



UNIVERSITY OF SOUTH ALABAMA
COLLEGE OF MEDICINE

ANNUAL REPORT

October 1, 2015 - September 30, 2016

ANNUAL REPORT
UNIVERSITY OF SOUTH ALABAMA
COLLEGE OF MEDICINE

October 1, 2015 through September 30, 2016

TABLE OF CONTENTS

	Page
I. Reports from Departments and Centers	
Biochemistry and Molecular Biology	1
Comparative Medicine	5
Emergency Medicine	7
Family Medicine.....	14
Internal Medicine.....	16
Microbiology and Immunology	28
Neurology	34
Neurosurgery.....	39
Obstetrics and Gynecology.....	41
Orthopaedic Surgery	50
Pathology	55
Pediatrics	59
Pharmacology	72
Physiology and Cell Biology	81
Psychiatry	87
Radiology	96
Surgery.....	100
Biomedical Library.....	112
Center for Lung Biology.....	117
Center for Healthy Communities	120
Center for Strategic Health Innovation	123
Center for Disaster Preparedness.....	126
Comprehensive Sickle Cell Center	129
II. Report from Office of Development and Alumni Relations.....	133
III. Report from Division of Medical Education and Student Affairs.....	136
IV. Report from Admissions.....	154
V. Report from Continuing Medical Education	157
VI. Report from Graduate Medical Education	158
VII. Report from Medical Student Summer Research Program	164
VIII. Report from the Graduate Program in Basic Medical Sciences.....	169
IX. Summary of Extramural Support	173

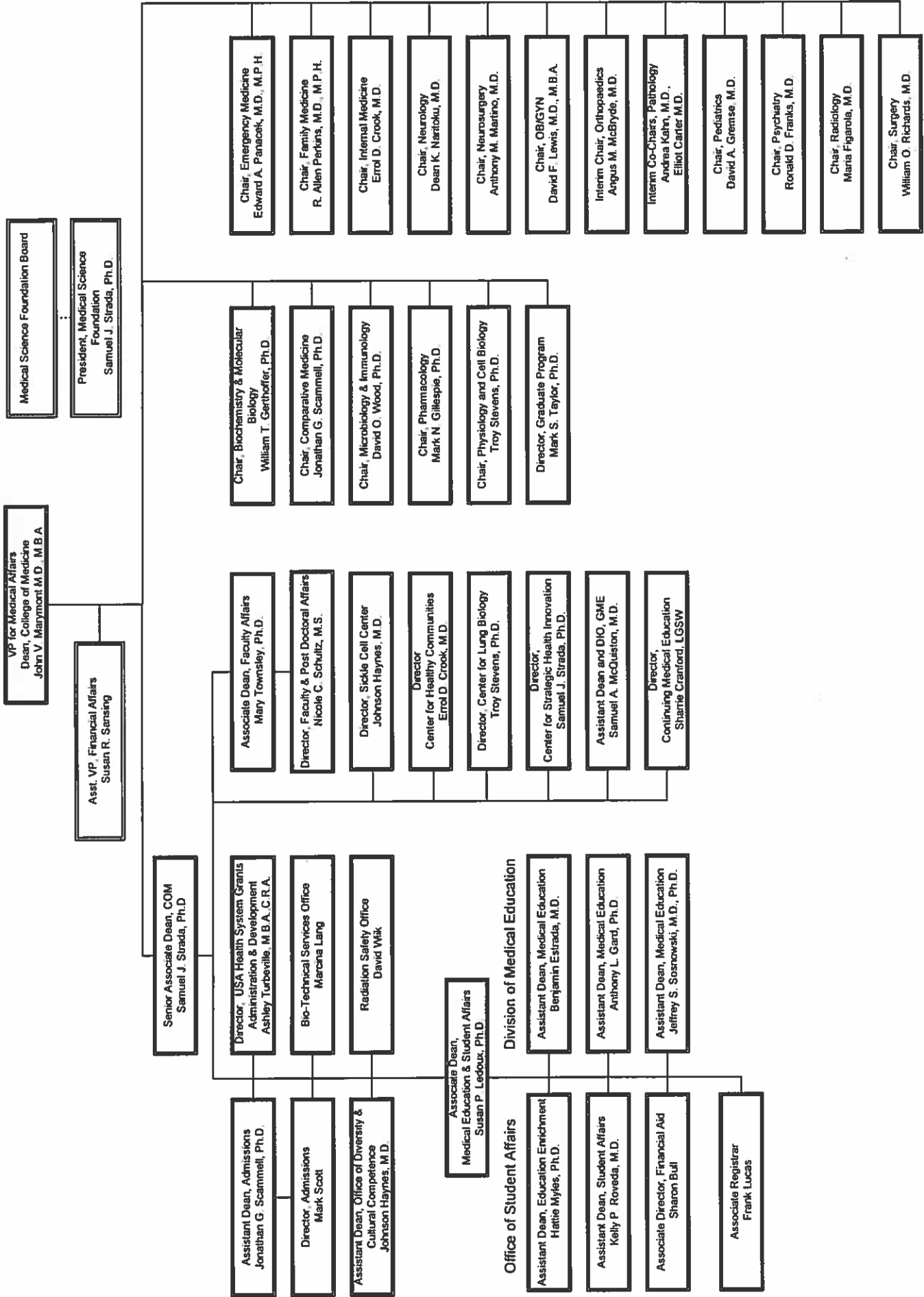
FOREWORD

This Annual Report of the College of Medicine catalogues recent accomplishments of our faculty, students, residents, fellows and staff in teaching, research, patient care, scholarly and community service activities during the 2015-16 academic year. Our 2016 graduating class, the first group of students experiencing the revised four year curriculum performed above the national average on National Board Step 1 and Step 2 exams and received excellent residency positions in a variety of clinical disciplines. Several key leadership changes occurred during the year including the culmination of a national search for a new dean and vice president for medical affairs. Dr. John V. Marymont assumed the dual title on July 1, 2016 having served previously as chair of the department of orthopaedics and interim dean at LSU Shreveport School of Medicine. Changes in leadership within the USA Health System included the retirement of Mr. Stanley Hammack as vice president and the appointments of Mr. Owen Bailey as chief operating officer and Dr. Alan Whaley as chief strategy officer for USA Health. A major initiative began in preparation for the implementation of a comprehensive, integrated health information system known as Unity. Effective collaboration of all administrative units, the new information platform and the entire USA health system is key to avoid compromising the educational and other important missions of the College of Medicine. Finally, I regret to acknowledge that several former members of the college's leadership team died during this year: Drs. Jeffrey C. Brandon, Robert A. Kreisberg, Angus McBryde, Jr., John Shackelford, Aubrey E. Taylor, and J. Allan Tucker, Jr. This issue of the Annual Report is dedicated in their memory and in appreciation for their dedication, commitment and contributions.



Samuel J. Strada, Ph.D.
Dean Emeritus
USA College of Medicine

USA College of Medicine
Organizational Chart
August, 2016



2015-2016
Summary of Scholarly Activities
Department of Biochemistry & Molecular Biology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Chattopadhyay D, Swingle MR, Salter EA, Wood E, D'Arcy B, Zivanov C, Abney K, Musiyenko A, Rusin SF, Kettenbach A, Yet L, Schroeder CE, Golden JE, Dunham WH, Gingras AC, Banerjee S, Forbes D, Wierzbicki A, Honkanen RE. Crystal structures and mutagenesis of PPP-family ser/thr protein phosphatases elucidate the selectivity of cantharidin and novel norcantharidin-based inhibitors of PP5C. *Biochem Pharmacol*. 2016 Jun 1;109:14-26.

Kim JH, Baddoo MC, Park EY, Stone JK, Park H, Butler TW, Huang G, Yan X, Pauli-Behn F, Myers RM, Tan M, Flemington EK, Lim ST, Ahn EY. SON and its alternatively spliced isoforms control MLL complex-mediated H3K4me3 and transcription of leukemia-associated genes. *Mol Cell*. 2016 Mar 17;61(6):859-73.

Kim JH, Shinde DN, Reijnders MR, Hauser NS, Belmonte RL, Wilson GR, Bosch DG, Bubulya PA, Shashi V, Petrovski S, Stone JK, Park EY, Veltman JA, Sinnema M, Stumpel CT, Draaisma JM, Nicolai J, University of Washington Center for Mendelian Genomics, Yntema HG, Lindstrom K, de Vries BB, Jewett T, Santoro SL, Vogt J, Deciphering Developmental Disorders Study, Bachman KK, Seely AH, Krokosky A, Turner C, Rohena L, Hempel M, Kortum F, Lessel D, Neu A, Strom TM, Wieczorek D, Bramswig N, Laccone FA, Behunova J, Rehder H, Gordon CT, Rio M, Romana S, Tang S, El-Khechen D, Cho MT, McWalter K, Douglas G, Baskin B, Begtrup A, Funari T, Schoch K, Stegmann AP, Stevens SJ, Zhang DE, Traver D, Yao X, MacArthur DG, Brunner HG, Mancini GM, Myers RM, Owen LB, Lim ST, Stachura DL, Vissers LE, Ahn EY. De novo mutations in SON disrupt RNA splicing of genes essential for brain development and metabolism, causing an intellectual-disability syndrome. *Am J Hum Genet*. 2016 Sep 1;99(3):711-9.

LeClaire LL, Fortwendel JR. Differential support of *Aspergillus fumigatus* morphogenesis by yeast and human actins. *PLoS One*. 2015 Nov 10;10(11):e0142535.

Lim S, Smith KR, Lim ST, Tian R, Lu J, Tan M. Regulation of mitochondrial functions by protein phosphorylation and dephosphorylation. *Cell Biosci*. 2016 Apr 14;6:25

Morrow KA, Ochoa CD, Balczon R, Zhou C, Cauthen L, Alexeyev M, Schmalzer KM, Frank DW, Stevens T. *Pseudomonas aeruginosa* exoenzymes U and Y induce a transmissible endothelial proteinopathy. *Am J Physiol Lung Cell Mol Physiol*. 2016 Feb 15;310(4):L337-53.

Murphy JM, Park H, Lim ST. FAK and Pyk2 in disease. *Front Biol*. 2016 Feb;11(1):1-9.

II. PUBLISHED ABSTRACTS

Balczon RD, Morrow A, Zhou C, Alexeyev M, Frank D, Stevens T. Activation of prion protein protects pulmonary endothelial cells from the effects of cytotoxin produced during *Pseudomonas aeruginosa* infection. *Mol Biol Cell*. 2015 Dec 15;26(25):P2399.

Comer BS, Halayko AJ, Gerthoffer WT. MicroRNA-155 targets tristetrastrolin and enhances cytokine expression in airway smooth muscle. *Am J Respir Crit Care Med*. 2016;193:A2464. Available from: http://www.atsjournals.org/doi/pdf/10.1164/ajrccm-conference.2016.193.1_MeetingAbstracts.A2464

Hamilton CL, Kadeba PI, Abney KA, Honkanen RE, Scammell JG, Cioffi DL. The role of PP5 in the FK506 inhibition of *I*sc current. *FASEB J*. 2016;30:980.6.

Kim JH, Park EY, Stone JK, Butler TW, Lim S, Ahn EYE. SON and its splice variants regulate MLL ½ complex-mediated H3K4me3 and transcription of leukemia-associated genes. American Association for Cancer Research Annual Meeting 2016; 2016 Apr 16-20; New Orleans, LA. Abstract no. 1978.

LeClaire LL, Fortwendel JR. Pharmacological stabilization of filamentous actin in *Aspergillus fumigatus* prevents conidial germination and alters hyphal morphology. *Mol Biol Cell*. 2015 Dec 15;26(25)P881.

McClinton AK, Cioffi DL, Cioffi EA. Glycans in *Pseudomonas aeruginosa*. *FASEB J*. 2016;30:618.2.

Ramelli S, McLendon JM, Ferretti AP, Fewell J, Barrington R, Gerthoffer WT. Antisense microRNA therapy of airway remodeling in house dust mite-sensitized mice. *Ann Am Thorac Soc*. 2016 Mar;13(Suppl 1):S101-2.

Ramelli SC, McLendon JM, Ferretti A, Aragon I, Fewell J, Barrington R, Gerthoffer WT. Antisense microRNA therapy reduces goblet cell mucous metaplasia and MUC5ac production in house dust mite (HDM)-sensitized mice. *Am J Respir Crit Care Med*. 2016;193:A1488. Available from: http://www.atsjournals.org/doi/pdf/10.1164/ajrccm-conference.2016.193.1_MeetingAbstracts.A1488

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Gerthoffer WT. Invited speaker. Lipid nanoparticles in RNAi based therapy of lung diseases. Thomas Jefferson University; 2015 Oct 15; Philadelphia, PA.

Gerthoffer WT. Invited speaker. MicroRNA targets for therapy of asthma. Mayo Clinic Department of Physiology and Biomedical Engineering; 2016 Apr 14; Rochester, MN.

Gerthoffer WT. Invited speaker. Epigenetic control of smooth muscle phenotype. American Thoracic Society 2016 International Conference; 2016 May 17; San Francisco, CA.

Honkanen RE. Invited speaker. Enabling cholesterol catabolism in human cells. National Institutes of Health Common Fund 2015 High-Risk High-Reward Research Symposium; 2015 Dec 7; Bethesda, MD.

Honkanen RE. Invited speaker. Selectivity of cantharidin and novel norcantharidin-type inhibitors of PP5C. 2016 Federation of American Societies for Experimental Biology Science Research Conference on Protein Phosphatases; 2016 Jul 17; Steamboat Springs, CO.

Richter W. Invited speaker. PDEs in cAMP signaling. Experimental Biology 2016; 2016 Apr 6; San Diego, CA.

V. NATIONAL PROFESSIONAL RECOGNITION

Ron Balczon: Reviewer: Florida Department of Health Grant Reviewer 2007-present; Journal peer review: Cell Motility and the Cytoskeleton, Molecular Biology of the Cell, Virology.

Donna Cioffi: Reviewer: American Heart Association / Reviewer (Lung); NIH / Reviewer (Special Emphasis Panel); Journal Peer Review: Antioxidants and Redox Signaling; Frontiers in Physiology: Vascular Physiology/Editorial Board Member.

William Gerthoffer: Editorial board member: Amer. J. Physiology, Lung Cell and Molecular, Cell Health and Cytoskeleton, Frontiers in Pharmacology; Associate Editor: Comprehensive Physiology, Respiratory Physiology; Review editor: Frontiers in Physiology.

Richard Honkanen: Review Group Panel Member, NIH ZRG1 BST-J51, NIH Roadmap Initiative (Assay Development for High Throughput Molecular Screening); NIH ZDK1GRB-7 Ad Hoc Review group member for R13 grant applications; Editorial Boards: The Open Enzyme Inhibition Journal, JBC, JCB, Nature, PNAS.

Steve Lim: Reviewer: American Heart Association Grant, Vascular Endothelial Biology Clinical Study Section; American Heart Association Grant reviewer-Innovative research grant vascular sciences study section; Associate Editor: World Research Journal of Cell Biology; Editorial Board: Journal of Cytology and Molecular Biology; Ad hoc reviewer: PLoS One, Journal of Histochemistry & Cytology, Cell Research, Journal of Cellular Biochemistry.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The department is a comprehensive academic unit that makes significant contributions to the education, research and service missions of the College of Medicine and the University. The faculty participate actively in the systems-based medical curriculum where they deliver case-based lectures, self-directed learning lessons and team-based learning lessons. Instructors supply biochemistry and molecular biology expertise to the initial basic science module in year one (Foundations of Human Health), as well as gastrointestinal, musculoskeletal, endocrine and cardiovascular modules. All faculty members contribute to multiple graduate science courses in Lung Biology and Cell and Molecular Biology tracks of the BMS Ph.D. program. Seven graduate students from the Lung Biology and the Cell and Molecular Biology tracks of the graduate program were trained with department faculty. Ms. Sabrina Ramelli, GSIV, received an abstract travel award from the American Thoracic Society. One MS student from the Toxicology program at USA was also trained in the department. The department also hosts a number of rising freshman and rising sophomore medical students as well as an undergraduate student.

Department research groups study cancer cell biology, cardiovascular diseases and lung diseases. Dr. Donna Cioffi is funded by NIH to study calcium signaling in pulmonary vascular endothelium. Dr. Steve Lim received a new grant in aid from the American Heart Association to investigate novel nuclear functions of focal adhesion kinase in vascular wall remodeling. Wito Richter received a new grant from the Cystic Fibrosis (CF) Foundation to investigate phosphodiesterases as potential therapeutic targets for CF. Six of the faculty R. Honkanen (Protein phosphatase-5, cholesterol metabolism), W. Gerthoffer (miRNAs as therapeutic targets in asthma, biomarkers of atherosclerosis), W. Richter (phosphodiesterases) and R. Balczon (tauopathies) are supported by NIH grants. Drs. Gerthoffer and Honkanen have developed ties with the biotechnology and pharmaceutical industries for translation of their basic science discoveries to new drugs. One student Jared McLendon (Gerthoffer) was supported by a pre-doctoral fellowship from the American Heart Association. New grant applications from every faculty member and from graduate students have been submitted or are in development throughout the academic year.

The faculty also contribute significantly to regional and national peer review, serving on peer review committees for AHA, the NIH and American Cancer Society as well as ad hoc service for international granting agencies. Several faculty members serve on journal editorial boards and all members contribute regularly as journal reviewers. Despite the restrictive funding environment scholarship is being maintained at an appropriate level resulting in a positive impact on our respective scientific fields. In addition to professional service the faculty contribute significant time and expertise to College of Medicine and University governance and committee functions.

2015-2016
Summary of Scholarly Activities
Department of Comparative Medicine

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Yuzefovych LV, Kahn AG, Schuler MA, Eide L, Arora R, Wilson GL, Tan M, and Rachek LI. Mitochondrial DNA repair through OGG1 activity attenuates breast cancer progression and metastasis. *Cancer Res.* 2016 Jan 1;76(1):30-4.

II. PUBLISHED ABSTRACTS

Hamilton CL, Kadeba PI, Abney KA, Honkanen R, Scammell JG, Cioffi DL. The role of PP5 in the FKBP51 inhibition of I_{soc} current. *FASEB J.* 2016;30:980.6.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

V. NATIONAL PROFESSIONAL RECOGNITION

Dr. Jonathan G. Scammell: Editorial Advisory Board, *Journal of Pharmacology and Experimental Therapeutics*; Reviewer, *Bioessays*, *General and Comparative Endocrinology*, *American Biology Teacher*. Board Member, Alabama Board of Medical Scholarships.

Dr. A. Michele Schuler: Reviewer, *American Journal of Primatology*, *the Journal of Medical Primatology*, *Journal of the American Association of Laboratory Animal Science*, and *Comparative Medicine*.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The faculty and staff of the Department of Comparative Medicine participate in service, education, and research in the university's animal care and use program. The department continues to upgrade equipment and maximize the use of facilities with the goal of enhancing research and teaching capabilities for the benefit of investigators throughout the university. The department supports the activities of the Vevo high resolution ultrasound imaging system from VisualSonics, the hypoxia core for the development of pulmonary hypertensive rodents, the *Pseudomonas* delivery core, Kimtron, Inc. IC-320 irradiator, IVIS Spectrum Imaging System, and histology services.

The University Biological Resources, including the ABSL-3 suite at the Laboratory of Infectious Diseases, is accredited by AAALAC International and the facility also underwent a favorable inspection by the United States Department of Agriculture with no items of non-compliance noted.

The faculty continued formal and informal educational commitments within the department to technical staff, supervisors, and colleagues and outside the department to graduate students, postdoctoral fellows, and faculty. Dr. Schuler's commitment to collaboration and education reaches broadly within the university with formal participation with research groups in the Dauphin Island Sea Lab, the Mitchell Cancer Institute, the Colleges of Arts and Sciences and Engineering, and the Departments of Biochemistry and Molecular Biology, Pharmacology, Physiology and Cell Biology, and Microbiology and Immunology within the College of Medicine. She serves as a co-investigator on a project spearheaded by Drs. Brett and Burtnick to develop a vaccine against *Burkholderia pseudomallei*. Dr. Schuler holds a joint appointment at the Associate Professor level in the Department of Microbiology and Immunology. Dr. Scammell continues his collaboration with Dr. Donna Cioffi in the Department of Biochemistry and Molecular Biology to study the role of the immunophilin protein FKBP51 in endothelial cell function. Members of the department play significant roles in other aspects of college and university life as well. Dr. Schuler serves as a standing member of Institutional Animal Care and Use and Biosafety Committees. Dr. Scammell serves as Assistant Dean for Admissions, Co-Director of the Endocrinology and Reproduction Module, and chairs the MD with Research Honors Committee. Outside of the college, Dr. Scammell chaired the University's Committee on Standards in the Conduct of Research and sits on Scholarship and Financial Aid Committee, the University Committee on Diversity and Inclusion and the USA Health Branding Advisory Team.

2015-2016
Summary of Scholarly Activities
Department of Emergency Medicine

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Sternberg ML, Myer JR. Osteopetrosis. J Emerg Med. 2014 Jun;46(6):e183-4.

Sternberg ML, Nesbitt D. Acute copper sulfate poisoning. Consultant. 2016;56(2):181-2.

II. PUBLISHED ABSTRACTS

Panacek EA, Gaona S, Kann G, Vinson D. Performance of the four-way range of motion test for radiographic injuries after blunt elbow trauma. Ann Emerg Med. 2015 Oct; 66(Suppl 4):S47. Abstract no. 132.

Sternberg ML. “My skin is peeling” – case of mucocutaneous lupus. American College of Emergency Physicians Southeastern Chapters Educational Conference: Trauma 2016; 2016 Jun 6-9; Destin, FL.

Sternberg ML. “I have a rash” – case of Henoch-Schonlein purpura. American College of Emergency Physicians Southeastern Chapters Educational Conference: Trauma 2016; 2016 Jun 6-9; Destin, FL.

Sternberg ML. “I can’t see” – case of choroidal melanoma. American College of Emergency Physicians Southeastern Chapters Educational Conference: Trauma 2016; 2016 Jun 8; Destin, FL.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Panacek EA. Invited speaker. Pretest/introduction to workshop. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 2; Dallas, TX.

Panacek EA. Invited speaker. Process of research. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 2; Dallas, TX.

Panacek EA. Invited speaker. Research questions. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 2; Dallas, TX.

Panacek EA. Invited speaker. Research hypotheses, objectives. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 2; Dallas, TX.

Panacek EA. Invited speaker. Research terminology. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 2; Dallas, TX.

Panacek EA. Invited speaker. Introduction to study design. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 2; Dallas, TX.

Panacek EA. Invited speaker. Practicum: your study question. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 2; Dallas, TX.

Panacek EA. Invited speaker. True experimental designs (RCT, etc). American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 3; Dallas, TX.

Panacek EA. Invited speaker. Cohort studies and other quasi-experimental designs. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 3; Dallas, TX.

Panacek EA. Invited speaker. Case control and other designs (non-experimental). American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 3; Dallas, TX.

Panacek EA. Invited speaker. Recognizing designs. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 3; Dallas, TX.

Panacek EA. Invited speaker. Research design practice. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 3; Dallas, TX.

Panacek EA. Invited speaker. Survey research. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 3; Dallas, TX.

Panacek EA. Invited speaker. Qualitative studies. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 3; Dallas, TX.

Panacek EA. Invited speaker. Practicum: selecting your study design. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 3; Dallas, TX.

Panacek EA. Invited speaker. Elements of a study protocol. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 4; Dallas, TX.

Panacek EA. Invited speaker. Practicum: developing a study protocol. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 4; Dallas, TX.

Panacek EA. Invited speaker. Practice discussion. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 4; Dallas, TX.

Panacek EA. Invited speaker. Sample size calculations. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 4; Dallas, TX.

Panacek EA. Invited speaker. Chart review research. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 4; Dallas, TX.

Panacek EA. Invited speaker. Instructions for between-session requirements. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 4; Dallas, TX.

Panacek EA. Invited speaker. Developing research data forms. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 5; Dallas, TX.

Panacek EA. Invited speaker. Data collection and QA. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 5; Dallas, TX.

Panacek EA. Invited speaker. Organizing a study spreadsheet. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 5; Dallas, TX.

Panacek EA. Invited speaker. Spreadsheet practicum. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 5; Dallas, TX.

Panacek EA. Invited speaker. Working with Excel spreadsheet (use of “dummy variables”). American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 5; Dallas, TX.

Panacek EA. Invited speaker. Data summaries with Excel. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 5; Dallas, TX.

Panacek EA. Invited speaker. Excel based data set practicum (filtering and counting the database; measurement scales and types of data; simple descriptive statistics). American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2015 Nov 5; Dallas, TX.

Panacek EA. Invited speaker. Syncope evaluation in the ED. Northwest Seminars Emergency Medicine Update; 2015 Nov 9; Maui, HI.

Panacek EA. Invited speaker. Sepsis: current state of the art. Northwest Seminars Emergency Medicine Update; 2015 Nov 9; Maui, HI.

Panacek EA. Invited speaker. Recent literature update for EM: part 1. Northwest Seminars Emergency Medicine Update; 2015 Nov 9; Maui, HI.

Panacek EA. Invited speaker. Recent literature update for EM: part 2. Northwest Seminars Emergency Medicine Update; 2015 Nov 10; Maui, HI.

Panacek EA. Invited speaker. Recent literature update for EM: part 3. Northwest Seminars Emergency Medicine Update; 2015 Nov 10; Maui, HI.

Panacek EA. Invited speaker. ABEM LLSA articles review 2015: part I. Northwest Seminars Emergency Medicine Update; 2015 Nov 13; Maui, HI.

Panacek EA. Invited speaker. ABEM LLSA articles review 2015: part II. Northwest Seminars Emergency Medicine Update; 2015 Nov 13; Maui, HI.

Panacek EA. Invited speaker. SIRs, sepsis, & shock. Mobile Infirmiry Grand Rounds; 2015 Dec 15; Mobile, AL.

Panacek EA. Invited speaker. SIRs, sepsis and shock: update: 2016. University of South Alabama College of Medicine Alumni Association Weekend; 2016 Jun 3; Orange Beach, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

Edward A. Panacek Chairman, Department of Emergency Medicine; member of the Society of Academic Emergency Medicine; member of American College of Emergency Physician for Alabama and National; American College of Chest Physician; American

Academy of Emergency Medicine; Director, EMF Emergency Medicine Basic Research Skills Course (EMBRs); Moderator, Research Forum Research Abstract Session; Member, EMF Advisory Committee on Public Relations; Senior Oral Examiner and Oral Case Reviewer and Developer, American Board of Emergency Medicine ; Editorial Board member, Western Journal of Emergency Medicine; Technical Advisor, writer and actor, "Untold Stories from the ER" (TLC, cable).

Michael R. Ambrose Member of the Secretary of Veterans Affairs Advisory Committee for Former Prisoners of War. He also serves on the Residency Advisory Committee for The Aerospace Medicine Residency Committee at the Naval Aerospace Medicine Institute.

Frank S. Pettyjohn Consultant to the Federal Aviation Administration; Board of Directors and Past-President, International Academy of Aviation and Space Medicine; Board Member, State of Alabama Medicaid Drug Utilization Review Board; Member, Medical Director, Region 6, State of Alabama (Gulf Coast) EMS Region, Peer Reviewer, Journal of Aviation, Space, and Environmental Medicine.

Michael L. Sternberg Board of Directors, Alabama Chapter, American College of Emergency Physicians, Chairman, Bylaws Committee, American College of Emergency Physicians (Alabama Chapter); Public Relations Committee, American College of Emergency Physicians (Alabama Chapter), Society for Academic Emergency Medicine, Clerkship Director Academy.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The Department of Emergency Medicine, during this period, was focused on stabilizing clinical patient care, improving operations and faculty development/recruitment. This was the first complete year for Dr. Panacek as the new Chairman. During this year, Clinical Care and Operational Issues were substantially improved in multiple important national metrics and other public recording card measures. The Clinical Faculty coverage was stabilized. Some Faculty took on new responsibility in terms of educational and administrative programs. The Department increased its Faculty participation on Committees and working groups both within the College of Medicine and the Health System. Educational programs were better coordinated and given greater structure. Faculty Recruitment added an important new physician. Dr. Bowden has extensive Emergency Medicine clinical experience but also leadership experience and will be taking on administrative rolls in the year ahead. He also is the Medical Director for the Mobile County EMS System and will be engaging in outreach in those areas. Dr. Panacek was the keynote speaker at the USA-COM White Coat Ceremony.

The goal of further enhancing educational programs remains a priority for the coming year as well as the development of an Emergency Medicine Residency Program. This past year was spent identifying both strengths and weaknesses in terms of a Residency Program application and securing administrative support to move forward with an application.

EDUCATION: The Faculty of the Department of Emergency Medicine emphasizes high quality bedside teaching in the Emergency Department. This year focused educational materials were added to the rotations. These include required readings for some rotations as well as a broad array of optional readings, all added to a USA Sakai website. The incorporating of quizzes also is being initiated. The process of Resident and Student evaluations has been centralized and better coordinated. The goal is close collaboration and cooperation with various colleges, schools and residency programs that provide learners to the Emergency Department environment.

Dr. Michael Sternberg has taken on primary responsibilities for student education. Drs. Bolton and Seaman also have taken on additional responsibilities to better coordinate Intern education in the Emergency Department.

FACULTY DEVELOPMENT: During this year, all fulltime Emergency Medicine Faculty were encouraged to take on additional administrative or program development responsibilities. Some have chosen to do so. Dr. Sternberg has formally been named the Director of Student Rotations or Clerkship Director. Dr. Bowden is taking on EMS and Pre-Hospital Care Directorship for the health system. Dr. Berg is becoming involved with a wilderness medicine teaching activities. Dr. Seaman has taken on a focused performance improvement and quality assurance responsibilities as well as helping coordinate Intern Rotations in the Emergency Department. Other faculty are being encouraged to also take on additional responsibilities.

Recruiting activities are ongoing very actively. This past year a new faculty member was brought on full time (Dr. Bowden), and other faculty have increased their clinical work at UMC. A secondary appointment in Emergency Medicine has been added for Dr. Kevin Bradley, who is dual boarded, with his primary appointment in Radiology.

The development of an Emergency Medicine Residency Program is the primary focus. Additional faculty recruitment and development will be geared towards identifying core faculty to support such an application.

CLINICAL FACILITIES: During the 2015-2016 program year, the Department of Emergency Medicine endeavored to support the clinical activities of the health system, particularly as they relate to Emergency and Acute Care Medicine. Equipment in the Emergency Department was improved in a number of areas; including gurneys, monitors and specialized equipment such as Ophthalmologic Slit Lamp. Central monitoring has been upgraded to improve the safety of patients. The physicians work area has also been remodeled to improve efficiency and prepare for an electronic health record implementation. The Emergency Department continues to provide strong support to the Trauma Service, the Stemi Alert System and Acute Stroke activation patients. The Department of Emergency Medicine has increasingly built ties with the evaluation center at Childrens and Womens Hospital with the goal of further integrating and incorporating Emergency Medical Care across the entire health system.

RESEARCH: During this past year, the focus of the Department has been on clinical care, operations in the Emergency Department and improving educational activities. The Department has continues to participate in scholarly activities and a number of publications have occurred. This has largely been the result of only two of the Faculty. The goal is to expand scholarly activities and original investigative research in the future.

The Department continues to have clinical research space in the Moorer Building at the USA Medical Center Campus. Previous NIH funded studies in collaboration with the Department of Medicine were on going but are nearing the end. Two industry sponsored clinical trials continue at this time. This core research infrastructure in being maintained with the goal of expanding a clinical research program in the near future with further faculty recruitment and development.

GOALS:

Goals for the next year include (1) further faculty recruitment and development, (2) refinements to ongoing educational activities in the Emergency Department, (3) drafting of an Emergency Medicine Residency program application, (4) improvements in Emergency Department operations and performance metrics, (5) expansion of scholarly activities of the department, and (6) increased faculty involvement in both intramural and extramural service activities.

2015-2016
Summary of Scholarly Activities
Department of Family Medicine

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Liu G, Molokhia E, Perkins A. Home apnea monitors – when to discontinue use. J Fam Pract. 2015 Dec;64(12):769-72.

Perkins A, Liu G. Primary brain tumors in adults: diagnosis and treatment. Am Fam Physician. 2016 Feb 1;93(3):211-7.

Perkins A. Marine poisonings, envenomations and trauma. In: Bope ET, Kellerman RD, editors. Conn's current therapy 2016. Philadelphia: Elsevier; 2016. p. 1198-202.

II. PUBLISHED ABSTRACTS

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Linder MM. Invited speaker. Paroxysmal exertion related dyskinesia. American Medical Society for Sports Medicine 25th Annual Meeting; 2016 Apr 19; Dallas, TX.

Linder MM. Invited speaker. Reading x-rays. Alabama Academy of Family Physicians 2016 Annual Meeting and Scientific Symposium; 2016 Jun 19; Destin, FL.

Molokhia E, Perkins A. Invited speakers. Moving the focus upstream: teaching about (and caring for) patients with complex illness in the family medicine center and across the continuum. Society of Teachers of Family Medicine Annual Spring Conference; 2016 May 3; Minneapolis, MN.

Motley C, Rudd A, Butts-Wilkerson A. Invited speakers. Teaching medical students chronic care management: evaluation by faculty-reviewed OSCEs. Society of Teachers of Family Medicine Conference on Medical Student Education; 2016 Jan 29; Phoenix, AZ.

Perkins A. Invited speaker. The healthcare mess and how we got here. University of South Alabama Center for Generational Studies Legacy Leadership Institute; 2016 Jun 15; Mobile, AL.

Trimmier MC. Invited speaker. Medicare's role in the healthcare mess. University of South Alabama Center for Generational Studies Legacy Leadership Institute; 2016 Jun 15; Mobile, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

Michael M. Linder: Invited participant, Standard Setting for the CAQ in Sports Medicine, American Board of Family Medicine.

Ehab A. Molokhia: Member, United States Medical Licensing Examination (USMLE) Step 2 Clinical Skills (CS) Test Material Development Committee (TMDC).

R. Allen Perkins: Chairman, Advisory Committee on Training in Primary Care Medicine and Dentistry, U.S. Health Resources and Services Administration, which submitted its Twelfth Annual Report entitled “Health Literacy and Patient Engagement, to the Secretary of the United States Department of Health and Human Services and the Congress of the United States; Reviewer, *Family Medicine*, *American Family Physician*, *Journal of Family Medicine*; Board Member, Association of Departments of Family Medicine; Member and Past President, Alabama Rural Health Association; Member, Alabama Academic Family Medicine Council.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Dr. Marirose Trimmier joined the faculty in April. She is a 2001 graduate of our Family Medicine residency program having served as Co-Chief in the third year. After residency she entered private practice in Toccoa, Georgia and Orange Beach, Alabama until she joined the department as full-time faculty. During her time in private practice in Alabama she was affiliated with the College of Medicine as Adjunct Assistant Professor and was actively involved as a preceptor in the Family Medicine Third Year Clerkship. Dr. Trimmier has assumed the role of Assistant Undergraduate Medical Education Director.

Dr. Carol Motley was honored by the Family Medicine graduating residents as “Clinical Teacher of the Year.”

Dr. Ehab Molokhia, Dr. Carol Motley, and Dr. Allen Perkins were recognized by the College of Medicine Class of 2016 as Distinguished Faculty.

Dr. Michael Linder served as Clinical Co-Director of the Musculoskeletal Module for the USA College of Medicine Student Curriculum in the first and second years.

Dr. Allen Perkins was awarded a multi-year grant from the Health Resources and Services Administration to fund the project, “Caring for the Complex Patient in the PCMH,” the purpose of which is to improve the health of the population cared for in the USA Family Medicine Center and by extension the region through the incorporation of the enhanced use of data, population metrics, mental health access, and team based care in the family medicine, mental health and pharmacy training environment.

2015-2016
Summary of Scholarly Activities
Department of Internal Medicine

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

ASGE Standards of Practice Committee, Acosta RD, Abraham NS, Chandrasekhara V, Chathadi KV, Early DS, Eloubeidi MA, Evans JA, Faulx AL, Fisher DA, Fonkalsrud L, Hwang JH, Khashab MA, Lightdale JR, Muthusamy VR, Pasha SF, Saltzman JR, Shaukat A, Shergill AK, Wang A, Cash BD, DeWitt JM. The management of antithrombotic agents for patients undergoing GI endoscopy. *Gastrointest Endosc.* 2016 Jan;83(1):3-16.

ASGE Standards of Practice Committee, Chathadi KV, Khashab MA, Acosta RD, Chandrasekhara V, Eloubeidi MA, Faulx AL, Fonkalsrud L, Lightdale JR, Saltzman JR, Shaukat A, Wang A, Cash BD, DeWitt JM. The role of endoscopy in ampullary and duodenal adenomas. *Gastrointest Endosc.* 2015 Nov;82(5):773-81.

ASGE Standards of Practice Committee. Eloubeidi MA, Decker GA, Chandrasekhara V, Chathadi KV, Early DS, Evans JA, Fanelli RD, Fisher DA, Foley K, Hwang JH, Jue TL, Lightdale JR, Pasha SF, Saltzman JR, Sharaf R, Shergill AK, Cash BD, DeWitt JM. The role of endoscopy in the evaluation and management of patients with solid pancreatic neoplasia. *Gastrointest Endosc.* 2016 Jan;83(1):17-28.

ASGE Standards of Practice Committee, Khashab MA, Pasha SF, Muthusamy VR, Acosta RD, Bruining DH, Chandrasekhara V, Chathadi KV, Eloubeidi MA, Fanelli RD, Faulx AL, Fonkalsrud L, Gurudu SR, Kelsey LR, Kothari S, Lightdale JR, Saltzman JR, Shaukat A, Wang A, Yang J, Cash BD, DeWitt JM. The role of deep enteroscopy in the management of small-bowel disorders. *Gastrointest Endosc.* 2015 Oct;82(4):600-7.

ASGE Standards of Practice Committee, Muthusamy VR, Chandrasekhara V, Acosta RD, Bruining DH, Chathadi KV, Eloubeidi MA, Faulx AL, Fonkalsrud L, Gurudu SR, Khashab MA, Kothari S, Lightdale JR, Pasha SF, Saltzman JR, Shaukat A, Wang A, Yang J, Cash BD, DeWitt JM. The role of endoscopy in the diagnosis and treatment of inflammatory pancreatic fluid collections. *Gastrointest Endosc.* 2016 Mar;83(2):481-8.

ASGE Standards of Practice Committee, Muthusamy VR, Chandrasekhara V, Acosta RD, Bruining DH, Chathadi KV, Eloubeidi MA, Faulx AL, Fonkalsrud L, Gurudu SR, Khashab MA, Kothari S, Lightdale JR, Pasha SF, Saltzman JR, Shaukat A, Wang A, Yang J, Cash BD, DeWitt JM. The role of endoscopy in the diagnosis and treatment of cystic pancreatic neoplasms. *Gastrointest Endosc.* 2016 Jul;84(1):1-9.

ASGE Standards of Practice Committee, Wang A, Shaukat A, Acosta RD, Bruining DH, Chandrasekhara V, Chathadi KV, Eloubeidi MA, Fanelli RD, Faulx AL, Fonkalsrud L, Gurudu SR, Kelsey LR, Khashab MA, Kothari S, Lightdale JR, Muthusamy VR, Pasha S,

Saltzman JR, Yang J, Cash BD, DeWitt JM. Race and ethnicity considerations in GI endoscopy. *Gastrointest Endosc*. 2015 Oct;82(4):593-9.

Bell RM, Sivaraman V, Kunuthur SP, Cohen MV, Downey JM, Yellon DM. Cardioprotective properties of the platelet P2Y₁₂ receptor inhibitor, cangrelor: protective in diabetics and reliant upon the presence of blood. *Cardiovasc Drugs Ther*. 2015 Oct; 29(5):415-8.

Berry AC, Nguyen L, Yarbrough T, Iqbal F, Green WK. Ring-enhancing brain lesions: *Listeria monocytogenes* abscesses. *Intern Emerg Med*. 2016 Aug; 11(5):763-5.

Cash BD, Epstein MS, Shah SM. Patient satisfaction with IBS symptom relief using a novel peppermint oil delivery system in a randomized clinical trial and in the general population. *International Journal of Digestive Diseases*. 2016;2(2). Available from: <http://digestive-diseases.imedpub.com/patient-satisfaction-with-ibs-symptom-relief-using-a-novel-peppermint-oil-delivery-system-in-a-randomized-clinical-trial-and-in-th.pdf>

Cash BD, Epstein MS, Shah SM. A novel delivery system of peppermint oil is an effective therapy for irritable bowel syndrome symptoms. *Dig Dis Sci*. 2016 Feb;61(2):560-71.

Cash BD, Lacy BE, Rao T, Earnest DL. Rifaximin and eluxadoline - newly approved treatments for diarrhea-predominant irritable bowel syndrome: what is their role in clinical practice alongside alosetron? *Expert Opin Pharmacother*. 2016;17(3)311-22.

Cohen MV, Yang XM, White J, Yellon DM, Bell RB, Downey JM. Cangrelor-mediated cardioprotection requires platelets and sphingosine phosphorylation. *Cardiovasc Drugs Ther*. 2016 Apr;30(2):229-32.

Fruh SM, Nadglowski J, Hall HR, Davis SL, Crook ED, Zlomke K. Obesity stigma and bias. *Nurse Pract*. 2016 Jul-Aug;12(7):425-32.

Gadde S, Omar B. Chest pain with apical diverticulum in the absence of coronary disease: case report and review of the literature. *Cardiol Res*. 2015 Dec;6(6):352-6.

Kim DH, Carucci LR, Baker ME, Cash BD, Dillman JR, Feig BW, Fowler KJ, Gage KL, Noto RB, Smith MP, Yaghamai V, Yee J, Lalani T. ACR Appropriateness Criteria Crohn disease. *J Am Coll Radiol*. 2015 Oct;12(10):1048-57.

Kolakalapudi P, Omar B. Diabetes mellitus and the cardiovascular system. *J Endocrinol Metab*. 2015 Dec;5(6):313-20.

Kolakalapudi P, Omar B. Case study: specialized use of a niacin-statin combination in lipid management. *LipidSpin*. 2016 Mar;14(2):21-4. Available from: https://www.lipid.org/sites/default/files/lipidspin/2016_sela_lipid_spin_final_0.pdf

Kuvibidila S, Warriar RP, Haynes J, Baliga SB. Hydroxyurea and zileuton differentially modulate cell proliferation and interleukin-2 secretion by murine spleen cells: possible implication on the immune function and risk of pain crisis in patients with sickle cell disease. *Ochsner J*. 2015 Fall;15(3):241-7.

Long SK, DiPalma JA. Does carbohydrate challenge testing predict clinical response in small intestinal bacterial overgrowth? *South Med J*. 2016 May;109(5):296-9.

Moawad FJ, Young PE, Gaddam S, Vennalaganti P, Thota PN, Vargo J, Cash BD, Falk GW, Sampliner RE, Lieberman D, Sharma P. Barrett's oesophagus length is established at the time of initial endoscopy and does not change over time: results from a large multicentre cohort. *Gut*. 2015 Dec;64(12):1874-80.

Rocker JM, Tan MC, Thompson LW, Contreras CM, DiPalma JA, Pannell LK. Comparative proteomic analysis of whole-gut lavage fluid and pancreatic juice reveals a less invasive method of sampling pancreatic secretions. *Clin Transl Gastroenterol*. 2016 May 26;7:e174.

Sbahi H, DiPalma JA. Faecal microbiota transplantation: applications and limitations in treating gastrointestinal disorders. *BMJ Open Gastroenterol*. 2016 May 9;3(1):e000087.

Sbahi H, Cash BD. Chronic constipation: a review of current literature. *Curr Gastroenterol Rep*. 2015 Dec;17(12):47.

Tran C, Ul Haq E, Nguyen N, Omar B. Giant thoracic aneurysm following valve replacement for bicuspid aortic valve. *Rev Cardiovasc Med*. 2015;16(4):255-60.

Ustaris F, Saura C, DiPalma J, Bryce R, Moran S, Neuman L, Ruiz R. Effective management and prevention of Neratinib-induced diarrhea. *Am J Hematol Oncol*. 2015 Nov;11(11):13-22.

Yee J, Chang KJ, Dachman AH, Kim DH, McFarland EG, Pickhardt PJ, Cash BD, Bruining DH, Zalis ME. The added value of the CT colonography reporting and data system. *J Am Coll Radiol*. 2016 Aug;13(8):931-5.

II. PUBLISHED ABSTRACTS

Acker BW, DiPalma JA. Antiproteinase 3 (PR-3) antibody positivity can be used to predict a more severe course of ulcerative colitis. *Am J Gastroenterol*. 2015 Oct;110(Suppl 1):S773. Abstract no. 1819.

Acker BW, DiPalma JA. Antiproteinase 3 (PR-3) antibody positivity can be used to predict a more severe course of ulcerative colitis. *J Investig Med*. 2016 Feb;64(2):656. Abstract no. 408.

Ali R, Hass DJ, Schmelkin I, James-Stevenson T, Di Palma JA, Rajan E, Henderson PK, Gross SA. Colon capsule after incomplete colonoscopy: initial US experience. *Am J Gastroenterol*. 2015 Oct;110(Suppl 1):S623. Abstract no. 1443.

Berry AC, Berry BB, Nakshabendi R, Kanar O, Avalos DJ, Myers T, Cash BD. Evaluation of accuracy between online symptom checkers for diagnosis of gastrointestinal symptoms from MKSAP clinical vignette board review questions. *Gastroenterology*. 2016 Apr;152(4 Suppl 1):S849-50. Abstract no. Tu1122.

Berry AC, Berry BB, Nakshabendi R, Kanar O, Myers T, Cash BD. Evaluation of accuracy and consistency between symptom checkers for diagnosis and triage of gastrointestinal symptoms. *Gastroenterology*. 2016 Apr;150(4 Suppl 1):S236. Abstract no. Sa1088.

Carney C, Bennett D, Omar B. Disparity in control of cardiac risk factors according to gender. Alabama Chapter of the American College of Cardiology Winter Conference; 2016 Jan 9; Birmingham, AL.

Carney C, Omar M, Malozzi C, Omar B. Disparity in lipid control between cardiology attending and cardiology fellow clinics. *J Clin Lipidol*. 2016 Jun;10(3):682-3. Abstract no. 139.

Cash BD, Lacy BE, Schoenfeld PS, Dove LS, Covington, PS. A case review of pancreatitis and hepatobiliary events in the phase 2 and phase 3 clinical trials of eluxadoline. *Gastroenterology*. 2016 Apr;150(4 Suppl 1):S229. Abstract no. 1131.

Cash BD, Joshi V, Wolfsen HC, Konda VJ, DeMeester SR, Ganguly EK, Wallace MB, Hawes R, Pleskow DK, Smith MS. Absence of suspicious findings on volumetric laser endomicroscopy strongly predicts histopathologic complete remission of dysplasia and intestinal metaplasia in patients after visual eradication of Barrett's esophagus. *Gastrointest Endosc*. 2016 May;83(5 Suppl):AB123. Abstract no. 61.

Cash BD, Joshi V, Wolfsen HC, Konda VJ, DeMeester SR, Ganguly EK, Wallace MB, Hawes R, Pleskow DK, Smith MS. Volumetric laser endomicroscopy improves detection of persistent or recurrent Barrett's esophagus, dysplasia and neoplasia following endoscopic treatment. *Gastrointest Endosc*. 2016 May;83(5 Suppl):AB550. Abstract no. Tu1139.

Cash BD, Joshi V, Wolfsen HC, Konda VJ, DeMeester SR, Ganguly EK, Wallace MB, Hawes R, Pleskow DK, Smith MS. Volumetric laser endomicroscopy increases detection of persistent or recurrent Barrett's esophagus and dysplasia in the absence of findings on white light endoscopy. *Gastroenterology*. 2016 Apr;150(4 Suppl 1):S257. Abstract no. Sa1251.

Cash BD, Epstein MS, Shah S. Successful management viscerosensory symptoms in patients with IBS-M and IBS-D using a targeted delivery system of peppermint oil (PO-SST). Am J Gastroenterol. 2015 Oct;110(Suppl 1):S745. Abstract no. 1756.

Cash BD, Schoenfeld PS, Lacy BE, Dove LS, Convington PS. Adverse event profile of eluxadoline over time in patients with irritable bowel syndrome with diarrhea. Am J Gastroenterol. 2015 Oct;110(Suppl 1):S748-9. Abstract no. 1762.

Epstein, MS, Cash BD, Shah S. Rapid relief of irritable bowel syndrome (IBS) symptoms with targeted delivery of L-menthol to the small intestine: results from 2 clinical trials and a patient survey. Am J Gastroenterol. 2015 Oct;110(Suppl 1):S741. Abstract no. 1746.

Epstein, MS, Cash BD, Shah S. Patient satisfaction with IBS symptom relief using a novel peppermint oil delivery system in a randomized clinical trial and by the general patient population. Am J Gastroenterol. 2015 Oct;110(Suppl 1):S743. Abstract no. 1752.

Fant RV, Henningfield JE, Cash BD, Dove LS, Covington PS. Lack of abuse potential of eluxadoline: data from phase 2 and 3 studies. Gastroenterology. 2016 Apr;150(4 Suppl 1):S693-4. Abstract no. Mo1309.

Gadde S, Bennett D, Qureshi G, Omar B. Gender and race variation of widened pulse pressure with age. J Am Soc Hypertens. 2016 Apr;10(4 Suppl):e44-5. Abstract no. 269 P-64. Available from: http://ac.els-cdn.com/S1933171116301097/1-s2.0-S1933171116301097-main.pdf?_tid=252479a8-8b0d-11e6-ba93-00000aab0f01&acdnat=1475680105_3672ffe52b22126dabeae4200fb0c00c

Gadde S, Malozzi C, Omar B. Lipid management challenges in different clinical settings. Alabama Chapter of the American College of Cardiology Winter Conference; 2016 Jan 9; Birmingham, AL.

Gadde S, Malozzi C, Omar B. Lipid management challenges in different clinical settings. Alabama Chapter of the American College of Cardiology Annual Meeting; 2016 Jun 10-12; San Destin, FL.

Gadde S, Malozzi C, Omar B. Variation in cholesterol documentation and control in different clinics run by the same provider. Circ Cardiovasc Qual Outcomes. 2016;9:A262. Abstract no. 269. Available from: http://circoutcomes.ahajournals.org/content/9/Suppl_2/A269.abstract

Gadde S, Bennett D, Omar B. Impact of recent cholesterol and hypertension guidelines on lipid and BP control. J Clin Lipidol. 2016 Jun;10(3):683. Abstract no. 140.

Joshi V, Cash BD, McKinley M, Tarnasky PR, Chang KJ, Singh SK, Wallace MB, Navaneethan U, Smith MS. Volumetric laser endomicroscopy guides both selection of

ablative modality and tissue sampling during ongoing therapy of Barrett's esophagus. *Gastrointest Endosc.* 2016 May;83(5 Suppl):AB560-1. Abstract no. Tu1162.

Kolakalapudi P, Omar M, Malozzi C, Omar B. Correlation of weight and LDL level changes with age in males versus females. *J Clin Lipidol.* 2016 Jun;10(3):689-90. Abstract no. 150.

Mason M, Cash BD, Castell D. Pan-esophageal impedance mapping predicts major motility abnormalities. *Am J Gastroenterol.* 2015 Oct;110(Suppl 1):S699. Abstract no. 1633.

Mpollo MSE, Quarmyne MO, Gonsalves C, Haynes J, Uwe C, Kalinyak K, Vinks A, Joiner C, Malik P. A phase I trial of zileuton in sickle cell disease. *Pediatr Blood Cancer.* 2016;63(Suppl 1):S50. Abstract no. 642.

Moses A, Qureshi G, Omar B. Prevalence and type of errors in electrocardiographic recordings. Alabama Chapter of the American College of Cardiology Winter Conference; 2016 Jan 9; Birmingham, AL.

Moses A, Malozzi C, Omar B. Prevalence of ECG recording errors in a university hospital ECG database. *Circ Cardiovasc Qual Outcomes.* 2016;9:A236. Available from: http://circoutcomes.ahajournals.org/content/9/Suppl_2/A236.abstract?sid=2d10ae36-7e3b-41eb-8ba5-6228a813d3ea

Moses A, Nguyen L, Awan GM, Omar B. Race-related variations in lipid parameters in a cardiology clinic. *J Clin Lipidol.* 2016 Jun;10(3):689. Abstract no. 149.

