



ONLINE: MEDICINE.WSU.EDU











@WSUMedicine

# **Contents**

## 2 Letter from the Dean

## **Highlights**

- 3 WSU and Providence Start New Pediatric Residency in Spokane
- 5 Family Medicine Residency Program Welcomes First Residents
- 6 Master's in Healthcare Administration and Leadership
- 7 College Welcomes Students to Renovated Medical Building

## **Community Care**

- 9 College Awarded Grant to Support Health Equity and Diversity Work
- 10 Health Justice and Belonging Conference Tackles Community-Informed Health
- Speech and Hearing Sciences, RangeCommunity Clinic Partner Launch Autismand Neurodevelopmental Clinic
- 13 Samaritan realthcare and the College of Medicine Partner for Medical Education
- 14 Community-Based Internal Medicine residency Program Expands Access

#### Education

- 15 Medicine Program
- 17 Nutrition and Exercise Physiology
- 19 Speech and Hearing Sciences
- 20 Certificate in Medical Ethics

#### Research

- 21 Overview
- 22 Community and Behavioral Health
- 25 Nutrition and Exercise Physiology
- 27 Translational Medicine and Physiology
- 29 Medical Education and Clinical Sciences

#### 33

## **Faculty and Staff Achievements**

#### 35

## **Budget Update**

#### 37

#### Accreditation

#### 38

#### Media

#### 40

#### Alumni Engagement

#### 41

#### Advancement

#### 43

## Dr. James Record Appointed as Dean of Elson S. Floyd College of Medicine



Sames M Rec

In our effort to continuously prepare our students for systemal produces and experiential periods to strock the introduced enhanced training sites and experiental programs in activity or programs in addition to anew Marter or Healthorie (dministration) and

Through our partnership with Range Community Clinic, we lawrched a riew Kutish and Medrogevel pmental Clinic and a new Speech Language Pathology Services clinic that provide expanded and more accessible gare to clients in need.

We increased the number of physicians training in We increased the number of physicians training in was though our residency programs and welcoming our first family medicine residents.

Through our payine ship with range Community Clinic, was

The Morias you will tead in the following pages are represented to the innovative and enterprising work our faculty, staff and students are undertaking to meet those challenges and improve the care we provide to our communities.

Tranning and educating new health sare leaders is only part of what we do to improve the quality and equity of the health care system. To change the health metrics of the bealthcare system. To change the health metrics of approach that integrates minical education, research, and community outreach. Meeting today's challenges in health community outreach. Meeting today's challenges in health as the metric we must think, work and grow in new ways and create new parknerships.

Ar the Fison 5. Moyer College of Medicine, we are working hard to create new orthorities to grow and better serve our commines across Washington

William Butler Yeaks

WHICH KNOWS TRIUMPH."
WAICH OVERCOMES OBSTACHES.
"SOVIS OF THE WALL WHICH LABOURS."

Skodiny Niw ishlagat griwoid

mori retreul

philanthropic parthers for their ongoing support and all that they do to help us inprove the health of Washingtonlans and beyond.

Growth at the Zollege of Medicing is strategic, purposeful, and rooted in the community, it expands patient sare heightens research passibilities, and enhances the educational experiences for our learners Most importantly, it delows us the joy to rulfill our mission of service in partnership.

As we have grown and continue to grow, community remains at the foretrant of all we do:

It is through the passion and support of our community and philanthopic partners that we are able to further our mission and celebrates or many accomplishments this past year. Their passion and ganerasity are transformational to our mission and integral to our work as we initiate projects and advance than to the least form to have and advance than to the least sold and all that their month of washingtonary and all that they do to help us improve the health of washingtonary and all that they do to the last washington and all that

Research feculty in five different departments are continuously uncovering a wealth or knowledge every day from new approaches to address in dintervention impacts mental health safe of considering how location impacts mental health safe dose to considering how location impacts mental health safe dose to considering how location impacts mental health safe dose to considering how location in the boundaries of which is applied and reaching communities across Washington.



# **Highlights**

# WSU and Providence Start New Pediatric Residency in Spokane

Providence and the College of Medicine announced a partnership to establish eastern Washington's first pediatric medical residency in March 2023.

The new pediatric residency promises to improve the depth and breadth of overall children's healthcare in Spokane as well as foster aspiring physicians from the College of Medicine and other medical schools.

The launch of the community-based residency program is made possible through the diligent support and

commitment of the Community Cancer Fund, Premera Blue Cross, Providence INWA Foundation donors and Children's Miracle Network Hospitals.

"Launching Washington's first pediatric residency program east of the Cascades is a monumental step towards improving access to healthcare in our state and furthering WSU's land-grant mission of serving the public good," said WSU President Kirk Schulz. "As nationwide healthcare demands continue to increase, providing residency training will develop a

pipeline of physicians committed to ensuring care for communities on this side of the state and beyond."

Daryll DeWald, executive vice president of WSU Health Sciences, credits much of the program's creation to the collective vision of leaders in Spokane and at the state level.

The three-year residency program will admit six residents each year for a total of 18 residents once the first three cohorts are filled. Recruitment has begun with the first residents expected to begin their training in summer 2024.



Residents will receive comprehensive training in pediatric specialties and foundational experiences, as well as sessions in community pediatrics, child advocacy, adolescent medicine, developmental-behavioral pediatrics and mental health to prepare them for practice in general pediatrics.

Training will occur primarily at Providence Sacred Heart Children's Hospital and several pediatric primary care practices in the community.

Training residents in Spokane and the Inland Northwest is critical to providing pediatricians for the community. According to the Association of American Medical Colleges, about 41% of new physicians practice in Washington if they attended medical school here. That number increases to 70% when they complete both their medical education and their residency in Washington.

"We are deeply committed to expanding medical education and improving healthcare quality and access in communities across Washington," said Jim Record, dean of the WSU Elson S. Floyd College of Medicine. "A critical part of our commitment is creating residencies in our communities to increase the chance that medical students will remain here in Washington to practice medicine."

According to 2018 Accreditation Council for Graduate Medical Education data, there are 168 training programs in the state, with 78 of those accredited as specialty residencies and 90 accredited as sub-specialty fellowship training programs. Nationally, there is an average of 37.8 GME trainees per 100,000 population, while in the state of Washington, the average is 27.1 trainees per 100,000 population. This places the state just below middle of the pack with a ranking of 28th out of the 50 states for trainees per 100,000 population. The addition of the WSU pediatric residency program makes it only the third pediatric residency program in the state with the other two in the Seattle and Tacoma areas.

However, when examining the distribution of these programs and trainees, there is a significant disparity in eastern and central Washington. Of the 168 training programs, 158 (94%) are located west of the Cascades, while just 10 of the programs are located east of the Cascades. This results in approximately 32.7 trainees per 100,000 population west of the Cascades and just 8.6 trainees per 100,000 population



east of the Cascades. This program is a step in the right direction to address that disparity and serve the children in our communities.

The alignment of missions and steadfast partnerships between WSU, Providence Inland Northwest Washington, Community Cancer Fund, and Premera Blue Cross allows us to make children's health care a priority and set the foundation to improve the health of our communities long into the future.

Christian Rocholl, MD, a pediatric emergency medicine physician for more than 20 years including the past 18 years at Sacred Heart Children's Hospital, will serve as the program director leading operations, recruitment and education for the residency program. Along with a collective of pediatricians in the region, he was instrumental in helping bring the new residency to fruition.

"As a pediatrician with Providence, I've seen firsthand the significant need we have for more pediatricians and pediatric specialties across eastern Washington," said Rocholl. "I am thrilled to see this residency program come to fruition and look forward to leading and training the next generation of pediatricians who will serve our community's children for years to come."



# **Highlights**

# Family Medicine Residency Program Welcomes First Residents

After holding a successful first Match Day in March 2023, WSU Family Medicine Program—Pullman welcomed its first three new residents summer 2023.

Joining the program as its first family medicine residents are Bolu Olawuyi, MD, a graduate of Windsor University School of Medicine from Leduc, Alberta; Jeffrey Ward, DO, a William Carey University College of Osteopathic Medicine graduate from Twin Falls, Idaho; and Mohammed Younes, MD, a Saba University School of Medicine graduate from Edmonton, Alberta.

The residency program began receiving applications for these positions in September 2022 and is the college's first rural residency. Pullman Regional Hospital serves as its primary training site, and the hospital opened the doors to its new residency primary care clinic in February 2023 in preparation for the new residents.

Olawuyi, Ward, and Younes began providing patient care in July 2023.

## Master's in Healthcare Administration and Leadership

# NEW MASTER'S IN HEALTHCARE ADMINISTRATION AND LEADERSHIP OPEN FOR ENROLLMENT

Building upon its unique model of equipping future doctors with comprehensive leadership training, the WSU Elson S. Floyd College of Medicine, in partnership with the WSU Carson College of Business, expanded its expertise to all health care professionals with the launch of its new online Master of Healthcare Administration and Leadership program. The college welcomed its first cohort in fall 2023.

Designed for health care executives to sharpen their leadership skills and business competencies and for rising health care professionals to advance their careers, the program offers both degree and certificate options to meet individual needs and interests.

Students may enroll in the 38-credit master's degree or one, two or three certificates in any order on topics including Foundations of Leadership, Essentials of Healthcare, and Managing the Business of Healthcare. Completing three certificates and a capstone project qualifies students to receive the full master's degree.

