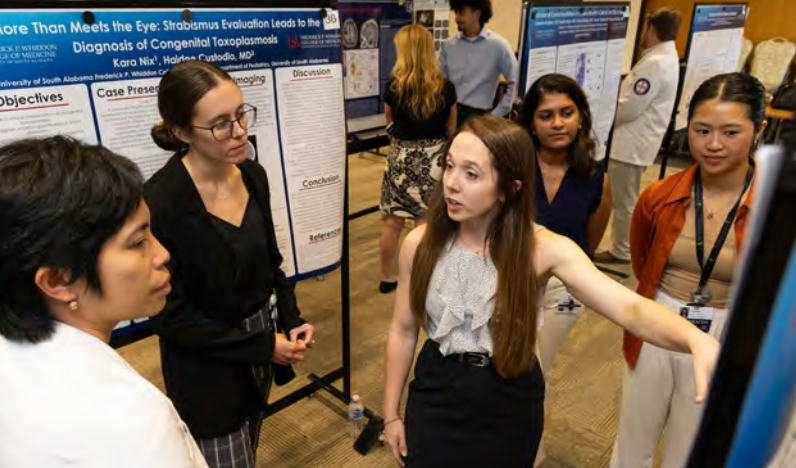




Annual Report

October 1, 2023 - September 30, 2024

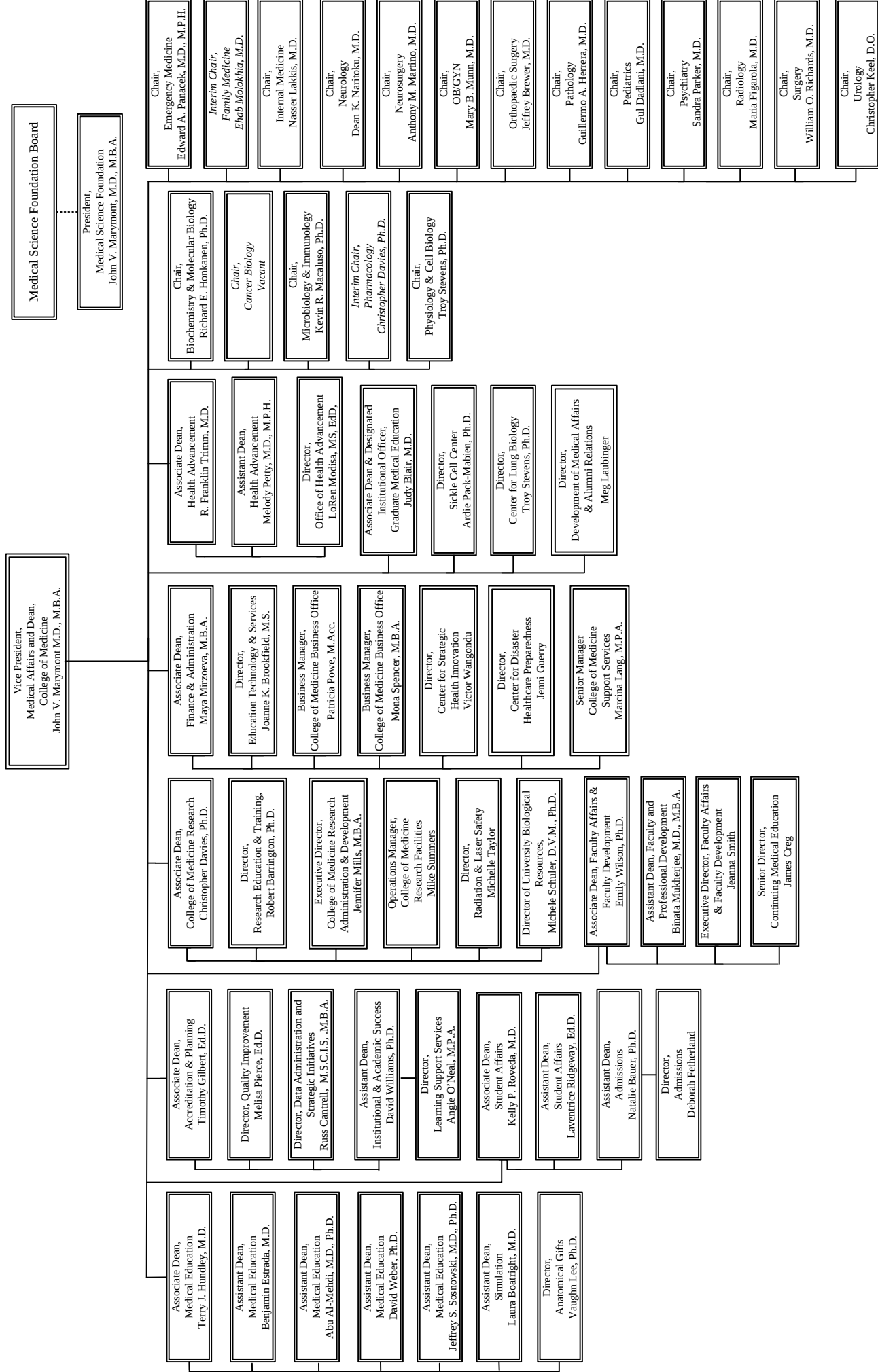
LSA FREDERICK P. WHIDDON
COLLEGE OF MEDICINE
UNIVERSITY OF SOUTH ALABAMA



**ANNUAL REPORT
UNIVERSITY OF SOUTH ALABAMA
WHIDDON COLLEGE OF MEDICINE**

October 1, 2023 through September 30, 2024

USA Frederick P. Whiddon College of Medicine
Organizational Chart
February 1, 2025



Oct. 1, 2023 – Sept. 30, 2024

FOREWORD

The 2023-2024 annual report celebrates the outstanding accomplishments of the faculty, staff and students of the Frederick P. Whiddon College of Medicine in the areas of teaching, research, scholarship and community service. These milestones reflect the unwavering dedication and commitment of our entire College community.

As we continue to make significant strides, we look forward to the completion of our new state-of-the-art College of Medicine building, scheduled to be finished in December 2026. This transformative project recently received its largest individual donation to date – \$5 million from native Mobilian and local businessman Elliot B. Maisel. His generous contribution brings us closer to realizing a \$200 million facility that will expand our capacity to graduate more physicians while driving forward research and innovation at the University.

The Class of 2024, who began their medical journey at the height of the pandemic, celebrated Match Day in the spring. Fifty-six of our students matched out of state, and 18 matched in Alabama, with 12 of them securing residency positions in USA Health hospitals.

This year also saw the arrival of dynamic new leaders who will help guide us into the future. Maya Mirzoeva, MBA, was named associate dean for finance and administration, while Laura Boatright, M.D., was appointed assistant dean for medical education. Jennifer Mills, MBA, joined as executive director of the Research Administration and Development Office. Additionally, after serving as interim chair, Jeffrey L. Brewer, M.D., was appointed chair of the Department of Orthopaedic Surgery.

The collective and individual achievements highlighted in this report are the result of the dedicated efforts of our exceptional faculty, staff and students. I offer my sincere thanks to each of them for their continued commitment to excellence.

John V. Marymont, M.D., MBA.
Vice President for Medical Affairs
Dean, Frederick P. Whiddon College of Medicine

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2023-2024
Summary of Scholarly Activities
Department of Biochemistry and Molecular Biology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Balczon R, Lin MT, Voth S, Nelson AR, Schupp JC, Wagener BM, Pittet JF, Stevens T. Lung endothelium, tau, and amyloids in health and disease. *Physiol Rev*. 2024 Apr 1;104(2):533-587.

David A, Golparian D, Jacobsson S, Stratton C, Lan PT, Shimuta K, Sonnenberg P, Field N, Ohnishi M, Davies C, Unemo M. In silico gepotidacin target mining among 33213 global *Neisseria gonorrhoeae* genomes from 1928 to 2023 combined with gepotidacin MIC testing of 22 gonococcal isolates with different GyrA and ParC substitutions. *J Antimicrob Chemother*. 2024 Sep 3;79(9):2221-2226.

Rameh LE, Blind RD. 25 Years of PI5P. *Front Cell Dev Biol*. 2023 Oct 2;11:1272911.

Renema P, Pittet JF, Brandon AP, Leal SM Jr, Gu S, Promer G, Hackney A, Braswell P, Pickering A, Rafield G, Voth S, Balczon R, Lin MT, Morrow KA, Bell J, Audia JP, Alvarez D, Stevens T, Wagener BM. Tau and A β ₄₂ in lavage fluid of pneumonia patients are associated with end-organ dysfunction: a prospective exploratory study. *PLoS One*. 2024 Feb 23;19(2):e0298816.

Thompson MK, Sharma N, Thorn A, Prakash A. Deciphering the crystal structure of a novel nanobody against the NEIL1 DNA glycosylase. *Acta Crystallogr D Struct Biol*. 2024 Feb 1;80(Pt 2):137-146.

Turner JM, Stratton CM, Bala S, Cardenas Alvarez M, Nicholas RA, Davies C. Ureidopenicillins are potent inhibitors of penicillin-binding protein 2 from multidrug-resistant *Neisseria gonorrhoeae* H041. *ACS Infect Dis*. 2024 Apr 12;10(4):1298-1311.

Wu CG, Balakrishnan VK, Merrill RA, Parihar PS, Konovolov K, Chen YC, Xu Z, Wei H, Sundaresan R, Cui Q, Wadzinski BE, Swingle MR, Musiyenko A, Chung WK, Honkanen RE, Suzuki A, Huang X, Strack S, Xing Y. B56 δ long-disordered arms form a dynamic PP2A regulation interface coupled with global allostery and Jordan's syndrome mutations. *Proc Natl Acad Sci U S A*. 2024 Jan 2;121(1):e2310727120.

II. PUBLISHED ABSTRACTS

Bala S, Stratton C, Nicholas RA, Davies C. Structural dynamics of penicillin-binding protein-2 encoded by the globally spreading *penA60.001* allele. 3rd *Neisseria gonorrhoeae* Research Society Conference [virtual meeting]; 2024 Jun 3-6; Wilmette, IL. p.63.

Bolus HJ, Smolen K, Carter J, Halmai J, Li C, Solodushko V, Carpenter C, Roberts J, Swingle M, Fink K, Kettenback A, Honkanen R. Unraveling the pathophysiology of

Jordan's syndrome: a proteogenomic approach. The Allied Genetics Conference; 2024 Mar 6-10; Washington, DC. p. 695. Abstract no. 1873T.

Galappaththi S, Katz B, Howze PH 4th, Hoover G, Grelet S. A CRISPR/Cas9-based assay for high-throughput studies of cancer-induced innervation. Cancer Neuroscience Symposium; 2024 Feb 28-Mar 1; Houston, TX. Abstract no. 25.

Hoover G, Curley O, Hixson W, Cioroch A, Grelet S. Intercellular mitochondrial transfer: real-time monitoring and lineage cell tracing with novel reporter systems unveil roles in cancer innervation. Journal of Mitochondria, Plastids and Endosymbiosis. 2023 Nov 22;1(Sup 1):14-15. Available from: <https://www.tandfonline.com/doi/epdf/10.1080/28347056.2023.2270281?needAccess=true>

Hoover G, Curley O, Obellianne C, Hixson W, Galappaththi S, Grelet S. Decoding the intercellular mitochondrial transfer at the nerve-cancer interface. Cancer Neuroscience Symposium; 2024 Feb 28-Mar 1; Houston, TX Abstract no. 3.

Patterson M, Chokshi S, Scalici J, Prakash A. Gene-environment synergisms and their role in cancer progression. Environmental Mutagenesis and Genomics Society Annual Meeting; 2024 Sep 7-11; Palm Springs, CA. Abstract no. P08. Available from: <https://virtual.oxfordabstracts.com/#!/event/public/4673/submission/85>

Pittman M, Thompson M, Eggers M, Prakash A. NEIL1-Nanobody epitope determination. Environmental Mutagenesis and Genomics Society Annual Meeting; 2024 Sep 7-11; Palm Springs, CA. Abstract no. PS049. Available from: <https://virtual.oxfordabstracts.com/#!/event/public/4673/program-codes>

Rameh L, York J, Blind R. Multiple inositol phosphate species enhance stability of active mTOR. Nutrient-Sensing and Signaling in Metabolism, FASEB Science Research Conferences; 2024 Aug 4-8; Southbridge, MA. Abstract no. P32.

Stratton CM, Bala S, Bivins M, Nicholas RA, Davies C. Tyrosine-422 is important for both β -lactam acylation and transpeptidation in penicillin-binding protein 2 from multidrug-resistant *Neisseria gonorrhoeae* H041. 3rd *Neisseria gonorrhoeae* Research Society Conference [virtual meeting]; 2024 Jun 3-6; Wilmette, IL. p. 16.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Davies C. Invited speaker. Ureidopenicillins are potent inhibitors of penicillin-binding protein 2 from multidrug-resistant *Neisseria gonorrhoeae* H041 [virtual presentation]. 3rd *Neisseria Gonorrhoeae* Research Society Conference; 2024 Jun 3; Wilmette, IL.

Grelet S. Invited speaker. Cancer metastasis: the battles of cancer cells, the challenge for scientists (the war of energy). MCI Community Advisory Council Quarterly Meeting; 2024 Aug 1; Fairhope, AL.

Grelet S. Invited speaker. Intercellular mitochondrial transfer: real-time monitoring and lineage cell tracing with novel reporter systems unveil roles in cancer innervation. 14th World Congress on Targeting Mitochondria; 2023 Oct 11; Berlin, Germany.

Honkanen R. Invited speaker. Unraveling the pathophysiology of Jordan's syndrome: a proteogenomic approach. Jordan's Guardian Angels Research Update Meeting; 2024 July 11; Boston, MA.

Prakash A. Invited speaker. A structural approach to understanding the function of DNA repair complexes. Kansas City University College of Osteopathic Medicine; 2023 Nov 17; Kansas City, MO.

Richter W. Invited speaker. The role of individual PDE4 subtypes in the therapeutic and adverse effects of PAN-PDE4 inhibitors: insights from PDE4 knockout mice. Cyclic Nucleotide Phosphodiesterases Gordon Research Conference; 2024 Jun 20; Lewiston, ME.

V. NATIONAL PROFESSIONAL RECOGNITION

Ronald Balczon: Journal editor or editorial board member: *Biology on-line journal*, *Frontiers in Medicine*. Reviewer, Gorgas Scholarship Program: Alabama Academy of Sciences. Judge, Mobile County Science Fair, Oral presentations: Alabama Academy of Sciences, Summer Student Research Day. Chief Proctor, NBME Mini-board Exams.

Christopher Davies: Study sections for grant review: Panel member Drug Discovery and Molecular Pharmacology A (DMPA) Study Section.

Simon Grelet: Study sections for grant review: COM Dean's Predoctoral Fellowship, COM Intramural Grants Program 2023-2024, Center for Clinical and Translational Science Pilot Program. Journal peer review: *Bioengineered*, *Molecular Cancer Research*, *Journal of Hematology & Oncology*, *Cancer Biology and Therapy*, *EBioMedicine – The Lancet Discovery Science*, *Cancer Letters*. Judge – MCI Research Day.

Richard Honkanen: Study sections for grant review: ZTR1 RD-1 NCATS Special Emphasis Panel (SEP) Understudied Proteins Associated with Rare Diseases panel member, ZTR1 RD-8 (01) NCATS, Special Emphasis Panel/Scientific Review Group 2024/05 panel member, ZTR1 RD-7 NCATS Special Emphasis Panel (SEP) Understudied Proteins Associated with Rare Diseases panel member. KU Leuven, Belgium: Ph.D. Jury member (Expert External Evaluation of Ph.D. students at midterm exams, dissertation, and final defense).

Lucia Plant: Ad hoc Reviewer: American Association for the Advancement of Science, King Abdulaziz City for Science and Technology Program. Member: International Association of Medical Science Educators, American Diabetes Association.

Aishwarya Prakash: 2024 recipient of the Samuel H. Wilson Award for studies on DNA Repair. Study sections for grant review: NIH/NIEHS ZES1 ARL-S (R1) 1, NIH Fellowship applications ZRG1 F08-L (20), NIH ZRG1-BN-Z52, NIH/NIEHS ZCA1 SRB-K (J2) S (R21/R03 NCI), NIH/S10 1S10OD024978. Journal editor or editorial board member: *Frontiers in Genetics*. Guest Associate Editor in *Cancer Genetics and Oncogenomics*. *Special Issue: Regulatory Networks in Genome Stability Pathways*; Environmental and Molecular Mutagenesis Member of the Editor's Choice Award Committee. Professional society leadership roles: Environmental Mutagenesis and Genomics Society, Executive Board, EMGS Council, DNA Repair Special Interest Group, Co-Chair/ Representative, Program Committee and Young Investigator co-chair; EMGS Annual meeting, Co-chair Women in the EMGS, Chair, Young Scientist Award Committee.

Wito Richter: Study sections for grant review: Cystic Fibrosis Research Inc.; NIH-ZRG1 CVRS-J (11) B - Small Business: Respiratory Sciences; Center for Scientific Review Special Emphasis Panel, 2023/05 Council ZRG1 RCCS-Q; Dunhill Medical Trust. Journal peer review: Ad hoc reviewer: *Cells*, *AJPLung*, *Endocrine*, *Biochemical Pharmacology*, *FASEB-J*, *Biology*, *IJMS*.

Mark Swingle: Editorial board member: *Frontiers in Molecular Biosciences*. Invited manuscript reviewer: ACS Pharmacology & Translational Science.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The Department of Biochemistry and Molecular Biology continues to play a vital role in advancing the University of South Alabama's mission of teaching, research, and service. Over the past year, the department has further strengthened its academic and research capabilities, highlighted by new faculty contributions, significant scholarly activities, and sustained community engagement. Faculty recruitment remains a priority, with a national search underway to attract diverse talent to enhance the department's multidisciplinary approach to biochemistry and molecular biology research.

The department remains deeply committed to its educational mission, contributing substantially to the undergraduate medical curriculum, particularly in foundational medicine, endocrinology, cardiovascular, and musculoskeletal modules. Faculty members continue to lead essential graduate courses, including the newly developed "Genome Engineering" course (IDL 590), directed by Dr. Mark Swingle, and other core courses such as IDL 576 and IDL 577, under the leadership of Drs. Swingle and Honkanen. These teaching efforts reflect a commitment to providing a comprehensive and integrated learning experience across all educational levels.

Graduate training remains a cornerstone of the department's mission. The department supports seven Ph.D. candidates, who receive intensive training in molecular and cellular

biology. This year, two students, Chelsie Carpenter and Caleb Stratton, mentored by Drs. Swingle and Davies respectively, graduated. Additionally, postdoctoral fellows continue to receive advanced training in the laboratories of Drs. Richter, Prakash, and Davies, who provide mentorship in innovative research areas. Dr. Abigail Boyd, continuing her research under Dr. Richter's mentorship, was awarded the prestigious Cystic Fibrosis Research Institute (CFRI) Elizabeth Nash Postdoctoral Research Fellowship. Faculty also actively mentor undergraduate and summer medical research trainees, such as Conner Hall, a medical student under Dr. Swingle's guidance, who received the Clyde G. Huggins Award for Summer Research.

The department's research productivity remains robust, with faculty members publishing in leading scientific journals and presenting at major national and international conferences. Notable research topics this year include tau, inositol phosphate species, protein phosphatases, antimicrobial resistance, phosphodiesterases, and novel findings in cancer and DNA damage repair. The department's research efforts continue to receive support from extramural funding sources, including the NIH, the Cystic Fibrosis Research Institute, and the Jordan's Guardian Angels Foundation, supplemented by internal funding from the College of Medicine and the University of South Alabama.

The department's faculty have received numerous invitations to speak at prestigious conferences, reflecting their leadership in their fields. Highlights include Dr. Richter presenting on PDE4 inhibitors at a Gordon Research Conference, Dr. Grelet's work on mitochondrial transfer in cancer at the World Congress on Targeting Mitochondria, and Dr. Prakash's presentation at the ONES-RIVER Symposium. Several faculty members have also been recognized for their contributions to professional societies and editorial boards, underlining their ongoing impact on the scientific community.

Dr. Aishwarya Prakash continues to be recognized for her outstanding research in cancer biology, serving in key leadership roles within the Environmental Mutagenesis and Genomics Society and receiving editorial appointments in notable journals. Dr. Prakash was the recipient of the 2024 Samuel H. Wilson Award for her studies on DNA repair, demonstrating her commitment to advancing knowledge in genome stability and cancer research.

The Department of Biochemistry and Molecular Biology has made significant progress this year, maintaining a strong research output, enhancing educational offerings, and broadening community engagement. With ongoing faculty recruitment, continued efforts to secure research funding, and an unwavering commitment to educational excellence, the department is poised for further success in the coming years.

2023-2024
Summary of Scholarly Activities
Department of Emergency Medicine

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Aggen CZ, Tobin GT, Cantrell CB, Wattenbarger SL, Martinez CJM. A man with pulsatile scalp lesion. J Am Coll Emerg Physicians Open. 2024 Feb 18;5(1):e13125.

Bender J, Musselwhite C. Spontaneous pneumomediastinum in an alcoholic cirrhotic. Vis J Emerg. 2024 Jan;34:101814.

Cantrell C, Sternberg M, Musselwhite C. Hemiballismus as the initial presentation for ischemic subthalamic stroke. Vis J Emerg Med. 2024 Jan;34:101835.

Carrasco TS, Sternberg M. A rare case of recurrent UTI [Internet]. In: Hoglund J, Gallegos M, editors. SAEM clinical images series. San Francisco: Academic Life in Emergency Medicine; 2023 Oct 6. Available from: <https://www.aliem.com/saem-clinical-images-series-a-rare-cause-of-recurrent-uti>

Gross S, Sternberg M. Intracranial abnormality [Internet]. In Hoglund J, Gallegos M, editors. SAEM clinical images series. San Francisco: Academic Life in Emergency Medicine; 2023 Oct 27. Available from: <https://www.aliem.com/saem-clinical-images-series-intracranial-abnormality/>

Heidel GM, Sternberg ML. Tarlov cyst, a rare but concerning diagnosis in back pain presentations. Vis J Emerg Med. 2024 Jan;34:101900.

Kendi SAI, Martinez CJ. Pediatric metabolic emergencies. In: Zeretzke-Bien CM, Swan TB, editors. Quick hits for pediatric emergency medicine. 2nd ed. Cham, Switzerland: Springer Nature; 2023. Chapter 22, p. 163-166.

Lee J, Sternberg M. Enigmatic traumatic hip pain [Internet]. In: Hoglund J, Gallegos M, editors. SAEM clinical images series. San Francisco: Academic Life in Emergency Medicine; 2023 Dec 22. Available from: <https://www.aliem.com/saem-clinical-images-series-enigmatic-traumatic-hip-pain/>

Martínez Martinez CJ, Molins C. Effective documentation. In: Olympia RP, Werley EB, Lubin JS, Yoon-Flannery K, editors. An emergency physician's path. Cham, Switzerland: Springer Nature; 2024. Chapter 69, p. 479-848.

Musselwhite C, Crider C. Trauma involving retained nasal cavity projectile from flare gun. Vis J Emerg Med. 2024 Jan;34:101888.

Sternberg S, Sternberg M. A case of painful skin lesions [Internet]. In: Hoglund J, Gallegos M, editors. SAEM clinical images series. San Francisco: Academic Life in Emergency

Medicine; 2023 Oct 20. Available from: <https://www.aliem.com/saem-clinical-images-series-case-painful-skin-lesions>

Swan TB, Martinez CJ. Electrolyte disturbances. In: Zeretzke-Bien CM, Swan TB, editors. Quick hits for pediatric emergency medicine. 2nd ed. Cham, Switzerland: Springer Nature; 2023. Chapter 17, p. 115-126.

Swan TB, Martinez CJ. Pediatric ventilator management. In: Zeretzke-Bien CM, Swan TB, editors. Quick hits for pediatric emergency medicine. 2nd ed. Cham, Switzerland: Springer Nature; 2023. Chapter 5, p. 27-32.