Navaneethan U, Cash BD, McKinley M, Joshi V, Tarnasky PR, Chang KJ, Singh SK, Wallace MB, Smith MS. Volumetric laser endomicroscopy targeted tissue sampling eliminates unnecessary biopsies during planned ablation of Barrett's esophagus. *Gastroenterology.* 2016 Apr;150(4 Suppl 1):S39-40. Abstract no. 157.

Omar M, Kolakalapudi P, Malozzi C. Comparison of gated SPECT, echocardiography and angiography ejection fractions. Alabama Chapter of the American College of Cardiology Winter Conference; 2016 Jan 9; Birmingham, AL.

Omar M, Kolakalapudi P, Malozzi C. Comparison of gated SPECT, echocardiography and angiography ejection fractions. Alabama and Mississippi Chapters of the American College of Physicians Scientific Meeting; 2016 Jun 2-5; Birmingham, AL.

Phillips MT, Locke K, Panacek E, Cash B, DiPalma JA. Clinical yield of computed tomography scans in the emergency department for abdominal pain. *J Investig Med.* 2016 Feb;64(2):542 Abstract no. 134.

Prickett C, Henderson P, DiPalma JA. When enough is enough – a case of serrated polypoid syndrome. *J Investig Med.* 2016 Feb;64(2):537. Abstract no. 120.

Sbahi H, Black TP, Keller CB, Di Palma JM, Di Palma JA. You gotta use a tool. Am J Gastroenterol. 2015 Oct;110(Suppl 1):S742. Abstract no. 1749.

Sbahi H, Black T, Keller CB, DiPalma JM, DiPalma JA. You gotta use a tool. J Investig Med. 2016 Feb;64(2):538. Abstract no. 123.

Schoenfeld PS, Pimentel M, Cash BD, Wolf RA, Olin JT. Antibiotic susceptibility of skin swab *Staphylococcus* isolates from patients with diarrhea-predominant irritable bowel syndrome (IBS-D) treated with repeat courses of rifaximin showed no evidence of resistance. Am J Gastroenterol. 2015 Oct;110(Suppl 1):S751. Abstract no. 1767.

Shofu A, Mustafa Awan G, Omar B. Obesity trends by race in a primary cardiology clinic. Alabama Chapter of the American College of Cardiology Winter Conference; 2016 Jan 9; Birmingham, AL.

Shofu A, Nguyen L, Qureshi G, Omar B. Gender and race related variations in weight and cholesterol control. J Clin Lipidol. 2016 Jun;10(3):668. Abstract no. 122.

Smith MS, Jobe BA, Cash BD, McKinley M, Joshi V, Trindade A, Kahaleh M, Tarnasky PR, Wolfsen HC, Konda VJ, Gordon SR, Singh SK, DeMeester SR, Thakkar S, Ganguly EK, Mashimo H, Diehl DL, Wallace MB, Hawes R, Navaneethan U, Kedia P, Hasan MK, Lee CW, Sethi A, Gress FG, Khara HS, Gonda TA, Rodriguez RL, Sharaiha RZ, Siddiqui UD, Waxman I, Hyder SM, Sejpal DV, Pleskow DK, Chang KJ. Volumetric laser endomicroscopy improves patient management by enhancing detection and sampling of esophageal histopathology: results from the interim analysis of a multi-center registry. Gastroenterology. 2016 Apr;150(4 Suppl 1):S55-6. Abstract no. 236.

Thota PN, Vennalaganti P, Vennelaganti S, Young PE, Gaddam S, Gupta N, Lieberman D, Sampliner R, Falk GW, Mathur S, Kennedy K, Cash BD, Moawad FJ, Bansal A, Vargo JJ, Sharma P. Should we discontinue surveillance in patients with irregular z line (<1 cm Barrett's esophagus): results from a large, multicenter, cohort study. Gastroenterology. 2016 Apr;150(4 Suppl 1):S177-8. Abstract no. 839.

Ul Haq E, Malozzi C, Omar B. Weight and BMI correlation according to race and gender. J Clin Lipidol. 2016 Jun;10(3):721. Abstract no. 189.

Ul Haq E, Omar B, Szombathy T. Predictive value of electrocardiographic criteria in severe left ventricular hypertrophy. Alabama Chapter of the American College of Cardiology Winter Conference; 2016 Jan 9; Birmingham, AL.

Vennelaganti S, Vennelaganti P, Gaddam S, Young PE, Gupta N, Thota PN, Cash BD, Mathur S, Sampliner R, Moawad FJ, Liberman D, Bansal A, Kennedy K, Vargo JJ, Falk GW, Sharma P. Low risk of neoplastic progression of Barrett's esophagus in women: results from a large multi-center consortium. Gastroenterology. 2016 Apr;150(4 Suppl 1):S258. Abstract no. Sa1255.

Williams CC, Broughton WA. Searching for an accurate nasal-CPAP algorithm in obstructive sleep apnea: apparently not a possibility. *Sleep*. 2016;39(Abstract suppl):A159. Abstract no. 0447.

III. INVITED PRESENTATIONS

Arrieta MI. Invited speaker. Community based participatory research: is there any value for translational researchers? University of Alabama at Birmingham Center for Clinical and Translational Science (CCTS) Training Academy; 2016 May 5; Birmingham, AL.

Arrieta MI, Wells N, Hudson A, Hudson M, Parker L, Dortch S, Grimes V, Taylor C, Allen K. Invited speakers. Research apprenticeship: a concept comes of age. Community Campus Partnerships for Health 14th International Conference; 2016 May 12; New Orleans, LA.

Broughton W. Invited speaker. Sleep: art, light & culture. 38th Annual Southern Sleep Society Conference; 2016 Apr 10; Asheville, NC.

Cash BD. Invited speaker. Treatment of IBS-diet or drugs? American College of Gastroenterology, 2016 Eastern Regional Postgraduate Course; 2016 Jun 26; Washington, D.C.

Cash BD. Invited speaker. Clinical triad: colorectal cancer screening. American College of Physicians Internal Medicine Meeting 2016; 2016 May 6; Orlando, FL.

Cash BD. Invited speaker. Enteroscopy and endoscopic approach to GI tumors. Minimally Invasive Surgery Symposium 2016; 2016 Feb 24; Las Vegas, NV.

Cash BD. Invited speaker. PPI therapy is best for most GERD patients. Minimally Invasive Surgery Symposium 2016; 2016 Feb 24; Las Vegas, NV.

Cash BD. Invited speaker. Gastroenterologist approach to Barrett's. Minimally Invasive Surgery Symposium 2016; 2016 Feb 24; Las Vegas, NV.

Cash BD. Invited speaker. IBS in 2015: what's new and what works. American College of Gastroenterology 2015 Southern Regional Postgraduate Course; 2015 Dec 5; Nashville, TN.

Crook E. Invited speaker. Walking the path to "influence" in academic medicine. Harold Amos Medical Faculty Development Program 2015 Annual Meeting; 2015 Oct 7; Dallas, TX.

Crook E. Invited speaker. The social determinants of health: a focus on poverty. 17th Annual University of Alabama Rural Health Conference; 2016 Apr 26; Tuscaloosa, AL.

Di Palma JA. Invited speaker. Opioid-induced constipation: the science, the struggle, and an orally administered treatment option. American College of Gastroenterology 2015 Annual Scientific Meeting and Postgraduate Course; 2015 Oct 20; Honolulu, HI.

Fell D, Day M, Schilthuis A. Invited speakers. An international interprofessional learning experience: a real-life clinical experience in Trinidad for students in PT, OT, AuD, PA, MD, RN programs. University of South Alabama Conference on Teaching and Learning 2016; 2016 May 9; Mobile, AL.

Graham G, Ballard H. Invited speakers. Late diagnosis of atrial myxoma. University of South Alabama College of Medicine Case Report Symposium; 2016 Jun 24; Mobile, AL.

Haynes J Jr. Invited speaker. Shadows of yesterday, reflections of tomorrow II. Alpha Elites Senior Banquette, Bishop State Community College; 2016 Jun 3; Mobile, AL.

Haynes J Jr. Invited speaker. Pathology of the disease and manifestation of sickle cell disease. Sickle Cell Counselor/Educator Program, Sickle Cell Disease Association of American-Mobile Chapter; 2015 Nov 17; Mobile, AL.

Haynes J Jr. Invited speaker. Pulmonary complications of sickle cell disease. 1st Annual Sickle Cell Disease Symposium; 2015 Oct 24; Charlotte, NC.

Haynes J Jr. Invited speaker. Interstitial lung disease. Physician Assistant Studies Program; 2015 Oct 19; Mobile, AL.

Hundley TJ. Invited speaker. From sisyphus to the phoenix: burnout and resiliency in physicians. University of South Alabama College of Medicine Alumni Association Weekend; 2016 Jun 3; Orange Beach, AL.

Nunley B, Kessler A, Ballard H. Invited speaker. A case of multiple ring enhancing lesions. University of South Alabama College of Medicine Case Report Symposium; 2016 Jun 24; Mobile, AL.

Omar B. Invited speaker. Anticoagulation in atrial fibrillation. James A. Haley VA Hospital; 2016 Mar 29; Tampa, FL.

Qureshi G. Invited speaker. CHIP; hemodynamic support and complex PCI. 2016 Jan 23; Fort Lauderdale, FL.

Qureshi G. Invited speaker. Stent vs. scalpel: left main disease dilemma. Indus Hospital; 2016 Aug 4, Karachi, Pakistan.

Schilthuis A. Invited speaker. Vaccines in the primary care practice. University of South Alabama College of Medicine Alumni Association Weekend; 2016 Jun 3; Orange Beach, AL.

Todd H, Hollis M, Ballard H. Invited speakers. Megaloblastic madness: severe B12 deficiency in a chronic schizophrenic. University of South Alabama College of Medicine Case Report Symposium; 2016 Jun 24: Mobile, AL.

IV. NATIONAL PROFESSIONAL RECOGNITION

William Broughton. President of the Southern Sleep Society Meeting coordinator for Southern Sleep Society 2016-2017.

Barbara Burckhardt. Heart failure team received 2016 American Heart Association Get With The Guidelines (GWTG) Heart Failure Gold Plus Quality Achievement Award.

Brooks Cash. Course Director, Southern Regional Course, American College of Gastroenterology, Nashville, TN, Dec 5-6, 2015.

Brooks Cash. Course Director and Moderator, Recertification Course, American College of Gastroenterology Annual Meeting, Honolulu, HI, Oct 17, 2015.

Michael Cohen. Basic Research in Cardiology; editorial board member.

Johnson Haynes Jr: Listed: *America's Top Doctors; Best Doctors in America*; Voting Member, Association of American Medical Colleges (AAMC) - Group on Diversity and Inclusion (GDI); Data and Safety Monitoring Board (DSMB) for the Clinical Trials Consortium; PhenX Sickle Cell Disease Work Group 1: Cardiovascular, Pulmonary and Renal Recruitment – PhenX Consensus Measures for Phenotypes and eXposures; Sickle Cell Disease Council for Change, Pfizer Inc. Workshop.

Christopher Malozzi. Awarded Fellowship; The American College of Cardiology 2015.

Bassam Omar. The American College of Cardiology, Alabama Chapter, meeting planning and educational committee membership, and abstract grading committee member 2015/2016.

Bassam Omar. The American Heart Association Spotlight Series speakership on atrial fibrillation 2015/2016.

Bassam Omar. Awarded Fellowship; The American Heart Association (Silver Heart Member), Council on Clinical Cardiology 2015.

V. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Education

The department has continued to receive excellent evaluations from medical students and residents for its educational activities. For 18 consecutive years the Internal Medicine Clerkship has been recognized as the best clerkship for third year medical students. The Class of 2016 again honored the department with this award. Several of the departmental

faculty was recognized with the red sash award for their educational efforts and the graduating Class of 2016 again selected faculty members as the best teachers in the clinical years (Dr. Terry J. Hundley and Dr. Errol Crook). Department members have been instrumental in developing the new curriculum for the medical school with several serving as the clinical co-director for the modules for the first and second year curriculum. The Class of 2016 was the first to graduate having had all 4 years of the new curriculum and their performance was outstanding.

Our faculty also makes important contributions to the education of students in Allied Health and Nursing. For example, Dr. Shannon Tyler serves as the Medical Director for the Department of Physician Assistant Studies in the College of Allied Health Professions where she plays a large role in the education of the PA students. Several of the PA students take clinical rotations in general internal medicine and all of our subspecialty areas.

The department puts forth considerable effort educating its internal medicine residents, internal medicine – pediatric residents, and fellows in Gastrointestinal Diseases, Cardiovascular Disease, and Pulmonary Critical Care. The Grand Rounds Series is well received and is an important educational tool for the community. Several members of the faculty have been recognized as educational leaders in their subspecialty area.

Scholarly Efforts

The department has continued to be productive in scholarly achievements, particularly in the area of publications. The Divisions of Gastroenterology, Pulmonary and Critical Care, and Cardiology had particularly successful years in the arena. The residents have been active in scholarly activity and have made presentations at regional and national meetings.

There are several clinical trials led by department of medicine faculty. The Division of Gastroenterology continues to have a robust clinical studies portfolio that features studies in liver disease, advanced endoscopy, inflammatory bowel disease, and preparation for colonoscopy. GI continues to involve its fellows, internal medicine residents and medical students in its research efforts with several of these trainees presenting their work at regional and national meetings.

Cardiology has several multi-center trials underway and has partnered with Dr. William Gerthoffer, Chair Department of Biochemistry, in a translational project funded through the Center for Healthy Communities P-20 Grant. This unique award examines the role of a protein, HSP27, as a unique marker of atherosclerosis and its potential contribution to health disparities seen in cardiovascular disease in African-American populations. The Division of Pulmonary has continued its partnership with the Center for Lung Biology and has continued clinical, basic and translational studies in pulmonary hypertension. Infectious disease continues its efforts in care of the HIV patient through a grant funded by the Health Resources and Services Administration. Dr. Crook, Department Chair, has led a study examining the impact of exposure to toxins to clean-up workers of the BP Horizons Gulf Oil Spill. This study is run by the NIH's National Institute for

Environmental Health Sciences (NIEHS). Dr. Crook's team examined nearly 2500 participants for impact of exposure on respiratory and neuro-cognitive function, mental health, and other health effects. Members of the Division of General Internal Medicine have taken a lead on patient safety and quality projects. Many of these projects are performed in partnership with the USA Medical Center.

Service

The department continues to deliver excellent clinical service. The department has seen an increase in his clinical services at the USA Medical Center. The Division of Gastroenterology has continued to grow its services for advance endoscopy procedures. These advancements have enhanced partnerships with the Mitchell Cancer Institute and the Division of Colorectal Surgery. The Division of Cardiology continues to increase its services in interventional procedures on coronary arteries and peripheral vascular disease. The Division of Infectious Disease remains a leader in HIV care for the region in both the inpatient and ambulatory setting. The Division of General Internal Medicine has been able to have members who are focused on ambulatory medicine or inpatient medicine (hospitalist). This has enhanced delivery of services in both arenas. The ambulatory focused faculty have developed and grown a faculty based general internal medicine clinic.

Departmental faculty continues to serve on editorial boards, as journal reviewers, on advisory boards, and on grant review panels. The faculty has contributed significantly to the University and the Greater Mobile Community.

2015-2016
Summary of Scholarly Activities
Department of Microbiology and Immunology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Dillon MJ, Loban RA, Reed DE, Thorkildson P, Pflughoeft KJ, Pandit SG, Brett PJ, Burtnick MN, AuCoin DP. Contribution of murine IgG Fc regions to antibody binding to the capsule of *Burkholderia pseudomallei*. *Virulence*. 2016 Aug 17;7(6):691-701.

Driskell LO, Tucker AM, Woodard A, Wood RR, Wood DO. Fluorescence activated cell sorting of *Rickettsia prowazekii*-infected host cells based on bacterial burden and early detection of fluorescent rickettsial transformants. *PLoS One*. 2016 Mar 24;11(3):e0152365.

Ferretti A, Fortwendel JR, Gebb SA, Barrington RA. Autoantibody-mediated pulmonary alveolar proteinosis in *Rasgrp1*-deficient mice. *J Immunol*. 2016 Jul 15;197(2):470-9.

LeClaire LL, Fortwendel JR. Differential support of *Aspergillus fumigatus* morphogenesis by yeast and human actins. *PLoS One*. 2015 Nov 10;10(11):e0142535.

Marchetti R, Dillon MJ, Burtnick MN, Hubbard MA, Kenfack MT, Bleriot Y, Gauthier C, Brett PJ, AuCoin DP, Lanzetta R, Silipo A, Molinaro A. *Burkholderia pseudomallei* capsular polysaccharide recognition by a monoclonal antibody reveals key details toward a biodefense vaccine and diagnostics against melioidosis. *ACS Chem Biol*. 2015 Oct 16;10(10):2295-302.

Smith C, Buhlmann JE, Wang X, Bartlett A, Lim B, Barrington RA. CD275-independent IL-17-producing T follicular helper-like cells in lymphopenic autoimmune-prone mice. *J Immunol*. 2016 Jun 15;196(12):4935-46.

Suttisunhakul V, Wuthiekanun V, Brett PJ, Khusmith S, Day NP, Burtnick MN, Limmathurotsakul D, Chantratita N. Development of rapid enzyme-linked immunosorbent assays for detection of antibodies to *Burkholderia pseudomallei*. *J Clin Microbiol*. 2016 May;54(5):1259-68.

II. PUBLISHED ABSTRACTS

Custodio H, Norton T, Fortwendel JR. Growth inhibitory effect of cerivastatin against yeasts and *Aspergillus fumigatus*. *Open Forum Infect Dis*. 2015 Fall;2(Suppl 1);S149. Abstract no. 788.

Ferretti AP, Beedy CM, Barrington RA. Autoantibody-mediated PAP in mice requires Myd88 in B cells. *J Immunol*. 2016 May 1;196(Suppl 1);47.12.

Jett SE, O'Donnell K, Taylor J, Lopez O, Coley J, Fontenot M, Stern AM, Hill B, Audia J, Alvarez D. An investigation of spatial working memory in mice. 23rd Annual International Conference on Comparative Cognition; 2016 Apr 13-16; Melbourne Beach, FL. p.39. Abstract no. P65.

Kirosingh A, Nualnoi T, Pandit SG, Thorkildson P, Reed DE, Brett PJ, Burtnick MN, AuCoin DP. *In vivo* clearance and tissue distribution of purified *Burkholderia pseudomallei* capsular polysaccharide in a murine model. American Society for Microbiology Microbe; 2016 Jun 16-20; Boston, MA. Abstract no. SUNDAY-639.

Nualnoi T, Norris MH, Tuanyok A, Brett PJ, Burtnick MN, Keim PS, Settles EW, Allender CJ, AuCoin DP. Development of immunoassays for *Burkholderia pseudomallei* typical and atypical lipopolysaccharide strain typing. American Society for Microbiology Microbe; 2016 Jun 16-20; Boston, MA. Abstract no. SUNDAY-327.

Nualnoi T, Kinney H, Kirosingh A, Pandit SG, Thorkildson P, Brett PJ, Burtnick MN, Houghton RL, AuCoin DP. *Burkholderia pseudomallei* capsular polysaccharide: expression, in vivo distribution and detection. 8th World Melioidosis Congress; 2016 Aug 7-10; Cebu, Philippines.

Ramelli S, McLendon JM, Ferretti AP, Fewell J, Barrington R, Gerthoffer WT. Antisense microRNA therapy of airway remodeling in house dust mite-sensitized mice. Ann Am Thorac Soc. 2016 Mar 1;13(Suppl 1):S101-2.

Renema P, Housley NA, Audia JP, Alvarez DF. cAMP potentiates caspase-1 activation in pulmonary microvascular endothelial cells during *Pseudomonas aeruginosa* infection. FASEB J. 2016;30:980.8.

Schully KL, Bell MG, Brett PJ, Burtnick MN, Currie BJ, Mayo M, Clark DV, Lawler JV. Serological evidence of exposure to *Burkholderia pseudomallei* in US Marines who train in Darwin Australia: a retrospective analysis. 8th World Melioidosis Congress; 2016 Aug 7-10; Cebu, Philippines.

Schully KL, Suttisunhakul V, Hip P, Ouch P, Ly P, Supaprom C, Rachmat A, Prouty M, Vaughn A, Clark DV, Lawler JV, Chantratita N, Burtnick MN, Brett PJ. Retrospective analysis of fever and sepsis patients from Cambodia reveals serological evidence of melioidosis. 8th World Melioidosis Congress; 2016 Aug 7-10; Cebu, Philippines. Abstract no. 48.

Suttisunhakul V, Wuthiekanun V, Day NP, Brett PJ, Burtnick MN, Limmathurotsakul D, Chantratita N. New diagnostic developments for melioidosis. South Asian Melioidosis Congress; 2015 Nov 20-22; Manipal, India.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Barrington RA. Invited speaker. Micro environment and lymphocyte fate. Mitchell Cancer Institute Collaborative Forum, Laboratory of Infectious Diseases; 2016 Feb 19; Mobile, AL.

Barrington RA. Invited speaker. Herpes stromal keratitis; of mice and men. District 34C Board Meeting, Lions Eye Research Foundation; 2016 Jan 20; Mobile, AL.

Barrington RA. Invited speaker. Cutting edge technologies applied to eye disease. District 34C Cabinet Meeting, Lions Club of Alabama; 2015 Nov 7; Mobile, AL.

Brett PJ. Invited speaker. Pathogenesis and treatment of melioidosis. Nay Pyi Taw General Hospital; 2015 Oct 11; Nay Pyi Taw, Myanmar.

Brett PJ. Invited speaker. Pathogenesis and treatment of melioidosis. Defence Services Medical Research Center; 2015 Oct 12; Nay Pyi Taw, Myanmar.

Brett PJ. Invited speaker. Pathogenesis and treatment of melioidosis. National Blood Center; 2015 Oct 13; Yangon, Myanmar.

Brett PJ. Invited speaker. Development of synthetic oligosaccharide-based vaccines using protective epitopes from *Burkholderia pseudomallei* O-antigens. 8th World Melioidosis Congress; 2016 Aug 10; Cebu, Philippines.

Burtnick MN. Invited speaker. Differential activation of RAW 264.7 macrophages by *Burkholderia pseudomallei* T3SS mutants. 8th World Melioidosis Congress; 2016 Aug 10; Cebu, Philippines.

Burtnick MN. Invited speaker. Melioidosis and glanders: molecular aspects of pathogenesis. MMBio Seminar, Brigham Young University; 2016 Jan 21; Provo, UT.

Burtnick MN. Invited speaker. Melioidosis and glanders: molecular aspects of pathogenesis. Tulane University School of Medicine; 2015 Nov 19; New Orleans, LA.

V. NATIONAL PROFESSIONAL RECOGNITION

Jonathon P. Audia: Review editor, *Nature Frontiers*, *Frontiers in Cellular and Infection Microbiology*; Ad Hoc Grant Review, Department of Defense Vaccine Development for Infectious Diseases Peer Reviewed Medical Research Program Panel for the Department of Defense Congressionally Directed Medical Research Programs; Ad Hoc Reviewer, *PLoS ONE*, *Clinica Chimica Acta*, *BMC Microbiology*, *Infection and Immunity*, *Microbial Pathogenesis*.

Robert A. Barrington: Ad Hoc Grant Review, American Heart Association Immunology

BSc 2 and 4; Review Editor, *Frontiers in B Cell Biology*; Ad Hoc Reviewer, *Cytometry*, *European Journal of Immunology*, *Journal of Immunology*, *Journal of DNA and Cell Biology*; Early Career Faculty Travel Grant, American Association of Immunologists Annual Meeting.

Paul J. Brett: Ad hoc grant reviewer: Defense Threat Reduction Agency's Basic Research for Combating Weapons of Mass Destruction Program; Editorial Board: *Infection and Immunity*; Consultant: Roche Diagnostics – Myanmar; Co-chair Immunology 2 session-8th World Melioidosis Congress, Cebu, Philippines; International collaborator: Newton Fund Project–Thailand; Dissertation committee member: Laura Muruato - Department of Microbiology and Immunology, UTMB, Galveston, TX; Committee member: Steering Group on Melioidosis Vaccine Development (SGMVD); Ad hoc reviewer: Alabama Academy of Sciences, *The American Journal of Pathology*, *Antimicrobial Agents and Chemotherapy*, *Applied and Environmental Microbiology*, *BMC Microbiology*, *BMC Veterinary Research*, *Cellular Immunology*, *Central European Journal of Biology*, *Clinical and Vaccine Immunology*, *FEMS Immunology and Medical Microbiology*, *FEMS Microbiology Letters*, *Frontiers in Cellular and Infection Microbiology*, *Infection and Immunity*, *Innate Immunity*, *Journal of Bacteriology*, *Journal of Clinical Microbiology*, *Journal of Proteome Research*, *mBio*, *Microbial Pathogenesis*, *Microbiology*, *Molecular Microbiology*, *Nature Scientific Reports*, *PLoS Neglected Tropical Diseases*, *PLoS One*, *PLoS Pathogens*, *Proteomics*, *Vaccine*.

Mary N. Burtnick: Ad hoc grant reviewer: Defense Threat Reduction Agency's Basic Research for Combating Weapons of Mass Destruction Program.; Expert Reviewer for the Center for Clinical and Translational Sciences Partner Network Pilot Program; Ad hoc reviewer: *Applied and Environmental Microbiology*, *FEMS Microbiology Letters*, *Frontiers in Microbiology*, *Infection and Immunity*, *Journal of Medical Microbiology*, *PLoS Neglected Tropical Diseases*, *Vaccine*. International collaborator, Newton Fund Project - Thailand.

Jarrod R. Fortwendel: Ad-hoc Member Pathogenic Eukaryotes (PTHE) Study Section National Institutes of Health, October 2015.

David O. Wood: Member, American Society for Microbiology (ASM) Committee on Ethics; Member, Association of Medical Microbiology & Immunology Chairs.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The Department continued its dedicated commitment to medical and graduate student teaching. All departmental faculty members participated in the Infectious Disease and Host Defense (IHD) module. Since the infectious disease thread winds its way through almost all the modules, Microbiology and Immunology faculty contributed throughout the medical school curriculum. Dr. Foster continued his exceptional service as IHD module director. Graduate student teaching was organized through the Infectious

Diseases and Host Defense Track (IDHD) directed by Dr. Paul Brett. Three students are matriculating in this program. Our first student to enter the program, Tiffany Norton, will defend her dissertation this Fall. A departmental priority is to generate funds to support a critical mass of outstanding students within the IDHD Track. In addition to track-specific courses (Microbes and Host Defense, Microbial Pathogenesis, Advanced Immunology) the Department conducts a bimonthly Journal Club and Research Forum.

Additional teaching efforts were directed toward high school and undergraduate students. Dr. Audia conducted an outreach program with the St. Luke's Episcopal School Grade 9 Biology Class. The goal of this program was to expose high school students to the basic principles of antimicrobial agents using bacteria as a model system. COM graduate students Peter Favreau and Sabrina Remelli, and Post-doctoral Fellow Dr. Adam Morrow assisted Dr. Audia in this effort. The graduate students were involved in the development and execution of the laboratory exercise and were given the experience of grading high school student laboratory reports. The overarching future goal is to develop a graduate level course to give our students experience in preparing and delivering content as instructors. This program also led to two high school students from the inaugural session volunteering in Dr. Audia's laboratory for 2-days per week over the summer months. The students were exposed to the everyday workings of a molecular biology lab in order to foster their understanding of DNA and how it can be manipulated experimentally. This program has led to one of the students (Ella Johnson) returning this summer to the lab to continue working in the Volunteer Internship Program through the Office of Undergraduate Research. Another high school student, Emily Wichmann rotated through Dr. Wood's laboratory in 2016 and an undergraduate student, Angela McGaugh, working in Dr. Wood's laboratory, has begun an honors research thesis.

The Department is actively recruiting to fill faculty vacancies. Recruitment is especially critical since Dr. Jarrod Fortwendel accepted a position in June at the University of Tennessee in Memphis. The Department is focusing on filling multiple positions in the areas of immunology and microbial pathogenesis that will complement and extend existing programs. The Laboratory of Infectious Diseases (LID), which became fully operational last year, provides laboratories functioning at Biosafety Level 2 (BSL-2) and Biosafety Level 3 (BSL-3) containment and is available for new recruits. Currently, Drs. Audia, Brett, Burtnick, and Wood are conducting funded projects that require BSL-3 containment. We are also recruiting to available space in the Medical Sciences Building.

Departmental faculty members have sustained successful research programs and continue to pursue extramural funding. Dr. Audia and his collaborator, Dr. Alvarez in the Department of Pharmacology, continued their NIH-funded research on "Caspase-1, the microvascular endothelium, and infection". Dr. Barrington received a second year of funding from the American Lung Association to support his studies on the first mouse model of autoimmune pulmonary alveolar proteinosis. Dr. Barrington also received

support from the Lions Club for studies examining herpes eye infections and the associated immunological response that can result in blindness. This research is being conducted by his student, Steffani Fitzpatrick. The Lions Club is a long-time supporter of eye research at the University of South Alabama. Dr. Barrington was promoted to the rank of associate professor this year. Dr. Brett and Dr. Burtnick have established internationally-recognized, well-funded programs targeting the bacterial agents responsible for melioidosis and glanders. They received Phase II funding for a Department of Defense (DoD) SBIR award targeting high-affinity monoclonal antibodies against *Burkholderia* polysaccharides and they continued their Defense Threat Reduction Agency (DTRA)-funded work on vaccines against melioidosis and glanders. They have been recommended for two additional DTRA contracts. Their laboratories are also making a recognized impact in the area of diagnostics for these diseases and they have established a Glycobiology Resource Center at USA to provide rapid serodiagnostic assays. Drs. Brett and Burtnick served as Co-chairs of the Immunology 2 session at the 8th World Melioidosis Congress held in Cebu, Philippines. Dr. Burtnick was promoted to Associate Professor with tenure this year. Dr. Fortwendel, prior to his departure in June, and Dr. Wood continued their NIH funded studies on pathogenic mechanisms of *Aspergillus fumigatis* and *Rickettsia prowazekii*, respectively.

The Department hosted five Distinguished Scientist Speakers. One of the speakers was our own Dr. Mary Burtnick who presented a seminar entitled “Melioidosis and Glanders, Molecular Aspects of Pathogenesis”. Dr. Janice Endsley, Associate Professor in the Department of Microbiology and Immunology at the University of Texas Medical Branch in Galveston presented a seminar entitled “*Mycobacterium tuberculosis* Reactivation in the Setting of HIV Co-infection”. Dr. Mary Jane Thomassen, Professor and Director of the Program in Lung Cell Biology and Translational Research at the Brody School of Medicine, East Carolina University presented a seminar entitled “Pulmonary Alveolar Proteinosis (PAP): A Disease of Mice and Men”. Dr. David P. AuCoin Associate Professor and Chair, Department of Microbiology and Immunology, University of Nevada, Reno presented a seminar entitled “Development of Antibody Based Diagnostics and Therapeutics for Melioidosis”. Dr. Kevin R. Macaluso, Professor, Vector-borne Disease Laboratories, School of Veterinary Medicine, Louisiana State University presented a seminar entitled “Unraveling the Biology of Emerging Rickettsial Pathogens”.

Emeritus Professor Dr. Herbert Winkler passed on August 2, 2016. Dr. Winkler, an internationally renowned scientist, was the Lenoir Louise Locke Professor of Microbiology and Immunology and served as Vice-Chair of the Department for 35 years before his retirement in 2013.

2015-2016
Summary of Scholarly Activities
Department of Neurology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Darbin O, Jin X, Von Wrangel C, Schwabe K, Nambu A, Naritoku DK, Krauss JK, Alam M. Neuronal entropy-rate feature of entopeduncular nucleus in rat model of Parkinson's disease. *Int J Neural Syst*. 2016 Mar;26(2):1550038 (Subscription required).

Darbin O, Gubler C, Naritoku D, Dees D, Martino A, Adams E. Parkinsonian balance deficits quantified using a game industry board and a specific battery of four paradigms. *Front Hum Neurosci*. 2016 Aug 30;10:431. Available from: <http://journal.frontiersin.org/article/10.3389/fnhum.2016.00431/full>.

Gore E, Manley A, Dees D, Appleby BS, Lerner AJ. A young onset frontal dementia with dramatic calcifications due to a novel CSF1R mutation. *Neurocase*. 2016 Jun;22(3):257-62. (Subscription required).

Kernan WN, Viscoli CM, Furie KL, Young LH, Inzucchi SE, Gorman M, Guarino PD, Lovejoy AM, Peduzzi PN, Conwit R, Brass LM, Schwartz GG, Adams HP Jr, Berger L, Carolei A, Clark W, Coull B, Ford GA, Kleindorfer D, O'Leary JR, Parsons MW, Ringleb P, Sen S, Spence JD, Tanne D, Wang D, Winder TR; IRIS Trial Investigators (Naritoku D, collaborator). Pioglitazone after ischemic stroke or transient ischemic attack. *N Engl J Med*. 2016 Apr 7;374(14):1321-31.

Ochoa JG, Kilgo WA. The role of benzodiazepines in the treatment of epilepsy. *Curr Treat Options Neurol*. 2016 Apr;18(4):18.

Tatum WO, Olga S, Ochoa JG, Munger Clary H, Cheek J, Drislane F, Tsuchida TN. American Clinical Neurophysiology Society guideline 7: guidelines for EEG reporting. *J Clin Neurophysiol*. 2016 Aug;33(4):328-32.

II. PUBLISHED ABSTRACTS

Bramhall M, Maertens P, Zayek M. Massive subdural hematoma in an infant with lenticulate striatal vasculopathy. *J Neuroimaging*. 2016 Sep/Oct;26(5):556. Abstract no. 23.

Naritoku DK, Dees D, Vyas A, Darbin OE. Linear and non-linear assessment of heart rate variability (HRV) during postural change in Parkinson disease (PD). *Ann Neurol*. 2015 Oct;78(suppl 19):S54-5. Abstract no. S440.

Maertens P, Bramhall M. Do sonographic lenticulate striatal vasculopathy and retinopathy of prematurity share common pathogenic mechanisms? J Neuroimaging. 2016 Sep/Oct;26(5):556. Abstract no. 27.

Maertens P, Landry S, Bramhall M. Intravenous immunoglobins in infantile spasm. 2015 American Epilepsy Society Annual Meeting; 2015 Dec 4-8; Philadelphia, PA. Abstract no. 3.263.

Zac M, Maertens P, Woodall C. Lhermitte-Duclos disease in an infant presenting with obstructive hydrocephalus. J Child Neurol. 2016 Aug;31(9):1193.

III. PUBLISHED BOOKS

Bassam BA. Inclusion body myositis [Internet]. Rochester, MN: American Association of Neuromuscular and Electrodiagnostic Medicine; 2015. Available from: <http://meeting.aanem.org> (Subscription required).

Bassam BA. Critical illness neuropathy and myopathy. Gainesville, FL: Southern Clinical Neurological Society; 2016.

IV. INVITED PRESENTATIONS

Bassam B. Invited speaker. Lumbar radiculopathy plexopathy. 62nd Annual Meeting of the American Association of Neuromuscular & Electrodiagnostic Medicine; 2015 Oct 28; Honolulu, HI.

Bassam B. Invited speaker. Inclusion body myositis. 62nd Annual Meeting of the American Association of Neuromuscular & Electrodiagnostic Medicine; 2015 Oct 29; Honolulu, HI.

Bassam B. Invited speaker. Critical care myopathy and neuropathy. 43rd Annual Meeting of the Southern Clinical Neurological Society; 2016 Jan 20; Riviera Beach, FL.

Bassam B. Invited speaker. NCS pitfalls. 62nd Annual Meeting of the American Association of Neuromuscular & Electrodiagnostic Medicine; 2015 Oct 28; Honolulu, HI.

Bassam B. Invited speaker. Evaluating generalized weakness in the ICU. Third Annual University of South Alabama Neuroscience Symposium; 2016 Apr 2; Orange Beach, AL.

Chalhub E. Invited speaker. Can we prevent cerebral palsy? Third Annual University of South Alabama Neuroscience Symposium; 2016 Apr 2; Orange Beach, AL.

Dees D. Invited speaker. Deep brain stimulation for Parkinson's disease and essential tremor. Biloxi Community Education on Parkinson's Disease; 2015 Oct 16; Biloxi, MS.

Dees D. Invited speaker. Identifying common movement disorders. Third Annual University of South Alabama Neuroscience Symposium; 2016 Apr 2; Orange Beach, AL.

Dees D. Invited speaker. Botulinum treatment of spasticity and dystonia. Third Annual University of South Alabama Neuroscience Symposium; 2016 Apr 2; Orange Beach, AL.

Maertens P. Invited speaker. SSPE and neurologic complications of measles: the returning storm. Third Annual University of South Alabama Neuroscience Symposium; 2016 Apr 3; Orange Beach, AL.

Minto E. Invited speaker. New MS therapies: improving benefit to risk. Third Annual University of South Alabama Neuroscience Symposium; 2016 Apr 2; Mobile, AL.

Minto E. Invited speaker. Migraine: diagnosis, management, and special considerations. The Twenty-Fifth University of South Alabama Obstetrics and Gynecology Conference; 2016 Apr 14; Daphne, AL.

Minto E. Invited speaker. Update on PML and current MS treatment, and risk mitigation. 43rd Annual Meeting of the Southern Clinical Neurological Society; 2016 Jan 20; Riviera Beach, FL.

Naritoku DK. Invited speaker. Epilepsy didactics. Texas Tech University School of Medicine Grand Rounds; 2015 Dec 16; Fort Worth, TX.

Naritoku DK. Invited speaker. Cannabis, electricity and other curious treatments for epilepsy. Third Annual University of South Alabama Neuroscience Symposium; 2016 Apr 1; Orange Beach, AL.

Naritoku DK. Invited speaker. Choosing antiepileptic drug therapies. Third Annual University of South Alabama Neuroscience Symposium; 2016 April 2; Orange Beach, AL.

Naritoku DK. Invited speaker. Newest antiepileptic drug therapies: what is their role? Wake Forest University School of Medicine Grand Rounds; 2016 Sep 6; Winston-Salem, NC.

Ochoa, JG. Invited speaker. EEG como herramienta para localizer el foco epileptico. American Clinical Neurophysiology Society 2016 Annual Meeting & Courses; 2016 Feb 13; Orlando, FL.

Ochoa JG. Invited speaker. Identification and localization of dual adjacent foci using source localization software and EEG. Southern Epilepsy & EEG Society 2016 Annual Meeting; 2016 Mar 4; Charleston, SC.

Ochoa JG. Invited speaker. EEG and video EEG review. Third Annual University of South Alabama Neuroscience Symposium; 2016 Apr 3; Orange Beach, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

Bassam A. Bassam: Member: American Board of Electrodiagnostic Medicine (ABEM), American Academy of Neurology (AAN) Neuromuscular Section Subcommittee, American Association of Neuromuscular and Electrodiagnostic Medicine (AANEM) Neuromuscular Update Committee, AAN Practice Guidelines Subcommittee, American Academy of Neurology Network Subcommittee; Panelist: FDA Office of Orphan Products Development Grant Review Panel; Reviewer: *Journal of Clinical Neuromuscular Disease*, *Journal of Clinical Neurophysiology*, *Touch Medical Media*, *Frontiers in Movement Disorders*.

Steve M. Cordina: Member: American Heart Association, American Stroke Association, American Academy of Neurology, American Society of Neuroimaging, Society of Neurointerventional Surgery, Society of Vascular and Interventional Neurology, Neurocritical Care Society, Medical Association of Malta.

Oliver Darbin: Member: Editorial Board BioMed Research International, Editorial Board *Advances in Neuroscience*, Reviewer: *International Journal of Neural Systems Clinical Neurophysiology*, *Brain Research*, *Experimental Neurology*, *The Journal of Neuroscience*; Visiting Researcher: National Institute for Physiological Science.

Daniel Dees: Member: American Academy of Neurology, International Parkinson's and Movement Disorder Society, American Neurologic Association, Southern Pediatric Neurology Society.

Paul Maertens: Member: Editorial Board of *Journal of Neuroimaging*, Examination Committee of the Society of Neuroimaging, Program Committee of the American Society of Neuroimaging, American Epilepsy Society Membership Committee, Southern Pediatric Neurology Society.

Elizabeth Minto: Member: American Academy of Neurology, Medical Association of the State of Alabama; President: Medical Society of Mobile County.

Dean K. Naritoku: President: Southern Epilepsy and EEG Society; Member: American Academy of Neurology, American Epilepsy Society Scientific Committee, American Academy for the Advancement of Science, American Medical Association, Society for Neuroscience, American Society for Clinical Pharmacology and Therapeutics, American Society for Clinical Neurophysiology; Editorial Board Member: *Neurology Research*; Chairman: Task Force on Brain Stimulation for American Epilepsy Society; Board Member: American Board of Clinical Pharmacology, J. Kiffin Penry Mini-Fellowship.

Juan G. Ochoa: Member: American Epilepsy Society, American Academy of Neurology, American Clinical Neurophysiology Society; Program Director: AAN Consortium of Neurology; Program Chair: American Clinical Neurophysiology Society Annual Meeting.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The Department of Neurology continues its expansion of services for specialized neurological care. Over the last five years we have had a consistent growth in the number of unique patients and reach of the program, which includes geographic areas beyond the immediate five-county region. Among our accomplishments is the awarding of the Gold Plus Elite Award from the American Heart Association for the USA Medical Center Stroke Program. USA Medical Center is the first and only hospital in Alabama to have received this award, which is the highest award at the American Heart Association provides. The Department of Neurology anchors the stroke program and collaborates with multiple departments and disciplines including Emergency Medicine, Internal Medicine and Neurosurgery.

Other notable achievements include the successful accreditation of Dr. Minto as a Multiple Sclerosis Specialist. This will enable us to achieve national certification of our MS center. Dr. Naritoku has also been appointed as President of the Southern Epilepsy and EEG Society. Dr. Naritoku will host the society's Annual Meeting in Mobile in the upcoming spring of 2017.

2015-2016
Summary of Scholarly Activities
Department of Neurosurgery

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

II. PUBLISHED ABSTRACTS

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Martino A, Marass A, Wilstrup M. Invited speakers. CAP for improved concussion reporting. 2016 ThinkFirst Conference on Injury Prevention; 2016 May 1; Chicago, IL.

Rusniak WG. Invited speaker. Neurosurgical management of penetrating brain injuries. Mississippi Coastal Trauma Care Region 15th Annual Trauma Symposium; 2016 May 4; Biloxi, MS.

Rusyniak WG. Invited speaker. Career perspective and case controversies. University of Rochester School of Medicine; 2015 Dec 18; Rochester, NY.

V. NATIONAL PROFESSIONAL RECOGNITION

Anthony M. Martino: Chair Neurosurgery, USAMC Medical Executive Committee, Clinical Chairs Committee, Operation Committee, Chair Orthopedic Chair Search Committee, Operation Committee, Infection Control Committee, Chartis Dyad Strategic Leader Development.

Eugen Quindlen: Course Director Neuroanatomical Correlation Conference, USAMC Medical Executive Committee, Risk Management Review Committee.

George Rusyniak: USA Stroke Committee.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The Department of Neurosurgery continues to have a busy clinical practice covering the USA Medical Center, Children's and Women's Hospital, The Mitchell Cancer Institute, Springhill Hospital and The Mobile Infirmiry Medical Center. Dr. Anthony Martino continues as department Chairperson and is clinically active at all locations.

Activity at MCI consists of the neuro-oncology clinic held bi-weekly along with a robust radiosurgery program currently utilizing the Cyberknife and supporting the use of Tomotherapy. We continue to participate in the monthly meeting with the neuro-spore group at UAB reviewing brain tumor protocols.

The departments teaching activities continue with the weekly Neuroradiology Meeting, participation in the second year Neuroscience course, and clinical electives in both the IIIrd and IVth year. This past year the IVth year elective was again a popular elective for those students entering neurology or neurosurgery and those wishing to expand their neuroscience experience. The past year the department mentored one student that successfully entered competitive neurosurgical residencies.

We have added a fourth year mid-level provider that will continue with their daily support with hospital rounds and clinic activity. They also continue with an active concussion awareness program at local high schools, performing pre-season neuropsychological testing and post trauma assessment and clearance for continued play.

The Deep Brain Stimulation Program with the department of neurology (Dr. Dees) has successfully formed six cases and looks to continued growth in the upcoming year treating patients with essential tremor and Parkinson's disease.

Dr. W. George Rusyniak continues in his role in the epilepsy program along with Dr. Ochoa. Dr. William Scott completed both neurosurgical residency and fellowship in pediatric neurosurgery from the University of Texas Southwestern in Dallas. He has continued the growth of the pediatric neurosurgery service and adult neurosurgical service at the USA Medical Center. He is extremely active clinically.

We now occupy new academic offices on the 10th Floor of the Medical Center. We have located into our new clinical offices at Springhill Hospital, but will be moving into the Strada Center during the next year.

2015-2016
Summary of Scholarly Activities
Department of Obstetrics and Gynecology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

AbdelAziz A, Salem J, Salem W, Abed S, Rizk PB, Abuzeid IM. The effectiveness of Hespan in reducing the incidence of severe hyperstimulation syndrome in polycystic ovarian disease patients. Middle East Fertil Soc J. 2016 Sep;21(3):189-93.

Brocato B, Holliday N, Whitehurst RM Jr., Lewis D, Varner S. Delayed cord clamping in preterm neonates: a review of benefits and risks. Obstet Gynecol Surv. 2016 Jan;71(1):39-42.

Lassiter JR, Holliday N, Lewis DF, Mulekar M, Abshire J, Brocato B. Induction of labor with an unfavorable cervix: how does BMI affect success? J Matern Fetal Neonatal Med. 2016 Sep;29(18):3000-2.

O'Brien JM, Lewis DF. Prevention of preterm birth with vaginal progesterone or 17-alpha-hydroxyprogesterone caproate: a critical examination of efficacy and safety. Am J Obstet Gynecol. 2016 Jan;214(1):45-56.

Rizk B, El-Marsri I, Turki R. Outpatient infertility management. In: Olsen M, Rizk B, editors. Office care of women. New York: Cambridge University Press; 2016. Chapter 27, p. 297-310.

Rocconi RP, Lankes HA, Brady WE, Goodfellow PJ, Ramirez NC, Alvarez RD, Creasman W, Fernandez JR. The role of racial genetic admixture with endometrial cancer outcomes: an NRG Oncology/Gynecologic Oncology Group study. Gynecol Oncol. 2016 Feb;140(2):264-9.

Somasagara RR, Tripathi K, Spencer SM, Clark DW, Barnett R, Bachaboina L, Scalici J, Rocconi RP, Piazza GA, Palle K. Rad6 upregulation promotes stem cell-like characteristics and platinum resistance in ovarian cancer. Biochem Biophys Res Commun. 2016 Jan 15;469(3):449-55.

Swank ML, Garite TJ, Maurel K, Das A, Perlow JH, Combs CA, Fishman S, Vanderhoeven J, Nageotte M, Bush M, Lewis D. Vasa previa: diagnosis and management. Am J Obstet Gynecol. 2016 Aug;215(2):223.e1-6.

Towers CV, Terry PD, Lewis D, Howard B, Chambers W, Armistead C, Weitz B, Porter S, Borman CJ, Kennedy RC, Chen J. Transplacental passage of antimicrobial paraben preservatives. J Expo Sci Environ Epidemiol. 2015 Nov-Dec;25(6):604-7.

II. PUBLISHED ABSTRACTS

Bevis KS, Kvale EA, Rocque G, Cantuaria G, Scalici J, Rocconi RP, Finan MA, Acemgil A, Li Y, Taylor RA, Denmark-Wahnefried W, Kenzik K, Meneses K, Martin M, Fouad MN, Partridge EE, Pisu M. Understanding causes of distress in women with gynecologic cancer. *J Clin Oncol*. 2015 Oct 10;33(29 Suppl):94.

Madeira da Silva L, Gavin E, Lee K, Aragon I, Ramirez-Alcantara V, Scalici J, Rocconi RP, Piazza GA. Targeting phosphodiesterase 10A for chemoprevention and treatment of ovarian cancer. *Clin Cancer Res*. 2016 Jan 15;22(2 Suppl):A76.

Madeira da Silva L, Scalici JM, McClellan S, Laurini J, Cruthirds L, Kolev V, Li Y, Shapiro I, Weaver D, Rocconi RP. Standard chemotherapy for ovarian cancer increases expression of cancer stem cell biomarkers which is predictive of survival. *Gynecol Oncol*. 2016 Jun;141(Suppl 1):29. Abstract no. 67.

Patel M, Bachaboina L, da Silva LM, Rocconi RP, Palle K, Scalici JM. The good, the bad and the ugly: estrogen metabolism and endometrial cancer risk. *Gynecol Oncol*. 2016 Jun;141(Suppl 1):196. Abstract no. 747.

Ross JG, Braswell KV, Scalici JM, Madeira da Silva L, Mujica F, Stutsman S, Nicolson W, Harmon MD, Boudreau S, Wang B, Finan MA, Rocconi RP. Unraveling the etiology of ovarian cancer racial disparity in the Deep South: is it nature or nurture? *Gynecol Oncol*. 2016 Jun;141(Suppl 1):111-2. Abstract no. 268.

Scalici JM, Ross JG, Madeira da Silva L, Nicolson W, Harmon MD, Boudreau S, Wang B, Finan MA, Rocconi RP. Evaluating racial molecular complexity in gynecologic cancers. *Gynecol Oncol*. 2016 Jun;141(Suppl 1):114. Abstract no. 275.

Spencer SM, Somasagara RR, Tripathi K, Bachaboina L, Scalici JM, Rocconi RP, Palle K. Rad6 inhibition sensitizes ovarian cancer cells to platinum drugs by attenuating activation of multiple DNA repair networks. *Gynecol Oncol*. 2016 Jun;141(Suppl 1):67. Abstract no. 164.

Srivastava SK, Singh S, Bhardwaj A, Carter JE, Rocconi RP, Scalici J, Singh AP. Multiple functional implications of MYB in ovarian cancer. *Cancer Res*. 2016 Jul 15;76(Suppl 14):1989.

Srivastava SK, Singh S, Carter JE, Madeira da Silva L, Scalici JM, Rocconi RP, Singh AP. MYB: a novel player in pathobiology of ovarian cancer. *Gynecol Oncol*. 2016 Jun;141(Suppl 1):154-5. Abstract no. 371.

III. PUBLISHED BOOKS

Rizk RMB, Olsen ME, editors. Challenging office cases in obstetrics and gynecology. New Delhi, India: Jaypee Brothers Medical Publishers; 2016. 218 p.

Olsen M, Rizk B, editors. Office care of women. New York: Cambridge University Press; 2016. 565 p.

IV. INVITED PRESENTATIONS

Baker SL. Invited speaker. Perinatal infections: diagnosis & treatment. 25th University of South Alabama Obstetrics and Gynecology Conference; 2016 Apr 15; Daphne, AL.

Brocato B. Invited speaker. Safe labor, induction, and prevention of the primary cesarean delivery. 25th University of South Alabama Obstetrics and Gynecology Conference; 2016 Apr 15; Daphne, AL.

Finan M. Invited speaker. USA Mitchell Cancer Institute overview. Midtown Optimist Club; 2015 Oct 6; Mobile, AL.

Finan M. Invited speaker. USA Mitchell Cancer Institute overview. Government Street Presbyterian Luncheon; 2016 Feb 25; Mobile, AL.

Finan M. Invited speaker. Personalized cancer care. University of South Alabama Gulf Coast Distinguished Lecture Series; 2016 Jan 12; Gulf Shores, AL.

Finan M. Invited speaker. Mitchell Cancer Institute update. Citronelle General Cancer Support Group; 2016 Aug 9; Daphne, AL.

Finan M. Invited speaker. USA Mitchell Cancer Institute overview. Rotary Club of Fairhope; 2016 Aug 10; Fairhope, AL.

Isaacson K, Rizk B, Hanafi M, Tulandi T. Participants in a video session. Myomectomy, hysterectomy and surgical treatment of adenomyosis cases. 1st International Conference of Uterine Fibroid and Adenomyosis; 2016 Sep 17; Atlanta, GA.

Lewis DF. Invited speaker. Cord clamping: is it all the hype? 25th University of South Alabama Obstetrics and Gynecology Conference; 2016 Apr 14; Daphne, AL.

Lewis D. Invited speaker. Delayed cord clamping. 3rd Annual OB Conference for Nurses & Physicians; 2016 Feb 19; Ringgold, GA.

Lewis D. Invited speaker. Diagnosing preterm labor/FFN. 3rd Annual OB Conference for Nurses & Physicians; 2016 Feb 19; Ringgold, GA.

Rizk B. Invited speaker. AMH: Should I do it for all ICSI candidates? Advanced Workshop on Male Fertility Laboratory and In Vitro Fertilization. 2015 Nov 13; Doha, Qatar.

