynthia A Wichelman** Associate Professor of Emergency Medicine in Medicine (primary appointment)

**Course Director for the Mini-Medical School**

**Course Director for the Mini-Medical School**

**Course Director for the Mini-Medical School**

BA University of California 1982

**Karen Mori Wickline, MD** Associate Professor of Pediatrics (primary appointment)

MD Saint Louis University 1986

BS University of Hawaii 1978

**Richard Harris Wieder, MD** Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

MD University of Illinois 1986

BS University of Illinois 1982

**John F Wiedner, MD** Instructor in Clinical Medicine (primary appointment)

BA Knox College 1982

MD School Not Listed 1985

**Kimberly N Wiele, MD** Assistant Professor of Radiology (primary appointment)

BA University of MO Kansas City 1981

MD University of MO Kansas City 1981

**Deborah A Wienski, MD** Instructor in Clinical Medicine (primary appointment)

BA Smith College 1979

MD Tufts University 1983

**Walter G Wiest, PHD** Prof Emeritus Of Biochem In Ob & Gyn (primary appointment)

PHD Univ of Wisconsin Madison 1952

**Tanya M Wildes, MD** Assistant Professor of Medicine (primary appointment)

MD Washington Univ in St. Louis 2002

BS Illinois Wesleyan University 1998

**Troy S Wildes, MD** Associate Professor of Anesthesiology (primary appointment)

BS Illinois Wesleyan University 1998

MD Washington Univ in St. Louis 2002

**Katherine Anne Henzler Wildman, PHD** Adjunct Associate Professor of Biochemistry and Molecular Biophysics (primary appointment)