"In the wake of the COVID-19 pandemic and the rapidly changing healthcare landscape, the need for health care professionals to be effective leaders in their organizations and communities has never been greater," said Luisita Francis, MD, associate dean for leadership education and development. "This new program is one of the many ways the WSU College of Medicine is working to fulfill its mission. Further, we are proud to harness the expertise and outstanding reputation of the Carson College of Business to help health care professionals gain critical business and leadership skills to serve the complex needs of health care today."

Leveraging its deep bench of health care business leaders and collaborators across Washington state,

the program's faculty includes current health care experts who run complex hospital systems, lead academic institutions, and drive research activities within health systems.

Learners will develop immediately applicable administrative, ethical and professional skills for middle and upper management health care leadership roles; and be prepared to handle complex new developments in ethics, economics, finance, management, policy and technology.

Students in the program can participate in coaching, fieldwork, and collaborative projects, explained Francis. The hands-on approach is designed to reinforce classroom learning but also connect students with other health care professionals, policymakers, and industry leaders.

"The program's launch marks an exciting development in the college's work to better equip future clinician leaders," said Francis. "We are equipping them with the knowledge and skills to make ethical decisions and shape a health care ecosystem that is efficient, innovative, and human-centric."



# **Highlights**

## College Welcomes Students to Renovated Medical Building

The newly renovated Medicine Building on the WSU Spokane campus was dedicated August 10, 2023 during a ceremony that featured remarks from WSU leadership and community members as well as Elson S. Floyd College of Medicine students Lensa Moen and Darin Chhing. Over 300 guests from the Spokane region and the WSU system were in attendance.

"I believe Dr. Floyd would be proud of this building," said Chhing, a second-year medical student. "It will play an important role in shaping the education of medical students so that we can become the best version of ourselves, guided by values, surrounded by support, bold, audacious, and resilient."

WSU Regent Lura Powell shared a similar sentiment.

"In such a challenging area, it takes an environment of fellowship and a culture of perseverance to foster significant advancement," said Powell. "This is the spirit of the Elson S. Floyd College of Medicine."

The reimagined 113,000-square-foot facility contains upgraded classrooms and flexible learning spaces for medical education, a campus testing center, a student collaboration hub, and faculty offices. WSU received \$15.5 million in capital funding from the state for the project and nearly \$1.5 million in philanthropic gifts so far.

"The renovated building behind me may be called the Medicine Building, but it's not just about the College of Medicine," said Jim Record, dean for the Elson S. Floyd College of Medicine. "It's about the community. It's about Washington State University. This building is emblematic of WSU's commitment to the community it serves."

When it first opened in 1996, the building marked the beginning of the WSU Spokane campus. Aptly named Phase One in the campus master plan, the building has housed WSU's Interdisciplinary Design Institute along with Eastern Washington University programs over the years. The building's transformation was centered on providing collaborative learning spaces for students to prepare for the future of healthcare.

"This facility and event today are just another step in our growth as a health sciences campus and as a leader in medical education, preparing our students for the future of healthcare," said Daryll DeWald, executive vice president for WSU Health Sciences and WSU Spokane chancellor. "But more than anything, this is about collaboration and community. This is about all of us. We are ensuring that our state's future healthcare professionals are simply the best."













# 113,000 square-foot facility

CONTAINS UPGRADED CLASSROOMS AND FLEXIBLE LEARNING SPACES FOR MEDICAL EDUCATION, A CAMPUS TESTING CENTER, A STUDENT COLLABORATION HUB, AND FACULTY OFFICES







# **Community Care**

# College Awarded Grant to Support Health Equity and Diversity Work

Genentech awarded the WSU College of Medicine a grant from the 2022 The Genentech Health Equity & Diversity in STEM Innovation Fund to advance the college's health equity work. The \$750,000 grant, distributed over the next two and a half years, will directly support its organizations and initiatives.

"This grant reflects the organizations commitment to transform the way we envision health, health education, and health care," said Luis Manriquez, MD, community health equity director who applied for the funding alongside the Community Health Equity team. "It's a catalyst to spark systematic change."

The Genentech fund supports initiatives that address challenges and seek to improve equity in health care delivery, clinical research, and the health care and science workforce. The grant funds several college positions central to these efforts at the college.

One such position is an organizer for the Health Equity Circle and it's local Spokane chapter. WSU is the lead academic partner for the Health Equity Circle, a network of student organizations in which students develop the skills of community organizing and partner with community organizations to advance health equity. The partnership serves as a vehicle to develop health equity training curriculum and integrate a culture of belonging into health education.

The fund also supports a new clinic organizer and narrative lead to partner with community organizations to enact change. The clinic organizer will play a pivotal role in our clinic organizing efforts, which applies community organizing within healthcare and social service organizations as a means to expand the scope of their mission to address social determinants of health and equity. They will also play a critical role in creating clinical educational opportunities for interdisciplinary health equity education.

The narrative lead is tasked with creating a network of artists willing to develop projects focused on accurately communicating the lived experiences and stories of the community.

"Incorporating narratives into creative visual and artistic projects can help transform sterile and clinical spaces into community spaces," said Manriquez. "Doing so plays an important role in centering the experience of oppressed communities and developing a culture of belonging in which all people are recognized and supported."

Partnerships—whether organizing, clinical, or community—are critical to creating lasting and systematic change. The grant allows us to build a core cohort, one that can build out capacity to support significant health equity initiatives. The ultimate impact of this initiative is to test and refine new organizations to transform the way we envision health, health education and health care explained Manriquez.

"Health is much larger than health care," said Manriquez. "By engaging communities and developing community narratives of health, we expand our view of our communities and what makes them healthy."



# Health Justice and Belonging Conference Tackles Community-Informed Health

More than 370 national and local community members, health care providers, scholars, students and practitioners gathered together for the college's fourth annual Health Justice and Belonging Conference, held in February 2023.

Since its inception four years ago, the college's Health Justice and Belonging Conference has been intentionally designed to ensure a model of collaboration between the college, greater university, and community. Then known as the Inclusive Excellence Scholar in Residence, the conference began as an early college initiative created to both animate and sustain our commitment to diversity, equity and inclusion and advance objectives laid out in our Strategic Diversity Action Plan.

"The conference has really evolved over the past years," said David Garcia, assistant dean for health equity and inclusion. "It's a place where diverse members of the community—not just students, clinicians, and educators—can collaborate and discuss themes such as community-informed practices and health justice and belonging education and scholarship in real-world applications."

Planning the conference with the backdrop of the COVID-19 pandemic and the unrest resulting from the murder of George Floyd showcased the importance of creating a conference that tackled difficult issues and intentionally sought to reduce health inequities.

"The last few years have called us as a community-based medical school to be part of the solution," said Garcia. "This conference is an important part of the work we do to ensure people are living better, longer."

With the largest turnout since its inception, the 2023 conference explored the theme For Each, a paradigm shift from the concept, For All.

While we often strive for a thriving society, health, and public good "for all," this is not the reality for people in far too many communities, explained Esteban Herevia, health justice and









belonging strategist. In contrast, the conference brought people together to understand what each person and community needs through partnership and reciprocity.

Speakers from organizations including the COVID-19 Farmworker Study Collective, Oregon Health Authority, Association of American Medical Colleges, and the Way to Justice partnered with the college for the conference. They spoke on topics that ranged from the role community engagement plays in public health, ecojustice, and racialized medicine to the disparate impacts by the justice system and inequities in mental health care.

"The conference is a bridge between health care, people, and communities," said Herevia. "It helps us explore answers to the question, 'what does optimal health look like from you and your community?"

The fifth annual Health Justice and Belonging Conference is scheduled for February 2024 and will continue to play a significant role in the college's work to understand what each person and community needs to live longer, better lives through partnership and reciprocity.

# **Community Care**

# Speech and Hearing Sciences, Range Community Clinic Partner Launch Autism and Neurodevelopmental Clinic

A new Autism and Neurodevelopmental Clinic in Spokane helps families get more timely autism spectrum disorder (ASD) evaluations for their children.

The wait time for ASD evaluations currently can extend more than 12 months in eastern Washington. Range Community Clinic, in partnership with faculty and researchers in the Department of Speech and Hearing Sciences, launched the new clinic to reduce that wait time, which is critical considering early intervention dramatically impacts a child's developmental trajectory.

Located on the WSU Spokane campus, the clinic is operated by Range Community Clinic, a non-profit academic health network affiliated with WSU, providing diagnostic services and comprehensive treatment planning. Specialized clinicians deliver personalized care onsite, as well as through telehealth for children and families in underserved and rural communities.

Designed to complement other autism service providers in eastern Washington, the clinic works in partnership with primary care providers by accepting patients on a referral basis when comprehensive diagnostic testing and treatment planning is needed. The clinic is expected to reduce diagnosis wait times and ensure patients receive critical treatment sooner to improve long-term outcomes.

Collaboration with primary care providers and routine followup after initial diagnosis is key to this model. Since the launch of the Autism and Neurodevelopmental Clinic in April 2023, over 350 referrals have been submitted by primary care providers from practices throughout eastern WA.

"There is a highly skilled and compassionate community of autism and neurodevelopmental specialists across eastern Washington, but the volume of patients in need of diagnosis and treatment far exceeds the capacity of providers," said Laurie Thompson, PhD, associate professor in Speech and Hearing Sciences. "Early diagnosis and treatment for autism





66

Early diagnosis and treatment for autism and other neurodevelopmental disorders can significantly improve the quality of life for patients."

LAURIE THOMPSON, PhD Associate professor, Speech and Hearing Sciences

and other neurodevelopmental disorders can significantly improve the quality of life for patients, so the Autism and Neurodevelopmental Clinic is an important step toward helping reduce those wait times and providing faster access to critical treatment."