Rizk B. Invited speaker. Assisted reproductive techniques. Advanced Workshop on Male Fertility Laboratory and In Vitro Fertilization. 2015 Nov 13; Doha, Qatar.

Rizk B. Invited speaker. Assisted reproductive techniques. Female Infertility Mini-Summit 2016 Summer Internship in Reproductive Medicine; 2016 Jun 20; Cleveland, OH.

Rizk B. Invited speaker. Complications of ovarian stimulation. Advanced Workshop on Male Fertility Laboratory and In Vitro Fertilization. 2015 Nov 13; Doha, Qatar.

Rizk B. Invited speaker. Complications of ovarian stimulation. 3rd International Genomic Medicine Conference; 2015 Dec 1; Jeddah, Saudi Arabia.

Rizk B. Invited speaker. Complications of ovarian stimulation. Mini Symposium in Update in Reproductive Endocrinology & Infertility; 2015 Dec 2; Jeddah, Saudi Arabia.

Rizk B. Invited speaker. Complications of ovarian stimulation for ART. American Society Reproductive Medicine 48th Annual Postgraduate Program; 2015 Oct 18; Baltimore, MD.

Rizk B. Invited speaker. Decreased libido, causes and treatments. 25th University of South Alabama Obstetrics and Gynecology Conference; 2016 Apr 14; Daphne, AL.

Rizk B. Invited speaker. Endometriosis – associated infertility. Female Infertility Mini-Summit 2016 Summer Internship in Reproductive Medicine; 2016 Jun 20; Cleveland, OH.

Rizk B. Invited speaker. Endometriosis and ART. Mini Symposium in Update in Reproductive Endocrinology & Infertility; 2015 Dec 2; Jeddah, Saudi Arabia.

Rizk B. Invited speaker. Initial assessment of the female. Female Infertility Mini-Summit 2016 Summer Internship in Reproductive Medicine; 2016 Jun 20; Cleveland, OH.

Rizk B. Invited speaker. Leiomyoma, adenomyosis diagnosis and management in infertile patient. 1st International Conference of Uterine Fibroid and Adenomyosis; 2016 Sep 17; Atlanta, GA.

Rizk B. Invited speaker. OHSS diagnosis and treatment and can it be avoided. Advanced Workshop on Male Fertility Laboratory and In Vitro Fertilization; 2015 Nov 13; Doha, Qatar.

Rizk B. Invited speaker. Ovarian hyperstimulation syndrome. Female Infertility Mini-Summit 2016 Summer Internship in Reproductive Medicine; 2016 Jun 20; Cleveland, OH.

Rizk B. Invited speaker. Ovarian hyperstimulation syndrome. Mini Symposium in Update in Reproductive Endocrinology & Infertility; 2015 Dec 2; Jeddah, Saudi Arabia.

Rizk B. Invited speaker. Ovarian hyperstimulation syndrome: how to avoid OHSS and how to manage severe cases. Mini Symposium in Update in Reproductive Endocrinology & Infertility; 2015 Dec 2; Jeddah, Saudi Arabia.

Rizk B. Invited speaker. Ovarian hyperstimulation syndrome. American Society for Reproductive Medicine 48th Annual Postgraduate Program; 2015 Oct 18; Baltimore, MD.

Rizk B. Invited speaker. Ovarian stimulation for IVF: which gonadotropin and which trigger? Advanced Workshop on Male Fertility Laboratory and In Vitro Fertilization; 2015 Nov 13; Doha, Qatar.

Rizk B. Invited speaker. Pathology and treatment of PCOS. Female Infertility Mini-Summit 2016 Summer Internship in Reproductive Medicine; 2016 Jun 20; Cleveland, OH.

Rizk B. Invited speaker. Pathophysiology and treatment of PCOS. Advanced Workshop on Male Fertility Laboratory and In Vitro Fertilization; 2015 Nov 13; Doha, Qatar.

Rizk B. Invited speaker. Prediction and management of ovarian stimulation. 3rd International Genomic Medicine Conference; 2015 Dec 1; Jeddah, Saudi Arabia.

Rizk B. Invited speaker. Pre IVF ultrasound assessment: do they affect outcome. Advanced Workshop on Male Fertility Laboratory and In Vitro Fertilization; 2015 Nov 13; Doha, Qatar.

Rizk B. Invited speaker. Ultrasound in infertility. Female Infertility Mini-Summit 2016 Summer Internship in Reproductive Medicine; 2016 Jun 21; Cleveland, OH.

Rizk B. Invited speaker. Uterine anomalies. Mini Symposium in Update in Reproductive Endocrinology & Infertility; 2015 Dec 2; Jeddah, Saudi Arabia.

Rizk B. Invited speaker. What are the new frontiers for fertility preservation, vitrification and ovarian transplantation? Advanced Workshop on Male Fertility Laboratory and In Vitro Fertilization. 2015 Nov 13; Doha, Qatar.

Rizk B. Invited speaker. When to do ICSI? Do you use a different stimulation protocol? Advanced Workshop on Male Fertility Laboratory and In Vitro Fertilization; 2015 Nov 13; Doha, Qatar.

Rizk B. Invited speaker. Why do euploid embryos fail to implant? What can be done to increase the chances? Advanced Workshop on Male Fertility Laboratory and In Vitro Fertilization. 2015 Nov 13; Doha, Qatar.

Roconni RP. Invited speaker. Update in gynecologic oncology: where we've been and where we're going. 25th University of South Alabama Obstetrics and Gynecology Conference; 2016 Apr 15; Daphne, AL.

Varner STF. Invited speaker. Management of abnormal pap smears. An update of cervical cancer screening and prevention. Alabama Breast and Cervical Cancer Early Detection Program; 2016 Jan 28; Montgomery, AL.

Varner STF. Invited speaker. Management of abnormal pap smears: an update. 25th University of South Alabama Obstetrics and Gynecology Conference; 2016 Apr 15; Daphne, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

Dr. Susan Baker is a member of the Alabama Perinatal Excellence Collaborative leadership team.

Dr. Michael Finan has been listed as one of the Best Doctors in America in *U.S. News and World Report* from 2011-2015. In 2015, he was listed as one of the Best Doctors in America in *Newsweek*. Dr. Finan is a Diplomat for the American Board of Obstetrics and Gynecology, Fellow for the American College of Obstetricians and Gynecologists, Fellow of the American College of Surgeons, and a member of the Jefferson Parish Medical Society, Louisiana State Medical Society, Alpha Omega Alpha Honor Society, and the Society of Gynecologic Oncologists. He is a reviewer for the following journals: *Gynecologic Oncology*, *Obstetrics and Gynecology*, *American Journal of Obstetrics and Gynecology*, and *Southern Medical Journal*.

Dr. John LaFleur is a board member for the Advisory Committee for Alabama ACOG.

Dr. David Lewis is President of the Central Association of Obstetricians and Gynecologists where he previously held the office of Secretary and Treasurer. He is Vice President of Roger K. Freeman Perinatal Society and a Fellow of the American College of Obstetrics and Gynecology. Dr. Lewis a member of: Society of Maternal Fetal Medicine, Roger K. Freeman Perinatal Society, Association of Professors of Obstetrics and Gynecology, Southeastern OB/GYN Society, Central Association of OB/GYN, Council of University Chairs of Obstetrics and Gynecology, International Society for Study of Hypertension in Pregnancy, Alabama State Perinatal Advisory Council, and Alabama Perinatal Excellence Collaborative leadership team. Dr. Lewis is a journal reviewer for: *American Journal of Obstetrics and Gynecology*, *Obstetrics and Gynecology*, *Journal of Maternal Fetal Medicine*, *Southern Medical Journal*, *The Lancet*, *Clinical Drug Investigation*, *Fertility and Sterility*, *Journal of Maternal-Fetal and Neonatal Medicine*, *Expert Review of Obstetrics & Gynecology*, *International Urological Journal*, *Journal of Perinatology*, *International Urogynecology Journal*, *American Journal of Perinatology*, *Journal of Neonatal-Perinatal Medicine*, *Journal of Pregnancy*, *Current Vascular Pharmacology*, and *International Journal of Reproductive Medicine*.

Dr. Lewis is also a reviewer for the following societies: *Society for Maternal-Fetal Medicine*, *Central Association of OB/GYN*, *Journal of Perinatology*, and *International Society for Study of Hypertension in Pregnancy*.

Dr. Botros Rizk is President Elect of Middle East Fertility Society. He is a Distinguished Adjunct Professor at King Abdulaziz University in Jeddah, Kingdom of Saudi Arabia. Dr. Rizk is a Scientific Advisory Board Member for Mediterranean Society for Reproductive Medicine. He is also a member of the European Society of Human Reproduction and Embryology (Brussels, Belgium), Royal College of Physicians and Surgeons of Canada (Ottawa, Canada), American College of Obstetrics and Gynecology (Washington, D.C.), American Society of Reproductive Medicine (Birmingham, AL), American College of Surgeons (Chicago, IL), American Association of Bioanalysts (St. Louis, MO), Royal College of Obstetrics and Gynecologists (London, England), American Association of Gynecological Laparoscopists, Association of Professors of Gynecology and Obstetrics, and American Association of University Professors. Dr. Rizk is Chairman of the MEFS Symposium and an invited speaker for the American Society for Reproductive Medicine Annual Meeting. He is also a reviewer of the following journals: *Human Reproduction*, *Fertility and Sterility*, *American Journal of Obstetrics and Gynecology*, *Molecular Human Reproduction*, and *Journal of Middle East Fertility Society*.

Dr. Rodney Rocconi is Chair of the Department of Defense Ovarian Cancer Research Program: Detection, Diagnosis and Prognosis Panel and also Chair of the Department of Defense Ovarian Cancer Research Program: Cell Biology Panel. Dr. Rocconi's abstract, "Dietary isothiocyanates inhibit cancer cell growth by inducing replication stress mediated DNA damage response" was a featured poster at Society of Gynecologic Oncology Annual Meeting on Women's Cancer in Chicago, IL. Dr. Rocconi belongs to the following professional societies: Society of Gynecologic Oncology, American College of Obstetrics and Gynecology (Fellow), American Society of Clinical Oncology, American Association for Cancer Research, Mobile County Medical Society, and South Central Obstetrical and Gynecological Society. He is a member of the following committees: ACOG Alabama Chapter Advisory Board, NRG Oncology Translational Science in Gynecology Committee, Society of Gynecologic Oncology Education Committee, Society of Gynecologic Oncology Congressional Ambassador, and an Associate Member of Early Detection Research Network. Dr. Rocconi is an Editorial Reviewer for the following journals: *Gynecologic Oncology*, *International Journal of Gynecologic Cancer*, *Cancer*, *Clinical Ovarian Cancer*, *European Journal of Obstetrics & Gynecology & Reproductive Biology*, *Journal of Cellular and Molecular Medicine*, *Anti-Cancer Agents in Medicinal Chemistry*, *British Journal of Cancer*, *Carcinogenesis*, *Acta Obstetrica et Gynecologica Scandinavica*, and *Journal of Visualized Experiments*.

Dr. Jennifer Scalici was awarded the 2015 Alpha Sigma Nu Magis Award for service. Dr. Scalici's abstract, "Dietary isothiocyanates inhibit cancer cell growth by inducing replication stress mediated DNA damage response" was a featured poster at Society of Gynecologic Oncology Annual Meeting on Women's Cancer in Chicago, IL. She is a Research member for the American Association of Cancer, a Candidate member of the Society of Gynecologic Oncology, a Fellow member of the American Congress of Obstetricians and Gynecologists, and a Board of Trustees member for Spring Hill College.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Education

The department held its 25th Annual CME Conference in Obstetrics and Gynecology at the Daphne Civic Center April 14th and April 15th, 2016. Outside speakers were David Adair, MD, University of Tennessee, Knoxville; David Jackson, MD, University of Nevada; Joshua Johannson, MD, IBCLC, Cheaha Women's Health and Wellness, Anniston, and Danny Rickert, BS, Gulf Coast Regional Care Organization. Other USA Faculty speakers were: Lynn Dyess, MD, Department of Surgery; Elizabeth Minto, MD, Department of Neurology; Richard Whitehurst, MD, Division of Neonatology-Perinatal Medicine; Michael Finan, MD, Director of Mitchell Cancer Institute; Jean Tucker, JD, MPH, BSN, Senior University Attorney; Jeff Morris, BSN, RN, Clinical Documentation Improvement Specialist. USA Department of Obstetrics and Gynecology speakers were: Susan L. Baker, MD, Brian Brocato, DO, David F. Lewis, MD, Botros Rizk, MD, Stephen T.F. Varner, MD, and Jo Ellen Roberson, MSN, CNM. The meeting was widely supported and attended by physicians, nurse practitioners, nurse midwives, and nurses from a large geographic area.

Scholarly Efforts

The department has been actively enrolling subjects into three multi-center trials. One study is a prospective, interventional trial for preterm pre-eclampsia. A second study is for further evaluation of a commercially available, noninvasive prenatal test for pregnant women at increased risk for fetal chromosomal abnormalities. The third study is a randomized-controlled trial looking at the efficacy of a second course of antenatal corticosteroids in patients with premature rupture of membranes.

The department is also collaborating with the division of Neonatology in an initiated study regarding delayed cord clamping in preterm deliveries. The residents have been involved with retrospective studies and have presented their work at regional and national meetings.

One scholarly effort the department is leading involves the "Strong Start" for Mothers and Newborns Initiative. This is a CMS funded project looking at enhancing prenatal care to improve preterm birth rates. This project will continue through 2017 as part of the multi-year, multi-center project.

The department continues to deliver excellent clinical service. The faculty continues to impact the university and community by participation research trials that can improve the quality of care for its high risk, maternity patients.

Departmental faculty continue to serve on editorial boards, as journal article reviewers, on medical advisory boards, and on grant review panels.

2015-2016
Summary of Scholarly Activities
Department of Orthopaedic Surgery

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Barousse P, Saper M, Meijer K, Roth C, Andrews JR. Valgus extension overload: arthroscopic decompression in the supine-suspended position. *Arthrosc Tech*. 2016 Aug; 5(4):e845-50.

Brewer J, O'Connor DP, Brinker MR. Nonunions. In: Ricci WM, Ostrum RF, editors. *Orthopaedic knowledge update: trauma 5*. 5th ed. Rosemont, IL: American Academy of Orthopaedic Surgeons; 2016. Chapter 10, p. 97-107.

Chaudhari NM, McBryde A Jr, McMichael C, Johnson A. Outcome analysis of distal chevron and Akin osteotomy for hallus valgus correction: a retrospective study. *USA Orthopaedic Journal*. 2015-2016;1:48-56. Available from:
<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

Gillig JD, Smith MD, Hutton WC, Jarrett CD. The effect of flexor digitorum profundus tendon shortening on jersey finger surgical repair: a cadaveric biomechanical study. *USA Orthopaedic Journal*. 2015-2016;1:24-30. Available from:
<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

Goode R, Ray JB. Arthroscopic treatment of tarsometatarsal joint pain of unknown etiology. *USA Orthopaedic Journal*. 2015-2016;1:76-7. Available from:
<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

Lewis D, McBryde A Jr, Douen S, Gould J, Gillig J. Medial talar wall breakout strength: a biomechanical study. *USA Orthopaedic Journal*. 2015-2016;1:20-2. Available from:
<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

Martino A, Nimityongskul P, Kim D. CHARGE syndrome and tethered cord. *USA Orthopaedic Journal*. 2015-2016;1:78-9. Available from:
<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

McBryde A Jr. Then and now (Editorial). *USA Orthopaedic Journal*. 2015-2016;1:80-4. Available from:
<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

McBryde A Jr. The strange and stressful path to residency (Editorial). USA Orthopaedic Journal. 2015-2016;1:85-7. Available from:
<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

McBryde A Jr, Kumar VBP. Arthroscopic ankle arthrodesis (AAA); a pilot study. USA Orthopaedic Journal. 2015-2016;1:31-7. Available from:
<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

McBryde AM Jr. The senior physician: acknowledging age and ability. Is it possible for us to “retire gracefully”? AAOS Now. 2015 Oct; 9(10):37-40.

McBryde A Jr, Barousse P. Peroneus brevis longitudinal (split) tendon tears in athletes. USA Orthopaedic Journal. 2015-2016;1:44-47. Available from:
<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

Shung J, Grant M, McBryde A Jr, Kovalski J. A provocative test for exertional compartment syndrome using a calf sleeve. USA Orthopaedic Journal. 2015-2016;1:15-9. Available from:
<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

Smith PA. Intra-articular autologous conditioned plasma injections provide safe and efficacious treatment for knee osteoarthritis: an FDA-sanctioned, randomized, double-blind, placebo-controlled clinical trial. Am J Sports Med. 2016 Apr;44(4):884-91.

West JL IV, Bajwa NS, Nimityongskul P. Medial clavicle fracture with physeal fracture and posterior dislocation. USA Orthopaedic Journal. 2015-2016;1:73-5. Available from:
<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

White S, Goode R, Meyer FN. Surgical findings that likely lead to failure of conservative treatment of De Quervain’s tenosynovitis. USA Orthopaedic Journal. 2015-2016;1:57-61. Available from:
<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

Xing Z, Scott B. “Leukemoid reaction” to a soft tissue sarcoma. USA Orthopaedic Journal. 2015-2016;1:71-2. Available from:
<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

II. PUBLISHED ABSTRACTS

Gillig JD, White SD, Rachel JN. Acute carpal tunnel syndrome. USA Orthopaedic Journal. 2015-2016;1:68. Available from:

<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

Meyer FN, Mitchell WR. Outcomes of ulnar shortening osteotomy for the treatment of ulnar-sided wrist pain. USA Orthopaedic Journal. 2015-2016;1:69. Available from:

<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

Perry M, Taylor B. From the ankle and foot division: calcaneal fractures. USA Orthopaedic Journal. 2015-2016;1:62-3. Available from:

<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

Poage C, Roth C, Scott B. Peroneal nerve palsy: evaluation and management. USA Orthopaedic Journal. 2015-2016;1:66-7. Available from:

<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

Scott B, Henderson D, Honeycutt W, Meyer FN. Outcomes following surgical treatment of olecranon fractures. USA Orthopaedic Journal. 2015-2016;1:70. Available from:

<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

Shung J, McBryde AM Jr, Euwer B. Provocative testing for extensional compartment syndrome (ECS). Southern Orthopaedic Association 33rd Annual Meeting; 2016 Jul 27-30; Naples, FL. Abstract no. 01.

Smith PJ, Hollins A, Sawyer J, Spence D, Outlaw S, Kelly DM. Characterization of collision sports injuries in children and adolescents. USA Orthopaedic Journal. 2015-

2016;1:64-5. Available from: <https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

Stopka S, Wilson G, Pearsall A. Dilution effect of intra-articular injection administered, after knee arthroscopy. USA Orthopaedic Journal. 2015-2016;1:23. Available from:

<https://www.usahealthsystem.com/workfiles/com%5Fdocs/academicdepartments/orthopaedicsurgery/usa-ortho-journal-2016.pdf>

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Brewer JL. Invited speaker. Pilon fractures: my first 6 months of practice. 27th Annual Southeastern Orthopaedic Foot Club Meeting; 2016 May 12; Point Clear, AL.

McBryde A Jr. Invited speaker. Preparing for race day. University of South Alabama Med School Café; 2016 Feb 23; Mobile, AL.

McBryde A Jr. Invited speaker. Top 3 foot and ankle ramblings. 27th Annual Southeastern Orthopaedic Foot Club Meeting; 2016 May 12; Point Clear, AL.

McBryde A Jr. Invited speaker. Fitness related injuries: how to combat overuse in the active patient. University of South Alabama College of Medicine Alumni Association Weekend; 2016 Jun 3; Orange Beach, AL.

McBryde A Jr. Invited speaker. Calf sleeve: a challenge test for exertional compartment syndrome (ECS). 64th Annual Piedmont Orthopaedic Society Meeting; 2016 May 14; Kiawah Island, SC.

Stopka S, Nimityongskul P. Invited speakers. Chondroblastoma in the distal tibia with subarticular erosion. International Pediatric Orthopaedic Symposium. 2015 Dec 8; Orlando, FL.

V. NATIONAL PROFESSIONAL RECOGNITION

Angus McBryde Jr.: Member, Governing Council, American Medical Association-Senior Physicians Section; American College of Surgeons, Fellow in Good Standing; Journal of Surgical Orthopaedic Advances, 2016 Editorial Board; American Sports Medicine Institute Board (ASMI); Planning Committee for Southern Medical Association (SMA) webinar “Age and Competency.

Albert W. Pearsall: 2008-present Council Member, Tissue Advisory Council, LifeLink Foundation, Inc.; 2006-present Member, Surgical Services Division Committee, Mobile Infirmary Medical Center; 2003-present Publications Committee, American Orthopaedic Society of Sports Medicine.

Mark Perry: Contributing Editor for the Patient Information website, www.footeducation.com; Invited as an Oral Boards Examiner to the American Board of Orthopaedic Surgery (ABOS) 2016.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Dr. Angus McBryde began his 15 months of interim chair as of June 1, 2015. The 2015 - 2016 academic year was eventful in its recovery from critical faculty loss due to the death of Dr. Fred Meyer on November 14, 2014, the retirement of Dr. Jorge Alonso and the departure of Dr. Sudhakar Madanagopal. Dr. Ginger Bryant, Huntsville, Alabama, bridged the Orthopaedic trauma coverage gap during the summer and the department remains very grateful. Dr. Jeff Brewer was recruited as the Director of Orthopaedic Trauma. Dr. Pat Daughtery joined Orthopaedics as a non-operative orthopaedist. Dr.

Frank Pettyjohn was also brought in for Orthopaedic patient triage. Dr. Chris Jones, a sports medicine fellow from the Andrews Sports Medicine and Orthopaedic Center in Birmingham, has begun utilizing an operating room at Children's and Women's Hospital for arthroscopic surgery and has been very well received. Dr. Jones is subspecialty trained in hip arthroscopy and is the most recent faculty addition. Dr. Jared Burkett (hand surgeon) and Dr. Jim West (Orthopaedic spine surgeon) split their time between the departmental clinic office and their private practices. These additional hiring's complement our remaining fulltime faculty: Drs. Angus McBryde, Prasit Nimityongskul, Albert Pearsall, Mark Perry, and Zhiqing Xing.

Dr. Marymont, the new Dean of the College of Medicine and Vice President for Medical Affairs, and Dr. Anthony Martino, chair of the search committee for the Orthopaedic Chairman position, have been working very hard to interview potential candidates for a permanent Chairman for the Orthopaedic Department. In the meantime, Dr. Angus McBryde continues to do an outstanding job keeping our department in good order.

For the first time in the 40+ year history of this Orthopaedic Department, we have an official journal of the department named the USA Orthopaedic Journal. This is a result of the tireless effort by Dr. Angus McBryde. Hopefully, the department will carry on this milestone effort of Dr. McBryde and make this Journal at least an annual publication or better in the years to come.

Our three graduating residents all accepted fellowship positions which started shortly after graduation: Dr. W. Ryan Mitchell, Sports Medicine fellowship at Sports Orthopaedics and Rehabilitation (SOAR) Medicine in San Francisco; Dr. Brandon Taylor, Foot and Ankle fellowship at Campbell Clinic in Germantown, Tennessee; and Dr. J. Grant Zarzour, Adult Reconstruction fellowship at Mississippi Sports Medicine & Orthopaedic Center in Jackson, Mississippi.

The department continues its upward trend on certification exams through the American Board of Orthopaedic Surgery. The five year total pass rate for Part I increased to 94% for first time test takers. With one eligible candidate not having taken the exam, the five year total pass rate for the Part II exam has increased to 86% on their first attempt.

2015-2016
Summary of Scholarly Activities
Department of Pathology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Baskovich B, Hiraki S, Upadhyay K, Meyer P, Carmi S, Barzilai N, Darvasi A, Ozelius L, Peter I, Cho JH, Atzmon G, Clark L, Yu J, Lencz T, Peter I, Ostrer H, Oddoux C. Expanded genetic screening panel for the Ashkenazi Jewish population. *Genet Med*. 2016 May;18(5):522-8.

Bhardwaj A, Srivastava SK, Singh S, Tyagi N, Arora S, Carter JE, Khushman M, Singh AP. MYB promotes desmoplasia in pancreatic cancer through direct transcriptional up-regulation and cooperative action of sonic hedgehog and adrenomedullin. *J Biol Chem*. 2016 Jul 29;291(31):16263-70.

Khan MA, Srivastava SK, Bhardwaj A, Singh S, Arora S, Zubair H, Carter JE, Singh AP. Gemcitabine triggers angiogenesis-promoting molecular signals in pancreatic cancer cells: therapeutic implications. *Oncotarget*. 2015 Nov 17;6(36):39140-50.

Leavesley SJ, Wheeler M, Lopez C, Baker T, Favreau PF, Rich T, Rider P, Boudreaux C. Hyperspectral imaging fluorescence excitation scanning for detecting colorectal cancer: pilot study. *Proc SPIE*, 9703, Optic Biopsy XIV: Toward Real-Time Spectroscopic Imaging and Diagnosis. 2016 Mar 7;970315. doi:10.1117/12.2213153. (Subscription required).

Slamecka J, Salimova L, McClellan S, Van Kelle M, Kehl D, Laurini J, Cinelli P, Owen L, Hoerstrup SP, Weber B. Non-integrating episomal plasmid-based reprogramming of human amniotic fluid stem cells into induced pluripotent stem cells in chemically defined conditions. *Cell Cycle*. 2016;15(2):234-49.

Srivastava SK, Bhardwaj A, Arora S, Singh S, Azim S, Tyagi N, Carter JE, Wang B, Singh AP. MYB is a novel regulator of pancreatic tumour growth and metastasis. *Br J Cancer*. 2015 Dec 22;113(12):1694-703.

Tan F, Ghosh S, Mosunjac M, Manci E, Ofori-Acquah SF. Diametric effects of hypoxia on pathophysiology of sickle cell disease in a murine model. *Exp Biol Med*. 2016 Apr;24(7):766-71.

Tyagi N, Marimuthu S, Bhardwaj A, Deshmukh SK, Srivastava SK, Singh AP, McClellan S, Carter JE, Singh S. p21-activated kinase 4 (PAK4) maintains stem cell-like phenotypes in pancreatic cancer cells through activation of STAT3 signaling. *Cancer Lett*. 2016 Jan 28;370(2):260-7.

Yuzefovych LV, Kahn AG, Schuler MA, Eide L, Arora R, Wilson GL, Tan M, Rachek LI. Mitochondrial DNA repair through OGG1 activity attenuates breast cancer progression and metastasis. *Cancer Res.* 2016 Jan 1;76(1):30-4.

II. PUBLISHED ABSTRACTS

Baskovich B, Haldar S. A differential diagnosis map for breast cancers. *Arch Pathol Lab Med.* 2015 Oct;139(10):e112. Abstract no. 162. Available from: <http://www.archivesofpathology.org/doi/pdf/10.5858/arpa.2015-0241-AB>

Ioannidis I, Foster R, Laurini J, Boudreaux C, Kahn A. Comparison of SurePath™ and cytopsin preparations in body cavity fluids. *J Am Soc Cytopathol.* 2015 Nov-Dec;4(6):S10. Abstract no. 12.

Kampagianni O, Quatrino G, Grimm L, Boudreaux C, Laurini JA. Lymphoepithelial-like carcinoma involving a rectal tonsil. *Arch Pathol Lab Med.* 2015 Oct;139(10):e32. Abstract no. 99. Available from: <http://www.archivesofpathology.org/doi/pdf/10.5858/arpa.2015-0241-AB>

Laurini J, Khushman M, Bhardwaj A, Patel G, Roveda K, Tan M, Singh S, Taylor W, Singh A. Exosomal markers (CD63 and CD9) expression by immunohistochemistry (IHC) in pancreatectomy specimens (PS). XXXI International Congress of the International Academy of Pathology and 28th Congress of the European Society of Pathology; 2016 Sep 25-29; Cologne, Germany. Abstract no. PS-05-022

Maldonado L, Baskovich B. An interactive online unknown conference with a system for ordering immunostains and molecular genetic studies. United States & Canadian Academy of Pathology 2016 Annual Meeting; 2016 Mar 12-18; Seattle, WA. p. 145. Abstract no. 70.

Naeem RC, Schlesinger K, Fox AS, Ver RB, Barrera EH, Baskovich B, Suhrland MJ, Einstein MH. High-risk HPV status and cytology correlation in an ethnically diverse Bronx population: a comparison of SurePath versus ThinPrep specimen types on the COBAS 4800 Platform. *J Mol Diagn.* 2015 Nov;17(6):794. Abstract no. 63.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

V. NATIONAL PROFESSIONAL RECOGNITION

Brett W. Baskovich: 2016 Tristate Pathology Conference, Invited Speaker.

Gary E. Carnahan: Inspector, College of American Pathologists; Medical Director, LifeSouth Community Blood Bank

Elliot Carter: Inspector, College of American Pathologists.

Andrea G. Kahn: Member at Large, Executive Board, Alabama Association of Pathologists; Elected as faculty Alpha Omega Alpha Honor Medical Society member; 2016 Tristate pathology conference, program coordinator.

Javier A. Laurini: Member, Cancer Committee, College of American Pathologists.

Elizabeth A. Mancini: Member on the Board of Directors of the Gulf Coast Regional Chapter of the American Red Cross; Counsellor for District One of the Medical Association of the State of Alabama; Chairman of the search committee for Executive Director of the Mobile Medical Museum; Director of Alabama Placenta Registry. Director of The Centralized Unit for Study of Sickle Cell Disease; Publication committee member for Pediatric and Development Pathology Journal for the Society of Pediatric Pathology.

Jacek Polski: Editorial Board, *Annals of Clinical and Laboratory Science*; *Annals of Clinical Pathology*; *Austin Journal of Clinical Pathology*.

Kelly Roveda: Councilor Beta chapter of Alpha Omega Alpha Medical Honor Society.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Three residents completed the residency program this year. Dr. Maria Del Valle Estopinal began a surgical oncology fellowship at the University of Texas, MD Anderson Cancer Center. Dr. Ioannis Ioannidis entered a surgical pathology fellowship at the University of Pennsylvania Hospital and has plans to follow up that fellowship with an additional fellowship in cytopathology at this same location. Dr. Stephen Marbut started a surgical pathology fellowship at the University of Alabama Birmingham. The department successfully recruited three highly accomplished new residents, Dr. Nadia Hameed from University of Baghdad, College of Medicine, Iraq, Dr. Monira Haque, Jawaharlal Nehru Medical College, Wardha, India and Dr. Krutika Patel from Grant Government Medical College, Mumbai, India.

A premier educator and mentor to countless medical students and residents over the course of his career, Dr. Allan Tucker passed away on March 23, 2016 after 12 years of distinguished service as chair of the department. Dr. Tucker had previously served as Pathology Residency Program Director, Director of Anatomic Pathology, and Director of Surgical Pathology as well as earning numerous teaching accolades including red sash awards and being chosen as speaker for the senior medical students' honors convocation. His local, regional, national, and international activities and accolades are too numerous to list here, but Dr. Tucker's legacy of mentorship and teaching is truly remarkable. Drs. Elliot Carter and Andrea Kahn have served as Interim Co-Chairs in his absence.

Dr. Elizabeth Mancini serves as Director of Pediatric Pathology. Dr. Elliot Carter continues to serve as Director of Microbiology and Laboratory Director for the USA Medical

Center. Dr. Carole Boudreaux serves as Director of Cytopathology, Associate Director of the Residency Program, and Director of the Autopsy Service, and Dr. Kelly Roveda continues to serve as Assistant Dean for Medical Education and Student Affairs. Dr. Javier Laurini serves as Director of Surgical Pathology, Dr. Jacek Polski serves as Director of Hematopathology, Dr. Brett Baskovich as Director of Molecular Pathology, and Dr. Andrea Kahn as Director of Anatomic Pathology and Director of the Residency Program. Dr. Gary Carnahan serves as Laboratory Director for Children and Women's Hospital, Director of Chemistry and Transfusion Medicine for University of South Alabama Medical Center, and Director of USA Mitchell Cancer Institute's Clinical Laboratory.

The Anatomic Pathology division of the Pathology Department and the Colorectal division of the Surgery Department have continued their collaborative efforts to ensure the highest level of patient care. Some of these efforts include the following: standardization of the processing of rectal specimens with a mesorectal envelope; implementation of a testing algorithm for microsatellite instability; and the implementation of a bi-weekly multidisciplinary tumor board for colorectal cancers.

A recent addition to the faculty as lecturer is Ms. Pamela Moore, filling the position of Pathology Assistant. Ms. Moore worked previously in the department as a histology technician and has very comprehensive knowledge of anatomic pathology functions.

The residents' faculty recognition award was presented to Dr. Javier Laurini, and the residents' staff recognition award to Ms. Debbie Buck. These awards are presented annually to the faculty member and staff member who are felt by the house staff to have been the most instrumental in their education and training during the previous year. Dr. Susan Harley, PGY2 and Chief Resident, received the first prize award for her platform presentation at the Tristate Pathology Conference. Dr. Andrea Kahn and PGY2 resident, Dr. Leonel Maldonado, presented "Immunotactoid Glomerulopathy in a Patient with Hepatitis C Viral Infection" at the Ultrapath XVIII Meeting of the Society of Ultrastructural Pathology (SUP) held in Lisbon, Portugal in July. Dr. Maldonado was presented with the SUP Tucker Trainee Award for this presentation. Dr. Maldonado also represented the Pathology department as guest speaker for the J. Allan Tucker session, where he presented a talk entitled "A great teacher: Joseph Allan Tucker." Drs. Carter and Kahn continue to collaborate in funded research.

2015-2016
Summary of Scholarly Activities
Department of Pediatrics

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Brocato B, Holliday N, Whitehurst RM Jr, Lewis D, Varner S. Delayed cord clamping in preterm neonates: a review of benefits and risks. *Obstet Gynecol Surv.* 2016 Jan;71(1):39-42.

Chatmethakul T, Bhat R, Alkaabi M, Siddiqui A, Peevy K, Zayek M. Infantile hepatic hemangioendothelioma: an uncommon cause of persistent pulmonary hypertension in a newborn infant. *AJP Rep.* 2016 Jul;6(3):e260-3.

Custodio H. Protozoan parasites. *Pediatr Rev.* 2016 Feb;37(2):59-71.

Custodio H, Estrada B. Antimicrobial stewardship: an overview for the pediatrician. *The Florida Pediatrician.* 2016 Spring;35(2):13-8. Available from:
https://issuu.com/fcaap/docs/fcaap_journal_spring_2016_final.

Gulati R, Elabiad MT, Talati AJ, Dhanireddy R. Trends in medication use in very low-birth-weight infants in a Level 3 NICU over 2 decades. *Am J Perinatol.* 2016 Mar;33(4):370-7.

Hoffman BD, Barnes M, Ferrell C, Gellin C, Lichtenstein C, Donnelly J, Kaczorowski J, CHAMP Study Group (Trimm F, collaborator). The Community Health and Advocacy Milestones Profile (CHAMP): a novel tool linking community pediatrics and advocacy training to assessment of milestones-based competence in pediatric residency training. *Acad Pediatr.* 2016 May-Jun;16(4):309-13

Luchtman-Jones L, Pressel S, Hilliard L, Brown RC, Smith MG, Thompson AA, Lee MT, Rothman J, Rogers ZR, Owen W, Imran H, Thornburg C, Kwiatkowski JL, Aygun B, Nelson S, Roberts C, Gauger C, Piccone C, Kalfa T, Alvarez O, Hassell K, Davis BR, Ware RE. Effects of hydroxyurea treatment for patients with hemoglobin SC disease. *Am J Hematol.* 2016 Feb;91(2):238-42.

Merritt B, Fagan H, Duck SC. In-hospital management of pediatric diabetic ketoacidosis (DKA): presentation, diagnosis, and treatment. In: Duck SC, Hegeman JR, editors. *Pediatric diabetic ketoacidosis.* New York: Nova Science; 2015. Chapter 5, p. 57-72. (Pediatrics-Laboratory and Clinical Research).

Siddiqui AH. Stem cell transplantation as treatment of sickle cell disease. *Sickle Cell Today.* 2016 Apr;13(1):2-3. Available from:
<http://www.usahealthsystem.com/workfiles/Comp.SickleCellDocs/SickleCellNewsletterApril2016.pdf>

Tieder JS, Bonkowsky JL, Etzel RA, Franklin WH, Gremse DA, Herman B, Katz ES, Krilov LR, Merritt JL 2nd, Norlin C, Percelay J, Sapien RE, Shiffman RN, Smith MBH. Brief resolved unexplained events (formerly apparent life threatening events) and evaluation of lower risk infants: executive summary. *Pediatrics*. 2016 May;137(5):e20160591.

Ware RE, Davis BR, Schultz WH, Brown RC, Aygun B, Sarnaik S, Odame I, Fuh B, George A, Owen W, Luchtman-Jones L, Rogers ZR, Hilliard L, Gauger C, Piccone C, Lee MT, Kwiatkowski JL, Jackson S, Miller ST, Roberts C, Heeney MM, Kalfa TA, Nelson S, Imran H, Nottage K, Alvarez O, Rhodes M, Thompson AA, Rothman JA, Helton KJ, Roberts D, Coleman J, Bonner MJ, Kutlar A, Patel N, Wood J, Piller L, Wei P, Luden J, Mortier NA, Stuber SE, Luban NL, Cohen AR, Pressel S, Adams RJ. Hydroxycarbamide versus chronic transfusion for maintenance of transcranial doppler flow velocities in children with sickle cell anaemia—TCD With Transfusions Changing to Hydroxyurea (TWiTCH): a multicentre, open-label, phase 3, non-inferiority trial. *Lancet*. 2016 Feb 13; 387(10019):661-70.

Wood JC, Cohen AR, Pressel SL, Aygun B, Imran H, Luchtman-Jones L, Thompson AA, Fuh B, Schultz WH, Davis BR, Ware RE, TWiTCH Investigators. Organ iron accumulation in chronically transfused children with sickle cell anemia: baseline results from the TWiTCH trial. *Br J Haematol*. 2016 Jan;172(1):122-30.

II. PUBLISHED ABSTRACTS

Abou Ayash H, Ponnambalam A. Nine-year incidence of hospital-onset *clostridium difficile* infection in pediatric patients at University of South Alabama Children and Women's Hospital. *J Investig Med*. 2016 Feb;64(2):532-3. Abstract no. 109.

Al-Ghafry M, Nadella D, Imran H, Siddiqui A. Comparing the desmopressin challenge test biological response to desmopressin clinical response in pediatric patients with Von Willebrand Disease; a single center experience. *J Investig Med*. 2016 Feb;64(2):658. Abstract no. 414.

Bhat J, Kaulfers A. A case of premature thelarche secondary to application of lavender lotion. *J Investig Med*. 2016 Feb;64(2):497. Abstract no. 22.

Blatt D, Chalam J, Estrada B. Disseminated *cryptococcus neoformans* infection in a child with congenital neutropenia. *J Investig Med*. 2016 Feb;64(2):566. Abstract no. 193.

Blatt D, Kulkarni T, Sanchez O. Acute liver failure following heat-related injury in a football player. *J Investig Med*. 2016 Feb;64(2):622-3. Abstract no. 333.

Chatmethakul T, Alkaabi M, Peevy K, Bhat R. Symptomatic infantile hepatic hemangioendothelioma presenting as pulmonary hypertension in a full term newborn infant. *J Investig Med*. 2016 Feb;64(2):580. Abstract no. 230.

Custodio H, Norton T, Fortwendel J. Growth inhibitory effect of cerivastatin against yeasts

and *Aspergillus fumigatus*. Open Forum Infect Dis. 2015 Fall;2(Suppl 1):S229. Abstract no. 788.

Dolma K, Bhat R, Zayek MM, Eyal FG. Conservative management of hemodynamically significant persistent patent ductus arteriosus among ventilator dependent extremely low birth weight infants. 2016 Pediatric Academic Societies Annual Meeting; 2016 Apr 30-May 3; Baltimore, MD. Abstract no. 3855.503.

Dolma K, Bhat R, Zayek MM, Eyal FG. Postnatal hydrocortisone versus ductal ligation for chronically ventilator dependent extremely low birth weight infants with persistent hemodynamically significant patent ductus arteriosus. J Investig Med. 2016 Feb;64(2):607. Abstract no. 297.

Felkner R, Willen B, Coleman A, Roca R. Rare tumor in an unsuspecting patient. J Investig Med. 2016 Feb;64(2):585. Abstract no. 241.

Gavan B, Kukarni T, Bradham K. Non-classical presentation of Henoch Schonlein purpura. J Investig Med. 2016 Feb;64(2):585. Abstract no. 243.

Gremse DA, Pilmer BL, Hunt BJ, Perez MC. Safety and effectiveness of treatment with once daily dexlansoprazole modified-release in adolescent patients with erosive esophagitis. North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition Annual Meeting; 2015 Oct 8-11; Washington, DC. Abstract no. 217.

Gifford KA, Burke AE, Trimm F, Mahan JD, Schwartz A, Li ST, Guillot AP, Guralnick S. Learner self-assessment as a contribution to competency assessment. Association of Pediatric Program Directors 2016 Annual Spring Meeting; 2016 Mar 30-Apr 2; New Orleans, LA. p. 36. Abstract no. 3.

Gifford KA, Li ST, Tancredi DJ, Burke AE, Trimm RF, Mahan JD, Schwartz A, Guillot AP, Guralnick S. Learner self-assessment as a contribution to competency assessment. 2016 Pediatric Academic Societies Meeting; 2016 Apr 30-May 3; Baltimore, MD. Abstract no. 1375.1.

Kulkarni T, Zayek MM. Hematologic predictors of necrotizing enterocolitis. J Investig Med. 2016 Feb;64(2):611. Abstract no. 308.

Larrabee JG, Agrawal D, Trimm F, Ottolini M. Multi-institutional determination of the correlation between milestone level by rotation-specific EPA assessment and primary subcompetency assessment. Association of Pediatric Program Directors 2016 Annual Spring Meeting; 2016 Mar 30-Apr 2; New Orleans, LA. p. 47. Abstract no. 24.

Li ST, Tancredi DJ, Schwartz A, Guillot A, Burke A, Trimm RF, Guralnick S, Mahan JD, Gifford K. Pediatric resident minimum milestone expectations by level of training. 2016 Pediatric Academic Societies Meeting; 2016 Apr 30-May 3; Baltimore, MD. Abstract no. 1375.2.

Miller K, Wilson F. Implementation of a standardized education program for newly diagnosed cancer patients: ensuring quality from day one. Children's Oncology Group 2015 Fall Meeting; 2015 Oct 6-9; Dallas, TX. Abstract no. 12.

Mubayed L, Batten L. Pre-participation screening of young athletes; a local study. J Investig Med. 2016 Feb;64(2):492. Abstract no. 10.

Nadella D, Al-Ghafry M, Imran H, Siddiqui A. Comparing the desmopressin (DDAVP) challenge test to DDAVP clinical response in pediatric patients with Von Willebrand's disease: a single center experience. Blood. 2015 Dec 3;126(23):1101.

Nasomyont N, Kaulfers A. Vitamin D status in children and adolescents with type 1 diabetes mellitus. J Investig Med. 2016 Feb;64(2):699. Abstract no. 515.

Prachuapthunyachart S, Gremse D. Correlation of gastroesophageal reflux disease assessment symptom questionnaire score to esophageal multichannel intraluminal impedance-pH measurements in children. J Investig Med. 2016 Feb;64(2):654. Abstract no. 403.

Preud'Homme D, Phelps L. Traveling CME: broadening the skill set of primary care providers in the chronic care of the obese child. American Academy of Pediatrics 2015 National Conference and Exhibition; 2015 Oct 24-27. Abstract no. 007.

Rojas Gallegos MB, Estrada B, Falkos S. Delirium with visual hallucinations in an 11-year-old female receiving treatment with linezolid. J Investig Med. 2016 Feb;64(2):498. Abstract no. 26.

Rojas Gallegos MB, Gremse D. Inflammatory myofibroblastic tumor mimicking intussusception in a 7 year old Hispanic male. A case report. J Investig Med. 2016 Feb;64(2):537-8. Abstract no. 122.

Rydzewska M, Rifai A, Gulati R, Eyal FG, Zayek MM. Neurodevelopmental outcome of ELBWI treated with intravitreal bevacizumab. J Investig Med. 2016 Feb;64(2):675-6. Abstract no. 457.

Rydzewska M, Rifai A, Gulati R, Eyal FG, Zayek MM. Neurodevelopmental outcome of ELBW infants treated with intravitreal bevacizumab. 2016 Pediatric Academic Societies Annual Meeting; 2016 Apr 30-May 3; Baltimore, MD. Abstract no. 2893.739.

Sabapathy A, Roca M. Concurrent Kawasaki disease and Coxsackie infection in a 2 month old infant—a diagnostic challenge. J Investig Med. 2016 Feb;64(2):595. Abstract no. 267.

Whitehurst RM Jr, Zayek M, Peevy K, Bhat R, McCurley C, Thompson C, Campbell A, Dean E. Implementation of a prenatal parent education program for families at risk for NAS.

Vermont Oxford Network 2015 Annual Quality Congress; 2015 Oct 1-6; Chicago, IL.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Bhowmick S, Bilbao N. Invited speaker. Endocrine dysfunction in 18q deletion syndrome. Southern Pediatric Endocrine Society Meeting; 2015 Nov 7; Atlanta, GA.

Estrada B. Invited speaker. Zika virus update. Medical Society of Mobile County Quarterly Meeting; 2016 May 17; Mobile, AL.

Gremse D. Invited speaker. Procedural overview: endoscopy and Hetzel-Dent Scale. TAK-390MR Pediatric Program, US Investigator Meeting; 2015 Oct 29; Chicago, IL.

Gremse D. Invited speaker. IBD treatments – finding your best path. Crohn's & Colitis Foundation Alabama Chapter Education Symposium; 2016 Aug 27; Mobile, AL.

Kaulfers AM. Invited speaker. The impact of poor nutrition on the brain. 2nd Annual Diabesity Summit; 2015 Oct 9; Mobile, AL.

Preud'Homme D. Invited speaker. Encopresis and constipation. American Academy of Pediatrics 2015 Practical Pediatrics CME Course; 2015 Dec 11; Nashville, TN.

Preud'Homme D. Invited speaker. A team-based approach to metabolic syndrome. American Academy of Pediatrics 2015 Practical Pediatrics CME Course; 2015 Dec 11; Nashville, TN.

Preud'Homme D. Invited speaker. Celiac disease. American Academy of Pediatrics 2015 Practical Pediatrics CME Course; 2015 Dec 12; Nashville, TN.

Preud'Homme D. Invited speaker. A team-based approach to metabolic syndrome. American Academy of Pediatrics 2015 Practical Pediatrics CME Course; 2015 Dec 13; Nashville, TN.

Roberson-Trammell, K. Invited speaker. Preventative care: breast and cervical cancer screening, EPSDT screening, and adolescent immunization (T-dap, HPV, Meningococcal). Gulf Coast Regional Care Organization Region E; 2016 Jun 16; Brewton and Monroeville, AL.

Roberson-Trammell, K. Invited speaker. Preventative care: breast and cervical cancer screening, EPSDT screening, and adolescent immunization (T-dap, HPV, Meningococcal).

Gulf Coast Regional Care Organization Region E; 2016 Jun 23; Mobile, AL.

Roberson-Trammell, K. Participant in a webinar/conference call. 42 quality measures chosen by Medicaid Quality Assurance Committee. Gulf Coast Regional Care Organization Region E; 2015 Nov 19; Mobile, AL.

Swingle H. Invited speaker. What causes autism? Project TIPP (Team-based Interprofessional Personnel Preparation) Autism Conference; 2016 Jan 30; Mobile, AL.

Trimm, F. Invited speaker. Building holistic review into existing GME program processes: making all steps count. Association of American Medical Colleges 2016 Joint Professional Development Conference; 2016 Mar 4; Salt Lake City, UT.

Vidal R. Invited speaker. What the pediatrician needs to know about pediatric sedation. Alabama Chapter of the American Academy of Pediatrics 2016 Spring Meeting & Pediatric Update; 2016 May 1; Point Clear, AL.

Whitehurst RM Jr. Invited speaker. Neonatal abstinence syndrome—an update on an emerging protocol. 25th University of South Alabama Obstetrics and Gynecology Conference; 2016 Apr 15; Daphne, AL.

Wilson F. Invited speaker. Take control of your future: sickle cell disease and your journey through transition. Columbus Georgia Metro Black Nurses Association; 2015 Oct 6; Columbus, GA.

Wilson F. Invited speaker. Another therapeutic option for patients with chronic transfusional iron overload. Hughes Spalding Children's Hospital; 2015 Nov 5; Atlanta, GA.

Wilson F. Invited speaker. Newborn screening. Sickle Cell Educator/Counselor Certification Program, Sickle Cell Disease Association of America-Mobile Chapter; 2015 Nov 17; Mobile, AL.

Wilson F. Invited speaker. Newborn screening for hemoglobinopathy I. Alabama Association of Public Health Laboratories Webinar Series; 2016 Jan 11; Mobile, AL.

Wilson F. Invited speaker. Newborn screening. Sickle Cell Educator/Counselor Certification Program, Sickle Cell Disease Association of America-Mobile Chapter; 2016 Apr 6; Mobile, AL.

Wilson F. Invited speaker. Take control of your future: sickle cell disease and your journey through transition. Houston Sickle Cell Symposium; 2016 Apr 23; Houston, TX.

Wilson F. Invited speaker. Managing patients with sickle cell disease and the impact of chronic iron overload. Georgia Cancer Center; 2016 Jun 30; Atlanta, GA.

Wilson F. Invited speaker. Update on the management of iron overload in sickle cell

disease. 2016 University of South Alabama Annual Sickle Cell Regional Conference Practical Issues XV; 2016 Apr 30; Mobile, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

Stephanie Anderson: Member, American Academy of Pediatrics, Council on Children with Disabilities & Section on Developmental and Behavioral Pediatrics; Member, Society for Developmental and Behavioral Pediatrics, Advocacy Committee; Member, Human Rights Committee, Volunteers of America, Southeast.

Lynn Batten: Member, Section on Cardiology, American Academy of Pediatrics; Member, Council on Cardiovascular Disease in the Young, American Heart Association; Member, Adult Congenital and Pediatric Cardiology Section, American College of Cardiology.

Ramachandra Bhat: Member, American Academy of Pediatrics; Member, Southern Society of Pediatric Research. Reviewer: *Pediatrics*.

Samar Bhowmick: Fellow of the American Academy of Pediatrics; Member, American Association of Clinical Endocrinologists; Fellow of the American College of Endocrinology; Member, American Diabetes Association; Member, The Endocrine Society; Member, The Lawson Wilkins Pediatric Endocrine Society. Reviewer: *Pediatrics*, *Clinical Pediatrics*, *Journal of Southern Medical Association*, *Asian Journal of Andrology*.

Nordie Bilbao: Member, American Academy of Pediatrics; Member, The Endocrine Society; Member, Pediatric Endocrine Society.

Kari Bradham: Member, Educational Scholars Program, Academic Pediatric Association; Member, American Academy of Pediatrics.

Rosina Connelly: Fellow of the American Academy of Pediatrics; Member, Academic Pediatric Association Health Literacy SIG; Member Representative, South Alabama, Health Literacy Partnership of Alabama. Reviewer: *American Academy of Pediatrics*, *Medical Education Online*, *Children and Youth Services Review*.

LaDonna Crews: Member, Academy of Breastfeeding Medicine; Member, Academic Pediatric Association; Physician Liaison for Adolescent Health for the Alabama Department of Public Health; Member, Alabama Breastfeeding Coalition; Fellow of the American Academy of Pediatrics; Board, American Academy of Pediatrics, Alabama Chapter; Member, American Medical Association; Member, Medical Association of the State of Alabama; Member, Mobile Pediatric Society; Member, Regional Perinatal Advisory Committee; Member, Society for Adolescent Medicine.

Karen Crissinger: Member, American Gastroenterological Association; Member, North American Society for Pediatric Gastroenterology, Hepatology, & Nutrition; Member,

Society for Pediatric Research; Member, Southern Society for Pediatric Research. Reviewer: *Journal of Pediatric Gastroenterology & Nutrition*.

Haidee Custodio: Member, American Academy of Pediatrics; Member, Infectious Diseases Society of America; Member, Pediatric Infectious Diseases Society. Reviewer: *Clinical Pediatrics*; *MedEd Portal*; *Abstract Reviewer for Pediatric Academics Societies Meeting 2016*; *Abstract Reviewer for 2016 AAMC Medical Education Meeting*; *Oral and Poster Presentation Reviewer for AAMC 2016 SGEA Meeting*.