PHD University of Michigan 2003

**Denise Wilfley, PHD** Professor of Psychiatry (primary appointment)

**Professor of Medicine**

**Professor of Psychological & Brain Sciences**

**Professor of Pediatrics**

**Scott Rudolph University Professor**

PHD University of Missouri Columbi 1989

**Robert S Wilkinson, MA, PHD** Prof Emeritus of Cell Biology/Physiol (primary appointment)

MA University of Texas Austin 1970

PHD University of Texas Austin 1974

**Denise Michelle Willers, MD** Associate Professor of Obstetrics and Gynecology (primary appointment)

MD Southern Illinois University 2000

BS Drake University 1996

**Kristine G Williams, MD, MPH** Assistant Professor of Pediatrics (primary appointment)

MD Georgetown University 1994

MPH Saint Louis University 2001

**Nancy J Williams** Instructor in Clinical Medicine (primary appointment)

BA Dartmouth College 1982

**Timothy John Williams, MD** Instructor in Medicine (primary appointment)

BA McKendree College 2008

MD University of Cincinnati 2012

**George A Williams III, MD, MA** Assistant Professor of Clinical Medicine (primary appointment)

MD Univ of Wisconsin Madison 1972

MA Columbia University 1968

BA University of Notre Dame 1967

**R. Jerome Williams Jr** Associate Professor of Clinical Medicine (primary appointment)

BA Harvard University 1973

**Jeffrey F Williamson** Professor of Radiation Oncology (Pending Executive Faculty Approval) (primary appointment)

**Marcia Christine Willing, MS, MD, D SC** Professor of Pediatrics (primary appointment)

BS Goucher College 1973

MS University of Michigan 1976

MD University of Virginia 1982

D SC George Washington University 1981

**David B Wilson, PHD** Professor of Pediatrics (primary appointment)

**Professor of Developmental Biology**

PHD Washington Univ in St. Louis 1986

**Matthew Stewart Wilson** Instructor in Clinical Psychiatry (primary appointment)

**Monita Elaine Wilson, MS, PHD** Associate Professor of Medicine (primary appointment)

MS Southern Illinois University 1984

BS Southern Illinois University 1981

PHD Brandeis University 1992

**Richard K Wilson, PHD** Adjunct Professor of Genetics (primary appointment)

BA Miami University 1981

PHD University of Oklahoma 1986

**Patrick H Win** Instructor in Clinical Medicine (primary appointment)

**David William Windus, MD** Professor of Medicine (primary appointment)

BS Iowa State University 1974

MD Creighton University 1978

**Brooke Allison Winner, MD** Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD University of Washington 2008

**Anke Christiane Winter, MD, MS** Assistant Professor of Surgery (Public Health Sciences) (primary appointment)

**Assistant Professor of Anesthesiology**

MD RWTH Aachen University, 2006

MS Harvard University 2010

**Karen Winters, MD** Associate Professor of Medicine (primary appointment)

**Director of the Student and Employee Health Service - Medical Campus**

BS Illinois State University 1975

MD Southern Illinois University 1983

**Franz J Wippold II, MD** Professor of Radiology (primary appointment)

BA Westminster College 1973

MD Saint Louis University 1977

**Paul Edward Wise, MD** Associate Professor of Surgery (General Surgery) (primary appointment)

BS Georgetown University 1992

MD John Hopkins University 1996

**Chad Alan Witt, MD** Assistant Professor of Medicine (primary appointment)

MD University of Texas Southwest 2005

BS Texas Tech University 2001

**Eric Nicholas Wittrock, DOST** Instructor in Psychiatry (Child) (primary appointment)

DOST Kansas State University 2011

**Keith Frederic Woeltje, MD, PHD** Professor of Medicine (primary appointment)

MD Texas Southern University 1991

PHD Texas Southern University 1991

BS University of Dallas 1984

**Mary Kaye Wojczynski** Assistant Professor of Genetics (primary appointment)

**Anna Wolaniuk, PHD, MD** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BS University of Lodz 1974

PHD Medical Academy Lodz 1975

MD Medical Academy Lodz 1979

**Loralee Jane Wold, MD** Instructor in Clinical Pediatrics (primary appointment)

MD Saint Louis University 1997

BA Saint Louis University 1993

**Michael L Wolf, OD** Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)

OD University of Missouri 1987

BS University of Missouri 1979

**Timothy J Wolf** Adjunct Assistant Professor of Occupational Therapy (primary appointment)

**Edward M Wolfe, MD** Instructor in Clinical Medicine (Dermatology) (primary appointment)

BA Hobart College 1956

MD Washington Univ in St. Louis 1960

**Brett D Wolff, MD** Associate Professor of Anesthesiology (primary appointment)

BA Indiana University Bloomington 1981

MD Indiana University Bloomington 1985

**Gerald Wolff, MD** Assistant Professor of Clinical Medicine (primary appointment)

MD Washington Univ in St. Louis 1961

BA Harvard University 1955

**Patricia Ann Wolff, MD** Professor of Clinical Pediatrics (primary appointment)

MD University of Minnesota 1972

BA University of Minnesota 1968

**Edwin D Wolfgram, MD** Assistant Professor of Clinical Psychiatry (primary appointment)

BS Iowa State University 1954

MD University of Iowa 1959

Nathan E Wolins **Assistant Professor of Medicine** (primary appointment)

**Fay Yeh Womer, MD** **Associate Professor of Psychiatry** (primary appointment)

BS Washington Univ in St. Louis 1999

MD University of Connecticut 2003

**Lily Wong, MD**

BS Wellesley College 2006

MD University of Massachusetts 2012

**Michael Wong, MD, PHD** **Allen P and Josephine B Green Professor of Pediatric Neurology** (primary appointment)

**Professor of Pediatrics**

**Professor of Neuroscience**

MD University of Texas Southwest 1995

PHD University of Texas Southwest 1995

BA Princeton University 1987

**Ming-Fong Agnes Wong, MD, PHD** **Adjunct Professor of Ophthalmology and Visual Sciences** (primary appointment)

BA Boston University 1990

MD McGill University 1994

PHD University of Toronto 2001

**Terrence N Wong, MD, PHD** **Instructor in Medicine** (primary appointment)

MD Dartmouth College 2009

PHD University of Chicago 2007

Wing Kai Wong **Assistant Professor of Occupational Therapy** (primary appointment)

**Assistant Professor of Neurology**

**John A Wood, MD** **Associate Professor of Clinical Medicine** (primary appointment)

MD University of Oklahoma 1968

**Matthew D Wood, MS, PHD** **Assistant Professor of Surgery (Plastic and Reconstructive Surgery)** (primary appointment)