ASD is a neurological and developmental disorder that impacts an individual's ability to communicate, learn, behave and interact with others. Symptoms typically appear by age two and can vary widely by type and severity, thus a "spectrum" disorder. The Centers for Disease Control recently released the most current prevalence rates, estimating that one in 36 children in the United States is diagnosed with ASD.

The clinic is part of the college's new Autism and Neurodevelopment Program of Excellence, which integrates research, clinical education and community outreach. Through strong community partnerships, the program advances knowledge and training to build capacity for delivering evidence-based evaluation and care.

The clinic is the first multidisciplinary model in eastern Washington that merges research and clinical expertise to address the needs of children and families impacted by ASD and other neurodevelopmental disorders. A clinical team of highly experienced providers is led by developmental pediatrician, Nalini Gupta, MD, DCH, FAAP. The team includes a clinical psychologist, speech-language pathologist, board certified behavior analyst, dietitian, physician assistant, and consultation by faculty with expertise in endocrinology, cardiology, and neurology.

"The Autism and Neurodevelopmental Clinic is one piece of a much more comprehensive effort the WSU College of Medicine is making in autism and neurodevelopmental research and care in our community," said Georgina Lynch, PhD, associate professor and co-director of the program with Thompson. "From research that explores the molecular basis of autism to innovative screening technology being evaluated by the Food and Drug Administration, we are deeply invested in the improved care and outcomes for patients in our communities and beyond."

Range Community Clinic's affiliation with the WSU College of Medicine and the collective expertise of a multidisciplinary team provides an opportunity to advance our understanding of the impact of ASD as children develop. Every family accessing the clinic has the opportunity to participate in research studies examining diagnostic outcomes, time to diagnosis, and more complex underlying factors influencing health, learning and neurodevelopment.

Through coursework and research experiences within the Autism and Neurodevelopmental Program, along with participation in the clinic, this integrated model provides an important training opportunity for students across the health sciences. Beginning in spring 2024, students will gain experience in research settings alongside specialized faculty researchers and clinicians. They will also gain critical skills in direct patient care with children with ASD and other neurodevelopmental disorders, preparing them for their future as health care professionals.

# **Community Care**

# Samaritan Healthcare and the College of Medicine Partner for Medical Education

Samaritan Healthcare and the College of Medicine have partnered to develop a program to support the education of medical students. The partnership also includes exploration of interprofessional education with WSU's College of Nursing, College of Pharmacy and Pharmaceutical Sciences, and other programs.

The partnership aligns the missions of both the college and Samaritan to foster partnerships that improve health education and community health throughout the region.

The college and Samaritan Healthcare believe the development of an undergraduate medical education program will play an important role in the education of future health care professionals and their career development.

They also hope the program paves the way for the future expansion of a residency program based in Moses Lake.

"The college was established to create health care leaders that our rural communities need now," said Dean James Record, MD, JD, FACP. "Our partnership with Samaritan Healthcare exemplifies our dedication to investing in central Washington communities to expand both health care education and health care access to its residents."

Samaritan has hosted medical, nursing, and pharmacy students in the past and is now excited to expand its undergraduate medical education offerings, allowing them to host up to four students annually. Medical student learning opportunities at Samaritan began expanding in summer 2023.





# Community-Based Internal Medicine Residency Program **Expands Access**

Community partnerships have proved crucial to holistic resident training opportunities and patient care with the WSU Internal Medicine Residency Program—Everett. Over the course of the past year, the residency program developed new partnerships with clinical sites to better support the needs of the community, advance rural medicine training opportunities, and provide access and care to underserved populations.

The program first developed an initial rural rotation at Ocean Beach Hospital in Ilwaco, WA, a critical access hospital where residents gained valuable experience working in a health care environment with limited resources.

Following the heels of this successful rotation, the Internal Medicine Residency Program expanded its offerings with the development of a second rural training experience with Pullman Regional Hospital and Whitman Hospital and Clinics, giving residents an experience to work with underserved patients east of the Cascades.

In addition to the expansion of rural training, the Internal Medicine Residency Program continues to support outreach training opportunities in the Everett community. Residents and faculty provide ongoing care to Everett's unhoused population through ongoing partnerships with community organizations to provide training in street medicine.

The expansion of residency programs throughout the State of Washington has provided an increase in access to patient care. During the 2023-2024 academic year, 27 residents plus faculty served the greater Everett, Washington community through care provided from the Internal Medicine Residency Center or associated ambulatory training sites including the Everett Veterans' Administration and the Tulalip Health Center.

Though the Internal Medicine Residency Program made remarkable strides this past year embracing its mission of expanding health care access to people in need, GME Associate DIO David Aufdencamp, MBA, assures their work is just beginning.

"We are working on additional opportunities to provide care in rural environments across Washington," said Aufdencamp. "We are a community-based residency, and through new partnerships we are able to provide well-rounded training experiences for our residents and comprehensive care to our patients."



# **Education**

# Medicine Program

#### HOLISTIC ADMISSIONS ADVANCES MISSION-ALIGNED APPLICANTS AND DIVERSITY

Following the U.S. Supreme Court's decision to overturn affirmative action in June 2023 prohibiting public education institutions from considering race as a factor in their admissions process, admissions offices across the country have been compelled to explore other means to ensure diverse student bodies. Holistic review has been gaining interest as a selection framework throughout the nation.

The WSU College of Medicine has implemented a holistic review process to recruit, support and select mission-aligned applicants beginning with its first class. This framework allows the college to enroll broadly diverse cohorts of MD students who have the potential to serve Washington's rural and urban underserved communities.

"The successes of our holistic review process are clear," said Leila Harrison, PhD, MA, MEd, vice dean for admissions, student affairs, and alumni engagement. "While we are blinded to race and ethnicity in our process per state law prior to the SCOTUS decision, we have continued to see increases in those underrepresented in medicine."

Those underrepresented in medicine—namely American Indian Alaska Native, Black/African American, and Hispanic—accounted for 17.5 percent of the most recently enrolled MD

class, an all-time high for the college. When considering all students of color together, the percentage grows to 47.5 percent.

As a framework, holistic review balances an applicant's mission-aligned life experiences and personal attributes with their academic metrics. In our MD admissions process, we use research findings based on national medical school performance outcomes to inform how academic metrics are considered. In doing so, we give balanced, individualized consideration to each applicant so that applicants with the potential to contribute to the mission are not lost in the process.

To this end, all the college's MD students have connections to Washington, and enrolling students who come from underserved communities, whether geographic, economic, or educational, is critical.

"They bring important insights and perspectives to their classmates, faculty, and to patient care," said Harrison. "They help us better understand the needs of these communities."

Sitting well-above national standards, all five classes enrolled since our inaugural class in 2017 have had more than thirty percent representation of first-generation college graduates.

All MD class demographics have had a share of students

from a low socioeconomic background ranging from 30 to 40 percent. Those who grew up in rural counties range from 17 to 30 percent.

These numbers stand in contrast to national trends. According to 2018 Association of American Medical Colleges (AAMC) data, between 73 to 79 percent of matriculants to medical school have reported household incomes from the top two quintiles of income in the country across a span of 30-years. 2022 AAMC data shows medical schools also reported first-generation college graduates make up 11 to 12 percent of their matriculated classes.

Harrison also points to the college's success recruiting military veterans into the MD program as an important piece of the college's success.

"Military veterans experience health in unique ways from the general public," said Harrison.

Though the college cannot consider age, gender, race, or ethnicity in admissions decisions due to state and federal law, the college does evaluate the outcomes for these groups after each cycle to better understand the broad diversity of our cohorts.

The college enrolls slightly older, non-traditional students with an average age of 26 for the Class of 2026 compared to the national average of 25. Many admitted MD students have had prior careers and engaged in several gap years between college and medical schools. This gives students important life skills before joining the college, explained Harrison.

Women have also made up between 50 to 61.3 percent of the college's MD student body each year. Though 2018 marked the first year in history when the percentage of women entering U.S. medical schools surpassed men, these demographics remain higher than national trends that sit around 50 percent.

These outcomes indicate that our intentional, mission-aligned admissions process is doing what it intends, according to

She also explains that our successes using holistic review goes beyond recruitment itself.

"Not only are we recruiting diverse bodies of students, including those who come through the community college pathway and with varied perspectives and lived experiences, but these students are also performing how we would expect in our program and are matching into residency at a higher rate than the national average," said Harrison.

Given the MD program's success applying holistic review, the admissions team under Harrison's direction is working to implement the framework across all programs within the college, including Graduate Medical Education residency programs.

"By embracing holistic review, our college has fostered a diverse, inclusive community," said Harrison. "We will continue to hone more holistic review processes in selecting students and residents, knowing each student has the opportunity to succeed and serve as future health care leaders."

66

By embracing holistic review, our college has fostered a diverse, inclusive community."

LEILA HARRISON, PhD, MA, MED Vice Dean for Admissions, Student Affairs, and Alumni Engagement



# **Education**

## **Nutrition and Exercise Physiology**

#### NEW SIMULATION TRAINING OPPORTUNITIES PREPARE STUDENTS TO PROVIDE REAL-LIFE CARE

For students, moving into a new clinical rotation, much less in an acute care setting, is often accompanied by jangling nerves.

Students in the Master of Science
Coordinated Program in Dietetics (MS
CPD), who enter a clinical nutrition
rotation as they train to become
credentialed Registered Dietitian
Nutritionists (RDNs). This rotation is
one of three settings where students
gain crucial practical experience over
the course of the two-year graduate
program.

To best prepare the MS CPD students for clinical rotations and serving real

clients in a range of settings, MS CPD faculty have collaborated with the college's Virtual Clinical Center (VCC) to provide students with simulated educational experiences.