Werley EB, Miller K, Way DP, Hajicharalambous C, Martinez Martinez CJ, Molins C. A profile of orthopedic education in emergency medicine residency programs in the United States. Cureus. 2023 Nov 22;15(11):e49257.

II. PUBLISHED ABSTRACTS

Azmy M, Michael J, Sternberg ML. An uninvited guest on the mind. EMerald Coast Conference; 2024 Jun 3-6; Miramar Beach, FL. Abstract no.24-08. Available from: https://www.alacep.org/wp-content/uploads/2024/05/2024-ECC-Abstracts_web.pdf

Cross C, Sternberg ML. I get hoarse when I raise my arm! EMerald Coast Conference; 2024 Jun 3-6; Miramar Beach, FL. Abstract no. 24-12. Available from: https://www.alacep.org/wp-content/uploads/2024/05/2024-ECC-Abstracts_web.pdf

Garri R. Inhaled crack pipe screen – case of inhaled foreign body. Society of Academic Emergency Medicine Annual Meeting; 2024 May 14-17; Phoenix, AZ.

Link M, Garri R. Tension pneumocephalus as a cause of focal neurologic deficit in a geriatric trauma patient. EMerald Coast Conference; 2024 Jun 3-6; Miramar Beach, FL. Abstract no. 24-13. Available from: https://www.alacep.org/wp-content/uploads/2024/05/2024-ECC-Abstracts_web.pdf

Sternberg ML, Sternberg SA. An unusual presentation of exophytic tumor. Society of Academic Emergency Medicine Annual Meeting; 2024 May 14-17; Phoenix, AZ.

Stroud S, Sternberg ML. A not so “common blister”. EMerald Coast Conference; 2024 Jun 3-6; Miramar Beach, FL. Abstract no.24-03. Available from: https://www.alacep.org/wp-content/uploads/2024/05/2024-ECC-Abstracts_web.pdf

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Dhillon R. Invited speaker. Appendicitis. Society for Academic Emergency Medicine; 2024 May 17; Phoenix, AZ.

Martinez C. Invited speaker. The crashing child. EMerald Coast Conference; 2024 Jun 4; Miramar Beach, FL.

Martinez Martinez CJ, Molins CM. Invited speakers. Resuscitative hysterotomy model. MedTech Track, Council of Residency Directors in Emergency Medicine 2024 Academic Assembly; 2024 Mar 27; New Orleans, LA.

Panacek EA. Invited speaker. Pretest/introduction to workshop. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2023 Nov 6; Irvin, TX.

Panacek EA. Invited speaker. Process of research. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2023 Nov 6; Irving, TX.

Panacek EA. Invited speaker. Research questions. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2023 Nov 6; Irving, TX.

Panacek EA. Invited speaker. Research hypotheses, objectives. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2023 Nov 6; Irving, TX.

Panacek EA. Invited speaker. Research terminology. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2023 Nov 6; Irving, TX.

Panacek EA. Invited speaker. Introduction to study design. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2023 Nov 6; Irving, TX.

Panacek EA. Invited speaker. Practicum: your study design. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2023 Nov 6; Irving, TX.

V. NATIONAL PROFESSIONAL RECOGNITION

Martinez Martinez CJ. SAEM, Co-Chair; Education Research Interest Group; SAEM Member, Program Committee, Virtual Presence Committee and Education Committee (Objective Co-lead); ACEP Member, Education Committee and Academic Affairs Committee; AAEM, Member, Academic Affairs Committee; FCEP, Member, Program Committee.

Molins C. SAEM Education and Faculty Development Committee, Academic Assembly Planning Committee. ACEP Scientific Assembly Planning Committee, AAEM Planning Committee.

Plash WB. Wilderness Medical Society Membership Committee, Wilderness Medical Society Resident and Student Education Committee. Peer reviewer for Journal of Wilderness and Environmental Medicine. SAEM Wellness Committee, SAEM Wilderness Medicine Interest Group Executive Committee, WMS Conference Planning Committee.

Panacek EA. Director Emeritus; EMF Emergency Medicine Basic Research Skills Course (EMBRs); Moderator, Research Forum Research Abstract (ACEP); Moderator, Research Forum Research Abstract (SAEM); Senior Oral Examiner, American Board of Emergency Medicine; Editorial Board member, Western Journal of Emergency Medicine; Editorial Board member, International Journal of Emergency Medicine; Peer Reviewer for 5 different journals.

Sternberg ML. Board of Directors, Alabama ACEP, Vice-President and Board of Censors – Mobile County Medical Society, Mobile County District One Counselor to Medical Association State of Alabama, Chairman of the Board of Directors of Mobile County Department of Health. Board of Directors, Mobile Medical Museum.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The past year continued the growth, expansion and maturation of the department and its various programs. Multiple new faculty were hired to both expand and improve academic programs, as well as expand clinician hours and displace locums physicians in the free standing emergency department (FED). In addition to opening a new Pediatric ED, there have been significant increases in the size of all the ED clinical programs, opening the spectrum of educational activities, the volume of scholarship and levels of participation in service activities.

Clinical Activities: The three emergency departments experienced 5% overall growth in patient volumes. In particular, the freestanding emergency department in West Mobile has now been open for 2½ years and patient volumes are grossly exceeding initial projections by 50-100%. The University Hospital emergency department continues to be challenged by high levels of boarding of admitted patients and behavioral health-psychiatric patients. Some adjustments were made in patient clinical work flows, but boarding levels continue at an all-time high. Although “full” hospital diversion is improved, diversion continues at unacceptably high levels. The physician staffing of the FED has expanded the hours of coverage to address the very high patient volumes. The use of locum physician staffing has decreased substantially. As patient volumes continue to grow at the FED, hours of APP coverage and changes in work-flow are being implemented. The new Pediatric Emergency Department (called Pediatric Emergency Center) at CWH opened in March 2024. In terms of both size and capabilities, this is a gross improvement over the prior pediatric emergency department and will be the most sophisticated emergency facility in the state for caring for

acutely ill children. This is a major step forward and a true community treasure for pediatric care in the region.

Education: The maturing emergency medicine residency program strengthened its educational programs with increased use of simulation and a more refined curriculum. It was also approved by the ACGME to increase size from 6 to 10 residents per year. The residents continue to score above the national average on their standardized in-training exams, and graduates have all been successful (100%) in passing certification exams. The fourth year acting internships and visiting student programs is one of the most robust 4th year rotations for students at USA Health. The department continues to take a leadership role in simulation within the institution.

Scholarship: Peer review publications and other scholarly activities by EM faculty are slowly growing. Nonetheless, faculty scholarship is below expectations for an academic department and growing clinical research is a primary focus of the department in the years ahead.

Service and Leadership: Multiple EM faculty continue to be active nationally and internationally, as well as taking leadership positions regionally. Dr. Panacek serves on multiple journal editorial boards. Dr. Sternberg has been particularly active in leadership both on the board of directors of the state chapter of the American College of Emergency Physicians, but also as the President of the Medical Society of Mobile County and was Chair of the County Health Board. Historically, EM faculty were not very active on committee and other service activities at the College of Medicine and University level. However, this past year, several EM faculty have served on very active COM committees. This represents the highest level of EM faculty participation on College of Medicine committees and taskforces, in the history of the department. The department expects to continue this high level of participation and expand service activities.

2023-2024
Summary of Scholarly Activities
Department of Family Medicine

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

James J, Schultze SR, Lee A, Perkins A, Daniel CL. Proximity to hospital-based obstetric care in a maternity desert in the Deep South. Am J Public Health. 2024 May;114(S4):S330-S333.

Lee HY, Luo Y, Won CR, Daniel C, Coyne-Beasley T. HPV and HPV vaccine awareness among African Americans in the Black Belt Region of Alabama. J Racial Ethn Health Disparities. 2024 Apr;11(2):808-814.

Payne-Johnson A, Perkins R, Tran P, Wilson T, Millo T. Do ketogenic diets help pediatric patients with ADHD? Evid Based Prac. 2023 Nov 1;26(11):34-35.

Pfleeger J, Molokhia E, Harrison J, Marshall H, Patel D. In men with prostate cancer, is androgen deprivation therapy associated with increased cardiovascular risk? Evid Based Prac. 2023 Nov 1;26(11):15-17.

II. PUBLISHED ABSTRACTS

Daniel CL, Lee A, Brady K. Fraudulent responses in social media surveys: prevention and detection. American Public Health Association 2023 Annual Meeting & Expo; 2023 Nov 12-15; Atlanta, GA.

Poudel PG, Daniel CL, Brinkman TM, Ness KK, Hudson MH, Brandt HM. HPV vaccination among childhood cancer survivors: a review study. St. Jude Research Collaboratives; 2024 Mar 25; Memphis, TN.

Poudel PG, Daniel CL, Brinkman TM, Ness KK, Hudson MM, Brandt HM. HPV vaccination among childhood cancer survivors: Review. 2024 HPV Cancer Center Consortium Meeting; 2024 Apr 16-17; Lexington, KY.

Poudel PG, Daniel CL, Brinkman TM, Ness KK, Hudson MH, Brandt HM. HPV vaccination among childhood cancer survivors: a review study. Nursing Research and Psychosocial Services Symposium; 2024 May 8; Memphis, TN.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Daniel CL. Invited speaker. HPV vaccination in the U.S.: past and present challenges and strategies going forward [virtual presentation]. University of Alabama at Birmingham Center for Women's Reproductive Health Seminar Series; 2024 Apr 26; Birmingham, AL.

Daniel CL. Invited speaker. Oral cancers, HPV, and prevention. University of South Alabama Health Mitchell Cancer Institute Seminar Series; 2024 Apr 22; Mobile, AL.

Daniel CL. Invited speaker. HPV vaccination for childhood cancer survivors: paramount for prevention. St. Jude Children's Research Hospital HPV Cancer Prevention Program, International HPV Awareness Day 2024 Seminar Series; 2024 Mar 4; Memphis, TN.

Daniel CL. Invited speaker. HPV vaccine data in Alabama [virtual presentation]. Alabama Adolescent and Adult Vaccination Task Force Quarterly Meeting; 2024 Oct 30; Montgomery, AL.

Mukherjee B, Pfleeger J, Clanton C, Roca Garcia MR, Khalsa G, Custodio H. Invited speakers. Conversations to find one's truth: coaching in medical student education. 14th Annual South Alabama Conference on Teaching and Learning; 2024 May 8; Mobile, AL.

Perkins R, Pfleeger J. Invited speakers. The effect of implementing an enhanced primary care pathway in partnership with multiple federally qualified health centers. Society of Teachers of Family Medicine Spring Conference; 2024 May 6; Los Angeles, CA.

V. NATIONAL PROFESSIONAL RECOGNITION

Ehab Molokhia: was honored with the Red Sash Award in May 2024 by the University of South Alabama Whiddon College of Medicine (COM). The graduating class selects faculty who have had a meaningful impact on their educational career at the Whiddon COM or who have modeled professionalism in the students' professional development.

Ann Payne-Johnson: was honored with the Red Sash Award in May 2024 by the University of South Alabama Whiddon College of Medicine (COM). The graduating class selects faculty who have had a meaningful impact on their educational career at the Whiddon COM or who have modeled professionalism in the students' professional development.

Jenna Pfleeger: was honored with the Red Sash Award in May 2024 by the University of South Alabama Whiddon College of Medicine (COM). The graduating class selects faculty who have had a meaningful impact on their educational career at the Whiddon COM or who have modeled professionalism in the students' professional development.

VI. SUMMARY OF ACTIVITIES AND PROGRESS

The department has entered a partnership with Accordia (a local Federally Qualified Health Center) to better serve our local community and to position the department to be more impactful in delivering advanced primary care to our underserved populations. The department has continued to receive federal funding to implement an OB Fellowship. Dr.

Danielle Turnquest was hired as the new OB fellowship co-director. With this, we graduated the second class of Fellows in July 2024, and the third class started as well. We have entered a partnership with Andalusia Health to enhance the delivery of obstetrical services through our OB fellowship. We continue to receive funding for the Primary Care Pathway, enrolling the fourth class of students. The program has resulted in a noticeable increase in student interest in entering a career in primary care with the graduating class of 2024.

Dr. Peter Rippey continues to serve as the USA team physician. He also serves as the team physician for Springhill College and served as the medical director for their student health center during this past academic year.

Dr. Rebecca Sollie continues to serve as an Advanced Life Support in Obstetrics (ALSO) instructor and continues to offer this training to our providers within our USA system as well as our community providers.

The department's educational offerings were well received, with the clerkship being rated very highly. The residency program has relocated to a new facility on the campus of AltaPointe behind USA Health University Hospital on September 1, 2023, integrating with the local federally qualified health center. Patients have enjoyed access to enhanced pharmacy services.

The department-led Primary Care Pathway graduated its first class of PCP Scholars. Of the initial class of 10 students, 8 went into primary care (80%). The program now includes a Post-Baccalaureate program in the College of Allied Health that prepares students for careers in underserved medicine (Pre-PATH). The program will be featured on APHA TV at the American Public Health Association annual meeting.

The department has hired one new faculty, Dr. Danielle Turnquest. Dr. Molokhia continues to serve as interim Chair until a search can be conducted. Dr. Jenna Pfleeger has taken over as Assistant Director of the residency program and Dr. Jefferson will take over as the lead faculty member for the Primary Care Pathway.

2023-2024
Summary of Scholarly Activities
Department of Internal Medicine

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Brandon A, Singh KB, Sonnier W. The chest wall mass of unknown origin: a rare presentation of esophageal adenocarcinoma. Cureus. 2024 Apr 28;16(4):e59209.

Brown R, DiPalma JA. Bacterial overgrowth. In: McNally P, editor. Gastrointestinal and liver secrets. 6th ed. Philadelphia, PA: Elsevier; 2024. Chapter 44, p. 357-361.

Dennis D, Kumar S, Akta H, Fouty B, Schaphorst K. A diagnostic dilemma: clindamycin-resistant group A streptococcal toxic shock syndrome leading to acute respiratory distress syndrome (ARDS) with multiple possible sources. Cureus. 2024 Apr 13;16(4):e58212.

Kar J, Cohen MV, McQuiston SA, Poorsala T, Malozzi CM. Automated segmentation of the left-ventricle from MRI with a fully convolutional network to investigate CTRCD in breast cancer patients. J Med Imaging (Bellingham). 2024 Mar;11(2):024003.

Mir T, Uddin M, Ulbeh TM, Pervez E, Lohia P, Sattar Y, Abohashem S, Ullah W, Maganti K, Qureshi WT, Lakkis N. Clinical outcomes of aortic stenosis in amyloidosis: a United States national cohort study. Heart Lung Circ. 2024 Apr;33(4):443-449.

Mukherjee B, Shelley-Tremblay JF, Barber WH, Trepman E. Burnout, resilience, and mindfulness in healthcare workers in a medically underserved region during the COVID-19 pandemic. South Med J. 2023 Nov;116(11):888-896.

Patel AV, Morgan SL, Green R, Danila MI, Merriman TR, Wanzeck K, Ahmed H, Gaffo AL. Vitamin B12 status and hyperhomocysteinemia in patients with rheumatoid arthritis treated with methotrexate and folic acid. Am J Med Sci. 2024 Jul;368(1):33-39.

Rahman M, Riad M, Shah N, Ruiz B, Malik H, Odigwe C, Mulyala R, Omar BA, Malozzi CM. Frederick's syndrome: atrial fibrillation with complete heart block! Cardiofellows Newsletter. 2024 Apr;7(4):10-11. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/fredericks_syndrome_-_mustafeez.pdf

Riad M, Rahman MU, Mulyala R, Sayyed N, Bayer D, Omar B. Percutaneous intracardiac mass extraction in high surgical-risk patients. J Med Cases. 2023 Nov;14(11):362-368.

Singh KB, Khouri A, Singh D, Prieto J, Dutta P, Nnadozie MC, Clanton C, Morrison E, Sonnier W. Testing and diagnosis of Clostridioides difficile infection in special scenarios: a systematic review. Cureus. 2024 Apr 25;16(4):e59016.

Smith W, Rahman M, Shah N, Malozzi C, Omar B. Peripartum IVC thrombus: a McConnell's prelude! Cardiofellows Newsletter. 2024 May;7(5):12-14. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/ivc_thrombus_-_william_smith.pdf

Tuckey AN, Brandon A, Eslaamizaad Y, Siddiqui W, Nawaz T, Clarke C, Sutherland E, Williams V, Spadafora D, Barrington RA, Alvarez DF, Mulekar MS, Simmons JD, Fouty BW, Audia JP. Amyloid- β and caspase-1 are indicators of sepsis and organ injury. ERJ Open Res. 2024 Feb 26;10(1):00572-2023.

II. PUBLISHED ABSTRACTS

Avedisian Goulding T, Qureshi AM, Manan H, Riad M, Omar B. Recovery of cardiomyopathy following accessory pathway ablation. Circulation. 2023 Nov 7;148(Suppl_1):A15650. Available from: https://www.ahajournals.org/doi/10.1161/circ.148.suppl_1.15650

Carter M, Kumar S, Almalouf P. When abdominal pain and pseudo-stemi unleash paroxysmal granulomatosis. Am J Respir Crit Care Med. 2024 May;209:A2072. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A2072?role=tab

Cutrell PK, Singh KB, Kumar S, Almalouf P. Don't burst my bubble: a case of pulmonary artery pseudoaneurysm following right heart catheterization. Am J Respir Crit Care Med. 2024 May;209:A6046. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A6046?role=tab

Ellis ML, Kumar S, Elkadi O, Fouty BW. A real catastrophe: think beyond, think fast. Am J Respir Crit Care Med. 2024 May;209:A6739. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A6577?role=tab

Fahmawi Y, Tuckey A, Stevens T, Audia J, Kumar S, Solodushko V, Fouty BW. Elevated A β_{X-40} in transudative pleural effusions. Am J Respir Crit Care Med. 2024 May;209:A2500. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A2500?role=tab

Kondaveeti R, Kumar S, Stevens RP, Pastukh VV, Pastukh VM, Chung-Sik C, Ayers L, Spadafora D, Hartsell EM, Tambe DT, Audia JP, Fouty BW, Stevens T, Lee J. Fructose supports erythrocyte metabolism and inhibits erythrophagocytosis by pulmonary microvascular endothelial cells. Am J Respir Crit Care Med. 2024 May;209:A6806. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A6806?role=tab

Kumar S, Akta H, Daniels L, Fouty BW. Post surgical bleeding? May be not! Early sarcoidosis presenting as hemoptysis. Am J Respir Crit Care Med. 2024 May;209:A5910.

Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A5910?role=tab

Malik H, Riad MA, Rahman MU, Odigwe CI, Omar BA. When good is not good enough: thrombus in left atrial appendage remnant. J Amer Coll Cardiol. 2024 Apr 2;83(13_Suppl):4250. Abstract no. 1480-042. Available from: <https://www.jacc.org/doi/epdf/10.1016/S0735-1097%2824%2906240-5>

Malik H, Rahman MU, Riad MA, Ruiz B, Omar BA. Hiding in suprasternal sight! J Am Coll Cardiol. 2024 Apr 2;83(13_Suppl):4190. Abstract no. 1460-079. Available from: <https://www.jacc.org/doi/epdf/10.1016/S0735-1097%2824%2906180-1>

Marks D, Kumar S, Clukies M, Almalouf P. TB or not TB. Am J Respir Crit Care Med. 2024 May;209:A6577. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A6577?role=tab

Qureshi AM, Manan H, Goulding Avedisian T, Malozzi C, Omar B. Left atrial sarcoma mimicking myxoma in embolic stroke. Circulation. 2023 Nov 7;148(Suppl_1):A13693. Available from: https://www.ahajournals.org/doi/abs/10.1161/circ.148.suppl_1.13693

Riad M, Rahman M, Qureshi AM, Malik H, Manan H, Omar BA. Impact of subclavian stenosis on left internal mammary artery use during coronary artery bypass grafting. J Am Coll Cardiol. 2024 Apr 2;83(13_Suppl):4203. Abstract no. 1460-097. Available from: <https://www.jacc.org/doi/epdf/10.1016/S0735-1097%2824%2906193-X>

Riad MA, Rahman MU, Ruiz B, Malozzi CM, Awan GM, Omar BA. A distributary enigma of subclavian stenosis causing angina. J Am Coll Cardiol. 2024 Apr 2;83(13_Suppl):2719. Abstract no. 1023-11. Available from: <https://www.jacc.org/doi/epdf/10.1016/S0735-1097%2824%2904709-0>

Ruiz B, Malik H, Qureshi AM, Manan H, Omar BA. All pressures equal: hemodynamics of constrictive pericarditis. J Am Coll Cardiol. 2024 Apr 2;83(13_Suppl):4514. Abstract no. 1540-020. Available from: <https://www.jacc.org/doi/epdf/10.1016/S0735-1097%2824%2906504-5>

Sheikh M, Kumar S, Singh KB, Almalouf P, Fouty BW. Pleural invasion by a rare malignancy. Am J Respir Crit Care Med. 2024 May;209: A2693. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A2693?role=tab

Sheikh MDA, Singh KB, Almalouf P. A case of tracheal perforation leading to pneumomediastinum. Am J Respir Crit Care Med. 2024;209: A3631. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A3631?role=tab

Singh KB, Edwards K, Spencer C, Sonnier W. I (eye) spot a fungus ball in the heart: opportunistic pathogens in primary sclerosing cholangitis. Am J Gastroenterol. 2023 Oct;118(10S):S1523. Abstract no. S2099. Available from: https://journals.lww.com/ajg/fulltext/2023/10001/s2099_i__eye__spot_a_fungus_ball_in_the_heart_.2976.aspx

Singh KB, Kumar S, Almalouf P. From the sea to the ICU: the unexpected journey of *Vibrio vulnificus* compartment syndrome. Am J Respir Crit Care Med. 2024 May;209:A1683. https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A1683?role=tab

Singh KB, Sonnier W. Decoding the deceptive duo: discordant toxin results and fatal megacolon in *Clostridioides difficile* infection. Am J Gastroenterol. 2023 Oct;118(10S):S1708. Abstract no. S2431. Available from: https://journals.lww.com/ajg/fulltext/2023/10001/s2431_decoding_the_deceptive_duo__discordant_toxin.3478.aspx

Sonnier WP, Berry T. Successful treatment of pleural tuberculosis while on anti-tumor necrosis factor therapy for Crohn's disease. Am J Gastroenterol. 2023 Oct;118(10S):S2165-S2166. Available from: https://journals.lww.com/ajg/fulltext/2023/10001/s3262_successful_treatment_of_pleural_tuberculosis.1841.aspx

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Lakkis N. Invited speaker. Quality in healthcare. University of Houston College of Medicine Grand Rounds. 2024 Jan 30; Houston, TX.

V. NATIONAL PROFESSIONAL RECOGNITION

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The Department of Internal Medicine had a productive year with remarkable clinical achievements, faculty recruitment and development, research milestones, educational advancements, and community outreach. Clinically, our department was able to attract multiple talented faculty and leaders to join the department. We have successfully recruited 3 external division chiefs for Infectious Disease, Geriatrics and Endocrinology, and appointed two internal new division chiefs in Hospital Medicine and Gastroenterology. Additionally, we have hired multiple faculty members into our department, where we filled all the open faculty positions in Hospital Medicine, Nephrology, Infectious Disease and Pulmonary, including starting a new service for Interventional Pulmonology. We have also succeeded in promoting three faculty members, one to full professor and 2 others to

associate professors. Multiple faculty members have participated in leadership courses provided by the university to further their professional development. During the past year, we have successfully started an outpatient cardiology clinic at the Hillcrest location, and furthered our collaboration with the MDC primary care network at that location. Another major change in our department is the new policy we established to prevent abrupt clinic cancelations, which minimized unexpected disruptions in outpatient care across our department venues.

Our clinical productivity this year has matched the above implemented changes, where our department has increased its clinical productivity at all locations by over 20 percent.

The educational efforts of the department remain a major strength at both the GME and UME levels. Many faculty members served as educators, instructors, and course directors in multiple modules. Their efforts were reflected by the improved and positive feedback from our learners, as well as the pass rate in national exams and the increased interest of our students and trainees to join our training programs at the residency and fellowship level. Another major recognition is the continued accreditation of our parent Medicine program and all the subspecialty fellowships without citation. Finally, we are in the final stages to get ACGME approvals to start 2 new fellowship programs (Infectious Disease and Interventional Cardiology).