MS Washington Univ in St. Louis 2008

BS Saint Louis University 2005

BS Washington Univ in St. Louis 2009

PHD Washington Univ in St. Louis 2009

**Pamela K Woodard, MD** **Professor of Radiology** (primary appointment)

BA Duke University 1986

MD Duke University 1990

**Terry A Woodford-Thomas, PHD, MS** **Adjunct Research Assistant Professor of Pathology and Immunology** (primary appointment)

PHD Va Polytechnic Inst & State U 1982

BS Eastern Illinois University 1975

MS Purdue University 1977

**Thomas A Woolsey, MD** **Prof Emeritus of Neurological Surgery** (primary appointment)

BS Univ of Wisconsin Madison 1965

MD Johns Hopkins University Medic 1969

**Parker H Word, MD** **Instr Emeritus In Clinical Ob & Gyn** (primary appointment)

BS Virginia State University 1941

MD Howard University 1944

**David F Wozniak, MA** Professor of Psychiatry (primary appointment)

**Adjunct Associate Professor of Psychological & Brain Sciences**

MA Connecticut College 1977

**Megan Elizabeth Wren, MD** Associate Professor of Medicine (primary appointment)

BA Washington Univ in St. Louis 1981

MD Washington Univ in St. Louis 1985

**Brenton Alan Wright, MD** Assistant Professor of Neurology (primary appointment)

BS University of Virginia 2004

MD University of Louisville 2008

**Jeffrey M Wright, MD** Assistant Professor of Clinical Medicine (primary appointment)

**Assistant Professor of Clinical Pediatrics**

BS Vanderbilt University 1975

MD Washington Univ in St. Louis 1979

**Neill Marshall Wright, MD** Herbert Lourie Professor of Neurological Surgery (primary appointment)

**Professor of Orthopaedic Surgery**

MD University of California 1993

**Rick Wayne Wright, MD** Jerome J Gilden MD Distinguished Professor of Orthopaedic Surgery (primary appointment)

BS University of Missouri 1984

MD University of Missouri 1988

**Stephanie Wrobel Goldberg, MD** Assistant Professor of Neurology (primary appointment)

MD University of Rio de Janeiro 2007

**Gregory Frederick Wu, MD, PHD** Assistant Professor of Neurology (primary appointment)

**Assistant Professor of Pathology and Immunology**

MD University of Iowa 2001

BS Washington Univ in St. Louis 1993

PHD University of Iowa 2001

**Xiaobo Wu, MD** Assistant Professor of Medicine (primary appointment)

MD Tongji University 1986

**Heather E. Wuebker** Instructor in Clinical Obstetrics and Gynecology (primary appointment)

BA University of MO Kansas City 1996

**Kathie R Wuellner** Associate Professor of Clinical Pediatrics (primary appointment)

BS University of Illinois 1973

**Christopher Wuertz, MD** Assistant Professor of Clinical Psychiatry (primary appointment)

MD University of Illinois 1984

**Hayley Wurzel, MD** Assistant Professor of Clinical Pediatrics (primary appointment)

MD Washington Univ in St. Louis 1999

BS Brown University 1995

**Kristine M Wylie, PHD** Assistant Professor of Pediatrics (primary appointment)

BA Southern Ill Univ Edwardsville 1996

PHD Saint Louis University 2009

**Todd N Wylie** Assistant Professor of Pediatrics (primary appointment)

BS Southern Ill Univ Edwardsville 1995

**Xiaoming Xia, PHD** Assistant Professor of Anesthesiology (primary appointment)

BS Fudan University 1984

PHD Vollum Institute OHSU 1998

**Yan Xie, MD, MS** Instructor in Medicine (primary appointment)



MD Tongji University 1986

MS Hubei Medical University 1991

**Chengjie Xiong, PHD, MS**Professor of Biostatistics (primary appointment)

**Professor of Neurology**

**Professor of Mathematics**

PHD Kansas State University 1997

BS Xinjiang University 1983

MS Peking University 1989

**Jinbin Xu, ME**Instructor in Radiology (primary appointment)

BS Taiyuan University of Tech 1991

ME Taiyuan University of Tech 1994

**Mai Xu, PHD, MS, MD**Instructor in Medicine (primary appointment)

PHD China Medical University 1992

MS China Medical University 1983

MD China Medical University 1981

**Dmitriy A Yablonskiy, D SC, PHD, MS**Professor of Radiology (primary appointment)

**Adjunct Professor of Physics**

D SC Institute for Physics and Eng 1981

PHD Institute for Physics and Eng 1973

MS Kharkov State University 1970

Christina Marie Yadao**Instructor in Clinical Pediatrics** (primary appointment)