"The department's commitment to providing students the opportunity to practice in a simulation lab with patient actors keeps our Coordinated Program in Dietetics at the leading edge of education throughout the nation," said Professor and Chair Glen Duncan, PhD, RCEP.

The unique position within the College of Medicine affords the Department of Nutrition and Exercise Physiology, and

the MS CPD specifically, opportunities that most students across the nation cannot access.

The VCC holds clinical exam and hospital rooms, where students interact with standardized patients—individuals trained to assume the role of someone with a medical issue for which nutrition is a significant factor. Students learn to experience the pressures of caring for a patient in acute care settings as well as develop humanistic and clinical reasoning skills.

Clinical Assistant Professor Lisa
Heneghen, MPH, RDN, CSO, CNSC,
and instructor for the Medical Nutrition
Therapy and Clinical Nutrition
Supervised Practice courses, develops
the scripts for the standardized
patients and preps MS CPD students
for four different labs spread over two
semesters.

"Even though I was very nervous for the labs, with each one I became more and more confident in my abilities and more comfortable working with patients," explained Cortney Schuh, MS CPD who plans to graduate in 2024. "The sim labs also really helped take away some of the nerves on the first day of clinical at Trios Health Southridge Hospital in Kennewick, Wash. because it wasn't the first time assessing a patient!"

Students have 15–20-minute sessions where they interact with standardized patients, with standardized patients seeing six to eight students a day.



Each session should help students develop a nutritional assessment framework, explained Heneghen. In a safe environment, students learn how to obtain objective clinical and subjective information from the patients by asking questions based on the symptoms the patients report.

"When the simulation starts, they are in character the whole way through, either pretending to be in pain or giving a monologue about their health history," said Schuh. "The actors are also good at improvising because each student may ask a different question and the actors never seem to be confused."

Immediately following each appointment, the patient stops acting and provides feedback to the student.

"The feedback provided by the standardized patients was very helpful in building my confidence while also giving me points I needed to work on improving," said program graduate Samantha McDonald.

Program faculty are also nearby, observing the appointments through a live video system. They, too, offer each student detailed feedback on the client-patient interactions. After, students watch their session recordings to reflect and determine techniques they could improve on.

66

It is great to be able to participate in a simulation experience before going into the 'real world' of healthcare."

SAMANTHA McDONALD Graduate student, Nutrition and Exercise Physiology



Students do more than work with standardized patients in the VCC. They practice placing feeding tubes using the head and torso of a mannequin and learn how to assess different levels of edema, fluid that can build up in the interstitial spaces of the body.

When national standards for RDN education recently added a requirement for students to learn how to complete a swallow evaluation, the VCC was there to help the program meet new standards.

Director of Simulation-based Training Chris Martin, EdD, MHS, CHSE, welcomed the opportunity to expand the VCC's services with the MS CPD simulation lab, said Heneghan.

"It's one of the greatest reasons to use simulation, as a check off of skills and one last standardized patient interaction before moving into the hospital setting," said Martin.

Developing the scripts, planning simulation labs, and prepping standardized patients takes an enormous amount of time for Heneghen. An effort she wouldn't trade, especially when survey results show 50 percent of the students would recommend the same number of simulation lab sessions in the future, and 50 percent recommend more labs.

"I believe the sim labs are an amazing opportunity that we have as students at the WSU College of Medicine," said McDonald. "It is great to be able to participate in a simulation experience before going into the 'real world' of healthcare."

# **Education**

## Speech and Hearing Sciences

NEW SPEECH-LANGUAGE PATHOLOGY CLINIC PROVIDES EXPANDED STUDENT TRAINING OPPORTUNITIES

Speech and Hearing Sciences students have a new clinic to train in starting fall 2023.

Range Community Clinic, in partnership with the Department of Speech and Hearing Sciences (SHS), launched the Speech-Language Pathology Services clinic to provide expanded support to children and adults with communication, cognition, and swallowing disorders.

Located on the WSU Spokane campus, the clinic is operated by Range Community Clinic, a non-profit academic health network affiliated with WSU, and will serve as a primary

66

Students are exposed to diverse clinical experiences and clients, better preparing them for their future as health care professionals."

AMY MEREDITH, PhD Chair, Speech and Hearing Sciences



training ground for SHS students. Specialized speechlanguage pathologists will also deliver personalized care onsite and through telehealth services—better reaching clients in rural communities or lack access to transportation.

"Through our partnership with Range Community Clinic, we have the opportunity to provide services in some capacity throughout the year," said department Chair Amy Meredith, PhD. "We can now better serve clients when they need it, where they need it."

The Speech-Language Pathology Services clinic replaces the University Speech and Language Clinic, which is now solely operated by Eastern Washington University with the main clinic located in Cheney, Wash.

The clinic accepts clients on a referral basis and provides comprehensive, evidence-based speech-language pathology services to Spokane, Cheney, and surrounding communities. The services range from screening and evaluation to rehabilitation for a broad range of communication disorders.

SHS students will also gain critical training experience at the clinic, through which they will have direct clinical experiences alongside specialized faculty and clinicians.

"The clinic is part of our integrated coursework model," said Meredith. "Beyond their coursework and scholarship, students are exposed to diverse clinical experiences and clients, better preparing them for their future as health care professionals."

## Certificate in Medical Ethics

# MEDICAL ETHICS CERTIFICATE PROGRAM PREPARES CLINICIANS TO PRIORITIZE PATIENT WELL-BEING

The global COVID-19 pandemic brought to the fore the urgent need for health care professionals and leaders to have an understanding of health care and medical ethics. Yet, studies have identified a lack of training in clinical bioethics as a significant problem within the health care system, with many rural and non-academically affiliated hospitals lacking access to training opportunities or formally trained professionals.

Since its inception in 2020, the
Certificate in Medical Ethics program
has sought to bridge this gap by
providing accessible and affordable
clinical bioethics training to more
than thirty hospital ethics committee
members and other health care
professionals.

Through a partnership with Kaiser Permanente, practicing health care professionals are linked directly with the program and its faculty, who have extensive, ongoing clinical ethics consultation experience.

"Our partnership with Kaiser
Permanente is foundational to this
program's success," said Thomas May,
Phd, medical ethics program director.
"Our faculty get to mentor and train
acting clinicians that can help them
navigate similar situations at their
institution."

The program is also uniquely designed to provide largely nonsynchronous, online education using WSU Global Campus resources.

"Health care professionals are incredibly busy and must prioritize their professional work responsibilities. Our course delivery design provides the flexibility needed to incorporate this education into a busy professional schedule," said May.

The program offers progressively hands-on education, starting with

basic concepts in moral theory and reasoning, and culminating in hands-on practicum. Practicing MDs and professional actors are hired and trained to play roles in case-based learning scenarios, creating experiences in which appropriate treatment applications are in question. Students must apply the concepts and strategies learned throughout the program to evaluate the morally appropriate treatment and prioritize the patient's well-being and care.

"Our students leave with increased confidence and more resources to manage real-life scenarios or to conduct medical ethics consultation," said May. "This isn't just theory. Students leave better prepared to provide patients with the best care possible."

The largest cohort ever will begin training in fall 2023, with 17 enrolled students. May hopes to continue to grow the program and its offerings.



# Research

## Overview

Our faculty and learners continue to push the boundaries of what is known with the goal of improving the human condition. Faculty in each of our five departments have made substantive contributions to science that will improve the health and wellbeing of citizens in Washington state and beyond. This report highlights some of these recent achievements but not all.

The work of our faculty spans many levels of analysis, ranging from tightly focused foundational science looking at genetics to highly applied work being disseminated directly into community settings. Faculty work in areas ranging from

specific disease states such as galactosemia and cancer to prevalent neurological disorders like autism spectrum conditions and behavioral disorders such as substance use and mental health concerns. In addition, faculty research spans multiple fields, including language processing, sleep and performance, and geospatial and epidemiological arenas. Further, in strengthening partnership between those educating our students and researchers, we are increasingly conducting research into how to effectively educate students in today's changing technological landscape.

We are proud of our faculty, who remain passionate and tireless in their pursuit of knowledge and its dissemination to address real world issues.





Since our inception, researchers have attracted over

> **\$130** million



## Community and Behavioral Health

#### RESEARCH SHOWS LIVING ENVIRONMENT MAY PLAY ROLE IN MENTAL HEALTH CARE ACCESS

An individual's mental health is affected by many psychological, social, and societal factors. Where you live also has a significant impact to an individual's mental health outcomes, suggests recent research from the Department of Community and Behavioral Health (CBH).

Neighborhood-level determinants such as geographical location, socioeconomic characteristics, and access to public spaces can perpetuate disparities or treatment engagement, suggest WSU scientists. Their work with the Promoting Research Initiatives in Substance Use and Mental Health (PRISM) Collaborate examines and supports community mental health with a focus on space as a structural mechanism.

# EXAMINING HOW NEIGHBORHOODS INFLUENCE LARGER SYSTEMS OF CARE

Though receiving specialized early intervention services for psychosis improves quality of life and decreases an individual's risk of homelessness for many individuals, one's neighborhood may help determine whether those specialized services are truly accessible.



Research shows that connecting individuals to the necessary support services early, before their symptoms become severe, can play a significant role in better health outcomes. There

are persistent racial and social disparities in specialty care utilization, however, Assistant Professor **Oladunni Oluwoye**, PhD, believes location could play a role in perpetuating these disparities.

Funded by an R34 from the National Institute of Mental Health, Oluwoye's work examines geographic disparities in the availability and accessibility of Coordinated Specialty Care (CSC) programs for early psychosis.