Our research productivity and national recognition remains consistent, where our faculty, fellows and residents have succeeded in publishing major articles in nationally reputable journals and our research was presented at multiple local, state and national podiums. Of note, the cardiology fellows won the Alabama Chapter American College of Cardiology Championship. Moreover, many faculty members were tasked with national courses and symposia directorships, along with invitations to speak at local and national grand rounds. Many faculty members and leaders were also interviewed by local TV channels to discuss various topics pertaining to public health issues and new innovations in medicine and unique services provided by our system to serve our patients and the Gulf Coast area. Finally, our teams led multiple community projects to provide aid to needy members of our community.

In conclusion, although our department enjoyed tremendous growth and continues its trajectory for excellence in clinical care, research, education and community service, we are determined to continue our efforts to reach our full potential and to stand out as an example for academic medicine at the University of South Alabama.

2023-2024
Summary of Scholarly Activities
Department of Microbiology and Immunology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Blackley SK, Lawrence J, Blevins A, Howell C, Butts CC, Polite NM, Capasso TJ, Bright AC, Hall KA, Haiflich AN, Williams AY, Kinnard CM, Mbaka MI, Audia JP, Simmons JD, Lee YL. A single hospital-wide antibiogram is insufficient to account for differences in antibiotic resistance patterns across multiple ICUs. *Am Surg*. 2024 Sep;90(9):2165-2169.

Buckley CT, Lee YL, Michele Schuler A, Langley RJ, Kutcher ME, Barrington R, Audia JP, Simmons JD. Deleterious effects of plasma-derived cellular debris in a porcine model of hemorrhagic shock. *Injury*. 2024 May;55(5):111300.

Danchenko M, Macaluso KR. Salivary glands of the cat flea, *Ctenocephalides felis*: dissection and microscopy guide. *Curr Res Insect Sci*. 2024 Apr 4;5:100080.

Laukaitis-Yousey HJ, Macaluso KR. Cat flea coinfection with *Rickettsia felis* and *Rickettsia typhi*. *Vector Borne Zoonotic Dis*. 2024 Apr;24(4):201-213.

Lee E, Williams KJ, McCarthy C, Bridges JP, Redente EF, de Aguiar Vallim TQ, Barrington RA, Wang T, Tarling EJ. Alveolar macrophage lipid burden correlates with clinical improvement in patients with pulmonary alveolar proteinosis. *J Lipid Res*. 2024 Feb;65(2):100496.

Li Z, McComic S, Chen R, Kim WTH, Gaithuma AK, Mooney B, Macaluso KR, Mulenga A, Swale DR. ATP-sensitive inward rectifier potassium channels regulate secretion of pro-feeding salivary proteins in the lone star tick (*Amblyomma americanum*). *Int J Biol Macromol*. 2023 Dec 31;253(Pt 1):126545.

Miller D, Schuler AM. What a tangled web of reviews we weave. *Lab Anim (NY)*. 2023 Dec;52(12):284.

Obellianne C, Norman PD, Esteves E, Hermance ME. Interspecies co-feeding transmission of Powassan virus between a native tick, *Ixodes scapularis*, and the invasive East Asian tick, *Haemaphysalis longicornis*. *Parasit Vectors*. 2024 Jun 15;17(1):259.

Renema P, Pittet JF, Brandon AP, Leal SM Jr, Gu S, Promer G, Hackney A, Braswell P, Pickering A, Rafield G, Voth S, Balczon R, Lin MT, Morrow KA, Bell J, Audia JP, Alvarez D, Stevens T, Wagener BM. Tau and A β 42 in lavage fluid of pneumonia patients are associated with end-organ dysfunction: a prospective exploratory study. *PLoS One*. 2024 Feb 23;19(2):e0298816.

Shea AE, Forsyth VS, Stocki JA, Mitchell TJ, Frick-Cheng AE, Smith SN, Hardy SL, Mobley HLT. Emerging roles for ABC transporters as virulence factors in uropathogenic *Escherichia coli*. Proc Natl Acad Sci U S A. 2024 Apr 16;121(16):e2310693121.

Tongluan N, Engström P, Jirakanwisal K, Langohr IM, Welch MD, Macaluso KR. Critical roles of *Rickettsia parkeri* outer membrane protein B (OmpB) in the tick host. Infect Immun. 2024 Feb 13;92(2):e0051523.

Tuckey AN, Brandon A, Eslaamizaad Y, Siddiqui W, Nawaz T, Clarke C, Sutherland E, Williams V, Spadafora D, Barrington RA, Alvarez DF, Mulekar MS, Simmons JD, Fouty BW, Audia JP. Amyloid- β and caspase-1 are indicators of sepsis and organ injury. ERJ Open Res. 2024 Feb 26;10(1):00572-2023.

Vukadin L, Park B, Mohamed M, Li H, Elkholy A, Torrelli-Diljohn A, Kim JH, Jeong K, Murphy JM, Harvey CA, Dunlap S, Gehrs L, Lee H, Kim HG, Sah JP, Lee SN, Stanford D, Barrington RA, Foote JB, Sorace AG, Welner RS, Hildreth BE 3rd, Lim SS, Ahn EE. A mouse model of Zhu-Tokita-Takenouchi-Kim syndrome reveals indispensable SON functions in organ development and hematopoiesis. JCI Insight. 2024 Mar 8;9(5):e175053.

II. PUBLISHED ABSTRACTS

Fleck R, Gordonya O, Walde R, Shea AE. Defining uropathogenesis in clinical isolates of *Pseudomonas*. 5th Clinical and Scientific Advances in Urinary Tract Infections Conference; 2024 Jul 19-21; Columbus, OH.

Fleck RC, Nguyen IB, Stocki JA, Mobley HLT, Shea AE. Asymptomatic bacteriuria diagnostics in low resource settings using a modified water quality test kit. American Society for Microbiology Microbe 2024. 2024 Jun 13-17; Atlanta, GA.

Fleck RC, Stocki JA, Nguyen IB, Walde R, Mobley HLT, Shea AE. Asymptomatic bacteriuria diagnostics for developing countries using a modified water quality test kit. American Urological Association 2024 Annual Meeting; 2024 May 3-6; San Antonio, TX.

Hardy S, Fleck R, Gordonya O, Jeffreys J, Walde R, Shea AE. Uncovering the interplay between patient variables and uropathogen biology. Southeastern Branch of American Society for Microbiology 2023; 2023 Nov 3-4; Auburn, AL.

Hardy SL, Holdbrooks D, Lawson M, Walde R, Shea AE. Determining correlations between biological patient variables and the phenotypic displays and genetic makeup of uropathogenic *E. coli*. 5th Clinical and Scientific Advances in Urinary Tract Infections Conference; 2024 Jul 19-21; Columbus, OH.

Hernandez A, Gwin M, Wiggins LA, Bryant H, Vasilyev M, Dal Zotto VL, Bates ML, Schuler AM, Gassman NR. Dihydroxyacetone, a combustion of electronic cigarettes, promotes cardiac-specific injury through metabolic and mitochondrial imbalances. American College of Toxicology 44th Annual Meeting; 2023 Nov 11-15; Orlando, FL.

Jeffreys J, Shea AE. Needle in a haystack: a Ser/Thr kinase widely conserved among prokaryotes. American Society for Microbiology Microbe 2024. 2024 Jun 13-17; Atlanta, GA.

Mitchell BL, Chu CC, Zent CS, Elliott MR. Defining the mechanisms of first dose infusion reactions in monoclonal antibody therapies. University of Alabama at Birmingham 2024 Southeastern Immunology Symposium; 2024 Aug 16-17; Birmingham, AL.

Norman PD, Obelliane C, Hermance ME. Interspecies co-feeding transmission of Heartland virus between a native tick species, *Amblyomma americanum*, and the invasive East Asian tick, *Haemaphysalis longicornis*. Am J Trop Med Hyg. 2023 Oct;109(4 Suppl):28. Abstract no. 5084.

Rodenberg RR, Spadafora D, Fitzpatrick S, Daly G, Lausch R, Barrington RA. $\gamma\delta$ T17 cells regulate the acute antiviral response of NK cells in HSV-1 infected corneas. Immunology 2024: Annual Meeting of the American Association of Immunologists; 2024 May 3-7; Chicago, IL.

Suwanbongkot C, Lily E, Macaluso KR. Spotted fever group *Rickettsia* transmission, dissemination kinetics, and host response during tick feeding. American Society for Rickettsiology Annual Meeting; 2024 Jul 13-16; Williamsburg, VA. Abstract no. P75.

Shea AE, Kuo S, Mobley HLT, Pearson MM. The ins and outs of *Proteus mirabilis* sugar transport during urinary tract infection. 5th Clinical and Scientific Advances in Urinary Tract Infections Conference; 2024 Jul 19-21; Columbus, OH.

Tang-Holmes R, Bond J, Annamdevula N, Chakroborty D, Schuler M, Rich TC, Gong N, Sarkar C, Leavesley SJ. A naturally brighter approach to colorectal cancer diagnosis. SPIE Optics + Photonics 2024; 2024 Aug 18-22; San Diego, CA.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Audia J. Invited speaker. Elucidating a novel regulatory relationship between Amyloid- β and the pro-inflammatory Caspase-1 in sepsis. Association of Medical School Microbiology and Immunology Chairs 19th Educational Strategies Workshop; 2024 Jul 8; Snowbird, UT.

Hermance M. Invited speaker. Interspecies co-feeding transmission of Heartland virus between a native tick species, *Amblyomma americanum*, and the invasive East Asian tick, *Haemaphysalis longicornis*. American Society for Tropical Medicine and Hygiene 2023 Annual Meeting; 2023 Oct 19; Chicago, IL.

Hermance M. Invited speaker. Tick-virus-host cutaneous interface: ground zero for tick-borne virus transmission. Texas A&M University Department of Entomology Seminar; 2023 Nov 30; College Station, TX.

Macaluso K. Invited speaker. The biology of rickettsial transmission: a tale of two vectors. Stony Brook University Renaissance College of Medicine Seminar; 2023 Oct 23; Stony Brook, NY.

Macaluso K. Invited speaker. The biology of rickettsial transmission: a tale of two vectors. University of Florida Emerging Pathogens Institute Seminar; 2024 Apr 11; Gainesville, FL.

Macaluso K. Invited speaker. Vector biology and disease risk. Vector Control and Disaster Preparedness for Veterinary Professionals Seminar; 2024 Jun 26; New Orleans, LA.

Rayner J. Invited speaker. Tickborne Diseases Update for AL. 34th Annual Alabama Vector Management Society Meeting; 2024 Feb 23; Orange Beach, AL.

Shea A. Invited speaker. The ins and outs of *Proteus mirabilis* sugar transport during urinary tract infection. 5th Clinical and Scientific Advances in Urinary Tract Infections Conference; 2024 Jul 21; Columbus, OH.

V. NATIONAL PROFESSIONAL RECOGNITION

Audia JA: Chair, National Institutes of Health/National Institute of Allergy and Infectious Disease ZRG1 IIDA-M(02) M - Member Conflict - Topics in Bacterial Virulence. Member, Department of Defense Health Program, Congressionally Directed Medical Research Programs, United States Army Medical Research and Materiel Command, Peer Reviewed Medical Research Program, National Institutes of Health/National Institute of Allergy and Infectious Disease Bacterial-Host Interactions [BHI formerly HIBP]. Military Infectious Disease Research Program, Department of Defense United States Army Medical Research and Development Command. Review Editor, *Frontiers in Cellular and Infection Microbiology*. Ad hoc peer reviewer list *Microbiology Spectrum* and *Pathogens*.

Barrington RA: Grant Reviewer, Member, Immunology BSc study section for AHA. Associate Editor, *The Journal of Immunology*. Review Editor, *Frontiers in B Cell Biology*. Peer Reviewer, *Journal of Experimental Medicine*, *Nature*, *European Journal of Immunology*, *AJP-Lung Cellular and Molecular Physiology*, *Cytometry*, *PLoS One*, *The Oschner Journal*, *Journal of DNA and Cell Biology*, *Journal of Thoracic Disease*, *ImmunoHorizons*. Member, American Association of Immunologists, Association for Research in Vision and Ophthalmology.

Esteves EV: Manuscript Reviewer, *Microorganisms*, *Pathogens*, *Vaccines*.

Elliott MR: Reviewer, National Institutes of Health (NIH), United Kingdom Research and Innovation. Journal Referee, *Journal of Clinical Investigation*, *Frontiers in Immunology*.

Hermance ME: Executive Council Member and Treasurer, American Committee on Arthropod-Borne Viruses and Zoonotic Viruses (ACAV). Member, NIH Transmission of Vector-Borne and Zoonotic Disease Study Section. Peer Reviewer, *Emerging Infectious Diseases*, *Plos Neglected Tropical Diseases*, *Scientific Reports*, *NPJ Vaccines*, *Journal of Medical Entomology*, *Plos One*.

Kim JH: Ad hoc Reviewer, *International Journal of Medicine*, *Viruses*.

Macaluso KR: Reviewer, National Institutes of Health: conflict panel. Subject Editor, *Journal of Medical Entomology*. Peer Reviewer, *PLoS Pathogens*, *PLoS Neglected Tropical Diseases*, *Journal of Medical Entomology*, *ASM-Infection and Immunity*, *American Journal of Tropical Medicine and Hygiene*, *Frontiers Microbiology*, *Scientific Reports*, *CDC Emerging Infectious Diseases*, *Nature Communications*, *mBio*, *Trends in Parasitology*. Professional societies: American Society for Rickettsiology. Scientific Program Committee Member, American Society of Tropical Medicine and Hygiene, American Society for Microbiology, AAAS. Member, Association of Medical Schools Microbiology and Immunology Chairs.

Rayner JO: Journal Editor, *Vaccines*. Peer Reviewer, *International Journal of Molecular Sciences*, *Heliyon*, *The FASEB Journal*, *Viruses*, *PLOS-Pathogens*, *PLOS-Neglected Pathogens*, *Nature Communications*, *Science Translational Medicines*, *Emerging Infectious Diseases*, *The American Journal of Tropical Medicine and Hygiene*, *Antiviral Research*, *Journal of Clinical and Translational Medicine*, *Pathogens*, *Biomedicines*, and *Genes*. Member, American Committee on Arthropod-borne Viruses, International Society for Infectious Diseases, American Society for Tropical Medicine and Hygiene, American Society for Microbiology, and American Society for Virology. Committee Member, University of Liberia College of Health Sciences PhD Program Development, Clinical Biosafety Services Local Biosafety Committee. Fellow, VicTech Venture Capital Development.

Schuler AM: Secondary veterinarian for the Alabama Marine Mammal Stranding Network.

Shea AE: Peer Reviewer, *PLoS Pathogens*, *Microbiology Spectrum*, *Journal of Bacteriology*. Member, American Society for Microbiology, Urinary Tract Infection Global Alliance, American Urology Association, Collaborating for the Advancement of Interdisciplinary Research in Benign Urology (CAIRIBU). Committee Member, CAIRIBU ARCTICS & Trainee Event Planning Committee, Urobiome Research Interest Group.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The 2023-2024 academic year for the Department of Microbiology and Immunology was one of growth. The Department remains highly active in the education mission of the College. Dr. Audia continues to oversee the graduate student teaching by coordinating the Infectious Diseases and Host Defense Track (IDHD) as track director. The Department now has nine graduate students in the IDHD track, and the faculty mentor graduate students

across all tracks in the College of Medicine. Dr. Audia graduated one PhD student, Amanda Tuckey, who has accepted a postdoctoral fellowship with his lab group. Dr. Barrington also graduated one PhD student, Rachel Rodenberg, who has accepted a position as an instructor in the Department of Biology at South Alabama. Faculty in the Department also mentor several trainees in the MD Summer Research Program and the South Alabama Summer Undergraduate Research program. The Department hosted its second Research Symposium with a larger number of presenters, continuing to give the graduate students invaluable conference-style presentation experience, as well as provide a collaborative environment for them to receive feedback on their research from outside perspectives.

Dr. Audia continues to serve as the Module Director for the Principles of Infection and Immunity (PII) course and, again, he received the Scarlet Sash in recognition of his contributions to the medical education experience. The faculty saw an increase in activity in research and scholarship, with fourteen peer-reviewed papers published, seven invited external presentations, and numerous internal presentations. Of note, Dr. Audia was featured as the keynote speaker at the Association of Medical Schools Microbiology and Immunology Chairs 19th Microbiology and Immunology Educational Strategies Workshop, and Dr. Shea received a 2024 Peggy Cotter Award for Early Career Branch Members presented by the American Society for Microbiology. Furthermore, faculty were invited to review grant proposals and papers in their fields, signifying recognition of their expertise in research. Faculty in the Department also received fifteen awards for extramural research support from state/federal agencies, foundations, and industry.

It was also an active year for faculty hires and recruiting. We hosted four faculty candidates on campus this year to give scientific presentations and meet with faculty in the Frederick P. Whiddon College of Medicine. We had strong interest from several candidates, and we were able to secure one of our top recruits who will join the faculty in early 2025. Dr. Michael R. Elliott joined the Department and conducts cancer immunology research with his lab group at the Mitchell Cancer Institute (MCI), providing collaborative opportunities with other faculty. Additionally, Dr. Michele Schuler joined Department faculty, with her primary appointment now being in Microbiology and Immunology, and Dr. Dahlene Fusco, a clinician scientist, received a joint appointment with the Department. The faculty remain active in service at the University, College, and community levels. Dr. Barrington continues to oversee the flow cytometry core facility, with laboratories located in MSB and at the MCI, and as well as serve as the Director of the Office of Research, Education, and Training (ORET). The faculty regularly lead and serve on committees (*e.g.*, IACUC, IBC, SEC, and SPEC) and organizations (Faculty Senate and Dauphin Island Sea Lab) throughout the year. The faculty continued with community outreach, and Dr. Barrington remains actively involved with Lions Club, which supports components of his research program. These activities are considered essential to our service mission.

2023-2024
Summary of Scholarly Activities
Department of Neurology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Howard JF Jr, Bresch S, Farmakidis C, Freimer M, Genge A, Hewamadduma C, Hinton J, Hussain Y, Juntas-Morales R, Kaminski HJ, Maniaol A, Mantegazza R, Masuda M, Nowak RJ, Sivakumar K, Śmiłowski M, Utsugisawa K, Vu T, Weiss MD, Zajda M, Bloemers J, Boroojerdi B, Brock M, de la Borderie G, Duda PW, Vanderkelen M, Leite MI; RAISE-XT study team*. Long-term safety and efficacy of zilucoplan in patients with generalized myasthenia gravis: interim analysis of the RAISE-XT open-label extension study. *Ther Adv Neurol Disord*. 2024 Apr 17;17:17562864241243186.

Jahangiri M, Padarti A, Kilgo WA. Post-infectious transverse myelitis secondary to hand, foot, and mouth disease in a pregnant daycare worker. *Cureus*. 2024 Mar 14;16(3):e56159.

Khalil MA, El Tahan MR, Khidr AM, Fallatah S, Abohamar AD, Amer MM, Makhdom F, El Ghoneimy Y, Al Bassam B, Alghamdi T, Abdulfattah D. Effects of norepinephrine infusion during cardiopulmonary bypass on perioperative changes in lactic acid level (Norcal). *Perfusion*. 2023 Nov;38(8):1584-1599.

Yuliati A, Zayek M, Maertens P. The impact of phenobarbital on the ability of electroencephalogram to predict adverse outcome in asphyxiated neonates during therapeutic hypothermia. *Am J Perinatol*. 2024 May;41(S 01):e1681-e1688.

II. PUBLISHED ABSTRACTS

Aljabi Q, Bassett M, Kilgo WA. Unveiling neuromyelitis optical spectrum disorder and myelin oligodendrocyte glycoprotein disease; exploring the area deprivation index in disease outcome and healthcare needs. Consortium of Multiple Sclerosis Centers Annual Meeting; 2024 May 29-Jun 1; Nashville, TN. Abstract no. NDM05. Available from: <https://cmsc.confex.com/cmsc/2024/meetingapp.cgi/Paper/9383>

Bassett M, Diaz Gonzalez S, Kilgo WA. Incidence and causes of multiple sclerosis misdiagnosis in an academic center serving a diverse patient population. American Committee for Treatment and Research in Multiple Sclerosis; 2024 Feb 29-Mar 2; West Palm Beach, FL.

Kilgo W, Padarti A, Izbicki P, Eubanks J, Sanchez A, Qureshi F. Real-world utilization of a proteomic biomarker panel for assessing multiple sclerosis disease activity in an academic multiple sclerosis clinic with a diverse patient population. *Mult Scler*. 2023 Oct;3(Suppl):301. Abstract no. P232/11.

Maertens P, Sharma K. Echoencephalography of brainstem necrosis in asphyxiated term newborns. *J Neuroimaging*. 2024 May; 34(3):406. Abstract no. 10.

Penwell A, Malatinszky G, Kilgo WA. MOGAD presenting with coincident and atypical manifestations of anti-NMDA-receptor encephalitis. Mult Scler. 2023 Oct;3(Suppl):681-682. Abstract no. P1049/1472.

Sharma KP, Flores AP, Maertens PM. Caspase-8 enzyme deficiency: a cause of chronic inflammatory demyelinating polyneuropathy. Am J Med Sci. 2024 Feb; 367(S1):S253. Abstract no. 422.

Sharma K, Maertens P. Postsurgical central pseudothalamic pain syndrome in a child with parietal brain tumor. World Federation of Pediatric Intensive & Critical Care Societies 2024; 2024 Jun 1-5; Cancun, Mexico p. 16. Abstract no. PP284.

Sliva R, Tallavajhala V, Kilgo WA. Paroxysmal dysarthria-ataxia following a brainstem relapse in a patient with myelin oligodendrocyte glycoprotein antibody associated disease. American Academy of Neurology Summer Conference; 2024 Jul 19-20; Atlanta, GA. Abstract no. 057. Available from: <https://www.aan.com/msa/Public/Events/AbstractDetails/58169>

Viera GE, Segui Acevedo Y, Maertens PA, Gavrilita C. Midbrain myelitis, optic neuritis and brainstem leptomeningeal enhancement in an adolescent with anti N-Methyl-D-Aspartate receptor and anti-myelin oligodendrocyte glycoprotein. Am J Med Sci. 2024 Feb; 367(S1):S287-S288. Abstract no. 478.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Bassam BA. Invited speaker. CIDP MMN and diabetic polyradiculopathy update. Clinical Neurological Society of America 50th Annual Meeting; 2024 Jan 16; Key Largo, FL.

Bassam BA. Invited speaker. Pitfalls in the sensory and motor NCSs. 8th Annual Neuromuscular Disorder Seminar; 2024 Apr 27; Houston, TX.

Bassam BA. Invited speaker. Approach to patients with myopathy. Case Western Reserve University Hospitals; 2024 Apr 19; Cleveland, OH.

Bassam BA. Invited speaker. Nerve Conduction Study (NCS) pitfalls. American Association of Neuromuscular and Electrodiagnostic Medicine 70th Annual Meeting Workshop; 2023 Nov 3; Phoenix, AZ.

Kilgo WA. Invited speaker. Update on autoimmune encephalitis. Clinical Neurological Society of America 50th Annual Meeting; 2024 Jan 16; Key Largo, FL.

Kilgo WA. Invited speaker. Multiple sclerosis case discussions: RRMS to SPMS. Clinical Neurological Society of America 50th Annual Meeting; 2024 Jan 16; Key Largo, FL.

V. NATIONAL PROFESSIONAL RECOGNITION

Bassam, BA: Committee Member, American Academy of Neurology (AAN)/ Neuromuscular Section Resident and Fellowship Mentor Committee, Committee Member, American Association of Neuromuscular and Electrodiagnostic Medicine/ Stay Connect Committee, Member, AANEM/ Training Program Examination Liaison Supervisor.

Kilgo, WA: Committee Chair, Neurology Residency Program Evaluation Committee. Committee Member, Neurology Residency Clinical Competency Committee.

Kobelja, RP: American Academy of Neuromuscular and Electrodiagnostic Medicine. American Academy of Neurology.