**Tatyana Aleksandrovna Yakusheva, PHD, MS**Assistant Professor of Otolaryngology (primary appointment)

PHD Russian U of Friendship of Ppl 2002

MS Saratov State University 1997

**Naga M Yalla, MD**Instructor in Medicine (primary appointment)

MD SRTR Medical College 2005

**Ken Yamaguchi, MD, MS**Professor of Orthopaedic Surgery (primary appointment)

MD George Washington University 1989

BA University of California 1983

MS University of California 1985

**Heping Yan, MD, MS**Assistant Professor of Radiation Oncology (primary appointment)

MD West China University 1979

MS West China University 1982

BS West China University 1979

**Yan Yan, MHS, MD**Professor of Surgery (Public Health Sciences) (primary appointment)

**Professor of Biostatistics**

MHS Johns Hopkins University 1995

MD Nanjing Medical University 1983

**Deshan Yang, MS, PHD**Associate Professor of Radiation Oncology (primary appointment)

MS Illinois Institute of Technol 2001

BS Tsinghua University, China 1992

PHD Univ of Wisconsin Madison 2005

**Qin Yang, PHD, MD**Associate Professor of Radiation Oncology (primary appointment)

PHD Heidelberg University 1997

MD West China University 1983

**Hiroko Yano, PHD, MS**Assistant Professor of Neurological Surgery (primary appointment)

**Assistant Professor of Genetics**

**Assistant Professor of Neurology**

PHD University of Tokyo 1996

MS University of Tokyo 1993

BS Science University of Tokyo 1991

**Motoyo Yano, MD, PHD**Assistant Professor of Radiology (primary appointment)

BS Tufts University 2000

MD University of Chicago 2007

PHD University of Chicago 2005

**Mona Yassin, MD**Instructor in Clinical Pediatrics (primary appointment)

MD School Not Listed 1979

**William D Yates, MD**Instructor in Clinical Surgery (General Surgery) (primary appointment)

MD Northwestern University 1985

BA Northwestern University 1983

**Timothy Teng-Kay Yau, MD**Assistant Professor of Medicine (primary appointment)

MD Saint Louis University 2005

**Branden Edward Yee, MD**Assistant Professor of Anesthesiology (primary appointment)

BS Tufts University 2004

MD Tufts University 2008

**Xiaobin Yi, MD**Associate Professor of Anesthesiology (primary appointment)

MD Hunan Medical University 1985

**Yongjun Yin, PHD**Instructor in Developmental Biology (primary appointment)

PHD Hebrew University 2004

**Wayne M Yokoyama, MD**Sam and Audrey Loew Levin Professor of Medicine (Rheumatology)

(primary appointment)