Benjamin Estrada: Member, Alpha Omega Alpha Medical Honor Society; Fellow of the American Academy of Pediatrics (AAP); Institutional Representative, COMSEP task force on curriculum development; Member, Council on Medical Student Education in Pediatrics (COMSEP); Member, Gold Humanism Honor Society; Member, Infectious Diseases Society of America (IDSA); Fellow of the Pediatric Infectious Diseases Society (PIDS); Member, Society for Healthcare Epidemiology of America (SHEA); Institutional Representative, Southern Society for Pediatric Research (SSPR); Member, Team-Based Learning Collaborative. Reviewer: *Infectious Diseases in Clinical Practice*.

Fabien Eyal: Member, Alabama Committee on the Fetus and Newborn; Member, Alabama Society of Neonatology; Member, Alpha Omega Alpha Medical Honor Society; Member, American Academy of Pediatrics, Member, American Medical Association; Clinical Champion, Coordinator of Neonatal Monitoring, Office of Rural Health; Member, Southern Society for Pediatric Research; Member, Southeastern Association of Neonatologists; Member, Vermont Oxford National Data Base.

Sheryl Falkos: Member, Advisory Board, Penelope House Domestic Violence Shelter; Member, American Academy of Pediatrics; Member, Society of Critical Care Medicine.

Cristina Gavrilita: Member, Alabama Baby Coalition; Fellow of the American Academy of Pediatrics; Member, Board of Directors, Ronald McDonald House; Member, Society of Critical Care Medicine.

Sophia Goslings: Member American Academy of Pediatrics, AAP Section on Hospital Medicine; Member, Association of Pediatric Program Directors; Member, Mobile Pediatric Society; Workshop Co-Leader: Beyond Tell Me About Yourself – Using Multiple Mini Interviews to Overcome Interview and Selection Challenges; ACGME Annual Education Conference; Workshop Co-Leader: Changing Resident Assessment Experiences Implementing the Pediatric Milestones Assessment Collaborative, 2016 Association of Pediatric Program Directors Spring Meeting.

David Gremse: Member, CME Chair, American Academy of Pediatrics, Alabama Chapter; Member, American Academy of Pediatrics, Subcommittee on Apparent Life Threatening Event; Member, Chair Elect, Board of Directors, American Board of Pediatrics (ABP); Member, ABP General Pediatrics Examination Committee Group B; Director, American Board of Pediatrics and the American Board of Pediatrics

Foundation; Medical Editor, ABP Subboard of Pediatric Gastroenterology Exam Committee; Member, ABP Executive Committee; Chair, ABP Finance Committee; Secretary-Treasurer; ABP Long-Term Investment Committee; Fellow of the American College of Gastroenterology; Member, Pediatric Gastroenterology Committee; Member, American Gastroenterological Association; Member, American Medical Association; Member, American Pediatric Society; Member, Association of Medical School Pediatric Department Chairs (AMSPDC); Executive Council, Association of Medical School Pediatric Department Chairs; Vice President, Gulf Coast Regional Care Organization, Region E; Member, Mobile Pediatric Society; Member, Finance Committee, North American Society of Pediatric Gastroenterology, Hepatology, and Nutrition (NASPGHAN); Member, Society for Pediatric Research; Member, The Gold Humanism Honor Society. Reviewer: *Pediatric Drugs; Digestive Diseases and Sciences; Pediatrics; Digestive Diseases and Sciences.*

Rashmi Gulati: Member, American Academy of Pediatrics; Member, American Medical Association; Member, Indian Academy of Pediatrics; Member, Vermont Oxford National Data Base.

Hamayun Imran: Member, American Academy of Pediatrics; Member, American Society of Hematology; Member, American Society of Pediatric Hematology-Oncology; Member, Children's Oncology Group; Member, Advisory Board, Kedrion Pharmaceutical; Speakers Bureau, NovoNorDisk Pharmaceuticals.

Om Jha: Member, American Academy of Pediatrics.

Anne-Marie Kaulfers: Fellow of the American Academy of Pediatrics; Member, American Diabetes Association; Member, The Endocrine Society; Member, The Medical Association of the State of Alabama; Member, The Lawson Wilkins Pediatric Endocrine Society; Board, Southeastern Diabetes Education Services (SDES). Reviewer: *Clinical Pediatrics.*

Jose Martinez: Fellow of the American Academy of Pediatrics; Fellow of the American College of Medical Genetics; Fellow of the American Society of Human Genetics.

Paola Maurtua-Neumann: Member: American Academy of Pediatrics.

Brandy Merritt: Member, American Academy of Pediatrics; Member, Mobile Pediatric Society; Member, Society of Critical Care Medicine.

Keith Peevy: Member, Alabama Baby Coalition Task Force; Member, Alabama Chapter, American Academy of Pediatrics Fetus and Newborn Committee; Member, American Academy of Pediatrics Subspecialty Section on Neonatal-Perinatal Medicine; Member, Alabama Society of Neonatology; Member, Alabama State Medical Society; Member, Alpha Omega Alpha Medical Honor Society; Member, American Medical Association; Affiliate Member, European Society for Pediatric Research; Member, Medical Society of Mobile County; Member, Medical Association of the State of Alabama (MASA);

Member, Southern Society for Pediatric Research; Member, Southeastern Association of Neonatologists, Inc.; Member, Southern District of Alabama Human Trafficking Task Force Committee.

Melody Petty: Member, American Academy of Pediatrics.

Anand Ponnambalam: Fellow of the American Academy of Pediatrics (FAAP); Member, American College of Gastroenterology (ACG); Member, American Gastroenterological Association (AGA); Member, North American Society for Pediatric Gastroenterology Hepatology and Nutrition (NASPGHAN). Reviewer: *Journal of Pediatric Gastroenterology Hepatology and Nutrition*.

Daniel Preud'Homme:

Member, Quality Improvement Coach and Faculty, Alabama Child Health Initiative Alliance; Fellow of the American Academy of Pediatrics; Member, American Heart Association; Executive Board, Bay Area Food Bank; Member, Cardiovascular Disease in the Young Council; Member, Council on Children with Disabilities; Member, Council on School Health; Member, National Lipid Association; Member, Nutrition/Metabolic Council. Reviewer: *Clinical Pediatrics*.

Renee Roca-Garcia: Member, American Academy of Pediatrics, Pediatrics Section on Hospital Medicine; Member, College of Surgeons and Physicians of Guatemala; Member, Mobile Pediatric Society.

Omar Sanchez: Member, American Academy of Pediatrics, AAP Section on Critical Care; Member, College of Surgeons and Physicians of Guatemala; Member, Mobile Medical Society; Member, Pediatric Society of Critical Care Medicine; Member, Society of Critical Care Medicine.

Hafeez Siddiqui: Member, American Academy of Pediatrics; Member, American Society of Hematology; Member, American Society of Pediatric Hematology and Oncology; Member, Children's Oncology Group. Reviewer: *World Journal of Hematology; Ophthalmic Plastic and Reconstructive Surgery*.

Hanes Swingle: Member, American Academy of Pediatrics; Member, Alabama Chapter of American Academy of Pediatrics; Member, Executive Committee, Alabama Interagency Autism Coordinating Council (AIACC); Chair, Diagnostic Clinics Workgroup of the AIACC Standards of Practice Committee; Member, American Public Health Association; Board, Autism Society of Alabama; Board, Glenwood Autism and Behavioral Health Center; Member, Governor's Working Group on Children with Autism; Advisory Board, Learning Tree, Inc.; Member, Society for Developmental Behavioral Pediatrics. Reviewer: *Maternal and Child Health Journal; Journal of Developmental Behavioral Pediatrics*.

Katrina Roberson-Trammell: Fellow of the American Academy of Pediatrics; Board, Gulf Regional Early Childhood Services (GRECS); Member, Medicaid Quality

Assurance Committee; Member, Medical Association of State of Alabama; Member, Mobile Bay Area Medical Association; Member, Mobile Medical Society; Member, Mobile Pediatric Society; Member, Pediatric and Adult Workgroup, Regional Care Organization-Region E.

Franklin Trimm:

Member, Academic Pediatric Association; Workshop Co-Leader: Beyond Tell Me About Yourself – Using Multiple Mini Interviews to Overcome Interview and Selection Challenges, Accreditation Council for Graduate Medical Education (ACGME) Conference; Member, Alpha Omega Alpha; Fellow of the American Academy of Pediatrics; Member, American Board of Pediatrics Education and Training Committee; Co-Editor, Teaching, Promoting and Assessing Professionalism Across the Continuum: A Medical Educator’s Guide, American Board of Pediatrics and Association of Pediatric Program Directors; Member, American Pediatric Society; Member, Association of Combined Med/Peds Program Directors; President, Association of Pediatric Program Directors (APPD); Platform Presenter: Pediatric Resident Minimum Milestone Expectations by Level of Training, 2016 Association of Pediatric Program Directors Spring Meeting; Workshop Co-Leader: Changing Resident Assessment Experiences Implementing the Pediatric Milestones Assessment Collaborative, 2016 Association of Pediatric Program Directors (APPD) Spring Meeting; Member, Early Childhood Endowment Fund Advisory Panel, Community Foundation South Alabama; Board, Secretary-Treasurer, Federation of Pediatric Organizations (FOPO); Member, Gold Humanism Honor Society; Member, Society for Developmental and Behavioral Pediatrics; Advisory Board, South Alabama CARES; Member, Southern Society for Pediatric Research. Reviewer: *Journal of Graduate Medical Education; Academic Medicine; Journal of Developmental and Behavioral Pediatrics, Pediatrics.*

Rosa Vidal: Member, American Academy of Pediatrics; Member, Mobile Pediatric Society; Member, Society of Critical Care Medicine.

Richard Whitehurst: Member, Alabama Physicians Wellness Committee; Member, Alabama Society of Neonatology; Member, American Academy of Pediatrics; Member, American Medical Association; Member, Medical Association of the State of Alabama (MASA); Member, Medical Society of Mobile County; Member, Southeastern Association of Neonatologists, Inc.; Member, Southern Society for Pediatric Research.

Felicia Wilson:

Member, Prevention, Early Detection Subcommittee, Alabama Comprehensive Cancer Control Coalition; Fellow of the American Academy of Pediatrics; Member, American Society of Hematology; Board Member, Camp Rap-A-Hope; Member, Medical Association of the State of Alabama; President, Mobile Pediatric Society; Speaker’s Bureau, Novartis Pharmaceuticals Corporation; Laboratory Medical Director, Sickle Cell Disease Association of America, Mobile Chapter; Member, Southern Society for Pediatric Research; Member, State of Alabama Hemophilia Advisory Committee; Co-Chair, Hemoglobinopathy Subcommittee, State of Alabama Newborn Screening Advisory Committee.

Michael Zayek: Member, Alabama Society of Neonatology; Member, American Academy of Pediatrics (AAP); Member, Southeastern Association of Neonatologists, Inc.; Member, Southern Society for Pediatric Research (SSPR).

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The Department of Pediatrics was delighted to welcome a new faculty member. Dr. Curtis Turner joined the University of South Alabama College of Medicine as Professor of Pediatrics and Medical Director of the primary care division. Prior to joining USA, Dr. Turner served as Professor and Associate Dean of Faculty Development and Affairs at Texas Tech University Health Sciences Center in Amarillo, Texas. He earned his undergraduate degree from the University of South Carolina in Columbia, S.C., and his medical degree from the Medical University of South Carolina in Charleston, S.C. Following residency training at Louisiana State University in New Orleans, he completed a fellowship in Pediatric Hematology, Oncology and Bone Marrow Transplantation at the University of Florida in Gainesville, Fla.

Drs. Lynn Batten, Benjamin Estrada, Sophia Goslings, Anne-Marie Kaulfers, Jessica Kirk, Jose Martinez, Melody Petty, Daniel Preud'Homme, Franklin Trimm, and Felicia Wilson were recognized by the USACOM Class of 2016 as Distinguished Faculty Red Sash Awardees at the Honors Convocation. The twenty-first recipient of the Hollis J. Wiseman Award for Excellence in Pediatrics during the Pediatric Clerkship for the Class of 2016 was Rebekah A. Frazier. Eleven of the graduating medical students in the USACOM Class of 2016 chose residencies in Pediatrics or combined Medicine-Pediatrics. Of the pediatric housestaff completing residency training in 2016, four entered private practice, six entered into fellowship training, and one remained in the department as Pediatric Chief Resident. The two graduating Medicine-Pediatrics residents entered private practice. Twelve new first year residents entered the pediatric residency program, and two first-year residents entered the combined Medicine-Pediatrics Residency Program. Dr. James Van Buren completed his duties as Pediatric Chief Resident in 2016, and Dr. Maha Al-Ghafry took over duties as the Pediatric Chief Resident for the 2016-2017 academic year.

The scholarly activities by the faculty of the Department of Pediatrics this year included 12 original articles and 29 published abstracts. Departmental faculty were active in mentoring pediatric residents in clinical research. There were 19 abstracts presented at regional and national meetings by pediatric residents who were the first authors with senior authorship by members of the pediatric faculty.

Quality improvement efforts to advance patient care are spearheaded by Dr. Daniel Preud'Homme in collaboration with the American Board of Pediatrics and Nemours in pilot testing of the MOC Quality Improvement Tracker tool. Ten faculty members in the USA Department of Pediatrics completed 12 quality improvement modules in

Medication Safety and Asthma Care. The pilot project extracted de-identified data to generate run charts, electronically transmitted them to participating faculty for review, and electronically captured attestation by the faculty for completion of tasks. Participating faculty were awarded MOC credit for their participation. Drs. Crews and Trammel along with Natalie Fox are heading an effort to gain NCQA recognition of the Department of Pediatrics primary care clinics as a Patient Centered Medical Home.

The Department of Pediatrics is participating in national collaborative projects in medical education. Dr. Trimm was instrumental in developing a collaborative with Cincinnati Children's Hospital and Wright State University in an Annual Program Evaluation Quality Improvement Project in conjunction with the American Board of Pediatrics. The project has completed pilot testing and has been introduced at several national pediatric meetings. A workshop for residency and fellowship program directors on implementing the project tool to enhance program improvement and provide Maintenance of Certification credit for participating faculty was presented at the recent APPD meeting. Drs. Sophia Goslings and Franklin Trimm have also participated in a national collaborative project sponsored by the American Board of Pediatrics, the National Board of Medical Examiners, and the Association of Pediatric Program Directors, the Pediatric Milestones Assessment Collaborative (PMAC). In Undergraduate Medical Education, Dr. Benjamin Estrada leads an effort to incorporate the SBAR (Situation, Background, Assessment, Response) communication tool into the curriculum in collaboration with the AAMC. Dr. Estrada is also collaborating with MedU in the development of electronic teaching tools to be utilized in pediatric medical student education.

Major goals for the coming year include: 1) achieving Patient Centered Medical Home recognition for our general pediatric clinics, 2) expanding Quality Improvement opportunities for faculty and residents through achieving portfolio status from the American Board of Pediatrics, and 3) faculty development in medical education through the Te4Q (Teaching for Quality) project.

2015-2016
Summary of Scholarly Activities
Department of Pharmacology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Abe K, Shinoda M, Tanaka M, Kuwabara Y, Yoshida K, Hirooka Y, McMurtry IF, Oka M, Sunagawa K. Haemodynamic unloading reverses occlusive vascular lesions in severe pulmonary hypertension. *Cardiovasc Res*. 2016 Jul 1;111(1):16-25.

Browning CM, Mayes S, Favreau P, Rich TC, Leavesley SJ. LED-based endoscopic light source for spectral imaging. *Proc SPIE 9703, Optical Biopsy XIV: Toward Real-Time Spectroscopic Imaging and Diagnosis*. 2016 Mar 7;97031I. doi:10.1117/12.2213200 (Subscription required).

Bruse S, Moreau M, Bromberg Y, Jang JH, Wang N, Ha H, Picchi M, Lin Y, Langley RJ, Qualls C, Klensney-Tait J, Zabner J, Leng S, Mao J, Belinsky SA, Xing J, Nyunoya T. Whole exome sequencing identifies novel candidate genes that modify chronic obstructive pulmonary disease susceptibility. *Hum Genomics*. 2016 Jan 7;10:1.

Gairhe S, Joshi SR, Bastola MM, McLendon JM, Oka M, Fagan KA, McMurtry IF. Sphingosine-1-phosphate is involved in the occlusive arteriopathy of pulmonary arterial hypertension. *Pulm Circ*. 2016 Sep;6(3):369-80.

Hasoun LZ, Bailey SW, Outlaw KK, Ayling JE. Rearrangement and depletion of folate in human skin by ultraviolet radiation. *Br J Dermatol*. 2015 Oct;173(4):1087-90.

Jong CJ, Ito T, Schaffer SW. The ubiquitin-proteasome system and autophagy are defective in the taurine-deficient heart. *Amino Acids*. 2015 Dec;47(12):2609-22.

Joshi SR, Dhagia V, Gairhe S, Edwards JG, McMurtry IF, Gupte SA. MicroRNA-140 is elevated and mitofusin-1 is downregulated in the right ventricle of the Sugen5416/hypoxia/normoxia model of pulmonary arterial hypertension. *Am J Physiol Heart Circ Physiol*. 2016 Sep 1;311(3):H689-98.

Joshi SR, Lakhkar A, Dhagia V, Zias AL, Soldatos V, Oshima K, Jiang H, Gotlinger K, Capdevila JH, Schwartzmann ML, McMurtry IF, Gupte SA. *Cyp2c44* gene disruption exacerbated pulmonary hypertension and heart failure in female but not male mice. *Pulm Circ*. 2016 Sep;6(3):360-8.

Leavesley SJ, Rich TC. Overcoming limitations of FRET measurements. *Cytometry A*. 2016 Apr;89(4):325-7.

Lee YL, Simmons JD, Gillespie MN, Alvarez DF, Gonzalez RP, Brevard SB, Frotan MA, Schneider AM, Richards WO. Evaluation of microvascular perfusion and resuscitation after severe injury. *Am Surg*. 2015 Dec;81(12):1272-8.

Mayes SA, Rich TC, Leavesley SJ. Excitation-scanning hyperspectral imaging system for microscopic and endoscopic applications. Proc SPIE 9711, Imaging, Manipulation, and Analysis of Biomolecules, Cells, and Tissues IX. 2016 Apr 6;97110Z. doi:10.1117/12.2213155 (Subscription required).

Morrow KA, Seifert R, Kaefer V, Britain AL, Sayner SL, Ochoa CD, Cioffi EA, Frank DW, Rich TC, Stevens T. Heterogeneity of pulmonary endothelial cyclic nucleotide response to *Pseudomonas aeruginosa* ExoY infection. Am J Physiol Lung Cell Mol Physiol. 2015 Nov 15;309(10):L1199-207.

Oshima K, McLendon JM, Wagner WW Jr, McMurtry IF, Oka M. Chronic hypoxia does not cause wall thickening of intra-acinar pulmonary supernumerary arteries. Physiol Rep. 2016 Jan 25;4(2):e12674.

Pastukh VM, Gorodnya OM, Gillespie MN, Ruchko MV. Regulation of mitochondrial genome replication by hypoxia: the role of DNA oxidation in D-loop region. Free Radic Biol Med. 2016 Jul;96:78-88.

Pastukh V, Roberts JT, Clark DW, Bardwell GC, Patel M, Al-Mehdi AB, Borchert GM, Gillespie MN. An oxidative DNA “damage” and repair mechanism localized in the VEGF promoter is important for hypoxia-induced VEGF mRNA expression. Am J Physiol Lung Cell Mol Physiol. 2015 Dec 1;309(11):L1367-75.

Rich TC, Annamdevula N, Britain AL, Mayes S, Favreau PF, Leavesley SJ. Three-dimensional measurement of cAMP gradients using hyperspectral confocal microscopy. Proc SPIE 9713, Three-Dimensional and Multidimensional Microscopy: Image Acquisition and Processing XXIII. 2016 Mar 9;97130O. doi:10.1117/12.2213273 (Subscription required).

Schaffer SW, Shimada-Takaura K, Jong CJ, Ito T, Takahashi K. Impaired energy metabolism of the taurine-deficient heart. Amino Acids. 2016 Feb;48(2):549-58.

Shetewy A, Shimada-Takaura K, Warner D, Jong CJ, Mehdi AB, Alexeyev M, Takahashi K, Schaffer SW. Mitochondrial defects associated with β -alanine toxicity: relevance to hyper-beta-alaninemia. Mol Cell Biochem. 2016 May;416(1-2):11-22.

Singh SP, Chand HS, Gundavarapu S, Saeed AI, Langley RJ, Tesfaigzi Y, Mishra NC, Sopori ML. HIF-1 α plays a critical role in the gestational sidestream smoke-induced bronchopulmonary dysplasia in mice. PLoS One. 2015 Sep 11;10(9):e0137757.

Tsalik EL, Henao R, Nichols M, Burke T, Ko ER, McClain MT, Hudson LL, Mazur A, Freeman DH, Veldman T, Langley RJ, Quackenbush EB, Glickman SW, Cairns CB, Jaehne AK, Rivers EP, Otero RM, Zaas AK, Kingsmore SF, Lucas J, Fowler VG Jr, Carin L, Ginsburg GS, Woods CW. Host gene expression classifiers diagnose acute respiratory illness etiology. Sci Transl Med. 2016 Jan 20;8(322):322ra11.

Tsalik EL, Willig LK, Rice BJ, van Velkinburgh JC, Mohny RP, McDunn JE, Dinwiddie DL, Miller NA, Mayer ES, Glickman SW, Jaehne AK, Glew RH, Sopori ML, Otero RM, Harrod KS, Cairns CB, Fowler VG, Rivers EP, Woods CW, Kingsmore SF, Langley RJ. Renal systems biology of patients with systemic inflammatory response syndrome. *Kidney Int.* 2015 Oct;88(4):804-14.

Wagner W. Charles Hales (1941-2015). *Pulm Circ.* 2016 Sep;6(3):402-3.

Yuzefovych LV, Kahn AG, Schuler MA, Eide L, Arora R, Wilson GL, Tan M, Rachek LI. Mitochondrial DNA repair through OGG1 activity attenuates breast cancer progression and metastasis. *Cancer Res.* 2016 Jan 1;76(1):30-4.

II. PUBLISHED ABSTRACTS

Abe K, McMurtry IF, Oka M. Hemodynamic unloading rapidly reverses perivascular inflammation in a rat model of PAH. *Am J Respir Crit Care Med.* 2016;193:A6583. Available from: http://www.atsjournals.org/doi/pdf/10.1164/ajrccm-conference.2016.193.1_MeetingAbstracts.A6583

Annamdevula NS, Sweat R, Britain A, Rich TC, Leavesley SJ. Hyperspectral imaging approaches for measuring three-dimensional FRET. *FASEB J.* 2016;30:969.27.

Buckner E, Bauer N, Clanton C, Kennedy E, Marin M, Mata J, Omar B, Palle K, VandeWaa E, Bunch J, Culler R, Lewis C, Hurley P, McMullan T. University of South Alabama Faculty Senate New Faculty Mentoring Program: first year experiences. Sixth Annual South Alabama Conference on Teaching and Learning; 2016 May 10; Mobile, AL. Available from: <http://southalabama.edu/departments/ilc/cotl-session4.html#12>

Cioffi EA. Translational Glycomics: Our sugar-lined blood vessels. XXVII International Carbohydrate Symposium. 2016 Jul 17-21; New Orleans, LA; Paper no. 352.

Deal JA, Favreau P, Weber D, Rich T, Leavesley S. Potential of hyperspectral imaging for label-free tissue and pathology classification. *FASEB J.* 2016;30:51.2.

Dean J, Favreau P, Deal J, Lopez C, Wheeler M, Williams C, Baker T, Weber D, Rich T, Leavesley S. Hyperspectral imaging of lung autofluorescence. *Am J Respir Crit Care Med.* 2016;193:A3398. Available from: http://www.atsjournals.org/doi/pdf/10.1164/ajrccm-conference.2016.193.1_MeetingAbstracts.A3398

Favreau PF, Deal JA, Weber DA, Rich TC, Leavesley SJ. Assessment of autofluorescent signatures in multiple tissue types with novel excitation scanning hyperspectral imaging. *FASEB J.* 2016;30:51.1.

Gorodnya OM, McLendon JM, Alvarez DF, Rachek LI, Pastukh VM, Gillespie MN, Ruchko MV. Effect of aging and high fat diet on mitochondrial and cardiac function in mice with altered mitochondrial DNA repair. *FASEB J.* 2016;30:1178.8.

McClinton AK, Cioffi DL, Cioffi EA. Glycans in *Pseudomonas aeruginosa*. *FASEB J.* 2016; 30:618.2.

McLendon JM, Alvarez DF, Gorodnya OM, Sukhanov S, Rachek LI, Gillespie MN, Ruchko MV. Oxidative mitochondrial DNA damage affects mitochondrial respiration and cardiac development in mice with altered DNA repair. *Circulation.* 2015 Nov 10; 132(Suppl 3):A16301.

Oshima K, McLendon JM, Wagner WW Jr, McMurtry IF, Oka M. Chronic hypoxia does not cause wall thickening of intra-acinar pulmonary supernumerary arteries. *Am J Respir Crit Care Med.* 2016;193:A3065. Available from: http://www.atsjournals.org/doi/pdf/10.1164/ajrccm-conference.2016.193.1_MeetingAbstracts.A3065

Pastukh VM, Roberts JT, Bardwell GC, Borchert GM, Gillespie MN. The genome-wide landscape of oxidative DNA damage in human vascular endothelial cells and its link to transcriptional regulation in hypoxia. *Am J Respir Crit Care Med.* 2016;193:A7268. Available from: http://www.atsjournals.org/doi/pdf/10.1164/ajrccm-conference.2016.193.1_MeetingAbstracts.A7268

Rich T, Annamdevula NS, Sweat R, Favreau P, Mayes S, Britain AL, Nakhmani AA, Leavesley SJ. Hyperspectral imaging approaches allow real time 3D measurement of cAMP gradients in pulmonary microvascular endothelial cells. *Am J Respir Crit Care Med.* 2016;193:A7298. Available from: http://www.atsjournals.org/doi/pdf/10.1164/ajrccm-conference.2016.193.1_MeetingAbstracts.A7298

Rich T, Annamdevula N, Sweat R, Mayes S, Favreau P, Britain A, Nakhmani A, Leavesley S. Real time four dimensional measurement of cAMP gradients in pulmonary microvascular endothelial cells. *FASEB J.* 2016;30:1135.2

Rich T, Sweat R, Annamdevula NS, Favreau P, Mayes S, Webb K, Britain AL, Townsley M, Nakhmani A, Leavesley SJ. Simultaneous, real time, measurement of 3D cAMP and Ca²⁺ signals using hyperspectral imaging and analysis approaches. *Am J Respir Crit Care Med.* 2016;193:A7299. Available from: http://www.atsjournals.org/doi/pdf/10.1164/ajrccm-conference.2016.193.1_MeetingAbstracts.A7299

Sayner SL, Hargett L, Scruggs A, Ramila KC, Yarbrough T, Bauer N. Activation of adenylyl cyclase in pulmonary microvascular endothelial cells increases microparticle cAMP content. *FASEB J.* 2016;30:980.4.

Simmons JD, Pastukh VM, Capley G, Muscat CA, Muscat DC, Marshall ML, Brevard SB, Gillespie MN. Potential contribution of mitochondrial (mt) DNA Damage Associated Molecular Patterns (DAMPs) in transfusion products to development of the Acute Respiratory Distress Syndrome (ARDS) after multiple transfusions. 75th Annual Meeting of the American Association for the Surgery of Trauma & Clinical Congress of Acute Care Surgery. 2016 Sep 14-17; Waikoloa, HI. Abstract no. 16.

Webb KJ, Wiles CA, Annamdevula N, Sweat R, Britain AL, Phan AV, Townsley MI, Leavesley SJ, Rich TC. A mathematical model of calcium and cAMP signaling in pulmonary microvascular endothelial cells. FASEB J. 2016;30:969.26.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Al-Mehdi AB: Invited speaker. Multiphoton microscopy-theory and practice. University of Alabama Birmingham; 2016 Feb 25; Birmingham, AL.

Bauer N. Invited speaker. Careers in science. Spanish Fort Elementary School; 2016 Mar 10; Spanish Fort, AL.

Cioffi EA. Invited speaker. Functional glycomics: our sugar-lined blood vessels. XXVIII International Carbohydrate Symposium; 2016 Jul 20; New Orleans, LA.

Gillespie MN. Invited speaker. Oxidant-DNA signaling in the life and death of cells: a tale of two genomes. Augusta University, Medical College of Georgia; 2016 Feb 19; Augusta, GA.

Gillespie MN. Invited speaker. Oxidant-DNA signaling in the life and death of cells: a tale of two genomes. 2016 Rhode Island NIH IDeA Symposium; 2016 Mar 17; Providence, RI.

Gillespie MN. Invited speaker. Transcriptional regulation in hypoxic cells by controlled DNA "damage" and repair. American Thoracic Society International Conference; 2016 May 16; San Francisco, CA.

Gillespie MN. Invited speaker. Mitochondrial DNA: a sentinel molecule in oxidant injury. Thomas L. Petty Aspen Lung Conference; 2016 Jun 8; Aspen, CO.

Langley R. Invited speaker. Integrated clinico-metabolomic sepsis prediction models. ISF Stephen F. Lowry Colloquium on Precision Medicine in Sepsis; 2015 Oct 25; Toronto, Canada.

Langley R. Invited speaker. Integrative omics analysis of sepsis: biomarkers for improved patient management. University of Alabama at Birmingham Department of

Anesthesiology and Perioperative Medicine Research Seminar Series; 2016 Jan 19; Birmingham, AL.

Langley RJ. Invited speaker. Integrative -omics analysis of sepsis: biomarkers for improved patient management. 23rd International Molecular Med Tri-Con; 2016 Mar 8; San Francisco, CA.

Rich T. Invited speaker. Hyperspectral imaging approaches to measure localized cAMP signals. Gordon Research Conference on Phosphorylation & G-Protein Mediated Signaling Networks; 2016 Jun 6; Biddeford, ME.

Rich T. Invited speaker. Innovations in hyperspectral imaging approaches allow simultaneous measurement of the kinetics and spatial spread of cyclic nucleotide signals. 4th Global Experts Meeting on Neuropharmacology; 2016 Sep 15; San Antonio, TX.

Wagner W. Invited speaker. Eulogy: Charles Hales (1941-2015). Pulmonary Circulation Assembly Meeting, American Thoracic Society; 2016 May 16; San Francisco, CA.

V. NATIONAL PROFESSIONAL RECOGNITION

Abu-Bakr Al-Mehdi: Writer and reviewer, NBME Basic Science Task Force for USMLE Step 1 exam and Pharmacology Board exam; Ad-hoc reviewer: *PLoS ONE*, *Microvascular Research*.

June E. Ayling: Reviewer: *American Journal of Clinical Nutrition*, *Photochemistry and Photobiology*, *PLoS ONE*, *Journal of Nutrition*.

Natalie N. Bauer: Chairman, American Physiological Society, Awards Committee - Giles Filley Memorial Award for Excellence in Respiratory Physiology and Medicine; Member: American Physiological Society Programming Committee, American Thoracic Society Nominating Committee; Study sections for grant review: American Heart Association SURF Committee 1, American Lung Association Review Committee C, British Bioresearch Consortium; Invited reviewer, RFA-HL-16-020 Limited Competition: Small Grant Program for NHLBI K01/K08/K23 Recipients (R03) 2016; Reviewer: *Science Translational Medicine*, *Circulation Research*, *The Journal of Extracellular Vesicles*, *Pulmonary Circulation*, *Journal of Cell Communication and Signaling*, *American Journal of Physiology: Lung Cellular and Molecular Physiology*, *Physiological Reviews*, *PLoS ONE*, *Respiratory Research*, *Arteriosclerosis, Thrombosis, and Vascular Biology*, *Pulmonary Pharmacology and Therapeutics*, *The FASEB Journal*, *Hypertension*.

Michael Chinkers: Study sections for grant review, American Heart Association; Member, Molecular Signaling 1 study section.

Eugene A. Cioffi: Reviewer and Co-Editor, *Current Topics in Medicinal Chemistry*; Editorial reviewer, John Wiley & Sons, New York, NY; Reviewer: *Amer. J. Physiology* –

Lung, Journal of Glycobiology, Journal of Organic Chemistry, Synthetic Communications, Bioorganic & Medicinal Chemistry, Carbohydrate Research, Journal of Labelled Compounds and Radiopharmaceuticals, Journal of Carbohydrate Polymers, Experimental Lung Research.

Mark N. Gillespie: Associate Editor, *American Journal of Physiology, Lung Cell and Molecular Physiology*; Editorial board, *American Journal of Respiratory Cell and Molecular Biology*; Member, Program, Leadership, and Long Range Planning Committees, American Thoracic Society; Member, NIH protocol review panel, Prevention and Early Treatment of Acute Lung Injury; Ad hoc member, NIH study sections: Special Emphasis Panel, RIBT; Manuscript reviewer: *Journal of Clinical Investigation, American Journal of Physiology, American Journal of Respiratory and Critical Care Medicine, Free Radical Biology & Medicine, Microvascular Research, PLoS ONE*.

Raymond J. Langley: Chair, Integrative -omics analysis of sepsis: biomarkers for improved patient management, 23rd International Molecular Med Tri-Con; Referee, The Intensive Care Foundation JLA Priority Award; Reviewer: *Intensive Care Medicine Experimental, Immunologic Research, PLoS ONE*. Member, Southeast Bioinformatics Consortium.

Ivan F. McMurtry: Editor, American Physiology Society's online journal *Comprehensive Physiology: Topic on Pulmonary Circulation and Non-Respiratory Functions*; Editorial board member, *AJP Lung, Pulmonary Circulation*; Manuscript reviewer: *AJP Lung, Cardiovasc Res, Circulation, Comprehensive Physiol, Hypertension, Pulmonary Circ.*

Lyudmila I. Rachek: Ad hoc grant reviewer, National Science Foundation, Diabetes United Kingdom; Editorial board Member: *Open Endocrinology Journal, New Journal of Science*. Reviewer: *Cell Biology and Toxicology, Biochimica et Biophysica acta, International journal of Medical Sciences, Diabetology & Metabolic Syndrome, British Journal of Nutrition, Nutrients*; Member: American Diabetes Association, American Heart Association

Thomas C. Rich: Reviewer: NIH ZRG1 CB-T(30) study section, American Heart Association: Molecular Signaling 2 study section; Reviewer: *J. Biol. Chem, PLoS ONE, Nature Scientific Reports*; Guest editor, *PLoS Computational Biology*.

Victor Solodushko: Reviewer: BMC Research Notes, BMC Microbiology, Molecular Pharmaceutics.

Wiltz W. Wagner, Jr.: Recipient, G. Edgar Folk Senior Scientist Award; Historian, Pulmonary Circulation Assembly, American Thoracic Society; Reviewer: *Am J Physiol, J Applied Physiol, Micro Vasc Res*; Member: Pulmonary Circulation Assembly, American Thoracic Society, Executive Committee and Planning Committee, Board of Directors, Pulmonary Circulation Foundation; Treasurer, Pulmonary Circulation Foundation;

Chairman, Pulmonary Circulation Assembly, American Thoracic Society, Awards Committee.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Department faculty continued to diversify the Department research portfolio with grant submissions, new patent applications by Dr. Solodushko and by Dr. Rich, letters of intent for GoMRI and DoD funding initiatives, and competing renewal application for one NIH-funded project. Dr. Ayling and Dr. Bailey continue their research on expanding the use of natural folates. These efforts in patenting, consulting, licensing and marketing 5-methyltetrahydrofolate (Metafolin), have resulted in continued revenues from royalties.

Dr. Langley has had an impressive first year. He met with colleagues across USA's campuses and reached out to fellow researchers at other institutions and either developed or has taken part in several multi-disciplinary research collaborations including: a Genomics Initiative involving USA faculty from Medicine, Biology, and Computer and Information Sciences; a Trauma Research Initiative between USA Surgery/Trauma faculty and basic sciences resulting in a funded K08 Award to Dr. Jon Simmons; a Clinical and Translational Sciences Initiative, a collaborative grant with UAB and 9 other institutions whose mission is to enhance translational research across the region. To further his outreach, Dr. Langley plans to develop collaborations within the Mitchell Cancer Institute where he can extend the integrative omics projects he has developed in sepsis to find if they are translatable to various cancers with the hope that the integrative approach can identify novel mechanisms that have not previously been considered.

Pharmacology faculty have dedicated countless hours to teaching as well as to directing modules and courses. Dr. Al-Mehdi updated and co-directed the Integrated Case Studies course for 2nd year medical students, developed new cases for the simulation labs of several modules, redesigned the Clinical Pharmacology 4th year elective, and, as Module Director, revamped the syllabus for Fundamentals of Human Health. Dr. Chinkers served as Course Director for Fundamentals of Basic Medical Science I & II. Dr. Ayling continues her efforts to optimize the relationship between the MS program in Toxicology and the PhD program in Basic Medical Sciences, so that both programs benefit from the existence of the other. Drs. Al-Mehdi, Bauer, Cioffi, Langley, McMurtry, Rich, and Wagner served on advisory, thesis, and dissertation committees. Drs. Bauer, Cioffi, Gillespie, Rachek, and Rich mentored undergraduate students and medical students in the Summer Medical Student Research and UCUR programs.

Dr. Natalie Bauer rolled out a new campus-wide Faculty Mentoring Program, enrolling 20 new faculty matched with 20 experienced mentors. She organized mentor training sessions and mentor/mentee roundtables, co-authored and presented an abstract on the first year program at the Conference on Teaching and Learning on campus and later prepared a manuscript. In preparation for the 2017 LCME site visit, Dr. Bauer participated in the Curriculum Committee Education Workshop for Module Directors focusing on developing learning objectives for courses in order to meet the LCME requirements for self-directed studies.

Faculty have taken on many important leadership roles to serve within the University, reviewed manuscripts for numerous major publishers, and have more been involved in community outreach. Dr. Gillespie led the USA team effort to serve as one of UAB's partner institutions on recently-funded CTSA award and also served on the Search Committee for the Dean, College of Medicine and VP for Medical Affairs. Dr. Ayling has continued her ongoing efforts to actively pursue collaborations with charitable organizations in developing countries to educate women in order to improve nutrition and decrease birth defects.

This year we plan to continue to expand active learning modalities and use of human simulators in the professional curriculum, continue expansion of the Department funding portfolio into SBIR/STTR and Pharma grants. We hope to contribute to the development of new P50 or multi-project DoD grant for a Trauma Research Center and identify ways for significant inter-departmental collaboration and enhance translational/clinical research consistent with College and Department interests. Faculty will continue to serve on the CCTS Bioinformatics consortium. This includes working with Dr. Kim Littlefield on the Informatics for Integrating Biology and the Bedside (i2B2) program, an exciting project that that will build informatics for clinical data and samples for research. Drs. Ayling and Bailey plan to develop and patent novel applications of natural folates, and to continue to investigate and develop commercial relations and to pursue research collaborations with Government and Industry to expedite the transfer of their findings for the benefit of humans world-wide.

2015-2016
Summary of Scholarly Activities
Department of Physiology & Cell Biology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Bell RM, Sivaraman V, Kunuthur SP, Cohen MV, Downey JM, Yellon DM. Cardioprotective properties of the platelet P2Y₁₂ receptor inhibitor, cangrelor: protective in diabetics and reliant upon the presence of blood. *Cardiovasc Drugs Ther.* 2015 Oct;29(5):415-8.

Blum-Johnston C, Thorpe RB, Wee C, Romero M, Brunelle A, Blood Q, Wilson R, Blood AB, Francis M, Taylor MS, Longo LD, Pearce WJ, Wilson SM. Developmental acceleration of bradykinin-dependent relaxation by prenatal chronic hypoxia impedes normal development after birth. *Am J Physiol Lung Cell Mol Physiol.* 2016 Feb 1;310(3):L271-86.

Cohen MV, Yang XM, White J, Yellon DM, Bell RM, Downey JM. Cangrelor-mediated cardioprotection requires platelets and sphingosine phosphorylation. *Cardiovasc Drugs Ther.* 2016 Apr;30(2):229-32.

Francis M, Waldrup JR, Qian X, Solodushko V, Meriwether J, Taylor MS. Functional tuning of intrinsic endothelial Ca²⁺ dynamics in swine coronary arteries. *Circ Res.* 2016 Apr 1;118(7):1078-90.

Francis M, Xu N, Zhou C, Stevens T. Transient receptor potential channel 4 encodes a vascular permeability defect and high frequency Ca²⁺ transients in severe pulmonary arterial hypertension. *Am J Pathol.* 2016 Jun;186(6):1701-9.

Jian MY, Liu Y, Li Q, Wolkowicz P, Alexeyev M, Zmijewski J, Creighton J. N-cadherin coordinates AMP kinase-mediated lung vascular repair. *Am J Physiol Lung Cell Mol Physiol.* 2016 Jan 1;310(1):L71-85.

Lee YL, Simmons JD, Gillespie MN, Alvarez DF, Gonzalez RP, Brevard SB, Frotan MA, Schneider AM, Richards WO. Evaluation of microvascular perfusion and resuscitation after severe injury. *Am Surg.* 2015 Dec;81(12):1272-8.

Morrow KA, Seifert R, Kaefer V, Britain AL, Sayner SL, Ochoa CD, Cioffi EA, Frank DW, Rich TC, Stevens T. Heterogeneity of pulmonary endothelial cyclic nucleotide response to *Pseudomonas aeruginosa* ExoY infection. *Am J Physiol Lung Cell Mol Physiol.* 2015 Nov 15;309(10):L1199-207.

Morrow KA, Ochoa CD, Balczon R, Zhou C, Cauthen L, Alexeyev M, Schmalzer KM, Frank DW, Stevens T. *Pseudomonas aeruginosa* exoenzymes U and Y induce a transmissible endothelial proteinopathy. *Am J Physiol Lung Cell Mol Physiol.* 2016 Feb 15;310(4):L337-53.

Nickols J, Obiako B, Ramila KC, Putinta K, Schilling S, Sayner SL. Lipopolysaccharide-induced pulmonary endothelial barrier disruption and lung edema: critical role for bicarbonate stimulation of AC10. *Am J Physiol Lung Cell Mol Physiol*. 2015 Dec 15;309(12):L1430-7.

Spadafora D, Kozhukhar N, Alexeyev MF. Presequence-independent mitochondrial import of DNA ligase facilitates establishment of cell lines with reduced mtDNA copy number. *PLoS One*. 2016 Mar 31;11(3):e0152705. Correction in: *PLoS One*. 2016 May 24;11(5):e0156168.

Spadafora D, Kozhukhar N, Chouljenko VN, Kousoulas KG, Alexeyev MF. Methods for efficient elimination of mitochondrial DNA from cultured cells. *PLoS One*. 2016 May 2;11(5):e0154684.

Wu J, Xu Y, Jiang YQ, Xu J, Hu Y, Zha XM. ASIC subunit ratio and differential surface trafficking in the brain. *Mol Brain*. 2016 Jan 8;9:4.

Wu J, Leng T, Jing L, Jiang N, Chen D, Hu Y, Xiong ZG, Zha XM. Two di-leucine motifs regulate trafficking and function of mouse ASIC2a. *Mol Brain*. 2016 Jan 27;9:9.

Yap FC, Weber DS, Taylor MS, Townsley MI, Comer BS, Maylie J, Adelman JP, Lin MT. Endothelial SK3 channel-associated Ca²⁺ microdomains modulate blood pressure. *Am J Physiol Heart Circ Physiol*. 2016 May 1;310(9):H1151-63.

Zhou C, Townsley MI, Alexeyev M, Voelkel NF, Stevens T. Endothelial hyperpermeability in severe pulmonary arterial hypertension: role of store operated calcium entry. *Am J Physiol Lung Cell Mol Physiol*. 2016 Sep 1;311(3):L560-9.

II. PUBLISHED ABSTRACTS

Cohen MV, Yang XM, White J, Yellon D, Bell R, Downey JM. Cangrelor's anti-infarct effect requires phosphorylation of spingosine in platelets: the missing link. *Circulation*. 2015 Nov 10;132(Suppl 3):A10281.

Deal JA, Favreau P, Weber D, Rich T, Leavesley S. Potential of hyperspectral imaging for label-free tissue and pathology classification. *FASEB J*. 2016;30:51.2.

Francis CM, Xu N, Zhou C, Stevens T. Canonical transient receptor potential 4 protein encodes high frequency calcium transients in severe pulmonary arterial hypertension. *FASEB J*. 2016;30:774.18.

Francis CM, Oshima K, Stevens T, Oka M. The geometry of the progression of occlusive lesions in severe pulmonary arterial hypertension. *FASEB J*. 2016;30:774.19.

Gorodnya OM, McLendon JM, Alvarez DF, Rachek LI, Pastukh VM, Gillespie MN, Ruchko MV. Effect of aging and high fat diet on mitochondrial and cardiac function in mice with altered mitochondrial DNA repair. *FASEB J.* 2016;30:1178.8.

Jett SE, O'Donnell K, Taylor J, Lopez O, Coley J, Fontenot M, Stern AM, Hill B, Audia J, Alvarez D. An investigation of spatial working memory in mice. Proceedings of the 23rd Annual International Conference on Comparative Cognition; 2016 Apr 13-16; Melbourne Beach, FL. p. 39. Abstract no. P65.

Lee JY, Stevens T. Aerobic glycolysis is sufficient, but not necessary, for rapid proliferation of pulmonary endothelial cells. *Am J Respir Crit Care Med.* 2016;193:A7283. Available from: http://www.atsjournals.org/doi/pdf/10.1164/ajrccm-conference.2016.193.1_MeetingAbstracts.A7283

McMurtry S, Stevens T, Ofori-Acquah S. Isolation and characterization of distal microvascular endothelial cell clones from wild type and TLR4 deficient mice. *Am J Respir Crit Care Med.* 2016;193:A7280. Available from: http://www.atsjournals.org/doi/pdf/10.1164/ajrccm-conference.2016.193.1_MeetingAbstracts.A7280

Morrow KA, Balczon R, Frank DW, Stevens T. Pulmonary endothelial heterogeneity in response to infection-induced cytotoxic supernatant. *FASEB J.* 2016;30:980.7.

Renema P, Housley NA, Audia JP, Alvarez DF. cAMP potentiates Caspase-1 activation in pulmonary microvascular endothelial cells during *Pseudomonas aeruginosa* infection. *FASEB J.* 2016;30:980.8.

Rich TC, Sweat R, Annamdevula NS, Favreau P, Mayes S, Webb K, Britain AL, Townsley M, Nakhmani A, Leavesley SJ. Simultaneous, real time, measurement of 3D cAMP and Ca²⁺ signals using hyperspectral imaging and analysis approaches. *Am J Respir Crit Care Med.* 2016;193:A7299. Available from: http://www.atsjournals.org/doi/pdf/10.1164/ajrccm-conference.2016.193.1_MeetingAbstracts.A7299

Sayner SL. Lipopolysaccharide and isoproterenol alter sodium bicarbonate cotransporter phosphorylation in pulmonary microvascular endothelial cells. *FASEB J.* 2016;30:980.5.

Sayner SL, Hargett L, Scruggs A, Ramila KC, Yarbrough T, Bauer T. Activation of adenylyl cyclase in pulmonary microvascular endothelial cells increases microparticle cAMP content. *FASEB J.* 2016;30:980.4.

Webb KJ, Wiles CA, Annamdevula N, Sweat R, Britain AL, Phan AV, Townsley MI, Leavesley SJ, Rich TC. A mathematical model of calcium and cAMP signaling in pulmonary microvascular endothelial cells. *FASEB J.* 2016;30:969.26.

Weber DS, Choi CS, Bayazid L, Glosemeyer K, Taylor MS. Altered Ca²⁺ dynamics and vascular function during low-flow induced vascular remodeling. *FASEB J*. 2016;30:736.12.

Wu J, Jiang N, Yang T, Jiang YQ, Zhou Y, Wang B, Hu Y, Ji YH, Simon R, Xiong ZG, Zha X. Region specific expression of ASIC subunits in the brain determines differential contribution of ASIC2 to neuronal injury. Society for Neuroscience Annual Meeting, Neuroscience 2015; 2015 Oct 17-21; Chicago, IL. Abstract no. 108.01.

Xu N, Stevens T. A scratch-induced interaction between extracellular sodium and Orai1 is critical for endothelial cell wound healing. *Am J Respir Crit Care Med*. 2016;193:A7288. Available from: http://www.atsjournals.org/doi/pdf/10.1164/ajrccm-conference.2016.193.1_MeetingAbstracts.A7288

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Stevens T. Invited speaker. Rat genomics and models. Cold Spring Harbor Laboratories; 2015 Dec 11; Cold Spring Harbor, NY.

Stevens T. Invited speaker. Role of microtubules in chronic EC barrier dysfunction in *P. aeruginosa*-infected pulmonary endothelium. Experimental Biology; 2016 Apr 6; San Diego, CA.

Weber DS. Invited speaker. Changes in endothelial Ca²⁺ signaling underlying vascular dysfunction and remodeling during restenosis. Center for Cardiovascular and Respiratory Sciences, University of West Virginia; 2016 Mar 24; Morgantown, WV.

Weber DS. Invited speaker. Mechanisms of vascular remodeling during restenosis. Department of Basic Sciences, The Commonwealth Medical College; 2016 Jan 8; Scranton, PA.

Zha XM. Invited speaker. Acid signaling and neuron function. Department of Neuro-Pharmacology, Southern China University; 2016 May 9; Guangzhou, China.

V. NATIONAL PROFESSIONAL RECOGNITION

Mikhail F. Alexeyev: Journal Reviewer, *Clinical Science*, *PLoS One*, *International Journal of Molecular Sciences*, *International Journal of Biochemistry and Cell Biology*, *Genes*, *Inside the Cell*, *Oncotarget*, *World Journal of Experimental Medicine*. Associate Editor, *Mitochondrial DNA*. Grant Reviewer, NIH Study Section ZRG1 BBBP-T (57)R, NIH Study Section ZRG1 F08-B (20)L, Department of Defense Applications, Wellcome Trust, Italian Ministry of Health, American Federation for Aging Research.

Diego F. Alvarez: Program Committee Member, American Thoracic Society – Pulmonary Circulation Assembly, American Physiological Society – Respiratory Section; Editorial Board, *Pulmonary Circulation* and *Frontiers in Respiratory Physiology*.

Michael V. Cohen: Editorial Board, *Basic Research in Cardiology*. Reviewer, *Basic Research in Cardiology*, *Cardiovascular Research*, *Cardiovascular Drugs and Therapy*, *American Journal of Physiology*, *Journal of the American College of Cardiology*, *Circulation*, *Journal of Applied Physiology*, *Journal of Cardiovascular Pharmacology and Therapeutics*, *British Journal of Pharmacology*, *European Journal of Pharmacology*, *Critical Care Medicine*, *Journal of Clinical Medicine*.

Mike Lin: Reviewer, American Journal of Physiology Heart and Circulation, Anesthesiology.

Sarah Sayner: Reviewer, American Heart Association, *American Journal of Physiology Lung Cell and Molecular Physiology*, *PLoS One*, *Experimental Eye Research*, *European Respiratory Journal*, *Toxins*, *Microvascular Research*, *Biochimica et Biophysica Acta - BBA Molecular Basis of Disease*.

Troy Stevens: Session Chair, Microtubules in lung disease and recovery, Experimental Biology 2016; Chair, American Thoracic Society Pulmonary Circulation Assembly 2016. Member, American Thoracic Society Board of Directors; Editorial Board Member, *American Journal of Physiology Lung Cellular and Molecular Physiology*, *Pulmonary Circulation*.

Mark S. Taylor: Co-organizer, Smooth Muscle Underground Symposium; Councilor, Gulf Coast Physiological Society;

Mary I. Townsley: Editorial Board, *Pulmonary Circulation*, *Frontiers in Physiology*, *Vascular Physiology* and *Microvascular Research*.

David S. Weber: Session Chair, Experimental Biology Symposium 2016. Reviewer, American Heart Association Scientific Sessions 2015, *Circulation Research*, *Microvascular Research*, *PLoS One*, *Journal of Cardiovascular Pharmacology*.

Xiangming Zha: Reviewer, American Heart Association Study Section Brain Stroke II, *Journal of Biological Chemistry*, *Scientific Reports*, *Journal of Alzheimer's Disease*; Editorial Board, *PLoS One*, *Molecular Brain*, *Frontiers in Cellular Biochemistry*.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The department of Physiology & Cell Biology continually strives to contribute to the College of Medicine's mission of research, teaching and service. The faculty actively submit and receive grants at a nationally competitive level. Dr. Alexeyev received a Department of Defense Research Grant to study mouse models of mitochondrial disease.