Ochoa, JG: Fellow, American Clinical Neurophysiology Society. Fellow, American Epilepsy Society.

Sugg, RL: Alabama Medical Association. Senior member/fellow, American Academy of Neurology. Fellow, American Heart/Stroke Association. Senior member/fellow, American Society of Neurointerventional Surgery. Society of Vascular and Interventional Neurology.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

2023-2024
Summary of Scholarly Activities
Department of Neurosurgery

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Baker NC, Bowden VA, DiGiorgio AM, Darbin OE, Menger RP. Barriers to overlapping complex and general spine surgery at a tertiary academic hospital. J Neurosurg Spine. 2024 Apr 26;41(1):82-87.

Bassett M, Dyess G, Aljabi Q, Thomas A, Bolus H, Ghalib M, Butler D, Shahid A, Suggala S, Thakur J, Menger R. Senior mentorship and scholarly success: assessing influences on successful neurosurgery residency applicant's H-index. World Neurosurg. 2024 Oct;190:e41-e45.

Butler DW, McDonald TC, Suggala S, Menger R. Three-level concavity apical pediculectomy during intraoperative neuromonitoring loss: following the checklist resulted in an ambulatory patient. Cureus. 2024 Jul 17;16(7):e64727.

Menger RP, Dunn GP. Letter: answering our nation's call: a solution for military neurosurgery wartime readiness through civilian collaboration. Neurosurgery. 2024 Feb 1;94(2):e37-e38.

Menger RP, Rayi A, Notarianni C. Klippel Feil Syndrome. In: StatPearls [Internet]. Treasure Island, FL: StatPearls Publishing; 2024 May 11. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK493157/>

Rallo MS, Berke CN, Dyess GA, Menger RP. Medicare and Medicaid payment to neurosurgeons: implications for access to care and health equity. World Neurosurg. 2024 May; 185:442-443.

Rallo MS, Berke CN, Shaw TC, Bunch JA, Menger RP. State-to-state variation in Medicaid reimbursement for neurosurgical procedures: implications for healthcare access in vulnerable populations. Neurosurgery. 2024 Jun; 94(6):1201-1210.

Shahid AH, Butler D, Dyess G, Bassett M, Harris L, Hummel U, Chason D, Thakur JD. Supraorbital keyhole approaches in the first 3 years of practice: outcomes and lessons learned. Patient series. J Neurosurg Case Lessons. 2024 Mar 25;7(13):CASE23744.

Shahid AH, Butler DW, Dyess G, Harris L, Hummel UN, Chason D, Suggala S, Thakur JD. Endoscope-assisted supraorbital approach for excision of tuberculum sellae meningioma: technical nuances. Surg Neurol Int. 2024 Jul 19;15:245.

Suggala S, Minopoli AL, Shahid AH, Menger RP. Transitional and spectrum-based care for idiopathic scoliosis. Neurosurg Focus. 2024 Aug 1;57(2):E11.

II. PUBLISHED ABSTRACTS

Dyess GA, Ghalib M, Thomas A, Butler D, Harris L, Shahid A, Thakur JD. Early inclination towards skull-base surgery is more likely to predict academic career trajectory amongst neurosurgery residents. J Neurol Surg B Skull Base. 2024 Feb 5;85(S01): Abstract no. P204. Available from: <https://www.thieme-connect.com/products/ejournals/abstract/10.1055/s-0044-1780365>

Rallo MS, Nanda A, Menger RP. Impact of COVID-19 on neurosurgical utilization and reimbursement. Neurosurgery. 2024 Apr;70(Supplement_1):21. Abstract no. 112. Available from: https://journals.lww.com/neurosurgery/abstract/2024/04001/112_impact_of_covid_19_on_neurosurgical.26.aspx

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Romeo AK. Invited speaker. Deep brain stimulation for epilepsy. 9th Annual USA Health Neuroscience Symposium; 2024 Apr 27; Pensacola, FL.

V. NATIONAL PROFESSIONAL RECOGNITION

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The Department of Neurosurgery has continued to have significant growth. Dr. Andrew Romeo has continued to grow the Functional Neurosurgery program. The new Globus robot has allowed the development of SEEG monitoring in epilepsy surgery and the DBS program has also seen an increase in volume.

Our critical care surgeons have done a great job in starting and managing the Neuro ICU, but this year we hired Dr. John Amburgy, who is a neurosurgeon with a fellowship in Critical Care, who is now leading that team. We are recruiting critical care neurologists to fully staff that unit. Drs. Menger and Thakur continue to grow their clinical practices and research endeavors.

The neurosurgery fellows have completed their first year supporting the spine and skull base services and in addition a research fellow has started to work in the department. This upcoming year we look forward to expanding our clinical service to Providence Hospital.

2023-2024
Summary of Scholarly Activities
Department of Obstetrics & Gynecology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Bailey EJ, Tita ATN, Leach J, Boggess K, Dugoff L, Sibai B, Lawrence K, Hughes BL, Bell J, Aagaard K, Edwards RK, Gibson K, Haas DM, Plante L, Metz TD, Casey BM, Esplin S, Longo S, Hoffman M, Saade GR, Foroutan J, Tuuli MG, Owens MY, Simhan HN, Frey HA, Rosen T, Palatnik A, Baker S, August P, Reddy UM, Kinzler W, Su EJ, Krishna I, Nguyen N, Norton ME, Skupski D, El-Sayed YY, Ogunyemi D, Galis ZS, Harper L, Ambalavanan N, Oparil S, Kuo HC, Szychowski JM, Hoppe K. Perinatal outcomes associated with management of stage 1 hypertension. *Obstet Gynecol.* 2023 Dec 1;142(6):1395-1404.

Kaak KB, Holliday CP, Mulekar MS, Trepman E, Holliday NP. Women's perceptions of body mass graphics and their preferences for weight counselling. *Clin Obes.* 2024 Apr;14(2):e12632.

Metz TD, Kuo HC, Harper L, Sibai B, Longo S, Saade GR, Dugoff L, Aagaard K, Boggess K, Lawrence K, Hughes BL, Bell J, Edwards RK, Gibson KS, Haas DM, Plante L, Casey B, Esplin S, Hoffman MK, Hoppe KK, Foroutan J, Tuuli M, Owens MY, Simhan HN, Frey H, Rosen T, Palatnik A, Baker S, August P, Reddy UM, Kinzler W, Su EJ, Krishna I, Nguyen NA, Norton ME, Skupski D, El-Sayed YY, Ogunyemi D, Librizzi R, Pereira L, Magann EF, Habli M, Williams S, Mari G, Pridjian G, McKenna DS, Parrish M, Chang E, Quiñones J, Galis ZS, Ambalavanan N, Sinkey RG, Szychowski JM, Tita ATN. Optimal timing of delivery for pregnant individuals with mild chronic hypertension. *Obstet Gynecol.* 2024 Sep 1;144(3):386-393.

Moore MD, Kuo HC, Sinkey RG, Boggess K, Dugoff L, Sibai B, Lawrence K, Hughes BL, Bell J, Aagaard K, Edwards RK, Gibson KS, Haas DM, Plante L, Metz TD, Casey B, Esplin S, Longo S, Hoffman MK, Saade GR, Hoppe KK, Foroutan J, Tuuli M, Owens MY, Simhan HN, Frey HA, Rosen T, Palatnik A, Baker S, August P, Reddy UM, Kinzler W, Su EJ, Krishna I, Nguyen NA, Norton ME, Skupski D, El-Sayed YY, Ogunyemi D, Librizzi R, Pereira L, Magann EF, Habli M, Williams S, Mari G, Pridjian G, McKenna DS, Parrish M, Chang E, Osmundson S, Quiñones JN, Leach J, Sanusi A, Galis ZS, Harper L, Ambalavanan N, Szychowski JM, Tita ATN. Mean arterial pressure and neonatal outcomes in pregnancies complicated by mild chronic hypertension. *Obstet Gynecol.* 2024 Jul 1;144(1):101-108.

Sanusi AA, Leach J, Boggess K, Dugoff L, Sibai B, Lawrence K, Hughes BL, Bell J, Aagaard K, Edwards RK, Gibson KS, Haas DM, Plante L, Metz TD, Casey B, Esplin S, Longo S, Hoffman MK, Saade GR, Hoppe KK, Foroutan J, Tuuli M, Owens MY, Simhan HN, Frey H, Rosen T, Palatnik A, Baker S, August P, Reddy UM, Su EJ, Krishna I, Nguyen NA, Norton ME, Skupski D, El-Sayed YY, Ogunyemi D, Galis ZS, Harper L, Ambalavanan N, Geller NL, Kuo HC, Sinkey RG, Librizzi R, Pereira L, Magann EF, Habli

M, Williams S, Mari G, Pridjian G, McKenna DS, Parrish M, Chang E, Osmundson S, Quinones J, Szychowski JM, Tita ATN. Pregnancy outcomes of nifedipine compared with labetalol for oral treatment of mild chronic hypertension. *Obstet Gynecol*. 2024 Jul 1;144(1):126-134.

Sudan SK, Sharma A, Vikramdeo KS, Davis W, Deshmukh SK, Poosarla T, Holliday NP, Prodduturvar P, Nelson C, Singh KP, Singh AP, Singh S. Obesity and early-onset breast cancer and specific molecular subtype diagnosis in black and white women: NIMHD social epigenomics program. *JAMA Netw Open*. 2024 Jul 1;7(7):e2421846.

II. PUBLISHED ABSTRACTS

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Holliday CP. Invited speaker. The terrifying postmortem: a selection of medical malpractice cases from which to learn good habits [virtual presentation]. University of Florida Resident Didactics; 2024 Apr 5; Gainesville, FL.

Holliday CP. Invited speaker. The ABCs of a (civil) lawsuit [virtual presentation]. University of Central Florida Resident Didactics; 2024 Apr 5; Orlando, FL.

Holliday CP. Invited speaker. Legal issues and cases [virtual presentation]. University of Central Florida Resident Didactics; 2024 May 31; Orlando, FL.

Perez W. Invited speaker. Management of breech presentation at term. St. Louis University School of Medicine Grand Rounds; 2024 Apr 26; St Louis, MO.

V. NATIONAL PROFESSIONAL RECOGNITION

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Recruitment of new Urogyn specialist

Recruitment of an OBGYN Generalist

Recruitment of two OBGYN Advanced Practice Providers

Candice Holliday was named Medical Director of the OB Evaluation Center

Amy Hewes was named Associate Chief Medical Officer for Women's Health

We have added a OBGYN Generalist to our Eastern Shore location.

Received a grant allocated to pay a grad student worker to assist with our AT-Home 2hr GTT study

Received a grant allocated to assist with the purchase of Statistical Software in aid with research projects for the residents and faculty.

2023-2024
Summary of Scholarly Activities
Department of Orthopaedic Surgery

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Brewer J, Fuster F, Mosle S, Heng M. Principles of minimally invasive reduction and nail fixation for subtrochanteric femur fractures. J Am Acad Orthop Surg. 2024 Jun 1; 32(11):e514-e522.

Butler DW, McDonald TC, Suggala S, Menger R. Three-level concavity apical pediclectomy during intraoperative neuromonitoring loss: following the checklist resulted in an ambulatory patient. Cureus. 2024 Jul 17;16(7):e64727.

Hori Y, McDonald TC, Thornley P, da Silva LCA, Kaymaz B, Rogers KJ, Yorgova PK, Bober MB, Carroll R, Kruse RW, Franzone JM, Shah SA. Midterm outcomes of multimodal approach to treating severe scoliosis in patients with osteogenesis imperfecta. J Am Acad Orthop Surg. 2024 Sep 15;32(18):e951-e960.

Van Rysselberghe NL, Seltzer R, Lawson TA, Kuether J, White P, Grisdela P Jr, Daniell H, Amirhekmat A, Merchan N, Seaver T, Samineni A, Saiz A, Ngo D, Dorman C, Epner E, Svetgoff R, Terle M, Lee M, Campbell S, Dikos G, Warner S, Achor T, Weaver MJ, Tornetta P 3rd, Scolaro J, Wixted JJ, Weber T, Bellino MJ, Goodnough LH, Gardner MJ, Bishop JA. Retrograde intramedullary nailing versus locked plating for extreme distal periprosthetic femur fractures: a multicenter retrospective cohort study. J Orthop Trauma. 2024 Feb 1;38(2):57-64.

II. PUBLISHED ABSTRACTS

Barnes B, Michaeli D, Cutchen W. Cracks in the cradle: cistal femoral physeal fracture in a neonate. Medical Association of the State of Alabama Research Symposium; 2024 Apr 11; Montgomery, AL. p. 9. Abstract no. 24-08.

Dela Cruz J, Sucar-Marquez J, McDonald T, Shrestha D, Dolma K. A rare case of prenatal onset cortical hyperostosis with favorable outcome. Am J Med Sci. 2024 Feb; 367(S1):S226-S227. Abstract no. 378.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Brewer J. Invited speaker. Calcaneus fractures. 34th Annual Southeastern Orthopaedic Foot Club; 2024 May 16; Point Clear, AL.

Brewer J. Invited speaker. Nail fixation of bicondylar tibia plateau. Angus McBryde Graduation Symposium; 2024 Jun 21; Mobile, AL.

Clay TB. Invited speaker. Management of shoulder instability: in season decision making for the ATC. 2024 Alabama Athletic Trainers' Association Clinical Symposium and Members' Meeting; 2024 May 24; Gulf Shores, AL.

Clay TB. Invited speaker. UCL update: where are we in 2024? Angus McBryde Graduation Symposium; 2024 Jun 21; Mobile, AL.

Cutchen W. Invited speaker. Deal with cases you've never seen before. Angus McBryde Graduation Symposium; 2024 Jun 21; Mobile, AL.

McMullin S. Invited speaker. Friday night palsy, Saturday morning mystery. 7th Annual Multidisciplinary Spine Care Conference 2023; 2023 Nov 10; Amelia Island, FL.

McDonald T. Invited speaker. How obesity affects orthopaedic health [podcast]. Alabama Pediatrician: Conversations & Information for Your Practice, Alabama Chapter of the American Academy of Pediatrics. 2023 Oct 20; Montgomery, AL. Available from: <https://podcasts.apple.com/us/podcast/how-obesity-affects-orthopedic-health/id1690466068?i=1000632030222>

McDonald T. Invited speaker. Orthopaedic issues related to obesity [podcast]. Alabama Pediatrician: Conversations & Information for Your Practice, Alabama Chapter of the American Academy of Pediatrics. 2023 Nov 10; Montgomery, AL. Available from: <https://podcasts.apple.com/us/podcast/orthopedic-issues-related-to-obesity/id1690466068?i=1000634391296>

McDonald T, Smelley C. Invited speakers. Do patient-answered versus parent-answered patient reported outcomes differ in pediatric fracture care? European Pediatric Orthopaedic Society and Pediatric Orthopaedic Society of North America Annual Meeting; 2024 May 10; National Harbor, MD.

McDonald T. Invited speaker. Do patient-answered versus parent-answered patient reported outcomes (PRO) differ in pediatric fracture care? Updates. Angus McBryde Graduation Symposium; 2024 Jun 21; Mobile, AL.

McDonald T. Invited speaker. Challenges in diagnosis and management. 2024 Alabama Chapter of the American Academy of Pediatrics Annual Meeting and Fall Pediatric Update; 2024 Sep 15; Birmingham, AL.

Mullens J. Invited speaker. Syndesmosis repair techniques. Southern Orthopaedic Association 41st Annual Meeting; 2024 Jul 19; Miami Beach, FL.

Mullens J. Invited speaker. Chronic Achilles tears treated with novel bone tunneling allograft techniques. Angus McBryde Graduation Symposium; 2024 Jun 21; Mobile, AL.

Mullens J. Invited speaker. Foot and ankle sports injuries. 2024 Alabama Athletic Trainers' Association Clinical Symposium & Members' Meeting; 2024 May 24; Gulf Shores, AL.

Mullens J. Invited speaker. Chronic Achilles disasters. 34th Annual Southeastern Orthopaedic Foot Club; 2024 May 16; Point Clear, AL.

Mullens J. Invited speaker. Foot and ankle: updates and how my practice as changed. Orthopaedic Foot and Ankle Society Annual Meeting; 2023 Nov 10; Nashville, TN.

Mullens J. Invited speaker. Billing and coding updates for 2023. Orthopaedic Foot and Ankle Society Annual Meeting; 2023 Nov 10; Nashville, TN.

V. NATIONAL PROFESSIONAL RECOGNITION

Clay TB. Reviewer. The American Journal of Sports Medicine.

Clay TB. Council of Delegates, State of Alabama. American Orthopaedic Society for Sports Medicine.

Clay TB. Sports Medicine Directors and Team Physicians. Sun Belt Conference.

Cutchen W. Moderator. Pediatric Orthopaedic Society of North America Infection Webinar.

Cutchen W. Resident Communications Committee. Pediatric Orthopaedic Society of North America.

Cutchen W. Wellness Committee. Pediatric Orthopaedic Society of North America.

McDonald T. Board of Directors. Alabama Orthopaedic Society.

McDonald T. Social Media Committee. Scoliosis Research Society.

McDonald T. Public Education and Media Relations Committee. Pediatric Orthopedic Society of North America.

McDonald T. Reviewer. Journal of the Pediatric Orthopaedic Society of North America.

McDonald T. Reviewer. Journal of the American Academy of Orthopaedic Surgeons

McDonald T. Reviewer. Clinical Orthopaedics and Related Research Journal.

McDonald T. Co-Host and Editor. "IPOS 2023, Part 1." Peds Ortho Podcast – The Official Podcast of POSNA. December 18, 2023.

McDonald T. Co-Host and Editor. “IPOS 2023, Part 2.” Peds Ortho Podcast – The Official Podcast of POSNA. December 27, 2023.

Mullens J. Reviewer. Foot and Ankle International.

Mullens J. Director and Moderator. Southeastern Foot Club.

Mullens J. President-Elect. Alabama Orthopaedic Society.

Mullens J. Board of Councilors, State of Alabama. American Academy of Orthopaedic Surgeons.

Mullens J. State Orthopaedic Societies Committee. American Academy of Orthopaedic Surgeons – Board of Councilors.

Mullens J. Professionalism Committee. American Academy of Orthopaedic Surgeons – Board of Councilors.

Mullens J. Foot and Ankle Instructional Course Committee. American Academy of Orthopaedic Surgeons.

Mullens J. Fellowship Match and Accreditation Committee. American Orthopaedic Foot and Ankle Society.

Mullens J. Young Physicians Committee. American Orthopaedic Foot and Ankle Society.

Mullens J. Board of Directors. Alabama Orthopaedic Society.

Rippey P. Education Subcommittee – Top Articles. American Medical Society for Sports Medicine.

Rippey P. Sports Ultrasound Committee. American Medical Society for Sports Medicine.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

In the past year, the department of orthopaedic surgery has been focused on its continued expansion of its department through recruitment of faculty and staff, as well as beginning our transition to utilizing the Providence Hospital campus. Dr. Jeff Brewer returned to USA Health as interim chair in December and is actively working to expand the department in multiple areas.

Pediatrics continue to mature as our orthopaedic surgeons, Dr. McDonald and Dr. Cutchen, are working on efforts to market USA Health to grow our local and state pediatric presence. This year, with the help of our staff, they have helped promote ‘Arts and Casts,’ a collaboration with the arts department at the University of South Alabama to serve kids in our community. Dr. McDonald continues to build a regional and national presence with his

involvement with the Pediatric Orthopaedic Society of North America. He also served for the second year in a row in Ecuador, treating an underserved population and was able to mentor one of our residents on the trip as well. Within his first year of practice, Dr. Cutchen was elected to the USA College of Medicine Faculty Senate and is active in recruitment and mentoring of medical students for future careers in orthopaedic surgery. With the use of pediatric specialty nurse practitioners, the subspecialty has been able to incorporate a walk-in clinic for acute injuries.

The Sports Medicine subspecialty has been our front runner with incorporating Providence Hospital into a main site of care. After months of preparation, June saw our first clinic at Providence. Derek Kent was added to our department as Director of Operations for Sports Medicine and Special Initiatives. He has been instrumental in incorporating our nonoperative sports providers (Dr. Peter Rippey, Dr. Bishop Carmichael, and Dr. Sarah McMullin) into Dr. Brad Clay's already established operative sports medicine practice. The expansion of the team has led to wider coverage of Mobile County high school athletics and has opened orthopaedic access to many same day/next day appointments for injuries. The annual high school sports physicals were a great success. The picturesque backdrop of the Mitchell Center was a perfect venue and was covered by local news channels. Thirteen local high schools participated, with 558 students receiving sports physicals. Plans continue for addition of a second sports medicine fellowship-trained orthopaedic surgeon.

The Trauma service saw the departure of Dr. Drew Madison this year, but with the planned addition of Dr. Murphy Walters, the trauma service has not skipped a beat. Dr. Parker White is officially board-certified as of July. Plans for the service in the upcoming year include active recruitment of a fourth trauma specialist; incorporating Providence Hospital into the existing trauma coverage; and research and quality improvement initiatives in fracture care.

Dr. Jess Mullens continues to direct the foot and ankle division in a positive direction. It has been 12 years since Dr. Frederick Meyer served as the last USA faculty president of the Alabama Orthopaedic Society. Dr. Mullens is currently the President-Elect for the upcoming year and will serve as President from May 2025-May 2026. He continues to serve as residency program director and is actively involved in local, regional, and national service in the foot and ankle community. Recently, he has partnered with Dr. Craig Oliver and the Infectious Disease department on a multi-disciplinary quality improvement (QI) to manage diabetic foot ulcers outpatient. Aims of the QI are to cut down on length of stay for these patients and allow expedited care. He also is working on an infected diabetic foot QI with the emergency department, emergency general services, internal medicine, vascular surgery, and infectious disease departments to make a clear workup and treatment algorithm to expedite care within the hospital.

Education remains a top priority for our department. We have broadened our involvement of our weekly grand rounds, with participation from orthopaedic surgeons across the United States. It is important for our department moving forward to incorporate marketing initiatives within our grand rounds to show the community the high-quality care we can

offer in our subspecialties. Plans for the upcoming year in this area include recruiting national speakers for our grand rounds, as well as expanding our reach into other regional organizations.

One of our top priorities for this coming year is our research initiatives. Organization of ideas and recruitment of students will become more of a reality with the recent approval of a research coordinator position. September will start the weekly research meetings held to discuss projects and progress to lead to increased publications and exposure in academics. Current research and quality improvement projects planned for the coming year include Utility of Ultrasound vs MRI in diagnosis of Anterior Cruciate Ligament tears in athletes. Over the next few years, we collectively aim to pursue research questions pertaining to gait and movement biomechanics. We have identified a literature gap, especially in the adult trauma literature, around the characterization of gait and locomotion related to various orthopedic conditions and injuries. These pursuits lend themselves to multi-departmental collaboration, which in the past has involved other stakeholders such as physical therapy, mechanical and/or biomedical engineering, kinesiology and exercise science, etc. Our goal is to procure funding for implementing a gait and motion laboratory to study such questions, and to provide the opportunity for clinical instrumented gait analysis to our patients, which currently does not exist in our geographic area.

2023-2024
Summary of Scholarly Activities
Department of Pathology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Barouqa M, Matta M, Reyes-Gil M. Performance evaluation of heparin-induced platelet aggregation vs serotonin release assay. *Am J Clin Pathol*. 2024 Feb 1;161(2):122-129.

Barouqa M, Zhang X, Walde R, Ahmed Z, Mohammed R. Jk(a) (Kidd-A) variant in a sickle cell disease patient. *Cureus*. 2023 Nov 26;15(11):e49451.

Brandon A, Joshi T, Ahmed Z, Tahir M, Phung T, Pierce JY, Knowles K. A rare presentation of lichen sclerosus involving the vaginal canal after radiation therapy: a case report and review of the literature. *Cureus*. 2023 Oct 15;15(10):e47077.

Chakroborty D, Singh AP. Prostate cancer: insights into disease progression and therapeutic challenges. *Int J Mol Sci*. 2024 Feb 20;25(5):2451.