**Howard Hughes Medical Institute Investigator in Medicine**

**Professor of Pathology and Immunology**

BA University of Rochester 1974

MD University of Hawaii 1978

**Andrew Seungjo Yoo, PHD, MS**Assistant Professor of Developmental Biology (primary appointment)

PHD Columbia University 2005

BS McGill University 1995

MS University of British Columbia 1997

**Jun Yoshino, PHD, MD**Assistant Professor of Medicine (primary appointment)

**Assistant Professor of Developmental Biology**

PHD Keio University 2004

MD Keio University 2000

**Mihoko Yoshino, PHD, MD**Instructor in Medicine (primary appointment)

PHD Shimane Medical University 2006

MD Keio University 2000

**Zhongsheng You, MS**Associate Professor of Cell Biology and Physiology (primary appointment)

**Associate Professor of Medicine**

MS Shanghai Inst of Biochemistry 1997

BS Zhejiang Medical University 1994

**Alexander H Young, MD**Assistant Professor of Anesthesiology (primary appointment)

MD University of Arkansas 1990

BA University of Mississippi 1986

**Anna Rebecca Young**Assistant Professor of Anesthesiology (primary appointment)



**Catherine A Young, JD**Instructor in Radiology (primary appointment)

JD University of Texas Austin 1995

**Julia Catherine Young**Instructor in Clinical Pediatrics (primary appointment)

**Omar M. Young, MD**Assistant Professor of Obstetrics and Gynecology (primary appointment)

MD Columbia University 2008

**Robert A Young, MD, MS, JD**Instructor in Clinical Surgery (Plastic and Reconstructive Surgery) (primary appointment)

MD Ohio State University 1978

MS Ohio State University 1975

BA University of Michigan 1973

JD Saint Louis University 1997

**Haifaa Tawifiq Younis, MD**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

MD Baghdad University 1984

**Cecilia H Yu**Assistant Professor of Clinical Pediatrics (primary appointment)

**Jinsheng Yu**Instructor in Genetics (primary appointment)

BS Tongji University 1984

**Simon Yu, MD**Instructor in Clinical Medicine (primary appointment)

MD University of MO Columbia 1984

**Liya Yuan, PHD, MS**Instructor in Neurological Surgery (primary appointment)

PHD Tongji University 1994

MS Tongji University 1987

**Peng Yuan**Assistant Professor of Cell Biology and Physiology (primary appointment)

**Carla Marie Yuede, PHD**Assistant Professor of Neurology (primary appointment)

PHD University of MO St Louis 2006

**Roger D. Yusen, MPH, MD**Associate Professor of Medicine (primary appointment)

BS University of Illinois 1986

MPH Saint Louis University 2002

MD University of Illinois 1990

**Sean H Yutzy**Adjunct Professor of Psychiatry (primary appointment)

**Craig Mitchell Zaidman**Associate Professor of Neurology (primary appointment)

**Assistant Professor of Pediatrics**

**Alan Zajarias, MD**Associate Professor of Medicine (primary appointment)

**Associate Professor of Surgery (Cardiothoracic Surgery)**

MD National Autonomous U of Mex 2000

**Sandra G.H. Zakroff**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**John F. Zalewski**Instructor in Clinical Medicine (primary appointment)

**Paul Battista Zanaboni, PHD, MD**Associate Professor of Anesthesiology (primary appointment)

PHD Saint Louis University 1990

MD Saint Louis University 1992

**Mohamed A Zayed, PHD, MD**Assistant Professor of Surgery (General Surgery) (primary appointment)

BS University North Carolina 2002

PHD University of North Carolina 2007

MD University of North Carolina 2009

**Allyson R Zazulia, MD**Professor of Neurology (primary appointment)

**Associate Dean for Continuing Medical Education**

**Professor of Radiology**

BS University of Maryland 1990

MD Georgetown University 1994

**Lukas P Zebala, MD** Assistant Professor of Orthopaedic Surgery (primary appointment)

**Assistant Professor of Neurological Surgery**

BS Northwestern University 1998

MD University of Chicago 2004

**John M Zempel, MD, PHD** Associate Professor of Neurology (primary appointment)

**Associate Professor of Pediatrics**

MD Washington Univ in St. Louis 1995

PHD Washington Univ in St. Louis 1995

BS Univ of Wisconsin Madison 1985

**Jessica Ann Zenga, MD** Assistant Professor of Anesthesiology (primary appointment)

MD Saint Louis University 2006

Aurora Denise Zertuche-Sanchez **Instructor in Clinical Pediatrics** (primary appointment)

**Bo Zhang** Assistant Professor of Developmental Biology (primary appointment)

BS Inner Mongolia University 2004

**Haixia Zhang, MD, PHD** Assistant Professor of Cell Biology and Physiology (primary appointment)

MD Weifang Medical College 1998

PHD Chinese Academy of Med Science 2004

**Tiezhi Zhang, MS, PHD** Assistant Professor of Radiation Oncology (primary appointment)

BS Jilin Medical University 1994

MS Drexel University 1999

PHD Univ of Wisconsin Madison 2004

**Yong Zhang, MD, PHD, MS** Instructor in Medicine (primary appointment)

MD Anhui Medical University 1978

PHD Albert Ludwig University 1999

MS Sun Yat-Sen University 1983

**Guoyan Zhao, PHD, MS** Assistant Professor of Pathology and Immunology (primary appointment)

PHD Washington Univ in St. Louis 2003

BS School Not Listed 1995

MS School Not Listed 1998

**Shiyong Zhao, PHD, MME** Adjunct Associate Professor of Radiology (primary appointment)

PHD University of South Carolina 1991

BA University of Science & Tech 1982

MME Shanghai Jiao Tong University 1984

Tianyu Zhao **Assistant Professor of Radiation Oncology** (primary appointment)