Also, Dr. Alvarez has received his first independent R01 grant focusing on Caspase-1, microvascular endothelium and infection.

The department faculty continue to contribute to medical education. Several faculty members serve as module/course directors, lecturers, facilitators of active learning sessions and mentors. The faculty significantly contributed to the Cardiovascular and Urinary modules for M1 as well as Respiratory, Digestive, Endocrine/Reproductive, Musculoskeletal and Neuroscience/Behavior modules for M2. Many of the faculty served as mentors for the Medical Student Summer Research program.

The faculty also made important contributions to the Basic Medical Sciences Graduate Program. Dr. Townsley served as Course Director for IDL 640 Biostatistics & Experimental Design and IDL 641 Effective Scientific Writing, respectively. Drs. Stevens, Alvarez and Sayner were course directors for IDL 630 Lung Biology. Also, Drs. Alexeyev, Lin, Taylor, Weber and Zha taught extensively in various graduate courses. Dr. Mark Taylor's graduate student Joshua Waldrup earned his doctoral degree this year.

We also continue to add innovative new programs. Dr. Alvarez has built a cell free organ scaffold system which has become active this year. This lab will allow the faculty to examine endothelial cell specification, lung biomechanics and progenitor cell efficacy in bioengineering organs for transplantation. Dr. Mike Lin has set up an electrophysiological system to study ion channel activity. This system can be custom-fitted for hyperspectral capability for simultaneous channel activity and imaging recordings.

The department of Physiology & Cell Biology has a new "Chalk Talk" series. This monthly research in progress seminar allows the faculty to collaborate and problem solve research ideas. The department has continued to be productive in scholarly achievements. The faculty contributed twenty articles to peer-reviewed journals as well as seventeen abstracts. Many of the faculty have taken on extensive university responsibilities. For example, Dr. Mark Taylor is the director of the Basic Medical Sciences Graduate Program and Dr. Diego Alvarez is chair of the Institutional Animal Care and Use Committee.

Several faculty delivered lectures to professional societies and international meetings this year. Dr. Taylor was Co-organizer for the Smooth Muscle Underground Symposium in San Diego, CA. Dr. Alvarez participated in the 2015 Translational Health Disparities Course at the National Institutes of Health in Bethesda, MD. Dr. Zha gave a seminar entitled "Acid signaling and neuron function" at the Southern China University, Guangzhou, China in May.

2015-2016
Summary of Scholarly Activities
Department of Psychiatry

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Bossie CA, Alphas LD, Williamson DJ, Mao L, Kurut C, ASPECT-R Rater Team. Inter-rater reliability assessment of ASPECT-R (A Study Pragmatic-Explanatory Characterization Tool-Rating). *Innov Clin Neurosci*. 2016 Apr 1;13(3-4):27-31.

Buckley JC, Bernstein J, Cobia B, Brooks WB. A 61-year-old woman with motor and behavioral disturbances. *Psychiatr Ann*. 2016 Sep;46(9):490-3.

Hansel TC, Osofsky HJ, Langhinrichsen-Rohling J, Speier A, Rehner T, Osofsky JD, Rohrer G. Gulf Coast Resilience Coalition: an evolved collaborative built on shared disaster experiences, response, and future preparedness. *Disaster Med Public Health Prep*. 2015 Dec;9(6):657-65.

Koon-Magnin S, Bowers D, Langhinrichsen-Rohling J, Arata C. Social learning, self-control, gender, and variety of violent delinquency. *Deviant Behav*. 2016;37(7):824-36.

Langhinrichsen-Rohling J, Wornell, C, Johns K, Selwyn C, Friend J. The nuts and bolts of developing integrated healthcare in under-resourced primary care settings: challenges and lessons learned. In: Craig WS, editor. *Integrated psychological services in primary care*. New York: Nova Science Publishers; 2015. Chapter 5, p.67-88.

Mandracchia JT, Gonzalez RA, Patterson KL, Smith PN. Psychopathy and criminogenic thinking in adult male prisoners. *J Contemp Crim Justice*. 2015 Nov;31(4):409-25.

O'Leary P. Why I keep fortune cookies on my desk. *Curr Psychiatr*. 2016 Jun;15(6):76.

Ruan X, Kaye AD, Wyche MQ, Chiravuri S, Narahari P. Analyzing the relationship between nonmedical prescription-opioid use and heroin use; simple solution for a complex problem: rewriting the script; acetaminophen, a reasonable option, but not a panacea (Letter). *J Opioid Manag*. 2016 Jan-Feb;12(1):11-7.

Ruan X, Kaye R, Narahari P. Considering a balanced approach to training doctors for person-centered care. *Acad Med*. 2016 Jul;91(7):897.

Stefurak T, Johnson RB, Shatto E. Mixed methods and dialectical pluralism. In: Jason LA, Glenwick DS, editors. *Handbook of methodological approaches to community-based research: qualitative, quantitative, and mixed methods*. New York: Oxford University Press; 2016. Chapter 34, p. 345-54.

Van Orden KA, Smith PN, Chen T, Conwell Y. A case controlled examination of the interpersonal theory of suicide in the second half of life. *Arch Suicide Res.* 2016 Jul 2;20(3):323-35.

Wolford-Clevenger C, Vann NC, Smith PN. The association of partner abuse types and suicidal ideation among men and women college students. *Violence Vict.* 2016;31(3):471-85.

Ybarra ML, Espelage DL, Langhinrichsen-Rohling J, Korchmaros JD, Boyd D. Lifetime prevalence rates and overlap of physical, psychological, and sexual dating abuse perpetration and victimization in a national sample of youth. *Arch Sex Behav.* 2016 Jul;45(5):1083-99.

II. PUBLISHED ABSTRACTS

Bell T, Langhinrichsen-Rohling J, Varner S. Coping styles, physical health, and psychological distress after the Deepwater Horizon disaster. 124th Annual Convention of the American Psychological Association; 2016 Aug 4-7; Denver, CO. Abstract no. A-17.

Bell T, Varner S, Langhinrichsen-Rohling J. Community members coping: long-term posttraumatic adaptation. International Society of Traumatic Stress Studies 31st Annual Meeting; 2015 Nov 5-7; New Orleans, LA. p. 151. Abstract no. FRI 156.

Boone S, Schneider M, Kuhlman S, Thompson K, Langhinrichsen-Rohling J, Misra T. Protection against suicidal proneness: parent versus peer attachment. 49th Annual Conference of the American Association of Suicidology; 2016 Mar 30-Apr 2; Chicago, IL.

Boone L, LePage J, Siddiqui S, Hart J. Diagnosing schizophrenia when delusions are influenced by cultural norms: a case study involving voodoo. Alabama Psychiatric Physicians Association Spring Conference; 2016 Apr 8-10; Destin, FL. Abstract no. 16-1-05.

Byas J, Kuhlman S, Smith PN. Method lethality's relationship to aggression, impulsivity, and acquired capability. Southeastern Psychological Association 62nd Annual Meeting; 2016 Mar 30-Apr 2; New Orleans, LA. p. 27. Abstract no. 27.

Dayley P, Buchanan K, Talerico C, Brooks WB. Clozapine induced urinary incontinence: a case report and management of a rare side effect. Alabama Psychiatric Physicians Association Spring Conference; 2016 Apr 8-10; Destin, FL. Abstract no. 16-1-01.

Eversole E. College major and mental health. Southeastern Psychological Association 62nd Annual Meeting; 2016 Mar 30-Apr 2; New Orleans, LA. Abstract no. 19.

Granato S, Kuhlman S, McDermott R, Smith PN. The role of masculine gender role adherence in help-seeking for suicide through formal and informal sources. 49th Annual

Conference of the American Association of Suicidology; 2016 Mar 30-Apr 2; Chicago, IL.

Griffeth B, Brooks WB, Foster A. A psychiatric specific EPA for evaluation of the prospective psychiatric resident: towards a national standard. Association of Directors of Medical Student Education in Psychiatry 42nd Annual Meeting; 2016 Jun 16-18; Excelsior Springs, MO.

Hamilton M, Abraham J, Brooks WB. Refractory depression: never give up. Alabama Psychiatric Physicians Association Spring Conference; 2016 Apr 8-10; Destin, FL. Abstract no. 16-1-06.

Hamilton M, Duffee E, Stewart L, Brooks WB. Aripiprazole induced tardive dyskinesia: improvement with clonazepam. Alabama Psychiatric Physicians Association Spring Conference; 2016 Apr 8-10; Destin, FL. Abstract no. 16-1-07.

Jackson S, Anderson C, Langhinrichsen-Rohling J. There's no place like home: family functioning and resilience following natural disaster. International Society for Traumatic Stress Studies 31st Annual Meeting; 2015 Nov 5-7; New Orleans, LA. p. 151. Abstract no. FRI 166.

Jones Z, Stefurak JR. Development and implementation evaluation of a positive masculinity group intervention for male juveniles. 124th Annual Convention of the American Psychological Association; 2016 Aug 4-7; Denver, CO. Abstract no. F-16.

Kuhlman S, Boone S, Granato S, Smith PN. Social-demographic risk factors & suicide ideation: a mediational analysis of the interpersonal theory of suicide. 49th Annual Conference of the American Association of Suicidology; 2016 Mar 30-Apr 2; Chicago, IL.

Kuhlman STW, Smith PN. Unmet interpersonal needs are associated with attitudes toward intimate partner violence. 124th Annual Convention of the American Psychological Association; 2016 Aug 4-7; Denver, CO. Abstract no. F-20.

Kuhlman S, Byas J, Smith PN. Suicide method lethality and suicide attempt status: their function in the development of fearlessness of death. 49th Annual Conference of the American Association of Suicidology; 2016 Mar 30-Apr 2; Chicago, IL.

Lehmann SW, Blazek MC, Brooks WB. Ageism in medical education: how can we create enduring attitudinal change? Am J Geriatr Psychiatry. 2016 Mar;24(3 Suppl 1):S14. Abstract no. 208.

Liu J, Tillman W, Hart J. The challenges of treating a Huntington's disease patient with undiagnosed obsessive-compulsive disorder. Alabama Psychiatric Physicians Association Spring Conference; 2016 Apr 8-10; Destin, FL. Abstract no. 16-1-02.

Rizk D, Lunsford T, Fasano E, Brooks WB. Lewy Body Dementia: a dynamic disease and challenging diagnosis. Alabama Psychiatric Physicians Association Spring Conference; 2016 Apr 8-10; Destin, FL. Abstract no. 16-1-09.

Savitz A, Melkote R, Riley R, McQuarrie K, Williamson D, Banderas B. Usefulness of antipsychotic blood levels in clinician decision-making: a cross-over study using clinical vignettes of patients with schizophrenia. Society of Biological Psychiatry 71st Annual Meeting; 2016 May 12-14; Atlanta, GA. Abstract no. 181.

Shatto E, Selwyn C, Wright C, Stefurak T. Mismatched treatments for delinquent girls: how patriarchy leads to re-traumatization of intersectional youth. The Institute for the Study and Promotion of Race and Culture Fifteenth Annual Diversity Challenge; 2015 Oct 23-24; Boston, MA. p. 55-6.

Silva C, Smith PN, Joiner TE, Foote B, Van Orden KA. Clinical cut scores for the Interpersonal Needs Questionnaire: detecting suicide ideation among psychiatric outpatients and inpatients. New York State Suicide Prevention Conference; 2016 Sep 12-13; Albany, NY. p. 8 Abstract no. 13.

Sinclair S, Hamilton M, Buchanan K, Sinclair A, Brooks WB. Dissociative disorders: a case report highlighting the subtle differences in these diagnoses. Alabama Psychiatric Physicians Association Spring Conference; 2016 Apr 8-10; Destin, FL. Abstract no. 16-1-10.

Smith PN, Kuhlman S, Granato S. Adherence to masculine gender norms promotes greater risk for suicide in men via the capability for suicide: a study of psychiatric inpatients. 49th Annual Conference of the American Association of Suicidology; 2016 Mar 30-Apr 2; Chicago, IL.

Smith PN, Kuhlman S, D'Amato D. Posttraumatic stress disorder symptoms and the interpersonal theory of suicide in women seeking shelter from domestic violence. International Society for Traumatic Stress Studies 31st Annual Meeting; 2015 Nov 5-7; New Orleans, LA. p. 135. Abstract no. THU 345.

Smith E, Langhinrichsen-Rohling J. Thematic analysis of 30 families study post-disaster. 17th Annual University of South Alabama Committee on Undergraduate Research Symposium 2015; 2015 Oct 15; Mobile, AL. p. 51.

Stefurak JR, Bryan VL, Kantra L, Jones K. Predicting serious and violent juvenile crime and overall juvenile crime: a retrospective file review. 124th Annual Convention of the American Psychological Association; 2016 Aug 4-7; Denver, CO. Abstract no. D-25.

Thompson K, Langhinrichsen-Rohling J. Schemas as a mediator for the relationship between attachment and suicidal proneness and ideation. 17th Annual University of South Alabama Committee on Undergraduate Research Symposium 2015; 2015 Oct 15; Mobile, AL.

Williams SG, Turner-Henson A, Azuero A, Collins L, Langhinrichsen-Rohling J, McGuinness T. A biobehavioral view of depressive symptoms in 9th grade adolescents. 30th Southern Nursing Research Society Annual Conference; 2016 Feb 24-27; Williamsburg, VA. p. 21. Abstract no. PS1-35.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Engeriser JL. Invited speaker. Health decision making and innumeracy: how misunderstanding math can kill us and our patients. Alabama Psychiatric Physicians Association 2015 Fall Conference; 2015 Oct 17; Point Clear, AL.

Franks RD. Invited speaker. Hijacking the brain: understanding addiction. Mobile Infirmary Grand Rounds; 2016 Apr 19; Mobile, AL.

Friend J, Langhinrichsen-Rohling J. Invited speakers. Focused ACT and the MBHCP-AL. University of South Alabama 3rd Year Psychiatry Residency Program; 2016 Mar 10; Mobile, AL.

Hughes JT, Sarpy SA, Langhinrichsen-Rohling J, Rosen J. Invited speakers. NIEHS/SAMHSA Gulf Responder Resilience Training Initiative: lessons learned. 2016 Gulf of Mexico Oil Spill and Ecosystem Science Conference; 2016 Feb 3; Tampa, FL.

Kantra L, Wright C, Stefurak JT. Invited speakers. Trauma-informed supervision in helping professions. 2016 National Organization of Forensic Social Work Annual Conference; 2016 Jun 19; New Orleans, LA.

Langhinrichsen-Rohling J. Invited speaker. Academic and community partner reports. Deepwater Horizon Research Consortium Meeting; 2016 Mar 8; Mobile, AL.

Langhinrichsen-Rohling J, Friend J, Wornell C. Invited speakers. Sustainable integrated health care: efforts of the Alabama Mental and Behavioral Health Capacity Project. Louisiana Public Health Institute Regional Care Collaborative; 2016 Feb 25; Long Beach, MS.

Langhinrichsen-Rohling J. Invited speaker. Intersections between psychology and environmental science. 3rd Annual Emerging Scholars Teacher's Workshop; 2016 Mar 20; Mobile, AL.

Langhinrichsen-Rohling J. Invited speaker. Ensuring family resiliency. American Red Cross Small Business Resiliency Workshop; 2016 Mar 14; Mobile, AL.

Langhinrichsen-Rohling J, Aull J, Wornell C, Friend, J. Invited speakers. The Gulf Coast Behavioral Health and Resiliency Center: a strategic plan to promote wide-spread

resilience. 2016 Gulf of Mexico Oil Spill and Ecosystem Science Conference; 2016 Feb 3; Tampa, FL.

Popeo D, Wilkins K, Lehmann S, Brooks WB, Blazek M, Meriden Z. Invited speakers. Attitudes and aging: creating enduring change among medical students. The 2015 Association of American Medical Colleges Medical Education Meeting; 2015 Nov 12; Baltimore, MD.

Smith PN, Kuhlman STW. Invited speakers. Adherence to dominant masculine norms promotes greater risk for suicide in U.S. suicidal men. 124th Annual Convention of the American Psychological Association; 2016 Aug 4; Denver, CO.

Stefurak JR. Invited speaker. Ethical issues in supervising counselors treating trauma. Ethical Dilemmas: Right, Wrong, or it Depends; 2016 Mar 11; Mobile, AL.

Stefurak JR, Wright C, Fields K, Kantra L, Presley L, Jones K. Invited speakers. Collaborative program development, delivery & evaluation in the juvenile justice system. Southeastern Psychological Association 62nd Annual Meeting; 2016 Apr 1; New Orleans, LA.

Stefurak JR, Fields K. Invited speakers. Getting the most out of psychological assessment reports in child welfare. Foster Family-based Treatment Association Alabama Chapter Fall Conference; 2015 Nov 13; Orange Beach, AL.

Stefurak JR, Kantra L, Wright C. Invited speakers. Trauma informed care & trauma informed supervision. Foster Family-based Treatment Association Alabama Fall Conference; 2015 Nov 13; Orange Beach, AL.

Wilkins K, Blazek M, Brooks WB, Lehmann S, Liptzin B, Wagenaar D. Invited speakers. Six things every clerkship student should know about geriatric psychiatry (and how to teach them). Association of Directors of Medical Student Education in Psychiatry 42nd Annual Meeting; 2016 Jun 18; Excelsior Springs, MO.

Williamson DJ. Invited speaker. When is memory loss significant? Third Annual University of South Alabama Neuroscience Symposium; 2016 Apr 3; Orange Beach, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Billett, W., Currier, J., Harlan, T., Taylor, T., Franks, R., Gillespie, M., “Stress Induced Mitochondrial DNA Response” (In progress).

Brooks, W.B., Engeriser, L., Parker, S., Franks, R., “Increasing the Selection of Psychiatry by Senior Medical Students: Experience of an Academic Community-Based Department of Psychiatry” (In progress).

Engeriser, L., Parker, S., Franks, R., “Closure of Regional State Psychiatric Hospital: Successful Transition to a Community-Based Model,” (In progress).

Ronald Franks, MD. served as president of the Medical Association of Alabama through April of 2015 and is currently serving as Secretary-Treasurer.

Ronald Franks, MD serving as Chair, Governor’s Task to Improve the Health of Alabama, 2015-Present.

The Red Sash Award from the University of South Alabama College of Medicine’s graduating class of 2015 awarded to W. Bogan Brooks, MD, J. Luke Engeriser, MD, James Hart, DO, Praveen Narahari, MD, Sandra Parker, MD, and Miriam Sevilla, MD.

Sandra K. Parker, MD and J. Luke Engeriser, MD continue to serve as members of the Alabama Statewide Health Coordinating Council (SHCC) Inpatient Psychiatric Commission.

Sandra K. Parker, MD continues to serve at several committees at the University of South Alabama College of Medicine including Admissions Committee, Curriculum Committee, Clinical Chairs Committee, and the Executive Council since July 2011.

Sandra K. Parker, MD continues to serve on the Retrospective Drug Utilization Review (DUR) Board at Alabama Medicaid Agency.

Sandra K. Parker, MD continues to serve on the Mental Health Regional Care Organization (RCO) Taskforce.

Sandra K. Parker, MD continues to serve on the Benefactor, Mobile Carnival Association and En Pointe Society of Mobile Ballet. She is also serving as President of the Mobile Ballet.

Sandra K. Parker, MD continues to serve on the RCO Quality Assurance Committee at Alabama Medicaid Agency.

Sandra K. Parker, MD continues to serve as an organizational member of the Alabama Rural Health Association since March 2013.

Sandra K. Parker, MD continues to serve as a member of the Alabama Telehealth Workgroup since July 2012.

Sandra K. Parker, MD continues to serve as a member of the Mobile County Domestic Violence Taskforce since 2008. Julie Bernstein, DO has served as a member of this taskforce since June 2013.

Sandra K. Parker, MD continues to serve as a member of the Faculty Advisory Board for the University of South Alabama Student Run Clinic.

The Department is continuing its involvement in district branch activities of the American Psychiatric Association. Sandra K. Parker, MD continues to serve as Immediate Past President of the Alabama Psychiatric Physicians Association (APPA) after serving for two years as the President. J. Luke Engeriser, MD was elected as President Elect of the APPA after serving for two years as Secretary. Mark Haygood, DO was elected as Treasurer of the APPA. Faculty and residents serving on committees of the APPA include Sandra Parker, MD, J. Luke Engeriser, MD, W. Bogan Brooks, MD, J. Clint Moore, DO, David Benavidez, MD, and Paul O'leary, MD.

Christina Talerico, MD continues to serve as the Resident and Fellows Section Representative to the American Medical Association Women Physicians Section Governing Council.

Paul J. O'Leary, MD continues to serve on the Professional Sexual Misconduct and Disruptive Behavior Evaluation for the Alabama Medical Board of Censures, Georgia Board of Medicine, Tennessee Board of Medicine, North Carolina Medical Board, Louisiana Medical Board, and Birmingham, Alabama area hospitals.

Paul J. O'Leary, MD continues to assist in Sex Offender Supervision in conjunction with George State Board of Pardons and Paroles.

Paul J. O'Leary, MD serves as the Chair of the Young Physician Section of the Medical Association of the State of Alabama.

Mark Haygood, DO continues to serve as the American Psychiatric Association (APA) Area 5 Early Career Psychiatric (ECP) Representative. He represents our region which includes Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, Virginia (excluding suburban DC), West Virginia, and the Uniformed Services. Dr. Haygood is also the APA Assembly Early Career Psychiatrist Chair.

Departmental Educational Accomplishments:

Named the Highest Ranked Senior Elective by the Class of 2016

Achieved the highest NBME subject exam scores for junior clerkship students

Achieved maximum years of accreditation for both General Psychiatry Residency and for Child and Adolescent Psychiatry Fellowship

Clinical Programs:

Initiated psychiatry service at Student Health, offering psychiatric evaluation and treatment to USA students.

Chair's Comments:

Education

The Department continues to have a strong medical student educational program. The fourth year Acting Internship has been acknowledged as the best senior elective for the 2015-2016 academic year. The third year students on Psychiatry have achieved the highest NBME subject exam scores of all the junior clerkships. Further, the graduating students have continued to exceed the national percentage (4.1%) of medical students going into psychiatry by two to three fold over each of the last several years, with ~10% choosing psychiatry in the 2016 match. This success is reflective of the behavioral science instruction offered during the neuroscience block in the first two years, coupled with a junior clerkship routinely rated as the second highest by the students. Clearly, the faculty's commitment to the students' education, combined with their mentoring of the students, and their serving as effective role models for the students, largely explains this percentage going in to psychiatry.

At the resident level, the child fellowship continues to meet or exceed expectations. It received a full ten year accreditation by the ACGME on its first site visit, the maximum length of time awarded. Two fellows from the first graduating class have just joined the faculty as a measure of the quality of the fellows being recruited. Likewise, the residency has enjoyed the maximum length of accreditation by the ACGME, as well.

Clinical Activity

Our unique model of an academic department of psychiatry integrated within a regional community mental health center (AltaPointe) has continued to effectively serve the region with comprehensive, state-of-the-art mental health services to all populations. The association with the COM has ensured a wealth of teaching patients for the students, residents, and fellows, while also enhancing the recruitment of high quality clinicians. AltaPointe has recently expanded its reach to include other mental health centers in Alabama, thereby bringing comprehensive mental health services to more communities throughout the state. Also expanded, the psychiatry residents under faculty supervision are now providing psychiatric services to all USA students through the Student Health Center.

Research

The department continues to expand its scholarly activities through published manuscripts as well as regional and national presentations. A promising, interdisciplinary research project looking at mitochondrial DNA under conditions of induced stress links the Departments of Pharmacology and Psychology, the College of Nursing, together with the Department of Psychiatry. Dr. Billett is serving as principle investigator of that project.

Leadership

Dr. Parker has completed her term as President of the Alabama Psychiatric Physician Association with Dr. Engeriser now serving as President-Elect. The Chair has finished his term as Immediate Past President of the Medical Association of Alabama and is continuing as Chair of the Governor's Task Force to Improve the Health of Alabama. Psychiatry residents have held national offices in both the AMA and APA.

2015-2016
Summary of Scholarly Activities
Department of Radiology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

II. PUBLISHED ABSTRACTS

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Figarola M. Invited speaker. Food signs in radiology. Alpha Omega Alpha Honor Medical Society; 2016 Apr 21; Mobile, AL.

Gupta S. Invited speaker. Unusual findings in some “usual” cancers: a case based approach. Alabama Society of Nuclear Medicine Annual Meeting 2016; 2016 Mar 5; Birmingham, AL.

Lightner J. Invited speaker. Tomosynthesis: then and now. Southern Radiological Conference; 2016 Jan 31; Point Clear, AL.

Pyko M. Invited speaker. Trauma embolization and pulmonary thrombosis. Mobile Infirmary Medical Center Grand Rounds; 2016 Jan 15; Mobile, AL.

Pyko M. Invited speaker. Coils/occluders. Society of Interventional Radiology 2016; 2016 Apr 3; Vancouver, BC.

Pyko M. Invited speaker. Oncology. Southeast Alabama Medical Center Grand Rounds; 2016 Apr 28; Dothan, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

Oganes Ashikyan: Reviewer: *Skeletal Radiology*.

Maria S. Figarola: Inductee: Alpha Omega Alpha Honor Medical Society.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Due to a successful recruitment year, we are pleased to welcome several new faculty members to the Department of Radiology, including:

1. Dr. Oganes Ashikyan is the newly appointed chief of the musculoskeletal imaging section. Dr. Ashikyan is the head of Quality Improvement for the radiology

department and has been instrumental in developing QI projects for the residency program.

2. Dr. Kevin Bradley joined the department in November 2015 to provide coverage for both body imaging and Interventional Radiology. Dr. Bradley has initiated and supervises a new scholarly project titled “Improving Incoming Resident Techniques in Fluoroscopic Imaging” to better residents’ techniques and patient throughput. He has improved efficiency and productivity in both sections and has helped to grow a broad referral base.
3. Dr. Elizabeth Park joined the department in the mammography section in April 2016. Dr. Park is a lead advisor on the Breast Program Leadership Committee and has become a mentor for the medical students in the radiology interest group.
4. Dr. Osama Abdul-Rahim, a fellowship-trained Interventional Radiologist, joined the faculty in August 2016, and will replace Dr. Pyko as chief of the IR division.
5. Dr. Markus Lammle, a fellowship-trained neuroradiologist, joined the faculty in August 2016, taking over the role of chief of the neuroradiology section. Dr. Lammle will bring imaging expertise to the stroke team as well as provide consultations to the neuroscience physicians.

Dr. Shikha Gupta is the chief of the nuclear medicine section and has excelled in multiple areas including clinical service, resident education, and scholarly activity. She is the co-director for radiology rotation for M4 medical students. Her expertise in PET CT have allowed her to provide higher level quality imaging interpretations to the MCI oncologists and surgeons, making her one of the premier nuclear medicine experts in the region. She has been a leader in the implementation of RADPEER and is the current administrator of the RADPEER program in the radiology department.

Dr. Joel Lightner is the lead advisor on the Breast Program Leadership Committee, an interdisciplinary team instrumental to obtaining national accreditation for USA’s new outpatient Breast Imaging Center. He currently has a pending NIH grant as a co-principal investigator on a project titled “Microwave Radio and Infrared Sensing Based Breast Cancer Detection Device.” Dr. Lightner regularly meets with USA surgeons and oncologists to develop treatment plans for breast cancer patients and has earned regional recognition as an expert in his field.

Dr. Ian Malcolm is implementing a new scholarly project titled “Overcoming Difficulties with PowerScribe” which involves personal communication and instruction to improve prolonged dictations due to misunderstandings.

Dr. Samuel McQuiston provides invaluable service and education both within the radiology department as well as throughout the College of Medicine as the Assistant Dean of GME. He is the Program Director of the department, and his contributions include lectures on faculty development and initiating a quarterly quality conference. He

is currently implementing a performance improvement project titled “Appropriateness in Imaging,” an approach to decreasing inappropriate and overutilization of diagnostic imaging by 30%. Dr. McQuiston’s teaching activity includes teaching medical students on the M4 radiology rotation and maintaining the course on the Sakai site, leading the Te4Q program, updating the inductive learning algorithm for the cardiovascular radiology module, and mentoring eight College of Medicine students pursuing a career in radiology.

Dr. Margaret Mowry plays an important role in resident education in body imaging while also maintaining her breast imaging credentials and providing additional coverage for the mammography section as needed.

Dr. Maximilian Pyko is the current chief of Interventional Radiology. As chief of IR, Dr. Pyko has been instrumental in increasing both efficiency and productivity of the IR section. He has implemented a new clinic based at MCI, and under his expert leadership, the department has increased the number and complexity of procedures offered. Regretfully, Dr. Pyko has resigned from his position at USA, effective September 19, 2016, and will begin an academic appointment at the University of Indiana this fall.

Dr. Todd Standley plays an integral role in the pediatric radiology section. As one of the few subspecialty certified pediatric radiologists in the region, Dr. Standley provides higher level interpretations on all imaging studies performed at USACW. He recently requalified for his Certificate of Additional Qualification in pediatric radiology. Dr. Standley is the pediatric radiology faculty advisor at the monthly Pediatric Tumor Board and Children with Special Needs conferences. He is the director for the pediatric radiology rotation for the M4 medical students. He is also a member of and advisor for the Quality Improvement Committee for the radiology department.

Dr. Brad Steffler, former chief of Interventional Radiology, has transitioned to chief of the body imaging section. Dr. Steffler is participating in an interdepartmental collaboration with the Department of Gastroenterology in providing CT colonography for the Topaz study. Dr. Steffler has taken the lead in participating in a national course and developing and implementing C-RADS, a formal evaluation and reporting system, at our institution. He is now qualified with an ACR certification as a CTC reader with 20 hours of CME in this area. Dr. Steffler has also given introductory lectures in physics.

The radiology residents had an excellent pass rate on the annual ABR Core Exam. All of the senior residents matched in prestigious fellowship programs at institutions such as the University of North Carolina at Chapel Hill, Ochsner Health System in New Orleans, University of California at San Diego, University of Vermont, Medical College of Georgia at Augusta University, and University of Alabama at Birmingham.

Overall, the department’s recruitment efforts have resulted in securing new faculty, all possessing excellent training and credentials. Renewed subspecialty expertise and increased efficiency have improved patient care and strengthened the education and research missions. There have been collaborative efforts between multiple departments

to establish new protocols. The department has seen an increase in revenue, in large part due to the Interventional Radiology faculty's abilities to perform specialty and unique services. The IR department has become a premier service line that has developed many new referrals from within and outside of our health system.

2015-2016
Summary of Scholarly Activities
Department of Surgery

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Avery AH, Rae L, Summitt JB, Kahn SH. The fire challenge: a case report and analysis of self-inflicted flame injury posted on social media. *J Burn Care Res.* 2016 Mar-Apr;37(2):e161-5.

Basturk O, Tan M, Bhanot U, Allen P, Adsay V, Scott SN, Shah R, Berger MF, Askan G, Dikoglu E, Jobanputra V, Wrzeszcynski KO, Sigel C, Iacobuzio-Donahue C, Klimstra DS. The oncocytic subtype is genetically distinct from other pancreatic intraductal papillary mucinous neoplasm subtypes. *Mod Pathol.* 2016 Sep;29(9):1058-69. (Subscription required).

Bradshaw LA, Cheng LK, Chung E, Obioha CB, Erickson JC, Gorman BL, Somarajan S, Richards WO. Diabetic gastroparesis alters the biomagnetic signature of the gastric slow wave. *Neurogastroenterol Motil.* 2016 Jun;28(6):837-48.

Cason B, Rostas J, Simmons J, Frotan MA, Brevard SB, Gonzalez RP. Thoracolumbar spine clearance: clinical examination in patients with distracting injuries. *J Trauma Acute Care Surg.* 2016 Jan;80(1):125-30.

Glasser JG, Springer SC. Intestinal obstruction in the newborn. *Medscape* [Internet]. 2016 Mar 17 [cited 2016 Sep 30]. Available from: <http://emedicine.medscape.com/article/2066380-overview>

Held JM, Litt J, Kennedy JD, McGrane S, Rae L, Kahn SA. Surgeon-performed hemodynamic transesophageal echocardiography in the burn intensive care unit. *J Burn Care Res.* 2016 Jan-Feb;37(1):e63-8.

Kahn SA, Davis SA, Banes CT, Dennis BM, May AK, Gunter OD. Impact of advance practice providers (nurse practitioners and physicians assistants) on surgical residents' critical care experience. *J Surg Res.* 2015 Nov;199(1):7-12.

Kahn SA, Woods SA, Hollowed K, Holmes JH IV. "It Happened in Seconds" firefighter burn prevention program: evaluation of a "Train the Trainer" course. *J Burn Care Res.* 2016 Jan-Feb;37(1):e33-6.

Kelishadi SS, Omar R, Herring N, Tutela JP, Chowdhry S, Brooks R, Wilhelmi, BJ. The safe labiaplasty: a study of nerve density in labia minora and its implications. *Aesthet Surg J.* 2016;36(6):705-9. (Subscription required).

Lee YL, Simmons JD, Gillespie MN, Alvarez DF, Gonzalez RP, Brevard SB, Frotan MA, Schneider AM, Richards WO. Evaluation of microvascular perfusion and

resuscitation after severe injury. *Am Surg.* 2015 Dec;81(12):1272-8. (Subscription required).

MacDuff S, Sun J, Bell DE, Lentz CW, Kahn SA. Accidental burn by intentional laxative use. *Pediatr Emerg Care.* 2016 Aug;32(8):541-3.

Quatrino GM, Tan MC, Rostas JW, Gunter JW 3rd, Ahmed N, Simmons JD. Xanthogranulomatous cholecystitis. *Am Surg.* 2015 Nov;81(11):E349-50. (Subscription required).

Rocker JM, Tan MC, Thompson LW, Contreras CM, DiPalma JA, Pannell LK. Comparative proteomic analysis of whole-gut lavage fluid and pancreatic juice reveals a less invasive method of sampling pancreatic secretions. *Clin Transl Gastroenterol.* 2016 May 26;7:e174.

Rostas J, Simmons JD, Frotan MA, Brevard SB, Gonzalez RP. Intraoperative management of renal gunshot injuries: is mandatory exploration of Gerota's fascia necessary? *Am J Surg.* 2016 Apr;211(4):783-6.

Starker LF, Prieto PA, Liles JS, Tran Cao HS, Grubbs EG, Lee JE, Perrier ND, Graham PH. Endocrine incidentalomas. *Curr Probl Surg.* 2016 May;53(5):219-46.

Tan MC, Brennan MF, Kuk D, Agaram NP, Antonescu CR, Qin LX, Moraco N, Crago AM, Singer S. Histology-based classification predicts pattern of recurrence and improves risk stratification in primary retroperitoneal sarcoma. *Ann Surg.* 2016 Mar;263(3):593-600.

Vaezi MF, Brill JV, Mills MR, Bernstein BB, Ness RM, Richards WO, Brillstein L, Leibowitz R, Strople K, Montgomery EA, Patel K. An episode payment framework for gastroesophageal reflux disease: symptomatic gastroesophageal reflux disease, dysplastic and nondysplastic Barrett's esophagus, and anti-reflux surgical and endoscopic interventions. *Gastroenterology.* 2016 Apr;150(4):1009-18.

II. PUBLISHED ABSTRACTS

Abraham G, Rider P. Endoscopic reduction of ileal J pouch volvulus with laparoscopic pexy. American College of Gastroenterology 2015 Annual Scientific Meeting and Post-Graduate Course; 2015 Oct 16-21; Honolulu, HI. p. 127. Abstract no. P933.

Afshari A, Nguyen L, Kahn SA, Summitt B. 2.5% mafenide acetate: a cost-effective alternative to the 5% solution for burn wounds. *J Burn Care Res.* 2016 May/Jun;37(Suppl 1):S272. Abstract no. 411.

Kahn SA, Palmieri TL, Sen S, Woods J, Gunter OL. Factors implicated in safety-related firefighter fatalities. *J Burn Care Res.* 2016 May/Jun;37(Suppl 1):S77. Abstract no. 21.

Kahn SA, Shinha T, Huff T, Montgomery A, Stratton C, Nguyen L, Afshari A, Summitt B. Hydrofiber dressings saturated with mafenide acetate extend the duration of antimicrobial activity. J Burn Care Res. 2016 May/Jun;37(Suppl 1):S293. Abstract no. 453.

Kahn SA, Simmons J, Brevard S. Use of a surfactant-based burn and wound dressing in a porcine burn model. J Burn Care Res. 2016 May/Jun;37(Suppl 1):S295. Abstract no. 457.

Kampagianni O, Quatrino G, Grimm L, Boudreaux C, Laurini JA. Lymphoepithelial-like carcinoma involving a rectal tonsil. Arch Pathol Lab Med. 2015 Oct;139(10):e32. Abstract no. 99. Available from: <http://www.archivesofpathology.org/doi/pdf/10.5858/arpa.2015-0241-AB>.

Nguyen L, Afshari A, Kahn SA, McGrane S, Summitt B. Utility and outcomes of hydroxocobalamin use in smoke inhalation patients. J Burn Care Res. 2016 May/Jun;37(Suppl 1):S216. Abstract no. 298.

Patterson SB, Beckett A, Lintner A, Brevard SB, Simmons JD, Kahn SA. E-cigarette explosions in the USA: a case report and classification of injuries from the literature. J Burn Care Res. 2016 May/Jun;37(Suppl 1):S247. Abstract no. 360.

Rooks HB, Longerich S, Kahn SA. Prehospital administration of hydroxocobalamin for inhalation injury and cyanide intoxication in the United States – analysis of a prehospital database and a survey of EMS providers. Southern Medical Association Southern Region Burn Conference; 2015 Nov 20-22; Dallas, TX.

Sims K, Payne I, Grimm L. Esophageal stent migration requiring colonoscopic retrieval. Society of American Gastrointestinal and Endoscopic Surgeons 2016 Annual Meeting; 2016 Mar 16-19; Boston, MA. p. 138. Abstract no. P101.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Dyess, L. Invited speaker. Management of breast disorders by the ob/gyn. The Twenty-Fifth University of South Alabama Obstetrics and Gynecology Conference; 2016 Apr 14; Daphne, AL.

Grimm L. Invited speaker. Preoperative staging of rectal cancer. Piedmont Society of Colon and Rectal Surgeons Meeting; 2016 Aug 5; Amelia Island, FL.

Grimm L. Invited speaker. Preoperative staging of rectal cancer. American College of Surgeons Alabama and Mississippi Chapters 2016 Annual Conference; 2016 Jun 11; Point Clear, AL.

Grimm L. Invited speaker. Minimally invasive therapy for colorectal cancer. Piedmont Society of Colon and Rectal Surgeons Meeting; 2016 Aug 5; Amelia Island, FL.

Kahn SA. Invited speaker. The use of a surfactant based burn and wound dressing in a porcine burn model. 38th John A. Boswick, M.D. Burn and Wound Care Symposium; 2016 Feb 17; Maui, HI.

Kahn SA. Invited speaker. Advances in burn care. American Burn Association Annual Meeting; 2016 May 4; Las Vegas, NV.

Liles JS. Invited speaker. Hereditary breast and ovarian cancer: the importance of BRCA testing. 12th Annual Breast Cancer Awareness Symposium; 2015 Oct 8; Marianna, FL.

Liles JS. Invited speaker. Cancer update 2016. Alabama Academy of Family Physicians 2016 Annual Meeting and Scientific Symposium; 2016 Jun 18; Destin, FL.

Richards WO. Invited speaker. Surgical treatment of Barrett's esophagus. 16th Annual Minimally Invasive Surgery Symposium; 2016 Feb 25; Las Vegas, NV.

Richards WO. Invited speaker. Gadgets and gimmicks for GERD. American College of Surgeons Alabama and Mississippi Chapters 2016 Annual Conference; 2016 Jun 10; Point Clear, AL.

Richards WO. Invited speaker. LINX (magnetic bead sphincter augmentation) a revolutionary procedure for severe GERD. 7th Annual Gulf Coast Acute Care Surgery Symposium; 2016 Apr 7; Mobile, AL.

Rider P. Invited speaker. Colocutaneous fistula: a step closer to taming the beast. 7th Annual Gulf Coast Acute Care Surgery Symposium; 2016 Apr 7; Mobile, AL.

Rodning CB. Invited speaker. Surgical profession. University of South Alabama Department of Surgery Reception for Chief Residents; 2016 Jun 25; Mobile, AL.

Simmons JD. Invited speaker. Potential contribution of mitochondrial (mt) DNA damage associated molecular patterns (DAMPs) in transfusion products to development of the acute respiratory distress syndrome (ARDS) after multiple transfusions. 75th Annual Meeting of American Association for the Surgery of Trauma and Clinical Congress of Acute Care Surgery; 2016 Sep 14; Waikoloa, HI.

Simmons JD. Invited speaker. Determining fluid responsiveness. 7th Annual Gulf Coast Acute Care Surgery Symposium; 2016 Apr 7; Mobile, AL.

Simmons JD. Invited speaker. Measuring intravascular volume. American College of Surgeons Alabama and Mississippi Chapters 2016 Annual Conference; 2016 Jun 5; Point Clear, AL.

Simmons JD. Invited speaker. Lessons learned: from a paramedic to a trauma surgeon. Mississippi Coastal Trauma Care Region 15th Annual Trauma Symposium; 2016 May 4; Biloxi, MS.

Sims K, Grimm L. Invited speakers. Laparoscopic repair of small bowel internal hernia after laparoscopic total abdominal colectomy. American College Of Surgeons Clinical Congress 2015; 2015 Oct 7; Chicago, IL.

Tan MCB. Invited speaker. Breakthroughs in pancreatic cancer research. Montgomery Cancer Center; 2015 Nov 11; Montgomery, AL.

Tan MCB. Invited speaker. Emerging therapies for liver and pancreatic malignancies. Dothan Gut Club; 2016 Apr 28; Dothan, AL.

Tan MCB. Invited speaker. Clinical care of the patient with melanoma. University of South Alabama Mitchell Cancer Institute Hope Cup; 2016 May 12; Mobile, AL.

Tan MCB. Invited speaker. Multi-disciplinary cancer care. University of South Alabama College of Medicine Alumni Association Weekend; 2016 Jun 3; Mobile, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

Dyess DL. AL Chapter American College of Surgeons (ACS) – Governor.

Grimm L. Invited Volunteer, Mock Interview Practice and Technical Skill Rountables, American College of Surgeons 2015 Annual Clinical Congress Medical Student Program. Chicago, IL. Oct 2015.

Grimm L. Invited Discussant, Surgical Education II. Abstract: Utility of a Standardized Fourth Year Medical Student Surgical Preparatory Curriculum: Program Director Perceptions. Owen H Wangenstein Scientific Forum. American College of Surgeons 2016 Annual Clinical Congress. Washington, DC. Oct 19, 2016

Grimm L. Invited Examiner, Mock Oral Boards and More Symposium and Workshop. 2017 American Society of Colon and Rectal Surgeons Annual Scientific Meeting. Seattle, WA. Jun 10, 2017.

Grimm L. Invited Reviewer of submitted manuscripts for Annals of Surgery – 2015-present.

Kahn SA. America's Top Surgeons, 2016.

Kahn SA. International Association of Fire Fighters Burn Injury Awareness Campaign Task Force- Appointed 12/15

Kahn SA. American Burn Association National Burn Repository Committee

Kahn SA. American Burn Association Research Committee

Kahn SA. International Association of Firefighters- Medical Advisor

Rider PR. Alabama State Chair, Commission on Cancer, American College of Surgeons
Jun 2015-present

Richards WO Editorial Board J of Laparoendoscopic and Advanced Surgical Techniques, Editorial Board Surgical Endoscopy, Ad hoc reviewer for Annals of Surgery, Ad hoc reviewer for Surgical Endoscopy, Ad hoc reviewer for Digestive Diseases and Sciences, Ad hoc reviewer for Journal of Surgical Research, Ad hoc reviewer for Surgery, External Associate of the Vanderbilt Institute for Integrative Biosystems Research and Education, Annual Best Doctors in America Database, Best Doctors, Inc., U.S. News and World Report Top Doctors 2016, President Alabama Chapter American College of Surgeons, Appointed member of the Mobile Health Department Board of Trust, Appointed Member of the Mobile Medical Society Board of Censors, Co-Director of the Foregut Sessions at the Minimally Invasive Surgery Symposium, Feb 24, 2016 Las Vegas, Nevada, Coordinating officer and Moderator for the video based education “Icons in Surgery” presented at the American College of Surgeons Clinical Congress October 5-6, Chicago, Illinois.

Rodning, CB. Counsellor, College of Counselors, District 1, Medical Association/State of AL, 2010-2016.

Simmons JD. Publications Committee – Association for Academic Surgery, Journal of Surgical Research.

Simmons JD. State Emergency Medical Control Committee for AL. 2016.

Simmons JD. Trauma Regional Advisory Council for Gulf Region 6 – Medical Association for the State of AL (MASA).

Simmons JD. ACS Committee on Trauma. 2016.

Tan MCB. Journal editor or editorial board member Editorial board, Case Studies in Surgery (CSS)

Tan MCB. Invited reviewer, World Journal of Surgical Oncology

Tan MCB. Invited reviewer, World Journal of Surgery

Tan MCB. Invited reviewer, Cancer Science and Research

Tan MCB. Invited reviewer, Journal of the Pancreas

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Medical Student Education: The Department of Surgery continues to have a leadership role in all aspects of student education. Sidney Brevard M.D., F.A.C.S., Lee Grimm, M.D., Paul F. Rider, M.D., F.A.C.S., Charles B. Rodning, M.D., F.A.C.S., Jon D. Simmons, M.D., F.A.C.S. and Marcus Tan, M.D., F.A.C.S. were awarded the red sash award by the senior medical students for their contributions to education. In addition, many faculty including Drs. Brevard, Grimm, Tan, Richards, and Rider participated in the active learning sessions for the first and second year students under the new system based curriculum.

Lee Grimm, M.D. reorganized the entire 3rd year student clerkship into an active learning experience with emphasis on student education in the core subjects of surgical sciences. The redesign of the entire curriculum was very successful and demonstrated a significant increase in the national board scores. The mean national board score percentile for the students was the 66th percentile and for the first time in 7 years none of the students failed the shelf exam.

Review of the medical student evaluations of faculty reveal that the students acknowledge the faculty are very engaged in teaching, have superior knowledge of the fields of medicine and have excellent patient management skills. A few direct quotes from students illustrate the superior clinical services and teaching on the surgical services. "Dr. _____ is one of our best attendings I've worked with all year. He constantly encouraged us to perform at the best of our abilities. He was non-threatening with his questions and he used our mishaps to constructively teach us how to do better." Dr. _____ is an effective, caring physician and a great teacher." "Great teacher both clinically and in the operating room." "Brilliant and technically gifted surgeon."

General Surgery Residency Training: Dr. Simmons in his second year as Program Director along with associate program director Dr. Rider, have provided outstanding leadership for resident education. Many of the advances in academics, ABSITE performance, and educational activities of the Department of Surgery can be attributed to Drs. Simmons and Rider. The program continues to make progress in first time pass rates for the written and oral boards in surgery. All of the graduating residents for the last 2 years have passed their written boards on the first time. The graduating residents continue to match into competitive fellowship programs or to successfully transition to private practice in general surgery.

Recruitment: The Department was able to recruit 4 outstanding surgeons to continue the clinical, academic, and educational missions of the Department who will start in summer of 2016. Chip Hartin, M.D., F.A.C.S. was recruited to Pediatric surgery, Linda Ding, M.D. and Scott Patterson, M.D. were recruited to Trauma/critical care/burn surgery and Dr. John Hunter was recruited to Colorectal Surgery.

Division of Traumatology/Surgical Critical Care: Sidney B. Brevard, M.D., F.A.C.S., is in his second year as director of the Division and program director of the surgical critical care fellowship program. Scott Patterson, M.D. successfully completed the critical care fellowship and was recruited to join the USA faculty as an attending trauma/burn/critical care surgeon. The Division hired Steven Kahn, M.D. as a trauma/critical care and burn surgeon after finishing a fellowship in surgical critical care and burn surgery at Vanderbilt University.

Dr. Brevard directed multiple courses of Advanced Trauma Life Support Training, and hosted the regional competition the Alabama Chapter of the American College of Surgeons Committee on trauma resident paper competition. He has been very active in conducting clinical trials of medications to improve outcomes in patients who have suffered from severe traumatic brain injuries. Measurement of quality has been an ongoing project for the department and in the trauma services our observed to expected mortality has improved to better than average when compared to other university hospital systems.

Dr. Steve Kahn took over leadership of the Arnold Luterman regional burn unit and re-engineered the care delivered. Quality as measured by the observed to expected mortality has improved dramatically under Dr. Kahn's leadership. There were no mortalities in the burn unit for 2 quarters and the O/E mortality ratio for the year was much better than expected. Moreover length of stay and readmission rates went down while serving more patients than in the preceding year. Burn research and presentations to regional and national meetings were much increased from the previous year. Dr. Kahn traveled to multiple hospitals in the region to perform outreach activities and develop relationships and referrals from the emergency rooms in order to improve burn care. The number of patients undergoing surgical treatment of burns has more than doubled this past year.

Pediatric Surgery: Jim Glasser, M.D., F.A.C.S. served as the full time pediatric surgeon with Celeste Hollands, M.D., F.A.C.S. covering part time. The Division was able to recruit Charles Hartin, M.D. FACS, a USA COM graduate to take over the responsibilities as Chief of the Division in July 2016. Dr. Randall Powell, M.D., FACS established the Randall W. Powell, M.D. Lectureship in Pediatric Surgery at the USA College of Medicine. Dr. Powell an Alpha Omega Alpha medical honor society graduate joined the department of Surgery as an Assistant Professor in 1984 and was promoted to Professor in 1991 and served in that role until he retired in 2009. We are saddened to report that Dr. Powell died in July 2016.

Colorectal Surgery: Dr. Rider in his second year as the Chief of the Division of Colorectal Surgery and a separate service with a chief resident in General Surgery serving on the service continued the development of the colorectal surgery division. Drs. Grimm and Rider developed the multidisciplinary Colorectal cancer multidisciplinary tumor conference in collaboration with radiation and medical oncologists in order to provide improved cancer care in the region. Since establishment of the colorectal cancer MDT in October 2015 89 patients have been treated by this multi-disciplinary team. More than ½ of the patients came to USA from outside Mobile to obtain expert care for

their colorectal cancer. With the recruitment of the third colorectal surgeon Dr. John Hunter the USA Department of Surgery is increasingly recognized for its clinical expertise in colorectal and gastro-intestinal surgery. Much of the credit for the general surgery improvement in observed to expected mortality in 2015 is related to the superior care the colorectal service delivers while performing major small and large bowel resections.

General Surgery: The Charles and Mary Rodning endowment for the educational activities of our residents has proved to be instrumental in funding travel for surgical residents to present their scholarly work at regional and national meetings. Dr. Rodning has retired from active practice but continues to coordinate the Departments conferences, and academic activities. Joshua Taylor, M.D. a graduate of Johns Hopkins Medical School and Vanderbilt Surgical Residency program joined the faculty and in collaboration with Henry Barber, M.D., F.A.C.S. and William Richards, M.D., F.A.C.S. has taken over much of the general surgery elective case load. One of the major changes was creation of a Chief Resident Clinic which is run by the PGY 5 Chief Resident with close attending supervision.

Clinical outcomes for General surgery for 2015 were outstanding. USA general surgery was ranked 16th out of 131 University Hospitals for our O/E mortality of 0.56 which is substantially better than expected. The improvement in our quality outcomes resulted from faculty efforts from Drs. Grimm, Rider, Tan, Simmons, Brevard, Richards, Taylor, Dyess and Barber through continuous quality improvement.

Breast and Endocrine: Spencer Liles, M.D. was recruited to provide surgical oncology expertise in breast, melanoma and endocrine cancer. He completed surgical residency at University of Alabama Birmingham and his surgical oncology fellowship at MD Anderson Cancer Center in Houston. Over the course of the past year he has passed his boards in Complex General Surgical Oncology and has expanded the faculty expertise in oncology with special emphasis on Breast/endocrine and Melanoma. Lynn Dyess M.D., F.A.C.S. has moved to the MCI clinics and has increased her clinical load substantially. Nurse practitioner clinics were added so that they can provide long term care for breast cancer patients as well as starting a new thyroid clinic for evaluation and treatment of thyroid lesions.