Flores-Lagunes L, Del Pozo-Yauner L, Carrillo-Sánchez K, Molina-Garay C, Jiménez-Olivares M, Garcia-Solorio J, Rodríguez Corona U, Herrera GA, Ricardez-Marcial E, Alaez-Verson C. First family with Perry syndrome from Mexico. *Biomed Rep*. 2024 Jun 19;21(2):120.

Haastrup MO, Vikramdeo KS, Anand S, Khan MA, Carter JE, Singh S, Singh AP, Dasgupta S. Mitochondrial translocase TOMM22 is overexpressed in pancreatic cancer and promotes aggressive growth by modulating mitochondrial protein import and function. *Mol Cancer Res*. 2024 Feb 1;22(2):197-208.

Hawryluk EB, Moustafa D, Barry KK, Bahrani E, Reusch DB, Brahmbhatt M, Chen L, Coughlin CC, Gerami P, Haddock E, Hook K, Humphrey SR, Kao PC, Kruse LL, Lawley LP, Mansour D, Marghoob AA, Nguyen J, Phung TL, Pope E, Raisanen T, Robinson S, Rogers T, Schmidt B, Tran G, Travis K, Wolner Z, London WB, Eichenfield LF, Huang J. Risk factors and outcomes of melanoma in children and adolescents: a retrospective multicenter study. *J Am Acad Dermatol*. 2024 Apr;90(4):716-726.

Herrera GA, Teng J, Zeng C, Del Pozo-Yauner L, Liu B, Turbat-Herrera EA. Fibril-forming organelles in mesangial cells in renal biopsies from patients with light-chain-associated amyloidosis. *Hemato*. 2023 Nov 23;4(4):350-363.

Khan MA, Acharya S, Anand S, Sameeta F, Pramanik P, Keel C, Singh S, Carter JE, Dasgupta S, Singh AP. MYB exhibits racially disparate expression, clinicopathologic association, and predictive potential for biochemical recurrence in prostate cancer. *iScience*. 2023 Nov 19;26(12):108487.

Ong M, Lee J, Deepika F, Wei EX, Cotelingam J. Refractory autoimmune hemolytic anemia secondary to *Babesia*. International Journal of Blood Transfusion and Immunohematology. 2024 Jan-Jun;14(1):1–4.

Tahir M, Bodies BF, Shalin S, Phung T, Myers TC, Israel R, Piris A, Knowles K. Dermal granuloma annulare after SARS-CoV-2 vaccination: a rare complication. Cureus. 2024 Jan 12;16(1):e52174.

Tahir M, Campbell R, Moreland H, Madelaire C, Keel CE, Herrera GA. A rare case of solitary fibrous tumor of the kidney. Cureus. 2023 Oct 4;15(10):e46475.

Tahir M, Elkadi O, Polski J. Hodgkin lymphoma involving the brain: report of a rare case. Cureus. 2024 Jan 12;16(1):e52173.

Tahir M, Wei EX, Madelaire C, Yu AS, Herrera GA, Shackelford RE. A primary telangiectatic mandibular osteosarcoma with germ-line malignancy-associated DNA damage repair gene polymorphisms: a case report. Case Rep Oncol Med. 2024 Jun 6;2024:2418888.

Xian L, Hunter R, Smith E, Mohammed R, Madelaire C, Herrera GA, Shackelford RE. Metastatic ovarian serous adenocarcinoma clinically presenting as inflammatory breast cancer. Case Rep Oncol Med. 2024 Jan 10;2024:4756335.

Zhang PL, Mahalingam VD, Metcalf BD, Al-Othman YA, Li W, Kanaan HD, Herrera GA. Punctate IgG staining particles localize in the budding ballooning clusters of reactive foot processes in minimal change disease. Ultrastruct Pathol. 2024 Mar 3;48(2):121-127.

Zuo Y, Hanly F, Li D, Chavez E, Aljubooria O, Contreras G, Herrera GA. Unveiling renal pathology's potential: exploring a rare subtype of amyloid-apolipoprotein CII amyloidosis in the youngest patient: a case report and literature review. Ultrastruct Pathol. 2024 Jul 3;48(4):297-303.

II. PUBLISHED ABSTRACTS

Gosnell HL, Barouqa M, Rashidi H, Reyes Gil M. Unpredictable blood product usage in orthotropic liver transplantation: a foregone conclusion or a problem solved by artificial intelligence? Am J Clin Pathol. 2023 Nov 29;160(Suppl 1):S111-S112. Abstract no. aquad150.244.

Kakkat S, Suman P, Goswami S, Basu S, Heslin MJ, Turbat-Herrera EA, Ramirez Alcantara V, Sarkar C, Chakroborty D. Krüppel-like factors in regulation of gastric cancer progression. Cancer Res. 2024 Mar 15;84(6_Suppl):3034.

Patil S, Suman P, Kakkat S, Turbat-Herrera EA, Singh S, Sarkar C, Chakroborty D. Investigating the effect of WNK lysine deficient protein kinase inhibition in breast cancer. J Biol Chem. 2024 Mar;300(3 Suppl):S243. Abstract no. 1757.

Sharma A, Vikramdeo KS, Sudan SK, Khan MA, Tahir M, Carter JE, Nelson C, Singh AP, Singh S. Subtype- and race-specific differences in immune landscape of breast cancer. Cancer Res. 2024 Apr 1;84(7_Suppl):LB312.

Suman P, Kakkat S, Patil SS, Ramirez V, Turbat-Herrera EA, Singh S, Sarkar C, Chakroborty D. Role of WNK1 in extracellular matrix modification in breast cancer. Cancer Res. 2024 Mar 15;84(6_Suppl):4278.

Vikramdeo K, Anand S, Sudan S, Pramanik P, Singh S, Godwin A, Singh A, Dasgupta S. Mitochondrial DNA mutation detection in tumors and circulating extracellular vesicles of triple negative breast cancer patients for biomarker development. Cancer Res. 2024 May 1;84(9_Suppl):PO3-16-05.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Chakroborty D. Invited speaker. Neuromodulators and peptide growth factors as emerging targets in cancer. Chittaranjan National Cancer Institute; 2023 Nov 2; West Bengal, India.

Herrera G. Invited speaker. Concepts and pathological correlations in monoclonal gammopathies of renal significance. Nephrology Associates; 2023 Nov 28; Mobile, AL.

Herrera G. Invited speaker. Fibril forming organelles (FFOs). The machinery that manufactures amyloid fibrils in mesangial cells in the kidney: a translational journey. United States and Canadian Academy of Pathology 113th Annual Meeting; 2024 Mar 24; Baltimore, MD.

Herrera G. Invited speaker. The role of Sorl1 receptor in AL renal disease. VIth International Kidney and Monoclonal Gammopathy Meeting; 2024 May 26; Rochester, MN.

Turbat-Herrera E. Invited speaker. Developing conformation-sensitive antibodies targeting amyloid aggregates of Lambda-6 light chains: a structure-based approach for therapeutic intervention. Mayo Clinic Conference; 2024 May 25; Rochester, MN.

Turbat-Herrera E. Invited speaker. The role of Sorl1 receptor in AL renal disease. Mayo Clinic Conference; 2024 May 25; Rochester, MN.

Wei E. Invited speaker. Thyroid carcinoma with leiomyosarcomatous features, originating from underlying papillary carcinoma. 2024 Tri-State Pathology Conference; 2024 Apr 28; Ocean Springs, MS.

V. NATIONAL PROFESSIONAL RECOGNITION

Ajay Singh: Editorial Board Membership - *Journal of Steroids and Hormonal Science*, *Journal of Integrative Oncology*, *Oncology*, *Gastroenterology*, *Hepatology Reports*, *Pancreatic Disorders and Therapy*, *Cancer Medicine (Clinical Cancer Research section)*, *John Wiley & Sons*, *Frontiers in Bioscience*, *Cancers*, Special Issue on 'Prostate Cancer: Pathology, Pathobiology and Therapy'. Associate Editor - *American Journal of Clinical and Experimental Urology*, *Journal of Ovarian Research*, *Cancer Medicine (Cancer Biology Section)*, *John Wiley & Sons*. Academic Editor - *PLoS ONE*. Guest Editor - *Cancer Letters*, Special Issue on 'Exosomes' Reviewer, *Cancers*, Special Issue on 'Inflammatory cytokines and Chemokines', *Frontiers in Oncology*, Special Issue "Immune Microenvironment in Pancreatic Cancer". Reviewer- Veteran Affairs Research, Louis Stokes Cleveland VA Medical Center, Veteran Affairs Research, Louis Stokes Cleveland VA Medical Center, Best Graduate Thesis Award (MDPI Journals, Switzerland). Judging Committee - Poster Presentations, USA Resident and Fellow Scholarship Exposition. Member Review Panel - Dean's Predoctoral Fellowships, College of Medicine. Journal Peer Reviewer – *Clinical Cancer*, *Cancer Lett*, *Life Science*, *BBA Review in Cancer*, *Molecular Cancer*, *Ultrastructural Pathology*. Organizer- Pathology Research Seminar Series, Pathology Research Journal Club, 4th Annual Allan Tucker Pathology Resident Research Forum, Prostate Cancer Focus Group, Gastrointestinal Cancer Focus Group. Scientist Reviewer- Colorectal Cancer Alliance, Icelandic Research Fund, Al Jalila Foundation, Ohio Cancer Research, HBCU-CREST Panel, National Science Foundation (NSF).

Chandrani Sarkar: Editorial Board Member - *Cancer Medicine*, *Journal of Pathology Clinical & Medical Research*, *Scientific Reports*, *BMC Cancer*. Guest Editor- *Frontiers in Cell and Developmental Biology*, *Scientific Reports*, *Cancers*. Journal Peer Reviewer - *Cancer Medicine*, *Asian Pacific Journal of Cancer Prevention*, *Frontiers in Physiology*, *Frontiers in Biosciences*, *Oral Science International*, *Brain Sciences*, *International Journal of Molecular Sciences*, *PLoS ONE*.

Debanjan Chakroborty: Editorial Board Member - *Scientific Reports*, *Journal of Pathology Clinical & Medical Research*, *Annals of Clinical and Medical Microbiology*. Guest Editor- *Frontiers in Cell and Developmental Biology*, *Scientific Reports*, *Cancers*. Journal Peer Reviewer – *Clinical and Translational Research*, *Seminars in Cell and Developmental Biology*, *Seminars in Cancer Biology*, *Oncogene*, *Molecular Biology Reports*, *BBA Molecular Cell Research*, *Scientific reports*, *Cancer Medicine*, *PLoS ONE*, *Seminars in Cancer Biology*, *FASEB*, *Aging*, *Cancers*, *International Journal of Molecular Sciences*. Organization Coordinator- Gastrointestinal Cancer Focus Group.

Elba Turbat-Herrera: Associate Editor- *Ultrastructural Pathology*. Editorial Board- *Applied Immunohistochemistry and Molecular Morphology*. Journal Peer Reviewer- *Applied Pathology*, *Diagnostic Cytopathology*, *American Journal of Medicine*, *American Journal of Kidney Diseases*, *Archives of Pathology and Laboratory Medicine*, *Ultrastructural Pathology*, *Stain Technology and Histochemistry*, *American Journal of Clinical Pathology*, *Pathobiology*, *Human Pathology*, *Cancer*, *Kidney International*, *Pathology Research and Practice*, *American Journal of Pathology*, *Annals of Saudi*

Medicine, Digestive Diseases and Sciences, Nephron, Amyloid: International Journal Experimental and Clinical Investigations, Journal American Society of Nephrology, American Journal of Physiology: Renal Physiology, Arthritis and Rheumatism, Applied Immunohistochemistry and Molecular Morphology, Blood; Journal of Applied Physiology; Laboratory Investigation; Comparative Medicine, Reproductive Sciences, Nephrology Dialysis and Transplantation, Pathology Research International, Immunology and Cell Biology, Diabetes Research and Clinical Practice, Disease Markers Journal, BMC Nephrology, Clinical Nephrology, Proteomics- Clinical Applications, Medicine, Journal of Thoracic Disease. Professional Memberships- International Academy of Pathology-US Canadian Academy of Pathologists, American Society of Clinical Pathologists, American Society of Cytopathology, Society for Ultrastructural Pathology, Alabama Society of Cytology, Alabama Medical Association, Arthur Purdy Stout Society of Surgical Pathologists, Paleopathology Society, American Association for the Advancement of Science.

Elizabeth Manci: Journal Peer Reviewer - *Fetal and Pediatric Pathology*. Director-Alabama Placenta Registry, Centralized Pathology Unit for Study of Sickle Cell Disease Counsellor - District One College of Counsellors for the Medical Association of the State of Alabama. Pathology Investigator - USA Pediatric Oncology Service. President - Medical Society of Mobile County.

Guillermo Herrera: Editor in Chief-*Ultrastructural Pathology*. Panel Member–Amyloidosis member, College of American Pathology Advisory Group, VA National Electron Microscopy Committee. Society Member- The International Kidney and Monoclonal Gammopathy Research Group-President, Society of Ultrastructural Pathology-Senior Advisor. Abstract Reviewer- International Society of Amyloidosis, College of American Pathology Meeting. Journal Peer Reviewer-*Applied Pathology, Diagnostic Cytopathology, American Journal of Medicine, American Journal of Kidney Diseases, Archives of Pathology and Laboratory Medicine, Ultrastructural Pathology, Stain Technology and Histochemistry, American Journal of Clinical Pathology, Stain Technology and Histochemistry, American Journal of Clinical Pathology, Pathobiology, Human Pathology, Cancer, Kidney International, Pathology Research and Practice, American Journal of Pathology, Annals of Saudi Medicine, Digestive Diseases and Sciences, Nephron, Amyloid: International Journal Experimental and Clinical Investigations, Journal American Society of Nephrology, American Journal of Physiology: Renal Physiology, Arthritis and Rheumatism, Applied Immunohistochemistry and Molecular Morphology, Blood; Journal of Applied Physiology; Laboratory Investigation; Comparative Medicine, Reproductive Sciences, Nephrology Dialysis and Transplantation, Pathology Research International, Immunology and Cell Biology, Diabetes Research and Clinical Practice, Disease Markers Journal, BMC Nephrology, Clinical Nephrology, Proteomics- Clinical Applications, Medicine, Journal of Thoracic Disease.* Professional Memberships- International Academy of Pathology, American Society of Clinical Pathology, United States-Canadian Academy of Pathology, Society for Ultrastructural Pathology, Arthur Purdy Stout Society of Surgical Pathologists, American Society of Nephrology (Fellow American Society of Nephrology)Sigma Xi, The Scientific Research Society American Association for the Advancement of Science, Renal Pathology Society,

Association Pathology Chairs, New York Academy of Sciences, International Society of Nephrology, International Amyloidosis Society, International Kidney Monoclonal Gammopathy Group.

Jacek Polski: Editorial Board - *Scientific Reports*, *BMC Cancer*, *International Journal of Molecular Sciences*, *Annals of Translational Medicine*. Journal Peer Reviewer - *Scientific Reports*, *Cancer Letters*, *Oncotarget*, *Head & Neck*, *Cancer Biomarkers*, *Journal of Human Lactation*, *Current Molecular medicine*, *Cellular Physiology and Biochemistry*, *Cancer Management and Research*, *Cells*, *Antioxidants*, *Mitochondrion*, *Technology in Cancer Research and Treatment*, *The Journal of Thoracic Disease*, *Chemosensors*, *Molecules*, *International Journal of Molecular Sciences*, *Frontier Oncology*, *Experimental and Molecular Pathology*, *Journal of Ovarian research*, *Aging*, *Cancers*, *Marine Drugs*, *Biomedicines*, *Cancer Medicines*, *BMC Cancer*.

Jiamin Teng: Journal Peer Reviewer - *Ultrastructural Pathology*, *Molecular Therapy Methods and Clinical Development* *Cancer Medicine*, *Zygote*, *Regenerate Medicine*.

Luis del Pozo-Yauner: Journal Peer Reviewer – *Hemato*, *BBA Molecular Cell Research*, *Ultrastructural Pathology*, *Amyloid*, *JCI-Insight*, *Institute of Protein Biochemistry*, *Cells*, *Cancers*, *International Journal of Molecular Sciences*, *Amyloid*.

Osama Elkadi: Journal Peer Reviewer - *Ultrastructural Pathology*. Board of Directors-Alabama Association of Pathologists

Pam Moore-Campbell: Society Committee – American Society for Clinical Pathology member, National Society for Histotechnology.

Rodney Shackelford: Professional Memberships- United States and Canadian Academy of Pathology, Association for Molecular Pathology, College of American Pathologists. Journal Peer Reviewer- *Ultrastructural Pathology*.

Santanu Dasgupta: Editor- *Scientific Reports*, *BMC Cancer*, *International Journal of Molecular Sciences* *Annals of Translational Medicine*, *Tumor and Microenvironment*, *Biological and Biomedical Reports*, *Cancer Controls*. Journal Peer Reviewer - *Cancer Research*, *Clinical Cancer Research*, *International Journal of Cancer*, *British Journal of Cancer*, *Advances in Cancer Research*, *Molecular Cancer Research*, *PLoS One*, *Molecular Biology and Evolution*, *American Journal of Pathology*, *Journal of Molecular Diagnostic*, *Cancer Biology & Therapy*, *Molecular Therapy*, *Journal of Cellular Biochemistry*, *Journal of Cellular Physiology*, *Neoplasia*, *International J of Nanomedicine*, *OncoTargets and Therapy*, *Cancer Cell International*, *Discovery Medicine*, *Scientific Reports*, *Cancer Letters*, *Oncotarget*, *Head & Neck*, *Cancer Biomarkers*, *Journal of Human Lactation*, *Current Molecular medicine*, *Cellular Physiology and Biochemistry*, *Cancer Management and Research*, *World Journal of Clinical Cases*, *Cells*, *cancers*, *Antioxidants*, *Mitochondrion*, *Technology in Cancer Research and Treatment*, *The Journal of Thoracic Disease*, *Chemosensors*, *Molecules*, *International Journal of Molecular Sciences*, *Frontier Oncology*, *Experimental and Molecular Pathology*, *Journal of Ovarian research*, *Aging*,

Marine Drugs, Faseb J, Cancer Medicine, Cancer Epidemiology, Biomarkers & Prevention (CEBP), Pancreatology, Cancer Research Communications Scientific Reports, Cancer Letters, Oncotarget, Head & Neck, Cancer Biomarkers, Journal of Human Lactation, Current Molecular medicine, Cellular Physiology and Biochemistry, Cancer Management and Research, Cells, Antioxidants, Mitochondrion, Technology in Cancer Research and Treatment, The Journal of Thoracic Disease, Chemosensors, Molecules, International Journal of Molecular Sciences, Frontier Oncology, Experimental and Molecular Pathology, Journal of Ovarian research, Aging, Cancers, Marine Drugs, Biomedicines, Cancer Medicines, BMC Cancer. Cancer Health Disparity, Journal of Cancer Research and Clinical Oncology.

Seema Singh: Editorial Board- *Cancers, iSciences, Discover Oncology, Cancer Letters, Scientific Reports, Frontiers in Oncology, Biomedicine, Breast Cancer: Targets and Therapy, PLoS ONE*. Associate Editor- *Frontiers in Oncology, Cancer Management and Research, Journal of Ovarian Research*. Journal Peer Reviewer- *Acta Biochimica et Biophysica Sinica, Biomaterials, BBA-Biomembrane, Biological Trace Element Research, Breast Cancer: Targets and Therapy, Cancer Letter, Cancer Medicine, Cancer Research, Cancers, Cancer Immunology, Immunotherapy, Current Analytical Chemistry, Cell Cycle, DNA Repair, Expert Opinion on Therapeutic Targets, Gut, Gastroenterology Research and Practice, GENE, Gastrointestinal Cancer: Targets and Therapy, International Journal of Breast Cancer, International Journal of Nanomedicine, International Journal of Environmental Research and Public Health, International Journal of Molecular Sciences Integrative Molecular Medicine, Journal of Cellular Biochemistry, Journal of Clinical Medicine, Journal of Hematology & Oncology, Journal of Ovarian Research, Journal of Occupational Medicine and Toxicology, Molecules, Molecular Cancer, Molecular Cancer Research, Molecular and Cellular Pharmacology, Molecular Medicine, Medical Science Monitor, Mutation Research-Genetic Toxicology and Environmental Mutagenesis, Nanomaterials, Nanoscale Research Letters, Neoplasia, OncoTarget, OncoTargets and Therapy, PLOS ONE, Photochemistry and Photobiology, Progress In Health Sciences, Pancreas, Phytomedicine, Science Signaling, Scientific Reports, Toxicology and Applied Pharmacology, Tumor Biology, Theranostics, World Journal of Gastrointestinal Oncology*. Founder and Committee Member- *Women in Cancer Research-South Asian*. Professional Society Committee Member- *American Association for Cancer Research, Tumor Microenvironment, Society of Women's in Cancer Research South Asian, Society of American Asian Scientists in Cancer Research American Association of Indian Scientists in Cancer Research, American Society for Clinical Oncology, Biochemistry and Molecular Biology, Bio-medical Sciences*.

Thuy Phung: Associate Editor- *Cancer Research Communications*. Journal Peer Reviewer- *JAMA Dermatology, American Journal of Clinical, Pathology Pediatric Blood and Cancer, Ultrastructural Pathology, Dermatopathology, College of American Pathologists (CAP) Case Reports in Molecular Pathology*. Board of Directors- *Cancer Genomics Consortium*. Professional Leadership-Treasurer *Asian Society of Dermatopathology*. Committee Member- *Cancer Genomics Consortium, Asian Society of Dermatopathology, International Society for the Study of Vascular Anomalies (ISSVA)*. Scientist Reviewer-

Rare Cancer Research Program (RCRP) for the Department of Defense Congressionally Directed Medical Research Programs.

Wei Xin: Editorial Board- *American Journal of Cancer Research International Journal of Clinical, Experimental Pathology*. Professional Society Committees- College of American Pathologists House of Delegates, College of American Pathologists foundation grant committee.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The Department of Pathology continually strives to our mission of education, research, and service.

Three residents completed the residency program this year. Dr. Mohamed Masoud is attending his fellowship at the University of Alabama in Birmingham specializing in Hemopathology, Dr. Yusuf Ozcelik is attending his fellowship at the University of Pennsylvania in Philadelphia, and Dr. Travis Berry will remain with the department as an Instructor until June 30, 2025. He will then attend his fellowship at the Medical University of South Carolina, Charleston specializing in Gastrointestinal Pathology.

Once again, the department had a successful residency recruiting year with three new residents. Maha Babker, M.D., from the University of Bahri College of Medicine, Sudan, Huseyin Kilic, M.D., from the University of Health Sciences Gulhane Faculty of Medicine, Turkey, and Ardenne Martin, M.D., from the Louisiana State University School of Medicine, New Orleans.

The Pathology Residency Program has remained productive and beneficial to the growth and development of the University of South Alabama, College of Medicine. The program is led by Director Dr. Osama Elkadi, Associate Director Jacek Polski, Program Coordinator Bettina Kelson, and appointed Chief of Resident Dr. Rosetta Campbell.

The Department of Pathology keeps growing and flourishing every year. We have added a new Pathologist to our faculty, Dr. Hector Daniel Chavarria-Bernal. He is board-certified in Breast, Gynecologic, and Genitourinary pathology. We also have added to our staff a Cytotechnologist Supervisor in Cytology, Lisha Zhang, a Laboratory Assistant in Cytology, Jada Mitchell, and an Accounting Data Specialist Tameka Abney.

2023-2024
Summary of Scholarly Activities
Department of Pediatrics

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Anbalagan S, Falkowitz DM, Mendez MD. Neonatal abstinence syndrome. In: StatPearls [Internet]. Treasure Island, FL: StatPearls Publishing; 2024 Apr 1. Available from: <https://pubmed.ncbi.nlm.nih.gov/31855342/>

Anbalagan S, Velasquez JH, Stauffert Gutierrez D, Devagiri S, Nieto D, Ankola P. Correction: Music for pain relief of minor procedures in term neonates. *Pediatr Res*. 2024 Mar;95(4):1158 Erratum for: *Pediatr Res*. 2024 Feb;95(3):679-683.