**Jie Zheng, PHD** Associate Professor of Radiology (primary appointment)

PHD University of Cincinnati 1994

BS Beijing University 1986

**Amy Wei Wei Zhou, MD** Instructor in Medicine (primary appointment)

MD Wayne State University 2009

**Dong Zhou, PHD, MS** Instructor in Radiology (primary appointment)

BS1 Shandong University 1990

PHD Washington Univ in St. Louis 2004

MS1 Shandong University 1995

MS School Not Listed 1995

BS School Not Listed 1990

**Li Zhou, MD** Instructor in Medicine (primary appointment)

MD Vanderbilt University 2013

**Yu Zhou, PHD, MS**Instructor in Anesthesiology (primary appointment)

PHD State Univ of NY Buffalo 2005

MS Zhejiang Medical University 1999

BS Wuhan University 1996

**Jian Zhu, PHD**Instructor in Medicine (primary appointment)

PHD Oklahoma St University 2004

**Lirong Zhu, MD, PHD**Assistant Professor of Clinical Neurology (primary appointment)

MD Fudan University 2000

PHD Baylor College of Medicine 2006

**Robert E Ziegler, PHD, MD**Assistant Professor of Clinical Medicine (Dermatology) (primary appointment)

PHD Duke University 1980

MD Duke University 1980

BA University of Colorado Boulder 1972

**Amy Christine Zimmermann, MD**Instructor in Clinical Pediatrics (primary appointment)

MD University of MO Columbia 2003

BS University of MO Columbia 1998

**Darryl Thomas Zinck**Instructor in Clinical Obstetrics and Gynecology (primary appointment)

**Bernd Heinrich Zinselmeyer, PHD**Assistant Professor of Pathology and Immunology (primary appointment)

PHD University of Strathclyde 2006

**Gregory Joseph Zipfel, MD**Professor of Neurological Surgery (primary appointment)

**Professor of Neurology**

BS University of Illinois 1991

MD Northwestern University Med 1995

**Imran Zoberi, MD**Professor of Radiation Oncology (primary appointment)

MD Washington Univ in St. Louis 1996

BS University of South Dakota 1992

**Jacqueline Esthappan Zoberi, PHD**Associate Professor of Radiation Oncology (primary appointment)

PHD University of Chicago 2000

BA University of Chicago 1995

**Bridget Bilyeu Zoeller, MD**Assistant Professor of Pediatrics (primary appointment)

MD Southern Illinois University 2007

BS University of Illinois 2003

**Charles F Zorumski**Samuel B. Guze Professor of Psychiatry (primary appointment)

**Professor of Neuroscience**

**Head of the Department of Psychiatry**

BA Saint Louis University 1974

**Dequan Zou, D SC, MS, ME**Professor of Physical Therapy (primary appointment)

**Professor of Radiology**

BS Harbin Engineering University 1982

D SC Washington Univ in St. Louis 1993

MS Washington Univ in St. Louis 1991

ME Harbin Engineering University 1984

**Wei Zou, MA**Assistant Professor of Pathology and Immunology (primary appointment)

MA Qingdao University 1994

**Andrew C. Zuckerman**Instructor in Clinical Pediatrics (primary appointment)

**Darryl Adam Zuckerman, MD** Assistant Professor of Radiology (primary appointment)

Assistant Professor of Surgery (General Surgery)

MD State Univ of NY Syracuse 1983

BA New York University 1979

Gary R Zuckerman **Assoc Prof Emeritus of Medicine** (primary appointment)

**Jorge Sergio Zwir, PHD, BSCS, MS** Assistant Professor of Psychiatry (primary appointment)

PHD University of Granada 2001

BSCS Universidad del Buenos Aires 1991

MS Universidad del Buenos Aires 1995

No entries found

## Medical Students

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### Alphabetical listing

Note: This may not be a complete listing. Some students may have elected to withhold directory information.