Drs. Dyess and Liles are developing the multi-disciplinary Breast Center at the MCI but are making plans to physically move their practice into Strada Center on the Campus of Children's and Women's Hospital to improve the care of women with breast cancer in the upper Gulf Coast.

Plastic and Reconstructive Surgery: Ron Brooks, M.D. established himself as an expert in plastic and reconstructive surgeon who was able to collaborate with many of our faculty in the care of trauma, cancer, and infectious wounds. He completed his fellowship in Plastic and Reconstructive surgery at the University of Louisville and has been instrumental in working with our surgical faculty to reconstruct defects and lesions after trauma, cancer or infections.

Gastrointestinal and Bariatric surgery: The Bariatric surgery program continues to increase the number of operative cases and has less than 0.1% operative mortality rate, while continuing to operate on patients who have a host of co-morbidities. A new surgical procedure was performed for the first time in the upper Gulf coast and Dr. Richards is one of only 245 surgeons who have been trained to perform the procedure in the US. The LINX procedure treats severe GERD through laparoscopic implantation of custom fitted magnetic beads to augment the Lower Esophageal Sphincter. This procedure is part of the Digestive Health Center collaborative treatment of GERD and Barrett's esophagus with Brooks Cash, M.D. in Gastroenterology. The initiation of this innovative surgical procedure continues the tradition of collaboration, and multidisciplinary care between the Department of Surgery (Dr. Richards) and the Department of Medicine (Dr. Cash) to improve the care of patients with digestive health issues.

Surgical Oncology: Marcus Tan, M.D., F.A.C.S. has developed a research program in oncology and has organized the G.I. working group incorporating radiation, and medical oncologists with colorectal and G.I. specialist to provide multidisciplinary care for cancer patients. Dr. Tan has also provided exceptional educational expertise coordinating the USAMC multispecialty tumor conference. Both Drs. Tan and Liles are boarded in Complex General Surgical Oncology and provide specialized surgical oncology care. Dr Liles is the director of the USA Biobank a repository of biologic specimens with matched clinical records collected from USA patients with their written permission. During the past year Dr. Liles has re-written the consent process and increased enrollment in the program, and improved the storage techniques and protocols.

Research: The Department has increased collaboration between basic science departments, specifically; the research collaboration between the Chair of Pharmacology Mark Gillespie, PhD. has been very fruitful. We have implemented a clinical core to collect blood, muscle and other tissue samples from our patients, ultimately, with the goal to support further clinical/translational research in collaboration with basic science departments and the Department of Surgery. This collaboration between Surgery (Simmons, and Brevard) Pharmacology and the Center for Lung Biology (Gillespie) resulted in multiple publications, and presentations. Recognizing the scientific breakthrough that was achieved by this collaborative effort between Surgery and the College of Medicine, the Department has put resources into the effort and faculty have submitted multiple grant proposals to further capitalize and investigate the link between severe trauma, mtDNA DAMPs and multiple-organ failure. Dr. Jon Simmons was awarded the K08 Mentored Clinical Scientist Award from the NIH directed at a surgeon in the early stages of their career who shows promising development as a physician scientist. The award supports his research efforts for 4 years. The grant entitled "mtDNA DAMPS: A Pharmacologic Target in Multi-Organ System Failure" aims to explore a potential pharmacologic treatment that addresses the underlying etiology of remote organ failure in trauma and sepsis. This grant will help develop Dr. Simmons as an independent investigator and to develop a NIH funded research lab focused on clinical translational research within the Department of Surgery. Historically it is the first K grant given to a

clinical investigator in one of the clinical departments at the University of South Alabama COM.

Collaboration between Luda Rachek, PhD in department of pharmacology and William Richards, M.D., F.A.C.S. was very fruitful and resulted in submission of NIH grants to investigate the link between insulin resistance and Mitochondrial DNA DAMPs. The grant submission received an excellent score which may be funded.

Paul Rider, M.D., F.A.C.S. Dr. Rider was also able to execute several clinical studies investigating use of molecular predictors of response to neoadjuvant therapy in patients with rectal cancer, post op pain relief after hernia repair, and topical E-101 to prevent surgical site infections. Dr. Rider also served as co-investigator on the MCI research “Molecular predictors and Prognosticators of Response to Neoadjuvant Therapy for Rectal Cancer”. This very important study will help physicians who treat rectal cancer determine the best neoadjuvant therapies for treatment of rectal cancer.

Lee Grimm, M.D., FACS involved a medical student during the summer research program to study the impact of the surgery curriculum changes had on NBME and Step 2 CK on student performance. This research also helps to identify the best practices for education and to improve the educational experience and outcomes for the medical students.

Marcus Tan, M.D., F.A.C.S. has collaborated with Lewis Pannell, PhD at MCI to investigate the colon lavage fluids to determine the status of the pancreas and to detect early pancreatic cancers. He has also served as PI in several clinical trials of chemoembolization or chemotherapy for treatment of melanoma and liver cancers. Multiple patients were enrolled into phase 2 and phase 3 clinical trials. Dr. Tan also served as co-investigator for 2 important melanoma projects “Biomarkers of oxidative stress predict response to melanoma therapies” and to “Behavioral and biologic consequences of alternative tanning methods in adolescents and young adults”. These collaborative efforts in oncologic surgical research with colleagues at the MCI show the expanding clinical translational research that is going on within our surgical oncology division and within the Department of Surgery.

Spencer Liles, M.D. has developed collaborations within MCI, and COM basic scientist to study genetic defects in melanoma and has submitted a NIH KL2 Mentored Clinical Scientist grant titled “Significance and Repair Pathways of Regulatory Sequence Variants in Melanoma”. This avenue of research is an exciting collaboration between Dr. Liles and Mark Gillespie Ph.D. Chair of Pharmacology and Additionally Dr Liles rewrote the IRB proposal for biobank repository for storage of biologic specimens for the USA health system and the Mitchell Cancer Institute.

William Richards, M.D., F.A.C.S. has started several clinical trials investigating the outcomes after LINX or magnetic sphincter augmentation. The ROARS study is a multi-institutional registry of patients undergoing LINX procedures while the Caliber study randomizes patients with GERD to increased amounts of PPI use or the LINX procedure.

The preliminary results suggest that the LINX procedure has all the benefits of the Nissen fundoplication without the negative side-effects such as bloating and dysphagia seen long term after Nissen fundoplication.

In summary the Department of Surgery faculty are collaborating with basic scientists at the MCI, the University and at the College of Medicine basic science departments in a wide range of research activities. Multiple grant proposals have been submitted which has resulted in funding for several projects and with many promising reviews. These research projects which are primarily clinical translational research demonstrate the wide range of clinical expertise in critical care, shock, gastrointestinal physiology, cancer, and wound healing have been developed by the faculty in the Department. Increasingly the Department of Surgery is recognized for our expertise in the care of trauma, burns, colorectal cancer, hepato-pancreatic-biliary cancer, breast cancer, melanoma, and esophageal disorders.

2015-2016
Summary of Scholarly Activities
Biomedical Library

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Clanton C. Introduction to evidence-based research. In: Hall HR, Roussel LA, editors. Evidence-based practice: an integrative approach to research, administration, and practice. 2nd ed. Burlington, MA: Jones & Bartlett Learning; 2016. Chapter 14. p. 283-300.

Lemley T. Technology supporting the search for evidence. In: Hall HR and Roussel LA, editors. Evidence-based practice: an integrative approach to research, administration, and practice. 2nd ed. Burlington, MA: Jones & Bartlett Learning; 2016. Chapter 15. p. 301-18.

Lemley T. Virtual embedded librarianship program: a personal view. J Med Libr Assoc. 2016 Jul;104(3):232-4.

Li J. Comparison of the usage of print books and ebook equivalents. Doody's Core Titles [Internet]. 2016 Apr. Available from:<http://www.doody.com/dct/PublicFeaturedArticle.asp?SiteContentID=197>

Li J. Is it cost-effective to purchase print books when the equivalent e-book is available? J Hosp Librariansh. 2016 Feb 3;16(1):40-8.

Mi M, Wu W, Qui M, Zhang Y, Wu L, Li J. Use of mobile devices to access resources among health professions students: a systematic review. Med Ref Serv Q. 2016 Jan 21;35(1):64-82.

Rudd AB, Moore-Nadler M, Clanton C. Nurse-managed clinic paves the way for an interprofessional student-run free clinic. Ala Nurse. 2016 Sep-Nov;43(3):8-9.

Wright A. Tools for the creation and sharing of infographics. Journal of Electronic Resources in Medical Libraries. 2016 Apr-Jun;13(2):73-6.

Wright A. Electronic resources for developing data management skills and data management plans. Journal of Electronic Resources in Medical Libraries. 2016 Jan-Mar;13(1):43-8.

I. PUBLISHED ABSTRACTS

Buckner E, Bauer N, Clanton C. Kennedy E, Marin M, Mata J, Omar B, Palle K, VandeWaa E, Bunch J, Culler R, Lewis C, Hurley P, McMullan T. University of South Alabama Faculty Senate New Faculty Mentoring Program: first year

experiences. Sixth Annual South Alabama Conference on Teaching and Learning; 2016 May 10; Mobile, AL. Available from: <http://southalabama.edu/departments/ilc/cotl-session4.html#12>

Lemley T, Wright A. A program evaluation to determine preferences of readers of an online newsletter of a health sciences library. Mosaic '16: Medical Library Association Annual Meeting; 2016 May 13-18; Toronto, Canada. Abstract no. 232.

Wright AL. Critical pedagogy in non-traditional settings: library instruction strategies in support of the patient educator. Southern Chapter of the Medical Library Association 65th Annual Meeting; 2015 Oct 21-25; San Juan, Puerto Rico. Abstract no. 31.

Wu W, Mi M, Li J, Wu L, Zhang Y. Reflective practice for professional development through a collaborative systematic review project. Mosaic '16: Medical Library Association Annual Meeting; 2016 May 13-18; Toronto, Canada. Abstract no. 168.

II. PUBLISHED BOOKS

III. INVITED PRESENTATIONS

IV. NATIONAL PROFESSIONAL RECOGNITION

Clista Clanton: Founding member, Gulf States Health Policy Center Coalition.

Trey Lemley: Member, Southern Chapter Medical Library Nominating Committee; Member Southern Chapter/Medical Library Association Membership Committee; President Elect / Program Chair, Alabama Health Libraries Association; Distinguished Member, Academy of Health Information Professionals.

Rachel Fenske: Member, Mobile United Health Task Force.

Jie Li: Member, The International Federation of Library Associations and Institutions Information Technology Standing Committee; Member, Medical Library Association representative to the Taiwan Medical Library Association; Chair, Medical Library Association International Cooperation Section Committee on Health Sciences Library Partnership; Member, Emergency Preparedness Committee of Regional Advisory Committee of the National Network of Libraries of Medicine (NN/LM) Southeastern/Atlantic (SE/A) Region; Member, Network of Alabama Academic Libraries Online Content Committee; Chair, Alabama Health Libraries Association Emergency Preparedness Committee; Distinguished Member, Academy of Health Information Professionals.

Justin Robertson: Editor, *Journal of Electronic Resources in Medical Libraries*; Member, Health InfoNet of Alabama Leadership team; Past President, Alabama Health Libraries Association; Web Co-Coordinator, Alabama Health Libraries

Association; Member, Southern Chapter/Medical Library Association Honors and Awards Committee, Board Member, Fairhope (Alabama) Public Library Foundation.

Geneva Staggs: Member, Southern Chapter/Medical Library Association Program Committee (Poster selection group); Moderator, Southern Chapter/Medical Library Association concurrent paper presentation section; Member, Southern Chapter/Medical Library Association Bylaws Committee; Reviewer, Medical Library Association 2017 Annual Meeting Content; Institutional Representative, Consortium of Southern Biomedical Libraries; Distinguished Member, Academy of Health Information Professionals.

Andrea Wright: Member, Regional Advisory Committee for Technology of the National Network of Libraries of Medicine (NN/LM) Southeastern/Atlantic (SE/A) Region; Web Co-Coordinator, Alabama Health Libraries Association; Chair, Medical Library Association Oral History Committee; eTechnology Column Editor, *Journal of Electronic Resources in Medical Libraries*; Provisional Member, Academy of Health Information Professionals.

V. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The Biomedical Library was recognized as a Founding Member of the Gulf States Health Policy Center Coalition by Dr. Regina Benjamin and continues to work with other community partners in the assessment, development, and evaluation of policies impacting health disparities.

Services:

To support the COM curriculum, the Biomedical Library librarians have continued to develop a Clinical Skills Multimedia web page with links to appropriate video and audio tools. A librarian is embedded in each 1st and 2nd year module.

Two librarians continue to attend a total of nineteen hospital committee meetings, including hospital management meetings at both the USA Medical Center and the USA Children's and Women's Hospital as well as the Graduate Medical Education Committee. A librarian continues to serve on the COM Curriculum Committee, the COM Student Promotion and Evaluation Committee and the COM Continuing Medical Education Committee. One Biomedical Library librarian serves on Faculty Senate. A Biomedical Library librarian serves on the University Library Committee and the Biomedical Library Acting Director serves as ex-officio member of the University Library Committee. One librarian serves on the USA Cancer Control & Prevention Work Group and is a member of the USA Research Operations Council. Two Biomedical Library librarians serve as Ad-Hoc members of the College of Medicine Admissions Committee. A Biomedical Library librarian serves on the Advisory Committee and the Research Committee for the Student Run Health Clinic and on the Inter-professional Ad-Hoc Committee.

Biomedical Library faculty and staff continue to check citations for both College of Medicine dissertations and for the College of Medicine Annual Report.

A plan for revision of the Biomedical Library web pages is underway. The technology has begun moving the library's site onto the university's new platform.

Biofeedback, the Biomedical Library newsletter, the Biomedical Library Facebook page and the blog on the Biomedical Library web page are used to communicate with users. Additionally, blast e-mails are distributed as appropriate. When the website moves to the new platform, the Biofeedback blog format will no longer be supported. A new format is being investigated

Educational sessions are provided for students in Colleges of Medicine, Nursing and Allied Health Professions. The Medical Informatics/Evidence-Based Medicine Curriculum for the COM was revised and is being used in the first three years of the College of Medicine curriculum. At the end of instructional sessions in the three colleges, students are asked to complete an online evaluation. Results indicate that of those responding, most felt the amount of material presented was "Just Right" and found the information presented helpful.

Outreach:

An award was received from the National Institutes Health in June 2015. The funds from the grant are being used to establish the NICU Family Resource Center Project at the Hollis J. Wiseman Neonatal Intensive Care Unit at the USA Women's and Children's Hospital. Objectives include: 1) Add health literacy instruction to existing NICU discharge classes at USA Children's and Women's Hospital, located in a high health disparity zip code in Mobile, Alabama. 2) Offer the hospital librarian's research/information services to all NICU patients on a consultation basis. 3) Establish a NICU Family Resource Center--a place where NICU families can go to use iPad stations to research their preemie's health information needs, print out materials as needed, and have access to print brochures on premature infant-specific topics. This space is also used for librarian-patient information consultations. A by-product of this project was the provision of 2 continuing education sessions for over 100 of the NICU nursing staff.

During National Medical Libraries Month, and National Library Week several contests were held for library users. Also, books were collected for the USA Pediatric Clinic Reach Out and Read program.

Biomedical Library librarians participated in the University pipeline programs, DREAM, STARS and STRIPES. For these groups instruction was provided on conducting library research. Additionally, a Biomedical Library librarian volunteers in the computer lab at the Sybil Smith Family Village. Biomedical Library librarians participated in the USA Benefits Fair and the Healthy USA Health Fair. Three Biomedical Library librarians participated in the community event, Homeless Connect.

Resources:

New resources added during the year include UpToDate and additional books and journals to meet the needs of library users.

Librarians proposed adopting REDCap (Research Electronic Data Capture), a free research data management system, for university use. After meeting with key stakeholders to gauge interest and feasibility, the university signed the consortium agreement for REDCap. Usage policies were developed and the tool is being used for various data collection projects of university faculty.

2015-2016
Summary of Activities
USA Center for Lung Biology

General Operations

The CLB's mission is to provide state-of-the-art scientific development in lung biology that advances the understanding of human health and disease, to improve patient care, and to serve as the foundation for outstanding graduate, post-graduate, and fellowship training. More than 40 faculty members and 25 graduate students, postdoctoral fellows and pulmonary fellows from various departments within the College of Medicine are actively participating in a strong collaborative research environment, a research seminar series and journal club, and graduate, postdoctoral and fellowship training.

The CLB recently submitted its Newsletter in January of 2016. Issues were distributed to our academic colleagues throughout the country as a way to illustrate exciting research and academic opportunities in the Center. Our next issue will be released in the Spring of 2017. (<http://www.usahealthsystem.com/CLBNewsletter>).

We have continued to update our CLB website along with the College of Medicine. Our administrative offices are located in the Medical Sciences Building in Rooms 3340 on the main University campus. Ms. Jennifer Collins serves as support staff for the CLB and is responsible for clerical duties for the administrative office and research laboratories.

Detailed information about the CLB is available with a click on our homepage (<http://www.usouthal.edu/clb>). The web page is interactive and contains a variety of information including faculty and student bibliographies, recent publications, and information regarding scientific and training programs. Our annual report is available through Ms. Jennifer Collins (460-7086) at the CLB office.

Research Activities

The CLB was well represented at national and international scientific meetings with a number of faculty, postdoctoral fellows, and graduate students presenting their work at multiple forums, including the American Heart Association, Federation of American Societies for Experimental Biology, XXIX Congress of the International Society for Advancement of Cytometry, American Physiological Society, Southern Biomedical Engineering Conference, Gordon Research Conference, and the International American Thoracic Society.

Our Critical Care Conference series in conjunction with the Pulmonary Division hosted eight speakers. This conference focuses on translational research and acute lung injury, and is held monthly on Fridays at 2:00 pm. CLB faculty members presented most of this year's series with one outside speaker. Dr. Raymond Langley, Assistant Professor of Pharmacology, presented *Metabolomic risk score for sepsis outcome prediction*; Dr. Natalie Bauer, Assistant Professor of Pharmacology, presented *Microparticles: From cellular trash to signaling treasure*; Dr. Steve

Lim, Assistant Professor of Biochemistry, presented *New roles of focal adhesion kinase in vascular inflammation and remodeling*; Anagha Malur, MS, Pulmonary Lab Manager, East Carolina University, Brody School of Medicine, Greenville, NC, presented *PPARgamma: Guardian of the Lung*; Dr. Lawrence LeClaire III, Assistant Professor, Department of Biochemistry, presented *New Directions for Controlling Cell Migration*; Dr. Glen Borchert, Assistant Professor of Biological Sciences, presented *Fully Mining RNA-Seq Data for Relevant RNAs*; Dr. Wito Richter, Assistant Professor of Biochemistry, presented *Type 4 cAMP-phosphodiesterases (PDE4s) in inflammatory lung diseases*. Dr. Jon Audia, Associate Professor of Microbiology, presented *Caspase-1 is a sentinel regulator of endothelial stress responses*.

Extramural Funding

In the past year, CLB principal investigators submitted 35 grant applications to the American Heart Association (AHA), National Institutes of Health (NIH), and other foundations/industries. To date, eleven applications from the previous fiscal year were awarded generating over \$5 million in new revenue over the next five years. Dr. Mark Gillespie, Professor and Chair Department of Pharmacology, received two awards an NIH R44 Phase II SBIR Grant entitled *Mitochondrial DNA repair agents for acute lung injury* and an NIH UL1 subcontract with UAB Center for Clinical and Translational Science (CCTS) entitled *University of South Alabama Translational Research Service Center*. Dr. Wito Richter, Assistant Professor of Biochemistry, received two awards an AHA NCRP Summer 2015 Innovative Research Grant entitled *Regulation of PDE4 in heart failure*, and a Cystic Fibrosis Foundation (CCF) entitled *Targeting Type 4 Phosphodiesterases for CF Therapy*. Adam Morrow, Postdoctoral Fellow, Department of Pharmacology, received an AHA Postdoctoral Fellowship entitled *Endothelial tau oligomerization causes transmissible vascular cytotoxicity*. Naga S. Annamdevula, Graduate Student, Department of Chemical and Biomolecular Engineering and Center for Lung Biology, received an AHA Predoctoral Fellowship entitled *The spatial distribution of PDE4 isoforms regulates the compartmentalized cAMP signals in PMVECs*. Dr. Silas Leavesley, Department of Chemical and Biomolecular Engineering and Center for Lung Biology, received an NIH UL1 subcontract with UAB Center for Clinical and Translational Science (CCTS) entitled *Translating Hyperspectral Imaging to Real Time Endoscopy*. Dr. William Gerthoffer, Professor and Chair, Department of Biochemistry, received an NIH R21 entitled *MicroRNA regulation of airway remodeling and repair in asthma*. Dr. Mikhail Alexeyev Associate Professor, Department of Physiology and Cell Biology, received an NIH R01 entitled *Mouse models for mitochondrial disorders caused by mutations in mtDNA*. Dr. Troy Stevens, Professor and Chair, Department of Physiology and Cell Biology, received an InsMed Contract entitled *Insmmed studies: Testing a therapy to reverse occlusive neo-intimal lesions in pulmonary arterial hypertension*. Dr. Jon Simmons, Associate Professor, Department of Surgery, received an NIH K08 award entitled *mtDNA DAMPS: a pharmacologic target in multi-organ system failure*.

Education

The CLB's NIH-funded T32 training grant on *Cell Signaling and Lung Pathobiology*, directed by Drs. Mary Townsley and Troy Stevens, is currently in its 13th year of funding. This T32 supports 6 pre-doctoral trainees in the Lung Biology track per year, along with 4 short-term summer research trainees.

During this academic year, 18 predoctoral fellows trained in the laboratories of CLB faculty affiliated with the Lung Biology track in the Basic Medical Sciences Doctoral Program. Several Lung Biology trainees completed requirements for the Ph.D. degree within this academic year (Blair, Favreau, Kadeba, Morrow, Oshima, and Xu).

The “Did you know?” series of research/historical perspectives, now in its eleventh year, is authored and peer-reviewed by CLB trainees. This series is overseen by an Editorial Board comprised of faculty in the CLB. The most recent article was authored by Ed Crockett on “bar-headed geese and high altitude flight”. The archives of the series can be found at: <http://www.usahealthsystem.com/archives>.

2015-2016
Summary of Scholarly Activities
Center for Healthy Communities

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

II. PUBLISHED ABSTRACTS

Arrieta M, Wells N, Hudson A, Van Buren K, Hudson M, Parker L, Degen M, Crook E. Tracking progress towards health equity: A sentinel surveillance approach. 11th Annual Health Disparities Research Symposium, The Science of Health Disparities. 2016 Apr 21; Birmingham AL. Abstract no. 4.

Wraight S, Hanks R, Patterson C. Will they stay or will they go? Long-term commitment to a community health advocacy program. Women's Health Update Conference. 2016 Aug 5; Birmingham, AL.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Arrieta MI, Wells N, Hudson A, Hudson M, Parker L, Dortch S, Grimes V, Taylor C, Allen K. Invited speakers. Research Apprenticeship: a concept comes of age. Community-Campus Partnerships for Health 14th International Conference; Journey to Justice: Creating change through partnerships; 2016 May 12; New Orleans, LA.

Hudson CK, Hudson A, Hudson M. Invited speakers. The labor market health care survey probability sampling with microdata. Southern Sociological Society 79th Annual Meeting Buckhead; 2016 Apr 15; Atlanta GA.

Arrieta M. Invited speaker. Community engagement & community engaged research: Do they hold value for translational scientist? University of Alabama at Birmingham Clinical and Translational Science Training Program. 2016 May 18; Birmingham AL.

Crook ED. Invited speaker. The social determinants of health: A focus on poverty. University of Alabama Rural Medicine Scholarship Conference. 2016 Apr 26; Tuscaloosa AL.

Crook ED. Invited speaker. Walking the path to "influence" in academic medicine. Edward Hook Memorial Lecture; Harold Amos Medical Faculty Development Program (Robert Wood Johnson Foundation); 2015 Oct 7; Dallas TX.

V. NATIONAL PROFESSIONAL RECOGNITION

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The University of South Alabama Center for Healthy Communities had a productive year. The Center is in the fourth year of its second 5 year cycle of the P-20 grant funding from NIH's National Institute for Minority Health and Health Disparities. The Center is a NIH Designated Center of Excellence in Health Disparities. Dr. Errol D. Crook continues as the Center Director and the PI of the P-20 Grant. The Center's efforts are focused research and community engagement. We continue to use the principle of Community Based Participatory Research as our guide, and, as such, we work extremely hard to establish and maintain quality relationships with our community partners. A highlight of this year is our membership in a consortium of similar academic centers in Alabama, Mississippi, and Louisiana organized under the UAB CTSA. Our collaborative efforts with these institutions should position the Center for even greater effectiveness in our region. A brief summary of our research and community engagement efforts are outlined below.

Research

Dr. Martha Arrieta continues to lead the research core. The core oversees 3 primary projects funded by our P-20 grant and works with several other partners in smaller, but important projects. The 3 research projects funded by the P-20 grant are making great progress, and are as follows:

- 1) Plasma HSP27 and HSP27 Phosphorylation, a Potential Biomarker of Atherosclerosis in Patients with Cardiovascular Disease. PI: William Gerthoffer, PhD.
- 2) The Impact of Labor Force-Labor Market Status on Family Access to Health Care. PI: C. Ken Hudson, PhD.
- 3) Sentinel Surveillance to Monitor Progress Towards Health Equity. PI: Martha Arrieta, PhD.

The Health Disparities Research Group has continued its efforts in promoting community engaged programs, research and instructional activities across the campus and the region. All of the above projects have been recognized with acceptance of material for presentation at prestigious scientific meetings.

Community Engagement

The Community Engagement Core is co-directed by Roma Hanks, PhD and Hattie Myles, PhD. The two (2) main components of this core are The Community Health Advocate (CHA) Program and The Pipeline Program. Our CHA program continues to thrive and has been recognized for the long-term retention (up to 10 years) of many of our CHA group. Understanding the factors that promote their retention and continued efforts to promote great health within our community has been an academic focus over the last year. We hope to share those factors with other agencies relying on volunteerism and a dedication to community well-being.

The Pipeline component focuses its efforts on high school students from underserved communities. It aims to reinforce the STEM courses, expose students to the health professions, and influence their choice of a health professions career. This is done through two components: S.T.A.R.S. (Student Training for Academic Reinforcement in the Sciences) and S.T.R.I.P.E.S. (Special Training to Raise Interest and Prepare for Entry into the Sciences) Programs. These programs actively engage participants in advanced high school curricula, library research, reading and test-taking skills. These programs engage rising high school juniors and seniors. Both programs were successful again this year and are coveted opportunities for students at our target schools.

Research Training and Mentoring

Dr. Crook continues as Director of this core. We have been successful in continuing the pipeline from our high school programs, mentioned above, to undergraduate studies and research efforts. Students who have demonstrated great promise in our high school programs have worked during the summers in research projects of the Center. In addition we offer opportunities to medical students and additional undergraduate students with an interest in health disparities. In the summer of 2016 we had 5 students participate in the summer research program. All presented their work in poster presentation at the College of Medicine Research Day on July 29, 2016.

2015-2016
Summary of Scholarly Activities
Center for Strategic Health Innovation

- I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS**
- II. PUBLISHED ABSTRACTS**
- III. PUBLISHED BOOKS**
- IV. INVITED PRESENTATIONS**

Gay A, Melton K. Invited speakers. Meaningful use stage 2. Dothan/Wiregrass Medical Group Management Associations Local Chapter Meeting; 2015 Nov 12; Dothan, AL.

Pierce M, Melton K. Invited speakers. Meaningful use stages 2 & 3. Montgomery Medical Group Management Associations Local Chapter Meeting; 2016 Mar 27; Montgomery, AL.

Pierce M, Melton K. Invited speakers. Meaningful use stages 2 & 3. Enterprise Medical Group Management Associations Local Chapter Meeting; 2016 Mar 27; Enterprise, AL.

- V. NATIONAL PROFESSIONAL RECOGNITION**
- VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS**

The Center for Strategic Health Innovation (CSHI) serves as a leader in innovative healthcare technology applications and solutions. CSHI enjoyed a successful year in our major focus areas: 1) health technology development and deployment, 2) applied informatics and healthcare analytics services, 3) technical assistance for meeting Meaningful Use requirements, and 4) innovation programs with Medicare. Dr. Samuel J. Strada, Dean of the College of Medicine for the University of South Alabama serves as CSHI's acting Director following the resignation of Dr. Daniel. CSHI actively promotes collaboration on projects with the USA School of Computing, USA Department of Family Practice, the USA College of Nursing, the USA Department of OB/GYN, the University of Alabama at Birmingham, the Office of the National Coordinator (ONC), and other Regional Extension Centers (REC's) in the southeast US. CSHI is now in our 4th year of collaboration with the USA Department of OB/GYN on the awarded CMS Strong Start for Mothers and Newborns Initiative Grant. Dr. Craig Sherman is the principal investigator on the grant.

Medical Informatics and Healthcare Technology: RMEDE™, our in house developed Realtime Medical Electronic Data Exchange, continues as our platform from which to develop diverse projects tailored to our client's individual needs. CSHI utilizes

innovative health technologies to improve the care, quality, cost and access to healthcare throughout Alabama. RMEDE™ is a secure web-based life-state management system that supports our Medicaid programs: 1) in-home monitoring of patients with chronic disease; 2) Regional Care Organizations Health Home case management program; 3) data and reporting for the maternity program, 5) an interventional informatics reporting system and 6) Primary Medical Provider (PMP) Portal. We have continued our partnership with Alabama Medicaid to support the now statewide Regional Care Organizations (RCO's) Case Management Health Home Program (which replaced the Patient Care Networks of Alabama (PCNA)). This is a primary care case management program which establishes regional networks of care in Alabama designed to improve the delivery of health care services to Medicaid recipients, with complex chronic medical conditions. RMEDE™ serves as the framework used for data management, patient risk stratification, patient case management, aggregation of Medicaid medical and pharmacy claims data, and program reporting needs. CSHI currently manages over 2 million Medicaid patient records. There are 1,075 active Medicaid Pt 1st patients participating in our in-home biomonitoring project over seen by a nurse practitioner, Barbra Oliver. This program is a unique partnership between Medicaid, The Alabama Department of Public Health (ADPH) and USA's CSHI. Patient referrals are received from their primary medical provider (PMP) with the chronic disease diagnoses' of hypertension, diabetes and congestive heart failure for in home monitoring. Patients are monitored for significant changes by using an innovative Interactive Voice Response (IVR) system. Patients are instructed to dial-in their key physiologic parameters, and an ADPH Biomonitoring Nurse is assigned to monitor the results and submit reports to the patient's provider. An ROI on 2014 data showed a decrease in Emergency Department visits and hospitalizations as compared with pre program data. Pharmacy use increased as well as provider office visits. CSHI is a valuable partner with the Medicaid Maternity Program in their quest for Better Birth Outcomes and lower Infant Mortality rates. RMEDE™ is the platform for the data collection system with reporting capabilities utilizing recipient information gathered from enrollment activities to evaluate compliance with accepted national standards of practice. RMEDE™ provides Medicaid and their contractors the ability to enter and view the data online. Data is utilized by Medicaid to determine benchmarks for compliance and comparisons. CSHI developed and maintains a Primary Medical Provider (PMP) Portal as a web based health information system developed to support Alabama Medicaid's Patient 1st Primary Medical Providers (PMPs). Using the system, PMPs are able to track their patient's progress by examining reports created from claims data. The PMPs can ostensibly use these reports to make decisions regarding improving the quality of care of patients while reducing the cost of care.

CSHI worked with the AL Chapter of the American Academy of Pediatrics (AAP) and the University of Alabama at Birmingham's (UAB) Alabama Child Health Improvement Alliance (ACHIA) in the design and development of data analytics for current and future ACHIA quality improvement projects. In the first phase, USA designed and developed a web portal for the "Healthy Active Living: An Obesity Prevention and Treatment Quality Improvement Project". During the second stage, USA performed data analytics by developing a series of reports targeted to measure the impact of the ACHIA initiative

among the providers enrolled in the program. USA has also created a second portal as part of the "Help Me Grow Alabama" (HMGA) project for which it also provides a web application for data entry and data analysis services.

The Alabama Regional Extension Center (ALREC) operates within the Center for Strategic Health Innovation at The University of South Alabama (USA). The Office of the National Coordinator (ONC) awarded USA a \$10.1 Million grant to assist Alabama providers in achieving Stage 1 of Meaningful Use. After 6 years of successfully providing Meaningful Use support to Preferred Primary Care Physicians (PPCPs), the grant officially ended June 5, 2016. However, ALREC will continue as a viable entity expanding its consulting services to include Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), practice transformation, revenue cycle management, and other healthcare services. ALREC's grant goal was to assist 1304 PPCPs to become meaningful users of a certified Electronic Health Record system. We successfully achieved 98% of our goal, 1,272 PPCPs met all of the Meaningful Use (MU) Stage 1 requirements. ALREC also met 67% of its Critical Access Hospital goal, 10 of the 15 member hospitals completed the MU Stage 1 guidelines. Currently, ALREC has over 2000 members and 1720 members that are live on a Certified Electronic Health Record. Our Trusted Advisors have assisted 1409 members in achieving Stage 1 Meaningful Use, including PPCPs and non-PPCPs. ALREC has helped providers in Alabama receive over \$55 million in Meaningful Use incentive payments. Additionally, our work with Critical Access and Rural Hospitals resulted in members receiving over \$153 million in Meaningful Use incentive payments. Throughout the year, ALREC had five Food for Thought workshops held throughout the State to inform providers on MU updates, Physician Quality Reporting System (PQRS), Health Information Exchange (HIE) issues and other relevant healthcare topics. Also we hosted 2 webinars for our members to discuss MACRA and Chronic Care management.

As part of its sustainability model, ALREC offers its fee for service line in order to continue assistance to providers throughout the multiple stages of Meaningful Use. Out of the 1700 providers in Alabama that the REC has been working with, almost 25% of these providers have renewed their membership with ALREC. Also, the ALREC team partnered with the Georgia, Florida, Louisiana, Texas Regional Extension Centers and a non-profit organization in Arkansas to apply for a MACRA Quality Improvement Direct Technical Assistance contract. MACRA's goal is to link Medicare payments to quality or value. Beginning August, 2016, ALREC partnered with Chronic Care IQ (CCIQ), a software company who developed a remote patient monitoring (RPM) mobile app, which allow physicians to track the actual amount of time a provider or his/her staff expend to remotely monitor a chronically ill patient. The patient uses a smart phone to enter their clinical data, which is uploaded to the physical dashboard where the patient vitals are monitored. When 20 minutes of monthly monitoring has occurred the system will create the Medicare billing. ALREC will market the CCIQ app to Medicare providers beginning with our Paid clients. ALREC will provide implementation support, system training and ongoing customer support for this product. Our goal is to enroll 100 providers within the next 12 months. Another service that ALREC is offering to its members is Value Base Purchasing, whereby it will work with Group Purchasing organizations to offer supplies to its ALREC members at a discounted rate.

2015-2016
Summary of Scholarly Activities
Center for Disaster Healthcare Preparedness

- I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS**

- II. PUBLISHED ABSTRACTS**

- III. PUBLISHED BOOKS**

- IV. INVITED PRESENTATIONS**

- V. NATIONAL PROFESSIONAL RECOGNITION**

- VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS**

The Center for Disaster Healthcare Preparedness (CDHP), formerly a division of The Center for Strategic Health Innovation (CSHI), was established in October of 2015 as a standalone department. CDHP, since 2004, continues to serve as a leader in healthcare disaster preparedness and response training. David Wallace, DVM, serves as the Director of Preparedness Training. CDHP manages the Alabama Incident Management System (AIMS) and the Advanced Regional Response Training Center through a cooperative agreement with the Center for Emergency Preparedness (CEP), Alabama Department of Public Health, sanctioned by the Department of Health and Human Services, Assistant Secretary for Preparedness.

ALABAMA INCIDENT MANAGEMENT SYSTEM (AIMS)

AIMS is the information management web-based tool designed by CDHP for the State of Alabama to capture healthcare system situational awareness on both a daily basis and during disasters. Critical data such as the number of available beds, supplies, staffing, equipment, patient tracking and resource requests are entered into a database at each participating healthcare facility and then displayed in a dashboard profile for all to view--both healthcare facilities and local or regional Emergency Operations Centers (EOC). The information entered into AIMS is utilized to make emergent decisions regarding information and resource coordination for healthcare organizations throughout the state in real time during an event. Revisions and upgrades to enhance AIMS have been

completed. AIMS serves as the primary situational awareness, communication and information tool for the 11 Healthcare Coalitions established in each of the Public Health areas. Active AIMS users include approximately 120 Hospitals, 15 Community Health Center (CHC) Agencies, 225 Nursing Homes, 12 Medical Needs Shelters, 67 Alabama Emergency Management Agencies, and approximately 50 Alabama Department of Public Health personnel, as well as numerous other agencies who are members of their Healthcare Coalitions. CDHP anticipates that over the next year Assisted Living Facilities and EMS providers will also be added to the list of AIMS users across the state. Compatibility with the HAvBED system was maintained and kept up to date. AIMS testing was conducted for ASPR/ADPH (Office of the Assistant Secretary for Preparedness and Response/ Alabama Department of Public Health) compliance requirements, numerous AIMS exercises were conducted by the Healthcare Coalitions as a part of their ongoing preparedness activities, and AIMS was activated for two events.

In November 2015, CDHP traveled to Tallahassee, Florida and provided a demonstration of the AIMS program to the Florida Department of Health (DOH). Florida DOH signed a Memorandum of Understanding with CEP/ADPH and will begin the process of customizing AIMS for a deployment of the system in late 2016. AIMS is owned by ADPH and provides the code free of charge to any state agency wishing to use AIMS.

ADVANCED REGIONAL RESPONSE TRAINING CENTER (ARRTC)

Now in its thirteenth year, ARRTC is a regional response training center designed to teach effective collaborative healthcare community response to all disasters, natural or man-made. This program is made possible by a grant from the Alabama Department of Public Health, Center for Emergency Preparedness through a cooperative agreement from ASPR. The total number of students attending ARRTC training between 2005 and 2016 is 15,805. This year, CDHP offered training on-site in Mobile (Basic Course, Disaster Preparedness Clinical Simulation Course and Healthcare Emergency Preparedness Professional Certificate Course) and throughout the State at requested healthcare facilities (Road Show Courses). ARRTC Basic is a two-day course designed to provide core disaster response training. Thirteen sessions were scheduled this year, and, as a subset of the Basic Course, one session was provided for ADPH Center for Emergency Preparedness (Administrative staff and Emergency Preparedness Teams) and one Administrative session was presented. The Administrative session targets Chief and Administrator level personnel charged with emergency response leadership for their organizations. This course featured nationally recognized speakers who shared their experience and expertise on infectious disease (EBOLA), crisis standards of care, crisis risk management, corporate healthcare response to disasters, leadership and decision making during emergency response. Attendance for the Basic courses totaled 414 students during 2015-2016. Ten Disaster Preparedness Clinical Simulation Courses were offered, each consisting of a one-day interactive training session in the form of simulated clinical scenarios for clinicians charged with disaster response in their organizations. Class size is limited due to the hands-on nature of the course and this year a total of 102 students participated. Thirty-six Road Show Courses were provided, each

consisting of a one-day session which provides healthcare preparedness training to healthcare facilities across the state. Road Show courses allow greater participation of staff, and participation of regional neighbors/response partners for the purpose of establishing and enhancing a common knowledge of the basics of disaster response for healthcare facilities. Road Show course content was designed by each facility from a menu of topics to reflect the specific needs of each facility/area. Road Show enrollment included 1,045 students during 2015-2016. The Healthcare Emergency Preparedness Professional Certificate Course (HEPP) completed its second program year, with ten students receiving certificates of completion. The HEPP course is designed to provide students the opportunity to gain the knowledge, skills and capability to prepare and manage a healthcare facility's Emergency Management Program. In July 2016, the third HEPP course began with 17 students enrolled representing hospitals, nursing homes, EMS, Higher Education and State government. The HEPP program is an online course consisting of more than 250 hours of instructional material and interactive assignments. HEPP is one of only a few advanced educational programs available throughout the country that is focused on developing Healthcare Emergency Preparedness Professionals. CDHP's goal is to begin offering courses to non-Alabama healthcare professionals, perhaps as early as 2017.

2015-2016
Summary of Scholarly Activities
Comprehensive Sickle Cell Center

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Kuvibidila S, Warriar RP, Haynes J, Baliga SB. Hydroxyurea and zileuton differentially modulate cell proliferation and interleukin-2 secretion by murine spleen cells: possible implication on the immune function and risk of pain crisis in patients with sickle cell disease. *Ochsner J*. 2015 Fall;15(3):241-7.

Luchtman-Jones L, Pressel S, Hilliard L, Brown RC, Smith MG, Thompson AA, Lee MT, Rothman J, Rogers ZR, Owen W, Imran H, Thornburg C, Kwiatkowski JL, Aygun B, Nelson S, Roberts C, Gauger C, Piccone C, Kalfa T, Alvarez O, Hassell K, Davis BR, Ware RE. Effects of hydroxyurea treatment for patients with hemoglobin SC disease. *Am J Hematol*. 2016 Feb;91(2):238-42.

Ware RE, Davis BR, Schultz WH, Brown RC, Aygun B, Sarnaik S, Odame I, Fuh B, George A, Owen W, Luchtman-Jones L, Rogers ZR, Hilliard L, Gauger C, Piccone C, Lee MT, Kwiatkowski JL, Jackson S, Miller ST, Roberts C, Heeney MM, Kalfa TA, Nelson S, Imran H, Nottage K, Alvarez O, Rhodes M, Thompson AA, Rothman JA, Helton KJ, Roberts D, Coleman J, Bonner MJ, Kutlar A, Patel N, Wood J, Piller L, Wei P, Luden J, Mortier NA, Stuber SE, Luban NL, Cohen AR, Pressel S, Adams RJ. Hydroxycarbamide versus chronic transfusion for maintenance of transcranial doppler flow velocities in children with sickle cell anaemia—TCD With Transfusions Changing to Hydroxyurea (TWiTCH): a multicentre, open-label, phase 3, non-inferiority trial. *Lancet*. 2016 Feb 13;387(10019):661-70.

Wood JC, Cohen AR, Pressel SL, Aygun B, Imran H, Luchtman-Jones L, Thompson AA, Fuh B, Schultz WH, Davis BR, Ware RE; TWiTCH Investigators. Organ iron accumulation in chronically transfused children with sickle cell anemia: baseline results from the TWiTCH trial. *Br J Haematol*. 2016 Jan;172(1):122-30.

II. PUBLISHED ABSTRACTS

Mpollo MSE, Quarmyne MO, Gonsalves C, Haynes J, Uwe C, Kalinyak K, Vinks A, Joiner C, Malik P. A phase I trial of zileuton in sickle cell disease. *Pediatr Blood Cancer*. 2016;63(S1):S50. Abstract no. 642.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Haynes, J. Invited speaker. Shadows of yesterday, reflections of tomorrow II. Alpha Elites Senior Banquet, Bishop State Community College; 2016 Jun 3; Mobile, AL.

Haynes, J. Invited speaker. Interstitial lung disease. Physician Assistant Studies Program; 2015 Oct 19; Mobile, AL.

Haynes, J. Invited speaker. Pulmonary complications of sickle cell disease. 1st Annual Sickle Cell Disease Symposium; 2015 Oct 24; Charlotte, NC.

Haynes, J. Invited speaker. Pathology of the disease and manifestation of sickle cell disease. Sickle Cell Disease Association Educator Certification Program; 2015 Nov 17; Mobile, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

Johnson Haynes Jr: Listed: *America's Top Doctors; Best Doctors in America;* Voting Member, Association of American Medical Colleges (AAMC) - Group on Diversity and Inclusion (GDI); Data and Safety Monitoring Board (DSMB) for the Clinical Trials Consortium; PhenX Sickle Cell Disease Work Group 1: Cardiovascular, Pulmonary and Renal Recruitment – PhenX Consensus Measures for Phenotypes and eXposures; Sickle Cell Disease Council for Change, Pfizer Inc. Workshop.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

General Operations: Dr. Johnson Haynes, Jr. continues as Director of the USA Comprehensive Sickle Cell Center. The USA Comprehensive Sickle Cell Center continues to improve the delivery of clinical and educational services to individuals affected with sickle cell disease, family members of affected individuals, and health care providers.

Research: The Center has applied for an NIH: (RFA-HL-16-101) grant, Sickle Cell Disease Implementation Consortium (SCDIC): Using Implementation Science to Optimize Care of Adolescents and Adults with Sickle Cell Disease (U01). “Breaking Down Barriers to Quality Healthcare Through Expansion of the Primary Care Provider Network and Implementation of Early Transitioning in Patients with Sickle Cell Disease.” (Pending)

Clinical Operations: The 2015-2016 academic year marks the close of the 17th year that the Adult Sickle Cell Clinic has operated as a subspecialty clinic. This clinic now serves over 200 clients. The pediatric clinic provides services to over 300 clients. The primary objectives of these clinics are 1) to serve as a positive educational experience for primary care residents in the Departments of Medicine, Family Medicine, and Pediatric Medicine at the University of South Alabama; and 2) to be a resource for practicing physicians in the University and private community. The adult clinic is staffed by Dr. Johnson Haynes Jr.; Ms. Ardie Pack-Mabien, Nurse Practitioner; Ms. T'Shemika Perryman, RN and Ms. Aisha Davis, Case Manager. The pediatric clinic is staffed by Drs. Felicia Wilson, Hamayun Imran, Hafeez Siddiqui, Ms. Ardie Pack-Mabien, Nurse Practitioner, and Ms. Aisha Davis, Case Manager. Internal Medicine, Pediatric Medicine, and Family

Medicine residents rotate on a monthly basis through the Sickle Cell Clinics. Approval to hire a second nurse practitioner has been obtained for the adult sickle cell clinic; interviews are in progress.

Ms. Pack-Mabien, Ms. Perryman and Ms. Davis continue to support the pediatric outpatient clinical operations and serve as liaisons when transitioning patients from pediatric to the adult services. The Pediatric to Adult Care Transition Program (PACT) is now in its fifth year. In the PACT Program, a Learning Resource and Development Center (LRDC) is in development and will service clients 13-19 years old. The LRDC space has been renovated in the Moorer Clinical Sciences Building in room 1515 to house the new center.

An adult hematologist and urologist are needed to support the adult operations and there is no proposed solution to this deficit of overall clinical operations in sight.

Education: The Center faculty continues to provide a broad series of lectures throughout the academic and private medical community and continues to support the Counselor /Educator Certification Program, which takes place at the Sickle Cell Disease Association of America, Mobile Chapter. The USA Comprehensive Sickle Cell Center has sponsored a clinical based conference on practical issues involving sickle hemoglobinopathies for the past 15 years. This conference held Saturday April 30, 2016 was entitled, “Practical Issues in Sickle Cell Disease XV: More Is Not Always Better.” Listed below are the speakers and topics covered at the 2016 conference.

Dr. Ifeyinwa Osunkwo was the keynote speaker for this year’s conference and the recipient of the Dr. Cecil L. Parker, Jr. Sickle Cell Disease Distinguished Endowed Lectureship Award. Dr. Osunkwo delivered a comprehensive review on transfusion therapy: indications, therapeutic targets and complications in sickle cell disease. Dr. Osunkwo is the Medical Director of the Sickle Cell Program at the Levine Cancer Institute in Charlotte, North Carolina.

Ardie Pack-Mabien, CRNP in the University of South Alabama Comprehensive Sickle Cell Center, presented findings on inadvertent iron overload in sickle cell disease patients not on chronic transfusions. This study was recently published in the J Am Assoc Nurse Pract. 2015, Oct; 27(10): 591-596.

Dr. Felicia Wilson, Professor of Pediatrics, Division of Hematology/ Oncology at the University of South Alabama, provided a comprehensive review on the pathophysiology of iron overload and the management of iron overload in sickle cell disease. The role of currently available oral iron chelators was addressed.

This year’s conference incorporated a series of case reports, presented by residents in the Department of Internal Medicine and Pediatrics. Drs. Sajjad Ahmad and Shenikqua Bouges addressed a very important and often clinical challenge of pain crisis being a diagnosis of exclusion.

Kim Zlomke, PhD, Assistant Professor, of Psychology rounded out this year's conference on the topic of caring for the whole person: psychosocial considerations in pediatric patients with sickle cell disease.

This year's conference provided a maximum of 7.0 *AMA PRA Category 1 Credits*TM.

The *Dr. Cecil L. Parker, Jr. Sickle Cell Disease Distinguished Lectureship Endowment* is now in its 9th year of operation and continues to provide funding to support the educational agenda in perpetuity of the USA Comprehensive Sickle Cell Center.

Going forward, we will continue the clinical operations with the same ambition and sincerity as we have previously. We continue to seek the necessary grant support to sustain all clinical and research activities as well as continue requesting the necessary financial support currently made available by the University of South Alabama, College of Medicine.

Other Activities: Dr. Haynes continues to serve as Vice President of the Alabama Sickle Cell Oversight Regulatory Commission. The Center's newsletter, "Sickle Cell Today" is distributed across the State of Alabama to clients, client's families, administrators, community sickle cell foundations, physicians and legislators in April and September of each year. The Center is now in its 10th year as a collaborator with Alpha Phi Alpha Fraternity, Franklin Primary Health Center, Inc., and the Sickle Cell Disease Association of America, Mobile Chapter in the annual blood drive, which is in September of each year. The 2015 blood drive was the most successful in our history where 72 units of blood were collected. Dr. Haynes is now in his fifth year as Assistant Dean of Diversity and Inclusion in the USA College of Medicine.

On January 26, 2016 Dr. Johnson Haynes, Jr. arranged the first meeting of a community-based, Sickle Cell Center Development Council. The current Chair is Cheryl Franklin, D.N.S. Other members include: Kerry Cohen, Chris Cox, M.D.; Karlos Finley, J.D.; Fr. John George, Cynthia Tucker Haynes, Jessica Knight, Art May, Renee Nelson, Primus Ridgeway, and Dinish Simpson. This council will facilitate the sickle cell center community education and outreach, public relations, event planning and fundraising. On June 16, 2016 the council spear-headed a community meet and greet social event in celebration of World Sickle Cell Awareness Day. This was the first of its kind held by the Center in its 37 years of existence.

Office of Medical Alumni Relations
Annual Report
2015-2016

Representing 41 graduating classes (1976-2016), the total number of M.D. graduates of the USA College of Medicine is 2,549 (not including former USAMC housestaff or graduates of the Ph.D. program).

2015-2016 Medical Alumni Association Board of Directors

Officers

- Dr. Kit Outlaw '92, *2014-2016 President*
- Dr. Bill Blaylock '89, *Vice President*
- Dr. John Todd '88, *Secretary/Treasurer*
- Dr. Christopher Semple '85, *Chairman, Alumni and Student Services Committee*

Directors

- Dr. Oscar Almeida, Jr. '85
- Dr. Lamar Duffy '84
- Dr. Diana Hashimi '90
- Dr. Johnson Haynes '80
- Dr. Grace Hundley, '04
- Dr. Russell Hudgens '87
- Dr. Wanda Kirkpatrick '78
- Dr. Matthew McIntyre, '06
- Dr. Amy Morris '92
- Dr. Ed Panacek, '81
- Dr. Juan Ronderos, '85
- Dr. Maryella Sirmon '78
- Dr. Brandi Trammell, '02

During the 2016 Annual Meeting of the Board of Directors, one new member was appointed to the Board of Directors and will begin his term with the 2016-2017 year:

- Dr. Matthew Cepeda, '03

Scholarship Recipients for the 2015-2016 Academic Year

Student Name	Scholarship Received	Amount of Scholarship
Christina Schaar	2016 Medical Alumni Association Scholar	\$10,000
Lauren Chastain	2016 Medical Alumni Association Scholar	\$10,000
Tina Lu	2016 Medical Alumni Association Scholar	\$10,000
Sarah Mayberry	Les Sockwell Memorial Award	\$1,000
Michael Hamer	Christian Grinaker Award	\$1,000
Anna Crutchfield	Sid Huggins Family Practice Award	\$1,000
Forrest Lyon	Class of 1981 Scholarship	\$5,000
Dheepa Sekar	Medical Alumni Leadership Award	\$500
		\$38,500

2015 Medical Alumni Reunion Weekend

The 2016 Medical Alumni Reunion Weekend was celebrated June 3-5, 2016 at the Perdido Beach Resort in Orange Beach, Alabama. The classes of 1976, 1981, 1986, 1991, 1996, 2001, 2006, and 2011 were honored.