It is important that behavioral health research moves beyond treatments that benefit individual patients to also consider environment-health interactions. This important work will support the design of more effective public health strategies and community level interventions, directed at eliminating health disparities.

Oluwoye's study explores how neighborhood characteristics, such as whether they are urban, rural, or considered low-socioeconomic, can lead to disparities in access and service utilization. These neighborhood-level determinants also influence inequities in larger systems of care such as policies related to the distribution of services and the placement of organizations made available to individuals.

Neighborhood-level determinants have also been linked to the length of time psychosis is left untreated, and limited access to CSC programs is a barrier to initiating these critical services.

Oluwoye hopes the project will help us understand how established, and location-bound, systems of care may also reinforce disparities in access through the inequitable distribution of resources. Though opportunities for specialized care may appear available, they may be fundamentally inaccessible to the individual in need of services who reside in certain communities.

This study is part of Oluwoye's larger body of work to evaluate CSC programs and test culturally informed tools and strategies to increase engagement among racially and ethnically diverse populations.

# Research

## Community and Behavioral Health

RESEARCH ADDRESSES MENTAL HEALTH, SUBSTANCE USE IN SUPPORTIVE HOUSING By Judith Van Dongen



As cities across the state and country are struggling to deal with a worsening homelessness crisis, Liat Kriegel, PhD, MSW, is helping to improve outcomes for people in permanent supportive housing.

Working with housing providers in Spokane, Seattle, and Los Angeles, researchers in the Department of Community and Behavioral Health are leading projects aimed at addressing homelessness.

Combining housing, case management, and other supportive services, permanent supportive housing caters to those who are homeless, many of whom struggle with serious mental illnesses and substance use disorders. These programs also offer housing to people with serious mental illnesses who are formerly incarcerated, which is the focus of a new study led by Liat Kriegel, an assistant professor and researcher in the Promoting Research Initiatives in Substance Use and Mental Health (PRISM) Collaborative.

Funded by a four-year, \$710,000 grant from the National Institute of Mental Health, Kriegel's study will explore how the geography of permanent supportive housing can support formerly incarcerated people with serious mental illnesses as they reintegrate into their communities.

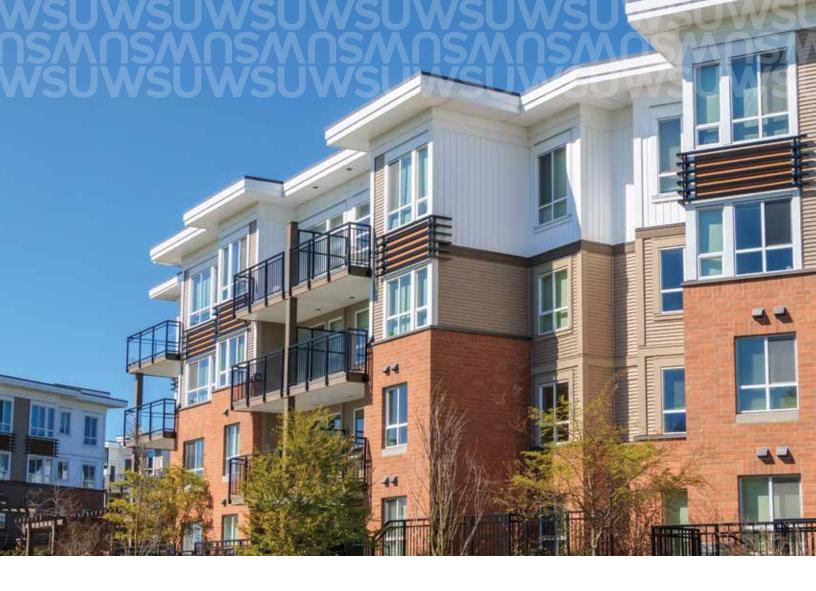
"Formerly incarcerated people who have mental illnesses tend to rely on public spaces and use interactions in those spaces as a support system during their re-entry from prison," said Kriegel, who trained as a social worker before switching to a career in research. "Unfortunately, supportive housing often exists in places that we consider risky, like areas with high rates of poverty, substance use, and crime. But these places can also be positive, providing opportunities for community, resources, and support."

Kriegel said the study will explore 'risk environments' associated with permanent supportive housing, which is where individual, interpersonal, and structural factors interact to increase or reduce risk—in this case, the risk of reincarceration. She will conduct qualitative interviews with 80 formerly incarcerated participants with serious mental illnesses who live in permanent supportive housing run by Volunteers of America and Catholic Charities in Spokane and at other programs in Los Angeles. Both cities have been plagued by rapidly rising housing prices and increased homelessness in recent years. In addition, she will conduct more informal 'go-along' interviews with 20 of those participants and will use participatory mapping to map out

66

These places can also be positive, providing opportunities for community, resources, and support."

LIAT KRIEGEL, PhD, MSW Assistant Professor and Researcher, Promoting Research Initiatives in Substance Use and Mental Health (PRISM) Collaborative



places that participants find important and where they spend a lot of time and experience belonging. These places will be shown in relation to areas with higher or lower risk of drug overdose and arrest in an effort to create a community resilience index.

"This project will help us think about how the spaces around and within permanent supportive housing contribute to community participation, treatment engagement, psychiatric distress, and substance use," Kriegel said. "The goal is to use these outcomes to work with people with lived experience and providers to

design an intervention that could better support community integration for formerly incarcerated people who have serious mental illnesses in these settings."

In another four-year project that started this past fall, Kriegel serves as the lead evaluator for Volunteers of America's newly established Whole-Person Health Home, a Certified Community Behavioral Health Clinic that will provide on-site behavioral health services to Spokane-area youth and adults who are either chronically homeless or at high risk of becoming homeless. Funded by the federal

Substance Abuse and Mental Health Services Administration, this clinic is part of a national effort to make integrated mental health and substance use treatment more accessible to communities that need them.

"Within PRISM we work off of the premise that housing is a right," said Kriegel. "Research shows that when you provide housing first so that people have a safe place to live, they're more likely to experience better outcomes, including improved physical and mental health, reduced or safer use of drugs and alcohol, and better quality of life."

# Research

## **Nutrition and Exercise Physiology**

## TWIN STUDY LINKS EXERCISE TO BENEFICIAL EPIGENETIC CHANGES By Sara Zaske



Consistent exercise can change not just waistlines but the very molecules in the human body that influence how genes behave, a new study of twins indicates.

The Washington State University study led by Nutrition and Exercise Physiology Chair and Professor Glen Duncan, PhD, published in the journal Scientific Reports (nature.com/articles/s41598-022-24642-3), found that the more physically active siblings in identical twin pairs had lower signs of metabolic disease, measured by waist size and body mass index. This also correlated with differences in their epigenomes, the molecular processes that are around DNA and independent of DNA sequence but influence gene expression. The more active twins had epigenetic marks linked to lower obesity measures, which in turn are highly correlated with conditions such as metabolic syndrome, heart disease, stroke and type 2 diabetes.

Because the identical twins have the same genetics, the study suggests that markers of metabolic disease are

strongly influenced by how a person interacts with their environment as opposed to just their inherited genetics.

"The findings provide a molecular mechanism for the link between physical activity and metabolic disease," said Michael Skinner, WSU biologist and the study's corresponding author. "Physical exercise is known to reduce the susceptibility to obesity, but now it looks like exercise through epigenetics is affecting a lot of cell types, many of them involved in metabolic disease."

The researchers collected cheek swabs of 70 pairs of identical twins who also participated in an exercise study through the Washington State Twin Registry. A team led by Duncan, who also serves as the registry director, collected data on the twins at several different points in time from 2012 to 2019. They used fitness trackers to measure physical activity and measured the participants' waistlines and body mass indexes. The twins also answered survey questions about their lifestyle and neighborhoods.



The more active twins

had epigenetic marks linked to lower obesity measures

Many of the twin pairs were found to be discordant, meaning they differed from each other, on measures of physical activity, neighborhood walkability and body mass index.

An analysis by Skinner's lab of the cells in the discordant twins' cheek swabs revealed epigenetic differences too. The twin in the discordant pair with a high level of physical activity, defined as more than 150 minutes a week of exercise, had epigenetic alterations in areas called DNA methylation regions that correlated with reduced body mass index and waist circumference. Those regions are also associated with over fifty genes that have already been identified as specific to vigorous physical activity and metabolic risk factors.

"If genetics and DNA sequence were the only driver for biology, then essentially twins should have the same diseases. But they don't," said Skinner. "So that means there has to be an environmental impact on the twins that is driving the development of disease."

"We live in an obesogenic environment," said Duncan. "Our environment is dominated by passive automobile transportation, activity "unfriendly" community designs, and sedentary occupations that minimize energy expenditure. It also features easy access to highly palatable, inexpensive, energy-rich, but nutrient poor, foods that maximize energy intake."

This study received support from the John Templeton Foundation and National Institutes of Health. In addition to Duncan and Skinner, co-authors include Jennifer Thorson, Eric Nilsson and Daniel Beck from WSU School of Biological Sciences as well as Ally Avery from the WSU Elson S. Floyd College of Medicine.





# Translational Medicine and Physiology

#### POOR SLEEP RESULTS IN REDUCED DECISION-MAKING ABILITY

Researchers in the Department of Translational Medicine and Physiology have discovered a compelling link between insufficient sleep and one's ability to make new decisions in response to changing circumstances.

While robust research literature has shown the adverse effects of sleep deprivation on cognitive processes, this study suggests the effects of sleep loss on adaptive decision-making go beyond fatigue.