Ardila S, Woodley L, Ulloa E, Fernandez J, Bornstein J, Seims A. Utilization of single-incision laparoscopy in the management of ingested magnets. *J Laparoendosc Adv Surg Tech A*. 2024 Jun;34(6):530-534.

Clark C, McClain A, Steffensen TS, Fernandez J. Esophageal epidermoid metaplasia: a rare condition in the pediatric population. *J Pediatr Gastroenterol Nutr*. 2024 Jun;78(6):1409-1410.

Dain AS, Diorio C, Fisher B, Hankins JS, Witmer CM, Boustany M, Burton M, Ferrolino J, Sadaf S, Ross HS, Maron G, Ardura MI, Arnold S, Celentano D, Custodio H, Danziger-Isakov L, Enane L, Foster C, Furstenau D, Carreno CG, Guerguis S, Hammershaimb EA, Harrison E, Mannheim J, Mehta B, Mongkolrattanothai K, Murray M, Nakamura MM, Rathore M, Reyna M, Santos RP, Sass L, Shihan HA, Smith MJ, Statler VA, Whitworth MS, Yarbrough A, Zhu FH. Description of a national, multi-center registry of patients with sickle cell disease and SARS-CoV-2 infection: data from the Pediatric COVID-19 United States Registry. *Pediatric Blood and Cancer*. 2024 Jun;71(6):e30909.

Dolma K, Zayek M, Gurung A, Eyal F. Intratracheal instillation of budesonide-surfactant for prevention of bronchopulmonary dysplasia in extremely premature infants. *Am J Perinatol*. 2024 May;41(S 01):e3065-e3073.

Gulati R, Sayegh L, McCurley C, Eyal F, Zayek M. Back vs. chest ECG electrode placement in neonatal resuscitation: a pilot randomized controlled trial. *Resuscitation*. 2023 Nov;192:109961.

Ikeri K, Anderson A, Eyal F, Whitehurst R. Neonatal opioid withdrawal syndrome following prenatal use of supplements containing tianeptine. *Pediatrics*. 2024 Jan 1;153(2):e2023062382.

Jafar B, Sharma KP, Maertens P. Alpha-thalassemia X-linked intellectual disability syndrome in a boy with a strong family history of Smith–Lemli–Opitz's Syndrome. *J Pediatr Neurol*. 2024;22(4):311-317. [Subscription required]

Lokangaka A, Ramani M, Bauserman M, Patterson J, Engmann C, Tshetu A, Cousens S, Qazi SA, Ayede AI, Adejuyigbe EA, Esamai F, Wammanda RD, Nisar YB, Coppieters Y. Incidence of possible serious bacterial infection in young infants in the three high-burden countries of the Democratic Republic of the Congo, Kenya, and Nigeria: a secondary analysis of a large, multi-country, multi-centre clinical trial. *J Glob Health*. 2024 Feb 2;14:04009.

Maertens P, Shrestha D, Dolma K, Sucar-Marquez J, Sharma K. Congenital continuous retrograde basilar flow suggests type B interrupted aortic arch in a neonate: a case report. *SAGE Open Med Case Rep*. 2024 Apr 8;12:2050313X241245281.

McCormick BJ, Imran H. Spontaneous remission of acute lymphoblastic leukemia following *Candida tropicalis* fungemia. *Cureus*. 2024 Jun 15;16(6):e62435.

Nabar S, Fernandez J, Prakash V, Safder S. Gastrointestinal manifestations seen in pediatric patients diagnosed with small fiber neuropathy. *J Pediatr Gastroenterol Nutr*. 2024 Mar;78(3):583-591.

Nama N, DeLaroche A, Bonkowsky JL, Gremse D, Tieder JS. Brief resolved unexplained event: evidence-based and family-centered management. *Pediatr Rev*. 2024 Oct 1;45(10):560-572.

Parekh D, Lin H, Batajoo A, Peckham-Gregory E, Karri V, Stanton W, Scull B, Fleishmann R, El-Mallawany N, Eckstein OS, Prudowsky ZD, Gulati N, Agrusa JE, Ahmed AZ, Chu R, Dietz MS, Goldman SC, Hogarty MD, Imran H, Intzes S, Kim JM, Kopp LM, Levy CF, Neff P, Pillai PM, Sisk BA, Schiff DE, Trobaugh-Lotrario AD, Walkovich K, McClain KL, Allen CE. Clofarabine monotherapy in aggressive, relapsed and refractory Langerhans cell histiocytosis. *Br J Haematol*. 2024 May;204(5):1888-1893.

Ray GJ, Liles JS, Lim WY. A case of primary hyperparathyroidism secondary to parathyroid adenoma in a pediatric patient. *AACE Clin Case Rep*. 2024 Feb 29;10(3):97-100.

Tantivit N, Mulekar M, Kaulfers AM, Lim WY. Impact of weight on severity of hospital course in children admitted with COVID-19. *Glob Pediatr Health*. 2023 Dec 21;10:2333794X231220873.

Yuliati A, Zayek M, Maertens P. The impact of phenobarbital on the ability of electroencephalogram to predict adverse outcome in asphyxiated neonates during therapeutic hypothermia. *Am J Perinatol*. 2024 May;41(S 01):e1681-e1688.

II. PUBLISHED ABSTRACTS

Arriola Montenegro L, Bedi S, Ponnambalam AM. An unusual case of odynophagia presenting with severe dehydration and ketosis in a teenager. Am J Med Sci. 2024 Feb;367(S1):S135-S136. Abstract no. 234.

Arriola Montenegro L, Nair A, Tengsupakul S. Reported case of recurrence of fever in a patient with multisystem inflammatory syndrome in children due to COVID-19 infection after initial successful treatment. Am J Med Sci. 2024 Feb;367(S1):S241-S242. Abstract no. 404.

Augustine M, Gavrilita C. A pediatric case of Bickerstaff's brainstem encephalitis with relapse of symptoms following initial treatment with IVIG and steroids. American Academy of Pediatrics Experience National Conference & Exhibition. 2024 Sep 27-Oct 1; Orlando, FL. Abstract no. P2.C051. Available from: <https://aapexperience24.eventscribe.net/fsPopup.asp?PosterID=681669&mode=posterInfo>

Augustine M, Roca Garcia MR. A case of recurrent rhabdomyolysis in an adolescent who is a carrier for carnitine palmitoyl transferase II deficiency. Am J Med Sci. 2024 Feb;367(S1):S242-S243. Abstract no. 406.

Augustine M, Williams KL. A surprising case of lower gastrointestinal bleeding from a Meckel's diverticulum. Am J Med Sci. 2024 Feb;367(S1):S243-S244. Abstract no. 407.

Augustine M, Williams KL, Altun O, Gremse D. Pediatric perianal Crohn's disease without luminal inflammation. Am J Med Sci. 2024 Feb;367(S1):S242. Abstract no. 405.

Bedi S, Augustine M, Sanchez O. Acute trauma leading to diagnosis of alpha-1-antitrypsin deficiency. Am J Med Sci. 2024 Feb;367(S1):S136. Abstract no. 235.

Bedi S, Hardeep Singh S, Gavrilita C. Tick paralysis caused by Ixodes scapularis in a 5-year-old female. Am J Med Sci. 2024 Feb;367(S1):S366. Abstract no. 602.

Bedi S, Hardeep Singh S, Sehgal M. Severe methemoglobinemia: successful treatment with ascorbic acid. Am J Med Sci. 2024 Feb;367(S1):S24. Abstract no. 40.

Dela Cruz J, Sucar-Marquez J, Maertens P, Batten L, Dolma K, Shrestha D. An unusual pathway to diagnosis of DiGeorge syndrome. Am J Med Sci. 2024 Feb;367(S1):S227. Abstract no. 379.

Dela Cruz J, Sucar-Marquez J, McDonald TC, Shrestha D, Dolma K. A rare case of prenatal onset cortical hyperostosis with favorable outcome. Am J Med Sci. 2024 Feb;367(S1):S226-S227. Abstract no. 378.

Evans A, Filkins L, Custodio H, Daniels EA, Kao C, Richardson KM, Carrillo-Marquez M, Borre CI, Oliveira CR, Espinosa CM, Bocchini JA, Mandelia Y, Mazade MA, Santos RP, Carr S, Selvarangan R, Kimberlin DW. Clinical spectrum of a large multi-state U.S.

cohort of parechovirus infection in neonates and young infants. Open Forum Infect Dis. 2023 Dec;10(Suppl 2):S812-S813. Abstract no. 1747. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC10678563/pdf/ofad500.1578.pdf>

Flores AP, Perez Garcia EM. Classic congenital adrenal hyperplasia presenting with hypertension. Am J Med Sci. 2024 Feb;367(S1):S453-S454. Abstract no. 728.

Haladwala K, Roca Garcia MR. Correlation of renal bladder ultrasound and voiding cystourethrogram in pediatric patients hospitalized for febrile urinary tract infection. Am J Med Sci. 2024 Feb;367(S1):S320-S321. Abstract no. 534.

Hardeep Singh S, Lim W. A case of parathyroid adenoma in a pediatric patient. Am J Med Sci. 2024 Feb;367(S1):S111. Abstract no. 192.

Johnson N, Gupta S, Creel A, Gibson K, Gigante J, Guardiola A, Kaulfers AM, Lehman C, Ma L, Macatangay R, Peltier C, Permashwar V, Rideout M, Suessman A. Chutes and ladders- strategies behind the game of promotion: a guide to promotion as a medical educator. Council on Medical Student Education in Pediatrics (COMSEP) 2024 Annual Meeting. 2024 Apr 3-6; New Orleans, LA. Abstract no. 16.

Joseph S, Viera GE, Hassouneh L. Infant with a rare XP22.2 chromosomal duplication and concomitant chronic granulomatous disease. Am J Med Sci. 2024 Feb;367(S1):S261-S262. Abstract no. 435.

Kulkarni V, Shrestha D, Eyal F, Siddiqui A, Imran H, Marri P. Thrombopoietin receptor agonist in a premature neonate with transfusion dependent thrombocytopenia. Am J Med Sci. 2024 Feb;367(S1):S347-S348. Abstract no. 578.

Kulkarni V, Tengsupakul S. Reported case of *Yersinia enterocolitica* infection presenting with pseudoappendicitis and terminal ileitis. Am J Med Sci. 2024 Feb;367(S1):S263-S264. Abstract no. 439.

Lund H, Zayek M, Ramani M, McCurley C, Gore L, Eyal F, Kolma D. Effect of the development of a small baby unit on neonatal mortality and morbidity in ≤ 28 weeks gestation. Am J Med Sci. 2024 Feb;367(S1):S296. Abstract no. 493.

Maertens P, Kamal S. Echoencephalography of brainstem necrosis in asphyxiated term newborns. American Society of Neuroimaging Annual 47th Annual Meeting. 2024 Jan 12-14; Myrtle Beach, SC. p. 15. Abstract no. P9.

Middleton J, Dell M, Ma L, Lehmann C, Suessman A, Chung E, Kaulfers AM, Macatangay R, Lindenbaum Y, Zucker M. Developing skills to write “the best letter of recommendation I have ever read in my 20 year career.” Council on Medical Student Education in Pediatrics (COMSEP) 2024 Annual Meeting. 2024 Apr 3-6; New Orleans, LA. Abstract no. 26.

Morales Ubico EE, Lim WY. A case report of Hashimoto's encephalopathy in a pediatric patient. Am J Med Sci. 2024 Feb;367(S1):S114. Abstract no. 197.

Nizami Z, Williams KL, Ponnambalam AM. NERF: the perfect shot leading to an esophageal foreign body. Am J Med Sci. 2024 Feb;367(S1):S449. Abstract no. 720.

Robinson KC, McConnell S. Educating the educators: improving resident knowledge about introducing solid foods to infants. Am J Med Sci. 2024 Feb;367(S1):S436. Abstract no. 700.

Seguí Acevedo Y, Gavrilita C. Effect of the COVID-19 pandemic on non-accidental trauma patterns in a tertiary pediatric hospital. Am J Med Sci. 2024 Feb;367(S1):S318. Abstract no. 530.

Sharma KP, Flores AP, Maertens PA. Caspase 8 enzyme deficiency: a cause of chronic inflammatory demyelinating polyneuropathy. Am J Med Sci. 2024 Feb;367(S1):S253. Abstract no. 422.

Sharma KP, Maertens PA. Postsurgical central pseudothalamic pain syndrome in a child with parietal brain tumor. 12th Congress of the World Federation of Pediatric Intensive & Critical Care Societies. 2024 Jun 1-5; Cancun, Mexico. p. 16. Abstract no. PP284.

Hardeep Singh S, Gavrilita C. Severe anemia and hypoxemia with no apparent cause in a 3-year-old Iraqi male. Am J Med Sci. 2024 Feb;367(S1):S257-S258. Abstract no. 428.

Tolleson T, Moore J, Batten L, Hassounah L, Marri P, Nair A, Gavrilita C. Life threatening complication of Kawasaki disease. Am J Med Sci. 2024 Feb;367(S1):S282-S283. Abstract no. 470.

Udoete IO, Arriola Montenegro L, Hassounah L. A case report of bilateral otomycosis in an immunocompetent child. Am J Med Sci. 2024 Feb;367(S1):S284-S285. Abstract no. 473.

Udoete IO, Nizami Z, Altun O. Alagille syndrome in a 4 week old infant with JAG1 mutation. Am J Med Sci. 2024 Feb;367(S1):S139. Abstract no. 240.

Viera GE, Parsell KJ. New onset hydrocele in a toddler with adenovirus infection. Am J Med Sci. 2024 Feb;367(S1):S287. Abstract no. 477.

Viera GE, Segui Acevedo Y, Maertens PA, Gavrilita C. Midbrain myelitis, optic neuritis and brainstem leptomeningeal enhancement in an adolescent with anti-N-methyl-D-aspartate receptor and anti-myelin oligodendrocyte glycoprotein. Am J Med Sci. 2024 Feb;367(S1):S287-S288. Abstract no. 478.

Weidow N, Firquin K, Sanchez O. Corneal alkali burn in an infant: a rare complication of airbag deployment. Am J Med Sci. 2024 Feb;367(S1):S289. Abstract no. 480.

Zaman J, Mohammad D. It's a full house, non-lupus nephropathy. Am J Med Sci. 2024 Feb;367(S1):S313. Abstract no. 523.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Altun O. Invited speaker. Collaborative care for patients with inflammatory bowel disease. Alabama Chapter-American Academy of Pediatrics 2024 Spring Meeting & Pediatric Update. 2024 Apr 20; Gulf Shores, AL.

Custodio H. Invited speaker. 2024 Best Practices for active teaching and learning [virtual presentation]. American Academy of Pediatrics Committee on Continuing Medical Education Webinar. 2024 Jun 18; Itasca, IL.

Dadlani G. Invited speaker. Heart Month 2024 [video]. "Healthy Living" segment, WALA News Fox 10; 2024 Feb 14; Mobile, AL. Available from: <https://www.fox10tv.com/2024/02/14/healthy-living-with-usa-health-heart-month-2024/>

Dadlani G. Invited speaker. Importance of child immunizations [video]. "Medical Moment" segment, WKRG News 5; 2024 Jul 24; Mobile, AL. Available from: <https://www.wkrg.com/health/medical-moment-importance-of-child-immunizations/>

Dadlani G. Invited speaker. Drowning prevention [video]. "Medical Moment" segment, WKRG News 5; 2024 May 21; Mobile, AL. Available from: <https://www.wkrg.com/health-2/medical-moment-drowning-prevention-with-dr-gul-h-dadlani/>

Dadlani G. Invited speaker. Child abuse prevention month [video]. "Medical Moment" segment, WKRG News 5; 2024 Apr 9; Mobile, AL. Available from: <https://www.wkrg.com/health-2/medical-moment-child-abuse-prevention-month-with-dr-dadlani/>

Dadlani G. Invited speaker. Childhood allergies [video]. "Medical Moment" segment, WKRG News 5; 2024 Apr 2; Mobile, AL. Available from: <https://www.wkrg.com/health-2/medical-moment-childhood-allergies-with-dr-gul-h-dadlani/>

Dadlani G. Invited speaker. Birth defect awareness month [video]. "Medical Moment" segment, WKRG News 5; 2024 Jan 23; Mobile, AL. Available from: <https://www.wkrg.com/health-2/medical-moment-birth-defect-awareness-month-with-dr-gul-h-dadlani/>

Gremse D. Invited speaker. Risks of swallowed objects [video]. "Health Living" segment, WALA News Fox 10; 2024 Jun 19; Mobile, AL. Available from:

<https://www.fox10tv.com/2024/06/19/healthy-living-with-usa-healthy-risks-swallowed-objects/>

Imran H. Invited speaker. Common ped Hem Onc problems including SCD and advances in immunotherapy for pediatric cancer. Alabama Society of Physician Assistant (ASPA) Annual CME Conference. 2024 Mar 7; Mobile, AL.

Imran H. Invited speaker. Sickle cell disease [video]. “Medical Moments” segment, WKRG News 5; 2024 Jun 11; Mobile, AL. Available from: <https://www.wkrg.com/health-2/medical-moment-sickle-cell-disease-with-dr-hamayun-imran/>

Johnson N, Gupta S, Creel A, Gibson K, Gigante J, Guardiola A, Kaulfers A, Lehman C, Ma L, Macatangay R, Peltier C, Permashwar V, Rideout M, Suessman A. Invited speakers. Chutes and ladders- strategies behind the game of promotion: a guide to promotion as a medical educator. Council on Medical Student Education in Pediatrics (COMSEP) 2024 Annual Meeting. 2024 Apr 4; New Orleans, LA.

Middleton J, Dell M, Ma L, Lehmann C, Suessman A, Chung E, Kaulfers AM, Macatangay R, Lindenbaum Y, Zucker M. Invited speakers. Developing skills to write “the best letter of recommendation I have ever read in my 20 year career.” Council on Medical Student Education in Pediatrics (COMSEP) 2024 Annual Meeting. 2024 Apr 6; New Orleans, LA.

Mukherjee B, Pfleeger J, Clanton C, Roca Garcia MR, Khalsa, G, Custodio HT. Invited speakers. Conversations to find one's truth: coaching in medical student education. 14th Annual South Alabama Conference on Teaching and Learning; 2024 May 8; Mobile, AL.

Petty M. Invited speaker. Addressing youth tobacco use from a provider perspective. Alabama Chapter of the American Academy of Pediatrics 2024 Annual Meeting & Fall Pediatric Update; 2024 Sep 13; Birmingham, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

Ibrahim Ahmed: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, Mobile Pediatric Society.

Mohammed Al-Nufal: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, Mobile Pediatric Society.

Osman Altun: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, American Medical Association; Member, Mobile Pediatric Society.

Saminathan Anbalagan: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, Mobile Pediatric Society.

Stephanie Anderson: Member, AAP Council on Children with Disabilities & Section on Developmental and Behavioral Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, Alabama Interagency Autism Coordinating Council (AIACC) Standards of Practice Committee, Diagnostics and Health Work Group; Member, American Academy of Pediatrics; Member, Mobile Pediatric Society; Member, Society for Developmental and Behavioral Pediatrics, Education Committee.

Mansi Batra: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics. Member, Mobile Pediatric Society.

Lynn Batten: Fellow, American College of Cardiology; Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, Alpha Omega Alpha Medical Honor Society; Member, American Heart Association; Member, Council on Medical Student Education in Pediatrics (COMSEP); Member, Gold Humanism Honor Society. News Segments: News Nation, Morning in America, American Hero segment, 1/31/23.

Kari Bradham: Member, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Alabama Early Hearing Detection Intervention Champion; Member, Children with Medical Complexity Collaborative Improvement and Innovation Network (CMC CoIIN), Member, Mobile Pediatric Society.

Jennifer Cole: Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, Medical Association of the State of Alabama; Member, Mobile Pediatric Society.

LaDonna Crews: Member, Academy of Breastfeeding Medicine; Member, Academic Pediatric Association; Fellow, American Academy of Pediatrics; Member, Executive Board, Alabama Chapter American Academy of Pediatrics; 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; Member, Children with Medical Complexity Collaborative Improvement and Innovation Network (CMC CoIIN).

Haidee Custodio: Section Editor, Rudolph's Pediatrics, 24th edition, McGraw-Hill; Cohort 10 member, Association of Pediatric Program Directors (APPD) Leadership in Educational Academic Development LEAD Program; Continuing Medical Education Chair, Alabama Chapter American Academy of Pediatrics (AL AAP); Faculty Mentor, AAP Mentorship Program; Faculty Mentor, AAP Section on International Medical Graduate; Fellow, American Academy of Pediatrics; Member, Infectious Diseases Society of America; Member, Pediatric Infectious Diseases Society; Member, Association of Pediatric Program Directors; Member, Mobile Pediatric Society. Reviewer: Academic Medicine; American Academy of Pediatrics National Conference and Exhibit; Association of Pediatric Program Directors (APPD) Research and Scholarship Learning Community; Global Pediatric Health; MedEd Portal; Cureus Journal of Medical Science; Pediatric Academic Societies

(PAS) Meeting, Abstract Reviewer & Maintenance of Certification (MOC) Reviewer; Reviewer, Academic Emergency Medicine.

Gul H. Dadlani: Executive Board, Alabama Chapter American Academy of Pediatrics, Fellow, American Academy of Pediatrics; Member, American Heart Association; Member, American Heart Association Southeast Board of Directors; Member, Association of Medical School Pediatric Department Chairs (AMSPDC); Member, Mobile Pediatric Society.

Nita Davis: Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, Mobile Pediatric Society. Reviewer, Society of Critical Care Medicine Supplement for Annual Congress; Member, Metropolitan Medical Society.

Kalsang Dolma: Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, American Medical Association; Member, American Thoracic Society; Member, Indian Academy of Pediatrics; Member, Trainees and Early Career Neonatologist; Member, Vermont Oxford Network Data Base.

Benjamin Estrada: Fellow, American Academy of Pediatrics (AAP); Fellow, Pediatric Infectious Diseases Society (PIDS); Institutional Representative, Southern Society for Pediatric Research (SSPR); Member, Alabama Chapter American Academy of Pediatrics; Member, Alpha Omega Alpha Medical Honor Society; Member, Association of American Medical Colleges (AAMC); Member, Gold Humanism Honor Society; Member, Infectious Diseases Society of America (IDSA); Member Council on Medical Student Education in Pediatrics (COMSEP); Member Alabama Department of Public Health Tuberculosis Council . Member, Alabama Department of Public Health HIV Clinical Council.

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: Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, Critical Care Section, Society of Critical Care Medicine; Member, Mobile Pediatric Society.

Jenelle Fernandez: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, Mobile Pediatric Society; Member, North American Society of Pediatric Gastroenterology, Hepatology, and Nutrition (NASPGHAN).

Induja Gajendran: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, Mobile Pediatric Society.

Srikanth Garlapati: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, Mobile Pediatric Society.

Cristina Gavrilita: Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, Society of Critical Care Medicine; Member and Past President, Mobile Pediatric Society.

Sophia Goslings: Member, Alabama Chapter American Academy of Pediatrics; 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.

David Gremse: Member, Alabama Chapter American Academy of Pediatrics; Member, American Board of Pediatrics (ABP); Medical Editor, ABP Subboard of Pediatric Gastroenterology Exam Committee; Member and Chair, ABP Credentials Committee; Fellow, American College of Gastroenterology; Member, American Gastroenterological Association; Member, American Medical Association; Member, American Pediatric Society; Emeritus Member, Association of Medical School Pediatric Department Chairs (AMSPDC); President, Gulf Coast Total Care; Member, Mobile Pediatric Society; Member, North American Society of Pediatric Gastroenterology, Hepatology, and Nutrition (NASPGHAN); Member, Society for Pediatric Research; Member and Past President, Western Society for Pediatric Research; Member, The Gold Humanism Honor Society; Member, Alpha Omega Alpha Medical Honor Society; Editorial Board, Pediatric Drugs; Reviewer: Pediatric Drugs; Pediatrics; Journal of Pediatric Gastroenterology and Nutrition, News segments: 2024 Nappie Award Winner: Best Pediatric Specialist.