Each year, the Medical Alumni Association selects an outstanding USA College of Medicine leader who embodies professionalism, compassion, and integrity. The MAA was proud to recognize Wladimir Wertelecki, M.D., Emeritus Professor and former Chairman of the Department of Medical Genetics, with the 2016 Distinguished Service Award.

Additionally, the 2016 Reunion Weekend program included time to honor and thank Dr. Samuel J. Strada, Dean of the College of Medicine for his guidance, support and mentorship as his plans to retire in late 2016 are realized. The Association and Board of Directors also thanked Dr. Kit Outlaw, outgoing MAA Board President (2014-2016) for 2 years of generous service and leadership. Dr. Bill Blaylock assumed the position of MAA Board President (2016-2018) on June 3, 2016.

As part of the Medical Alumni Reunion Weekend, Continuing Medical Education (CME) courses are offered for those attendees who are interested in earning credits while attending the Reunion. This year, 9 Continuing Medical Education credits were available for attendees to earn and included the following topics:

- **Angus McBryde, M.D.:** *Fitness Related Injuries: How to Combat Overuse in the Active Patient*
- **Lynn Yonge, M.D. '86:** *Living or Dying in the Wilderness Urban Interface*
- **T.J. Hundley, M.D.'04:** *From Sispyhus to the Phoenix: Burnout and Resiliency in Physicians*
- **Elizabeth Minto, M.D.:** *Migraine: A Better Understanding of a Ubiquitous Diagnosis*
- **Ed Panacek, M.D., M.P.H. '81:** *Sepsis Update: 2016*
- **Alana Schilthuis, M.D. '10:** *Vaccines in Primary Care*
- **Marcus Tan, M.D.:** *Developments in Multidisciplinary Cancer Care*

- **Phillip Almalouf, M.D.:** *Hard to Breathe? Let's Talk About COPD*
- **Janyce Sanford, '86 M.D.:** *Developing Physician Leaders Through Mentorship*
- **Tom Miller, M.D. and Bob Chagrasulis, M.D. '81:** *Medical Clinics in the Sugar Plantations and Prisons of the Dominican Republic*
- **Pat Murphy, M.D. '76:** *TAVR vs AVR: Where We Are Now and Where We Are Going*
- **Anthony Galanos, M.D. '86:** *Contemporary Aging: Thoughts of a Geriatrician*
- **Robert Percy, M.D. '96:** *Palliative Care: A Discussion of Perceived and Actual Benefits of Organization and Initiation of a Palliative Care Team at Mobile Infirmary*

Student Events Hosted

The *Medical Alumni Speaker Series* presented 2 lectures for the USA College of Medicine Students during the 2015-2016 Academic Year:

- **John LeDoux, M.D. '02:** *Integrating Work and Life: Pathways in Cardiology*
- **Anne Schott M.D. '89:** *From Mississippi to Michigan: Keeping an Open Mind*

The Medical Alumni Association also sponsored a graduation party for the Class of 2016 at the Bluegill Restaurant.

Student Events Sponsored

The Medical Alumni Association contributed funds to the following student events and activities:

- Class of 2019 Freshman Orientation lunch and party
- Class of 2018 White Coat Ceremony
- 2016 Review of Systems
- 2016 Match Day
- Dawg Day (co-hosted with the Basic Medical Science Student Organization)
- Asclepian Ball
- Class of 2016 Skit Night

The Medical Alumni Association was proud to work closely with COM students to revive the Gumbo Chili Showdown. Held at Ladd Stadium in Mobile, AL. on Saturday, April 2, 2016, the Showdown raised \$12,000 which was directly contributed to the Regan Robinson Scholarship Fund.

2015-2016 Annual Fund and Membership Drive Results

Annual Fund Contributions	\$36,693.28
Amount Raised via Memberships	\$13,275.00
Total Amount Raised	\$49,968.28

2015-2016
Division of Medical Education and Student Affairs

The Division of Medical Education and Student Affairs is responsible for all undergraduate education programs in the College of Medicine. Activities in the Division of Medical Education and Student Affairs are accomplished through offices in the Medical Sciences Building and Mastin Building.

Student Affairs

The Medical Association of the State of Alabama, Medical Society of Mobile County and University of South Alabama Medical Alumni Association sponsored Match Day festivities which were held at the Mobile Convention Center in downtown Mobile on March 18. The Match results were impressive and included one student who matched in Radiation Oncology at Detroit Medical Center; one who matched in Dermatology at the University of Mississippi; three students who matched in Ophthalmology at the University of Mississippi, University of Florida, and the University of Iowa; and one who matched in Neurological Surgery at Virginia Commonwealth. Students matched in eighteen different states and will be going to programs such as Baylor, Wake Forest, Vanderbilt, Tulane, University of Pittsburgh Medical Center, Emory, and Tufts Medical Center. Twenty-seven percent of the students will remain in Alabama and fourteen students matched here at USA.

Honors Convocation for the College of Medicine was held Friday evening, May 6, 2016, in the Mitchell Center on the USA campus. Dr. Charles B. Rodning, Professor in the Department of Surgery, was selected as the faculty speaker by the Class of 2016 and William Allen Cutchen was selected to be the class speaker. Awards for academic achievement and community service were announced and the Hippocratic Oath was administered. Graduation was held at 10 a.m. on May 7, 2016.

The number of visiting medical students who participated in senior elective courses at USACOM in 2012-2013 is outlined below:

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Total Visitors	24	33	28	21	26
From LCME Schools	9	17	12	6	14
From Osteopathic Schools	12	6	7	15	11
From Foreign Schools	3	10	9	0*	0*
Completed Paperwork, but Cancelled Visit					
From LCME Schools	3	5	3	4	3
From Osteopathic Schools	0	4	3	2	5
From Foreign Schools	4	4	3	0*	0*
Disciplines in which Electives were taken					
Anesthesiology	0	0	0	0	0
Clinical Pharmacology	0	0	0	0	0
Emergency Medicine	1	0	1	0	0
Family Medicine	0	2	3	0	0
Internal Medicine	6	5	0	4	3
Medical Genetics	0	0	0	0	0
Neurology	0	0	0	0	0
Neurological Surgery	0	0	0	0	0
Obstetrics/Gynecology	0	1	1	5	2
Ophthalmology	0	0	0	0	0
Orthopedics	8	15	12	4	5
Pathology	0	0	1	1	1
Pediatrics	5	4	10	4	8
Psychiatry	1	0	1	0	1
Radiology	1	5	0	1	3
Surgery	3	6	1	2	3

*We joined the AAMC VSAS in 2014 and no longer rotate foreign students

Months Electives Taken

	2012-2013		2013-2014		2014-2015		2015-2016	
	American	Foreign	American	Foreign	American	Foreign	American	Foreign*
January	0	0	0	0	2	0	1	0
February	0	1	0	0	0	0	0	0
March	1	2	0	0	0	0	0	0
April	0	1	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0
July	2	1	2	1	1	0	1	0
August	6	1	5	1	5	0	3	0
September	6	3	5	3	4	0	8	0
October	6	5	4	1	3	0	6	0
November	3	0	1	3	3	0	7	0
December	0	0	2	2	3	0	0	0

Letters of evaluation (Dean’s Letters) were written for each of the 73 seniors who graduated in May, 2016. Students applied to 2863 residency programs through the AAMC Electronic Residency Application Service (ERAS).

Seventy-three (73) students matched for residency positions. Sixty-seven (67) of the May graduates used the NRMP as their primary means of obtaining residency and six (6) graduates participated in a specialty match.

	Number of Graduates	Match Utilized	
		NRMP	Non-NRMP
2012	78	74	4
2013	73	68	5
2014	63	60	3
2015	74	71	3
2016	73	67	6

*We joined the AAMC VSAS in 2014 and no longer rotate foreign students

University of South Alabama Seniors
Residencies Received by Discipline

	Class of 2012		Class of 2013		Class of 2014		Class of 2015		Class of 2016	
PRIMARY CARE:	32	42%	34	47%	22	35%	31	42%	28	38%
Internal Medicine	14	18%	21	29%	12	19%	19	26%	9	12%
Family Medicine	9	12%	7	10%	4	6%	3	4%	8	11%
Pediatrics	6	8%	3	4%	3	5%	6	8%	10	14%
Med/Peds	3	4%	3	4%	3	5%	3	4%	1	1%
Anesthesiology	3		1		0		3		3	
Child Neurology	0		1		0		0		0	
Dermatology	0		0		0		0		1	
Emergency Medicine	6		1		4		6		2	
Int. Med./Dermatology	1		0		0		0		0	
Int. Med/Emer. Med.	0		0		1		1		0	
Neurology	3		6		1		1		2	
Neurological Surgery	0		0		3		2		1	
OB/Gyn	7		4		4		1		2	
Ophthalmology	0		3		1		1		3	
Orthopedic Surgery	4		4		3		2		4	
Otolaryngology (ENT)	0		1		1		0		0	
Pathology	3		1		2		4		0	
Physical Medicine & Rehabilitation	0		1		0		0		1	
Psychiatry	4		3		5		10		6	
Radiation Oncology	0		1		0		0		1	
Radiology	6		1		6		1		8	
Surgery – General	6		4		6		8		7	
Surgery - Plastics	0		0		1		1		0	
Surgery – Preliminary	0		3		2		2		4	
Surgery – Thoracic	1		0		0		0		0	
Transitional	7		0		1		0		0	
Urology	0		2		0		0		0	
TOTAL Graduating Seniors	83		71		63		74		73	

University of South Alabama Seniors
Residencies Received by State

	Alabama		USA Hospitals (Mobile)	Out-of-State		Number of Different States
2012	24	31%	15	53	69%	18
2013	28	38%	14	43	59%	25
2014	12	19%	8	51	81%	20
2015	29	39%	17	45	61%	18
2016	20	27%	14	53	73%	18

Seventy-three seniors received the Doctor of Medicine degree at Commencement on May 7, 2016. On the evening of May 6, the College held its forty-first Honors Convocation, which took place in the Mitchell Center. Dr. Charles B. Rodning addressed the class and William A. Cutchen responded for the graduates. Prior to hooding the graduates, the following awards were presented:

- Dean's Award – Richard Lee Pearlman
- Merck Award – Ryan James Dewitz and Gavin Tanner Reed
- Glasgow-Rubin Achievement Citations – Madelyn Boqué King and Katherine Leigh Richards
- Leonard Tow Humanism in Medicine Award – Patty Wang and Haley Ballard, M.D.
- Medical Alumni Leadership Award – Dheepa Rachel Sekar
- Proassurance Award – M. Caitlin Brown Marshall
- Community Service Award – Olivia Amanda Butters and Paul William Hixon
- SNMA Leadership Award – Anna Lauren Crutchfield
- Outstanding Student in the Pre-clerkship Curriculum – Richard Lee Pearlman
- Award for Excellence in the Interprofessional Education and Collaborative Practice –
Sarah Ellen Boyd and Sarita Arvind Wagle
- Hollis J. Wiseman Award for Excellence in Pediatrics – Rebekah Ann Frazier
- Samuel Eichold Award – M. Caitlin Brown Marshall
- The Meyer/Anderson Orthopaedic Excellence Award – Michael Wesley Honeycutt
- John W. Donald Memorial Award in Surgery – Michael Wesley Honeycutt
- H. C. Mullins, M.D. Award – Gabrielle Lane Hood
- Obstetrics/Gynecology Award – Brittany Elizabeth Swartout
- Excellence in Emergency Medicine Award – Aaron Kyle Rasmussen and James Mark Shockley
- American Academy of Neurology (AAN) Award – Jarret Alan Curtis
- Excellence in Psychiatry Award – Lindsey Alexandria Stewart
- Samuel J. Strada Pharmacology Achievement Award - Michael Wesley Honeycutt

Grade Distribution 2015 - 2016 Academic Year

Freshman Courses

	H	P	F
Foundations of Human Health	12	63	0
Infectious Disease and Host Defense	10	63	2
Cardiovascular	11	64	0
Biostatistics in Medicine	36	39	0
Basic Concept Human Structure	9	66	0
Urinary	15	60	0
OSCE M1 – Fall	9	66	0
OSCE M1 - Spring	19	56	0

Sophomore Courses

	H	P	F
DIG	13	64	0
ENR	13	64	0
MSK	9	68	0
NSB	10	67	0
OSCE M1 – Fall	12	65	0
OSCE M1 - Spring	1	76	0

Junior Clerkships

	H	P	F	Out of sequence
Family Medicine	11	57	0	0
Internal Medicine	24	44	0	0
Neurology	19	54	0	4
OB/GYN	22	46	0	0
Pediatrics	18	52	0	2
Psychiatry	32	39	0	2
General Surgery	14	56	0	1

Academic Progress of Medical Students
Source: Part II of LCME Annual Medical School Questionnaire

	2012	2013	2014	2015	2016
Initial Students in Class	74	75	77	75	75
Graduates	78	73	63	71	69
True Attrition (will not receive M.D. in any year)	0	0	5	4	3

	2011-12	2012-13	2013-14	2014-15	2015-16
Dismissed					
Freshmen	0	0	0	0	0
Sophomores	0	0	0	0	0
Juniors	0	0	0	1	0
Seniors	0	0	0	1	0
Placed on Leaves of Absence (LOA)					
Freshmen	1	1	1	1	1
Sophomores	1	0	1	1	1
Juniors	11	9	12	5	4
Transferred to Another Medical School	0	0	0	0	1
Withdrew	2	3	1	3	1
Admitted with Advanced Standing or Re-entered from Graduate School	1	0	1	0	0
Deceased	0	1	0	0	0
Repeated All or Part of the Year	11	5	3	3	1
Enrolled on a Decelerated Schedule	0	0	0	0	0

Minority Students (Black, Native American, Hispanic)	2011-12	2012-13	2013-14	2014-15	2015-16
Total	18	17	19	22	28
Freshmen	4	4	7	7	9
All Other Classes	14	13	12	15	19

United States Medical Licensure Examination (USMLE) Step 1
First Time Takers

	2011	2012	2013	2014	2015
Number of Students	75	69	74	72	73
National Overall Mean	224	227	228	229	229
USACOM Overall Mean	218	226	224	230	229
Failure Rate – National	6%	5%	4%	4%	5%
Failures at USA	8%	3%	7%	3%	4%

Minimum passing score = 176 in 1997; 179 in 1998-2000; 182 beginning in 2001; 185 in 2007; 188 in 2010; 192 in 2014

United States Medical Licensure Exam (USMLE) Step 2
First Time Takers

	2012	2013	2014	2015	2016
Number of Students	77	73	65	76	71
National Overall Mean	237	238	240	240	241
USACOM Overall Mean	234	233	242	242	246
Failure Rate – National	2%	2%	3%	5%	4%
Failures at USA	1%	5%	3%	4%	3%

Minimum passing score = 170 for Class of 1997-2000; 174 beginning with the Class of 2001; 182 beginning with the Class of 2004; 184 beginning with the Class of 2008; 189 beginning with the Class of 2011; 209 beginning with the Class of 2014

United States Medical Licensure Examination (USMLE) Step 3

	Class of 2009	Class of 2010	Class of 2011	Class of 2012	Class of 2013
National Percentage Passing	96	97	97	97	98
USA Percentage Passing	98	92	96	93	97
USA Number of Students	61 (a)	65 (b)	68 (c)	67	66

(a) 63/63 students had taken Step 3 as of 6/14

(b) 65/66 students had taken Step 3 as of 6/14

(c) 68/69 students had taken Step 3 as of 6/14

Evaluation of Student Performance
in the First Postgraduate Year*

The questionnaire adopted by the Curriculum Committee in 1990-91 for assessment of graduates of the College of Medicine was sent to the Directors of the PGY-1 programs of our 2015 graduates. A total of 43 responses were received out of 74 requests. Below is a summary of the responses to the four major areas that were assessed. NOTE: One survey form was returned incomplete and therefore not included in the totals below.

	Class of 2012	Class of 2013	Class of 2014	Class of 2015
Medical Knowledge				
Top Fifth	23%	13%	36%	21%
Upper Middle Fifth	29%	35%	38%	54%
Middle Fifth	38%	40%	18%	23%
Lower Middle Fifth	10%	10%	8%	2%
Bottom Fifth	0	2%	0%	0%
Data Collection				
Top Fifth	26%	13%	39%	14%
Upper Middle Fifth	42%	48%	34%	63%
Middle Fifth	29%	35%	23%	21%
Lower Middle Fifth	3%	2%	2%	2%
Bottom Fifth	0	2%	2%	0%
Clinical Judgment and Skills				
Top Fifth	20%	15%	39%	16%
Upper Middle Fifth	43%	40%	31%	63%
Middle Fifth	34%	38%	20%	19%
Lower Middle Fifth	3%	5%	8%	2%
Bottom Fifth	0	2%	2%	0%
Professional Attitudes				
Top Fifth	47%	43%	46%	28%
Upper Middle Fifth	29%	27%	39%	60%
Middle Fifth	17%	23%	10%	7%
Lower Middle Fifth	7%	5%	5%	5%
Bottom Fifth	0	2%	0%	0%

*Evaluated by Residency Program Director and/or Faculty

Curriculum Committee

The Curriculum Committee is charged by the LCME with oversight of the UME curriculum. This encompasses the establishment of policies and practices for design, delivery, monitoring, mapping and assessment of educational content, quality assurance of curriculum delivery, and assurance that curricular problems are effectively addressed. The Committee was chaired by Tony Gard, PhD.

Meeting the first and third Wednesdays of the month, the Committee acted on recommendations from subcommittees and provided a forum for thought sessions presenting new initiatives for the College, national trends in medical education, and evolving accreditation standards.

In 2015-2016, an eighth standing subcommittee, Clinical Skills, was created. Subcommittees met monthly or quarterly to perform the major workload of the parent Committee. The subcommittees and their chairs included:

Assessment and Evaluation (Tony Gard, PhD)
Clerkship Directors (TJ Hundley, MD)
Clinical Skills (Christen Altermatt, MD)
Curriculum Integration (Jeff Sosnowski, MD, PhD)
Faculty Development (Benjamin Estrada, MD)
Fourth Year (Benjamin Estrada, MD)
Module Directors (Abu Al-Mehdi, MD, PhD)
Student (Leith Bayazid M2)

Focus on Evidence-Based Medicine

At the recommendation of the Clerkship Directors subcommittee, the parent Committee oversaw the development and implementation of an enhanced, evidence-based medicine (EBM) thread. This innovative approach includes early introduction to early EBM concepts during the M1-M2 years, with the point-of-care application incorporated across clerkships during the M3 year. Significant M3 year enhancements integrate EBM with patient care and patient safety objectives previously established within the curriculum.

Enhanced Horizontal Integration of the Pre-Clerkship Module Sequence

As part of the Committee's charge for periodic review of curriculum integration during pre-clerkship training, revisions to the module sequence for 2016-2017 were approved. For M1 students, the sequence is FHH1>FHH2>BCS>CVR>URN. Coursework will begin with two sequential Foundations of Human Health (FHH) modules. The FHH1 module has been revised from previous iterations by removing most of the introduction to the autonomic nervous system for delivery later in the M1 fall semester. The new FHH2 module incorporates both the former Infectious Disease & Host Defense module, and former Biostatistics in Medicine module. The Committee approved the new Basic Concepts in Human Structure (BCS) module, replacing the former Musculoskeletal System (MSK) module previously given in the M2 year, excluding the content on head and neck. Integrated within the anatomical emphasis of BCS module is the content on autonomic function and pharmacology formerly delivered in FHH1. The sequence is completed with the Cardiovascular System (CVR) and Urinary System (URN) modules. For M2 students the approved 2016-2017 sequence is ENT>RES>DIG>ENR>NSB. Content for head and neck, formerly taught in MSK, will

be delivered in the newly approved Eye, Nose and Throat (ENT) module, which precedes the Respiratory System (RES) and Digestive System (DIG) modules. The M2 year finishes with the Endocrinology and Reproductive System (ENR) and Neuroscience and Behavior (NSB) modules.

Piloting Entrustable Professional Activities

In keeping with the Committee's action plan to incorporate an EPA assessment program into the UME curriculum, Dr. TJ Hundley was approved to pilot this initiative within the Internal Medicine clerkship for 2016-2017. The pilot is designed to integrate EPA's within the pre-existing framework of the Competency-Based Evaluation currently in practice.

Professional Behaviors Initiative Enhances the Learner Environment

To affirm the College's responsibility to create, support and facilitate an optimal learning environment for medical student education, the Curriculum Committee, working in collaboration with the Graduate Medical Education Council, launched a **Professional Behaviors (PROBE)** initiative in November to redesign the process by which student mistreatment is monitored, reported and corrected. Five working groups consisting of clinical and basic science faculty members, students, medical administrators, residents and hospital administrators were established to develop plans of action during the spring of 2016 for implementation in the 2016-2017 clerkship cycle. The Detection and Information Group optimized student evaluation tools used to monitor and positive and negative professional behaviors and developed a process to relay this information effectively for centralized oversight. The Education Group developed a comprehensive strategy to train faculty and residents about the consequences of negative behaviors for students and the College, and new educational approaches to enhance the learning environment across the UME-GME continuum. A student survey was conducted to identify the most common sources of alleged mistreatment across clerkships, where most incidents occur, in order to focus faculty and resident development where needed. The Reporting Group designed a centralized process for students to communicate incidents of unprofessional behaviors without fear of reprisal and losing anonymity. The Investigation Group defined a process by which allegations of unprofessional behavior are addressed and remediated. The Office of Student Affairs has assumed oversight of the approved plan.

Process for Annual Review of Clerkship Performance

The Committee established a process for annual review of third-year clerkships. During the fall semester, the Assessment and Evaluation Subcommittee completed the first cycle of annual performance reviews, beginning with the 2014-2015 year. The standardized review process is based on a written assessment of strengths and weaknesses provided by the clerkship director, student evaluations of clerkship, national outcome measures of performance, the Competency-Based Evaluation of students, AAMC-GQ data, and compliance with LCME accreditation elements. Summary reports of strengths and recommended improvements were presented to the parent Committee for review and approval.

To ensure that Committee-approved changes are incorporated for the following clerkship year, the Curriculum Integration Subcommittee completed the review cycle with each clerkship director to develop a revised plan for parent Committee approval and central oversight. This review process parallels that already in place for pre-clerkship modules.

Nutrition in Medicine Initiatives

To enhance education in nutrition science, a series of online nutrition modules recommended by the Module Directors subcommittee was approved for incorporation into the pre-clerkship curriculum in 2016-2017. Dr. Michael Finan, Director of the Mitchell Cancer Institute, presented a thought session to the Committee on cooking in medicine as it relates to nutrition education for medical students and the physician's vital role in promoting healthy lifestyles. The Committee approved an extension of nutrition instruction across the UME continuum with a goal of developing a 4th year elective on cooking in medicine as the MCI program to promote healthy lifestyles becomes fully implemented and resources for student support are identified.

Implementation of Search Tool for a Virtual USA Curriculum Library

To identify delivered content, gaps and redundancies within the vertically integrated UME curriculum, the Committee approved implementation of the iSeek™ search engine into the online Sakai course management system. This program enables student and faculty users to conduct granular searches for specific content across the USACOM curriculum, and identifies all past courses and presentations pertinent to search terms. Search results allow the user to have direct access to past presentations down to the level of relevant powerpoint slides and full video capture. Analytics for administrative and faculty review allow aggregate student performance on summative assessments to determine in learners are achieving course objectives.

Faculty Development Initiatives

During the 2015-2016 academic year, the COM in collaboration with the AAMC initiated the Teaching for Quality Program (Te4Q) aimed at enhancing faculty involvement in quality improvement activities within different domains of medical education. This effort has been instrumental in the integration of the educational mission across the continuum within the UME and GME programs as well as the health care system.

A significant level of collaboration in a variety of faculty development activities was established with the University of South Alabama QEP program. This collaborative effort has resulted in the training and certification of COM faculty members in Team-Based Learning. These efforts have also resulted in the development of educational scholarship by COM faculty members with local, national and international impact. The COM involvement in faculty development within the QEP is also evident by the participation of members of the Division of Medical Education in the QEP advisory council.

Competency Mapping of Fourth Year Electives

In partial fulfillment of our action plan submitted to the LCME, the Fourth Year Subcommittee completed the mapping of learning objectives for senior electives across the six core ACGME competencies.

Expansion of the Pre-clerkship Clinical Skills Curriculum

Training in clinical skills across the pre-clerkship module sequence was reconfigured into a developmental curriculum. Four independent, semester-long Clinical Skills courses, each culminating with a summative OSCE, were launched and topically coordinated with the M1 and M2 module sequence. Spearheaded by the Clinical Skills subcommittee, a pre-clerkship competency-

based evaluation and enhanced student process was implemented for pre-clerkship students for 2016-2017.

The Committee approved a merger of the former M1-M2 Longitudinal Experience in Ambulatory Practice (LEAP) with the four-semester Clinical Skills course sequence into the newly named CLINIC course (**Clinically Integrated Introductory Course**). A highlight of the new program is the opportunity for M2 students to preview two clerkships of choice during the fall and spring semesters. An objectives-based passbook was approved for M2 students to complete during this experience.

Standardized Test Scores Reflect Curriculum Renewal

USMLE scores continue to reflect excellence of the UME program. The mean STEP 2CK score for the graduating Class of 2016 (242), the first to complete the revised curriculum, extended a pattern of upward trending and topped the national average (240). Consistent with 2CK performance, mean scores on NBME shelf exams for all seven clerkships in 2015-2016 exceeded national norms, ranging from the 59th to 78th tile. The mean student pass rate for first-time USA takers of STEP2 CS matched the national mean of 97%. With final results released by the NBME in March 2016, the mean STEP1 score for first-time USA takers in 2015 matched the national average (229).

Executive Committee of Student Assembly

As set forth in the Student Handbook, the Student Assembly addressed issues affecting student life. The officers for 2015-2016 were President – Emily Spurlin; Vice President – Abby Rowland; and Secretary/Treasurer – Jacob Thomas. The Faculty Advisors were Dr. Susan LeDoux, Dr. Kelly Roveda, and Dr. Haley Ballard.

ISSUES ADDRESSED BY THE STUDENT ASSEMBLY

- 1) Honors Convocation was held on May 6, 2016, and Graduation on May 7, 2016, both at the Mitchell Center.
- 2) White Coat Ceremony for the Class of 2018 was held on June 19, 2016, at the Mitchell Center.
- 3) Volunteer opportunities for M1s-M4s at the University of South Alabama Student-Run Free Clinic were discussed and contact information about how to get involved was distributed.
- 4) USA Student-Run Free Clinic Ribbon Cutting Ceremony was held Saturday, October 10, 2015, at 15 Place.
- 5) The Halloween party was held on October 23, 2015, at The Bar. Student Assembly contributed \$200 for this event.
- 6) The Christmas party was held on December 4, 2015, at Pat's Bar. The theme: "Get Tachy." Student Assembly contributed \$200.
- 7) Student Assembly was registered with the USA Student Activities in hopes of qualifying for SGA funding in the coming years.
- 8) Brandon Newsome represented the College of Medicine on SGA as a senator.
- 9) Approved funding in the amount of \$250 for the GHHS Gold Humanism Honor Society – Solidarity Week "Tell me More" fundraiser, February 15-19, 2016.
- 10) Match Day was held on March 18, 2016, at the Mobile Convention Center.
- 11) Gumbo Chili Cook-Off took place on Saturday, April 2, 2016, at 10:30 a.m. at Ladd Peoples Stadium during the Spring Jags football game. The Gumbo Chili Showdown has not been held since 2013, so students are very proud that the Showdown is back. This year's event raised more than \$12,000 for the Regan Robinson Young Scholarship.
- 12) The Asclepian Ball was held on Friday, April 8, 2016, at the Mobile Carnival Museum. Student Assembly contributed \$400 for this event.

- 13) Senior Skit Night was held on Friday, April 22, 2016, at the Battle House Ballroom. Student Assembly contributed \$3,000.
- 14) Student subcommittees of Student Affairs were formed to address diversity and inclusion, student wellness, student indebtedness, and academic counseling and mentoring.
- 15) Grant Willis and Parker Mullen proposed and implemented a project to start an annual M3 case report symposium in which M3 students could present an interesting, unique, or personally meaningful case from one of their clerkships in the form of a poster presentation to an audience of peers and faculty. This event was held on June 24, 2016, and Student Assembly contributed \$500 to cover refreshments.
- 16) New Student Assembly officers elected in April, 2016, for 2016-2017. The transitional meeting will take place in May, 2016. President – Alex Wiles; Vice President – David Rizk; Secretary/Treasurer – Daniel Johnson.

Office of Financial Aid

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Total Financial Aid	\$11,440,138	\$10,740,663	\$10,141,055	\$10,600,638	\$10,189,089
Students on Aid	277	252	248	270	263
Loans					
Perkins	741,272	627,811	558,000	642,000	557,500
Direct Subsidized	2,075,554	0	0	0	0
Direct Unsubsidized	7,170,930	8,572,896	7,628,762	7,878,086	7,172,789
Direct Grad Plus	125,861	328,446	533,211	590,126	555,483
Outside Private Loans	17,000	0	0	6,898	14,983
Total Loans	\$10,130,617	\$9,529,153	\$8,719,973	\$9,117,110	\$8,300,755
Scholarships					
University Sponsored	713,230	690,012	749,146	801,174	968,916
Outside Sponsored	239,834	162,989	169,613	150,146	185,549
Military – Army	48,592	13,044	27,168	28,256	86,551
Military – Navy	72,591	129,130	189,810	140,785	229,467
Military - Air Force	131,874	144,010	191,971	226,259	201,106
Alabama Medical Board Scholarship	15,000	0	0	0	0
Alabama VA Benefits	23,650	25,471	26,616	83,046	86,703
Post 9-11 GI Bill	61,352	19,641	0	0	0
Faculty Staff Reimbursement	3,398	27,213	66,758	53,862	130,042
Total Scholarships	\$1,309,521	\$1,211,510	\$1,421,082	\$1,483,528	\$1,888,334
Average Indebtedness of a Graduating Senior					
	\$136,604	\$141,760	\$149,655	\$154,938	\$155,019

An Emergency Loan Fund is available to medical students. Loans of up to \$500 may be obtained by students through a fund administered by the Office of Student Affairs and Medical Education for a period of up to 60 days for the purpose of alleviating an unanticipated financial need. There is no interest charged. During the period August 1, 2015, through July 31, 2016, one (1) emergency loan was approved for a total amount of \$500.00. During that period, three (3) payments totaling \$1,500.00 were paid back into the loan account.

Office of Educational Enrichment
Diversity, Recruitment, and Enrichment for Admission into Medicine (DREAM)

The summer of 2016 marked the 30th year of the BEAR/DREAM Pipeline Program. It also was the second summer of the new focus of DREAM on preparing both Phase I and Phase II students for the reformed MCAT (2015). Nine students entered Phase I of DREAM and eight returned to Phase II of this year's program which began on June 6, 2016, and concluded seven weeks later on July 22, 2016.

Per guidance from the Association of American Medical Colleges, the MCAT study curriculum covered the four broad areas which assess competency in 10 Fundamental Concepts that all entering medical students are expected to possess. Phase I students worked on Concepts 1-5 which covered the MCAT courses of biology, chemistry, physics, organic chemistry, and Critical Analysis and Reading Skills. Phase II students studied Concepts 6-10 which covered Sociological and Psychological Concepts and Behaviors, and the new addition of biochemistry.

The program utilized the Khan Academy MCAT preparation website with 900 short videos (YouTube viewer compatible) and over 400 scientific or clinical passage questions organized around the Fundamental Concepts. Instructors made liberal use of this resource in training the DREAM students along with the latest edition of the Exam Crackers-MCAT Complete Preparation Package.

Five rising COM II students and three USA professors were responsible for DREAM instruction. COM faculty facilitated clinical case studies of health and socio-cultural issues prevalent in minority populations. On Friday afternoons, a medical seminar was presented by prominent local minority physicians from the community and physicians of the USA faculty. A neighboring local college professor of diversity, sociology and psychology taught the Phase II students in MCAT psychological and sociological fundamentals. Other Phase II activities included a weekly session in the Clinical Simulation Laboratory and shadowing of USA and community physicians. One practice MCAT was given at the end of the program. Practice Test scores ranged from 481 to 500. All Phase II students successfully completed the second summer of the program.

Six of the nine students in Phase I successfully completed the program and are eligible to return in the summer of 2017. Four of the five students who successfully completed DREAM last year enrolled in USA COM. One enrolled in the University of North Carolina at Chapel Hill College of Medicine.

Eight of the eleven Phase I students completed the program with scores of 80% or higher. One student finished with a final score of 79%. He had not taken a course in Physics prior to entering the program as his University only offers the course in the junior year. However, he is being given a conditional admittance because of the two discretionary points allowed to students in the program.

PHASE I

The composition of the 2016 Phase I class of DREAM students was nine (9) students; five (5) females and four (4) males representing five (5) colleges and universities:

Miles College.....	1
Spring Hill College.....	1
Univ. of South Alabama.....	2
Tuskegee University.....	1
Xavier College.....	4

These participants were natives of:

Alabama.....	6
Louisiana.....	2
Missouri.....	1

The entering Grade Point Averages of the Phase I participants ranged from 3.0 to 3.8 and ACT scores ranged from 22 to 27. Their final DREAM grades ranged from 70% - 90% and their practice MCAT scores ranged from 476 – 488.

Phase II

Eight (8) students returned to participate in Phase II. They were natives of Alabama (5), Mississippi (2), and Jamaica (1), and represented five (5) higher education institutions:

Alabama State.....	1
Stillman College.....	1
Univ. of South Alabama.....	4
Tuskegee University.....	1
Univ. of West Alabama.....	1

The entering Grade Point Averages of Phase II participants ranged from 3.5 to 4.0 overall. Their final DREAM grades were 80% - 93%. The practice MCAT scores ranged from 481 – 500.

Admission/Graduation

In August of 2016, four (4) African-American DREAM students of five (5) entered the first year USA medical school class. One Native-American student attended UNC-Chapel Hill. Six (6) African-American students graduated in 2016, and four of the six entered our medical school through the DREAM program representing the University of South Alabama (1), Auburn (1), Alabama A&M (1), and Mississippi University for Women (1); and the states of Alabama (2) and Mississippi (2).

2015-2016 Recruitment

Recruitment visits to undergraduate institutions began during the month of September in 2015 and ended in January, 2016. Students were informed and advised at all levels along the educational pathway during these visits. In 2015, visits were made to 11 colleges and universities in Alabama and contiguous states.

OFFICE OF ADMISSIONS

Annual Report for 2015-2016

Applicant Pool and Acceptance Data

The University of South Alabama College of Medicine participates in the American Medical College Application Service (AMCAS). The period for receiving applications to the College of Medicine for the class entering August 8, 2016, opened June 1 and closed November 15, 2015.

For the Class of 2020, one thousand five hundred twenty-five (1525) applications were received. Four hundred seventy-two (472) applications were received from Alabama residents, nine hundred fifty-nine (959) applications from out of state U.S. citizens, including fifty-nine (59) from adjacent service area counties in Mississippi and Florida, and ninety-four (94) applications from citizens of foreign countries. The Admissions Committee interviewed a total of two hundred fifteen (215) applicants of which two hundred one (201) were residents of Alabama. Of the applicants interviewed, one hundred fifty-five (155) were offered admission to fill a class of seventy-four (74). Sixty-nine (69) of the matriculating students are Alabama residents and three (3) are from our service area counties. Seventeen (17) offers of admission were made to black applicants, nine (9) have matriculated. Four (4) of the matriculating black students are DREAM (Diversity Recruitment and Enrichment for Admission into Medicine) students. This year our records indicate an increase in the number of applicants (1525 in 2016 vs. 1491 in 2015); there was also an increase in the number of Alabama applicants (472 in 2016 vs. 435 in 2015). Table I gives comparative data since 2013.

The matriculating Class of 2016 represents twenty-seven (27) colleges and universities from the United States. Sixty-four percent (64%) of this year's class, however, come from the four (4) largest universities in the state.

Recruitment and Retention Efforts

1. Undergraduate campus recruiting visits and sophomore interviews were implemented by "teams" of faculty and administration. The USACOM recruiting teams counseled over 300 premedical students at 8 colleges and universities.
2. The Director of Admissions served as the admissions counselor and advised prospective students on a daily basis. In addition, selected faculty members advised prospective applicants periodically.
3. Premedical visitation day programs were organized and conducted to provide prospective applicants with an opportunity to tour the College of Medicine facilities, review the application process, meet with medical students and faculty, and obtain information on financial aid, housing, and the community.
4. Informative health career related programs were organized and conducted upon request from high school students, community organizations, and premedical special interest groups.
5. The following publications were produced and distributed by the Office of Admissions: **Policies and Procedure Manual, and The USA COM FYI.**

6. Special admissions reports and correspondence were produced and distributed annually to in-state premedical advisors and selected out-of-state advisors.
7. A total of sixteen (16) Applicant Interview Day programs were conducted from September until mid-March. The interviewers, primarily College of Medicine basic science and clinical faculty, serve as members of the Committee on Admissions and/or ad hoc members. These members interviewed two hundred fifteen (215) candidates; each interviewee was interviewed by three committee members, giving a total of Six hundred forty-five (645) interviews.
8. The following Admissions Committee subcommittees were active in 2015-2016:
Scholarship Subcommittee; Alternate List Subcommittee; Early Acceptance Program Subcommittee

Early Acceptance Program

In 1990, the College of Medicine and the University's Health Pre-Professions Program established an Early Acceptance Program for qualified high school graduates interested in a career in medicine. Candidates selected for this program must have a minimum high school GPA of 3.5 and an ACT score of 27 (or comparable SAT). Candidates selected for this program receive early acceptance from the University of South Alabama College of Medicine. The students enter the Health Pre-Professions Program at the University of South Alabama, and their curriculum includes the core requirements for their selected baccalaureate program and prerequisites for entering medical school. Students in this program must maintain a specific grade point average during college and are required to meet all other requirements for entering medical school. Students participate in a variety of activities on an individual basis to provide a broad exposure to medical education. Students participating in the program are expected to enter the College of Medicine following completion of the baccalaureate degree.

This year, eighty-five (80) applications were received from students wishing to enter this program. After a screening process, forty-five (45) of the applicants were selected for interviews and sixteen (16) were offered admission to the program.

Table I. University of South Alabama College of Medicine Admissions Report

	2013	2014	2015	2016
Total Applicants	1417	1316	1491	1525
Residence:				
Alabama	421	421	435	472
Out-of-State	924	819	932	900
Service Areas (FL & MS)	50	43	48	59
Foreign	72	76	76	94
Alabama Female	182	191	198	205
Out-of State Female	472	421	480	485
Alabama Rural	88	66	60	82
Alabama Black	62	52	56	59
Out-of-State Black	67	144	83	90
Total Applicants Interviewed	230	222	197	215
Residence:				
Alabama	208	211	183	201
Out-of-State	13	5	2	4
Service Areas (FL & MS)	9	6	12	10
Female	92	86	79	92
Rural	34	33	32	40
Black (excludes DREAM)	18	13	17	18
Other Underrepresented Minority	11	4	10	12
Total Applicants Accepted	155	159	147	155
Residence:				
Alabama	143	149	136	144
Out-of-State	8	5	4	4
Service Areas (FL & MS)	4	5	7	7
Female	64	64	71	72
Rural	22	22	26	32
Early Decision Program	11	15	7	11
Total Black	15	16	16	17
Black Regular Admissions	11	11	12	13
DREAM Program	4	5	4	4
Other Underrepresented Minority	7	3	9	10
Total Matriculants	74	76	75	74
Average MCAT	30	30	30	77%=30
Average GPA	3.7	3.7	3.8	3.75
Residence:				
Alabama	67	71	66	69
Out-of-State	5	3	5	2
Service Areas (FL & MS)	2	2	4	3
Female	27	33	28	31
Rural	12	10	13	18
Total Black	7	8	8	9
Black Regular Admissions	5	5	5	5
DREAM Program	2	3	3	4
Other Underrepresented Minority	4	2	3	2

2015-2016 Office of Continuing Medical Education

The Office of Continuing Medical Education (OCME) has provided numerous activities that addressed the continual practice gaps of all healthcare providers. We continue to be Accredited *with Commendation* through the Accreditation Council of Continuing Medical Education.

The OCME collaborated with allied health, United Way, Housing First, and many other outside agencies during 2016 in an effort to address the needs of our homeless population. Project Homeless Connect coordinated over 400 volunteers, most from the University of South Alabama College of Medicine, Allied Health, and Arts & Sciences (Social Work). Volunteers addressed the medical needs through assessment and referrals.

During 2015-2016, the OCME coordinated CME activities provided by the clinical departments and outside agencies. There were approximately 1,354 regularly scheduled series (Grand Rounds) activities and 139 conferences, all combining for 4,965.55 CME credits. In total, 12,036 physicians and 13,482 non-physician's credits were awarded. Additionally, 139 jointly provided activities with the following outside agencies (Providence Hospital, Providence Foundation, Springhill Medical Center, Gulf Coast Patient Care Network, Alabama Academy of Radiology, Coastal Trauma Care Region, and the Veterans Administration) were supported by the Office of CME.

Significant CME Achievements

- Sharrie Cranford named editor for Society for Academic Continuing Medical Education tri-annual newsletter INTERCOM

CME Plans for 2016-2017

- Integrate ACCME new accreditation criteria
- Revise mission statement
- Create a five-year strategic plan

OFFICE OF GRADUATE MEDICAL EDUCATION

I. Organizational Structure

Dr. Samuel A. McQuiston, Associate Professor of Radiology at the University of South Alabama, serves as Assistant Dean for Graduate Medical Education (GME), Designated Institutional Official (DIO), and chair of the Graduate Medical Education Committee (GMEC). Dr. McQuiston and the GME Office staff oversee all residency and fellowship training programs at the institution accredited by the Accreditation Council for Graduate Medical Education (ACGME).

The GME Office implements policies of the GMEC. The ACGME charges the GMEC with monitoring and advising on all aspects of residency education including compliance with ACGME requirements and creating a strong and supportive learning environment for the trainees. The GMEC is composed of program directors, teaching faculty, peer-selected residents and designated representatives of the major teaching hospitals. The GMEC is responsible for reviewing current issues facing residency and fellowship programs as well as for developing institutional policies and procedures to ensure quality of education and of the clinical learning environment. GMEC activities are reported by the Assistant Dean to the Vice President for Medical Affairs/Dean of the College of Medicine.

II. Overview of GME Programs and Accreditation

As detailed below, University of South Alabama Health sponsors 11 residency and 7 fellowship programs with a combined total of 258 training positions. During the 2015 – 2016 academic year, all residency positions were filled through the Nation Residency Matching Program (NRMP) with 257 physicians completing training during the 2015 – 2016 academic year. With the addition of the Sports Medicine fellowship to the Family Medicine program, the USA Sports Medicine fellowship was voluntarily withdrawn.

Residency Programs

Program Name	Program Director	Program Coordinator
Diagnostic Radiology	Samuel McQuiston, M.D.	Avery Robinson
Family Medicine	Ehab Molohkia, M.D.	Stacey Hartman
Internal Medicine	Errol Crook, M.D.	Cindy Lawrence
Internal Medicine/Pediatrics	Grace Hundely, M.D.	Rita Harper
Neurology	Juan Ochoa, M.D.	Caroline Kuehling
Obstetrics & Gynecology	Craig Sherman, M.D.	Carol Johns
Orthopedic Surgery	Albert Pearsall, M.D.	Rhonda Smith
Pathology	Andrea Kahn, M.D.	Kathy Cannon
Pediatrics	Franklin Trimm, M.D.	Rita Harper
Psychiatry	Luke Engeriser, M.D.	Allison Britt
Surgery	Jon Simmons, M.D.	Dorothy Dickenson

Fellowship Programs

Program Name	Program Director	Program Coordinator
Children’s & Adolescent Psychiatry	Ed Finn, M.D.	Allison Britt
Cardiovascular Disease	Bassam Omar, M.D.	Kimberly Wilson
Clinical Neurophysiology	Juan Ochoa, M.D.	Caroline Kuehling
Gastroenterology	Jack Di Palma, M.D.	Tonya Beachum
Pulmonary Disease & Critical Care Medicine	Brian Fouty, M.D.	Lauren Portis
Sports Medicine (FM) - USA	Michael Linder, M.D.	Stacey Hartman
Sports Medicine (FM) - Andrews	Josh Hackel, M.D.	Leah Johnsey
Surgery Critical Care	Sidney Brevard, M.D.	Dorothy Dickenson

ACGME Accreditation

USA Health has maintained full accreditation as a sponsoring institution by the ACGME with its most recent renewal of accreditation on October 17, 2012, and institutional self-study due on approximately October 1, 2026.

No ACGME site visits occurred during the 2015 – 2016 academic year. Including the newly accredited fellowship programs, all programs are fully accredited by the ACGME. The Internal Medicine Residency Program and its associated fellowships in Cardiovascular Disease, Gastroenterology, and Pulmonary Disease & Critical Care completed their self-study with the anticipation of an ACGME site visit in mid-2017.

The annual ACGME online survey was completed by 96% of residents and fellows and 82% of faculty. Results on all ACGME Resident and Faculty Surveys consistently placed GME training programs at or above the national averages in compliance.

Residency Programs

Program Name	Training Positions	Accreditation Status	Self-Study Date
Diagnostic Radiology	20	Continued Accreditation	04/01/2022
Family Medicine	18	Continued Accreditation	11/01/2018
Internal Medicine	48	Continued Accreditation	05/01/2016
Internal Medicine/Pediatrics	11	Continued Accreditation	10/01/2022
Neurology	7	Continued Accreditation	08/01/2023
Obstetrics & Gynecology	16	Continued Accreditation	06/01/2018
Orthopedic Surgery	15	Continued Accreditation	01/01/2025
Pathology	15	Continued Accreditation	04/01/2017
Pediatrics	36	Continued Accreditation	10/01/2022
Psychiatry	16	Continued Accreditation	10/01/2021
Surgery	29	Continued Accreditation	02/01/2019

Fellowship Programs

Program Name	Training Positions	Accreditation Status	Self-Study Date
Children's & Adolescent Psychiatry	4	Continued Accreditation	10/01/2015
Cardiovascular Disease	6	Continued Accreditation	05/01/2016
Clinical Neurophysiology	1	Continued Accreditation	08/01/2023
Gastroenterology	6	Continued Accreditation	05/01/2016
Pulmonary Disease & Critical Care Medicine	6	Continued Accreditation	05/01/2016
Sports Medicine (FM) - USA	1	Voluntary Withdrawal	NA
Sports Medicine (FM) - Andrews	1	Continued Accreditation	11/01/2018
Surgery Critical Care	1	Continued Accreditation	11/01/2015

III. Summary of GME Activities

With complete transition to the Next Accreditation System (NAS) as of July 1, 2015, the Assistant Dean and GME Office maintain communication with each of the training programs to sustain awareness of the concepts incorporated in NAS and the Clinical Learning Environment Review (CLER).

Clinical Learning Environment Review (CLER)

The Clinical Learning Environment Review (CLER) site visit was completed in July 2014 at the University of South Alabama Medical Center campus. The GME Office received the final report from the CLER site team in August 2014. The report reflected awareness throughout the USA Medical Center of the CLER program foci and acknowledged programs that are in place throughout the USA Health System to support these foci. The CLER program foci are as follows:

- Patient Safety
- Health Care Quality
- Care Transitions
- Supervision
- Duty Hours/Fatigue Management and Mitigation (Physician Well Being)
- Professionalism

Based on the results of the CLER site visit, the USA Office of Graduate Medical Education coordinated the Teaching for Quality Program at USA as detailed below.

The GME Office received the final report from the CLER site team on August 25, 2014. The report reflected awareness throughout the USA Medical Center of the CLER program foci and acknowledged programs that are in place throughout the USA Health System to support these foci.

Patient Safety & Quality Improvement Programs

USA Health uses the framework of the Institute for Healthcare Improvement (IHI) for quality and performance projects. Education in patient safety and quality improvement science is provided through the IHI modules, modules from the Introduction to the Practice of Medicine, team-based learning activities and other educational resources. At orientation 80 new housestaff were introduced to patient safety and quality improvement programs within USA Hospitals and associated healthcare settings. Residents gain experience in promoting patient safety and quality improvement by engaging in projects guided by their GME programs.

The USA Office of Graduate Medical Education hosted the Teaching for Quality Workshop (Te4Q), a faculty development program of the Association of American Medical Colleges (AAMC), on September 11 – 12, 2016. The purpose of the program at USA Health was to facilitate the development of interdisciplinary/interprofessional quality improvement educational project teams with the purpose of teaching quality improvement techniques. In preparation, the participants completed independent learning through the Institute for Healthcare Improvement modules.

Participants included 35 faculty physicians and basic sciences faculty as well as hospital administration and quality improvement staff from USA Medical Center (USAMC) and USA Children's & Women's Hospital (USACW). The meeting was held at the USA Biomedical Library with over 97 percent attendance of anticipated faculty participants and resulted in development of five educator teams. On March 2, 2016, the five teams presented their projects, which included a USAMC-based project with the goal of integration of residents into USA Health patient safety and quality improvement processes and a USACW-based project to employ standardized methods across USA Health for all transitions in patient care.

Transitions in Patient Care and Supervision of Residents and Fellows

Resources are available to the housestaff via the USA GME Dropbox on transitions in patient care, including “The Top Ten List for a Safe and Effective Sign-out (Kemp et al: Arch Surg 2008; 143(10): 1008-1010; “Resident Sign-out: A Precarious Exchange of Critical Information in a Fast-Paced World (Borowitz, et al; Advances in Patient Safety: New Directions and Alternative Approaches) as well as quick references related to core measures. Project sites within Sakai were created and/or maintained by the GME staff, covering Central Line Insertion, Communication & Team Work, Patient Safety, Transitions in Care, and the QI Project Site. As described above, a USACW-based project was developed as the prototype to employ common methods across USA Health for all transitions in patient care

Resident and Fellows Physician Well Being

In recognition of the importance of compliance with ACGME duty hour standards, each program is charged with establishing a clinical learning environment that fosters compliance with the ACGME standards. Each program and the institution have developed policies and procedures governing duty hours. Residents log their duty hours into New Innovations, based on their program's policies and procedures. The GME Office oversees duty hour logging monthly, while

the GMEC oversees compliance. During the 2015 – 2016 academic year duty hour disparities represented less than 0.03% of over 90,000 reported workdays.

Faculty and Resident Professional Development

During the 2015 – 2016 academic year, the USA Office of Graduate Medical Education facilitated several faculty and resident development through several methods, including bringing the Teaching for Quality (Te4Q) Program to USA, engaging the Innovation in Learning Center in providing workshops for clinical faculty, and providing online resources through the Introduction to the Practice of Medicine and several SAKAI project sites. These programs provided over 680 developmental hours to faculty, fellows and residents.

Innovation in Learning Center Introduced into Departmental Grand Rounds

The USA Office of Graduate Medical Education worked with grand rounds coordinators to bring the Innovation in Learning Center staff into the clinical venues to provide faculty development for medical educators and instruction to residents as teachers. Brenda Litchfield, Ph.D., Professor, Department of Professional Studies and Director of Innovation in Learning Center, presented a workshop on learning styles with sessions were follows:

- December 3, 2015, Thursday at 8:00 AM, Internal Medicine Grand Rounds in the USAMC 2nd Floor Conference Center
- December 8, 2015, Tuesday at 12:00 PM, Radiology Grand Rounds in the USAMC Radiology Conference Room, USAMC Room 3333
- January 8, 2016, Friday at 7:00 AM, Orthopedic Surgery Grand Rounds in the Hearin-Chandler Auditorium at Mobile Infirmary
- January 14, 2016, Thursday at 5:00 PM, Psychiatry Grand Rounds at 1015 Montlimar Drive, Suite A-210 Mobile, AL 36609
- April 15, 2016, Friday at 8:00 AM, Pediatric Grand Rounds in the Atlantis Room in CWEB 1 at Children's and Women's Hospital

Introduction to the Practice of Medicine (IPM)

During the 2013 – 2014 academic year, the *Introduction to the Practice of Medicine (IPM)*, a set of web-based modules from the AMA, was introduced to meet the training needs of housestaff, including patient safety, quality improvement, transitions in care, cultural competence, residents as teachers, and professionalism. During the 2015 – 2016 academic year, all residents and fellows were required to complete the *IPM* modules on “Sleep Deprivation”, “Residents as Teachers” and “Cultural Competence in Healthcare”.