People worldwide suffer from insufficient sleep, and with it comes numerous health and safety implications. This project examined how cognitive flexibility—the ability to adjust decision-making strategy based on changing feedback during real-time tasks—is impaired after sleep deprivation.

In a set of experiments, researchers were able to first establish a baseline of how one may adapt their decision-making processes and then demonstrate performance deficits on the same behavioral tasks following insufficient sleep.

"The study showed that sleep deprivation results in a tendency to make repeated mistakes despite repeated poor outcomes" said



Christopher J. Davis, PhD, associate professor and project collaborator.

Cognitive rigidity refers to the diminished ability to change behavior or beliefs in response to new information, even when that current behavior pattern is shown to be ineffective at reaching a desired outcome.

"The negative impacts of sleep loss on adaptive decision-making are a cause for concern," said co-investigator



and professor Jonathan Wisor, PhD. "These findings are particularly relevant to

workplace settings such as hospital emergency rooms and military operations, where life and death decisions are made at any moment regardless of the level of fatigue in the decision-maker."

Though these findings underline the critical importance of quality sleep for optimal cognitive functioning and decision-making, there is an unmet need for studies that show the underlying mechanism of these impairments in the brain.

The research team leveraged these recent findings to secure a two-year, \$275,000 grant from the National

Institutes of Health to advance the understanding of these mechanisms by identifying brain circuits and cellular processes involved in cognitive rigidity.

The project will use state-of-the-art techniques to investigate a small population of neurons in the brain known to be involved in decisionmaking. This will allow our researchers to examine intracellular signals that underlie the adverse effects of sleep loss.



"We will measure and manipulate the electrical activity and internal biochemical makeup of these

neurons," said project collaborator Marcos Frank, PhD. "We hope to delineate the role these cells play in regulating the decision-making process under sleep-deprived conditions."

The current study was able to take a translational approach to model the effects of sleep deprivation on cognitive rigidity but approaches to mitigating that cognitive dysfunction is elusive.

"We hope to identify potential intervention strategies that make decision-making capabilities resilient to fatigue," said Davis. "Such mitigation techniques could have farreaching implications for individuals across diverse professions and demographics."

The research team includes Davis, Frank, Wisor, and Kit Hayworth, PhD, as well as WSU research analyst Michelle Schmidt, MS. The project was supported by a Department of Defense grant, on which Hans Van Dongen, PhD, served as principal investigator.



66

The study showed that sleep deprivation results in a tendency to make repeated mistakes despite repeated poor outcomes."

CHRISTOPHER J. DAVIS. PhD Associate Professor and Project Collaborator

# Research

#### Medical Education and Clinical Sciences

#### ADDRESSING HEALTH DISPARITIES IN NATIVE POPULATIONS

Washington State University's Institute for Research and Education to Advance Community Health (IREACH) is leading a large, multi-institutional research effort funded by the National Institute on Aging, called, "Natives Engaged in Alzheimer's Research." With \$14.6 million awarded in August 2021, the study team is working to reduce disparities associated with Alzheimer's disease and related dementias (ADRD) in American Indian and Alaska Native (AI/AN), and Native Hawaiian and Pacific Islander (NHPI) groups.

According to the World Health Organization, ADRD and mild cognitive impairment affect 55 million people worldwide. AI/AN and NHPI people have experienced significant improvements in life expectancy, signaling a need to better understand aging-related disease such as ADRD in these populations. Of concern, ADRD risk multiplies after age 65, and the number of AI/AN and NHPI people in that age cohort has tripled over the past five decades. Yet little is known about ADRD and their risk factors among AI/AN and NHPI people—groups largely underrepresented in health research.

A key component of Natives Engaged in Alzheimer's Research is its application of novel strategies to increase recruitment and retention of Al/AN and NHPI people in research. The study team's "Brain Health Events" are culturally tailored, hands-on workshops designed to provide ADRD education to AI/AN and NHPI Elders.

"With a study team that reflects the Indigenous communities that we serve, we aim to engage in culturally relevant and respectful ways as we conduct our research," said Gary Ferguson, ND, Unangax (Aleut) and an enrolled member of the Qagan Tayagunin Tribe, associate professor in the Department of Medical Education and Clinical Sciences and director of outreach and engagement at IREACH. "We want to ensure that studies are aligned with priorities coming from these communities."

Cole Allick, PhD, a member of the Turtle Mountain Band of Chippewa Indians and a research manager and outreach

liaison at IREACH, leads the study's Brain Health Events. He noted a major benefit in the study's approach, saying, "What is great about these events is that we are actively engaging Elders in highly interactive learning methods that touch on ADRD including genetics, risk and resilience factors, and participating in this research. What is especially powerful is that the people running the stations often look like the communities we serve. It allows us to be present, provide comfort, and meaningfully engage Elders throughout the events."

Event activities include various health assessments, education on informed consent, genetic tests, and biospecimen use research, and an invitation to donate a saliva sample. Participants receive a record of their personal data to take home, and they are invited to enroll in an ADRD registry, which notifies them about future opportunities for research participation.

"We've had overwhelming success engaging Elders in Indigenous communities, often with more asks than we can accommodate in any given month," added Ferguson, who provides outreach support for the project. "Elders rave about their experience and are excited to have a Brain Health Event in their home communities."

To date, the study has engaged more than 1,000 AI/AN and NHPI Elders from communities in Washington, Idaho, Utah, New Mexico, North Carolina, Colorado, Arizona, Hawaii, and American Samoa. More than 80% of participants have provided a saliva sample for genetic testing. The study team has benefited from vested community partners who have made this success possible.

Natives Engaged in Alzheimer's Research is led by Dedra Buchwald, MD, professor at the Elson S. Floyd College of Medicine and founding director of IREACH, James Galvin, MD, from University of Miami, and John "Keoni" Kauwe, PhD, from Brigham Young University. The study features collaborators from nine universities and more than a dozen community partner organizations.



asks than we can accommodate in any given month."

#### GARY FERGUSON, ND

Unangax (Aleut) and an enrolled member of the Qagan Tayagunin Tribe, associate professor in the Department of Medical Education and Clinical Sciences and Director of Outreach and Engagement at IREACH

# Research

#### Medical Education and Clinical Sciences

IREACH FACULTY TO STUDY LINKS BETWEEN INDIGENOUS EDUCATION SYSTEMS AND COMMUNITY WELLBEING



Jessica Saniguq Ullrich, PhD, Tribal citizen of Nome Eskimo Community and assistant professor in the

Department of Medical Education and Clinical Sciences and Institute for Research and Education to Advance Community Health, was recently awarded a Spencer Foundation Vision Grant. The project is one of 18 across the country to re-envision a better education system for students within any grade level. Ullrich is collaborating with leaders from the Sitnasuak (Nome), Ukivok (King Island Native Community), Erok (Village of Solomon) and Bering Strait community in Alaska.

The history of education has Involved significant trauma that American Indian and Alaska Native (AI/AN) communities are still enduring and recovering from to this day. In military-style boarding schools, AI/AN students were punished for speaking their language. John Tetpon, an 80-year-old Elder from Shaktoolik, 125 miles east of Nome, shared his experience:

". . . It was my first day of school at the Bureau of Indian Affairs one room schoolhouse and I was excited. 'We're going to learn how to read and write,' I said loudly in Inupiag to my friends.

I was smiling. We were smiling and happy. All of us. That was until [all] of a sudden, I felt the hand of the teacher grab me by the collar, lifting me up to his shoulder. I was terrified. I didn't know what was happening and why. I was 6 years old. I felt and saw his hand near my mouth with a bar of Fels Naphtha soap. The bar of soap was tan, almost brown in color. He shoved it into my mouth and down my throat, making soap bubbles come out of me. 'Don't speak Inupiaq in my school!' he yelled. I was in tears, choking. I couldn't breathe. I didn't understand his words. Afraid. Terrorized. I have never forgotten that day. Why, I ask. Why? For years I never uttered a word of Inupiagand forgot most of it. Today I hunger to hear my language and my words, but they are elusive as butterflies in winter."

Many Indigenous languages are endangered because of English-only policies within schools. Transformation of the education system is key to ending systemic harm and allowing intergenerational healing to occur.

The Sitnasuak team plans to submit a research grant proposal that focuses on the development, implementation, and evaluation of a healing centered, multi-generational, and land-based pedagogy that incorporates language, culture, and traditional values into

## INDIGENOUS THEORY OF **CHANGE IN LIBERATORY SYSTEMS**







educational policy and practices.

Ullrich and her collaborators plan to explore if this systematic transformation leads to an increase of child, family, and community wellbeing.

This timely project aligns with Ukivok's and Erok's creation of a Tribal school through a compact agreement with the State of Alaska. If successful, this work could help advocate for the expansion of Tribal/State compact agreements and provide guidance to other communities on the ways

these policies could be successfully implemented using their own unique local knowledge.

To guide the transformative research process, the team's approach utilizes an *Indigenous Theory of Change in Liberatory Systems* as depicted in the graphic. It is not enough to approach the research with a deficit mindset that looks to outside experts for solutions and assumes one size fits all. Instead, the work will be conducted in a strengths-based, collaborative, and

relational way that is trusting of and responsive to community guidance.

The Vision Grant team aspires to develop the best research action plan that supports wellbeing within Sitnasuak, the Bering Strait region, Alaska, and global community because of the belief that we are all connected to a collective. As Sitnasuak heals the wounds of the education system, this helps the collective heal.