Rashmi Gulati: Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, American Medical Association; Member: QI/Research subcommittee TECaN; Member: Indian Academy of Pediatrics; Member, Vermont Oxford National Data Base; Member, Society for Pediatric Research; Member, Regional perinatal advisory council and State Perinatal Advisory Council, Alabama Department of Public Health. Abstract Reviewer: 2019 Eastern Society of Pediatrics Research Meeting. Reviewer: Journal of Neonatology and Clinical Pediatrics, PLOS ONE, BMC Pediatrics.

Linda Hassouneh: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, Pediatric Infectious Diseases Society; Member, Infectious Diseases Society of America; Member, Mobile Pediatrics Society.

Hamayun Imran: Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, American Society of Hematology; Member,

American Society of Pediatric Hematology-Oncology; Member and Local Principal Investigator, Children's Oncology Group; Member, Mobile Pediatric Society.

Anne-Marie Kaulfers: Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, American Diabetes Association; Member, The Endocrine Society; Member, The Lawson Wilkins Pediatric Endocrine Society; Member, Mobile Pediatric Society.

Whei Ying Lim: Fellow, American Academy of Pediatrics (AAP); Member, Alabama Chapter American Academy of Pediatrics; Member, Alpha Omega Alpha Medical Honor Society; Member, Mobile Pediatric Society; Member, The Lawson Wilkins Pediatric Endocrine Society.

Myria Mack-Williams: Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, Association of Pediatric Program Directors; Member, Mobile Pediatric Society.

Preethi Marri: Fellow, American Academy of Pediatrics; Member Section on Hematology/Oncology; Member, Alabama Chapter American Academy of Pediatrics; Member, American Society of Pediatric Hematology-Oncology; Member, American Society of Clinical Oncology; Member and Co-PI, Children's Oncology Group; Member, Mobile Pediatric Society.

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

Jane Messemer: American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, Mobile Pediatric Society.

Dunya Mohammad: Fellow, American Academy of Pediatrics (AAP); Member, Alabama Chapter American Academy of Pediatrics; Member, American Society of Pediatric Nephrology; Member, American Society of Transplantation; Member, Mobile Pediatrics Society; Certified Hypertension Specialist of the American Hypertension Specialist Certification Program.

Athira Nair: Fellow, American Academy of Pediatrics; Member, American College of Cardiology; Member, Alabama Chapter American Academy of Pediatrics; Member, American Society for Echocardiogram; Member, Mobile Pediatric Society.

Uzoma Obiaka: Member, Alabama Chapter American Academy of Pediatrics; Member, American Heart Association; Member, American Academy of Pediatrics; Member, American College of Cardiology; Member, Mobile Pediatric Society.

Karen Parsell: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, Medical Society of Mobile County; Member,

Medical Association of the State of Alabama; Member, Mobile Pediatric Society; Section Member, Hospital Medical and LGBTQ+ Health for American Academy of Pediatrics.

Keith Peevy: Member, Alabama State Medical Society; Member, Alpha Omega Alpha Medical Honor Society; Affiliate Member, European Society for Pediatric Research; Member, Medical Society of Mobile County; Member, Southern Society for Pediatric Research.

E. Melissa Perez Garcia: Member, Alabama Chapter American Academy of Pediatrics Member, American Academy of Pediatrics; Member, Endocrine Society; Member, Mobile Pediatric Society; Member, Pediatric Endocrine Society.

Melody Petty: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics, Member, Advancing Pediatric Educator Excellence (APEX) Teaching Program 2020 Educator Class, Member Section on Pediatric Hospital Medicine, American Academy of Pediatrics; Member, Mobile Pediatric Society.

Ananthasekar Ponnambalam: Continuing Medical Education Reviewer, Journal of Pediatric Gastroenterology and Nutrition; Fellow, American Academy of Pediatrics (FAAP); Member, American College of Gastroenterology (ACG); Member, American Gastroenterological Association (AGA); Member, Mobile Pediatric Society; Member, North American Society for Pediatric Gastroenterology Hepatology and Nutrition (NASPGHAN); Member, Professional Educational Committee, North American Society for Pediatric Gastroenterology Hepatology and Nutrition (NASPGHAN); Abstract Reviewer, American College of Gastroenterology.

Kristin Rager: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, Mobile Pediatric Society.

Manimaran Ramani: Member of AAMC. Member of Chief Medical Officer Group. Co-chair of the finance committee for the Newborn Brain Society; Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, American College of Healthcare Executives; Member, Mobile Pediatric Society; Member, Southern Pediatric Research Society; Member, Society for Neuroscience; Global Network Member; Lectures: Monitoring with NIRS in Neonatology at the Federation of Neonatology of Mexico; Research: Work with the NIH-funded Global Network Team to conduct neurodevelopmental follow-up research; PI for a multinational clinical study. ABC study (the Azithromycin: Brain neuroprotection for Children). The study is conducted in 5 countries: India, Pakistan, Democratic Republic of Congo, Zambia, and Guatemala; Workshop: Led and conducted a multinational workshop on the Bayley Infant Scale of Development at Lusaka, Zambia. Site PI for the Children's Hospital Consortium. Site PI for the NIH-funded NANO study. Site PI for the NIH-funded VIGOR study.

Vamshi Revuri: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, Mobile Pediatric Society.

Katrina Roberson-Trammell: Fellow, American Academy of Pediatrics; Board, Gulf Regional Early Childhood Services (GRECS); Member, Alabama Chapter American Academy of Pediatrics; Member, Children with Medical Complexity Collaborative Improvement and Innovation Network (CMC CoIIN), 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; School Health Champion, Alabama Chapter American Academy of Pediatrics.

Renee Roca-Garcia: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics, Pediatrics Section on Hospital Medicine; Member, College of Surgeons and Physicians of Guatemala; Member, Mobile Pediatric Society. Participated in panel and offered comments/perspective treating pediatric patients and families from immigrant communities and their challenges navigating the health care system.

Frederick W. Rowell Jr.: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, Mobile Pediatric Society.

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

Mukul Sehgal: Member at Large, Sigma Xi Research Honor Society; Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics (AAP); Member, Society of Critical Care Medicine (SCCM); Member, Society of Pediatric Research (SPR); Member, Multi-disciplinary Critical Care Knowledge Assessment Program (MCKKAP) Committee- SCCM; Reviewer: PedsCCM.org, Reviewer: Society of Critical Care Medicine Congress (SCCM), Reviewer: Pediatric Academic Society (PAS); Reviewer: Journal of Medical Internet Research (JMIR); Reviewer: Internal Medicine Journal; Reviewer: Cureus Journal of Medical Science.

Sara Garcia Shank: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, Mobile Pediatric Society.

Kamal Sharma: Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, American Thoracic Society; Member, Society of Critical Care Medicine; Member and Past President, Mobile Pediatric Society; Permanent Member, Nepal Medical Association; Abstract reviewer: SCCM Congress 2020; Manuscript reviewer: Society of Critical Care Medicine 2024.

Abdul Hafeez Siddiqui: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, American Society of Hematology;

Member, American Society of Pediatric Hematology/Oncology; Member, Children's Oncology Institute; Member, Mobile Pediatric Society; Member, Pakistan Medical and Dental Council (PMDC).

Penny Stewart: Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, Mobile Pediatric Society.

Supatida Tengsupakul: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, Mobile Pediatric Society; Member, Pediatric Infectious Diseases Society; Member, Section on Hospital Medicine, American Academy of Pediatrics; Certificate of Knowledge in Clinical Tropical Medicine and Travelers' Health (CTropMed®).

Daniela Tenorio: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, Mobile Pediatric Society.

Bianca Vamesu: Junior Member, Society for Pediatric Research; Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, Mobile Pediatric Society; Member, Newborn Brain Society.

Richard Whitehurst: Member, Alabama Chapter American Academy of Pediatrics; Member, Alabama Physicians Wellness Committee; Member, Alabama Society of Neonatology; Member, American Academy of Pediatrics; Member, American Medical Association; Member, Association Pediatric Program Directors; 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.

Kathryn Williams: Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, Ohio Chapter American Academy of Pediatrics; Member, Mobile Pediatric Society; Member, Southern Society for Clinical Investigation.

Felicia Wilson: Board Member, Camp Rap-A-Hope; Co-Chair, Hemoglobinopathy Subcommittee, State of Alabama Newborn Screening Advisory Committee; Fellow, American Academy of Pediatrics; Medical Director, Sickle Cell Disease Association of America, Mobile Chapter; Laboratory Member, Southern Society for Pediatric Research; Member, Alabama Chapter American Academy of Pediatrics; Member, Alabama Sickle Cell Oversight and Regulatory Commission; Member, Children's Oncology Group; Member, Prevention, Early Detection Subcommittee; Member, Alabama Comprehensive Cancer Control Coalition; Member, Section on Hematology/Oncology; Member, American Society of Hematology; Member, Medical Association of the State of Alabama; Member, Mobile Pediatric Society; President, Aubreigh's Army Foundation 328 Board of Directors; Speaker's Bureau, Novartis Pharmaceuticals Corporation.

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

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The Department of Pediatrics was delighted to welcome new faculty members: Drs. Saminathan Anbalagan, Michael Strickland, Gul Dadlani, Myrtle Delgado, Srikanth Garlapati, Jenelle Fernandez, Kristin Rager, Mohammad Al-Nufal, and Nicole Weidow.

Dr. Anbalagan joined the faculty as Assistant Professor of Pediatrics in the Division of Critical Care Medicine in October 2023. Dr. Anbalagan received his medical degree at the PSG Institute of Medical Sciences & Research in Coimbatore, India in 2013. He went on to complete his Pediatrics Residency at the Lincoln Medical and Mental Health Center, affiliated to Weill Cornell Medical University in Bronx, NY in 2020. Dr. Anbalagan completed his fellowship at Thomas Jefferson University Hospital/Nemours Children's Hospital/ChristianaCare Hospital, in Philadelphia, PA in June 2023.

Dr. Strickland joined the faculty as Associate Professor of Pediatrics in the Division of General Pediatrics in November 2023. After earning his undergraduate degree at the University of Alabama, Dr. Strickland earned his Doctor of Medicine at the University of South Alabama College of Medicine in 2002. He began his Graduate Medical Education as a Family Medicine Intern at Druid City Hospital in Tuscaloosa, Alabama, then transferred to USA Health Children's and Women's Hospital, where he completed his Pediatric Residency in 2005. He served as Pediatric Chief Resident at USA Health Children's and Women's Hospital from 2005-2006.

Dr. Gul Dadlani joined the faculty as Chair and Professor of Pediatrics in the Division of Cardiology in January 2024. Dr. Dadlani earned his undergraduate and Medical Degree from the University of Buffalo. He completed his Pediatric Residency at Oishei Children's Hospital in Buffalo, and then a fellowship in Pediatric Cardiology at the University of Rochester/Golisano Children's Hospital in Rochester, NY.

Dr. Delgado joined the faculty as Assistant Professor of Pediatrics in the Division of General Pediatrics in March 2024. serving in the Pediatric Residency Clinic. Dr. Delgado received her medical degree in 1996 from Tulane University of Medicine. She went on to complete her Pediatrics Residency at Tulane Medical Center in 2001.

Dr. Garlapati joined the faculty as Assistant Professor of Pediatrics in the Division of General Pediatrics in May 2024. Dr. Garlapati received his Medical Degree from The Tamil Nadu Dr. M.G.R. Medical University, India, in 2006. He went on to earn his Masters of Public Health, with concentration in Health Education, at Western Kentucky University in Bowling Green, KY in 2011. Dr. Garlapati completed his Pediatric Residency at the West Virginia University, in Morgantown, WV in 2016.

Dr. Fernandez joined the faculty as Assistant Professor of Pediatrics in the Division of General Pediatrics in May 2024. Dr. Fernandez received her medical degree from Ross University School of Medicine, Dominica, West Indies, in 2016. She went on to complete her Pediatrics Residency at the Medical Center of Central Georgia, Macon, GA in 2019. Dr. Fernandez complete her fellowship in Pediatric Gastroenterology at University of Florida at Arnold Palmer Hospital for Children, Orlando, FL in June 2022.

Dr. Rager joined the faculty as Professor of Pediatrics in the Division of General Pediatrics in June 2024. Dr. Rager graduated in 1994 with her B.A. in Psychology from Vanderbilt University in Nashville, TN, then earned her Doctor of Medicine at the University of Louisville School of Medicine in Louisville, Kentucky in 1998. She completed her Pediatric Residency at the Medical University of South Carolina in Charleston, SC in 2001, followed by a fellowship in Adolescent Medicine at Cincinnati Children's Hospital Medical Center in Cincinnati, OH. She also earned a master's in public health from Ohio State University in 2004. After fellowship, she accepted an appointment in the Department of Pediatrics at University of Kentucky College of Medicine in Lexington, KY as Assistant Professor in 2004.

Dr. Al-Nufal joined the faculty as Assistant Professor of Pediatrics in the Division of General Pediatrics in August 2024. Dr. Al-Nufal received his medical degree from Weill Cornell Medical College in Qatar, Doha, Qatar, in 2012. He went on to complete his General Surgery Residency at Hamad Medical Corporation, Qatar in 2012. He went on to complete his first Postdoctoral Research Fellow, in the Department of Cell and Developmental Biology at the Weill Cornell Medical College in Qatar, Qatar 2013. Dr. Al-Nufal completed his second Postdoctoral Research Fellow, in the Department of Surgery Endocrinology lab, Thyroid and Adrenal Tumors at Weill Cornell Medical College, Cornell University, in New York in 2014. Dr. Al-Nufal completed his Pediatric Residency at the University of South Alabama, in 2017.

Dr. Weidow joined the faculty as Assistant Professor of Pediatrics in the Division of General Pediatrics in August 2024. Dr. Weidow received her Medical Degree from the Alabama College of Osteopathic Medicine, in Dothan, AL in 2020. She completed her Internal Medicine Internship at Infirmary Health in June 2021 and completed her Pediatric Residency at the University of South Alabama in June 2024.

Benjamin Estrada MD and Anna Foust, MD were recognized by the USACOM Class of 2024 as Red Sash Distinguished Faculty at the 2024 Hooding Ceremony.

The Award for Best Resident Educator Inpatient was presented to: Mukul Sehgal, MD.

The Award for Best Resident Educator Outpatient was presented to: Jane Messemer, MD.

The Award for Best Resident Advocate was presented to: Karen Parsell, MD

The Robert C. Boerth Award for Best Attending was presented to: Ibrahim Ahmed, MD.

The twenty-fifth recipient of the Hollis J. Wiseman Award for Excellence in Pediatrics during the Pediatric Clerkship for the Class of 2024 was Justin Penninger.

Of the pediatric housestaff completing residency training in 2024, three entered private practice, three entered fellowship training, and one remained in the department as a Pediatric Chief Resident. Of the graduating Medicine-Pediatrics residents, one entered fellowship training. Twelve new first year Residents entered the Pediatric Residency Program, and two first-year residents entered the combined Medicine-Pediatrics Residency Program. The Program received an additional Resident who was previously in the Internal Medicine Preliminary Program.

Drs. Pedro Ricardo Cabrera and Jorge Sucar-Marquez completed their terms as Pediatric Chief Residents and Drs. Reham Yehia, Ana Paula Flores, and Zoha Nizami, MD took over duties as the Pediatric Chief Residents for the 2024-2025 academic year.

The scholarly activities by the faculty of the Department of Pediatrics this year included 18 original articles, 35 published abstracts and 15 invited lectures. Departmental faculty were active in mentoring pediatric residents in clinical research. There were 33 abstracts presented at regional and national meetings by pediatric residents who were the first authors, with senior authorship by members of the pediatric faculty.

The Department of Pediatrics welcomed new leadership in its Graduate Medical Education programs. On October 31, 2023, Dr. Richard Whitehurst resigned as the Pediatric Residency Program Director. On November 1, 2023, Dr. Haidee Custodio accepted the position as new Pediatric Residency Program Director. Drs. Karen Parsell and E. Melissa Perez Garcia completed their second full year as Assistant Pediatric Residency Program Directors. In March of 2024, Dr. Rick Rowell completed his first full year as Pediatric Clerkship Director.

The Department of Pediatrics expanded its access to care for children with the addition of new clinic locations. Dr. Kristin Rager opened an Adolescent Medicine & Young Adult Clinic on Old Shell Road.

2023-2024
Summary of Scholarly Activities
Department of Pharmacology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Alabarse PG, Oliveira P, Qin H, Yan T, Migaud M, Terkeltaub R, Liu-Bryan R. The NADase CD38 is a central regulator in gouty inflammation and a novel druggable therapeutic target. *Inflamm Res*. 2024 May;73(5):739-751.

Bhasin S, Seals D, Migaud M, Musi N, Baur JA. Nicotinamide adenine dinucleotide in aging biology: potential applications and many unknowns. *Endocr Rev*. 2023 Nov 9;44(6):1047-1073.

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Chouchane O, Schuurman AR, Reijnders TDY, Peters-Sengers H, Butler JM, Uhel F, Schultz MJ, Bonten MJ, Cremer OL, Calfee CS, Matthay MA, Langley RJ, Alipanah-Lechner N, Kingsmore SF, Rogers A, van Weeghel M, Vaz FM, van der Poll T. The plasma lipidomic landscape in patients with sepsis due to community-acquired pneumonia. *Am J Respir Crit Care Med*. 2024 Apr 15;209(8):973-986.

Coley AB, DeMeis JD, Chaudhary NY, Borchert GM. Small nucleolar derived RNAs as regulators of human cancer. In: Rizzo M, Levantini E, editors. *microRNAs in health and disease*. Special edition reprint. Basel, Switzerland: MDPI: 2024 Apr. p. 277-303. Available from: www.mdpi.com/books/reprint/9181

Delcher HA, DeMeis JD, Ghobar N, Godang NL, Knight SL, Alqudah SY, Nguyen KN, Watters BC, Borchert GM. SARS-Cov-2 small viral RNA suppresses gene expression via complementary binding to mRNA 3' UTR. *MicroPubl Biol*. 2024 Jan 18;2024:10.17912/micropub.biology.000790.

Hayat F, Deason JT, Bryan RL, Terkeltaub R, Song W, Kraus WL, Pluth J, Gassman NR, Migaud ME. Synthesis, detection, and metabolism of pyridone ribosides, products of NAD overoxidation. *Chem Res Toxicol*. 2024 Feb 19;37(2):248-258.

Hernandez A, Belfleur L, Migaud M, Gassman NR. A tipping point in dihydroxyacetone exposure: mitochondrial stress and metabolic reprogramming alter survival in rat cardiomyocytes H9c2 cells. *Chem Biol Interact*. 2024 May 1;394:110991.

Hewes JL, Bhadra A, Schreck E, Goodman JT, Patel M, Zhou C, Lee JY, Bauer NR. Novel hemodynamic, vascular lesion, and cytokine/chemokine differences regarding sex in a pulmonary arterial hypertension model. *Am J Respir Cell Mol Bio*. 2024 Oct;71(4):453-463.

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Johnson SC, Annamdevula NS, Leavesley SJ, Francis CM, Rich TC. Hyperspectral imaging and dynamic region of interest tracking approaches to quantify localized cAMP signals. *Biochem Soc Trans.* 2024 Feb 28;52(1):191-203.

Johnson S, Annamdevula N, Rich TC, Ballard C, Leavesley SJ. High-speed fluorescence excitation-scanning hyperspectral imaging microscopy using thin-film tunable filters. *Proc SPIE Int Soc Opt Eng.* 2024 Jan-Feb;12846:128460B.

Membrez M, Migliavacca E, Christen S, Yaku K, Trieu J, Lee AK, Morandini F, Giner MP, Stiner J, Makarov MV, Garratt ES, Vasiloglou MF, Chanvillard L, Dalbram E, Ehrlich AM, Sanchez-Garcia JL, Canto C, Karagounis LG, Treebak JT, Migaud ME, Heshmat R, Razi F, Karnani N, Ostovar A, Farzadfar F, Tay SKH, Sanders MJ, Lillycrop KA, Godfrey KM, Nakagawa T, Moco S, Koopman R, Lynch GS, Sorrentino V, Feige JN. Trigonelline is an NAD⁺ precursor that improves muscle function during ageing and is reduced in human sarcopenia. *Nat Metab.* 2024 Mar;6(3):433–447.

Migaud ME, Ziegler M, Baur JA. Regulation of and challenges in targeting NAD⁺ metabolism. *Nat Rev Mol Cell Biol.* 2024 Oct;25(10):822–840.

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Stevens RP, Lee JY, Bauer N, Stevens T. Got oxygen? Studies on mesenchymal cell hypoxia inducible factor-1 α in lung development. *Am J Respir Cell Mol Biol.* 2023 Oct;69(4):380-382.

II. PUBLISHED ABSTRACTS

Bauer NN, Schreck E, Bhadra A, Hewes JL, Goodman J, Patel M, Zhou C, Lee YL. Identification of inflammatory cells in the sex dimorphism of pulmonary arterial hypertension. *Am J Respir Crit Care Med.* 2024 May;209:A6102. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A6102?role=tab

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Dubey S, Stephens E, Yu Z, Ahmed I, Mobley J, Andrabi S, Hossain M, Jilling T, Gillespie MN, Matalon S. Mitigation of lung injury by therapeutically targeting 8-oxoguanine DNA glycosylase 1 in chlorine exposed mice. *Am J Respir Crit Care Med*. 2024 May;209:A2200. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A2200?role=tab

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Hartsell E, Haastrop A, Roberts J, Harrod K, Langley RJ. Long-read sequencing reveals an expansive differentially expressed transcriptome in influenza-infected human airway organotypic cell cultures. *Am J Med Sci*. 2024 Feb; 367(Suppl 1):S378. Abstract no. 619.

Hartsell E, Roberts JT, Haastrop AI, Langley RJ. Transcriptomic analysis of Influenza A infected lung organoids reveals Warburg-like phenotype. *J Clin Transl Sci*. 2024 Apr 3;8(Suppl 1):131. Abstract no. 441.

Hartsell EM, Roberts JT, Haastrop AI, Earnhardt EY, Lopez A, Gillespie MN, Harrod KS, Langley RJ. Analysis of differential transcript usage in Influenza A infected human lung organoids reveals novel pathways obscured by gene-level RNA-seq. *Am J Respir Crit Care Med*. 2024 May;209:A4359. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A4359?role=tab

Ibrahim M, Khan MM, Al-Rahaleh RQ, Clark J, Hayat F, Fang Q, Koczor CA, Migaud ME, Sobol RW. Base excision repair regulation of replication stress induced poly(ADP-ribose) checkpoints. *Cancer Res*. 2024 Mar 15;84(6 Suppl):7131. Available from: https://aacrjournals.org/cancerres/article/84/6_Supplement/7131/738942/Abstract-7131-Base-excision-repair-regulation-of

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Kondaveeti R, Kumar S, Stevens RP, Pastukh VV, Pastukh VM, Chung-Sik C, Ayers L, Spadafora D, Hartsell EM, Tambe DT, Audia JP, Fouty BW, Stevens T, Lee J. Fructose supports erythrocyte metabolism and inhibits erythrophagocytosis by pulmonary microvascular endothelial cells. *Am J Respir Crit Care Med*. 2024 May;209:A6806. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A6806?role=tab

Lee K, Joshi T, Lyons C, Singleton MH, Catranis E, Chokshi S, Madiera da Silva L, Migaud M, Scalici J. NAD⁺ boosting through NRH supplementation enhances treatment efficacy in EOC. *Cancer Res*. 2024 Mar 1;84(5 Suppl 2):A020. Available from: https://aacrjournals.org/cancerres/article/84/5_Supplement_2/A020/734495/Abstract-A020-NAD-Boosting-through-NRH

Lin J, Lu F, Li L, Lingjie L, Dongqi L, Borchert GM, Huang J. Semi-supervised meibomian gland segmentation via mutual consistency constraints and uncertainty rectification. 2023 IEEE International Conference on Bioinformatics and Biomedicine; 2023 Dec 5-8; Istanbul, Turkey. p. 3073-3080. Available from: <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=10385993>

Nguyen A, Naaz S, Sakib N, Godang N, Borchert G. Stress response of Salmonella through sRNA-mediated regulation. *J Biol Chem*. 2024 Mar;300(3 suppl):105824. Abstract no. 1254.