Program Coordinators' Professional Development

With the dramatic changes occurring in GME at USA and across the country, this meeting has become vital for the program coordinators in keeping themselves current on everything from changes in the USA Health System, changes in accreditation requirements, changes in the NRMP, to changes in New Innovations to address the other changes. To assist the program

coordinators in meeting the changing needs of their programs, the GME Office began incorporating staff/professional development into the monthly program coordinators' meeting. At the meetings, we have covered the topics of CMS Reimbursement as it relates to Program Letters of Agreement and Non-Hospital Setting Agreements, the use of the Program Director's Work Station (PDWS) for the NRMP Match, the use of New Innovations to meet documentation requirements for ACGME accreditation, Program Coordinators as Leaders and Motivators in Medical Education, and using MS Excel to analyze data in the GME Program Office.

Other Activities

The USA Office of Graduate Medical Education refined the USA Faculty Development Curriculum and maintained the USA online resources covering the following areas:

- Basics of Research
- Bioethics and Physician-Industry Ethics
- Delivering Bad News
- Faculty Development
- Neurology and Neuropathology
- New Resident Orientation
- PQRS - Physician Quality Reporting System: A CMS Quality Care Initiative
- Professionalism
- Resident Development, Resident Evaluation, and Residents as Teachers
- Surgery, Surgery Clerkship, STICU, and Surgical Critical Care

2015-2016
Summary of Activities
Medical Student Summer Research Program

The Forty Third Annual Medical Student Research Day was held on Friday, July 29, 2016 hosting over 150 attendees in the Medical Sciences Building for both oral and poster presentations. Thirty five first and second-year medical students participated in research projects with basic science and clinical faculty in the College of Medicine during the summer. A weekly seminar series introduced students to important research related topics. The program aims to highlight the relation between scientific discoveries and their application in clinical medicine.

Dr. John R. Perfect, James B. Duke Professor of Medicine and Chief of infectious Diseases, Duke University Medical Center was the keynote speaker. Dr. Perfect's seminar was entitled, "*Cryptococcosis: What is known from a 40 year journey*".

Culmination of the summer's work was the presentation of ten oral and twenty five poster presentations at the Annual Medical Student Research Day. Student presentations and their faculty sponsors were as follows:

ORAL PRESENTATIONS

Calvin Baker, Rising Sophomore. Assessment of Vascular Endothelial Cell Dysfunction Following Short Term Changes in Vascular Flow. Sponsored by Mark Taylor, Ph.D. and David Weber, Ph.D., Department of Physiology and Cell Biology.

Natalie Carlisle, Rising Sophomore. Evaluation of Accuracy and Consistency Between Symptom Checkers for Diagnosis and Triage of infectious Disease-Related Symptoms. Sponsored by William K. Green, M.D. and Andrew C. Berry, D.O., Departments of Internal Medicine, Division of Infectious Disease.

Davis Diamond, Incoming Freshman. Targeting Cyclic-AMP Phosphodiesterases as a Therapeutic Approach for Heart Failure. Sponsored by Wito Richter Ph.D., Department of Biochemistry and Molecular Biology.

Chase Hoffman, Rising Sophomore. Five Dimensional Fret Measurements Reveal The Subcellular Distribution of cAMP Signals Savannah West, Naga Annamdevula. Sponsored by Thomas Rich, Ph.D., Department of Pharmacology, and Silas Leavesley, Ph.D., Department of Chemical Engineering and Center for Lung Biology.

Travis Bedsole Goodloe, III, Incoming Freshman. Validation of the Detection of BRAF and KRAS Mutations in Melanoma and Colorectal Cancers Using Real-Time PCR. Sponsored by Brett Baskovich, M.D., Department of Pathology.

Maelynn La, Rising Sophomore. The Association of Nonspecific T Wave Abnormalities with Ischemic Heart Disease. Sponsored by Christopher M. Malozzi, D.O. and Bassam Omar, M.D., Ph.D., Department of Internal Medicine, Division of Cardiology.

David Roveda, Jr., Rising Sophomore. Mapping the Genome Wide Landscape of Oxidative Base Damage in Hypoxia. Sponsored by Mark Gillespie, Ph.D., Department of Pharmacology.

Destini Smith, Incoming Freshman. The Effect of Health insurance Coverage and the Doctor-Patient Relationship on Health Care Utilization. Sponsored by Errol Crook, M.D. and Kenneth Hudson, Ph.D., Center for Healthy Communities.

Trevor Stevens, Rising Sophomore. Studies on the Physical Chemistry of an Endothelial Prion Cytotoxin. Sponsored by Ronald Balczon, Ph.D., Department of Biochemistry and Molecular Biology and Center for Lung Biology.

Jonathon Whitehead, Rising Sophomore. Burn-Wound Analysis in The Far Infrared. Sponsored by Jon D. Simmons, M.D. and Sidney B. Brevard, M.D., Divisions of Trauma, Burn, Acute Care Surgery and Surgery Critical Care and Cardiovascular and Thoracic Surgery, Department of Surgery.

POSTER PRESENTATIONS

Evan Chavers, Incoming Freshman. The Effect of the Antidiabetic Drug Metformin on Mitochondrial Dynamics. Sponsored by Abu-Bakr Al-Medhi, M.D., Ph.D., Department of Pharmacology.

Christopher Tidwell, Incoming Freshman. Comparative Analysis of GM-CSF-Specific Autoantibodies from Mice with and without Pulmonary Alveolar Proteinosis. Sponsored by Robert A. Barrington, Ph.D., Department of Microbiology and Immunology.

Michael Marfice, Incoming Freshman. Microparticle Uptake and Localization within Pulmonary Microvascular Endothelial Cells. Sponsored by Natalie Bauer, Ph.D., Department of Pharmacology.

Alexandra Van Haneghan, Rising Sophomore. Evaluation of Accuracy and Consistency Between online Symptom Checkers for Diagnosis and Triage of HIV and Hepatitis C Patients Presenting into the Emergency Room. Sponsored by William K. Green, M.D. and Andrew C. Berry, D.O., Department of Internal Medicine, Division of Infectious Disease.

Shivam Amin, Rising Sophomore. Discovery of 756 Novel, Putative Small RNAs (SRNAS) in Salmonella Enterica. Sponsored by Glen Borchert, Ph.D., Department of Pharmacology.

Joseph Anderson, Rising Sophomore. Incidence of Seizure Following Severe Traumatic Brain injury is Rare, Suggesting Seizure Prophylaxis May Not Be Necessary. Sponsored by Sidney Brevard, M.D.; Jon Simmons, M.D.; S. Noelle Davis, C.R.N.P.; Kaitlin McGinn, Pharm.D., Department of Surgery.

John Morgan, Rising Sophomore. Empiric Broad-Spectrum Antibiotic Selection for Early Ventilator Associated Pneumonia in Trauma Patients. Sponsored by Sidney Brevard, M.D.; Jon Simmons, M.D.; S. Noelle Davis, C.R.N.P.; Kaitlin McGinn, Pharm.D. Department of Surgery.

Chris Lasecki, Rising Sophomore. Using Geographic information Systems to Assess Intentional Injury at a Level 1 Trauma Center. Sponsored by Sidney Brevard, M.D.; Jon Simmons, M.D.; Steve Kahn, M.D.; Cindy Pritchett; Winnie Ngatha, Department of Surgery.

Jazmin Scott, Incoming Freshman. Interventions for Improving Health Promotion Practices in Persons Experiencing Homelessness: A Systematic Review of the Qualitative and Quantitative Literature. Sponsored by Clista Clanton, M.S.L.S. and Alison Rudd, Ed.D., M.S.N., R.N., Department of Biomedical Library.

Crawford Cox, Rising Sophomore. Analysis of Student Performance at USA on the Surgery Clerkship NBME After Full Implementation of a Team Based Learning Curriculum. Sponsored by Leander Grimm, Jr., M.D., Department of Surgery.

Robert William Lightfoot, Rising Sophomore. Barriers Contributing To Late Stage Presentation of Breast Cancer. Sponsored by Joel E. Lightner, M.D. and Donna Lynn Dyess, M.D., Departments of Radiology and Surgery

Seth Hill, Rising Sophomore. Maintenance Hormone Therapy for Control of Unresectable Breast Cancer. Sponsored by J. Spencer Liles, M.D., Lynn Dyess, M.D., Carole Norden, M.D., Jay Lightner, M.D., Department of Surgery and Radiology.

Alex Koichi, Rising Sophomore. FAK Regulates SOCS-3 Expression Via Changes in DNA Methylation. Sponsored by Steve Lim, Ph.D., Department of Biochemistry and Molecular Biology.

Jonathan Grammer, Rising Sophomore. The Role of Caveolin-1 Interaction in The Functional Coupling of SK3 and TRPV4 Channels. Sponsored by Mike Lin, Ph.D., Department of Physiology and Cell Biology.

Seth Lamb, Incoming Freshman. Economic Factors Related To White Middle Aged Suicide. Sponsored by Hosik Min, Ph.D. and Errol Crook, M.D., Departments of Sociology, Anthropology, and Social Work, Internal Medicine and Center for Healthy Communities.

Ana D. Perry, Rising Sophomore. Clinical Activities of Pre-Clinical Medical Students in a Longitudinal Ambulatory Experience. Sponsored by Carol P. Motley, M.D., Department of Family Medicine.

Mazen Omar, Rising Sophomore. Association of Stress Test Findings with the Presence and Extent of Coronary Artery Disease in Patient with VS without Diabetes. Sponsored by Ghazanfar Qureshi, M.D.; Bassam Omar, M.D.; and Mustapha Awan, M.D., Department of Internal Medicine, Division of Cardiology.

Josh Kay, Rising Sophomore. A Two-Prong Approach To Obtaining Constructs of Neil2 for Downstream Crystallization Applications. Sponsored by Aishwarya Prakash, Ph.D., Mitchell Cancer institute.

Jemimah Chen, Rising Sophomore. Early Follow Up of The Linx Reflux Management System for Gerd Patients. Sponsored by William Richards, M.D., Department of Surgery.

Sana Ozair, Rising Sophomore. Retrospective Review of Outcomes for Patients with Submassive or Massive Pulmonary Embolism Receiving Pulmonary Embolectomy Versus Anticoagulation Therapy. Sponsored by Jon D. Simmons, M.D. and Sidney B. Brevard, M.D., Department of Surgery, Divisions of Trauma, Burn, Acute Care Surgery and Surgery Critical Care and Cardiovascular and Thoracic Surgery.

Phillip Cato and Garrison Carlos, Rising Sophomore. Presence of Exosome Mediated Resistance in Abraxane Treated Pancreatic Cancer Cell Model. Sponsored by Ajay P. Singh, Ph.D. and Moh'd. Khushman, M.D., Mitchell Cancer institute.

Forest Lyon, Rising Sophomore. Impact of Long Acting Anesthetic, Transversus Abdominis Plane (TAP) Block After Colon Surgery. Sponsored by Joshua T. Taylor, M.D.; Paul Rider, M.D.; and Leander Grimm, M.D., Department of Surgery.

Connor William Kimbrell, Rising Sophomore. Depletion of Mitochondrial DNA: Impact on Mitochondrial Volume Density, Bioenergetics, and Ca²⁺ Signaling in Lung Microvascular Endothelium. Sponsored by Mary Townsley, Ph.D. and Mikhail Alexeyev, Ph.D., Department of Physiology and Cell Biology.

Ben McCormick, Incoming Freshman. OGR1 Mediates Proton-induced Signaling in the Brain. Sponsored by Xiangming Zha, Ph.D. and Walter Rusyniak, Jr., M.D., Department of Physiology and Cell Biology and Neurosurgery.

Lydia Sandy, Rising Sophomore. Lung Repair Mediated by Nanoparticle Delivery of Oligonucleotides: Effects on inflammatory Gene Expression in Experimental Asthma. Sponsored by William Gerthoffer, Ph.D., Department of Biochemistry and Molecular Biology.

The Clyde G. “Sid” Huggins Medical Student Research Awards were presented to Mr. Jonathon Whitehead, sophomore medical student, for best oral presentation entitled, “*Burn-Wound Analysis in the FAR infrared.*” He was sponsored by Jon D. Simmons, M.D. and Sidney B. Brevard, M.D., Divisions of Trauma, Burn, Acute Care Surgery and Surgery Critical Care and Cardiovascular and Thoracic Surgery. Mr. Connor Kimbrell, sophomore medical student, was presented best poster presentation entitled, “*Depletion of Mitochondrial DNA: Impact on Mitochondrial Volume Density, Bioenergetics, and Ca²⁺ Signaling in Lung Microvascular Endothelium*”. He was sponsored by Mary Townsley, Ph.D. and Mikhail Alexeyev, Ph.D., Department of Physiology and Cell Biology. Each winner was presented with a plaque of recognition and cash award.

Graduate Program in Basic Medical Sciences

Administration

Dr. Mark Taylor was elected as Director of Basic Medical Sciences Graduate Program in September, 2015, to serve a three-year term, beginning October 1, 2015.

Admissions

Graduate Program Office personnel process applications and host interviews for prospective students to the program. Interviews for Basic Medical Sciences Graduate Program Fall 2016 Class applicants were held in February, April, and May. A total of 11 students were interviewed (US=8; International=3). A summary of Admissions activity is provided below.

Admissions--BMS Graduate Program

		2016
Inquiries	US	53
	International	42
Applications	US	23
	International	3
Acceptances	US	7
	International	3
Matriculants	US	6
	International	2
	Average GRE	V=152; Q=151
	Av. UG GPA	3.64
	Av. GR GPA	4.00

Recruitment Activities

1. Dr. Taylor and Dr. Rich met with faculty colleagues at regional colleges and universities throughout the 2015 Fall semester. Ms. Flagge participated in the Alabama Connection Graduate Recruitment Expo and represented the graduate program on additional College Graduate Program and Career Day Expos in north Louisiana in October, 2015.
2. Students from undergraduate programs at USA attended the annual College of Medicine's Basic Medical Sciences Graduate Forum held in December, 2015.
3. Drs. Leavesley, Rich, and Taylor participated in presentations made to USA's Premedical Honors Society, Freshman Biomedical Sciences students and Engineering students.

Curriculum

1. The annual COM Research Forum was held on December 4, 2015. Plans are underway to hold the tenth annual COM Research Forum on November 4, 2016.
2. The BMS Graduate Program Executive Committee established the Edwin R. Hughes Memorial Award in 2006 to honor the outstanding student in the IDL Core Class on an annual basis. The award is presented annually on the first day of fall semester classes. Prior award recipients include: 2007-2008/Cristhiaan Ochoa; 2008-2009/Abdallah Al-Zoubi; 2009-2010/Heba Khader; 2010-2011/David C. Schmitt; 2011-2012/Joshua B. Phillips; 2012-2013/Tiffany S. Anderegg Norton; 2013/2014/Sabrina C. Ramilla, and 2014/2015/Mary C. Patton. Dr. Strada, Dean Emeritus for the College of Medicine, presented the ninth annual award to Barnita Haldar during the first-year Class Orientation on August 11, 2016.

New Programs/Policies/Requirements

Attention was directed at:

- a. enforcing stringent documentation of satisfactory progress between regular committee meetings.
- b. extending the length of first-year student rotations from 5-week rotation periods to three orientations, averaging 9 weeks in length.
- c. adopting stronger language to clarify and strictly enforce the deadline for graduate students to satisfactorily complete the qualifying exam by the end of the third year, as calculated from the respective student's matriculation date in the program.

BMSSO-Basic Medical Sciences Student Organization

BMSSO hosted speakers to address topics about employment opportunities with industry, governmental agencies, and biotech firms. The organization also hosted the annual Charles Baugh Dawg Day during Spring Semester, 2016. A Faculty Appreciation Gathering was held in August. BMSSO officers and members participated in organizing and hosting a Welcome reception at Dr. Gerthoffer's home for the entering 2016 Fall Class during orientation in August.

Extramural Support for Graduate Training

1. Six Basic Medical Science Graduate Students receive stipend support provided by the NIH Pre-doctoral Institutional Training Grant on "Cell Signaling and Lung Pathobiology."
2. Two BMS Graduate Program students received extramural grant awards through American Heart Association. National conference and annual meeting travel awards were also presented to BMS Graduate Program Students during the 2015-16 academic year.
3. In September, the Dean Emeritus, Dr. Strada, will select two students to receive SJS Career Enhancement Travel Awards and present the awards for students to travel to professional conferences in the 2016-2017 academic year.

Graduates

Eleven students officially completed all requirements during the academic year (September 2015-August 2016): Courey A. Averett, Reagan Meredith Barnett, Peter Francis Favreau, Leslie Anne Hargett, Pierre Kadeba, Kevin Joseph Lee, Rebekah Lynn Morrow, Kaori Oshima, Sara Catherine Sigler, Joshua Ryan Waldrup, and Ningyong Xu.

Courey A. Averett

DISSERTATION TITLE: Studies on the Anti-Tumor Activities of Honokiol in Pancreatic Cancer”

MAJOR PROFESSOR: Ajay P. Singh, Ph.D.

DEPARTMENT/TRACK: Cancer Biology-Mitchell Cancer Institute

CURRENT POSITION: Quality Control Editor; Research Square, Mobile, Alabama

Reagan Meredith Barnett

DISSERTATION TITLE: The Therapeutic Role of Isothiocyanates in Mismatch Repair-Deficient Ovarian Cancer

MAJOR PROFESSOR: Kumar Palle, Ph.D.

DEPARTMENT/TRACK: Cancer Biology-Mitchell Cancer Institute

CURRENT POSITION: Postdoctoral Fellow; MD Anderson Cancer Center, Houston, Texas

Peter Francis Favreau

DISSERTATION TITLE: An Excitation-scanning Hyperspectral Microscope for Imaging Exogenous and Endogenous Fluorescence”

MAJOR PROFESSOR: Silas F. Leavesley, Ph.D.

DEPARTMENT/TRACK: Biomedical Engineering--Lung Biology

CURRENT POSITION: Post-Doctoral Researcher, Morgridge Institute for Research, University of Wisconsin-Madison, Madison, Wisconsin

Leslie Anne Hargett Blair

DISSERTATION TITLE: Microparticles from a Rat Model of Severe Pulmonary Arterial Hypertension Increase ICAM-1 Expression in Pulmonary Artery Endothelial Cells”

MAJOR PROFESSOR: Natalie Bauer, Ph.D.

DEPARTMENT/TRACK: Pharmacology--Lung Biology

CURRENT POSITION: Cancer Registry Liaison; Zimmer Cancer Center at New Hanover Regional Medical Center, Wilmington, North Carolina

Pierre Kadeba

DISSERTATION TITLE: Role of the Large Molecular Weight Immunophilins in Regulation of Endothelial Store-Operated Calcium Entry”

MAJOR PROFESSOR: Donna L. Cioffi, Ph.D.

DEPARTMENT/TRACK: Biochemistry and Molecular Biology--Lung Biology

CURRENT POSITION: Unknown

Kevin Joseph Lee

DISSERTATION TITLE: Phosphodiesterase 10A, A Novel Target for Colorectal Cancer Therapeutics”
MAJOR PROFESSOR: Gary Piazza, Ph.D.
DEPARTMENT/TRACK: Cancer Biology-Mitchell Cancer Institute
CURRENT POSITION: Postdoctoral Fellow; Mitchell Cancer Institute, Mobile, Alabama

Rebekah Lynn Morrow

DISSERTATION TITLE: Changes in IgG Glycosylation in Pulmonary Arterial Hypertension”
MAJOR PROFESSOR: Donna L. Cioffi, Ph.D.
DEPARTMENT/TRACK: Biochemistry and Molecular Biology--Lung Biology
CURRENT POSITION: Assistant Professor, Alabama College of Osteopathic Medicine, Dothan, Alabama

Kaori Oshima

DISSERTATION TITLE: The Morphometric Analysis of Pulmonary Arterial Remodeling in Relation to Branching Patterns in Pulmonary Hypertension
MAJOR PROFESSOR: Masahiko Oka, M.D., Ph.D.
DEPARTMENT/TRACK: Pharmacology--Lung Biology
CURRENT POSITION: Postdoctoral Fellow/Trainee; Department of Medicine, Division of Pulmonary Sciences and Critical Care Medicine, University of Colorado, Denver, Colorado

Sarah Catherine Sigler

DISSERTATION TITLE: Validation of PDE5 as a Colon Cancer Target and Characterization of Novel Celecoxib Derivatives”
MAJOR PROFESSOR: Gary Piazza, Ph.D.
DEPARTMENT/TRACK: Cancer Biology-Mitchell Cancer Institute
CURRENT POSITION: Postdoctoral Fellow, Mitchell Cancer Institute, Mobile, Alabama

Joshua Ryan Waldrup

DISSERTATION TITLE: TRPV4-Mediated Relaxation of Pig Coronary Arteries is Dependent on Kca3.1 Channel Amplification of Endothelial Ca²⁺ Dynamics”
MAJOR PROFESSOR: Mark S. Taylor, Ph.D.
DEPARTMENT/TRACK: Physiology and Cell Biology--Vascular Biology
CURRENT POSITION: Center Manager; Grifols Biomat USA, Inc., Mobile, Alabama

Ningyong Xu

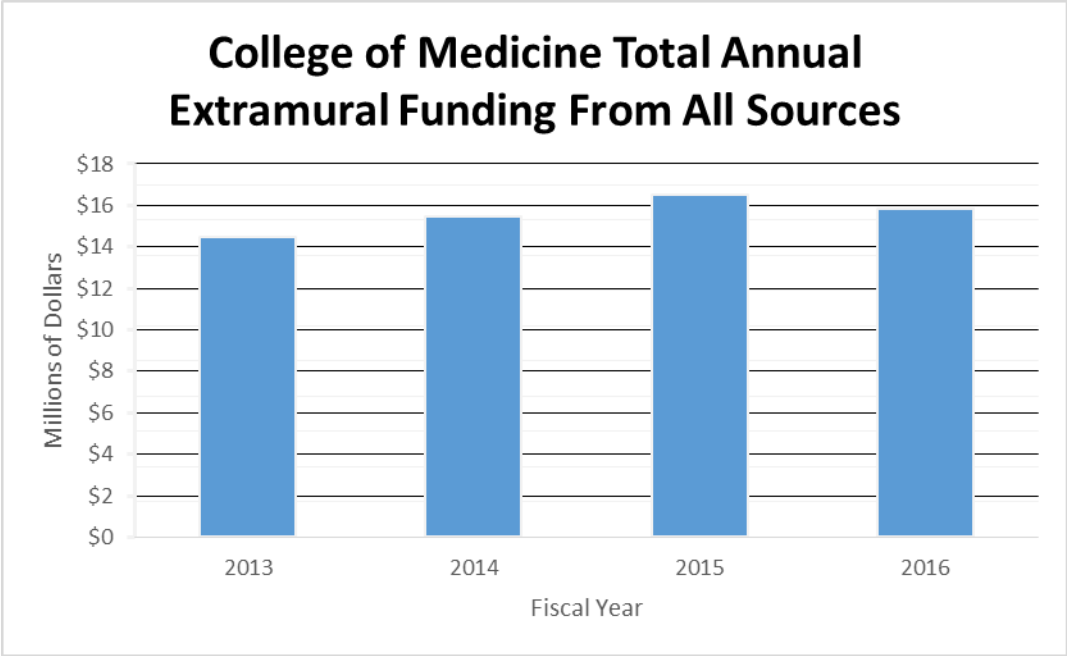
DISSERTATION TITLE: Ora1 Regulates Sodium Permeation through Store-Operated Calcium Entry Channels and Contributes to Endothelial Repair”
MAJOR PROFESSOR: Troy Stevens, Ph.D.
DEPARTMENT/TRACK: Physiology and Cell Biology-Lung Biology
CURRENT POSITION: Postdoctoral Fellow; Department of Physiology and Cell Biology, University of South Alabama College of Medicine, Mobile, Alabama

Summary of Extramural Support

Funding for the 2015-2016 academic year includes \$12,389,490 and \$3,443,293 in awards administered through the Office of Sponsored Programs and the South Alabama Medical Science Foundation, respectively.

**Extramural Funds
Totals for Last 4 Years**

2013	\$14,508,914
2014	\$15,457,365
2015	\$16,546,756
2016	\$15,832,783



**EXTRAMURAL FUNDING
(OCTOBER 1, 2015 – SEPTEMBER 30, 2016)**

BIOCHEMISTRY & MOLECULAR BIOLOGY

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Donna Cioffi	NIH 4 R01 HL107778-04	Immunophilins Regulate SOC Entry Channels in Pulmonary Endothelial Cells	\$371,250.00
William Gerthoffer	AMGEN INC 2016662627	Production of hTERT-BSM Cell Lines	\$70,184.00
William Gerthoffer	NIH 1 R21 A1 6985-01A1	MicroRNA Regulation of Airway Remodeling and Repair in Asthma	\$189,375.00
Steve Lim	AHA 16GRNT30960007	FAK Regulation of Vascular Smooth Muscle Cell Plasticity Via Epigenetic Control	\$77,000.00
Richter, Wito	CFF RICHTE16GO	Targeting cAMP Signaling and Phosphodiesterase in Cystic Fibrosis	\$108,000.00
Richter, Wito	161RG26430061-01	Regulation of PDE4 in Heart Failure	\$75,000.00
		Total	\$890,809.00

CENTER FOR DISASTER HEALTHCARE PREPAREDNESS

Principal Investigator	Agency	Project Title	Fiscal Year Funding
David Wallace	ADPH MP2016-06-10	Advanced Regional Response Training Center 2017 (ARRTC Training 2017)	\$957,544.00
David Wallace	ADPH C60112084 (GC-16-333)	Alabama Incident Management System 2017(AIMS 2017)	\$229,456.00
		Total	\$1,187,000.00

CENTER FOR HEALTHY COMMUNITIES

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Errol Crook	NIMHD 5 P20 MD002314-10	Broad Based Research Collaborative on Minority Health and Health Disparities	\$1,240,060.00
		Total	\$1,240,060.00

CENTER FOR STRATEGIC HEALTH INNOVATIONS

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Samuel Strada	CMMS 9185-02	Alabama Medicaid Maternity Contract	\$20,000
Samuel Strada	CMMS 11-1529373	Patient Care Network/PMP Portal	\$700,000.00
		Total	\$ 720,000.00

EMERGENCY MEDICINE

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Frank Pettyjohn	NIH PS# 107223-03	Cardiovascular Inflammation Reduction Trial (CIRT)	\$3,000.00
		Total	\$3,000.00

FAMILY MEDICINE

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Allen Perkins	HRSA 1 TOBHP30027-01-00	Caring for the Complex Patient in the PCMH	\$482,977.00
Allen Perkins	AFPRHB150457	A Student Curriculum in Family Medicine for the Medical Students at the Univ. of South Alabama College of Medicine	\$60,000.00
Allen Perkins	AFPRHB 150462	A Resident Curriculum in Rural Family Medicine at the USA Family Medicine Residency Program	\$26,000.00
Allen Perkins	AFPRHB 160043	Student Preceptorship	\$30,000.00
Total			\$598,977.00

GRADUATE PROGRAM IN BIOMEDICAL SCIENCES

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Silas Leavesley	AHA 16PRE27130004-01	The Spatial Distribution of PDE4 Isoforms Regulates the Compartmentalized cAMP Signals in PMVECs	\$26,000.00
Saami Yazdani	AHA 16PRE2735003	Keratose as a Novel Drug Carrier for Coated Balloons	\$26,000.00
Total			\$52,000.00

INTERNAL MEDICINE

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Ghulam Maustafa Awan	Bayer HealthCare Pharmaceuticals	An International, Multicenter, Randomized, Double-Blind, Placebo-Controlled Phase 3 Trial Investigating the Efficacy and Safety of Rivaroxaban to Reduce the Risk of Major Thrombotic Vascular Events in Patients with Symptomatic Peripheral Artery Disease Undergoing Lower Extremity Revascularization Procedures	\$5,000.00
Brooks Cash	NinePoint Medical	High Resolution Optical Imaging of Esophageal Tissue Using the Nvision VLE Imaging System Registry	\$12,816.00
Brooks Cash	Luitpold Pharmaceuticals	A Multi-Center, Randomized, Open-Label, Controlled Study to Investigate the Treatment Response of Intravenous Injectafer (Ferric Carboxymaltose) vs. Oral Iron to Baseline Hepcidin Levels in Patients with Iron Deficiency Anemina (IDA) Secondary to Inflammatory Bowel Disease (IBD)	\$4,500.00
Brooks Cash	PAION UK Ltd	A Phase III Study Evaluating the Efficacy and Safety of Remimazolam (CNS 7056) Compared to Placebo and Midazolam in Patients Undergoing Colonoscopy	\$9,708.00
Brooks Cash	Prometheus	The Development and Validation of a Blood Test to Identify IBS: DEFINE (Diagnostic Evaluation of Functional GI and IBS Networks)	\$9,613.14

INTERNAL MEDICINE (Cont'd)

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Brooks Cash	Prometheus	Procurement of Blood and Stool from Subjects with Symptoms of Chronic Diarrhea for Use in the Development of a Gastrointestinal Disease Test	\$9,784.95
Brooks Cash	Medtronic	Multicenter, Prospective, Randomized Study Comparing the Diagnostic Yield of Colon Capsule Endoscopy Versus Computed Tomographic Colonography in a Screening Population (the TOPAZ study)	\$2,410.00
Errol Crook	NIH HSR-SSS-S 14-003667-2	Gulf Study Biomedical Surveillance Clinical Examination	\$49,779.00
Mike Cohen	Boehringer-Ingelheim Pharmaceuticals	Gloria-AF: Global Registry on Long-term Oral Anti-thrombotic Treatment in Patients with Atrial Fibrillation	\$2,816.51
Michael Culpepper	Otsuka Pharmaceutical	Multi-center, Open-label, Extension Study to Evaluate the Long-term Efficacy and Safety of Oral Tolvaptan Tablet Regimen in Subjects with Autosomal Dominant Polycystic Kidney Disease (ADPKD)	\$27,620.00
Michael Culpepper	Frenova, LLC	TR02-A Randomized, Double-Blind, Placebo-Controlled, Parallel, 3-Arm Study of the Safety and Anti-Pruritic Efficacy of Nalbuphine HCL ER Tablets in Hemodialysis Patients with Uremic Pruritus	\$3,825.00
Michael Culpepper	Frenova, LLC	TR02Ext-An Open Label Extension Study of the Safety and Anti-Pruritic Efficacy of Nalbuphine HCL ER Tablets in Hemodialysis Patients with Uremic Pruritus.	\$14,175.00

INTERNAL MEDICINE (Cont'd)

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Michael Culpepper	Otsuka Pharmaceuticals.	A Phase 3b, Multi-Center, Randomized-Withdrawal, Placebo-Controlled, Double-Blind, Parallel-Group Trial to Compare the Efficacy and Safety of Tolvaptan (45 to 120mg/day, Split-Dose) in Subjects with Chronic Kidney Disease Between Late Stage 2 to Early Stage 4 Due to Autosomal Polycystic Kidney Disease	\$22,279.41
Michael Culpepper	Otsuka Pharmaceuticals	A Phase 3b, Multi-Center, Open-Label Trial to Evaluate the Long Term Safety of Titrated Immediate-Release Tolvaptan (OPC 41061, 30 mg to 120 mg/day, Split Dose) in Subjects with Autosomal Dominant Polycystic Kidney Disease	\$50,551.71
Jack DiPalma	Takeda	Entyvio (Vedolizumab) Long-Term Safety Study	\$3,750.00
Karen Fagan	Gilead Sciences	A Phase 2, Dose-Ranging, Randomized, Double-Blind, Placebo-Controlled Study of GS-4997 in Subjects with Pulmonary Arterial Hypertension	\$28,310.00
Christopher Malozzi	Sanofi US Service Inc	A Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study to Evaluate the Effect of SAR236553/REGN727 on the Occurrence of Cardiovascular Events in Patients Who Have Recently Experienced an Acute Coronary Syndrome	\$30,765.00
Bassam Omar	Novartis Pharmaceuticals	A Multicenter, Randomized, Double-Blind, Parallel Group, Active-Controlled Study to Evaluate the Efficacy and Safety of Both Aliskiren Monotherapy and Aliskiren/Enalapril Combination Therapy Compared to Enalapril Monotherapy, on Morbidity and Mortality in Patients with Chronic Heart Failure (NYHA Class II-IV)	\$8,136.29

INTERNAL MEDICINE (Cont'd)

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Bassam Omar	DalCor Pharma UK Ltd	A Phase III, Double-Blind, Randomized Placebo-Controlled Study to Evaluate the Effects of Dalcetrapib on Cardiovascular (CV) Risk in a Genetically Defined Population with a Recent Acute Coronary Syndrome (ACS): The dal-GenE Trial	\$4,000.00
Reynaldo Rodriguez	Braintree Laboratories	BLI4600-201 A Pilot Evaluation of an Experimental BLI4600 Formulation for Bowel Preparation in Adult Patients Undergoing Colonoscopy	\$76,999.70
Reynaldo Rodriguez	Braintree Laboratories	BLI4600-102 An Evaluation of Gas Production Following the Administration of Bowel Preparation for Colonoscopy	\$65,000.00
Reynaldo Rodriguez	Braintree Laboratories	BLI400-302 A Safety and Efficacy Evaluation of BLI400 Laxative in Constipated Adults	\$5,000.00
John Vande Waa	HRSA 5 H12 HA24771-05-00	USA Family Specialty Clinic	\$361,500.00
John Vande Waa	HRSA RW-USAF-1617	USA Family Specialty Clinic	\$134,285.00
Total			\$942,624.71

MICROBIOLOGY & IMMUNOLOGY

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Robert Barrington	ALA RG-349167	A Novel Mouse Model for Idiopathic Pulmonary Alveolar Proteinosis	\$40,000.00
Paul Brett	DOD HDTRA-14-C-0023	Antigenically Defined Vaccines for Immunization Against Melioidosis and Glanders	\$578,233.00
Paul Brett	DOD HDTRA1-14-C-0023	Antigenically Defined Vaccines for Immunization Against Melioidosis and Glanders	\$25,618.00
Paul Brett	TNPRC-Supplement	Melioidosis Rapid Latex Agglutination Tests	\$62,900.00
Mary Burtnick	DOD 160436	High-Affinity Monoclonal Antibodies that target Burkholderia Polysaccharides	\$123,362.00
Jarrold Fortwendel	NIH 5 RO1 AI106925-03	Fungal Ras-mediated invasive growth mechanisms	\$303,000.00
		Total	\$1,133,113.00

MITCHELL CANCER INSTITUTE (SAMSF Projects Only)

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Thomas Butler	Novartis Pharmaceuticals	A Randomized, Phase III, Double-Blind, Placebo-Controlled Multicenter Trial of Everolimus in Combination with Trastuzumab and Paclitaxel, as First Line Therapy in Women with HER2 Positive Locally Advanced or Metastatic Breast Cancer	\$12,603.00

MITCHELL CANCER INSTITUTE (Cont'd)

Principal Investigator	Agency	Project Title	Fiscal Year Funding
David Clarkson	Bristol Myers Squibb	A Phase 3, Randomized, Open Label Trial of Lenalidomide/Dexamethasone with or without Elotuzumab in Subjects with Previously Untreated Multiple Myeloma	\$21,568.99
David Clarkson	SOTIO	A Randomized, Double-Blind, Multicenter, Parallel-Group, Phase III Study to Evaluate Efficacy and Safety of DCV AC/Pca versus Placebo in Men with Metastatic Castration Resistant Prostate Cancer Eligible for 1 st Line Chemotherapy	\$16,884.90
David Clarkson	Puma Biotechnology	A Phase 1/2, Open-Label Study of Neratinib (HKI-272) in Combination with Capecitabine in Subjects with Solid Tumors and ErbB-2 Positive Metastatic or Locally Advanced Breast Cancer	\$15,581.02
David Clarkson	TG Therapeutics, Inc	A Multi-Center, Open-Label, Study to Evaluate the Safety and Efficacy of Ublituximab (TG-1101) in Combination with TGR-1202 for Patients Previously Enrolled in Protocol UTX-TGR-304	\$2,500.00
David Clarkson	TG Therapeutics, Inc	A Phase 3, Randomized, Study to Assess the Efficacy and Safety of Ubituximab in Combination with Ibrutinib Compared to Ibrutinib Alone, in Patients with Previously Treated High-Risk Chronic Lymphocytic Leukemia (CLL)	\$6,500.00
Moh'd Khushman	Eli Lilly	Safety and Effectiveness of Ramucirumab in Patients with Advanced Gastric Cancer in the European Union and North America: A Prospective Observational Registry (I4T-MC-JVDD)	\$2,500.00

MITCHELL CANCER INSTITUTE (Cont'd)

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Carole Norden	Genetech	An Observational Cohort Study of Treatment Patterns and Outcomes in Patients with HER2 Positive (HER2+) Metastatic Breast Cancer	\$16,002.51
Carole Norden	Genetech Inc	A Multicenter, Multinational, Phase II Study to Evaluate Pertuzumab in Combination with Trastuzumab and Standard Neoadjuvant Anthracycline-Based Chemotherapy in Patients with HER2-Positive, Locally Advanced, Inflammatory, or Early-Stage Breast Cancer	\$110,878.30
Carole Norden	Celldex Therapeutics	A Randomized Multicenter Pivotal Study of CDX-011 (CR011-vcMMAE) in Patients with Metastatic, GPNMB Over-Expressing, Triple-Negative Breast Cancer	\$2,236.50
Rodney Rocconi	Novartis Pharmaceuticals	Modular Phase II Study to Link Targeted Therapy to Patients with Pathway Activated Tumors: Module 3 - MEK 162 for Patients with RAS/RAF/MEK Activated Tumors	\$4,491.75
Rodney Rocconi	Gradalis, Inc.	Double-Blind, Placebo Controlled Phase III Trial of Maintenance FANG (bi-shRNA and GMCSF Augmented Autologous Tumor Immunotherapy) for High Risk Stage III/IV Ovarian Cancer	\$26,136.89
Jennifer Scalici	AbbVie Inc	A Phase 3 Placebo-Controlled Study of Carboplatin/Paclitaxel With or Without Concurrent and Continuation Maintenance Veliparib (PARP Inhibitor) in Subjects With Previously Untreated Stages III or IV High Grade Serious Epithelial Ovarian, Fallopian Tube, or Primary Peritoneal Cancer	\$13,250.00

MITCHELL CANCER INSTITUTE (Cont'd)

Principal Investigator	Agency	Project Title	Fiscal Year Funding
William Taylor	Novartis Pharmaceuticals	An Open-Label, Multicenter, Phase II Study to Compare the Efficacy and Safety of RAD001 as First-Line Followed by Second-Line Sunitinib Versus Sunitinib as First-Line Followed by Second-Line RAD001 in the Treatment of Patients with Metastatic Renal Cell Carcinoma	\$17,104.10
William Taylor	Genentech	STEAM (Sequencing Triplet with Avastin and Maintenance) : FOLFOXIRI/Bevacizumab Regimens (Concurrent and Sequential) vs. FOLFOX/Bevacizumab in First-Line Metastatic Colorectal Cancer	\$63,144.81
William Taylor	Sanofi US Services Inc	Prospective International Observational Cohort Non-Comparative Study Describing the Safety and Efficacy of ZALTRAP Administered in Combination with FOLFIRI for the Treatment of Patients with Metastatic Colorectal Cancer in Current Clinical Practice: A Post-Authorization Safety Study (PASS)	\$3,725.00
William Taylor	Halozyme, Inc	A Phase 2, Randomized, Multicenter Study of PEGPH20 (PEGylated Recombinant Human Hyaluronidase) Combined with nab-Paclitaxel Plus Gemcitabine Compared with nab-Paclitaxel Plus Gemcitabine in Subjects with Stage IV Previously Untreated Pancreatic Cancer	\$95,187.60

William Taylor	Holzyme, Inc.	A Phase 3, Randomized, Double-Blind, Placebo-Controlled, Multicenter Study of PEGylated Recombinant Human Hialuronidase (PEGPH20) in Combination with nab-Paclitaxel Plus Gemcitabine Compared with Placebo Plus nab-Paclitaxel and Gemcitabine in Subjects with Hyaluronan-High Stage IV Previously Untreated Pancreatic Ductal Adenocarcinoma	\$6,500.00
-----------------------	---------------	---	------------

Total **\$436,795.37**

NEUROLOGY

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Paul Maertens	UCB Biosciences	Phase 3, Multicenter, Double-Blind, Randomized, Placebo-Controlled Study to Investigate the Efficacy and Safety of Lacosamide as Adjunctive Therapy in Subjects with Epilepsy Greater or Equal to One Month to Less than or Equal to Four Years of Age with Partial Onset Seizures	\$3,750.00
Paul Maertens	UCB Biosciences	Phase 3, Open-Label Extension Study to Obtain Long-Term Safety and Efficacy Data in Pediatric Epilepsy Subjects with Partial Onset Seizures Treated with Lacosamide Oral Solution (Syrup) or LCM Tablets as Adjunctive Therapy	\$3,750.00
Elizabeth Minto	Novartis	Long-Term, Prospective, Multinational, Parallel-Cohort Study Monitoring Safety in Patients with MS Newly Started with Fingolimod Once Daily or Treated with Another Approved Disease-Modifying Therapy	\$3,000.00

NEUROLOGY(Cont'd)

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Elizabeth Minto Frank Pettyjohn	Bristol-Myers Squibb	A Phase 2, Placebo Controlled, Randomized, Double-Blind, Parallel-Arm Study to Evaluate Efficacy and Safety of BMS-986141 for the Prevention of Recurrent Brain Infarction in Subjects Receiving Acetylsalicylic Acid (ASA) Following Acute Ischemic Stroke or Transient Ischemic Attack	\$2,500.00
Juan Ochoa	Sage Therapeutics	A Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Safety of Sage-547 Injection in the Treatment of Subjects with Refractory Status Epilepticus Who Have Failed Standard Treatment	\$4,750.00
Total			\$17,750.00

OBSTETRICS & GYNECOLOGY

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Susan Baker	ADPH HRSA C601189058(GC-16-088)	FY 2015 Perinatal Coordinator Grant	\$11,500.00
Susan Baker	Sequenom	SQNM-T21-107 - Collection of Whole Blood Specimen from Pregnant Women at Increased Risk for Fetal Chromosomal Abnormality for Use in Development of a Noninvasive Prenatal Test in the Detection of the Relative Quantity of Chromosomal Material in Circulating Cell-Free DNA Extracted from Maternal Plasma	\$57,625.00

OBSTETRICS & GYNECOLOGY(Cont'd)

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Susan Baker	rEVO Biologies	Prospective Randomized Double-Blind, Placebo-Controlled Evaluation of the Pharmacokinetics, Safety and Efficacy of Recombinant Antithrombin Versus Placebo in Preterm Preeclampsia (PRESERVE-1), Protocol no. RB AT PPE 01-13	\$109,240.75
Brian Brocato	GlaxoSmithKline	A Randomized, Double-Blind, Multicenter, Phase III Study Comparing the Efficacy and Safety of Retosiban Versus Placebo for Women in Spontaneous Preterm Labor	\$2,500.00
Botros Rizk	AbbVie	A Phase 3 Study to Evaluate the Efficacy and Safety of Elagolix in Combination with Estradiol/Norethindrone Acetate for the Management of Heavy Menstrual Bleeding Associated with Uterine Fibroids in Premenopausal Women	\$7,500.00
Total			\$188,365.75
PEDIATRICS			
Principal Investigator	Agency	Project Title	Fiscal Year Funding
Karen Crissinger	Centocor, Inc.	A Multi-Center, Prospective, Long-term, Observational Registry of Pediatric Patients with Inflammatory Bowel Disease	\$11,510.50

PEDIATRICS (Cont'd)

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Karen Crissinger	AbbVie	A Long-Term, Non-Interventional Registry to Assess Safety and Efficacy of Humira (Adalimumab) in Pediatric Patients with Moderately to Severely Active Crohn's Disease (CD) – CAPE	\$3,930.00
Fabien Eyal	Shire Human Genetic Therapies	Determination of the rhIGF-1/rhIGFBP-3 Dose, Administered as a Continuous Infusion, Required to Establish and Maintain Longitudinal Serum IGF-1 Levels within Physiological Levels in Premature Infants, to Prevent Retinopathy of Prematurity	\$173,071.57
Fabien Eyal	Chiesi Farmaceutici S.P.A.	A Multicenter, Double-Blind, Randomized, Single Dose, Active-Controlled Study to Investigate the Efficacy and Safety of Synthetic Surfactant (CHF 5633) in Comparison to Porcine Surfactant (Poractant Alfa, Curosurf) in the Treatment of Preterm Neonates with Respiratory Distress Syndrome	\$3,500.00
Fabien Eyal	Abbott Laboratories	Comparison of Two Human Milk Fortifiers in Preterm Infants	\$9,600.00
Fabien Eyal	Shire Human Genetic Therapies	Long-Term Outcome of Children Enrolled in Study ROPP-2008-01 Treated with rhIGF-1/rhIGFBP-3 for the Prevention of Retinopathy of Prematurity (ROP) or Who Received Standard Neonatal Care	\$4,000.00
Anne-Marie Kaulfers	ADPH C60118075	Endocrinology Clinic for State Newborn Screening Program	\$30,101.00

PEDIATRICS (Cont'd)

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Ananthasekar Ponnamballam	Sucampo Pharma Americas, LLC.	A Multicentre, Randomised, Placebo-Controlled, Double-Blind Study of the Efficacy, Safety, and Pharmacokinetics of Lubiprostone in Paediatric Subjects Aged 6 or Greater to Less than or Equal to 18 Years with Functional Constipation	\$2,099.00
Abdul Siddiqui	Bayer HealthCare Pharmaceuticals	Trends in Emergency Room Management of Patients with Hemophilia	\$3,375.00
Abdul Siddiqui	Mast Therapeutics Inc	Evaluation of Purified Poloxamer 188 in Children in Crisis (EPIC): A Phase 3 Randomized, Double-Blind, Placebo-Controlled, Multicenter Clinical Trial of ANX-188 (purified poloxamer 188) Injection in Children with Sickle Cell Disease Experiencing Vaso-Occlusive Crisis	\$27,838.00
Felicia Wilson	NIH 9500080215-12C-02 Childrens Hospital of Philadelphia Subcontract	Children's Hospital Philadelphia, Non Industry Funding Per Case Reimbursement: NIH COG Chair Grant	\$17,050.00
Felicia Wilson	ADPH C50119079	Comprehensive Sickle Cell Center for State Newborn Screening Program	\$22,252.00
Felicia Wilson	9400120212-02 St. Baldrick	Children's Oncology Group Grant-Non Industry Funded Work Order	\$9,300.00
Total			\$317,627.07

PHARMACOLOGY

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Mark Gillespie,	NIH000508606-008	University of South Alabama Translational Research Service Center	\$141,032.00
Mark Gillespie	NIH 160405	UAB CCTS fee for Service Agreement to Fund Voucher Awards	\$15,000.00
Mark Gillespie	NIH 4 R01 HL113614-05	mtDNA Repair An Isolated Pharmacologic Target in Acute Lung Injury	\$371,250.00
Mark Gillespie	NIH 000508606-008-A01	University of South Alabama Translational Research Service Center	\$174,763.00
Mark Gillespie	NIH 5 R01 HL058234-15	DNA Lesions & Gene Expression in Hypoxic Lung Disease	\$378,750.00
Lyudmila Rachek	AHA 16 GRNT29150012	Defining Role of Mitochondrial DNA Damage and Repair in the Obesity and Insulin Resistance	\$77,000.00
Thomas Rich, & Diego Alvarez	NIH 5 P01 HL066299-15-PROJ 2	Lung Endothelial Cell Phenotypes – Project 2	\$335,348.00
Thomas Rich	NIH 080-18007-S11202	G Protein-Coupled Receptor Regulation in Airway Myocytes	\$33,413.00
		Total	\$1,526,556.00

PHYSIOLOGY & CELL BIOLOGY

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Mikhail Alexeyev	NIH 5P01 HL066299-15 CORE C	Lung Endothelial Cell Phenotypes- Core C*	\$272,826.00
Mikhail Alexeyev	DOD W81XWH-16-1-0096	Towards Humanized Mouse of Mitochondrial Disease	\$302,368.00
Mikhail Alexeyev	NIH 2 R01 OD010944-05	Mouse Models for Mitochondrial Disorders Caused by mtDNA Mutations	\$371,025.00
Diego Alvarez	NIH 1R01 HL118334-01A1	Caspase-1, the Microvascular Endothelium and Infection	\$378,750.00
Diego Alvarez	NIH 5P01 HL066299-14 CORE B	Lung Endothelial Cell Phenotypes-Core B*	\$358,353.00
Kyle Morrow	AHA 16 POST27250139	Endothelial Tau Oligomerization Causes Transmissible Vascular Cytotoxicity	\$50,092.00
Sarah Sayner	NIH 5 R01 HL121513-02	Bicarbonate Regulation of the Pulmonary Endothelial Barrier	\$303,000.00
Troy Stevens	NIH 5 P01 HL066299-15 CORE A	Lung Endothelial Cell Phenotypes-Administrative Core (Core A)*	\$526,444.00
Troy Stevens	NIH 5 PO1 HL066299-15 PROJ 1	Lung Endothelial Cell Phenotypes-Project 1*	\$345,386.00
Troy Stevens	NIH T632565 Emory University Subcontract	Cellular and Molecular Mechanisms of Acute Lung Injury in Sickle Cell Disease	\$96,525.00

***Program Project Grant**

PHYSIOLOGY & CELL BIOLOGY (Cont'd)

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Troy Stevens, Donna Cioffi, & Mikhail Alexeyev	NIH 5 R37 HL060024-19	Store Operated Ca ²⁺ Entry: Lung Endothelial Permeability	\$412,459.00
Troy Stevens	INSMED 61C3F2AB0867	Insmed Studies:Testing a Therapy to Reverse Occlusive Neo-Intimal Lesions in Pulmonary Arterial Hypertension	\$268,647.00
Mary Townsley	NIH 5 T32 HL076125-13	Training in Cell Signaling and Lung Pathobiology	\$212,583.00
Xiangming Zha	NIH 1 R21 NS093522-01	OGR1 As a Novel Mediator of Acid Signaling in the Brain	\$189,375.00
Xiangming Zha	AHA 13SDG1397009-03	ASIC Trafficking and Ischemia-Induced Neuronal Damage	\$77,000.00
*Program Project Grant		Total	\$4,164,833.00
SURGERY			
Principal Investigator	Agency	Project Title	Fiscal Year Funding
Sidney Brevard	Bayer HealthCare Pharmaceuticals	A Prospective, Randomized, Double-Blind, Placebo-Controlled, Multicenter Study to Evaluate the Safety and Efficacy of Bay 41-6551 as Adjunctive Therapy in Intubated and Mechanically-Ventilated Patients with Gram-Negative Pneumonia	\$11,159.25

SURGERY (Cont'd)

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Lynn Dyess	Agendia, Inc	Multi Institutional Neo-Adjuvant Therapy Mamma print Project (MINT)	\$3,400.00
William Richards	Torax Medical	A Multi-Site, Post -Market Approval Clinical Trial to Assess the Effectiveness of the Sponsor's LINX Implantable Device (the "Device") as Compared to Proton-Pump Inhibitors (PPIs) According to the Clinical Protocol	\$12,380.00
Paul Rider	Innocoll Pharmaceuticals	A Phase3, Randomized, Double-Blind, Placebo-Controlled Study to Investigate the Efficacy and Safety of the XaraColl Bupivacaine Implant (300mg Bupivacaine Hydrochloride) After Open Lararotomy Hernioplasty	\$182,504.00
Paul Rider	Innocoll Pharmaceuticals	A Health Economic Study of Two Phase 3, Randomized, Double-Blind, Placebo-Controlled Studies to Investigate the Efficacy and Safety of XaraColl Bupivacaine Implant (300mg Bupivacaine Hydrochloride) After Open Laparotomy Hernioplasty	\$10,875.00
Paul Rider	Excited States LLC	Phase 3 Study of Efficacy and Safety of Topical E-101 Solution to Prevent Incisional Infections Among Colorectal Surgery Patients	\$22,780.90
Jon Simmons	NIH 1 K08 GM109113-01A1	mtDNA DAMPS A Pharmacologic Target in Multi-Organ System Failure	\$189,000.00
Jon Simmons	American College of Surgeons 160372	Mitochondrial DNA DAMP's, A Pharmacological Target in Multiple Organ Dysfunction Syndrome	\$45,000.00

SURGERY (Cont'd)

Principal Investigator	Agency	Project Title	Fiscal Year Funding
Marcus Tan	NIH PROTOCOL #S1505	Protocol S1505-Credit NRG Oncology Foundation	\$2,250.00
Marcus Tan	Amgen	A Phase 3b, Multicenter, Open-Label, Single-Arm, Expanded Access Protocol of Talimogene Laherparepvec for the Treatment of Subjects with Unresected, Stage IIIB to IVM1a Melanoma	\$2,697.00
Total			\$482,046.15