# **Faculty and Staff Achievements**

## Promotion to Professor

#### Patrik Johansson, MD, MPH

Institute for Research and Education to Advance Community Health (IREACH)

## Tenure and Promotion to **Associate Professor**

#### Ofer Amram, PhD

Nutrition Exercise and Physiology

#### Franck Carbonero, PhD

Nutrition Exercise and Physiology

#### Georgina Lynch, PhD, CCC-SLP

Speech and Hearing Sciences

#### Clemma Muller, PhD, MS

Institute for Research and Education to Advance Community Health (IREACH)

#### Lucia Peixoto, PhD

Translational Medicine and Physiology

## Lauren Thompson, PhD, CCC-SLP

Speech and Hearing Sciences

#### Retirements

#### Brenda Bray, BPharm, MPH

Medical Education and Clinical Sciences

#### Gail Chermak, PhD

Speech and Hearing Sciences

#### Karen Simpson, MCSD, CCC-SLP

Speech and Hearing Sciences

#### Samuel Joseph, DO

Medical Education and Clinical Sciences

#### Younghee Kim Choe

**Business Services** 



#### **Awards**

#### 2023 ELSON S. FLOYD COLLEGE OF MEDICINE AWARD RECIPIENTS

A-B-C-D (ABOVE AND BEYOND THE CALL OF DUTY)

Judi Marcin, MD

Medical Education and Clinical Sciences (faculty recipient)

Colin Pappajohn

Research (staff recipient)

**OUTSTANDING CONTRIBUTION TO RESEARCH** 

Lucia Peixoto, PhD

Translational Medicine and Physiology

**OUTSTANDING CONTRIBUTION TO SCHOLARSHIP** 

Judith L. Bowen, MD, PhD

Medical Education and Clinical Sciences

**OUTSTANDING CONTRIBUTION TO COMMUNITY** 

**PARTNERSHIPS** 

Farion R. Williams, MD

Medical Education and Clinical Sciences

COMMUNITY HEALTH AND INNOVATION AWARD

Anne Grossman, MD

Medical Education and Clinical Sciences

HONORING LEADERSHIP

Radha Nandagopal, MD

Faculty Development; Medical Education and

Clinical Sciences

CHANCELLOR'S EXCELLENCE AWARDS

**FACULTY** 

RESEARCH

Oladunni Oluwoye, PhD

Community and Behavioral Health

**SERVICE** 

Patrik Johansson, MD, MPH

Northwest Health Education and Research

Outcomes Network

DIVERSITY, EQUITY & INCLUSION

David Garcia, MEd

Health Equity and Inclusion

Jaime Bowman, MD, FAAFP

Medical Education and Clinical Services

HONORING MENTORSHIP AND SPONSORSHIP

Antony Y. Kim, MD

Medical Education and Clinical Sciences

**EXCELLENCE IN TEACHING** 

Dave Conley, PhD

Medical Education and Clinical Sciences

Shannon Helbling, PhD

Medical Education and Clinical Sciences

**EXCELLENCE IN CLINICAL TEACHING** 

Samuel Schneider, DO

Range Community Clinic

**OUTSTANDING CONTRIBUTION TO EQUITY** 

Naomi Chaytor, PhD, ABPP

Community and Behavioral Health

THE DEAN'S AWARD FOR CONTRIBUTION TO

THE COLLEGE OF MEDICINE CULTURE

Susan Hecker, MD

Medical Education and Clinical Sciences

(faculty recipient)

Lisa S. Tyran

Dean's Office (staff recipient)

STAFF

ADMINISTRATIVE PROFESSIONAL

Tera Lessard

Faculty Development

STUDENT

COMMUNITY ENGAGEMENT AWARD

Victoria Heinlen

Speech and Hearing Sciences

Audrianna Hefferman

Speech and Hearing Sciences

# **Budget Update**

The WSU College of Medicine ended fiscal year 2023 with a positive financial performance. These results were primarily driven by increased state appropriations and the addition of 20 more medical students to the incoming class, which increased the total cohort size from 300 to 320 students in the 2022-23 academic

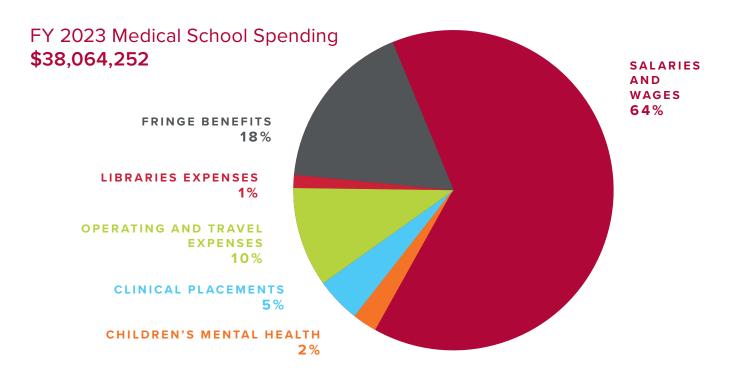
The college experienced a net increase in overall spending compared to the previous year. Operating expenses in each functional area have risen, partially due to the inclusion of 20 additional MD students and the associated

costs for operations and education. The adoption of Workday as a finance and HR management system across the university, along with changes in cost categorization, led to alterations in goods, services, equipment, and purchased services.

With the college's ongoing efforts to expand programs and offices by hiring more faculty and staff, there was an increase in salaries, wages, and benefits during FY 2023. Additionally, classified staff members at WSU are scheduled to receive a 4% salary raise starting from July 1, while faculty and administrative professionals

will see a 2.5% salary increase beginning October 1, 2023.

The university is asking campuses, colleges, and units to plan for a 6% reduction in core fund budgets amid continuing efforts to maintain the university's fiscal health during a period of enrollment and tuition revenue declines. This reduction will require the college to carefully balance growth with reduced spending. All administrative units will absorb at least the overall percentage reduction passed to the college. Whenever feasible, areas of excellence and strategic investment priorities will be safeguarded and given priority.



### Profit and Loss Statement

FD001	FY 2023	FY 2022	FY 2021
REVENUE			
Core Allocations	\$18,810,743	\$18,352,623	\$18,149,029
Enrollment Funding	\$10,415,184	\$10,363,296	\$9,667,773
Fringe	\$6,819,440	\$5,770,603	\$5,850,144
One-Time Funds - Children's Mental Health	\$640,000	\$640,000	\$640,000
Transfers and PBL Changes	\$2,332,885	\$445,790	\$400,999
Less Budget Reduction - 5% FY24	(\$954,000)	(\$1,110,100)	(\$1,480,200)
Total Revenue & Gains	\$38,064,252	\$34,462,212	\$33,227,745
EXPENSES			
Salaries and Wages	\$24,380,312	\$22,184,277	\$21,453,876
Benefits	\$6,778,309	\$5,726,060	\$5,856,138
Hourly Benefits	\$23,750	\$38,932	\$17,883
Leave Payouts	\$86,807	\$278,210	\$36,062
Goods and Services	\$2,124,506	\$1,582,054	\$2,847,390
Travel	\$617,370	\$359,912	\$139,447
Equipment	\$51,813	\$737,248	\$196,775
Project Expense	\$2,208	\$1,181	\$5
Scholarships and Fellowships	\$13,130	\$500	\$9,100
Utilities	\$111,523	\$89,346	\$88,202
Purchased Services	\$3,283,015	\$2,716,258	\$1,714,703
Administrative Fees Expense	\$239,658	\$208,917	\$230,544
Subcontract Goods and Services			\$7
Total Expenses	\$37,712,400	\$33,922,896	\$32,590,130

June 30, 2023



## Accreditation

### Fully accredited, college aims at enhancing academic excellence

The Elson S. Floyd College of Medicine MD program remains fully accredited by the Liaison Committee on Medical Education (LCME) thanks to the hard work and dedication of our accreditation teams, our university, and our statewide partners. To further evaluate our program and assess our compliance to LCME standards, the LCME has scheduled an in-person site visit in February 2025.

In preparation for the site visit, we will complete a comprehensive self-study that includes work from 12 accreditation standard teams consisting of dedicated faculty members, students, and staff. Additionally, students will participate in an Independent Student Analysis, allowing us to collect data on how we are performing.

The accreditation effort is being driven by a team including Dean James Record, MD; Faculty Accreditation Lead Radha Nandagopal, MD; and Senior Director for Strategic Management Erika Fleck. Through their expertise and collective efforts and the participation of faculty, staff, and students, we anticipate a productive and successful selfstudy process.

To enhance the overall quality of our programs and services beyond the expectations of the accreditation process, we have implemented a continuous quality improvement (CQI) process under the guidance of Larry Johnson, CQI manager. Through this ongoing improvement approach, we are confident in our ability to meet and exceed the LCME standards.

We appreciate the continued support and involvement of our faculty, staff, students, and community stakeholders in this important endeavor. Together, we are confident in achieving our goal of maintaining and enhancing the excellence of our medical education program.

#### CONTINUING MEDICAL EDUCATION PROGRAM RECEIVES PROVISIONAL ACCREDITATION

The Continuing Medical Education (CME) program was excited to receive Provisional Accreditation effective on March 27, 2023, following a September 2022 site visit by the Accreditation Council for Continuing Medical Education (ACCME).

Provisional Accreditation is a two-year term awarded to initial applicants that demonstrate compliance with the core accreditation criteria outlined by the ACCME. This is an exciting next step for continuing education at the College of Medicine and for health professionals throughout our region. The next ACCME decision is anticipated in spring 2025.

#### ALL GRADUATE MEDICAL EDUCATION PROGRAMS ACCREDITATED

All three of the college's residency programs are accredited with the Accreditation Council for Graduate Medical Education (ACGME).