by Last Name

A  B  C  D  E  F  G  H  I  J  K  L  M  N  O  P  Q  R  S  T  U  V  W  X  Y  Z

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Program:

No entries found

## Class Officers

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### Fourth-year class officers

President

Miriam Ben Abdallah

Medical Education Representative (MER)

Chad Donahue

Representative to the Organization of Student Representatives (OSR Rep)

Mikhail Roubakha

Representative to the Graduate Professional Council (GPC Rep)

Ashley Osborne

## **Third-year class officers**

President

Jorge Zarate Rodriguez

Medical Education Representative (MER)

Jacob Groenendyk

Representative to the Organization of Student Representatives (OSR Rep)

Shamaita Majumdar

Representative to the Graduate Professional Council

Abby Rosenburg

## **Second-year class officers**

President

Joshua Page

Medical Education Representative (MER)

Brian Cusworth

Representative to the Organization of Student Representatives (OSR Rep)

Nirbhay Jain

Representative to the Graduate Professional Council

Rina Amatya

## **First-year class officers**

President

Averey Strong

Medical Education Representative (MER)

Katie Goodenberger

Representative to the Organization of Student Representatives (OSR Rep)

Natasha Kafai

Representative to the Graduate Professional Council

Linh Vuong

# **Summary of Students in the School of Medicine**

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**2015-2016**

Doctor of Medicine (MD) (as of October 1, 2015)

Graduating Class Level: 73

Five-Year Research Program or equivalent: 8

Third-Year Class: 107

Second-Year Class: 101

First-Year Class: 104

### **Doctor of Medicine and Doctor of Philosophy (MD/PhD)**

Graduating Class Level: 18

Clinical/Third-Year Class: 26

Ninth-Year Research: 1

Eighth-Year Research: 0

Seventh-Year Research: 0

Sixth-Year Research: 4

Fifth-Year Research: 9

Fourth-Year Research: 19

Third-Year Research: 25

Second-Year Research: 28

First-Year Research: 17

Second-Year Class: 21

First-Year Class: 19

### **Doctor of Medicine and Master of Arts (MD/MA)**

Graduating Class Level: 1

First-Year/Early Level(s): 7

### **Doctor of Medicine and Master of Population Health Sciences (MD/MPHS)**

Graduating Class Level: 5

First-Year/Early Level(s): 1

### **Doctor of Medicine and Master of Science in Clinical Investigation (MD/MSCI)**

Graduating Class Level: 2  
First-Year/Early Level(s): 2

### **Doctor of Physical Therapy**

Graduating Class Level: 77  
Second-Year Class: 80  
First-Year Class: 84

### **Doctor of Occupational Therapy**

Graduating Class Level: 13  
Third-Year Class: 21  
Second-Year Class: 28  
First-Year Class: 25

### **Doctor of Audiology**

Graduating Class Level: 14  
Third-Year Class: 14  
Second-Year Class: 15  
First-Year Class: 12

### **Master of Science in Occupational Therapy**

Graduating Class Level: 64  
Second-Year Class: 61  
First-Year Class: 64

### **Master of Science in Population Health Sciences**

Second-Year Class: 13  
First-Year Class: 5



## **Master of Science in Genetic Epidemiology**

Certificate/SNCD: 4

## **Master of Science in Biostatistics**

Second-Year Class: 22

First-Year Class: 13

## **Master of Science in Deaf Education**

Graduating Class Level: 8

First-Year Class: 8

## **Master of Science in Clinical Investigation**

Graduating Class Level: 6

Second-Year Class: 13

First-Year Class: 16

Certificate: 4

SNCD: 53

## **Master of Science in Applied Behavior Research**

First-Year Class: 8

Certificate: 1

SNCD: 4

## **Med-School Total: 1,348**

(598 MD of all types; 750 in Allied Health Programs)

# Staff

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For an online staff directory, visit the [Washington University School of Medicine Directory](#).

# Washington University Directories

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For access to online directories for Washington University, Washington University Physicians and BJC HealthCare, please visit the [Washington University School of Medicine website's Directories page](#).