The Internal Medicine Residency Program – Everett received a detailed ACGME review on September 13, 2022, and received notice of Continued Accreditation for 40 residents. The ACGME recognizes substantial compliance with accreditation standards and has awarded the program with the highest level of accreditation recognition status.

The ACGME approved the development and initial accreditation for the new Pediatric Residency program at Providence Sacred Heart in Spokane for a total of 18 residents.

After receiving the status of Initial Accreditation in May 2021, the Family Medicine Residency Program – Pullman remains fully accredited by the ACGME.

## Media

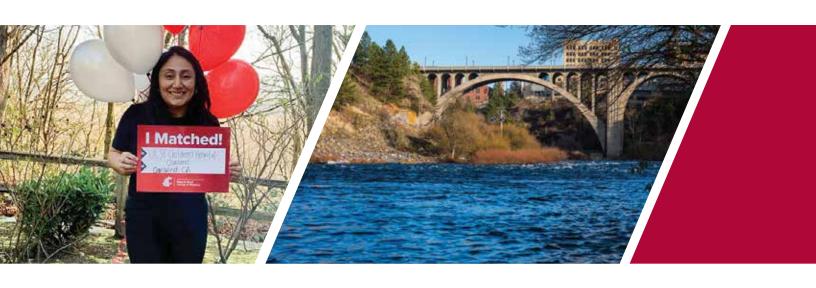
#### **Forbes**

A Match Made Indigenous: Celebrating Incoming Native Resident-**Physicians** 



Applying to residency is stressful. Here's how experts hope to change that

WSU study examines impact of fatigue on Santa's global journey on Christmas Eve



#### The Seattle Times

WSU study finds new test to screen children for autism

Living close to parks or water sources 'may reduce risk of mental health issues'

Washington State U accepting applicants for new family practice residency

Medical student policy, advocacy and leadership: The next generation of medicine with Reilly Bealer

#### THE SPOKESMAN-REVIEW

WSU pediatric residency program launches at Sacred Heart Children's Hospital





















# **Alumni Engagement**

Our hope is to continue to foster that inclusive community they will always belong to.

### College launches new Alumni Engagement unit

Thoughtfully engaging alumni from all our college programs is the focus of the new unit of Alumni Engagement within the Office of Student Experience. The intention is to maintain meaningful connections with our alumni, keep them engaged in aspects of their programs that would bring them joy, and keep them informed about what is happening with the college and with their programs.

#### SUPPORTING MD ALUMNI ON THEIR RETURN TO WASHINGTON

As the inaugural MD Class of 2021 have just transitioned to their third year of residency, with many of them finishing their post graduate training in June 2024, we want to be thoughtful about how we can continue to engage and support them.

An important tenant of the MD program is training student doctors who will serve Washington's communities as acting physicians, especially in urban and rural underserved communities. Supporting those graduates who left the state for residency in their return for clinical practice reinforces the work that began when the program was founded in 2015.



### Advancement

#### Perfectly Matched Scholarship

The Brigadier General Chester L. Ward, MD Endowed Scholarship celebrates the enduring legacy of a devoted servant who embodied values of service and hope.

General Ward hailed from a family of teachers, ministers, and doctors, all deeply committed to aiding others. He followed their noble path by becoming an Infantry Officer in the U.S. Army. He subsequently attended Keck School of Medicine at the University of South Carolina, combining his passion for medicine and service with the U.S. Army Medical Corp. A highlight of General Ward's career was serving as a White House physician for Presidents Nixon and Ford.

His medical career, anchored in ethics and integrity, thrived due to a relentless curiosity and genuine concern for his patients. He saw his mission as enhancing people's

quality of life.

After nearly three decades. General Ward briefly ventured into the corporate world but left when

asked to endorse

policies conflicting with public health standards. Unwilling to compromise his principles, he assumed roles mirroring his values: executive director of continuing medical education at the Keck School of Medicine and director of the Butte County Department of Public Health for two decades.

Dr. Lawrence Anderson, his nephew and a 1975 WSU graduate, had the privilege of General Ward's mentorship from a young age. He and his wife, Dr. Svetislava Vukelja, earned their medical degrees from the Uniformed Services University and proudly served in the Army for over 15 years.

General Ward's passing on Memorial Day 2021 prompted the creation of Brigadier General Chester L. Ward, MD Endowment. Its purpose is to honor his memory and inspire future physicians who share his commitment to service. Jessica Marie Domingo, Class of 2026, the inaugural scholarship recipient, embodies General Ward's values. She served as a medical platoon leader and Medical Support Operations Officer for the 2nd Stryker Brigade Combat Team in the U.S. Army, embodying General Ward's commitment to serving others. The endowment was created by Drs. Anderson and Vukelja.







Jessica Marie Domingo, Class of 2026



#### Rotary Endowed Scholarship

Rotary members are community-builders, problem-solvers, and opportunity-creators. They look for opportunities to improve our communities today and invest in the next generation for tomorrow.

When Chris Carlson, WSU Alumnus and Rotarian, recognized how the mission and vision of the Rotary dovetails with the work of the Elson S. Floyd College of Medicine, he took action to connect the two. With the leadership of Carlson, Rotary clubs across Washington have raised \$68,000 to create an endowed Rotary Scholarship for College of Medicine students.

But they aren't stopping there. The goal is to raise at least \$100,000 to provide four \$1,000 scholarships to medical students every year. These annual scholarships are vital in lowering the cost of community-based medical education. Our medical students travel to communities across the state to serve and understand, an important experience that equips them with the experience, knowledge, and leadership needed to serve populations in rural and urban medically underserved areas. Much like the Rotarians, our future Coug doctors are passionate about taking action to better our world through service. Through the support of Rotarians across Washington, they can become health care leaders prepared to solve complex challenges in health care and improve communities today and for the next generation.

66

Rotary is a global network of 1.4 million neighbors, friends, leaders and problem solvers who see a world where people unite and take action to create lasting change—across the globe, in communities and in themselves."



If you would like to learn more about giving opportunities at the college, please email give.medicine@wsu.edu

#### Libby Manthei

Senior Director of Development elizabeth.manthei@wsu.edu

#### Trista Goodenough

**Development Coordinator** trista.goodenough@wsu.edu



# **Dr. James Record Appointed as** Dean of Elson S. Floyd College of Medicine

James M. Record has been named dean of Washington State University's Elson S. Floyd College of Medicine following a yearlong interim appointment. He assumed the permanent role on Oct. 1, 2023.

"Dr. Record's leadership of the college this past year has consistently ensured the ongoing success of its educational, research, and clinical programs," said Daryll DeWald, executive vice president for WSU Health Sciences and chancellor for WSU Spokane. "I am confident that he will continue the important work of strengthening the college's infrastructure, building state-wide partnerships, and fostering a community of inclusive excellence, all while supporting the accreditation process."

Since arriving at the College of Medicine in 2021, Record has provided executive-level oversight of various units and served as vice dean for Graduate Medical Education, Continuing Medical Education, and Partnerships. In this role, he was integral in developing new clinical partnerships, residency programs, continuing medical education programs, and an alumni affairs program.

As interim dean, Record has overseen the development of the college's sponsored pediatrics residency in partnership with Providence Sacred Heart. The first of its kind in eastern Washington, this residency is a continuation of the college's commitment to expanding medical education and improving healthcare quality and access in communities around the state. Additionally, Record oversaw the continued buildout of the Internal Medical Residency program in Everett at Providence Regional Medical Center and the Family Medicine Residency program at Pullman Regional Hospital.

Record has led the college's new strategic planning process, revamped accreditation efforts, and supported the college's medical program curriculum updates. In addition to these accomplishments, Record guided the operational planning and development of the college's dedicated administrative

and classroom space inside the recently opened Medicine Building on the Spokane campus.

"The appointment of Dr. Record comes after extensive and thoughtful input from students, faculty, staff, and administration across the College of Medicine as well as external stakeholders," said DeWald. "Dr. Record's unwavering commitment to the college, coupled with his extensive leadership experience and dedication to building a community-centric culture, will undoubtedly continue it toward a bright future."

Established in 2015, the Elson S. Floyd College of Medicine is Washington's community-based medical school. The college offers nine academic degree programs with an enrollment of over 450 students, including its MD program. It is set to graduate its fourth class at the end of the 2023-2024 academic year. Committed to innovative research and educating future healthcare professionals for the state of Washington, the college aims to increase access to quality healthcare in rural and urban underserved communities. Record assumes the role of the second dean in the college's history.

"I came to WSU because of its extraordinary mission to improve the health metrics in our most deserving but underserved communities," Record said, "and I have been blessed to work with an amazing team in the college. To be able to serve as dean is a humbling honor, and I am excited to continue the college's collaboration with our dedicated community partners to deliver outstanding care and clinical education paired with world-class research."

Before arriving at WSU, Record served as provost and chief academic officer at Ross University School of Medicine and as dean of the Chicago Medical School. He has held multiple leadership positions in undergraduate and graduate medical education at the St. Joseph's Healthcare System, New York Medical College, and the Mount Sinai School of Medicine.





Record earned a bachelor's degree with high honors in biochemistry and sociology from Bowdoin College in Brunswick, Maine. He earned his MD from the University of Massachusetts Medical School and completed his residency training in general internal medicine at Brown University School of Medicine—Rhode Island Hospital. Additionally, he received his JD from Rutgers University School of Law.

66

I am excited to continue the college's collaboration with our dedicated community partners to deliver outstanding care and clinical education paired with world-class research."

JAMES M. RECORD, MD, JD, FACP Dean



Elson S. Floyd College of Medicine 412 E. Spokane Falls Blvd Spokane, WA 99202-2131