Roberts JT, Singh A, Turpin Z, Pastukh VM, Daly GT, Bass H, Gillespie MN. High resolution analysis of chromatin sensitivity and transcription factor (TF) occupancy, in hypoxic endothelial cells. *Am J Respir Crit Care Med*. 2024 May;209:A4389. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A4389?role=tab

Tuckey A, Pastukh VM, Capley GC, Ruchko MV, Gillespie MN, Audia JP. The mitochondrial genome: at the crossroads of NLRP3-mediated inflammation and recovery. *Am J Respir Crit Care Med*. 2024 May;209:A4045. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A4045?role=tab

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Bauer N. Invited speaker. Extracellular vesicles: damage and repair in pulmonary hypertension. Brown Investigators in Respiratory Diseases, Centers of Biomedical Research Excellence, Lecture Series, Brown University; 2024 Mar 4; Providence, RI.

Bauer N. Invited speaker. Exosomes and microparticles: biomarkers, therapeutic vectors or both? 2023 Grover Conference; 2023 Oct 18; Tabernash, CO.

Borchert GM. Invited speaker. Panning for gold: noncoding RNA discovery via RNA-seq mining. University of Georgia College of Pharmacy; 2024 Jan 10; Athens, GA.

Borchert GM. Invited speaker. Characterization of a new type miRNA-like RNAs, sdRNAs, contributing to disease [virtual presentation]. Cells Research eConference 2024; 2024 May 24; Hyderabad, Telangana, India.

Borchert GM, Lin J. Invited speakers. Semi-supervised meibomian gland segmentation via mutual consistency constraints and uncertainty rectification. 2023 IEEE International Conference on Bioinformatics and Biomedicine; 2023 Dec 6; Istanbul, Turkey.

Chen H, Borchert GM. Invited speakers. Evaluating the use of large language model to identify top research priorities in hematology. 2023 IEEE International Conference on E-health Networking, Application & Services; 2023 Dec 17; Chongqing, China.

Gillespie MG. Invited speaker. Modifying mitochondrial DNA in lung disease. American Physiology Summit; 2024 Apr 7; Long Beach, CA.

Migaud ME. Invited speaker. The metabolic story of NAD and its precursors. Boston Pepper Lecture Series, Boston Claude D. Pepper Older Americans Independence Center, Brigham and Women's Hospital Harvard Medical School; 2024 Apr 24; Boston, MA.

Migaud M. Invited speaker. Expanding on the NAD catabolome and its properties. FASEB NAD Metabolism and Signaling; 2024 Aug 26; Lisbon, Portugal.

Naaz S, Borchert GM. Invited speaker. Salmonella sRNAs drive the decision between active stress resistance and persister cell dormancy. 29th Annual RNA Society Annual Meeting; 2024 May 31; Edinburgh, Scotland.

Nguyen A, Naaz S, Sakib N, Godang N, Borchert GM. Invited speaker. Stress response of Salmonella through sRNA-mediated regulation. Discover BMB, American Society for Biochemistry and Molecular Biology; 2024 March 24. San Antonio, TX.

Rich TC. Invited speaker. Systems approaches to understanding cAMP signaling network. Cyclic Nucleotide Phosphodiesterases, Gordon Research Conference; 2024 Jun 17; Lewiston, ME.

V. NATIONAL PROFESSIONAL RECOGNITION

Abu-Bakr Al-Mehdi: Table host and discussion leader. Artificial Intelligence in Pre-Clerkship Clinical Reasoning Education. AAMC LSL Annual Meeting; 2023 Nov 4; Seattle, WA. Inducted into Gold Humanism Honor Society. Member, Test Material

Development Committee, Pharmaceutical Ads for USMLE Step 3. Member, Test Material Development Committee, Pharmacology & Biochemistry, for all USMLE Step Exams.

Natalie Bauer: Planning Committee chair, Pulmonary Circulation Assembly, American Thoracic Society. Standing member, Respiratory Integrative Biology and Translational Research study section.

Glen Borchert: Editor-in-chief, *Journal of Gene Regulation*. Associate Editor, *Frontiers in RNA Research*. Editorial board member, *PEER J*. Study section reviewer, NSF Genetic Mechanisms review panel, NSF EDGE review panel, NSF GM grant ad hoc, NSF BSF grant ad hoc. Grand Judge, molecular biology division, International Science and Engineering Fair. Journal reviewer, *IJMS*, *microPublication Biology*, *NPJ Biofilms*, *Scientific Reports*, *Frontiers in Immunology*, *PLOS One*, *Cancer Research*, *BMC Genomics*. Member, The Genetics Society of America, Alabama Academy of Sciences, RNA Society.

Mark Gillespie: Member, Prevention and Treatment of Early Acute Lung Injury (PETAL), Scientific Review Group, NIH.

Raymond Langley: Member, FY25 Military Operational Medical Research Program (MOMRP) Environmental Health Protections – 1 (EHP-1) review panel for the United States Army Medical Research and Development Command (USAMRDC).

Marie Migaud: Section senior editor, *Pharmacology-Medicina*. Grant Reviewer, NIH, NSF, European Commission. Committee Chair, American Chemical Society. Member, Association of Academic University Professors, Environmental Mutagenesis and Genomics Society. Coordinator, Project SEED outreach program.

Lyudmila Rachek: Reviewer, *International Journal of Molecular Sciences*, *Antioxidants*, *Nutrients*, *Biomolecules*, *Immuno*, *Journal of Obesity*, *Heylion*. Member, American Heart Association Pre-Post-Doctoral Award Study Section “Cell Transport.”

Thomas Rich: Grant reviewer, NIH SRG1 CB-N 30, American Heart Association Innovative Project Award Cardiac Basic Sciences LOI review panel, European Science Foundation/FWO, Gilliam/HHMI Stage 2 review panel.

Mykhaylo Ruchko: Ad hoc reviewer, *Journal of Physiology and Biochemistry*.

Victor Solodushko: Ad hoc reviewer, *BMC Research Notes*, *Nucleic Acids Research*.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

This year the Department of Pharmacology has seen an impressive number of achievements and accolades. Dr. Al-Mehdi was inducted into the Gold Humanism Honor Society, voted Best Pre-Clerkship Educator Award by the Whiddon College of Medicine for the fourth year in a row, and selected to wear the “Red Sash” in the Honors Convention.

Dr. Bauer was elected planning committee chair of the Pulmonary Circulation Assembly, American Thoracic Society. Dr. Glen Borchert was awarded USA Alumni Faculty Innovator of the Year 2023. One of Dr. Borchert's undergraduate students, Anita Nguyen, was elected into the American Society for Biochemistry and Molecular Biology National Honor Society. Anita was one of only 31 undergraduates selected nationally. Dr. Raymond Langley was promoted to Associate Professor. The Pharmacology Department hosted five Distinguished Scientist Series (DSS) seminars this year.

In terms of our educational mission, several Department members continued to serve as clerkship director, graduate course directors, and graduate course co-directors, while improving current courses and introducing new lectures to both medical students and basic medical sciences graduate students.

The Pharmacology Department's research programs remained productive. Dr. Natalie Bauer was awarded a Murray Bander Award from the Center for Lung Biology (CLB). Dr. Langley was awarded a CLB Murray Bander Faculty Development Award. Adeyeye Haastrup, a graduate student in Pharmacology mentored by Dr. Langley, was awarded a CLB Gary and Susan Godwin Emerging Scholars Endowed Award. Dr. Mark Gillespie has been successful in obtaining extramural funding this year. Dr. Gillespie was awarded a multi-PI R01 grant from the NIH entitled "The Mitochondrial Genome in Lung Disease: A Signaling Hub Linking the Persistence and Severity of Inflammation to Recovery." Dr. Marie Migaud was awarded a University of South Alabama Technology Transfer Award and has maintained a large number of extramural grants. Dr. Victor Solodushko, along with Dr. Brian Fouty, were awarded an STTR from the NIH entitled, "Capless mRNA for use as a vaccine."

Service to the academic and local community remains an important component of the Department's mission. In this regard, many of our faculty served on prestigious grant review groups, advisory duties, as well as on committees within College of Medicine and the University, and performed outreach to national groups. Department faculty also reviewed manuscripts submitted for publication to all notable scientific journals relevant to their areas of expertise.

2023-2024
Summary of Scholarly Activities
Department of Physiology & Cell Biology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Balczon R, Lin MT, Voth S, Nelson AR, Schupp JC, Wagener BM, Pittet JF, Stevens T. Lung endothelium, tau, and amyloids in health and disease. *Physiol Rev*. 2024 Apr 1;104(2):533-587.

Bathini P, Brai E, Balin BJ, Bimler L, Corry DB, Devanand DP, Doty RL, Ehrlich GD, Eimer WA, Fulop T, Hahn DL, Hammond CJ, Infanti J, Itzhaki R, Lathe R, Little CS, McLeod R, Moein ST, Nelson AR, Perry G, Shemesh OA, Tanzi RE, Webley WC, Schultek NM, Alberi Auber L. Sensory dysfunction, microbial infections, and host responses in Alzheimer's disease. *J Infect Dis*. 2024 Sep 10;230(Supplement_2):S150-S164.

Cohen MV, Downey JM. Initial despair and current hope of identifying a clinically useful treatment of myocardial reperfusion injury: insights derived from studies of platelet P2Y₁₂ antagonists and interference with inflammation and NLRP3 assembly. *Int J Mol Sci*. 2024 May 17;25(10):5477.

deWeever A, Paudel SS, Zhou C, Francis CM, Tambe DT, Frank DW, Balczon R, Stevens T. cUMP elicits interendothelial gap formation during *Pseudomonas aeruginosa* infection. *Am J Physiol Lung Cell Mol Physiol*. 2024 Sep 1;327(3):L395-L405.

Johnson SC, Annamdevula NS, Leavesley SJ, Francis CM, Rich TC. Hyperspectral imaging and dynamic region of interest tracking approaches to quantify localized cAMP signals. *Biochem Soc Trans*. 2024 Feb 28;52(1):191-203.

Kar J, Cohen MV, McQuiston SA, Poorsala T, Malozzi CM. Automated segmentation of the left-ventricle from MRI with a fully convolutional network to investigate CTRCD in breast cancer patients. *J Med Imaging (Bellingham)*. 2024 Mar;11(2):024003.

Palakshappa JA, Batt JAE, Bodine SC, Connolly BA, Doles J, Falvey JR, Ferrante LE, Files DC, Harhay MO, Harrell K, Hippensteel JA, Iwashyna TJ, Jackson JC, Lane-Fall MB, Monje M, Moss M, Needham DM, Semler MW, Lahiri S, Larsson L, Sevin CM, Sharshar T, Singer B, Stevens T, Taylor SP, Gomez CR, Zhou G, Girard TD, Hough CL. Tackling brain and muscle dysfunction in acute respiratory distress syndrome survivors: NHLBI workshop report. *Am J Respir Crit Care Med*. 2024 Jun 1;209(11):1304-1313.

Ransom KV, Traylor MK, Batman GB, Mulekar MS, Hill BD, Nelson AR, Keller JL. Arterial stiffness mediates the association between age and processing speed at low levels of microvascular function in humans across the adult lifespan. *Am J Physiol Heart Circ Physiol*. 2024 Feb 1;326(2):H346-H356.

Renema P, Pittet JF, Brandon AP, Leal SM Jr, Gu S, Promer G, Hackney A, Braswell P, Pickering A, Rafiield G, Voth S, Balczon R, Lin MT, Morrow KA, Bell J, Audia JP, Alvarez D, Stevens T, Wagener BM. Tau and A β 42 in lavage fluid of pneumonia patients are associated with end-organ dysfunction: a prospective exploratory study. PLoS One. 2024 Feb 23;19(2):e0298816.

Singh N, Eickhoff C, Garcia-Agundez A, Bertone P, Paudel SS, Tambe DT, Litzky LA, Cox-Flaherty K, Klinger JR, Monaghan SF, Mullin CJ, Pereira M, Walsh T, Whittenhall M, Stevens T, Harrington EO, Ventetuolo CE. Transcriptional profiles of pulmonary artery endothelial cells in pulmonary hypertension. Sci Rep. 2023 Dec 18;13(1):22534.

Stevens RP, Lee JY, Bauer N, Stevens T. Got oxygen? Studies on mesenchymal cell hypoxia inducible factor-1 α in lung development. Am J Respir Cell Mol Biol. 2023 Oct;69(4):380-382.

Stone M, Choi CS, Dey N, Swain G, Stevens T, Sayner SL. *Pseudomonas aeruginosa* ExoY infection of pulmonary microvascular endothelial cells releases cyclic nucleotides into the extracellular compartment. Am J Physiol Lung Cell Mol Physiol. 2024 Nov 1;327(5):L756-L768.

Zhang Q, Yaoita N, Tabuchi A, Liu S, Chen SH, Li Q, Hegemann N, Li C, Rodor J, Timm S, Laban H, Finkel T, Stevens T, Alvarez DF, Erfinanda L, de Perrot M, Kucherenko MM, Knosalla C, Ochs M, Dimmeler S, Korff T, Verma S, Baker AH, Kuebler WM. Endothelial heterogeneity in the response to autophagy drives small vessel muscularization in pulmonary hypertension. Circulation. 2024 Aug 6;150(6):466-487.

II. PUBLISHED ABSTRACTS

Bauer NN, Schreck E, Bhadra A, Hewes JL, Goodman J, Patel M, Zhou C, Lee J. Identification of inflammatory cells in the sex dimorphism of pulmonary arterial hypertension. Am J Respir Crit Care Med. 2024 May;209:A6102. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A6102?role=tab

Bauman AJ, Butlig EAR, Traylor MK, Fouty BW, Crook ED, Keller JL, Nelson AR. Pro-inflammatory cytokines in health disparities-unraveling contributions to dementia and Alzheimer's disease in south Alabama. Southeastern Neurodegenerative Disease Conference; 2023 Oct 10-12; Atlanta, GA. Abstract no. P-13.

Butlig EAR, Khan S, Benson AJ, Bauman AJ, Elkadi O, Nelson AR. Identification of matrix- and transporter-type pericytes in human brain. Southeastern Neurodegenerative Disease Conference; 2023 Oct 10-12; Atlanta, GA. Abstract no. P-48.

Cage M, Gwin MS, deWeever A, Stone M, Sayner SL, Stevens T, Rich TC. In vitro experimental studies of particulate matter induced cell damage during *Pseudomonas aeruginosa* exposure. Am J Respir Crit Care Med. 2024 May;209:A4420. Available from:

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Chaney SD, Doan PH, Gwin MS, Bauman AJ, Stevens T, Lin M, Nelson AR. Pneumonia causes blood-brain barrier breakdown. Southeastern Neurodegenerative Disease Conference; 2023 Oct 10-12; Atlanta, GA. Abstract no. P-32.

Chaney SD, McAdams LH, Doan PH, Gwin MS, Stevens T, Lin M, Nelson AR. Bacterial pneumonia causes neurovascular unit dysfunction and Alzheimer's-like tau phosphorylation. Vascular Biology Vasculata Conference; 2024 Jul 19-25; Stanford, CA. Abstract no. 12.

Chaney SD, McAdams LH, Gwin MS, Stevens T, Lin M, Nelson AR. Tau is required for pneumonia-induced cerebrovascular dysfunction. Alzheimer's Association International Conference; 2024 Jul 28-Aug 1; Philadelphia, PA. Abstract no. 161. Available from: <https://alz.confex.com/alz/2024/meetingsapp.cgi/Paper/91920>

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Kondaveeti R, Kumar S, Stevens RP, Pastukh VV, Choi CS, Ayers L, Spadafora D, Hartsell EM, Tambe DT, Audia JP, Fouty BW, Stevens T, Lee J. Fructose supports erythrocyte metabolism and inhibits erythrophagocytosis by pulmonary microvascular endothelial cells. Am J Respir Crit Care Med. 2024 May;209:A6806. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A6806?role=tab

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McAdams LH, Chaney SD, Gwin MS, Bauman AJ, Stevens T, Lin M, Nelson AR. The effects of pneumonia on glial cells. Southeastern Neurodegenerative Disease Conference; 2023 Oct 10-12; Atlanta, GA. Abstract no. P-33.

Randall RB, Bauman AJ, Bobinger H, Traylor MK, Keller JL, Nelson AR. Pericyte injury in mid-life, aging, and Alzheimer's disease. Southeastern Neurodegenerative Disease Conference; 2023 Oct 10-12; Atlanta, GA. Abstract no. P-49.

Stevens RP, Pastukh V, Gwin MS, Stone M, Sayner SL, Stevens T, Lee J. Carbonic Anhydrase IX KO mice and mice fed ammonium chloride water have altered circulating immune cell counts during pneumonia. Am J Respir Crit Care Med. 2024 May;209:A6073. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A6073?role=tab

Stevens RP, Solodushko V, Pastukh VV, Stevens T, Tambe DT, Honkanen R, Swingle M, Lee J. Developing a phase separation assay to study PPM1B signaling. Am J Respir Crit Care Med. 2024 May;209:A4047. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A4047?role=tab

Stevens T, Nelson A, Alexeyev M, Choi C, Zhou C, Sayner SL, Stone M, Chaney S, Lee J, Wagener B, Pittet J, Balczon R, Lin M. Cytopathic tau originating in lung capillaries impairs hippocampal long-term potentiation following bacterial pneumonia. Am J Respir Crit Care Med. 2024 May;209:A6794. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2024.209.1_MeetingAbstracts.A6794?role=tab

Stone M, Choi CS, Stevens T, Sayner S. Primary infection and supernatants generated by *Pseudomonas aeruginosa* ExoY have lasting effects on cyclic nucleotide signaling in pulmonary endothelial cells. Physiology. 2024 May 21;39(S1). Available from: <https://journals.physiology.org/doi/abs/10.1152/physiol.2024.39.S1.2042>

Stone M, Choi CS, Sayner S. Loss of AC10 impairs neutrophil recruitment and alters bacterial colonization in the lung during bacterial pneumonia. Physiology. 2024 May;39(S1). Available from: <https://journals.physiology.org/doi/abs/10.1152/physiol.2024.39.S1.2036>

Weber DS, Givens AM, Israel R, Sosnowski JS. Use of culinary medicine and teaching kitchens to enhance medical student knowledge and application of nutrition. Southern Group on Educational Affairs, Annual American Association of Medical Colleges Regional Meeting; 2024 April 11-13; Houston, TX.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Nelson AR. Invited speaker. Brain microvascular dysfunction in aging, pneumonia, and Alzheimer's disease. Frost Institute for Chemistry and Molecular Science; 2023 Oct 9; Corel Gables, FL.

Nelson AR. Invited speaker. Professional interest area to elevate early career researchers (PEERs). Southeastern Neurodegenerative Disease Conference; 2023 Oct 11; Atlanta, GA.

Nelson AR. Invited speaker. Infection, amyloids, and vascular vulnerability in Alzheimer's disease [virtual presentation]. Biology of Neurodegeneration Interest Group, Oregon Health & Science University; 2023 Dec 1; Portland, OR.

Nelson AR. Invited speaker. Infection, amyloids, and vascular vulnerability in Alzheimer's disease [virtual presentation]. BrainFit4Life WebSymposium 2023; 2023 Dec 7; Bern, Switzerland.

Nelson A. Invited speaker. Pneumonia unlocks the blood-brain barrier and increases phosphorylated tau. Spring Brain Conference 2024; 2024 Apr 29; Sedona, AZ.

Stevens T. Invited speaker. Infectious proteinopathy of the lung: lung-derived cytopathic tau variants and end-organ dysfunction. Icahn School of Medicine at Mount Sinai; 2024 May 30; New York, NY.

Taylor M. Invited speaker. Young investigator/new and notable. FASEB Science Research Conference; 2024 Aug 5; Tucson, AZ.

V. NATIONAL PROFESSIONAL RECOGNITION

Mikhail F. Alexeyev: Reviewer, *Clinical Science*, *PLoS One*, *Biochimica et Biophysica Acta*, *International Journal of Molecular Sciences*, *International Journal of Biochemistry and Cell Biology*, *Genes*, *Mitochondria*, *Tissue and Cell*, *Metabolism*, *iScience*, *IJMS*, *Heliyon*, *Current Issues in Molecular Biology*. Editorial Board Member, *DNA*, *Genes*. Grant Reviewer, American Federation for Aging Research, Hevolution Foundation, NIH Special Emphasis Panels (SEP) ZCA1SRBK-2024M2 and 2024/01 ZGM1 RCB-X (SU).

Thiago Bruder: Member, American Heart Association, American Physiological Society.

Michael V. Cohen: Member, American Heart Association. Reviewer, *Basic Research in Cardiology*, *Cardiovascular Drugs and Therapy*, *American Journal of Physiology*, *Circulation*, *European Journal of Pharmacology*, *Acta Physiologica*, *Cell Physiology & Biochemistry*, *Journal of Cardiovascular Pharmacology and Therapeutics*; *Journals of the American College of Cardiology*.

C. Michael Francis: Member, American Physiological Society, American Thoracic Society. Reviewer, *Journal of Visualized Experiments*.

Ji Young Lee: Member, American Thoracic Society. Grant Reviewer, American Heart Association Fellowship. Reviewer, *Pulmonary Circulation*, *AHA Scientific Reports*, *American Journal of Respiratory and Critical Care Medicine*, *BCM Pulmonary Medicine*.

Mike T. Lin: Member, American Physiological Society, Society of Neuroscience. Editorial Board Member, *Scientific Reports*. Reviewer, *International Journal of Biological Sciences*, *JOVE*.

Jamie E. Meegan: Member, American Heart Association, American Physiological Society, American Thoracic Society, Microcirculatory Society, North American Vascular Biology Organization, Shock Society. Reviewer, American Heart Association Fellowships, National Institutes of Health, Heart, Lung and Blood R13. Awards, ATS Program Committee Apprenticeship Program, Pulmonary Circulation Assembly and Outstanding Trainee Award, American Physiology Summit, Long Beach, CA; American Physiological Society, Respiratory Section.

Amy R. Nelson: Member, Alabama Alzheimer's Disease Task Force (nominated by Lt. Gov. Will Ainsworth), Chair, Research and Innovation, Alabama Alzheimer's Disease Task Force, Associate Editor, *Frontiers in Cellular and Molecular Mechanisms of Dementia*, Review Editor, *Frontiers in Alzheimer's Disease and Related Dementias*, *Frontiers in Aging Neuroscience Archive*, *Frontiers in Neurodegeneration*. Founding Director, Gulf Coast Alzheimer's Disease Research Center.

Sarah L. Sayner: Member, American Physiological Society, American Thoracic Society. Reviewer, *Journal of Vascular Research*, *MDPI Cells*, *MDPI Cancer International Journal of Molecular Sciences*, *PLoS One*, *Journal of Vascular Research*; AHA Study Section-Transformational Project Award, Cardiology Peer Review; Peer Review Panel Chair.

Troy Stevens: Member, American Thoracic Society, American Physiological Society. Editorial Board Member, *American Journal of Physiology Lung Cellular and Molecular Physiology*, *Pulmonary Circulation*, *FASEB J*. Ad hoc reviewer, National Institutes of Health, Brown University COBRE External Advisor.

Mark S. Taylor: Member, Gulf Coast Physiological Society, American Heart Association, American Physiological Society. Reviewer, *Frontiers in Physiology*, *Journal of Clinical Medicine*, *PLoS One*. Study Section Reviewer, National Institutes of Health, Basic Biology of Blood, Heart and Vasculature (BBHV).

David S. Weber: Member, Teaching Kitchen Collaborative. Editorial Board Member, *International Journal of Molecular Sciences*. Reviewer, *Journal of Molecular and Cellular Cardiology*, *Circulation Research*, *Arteriosclerosis, Thrombosis and Vascular Biology*,

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 education, research and service.

The department hired two new faculty members this year. Dr. Thiago Bruder is formerly from the University of Pittsburgh. His research focuses on exploring the role of endothelial progranulin, a secreted protein, in the genesis of systemic hypertension. Dr. Jamie Meegan has also joined our faculty from Vanderbilt University. Dr. Meegan's research focuses on microvascular dysfunction during sepsis and its contribution to lung injury.

Dr. Kayla Pavlick and Dr. John Soltys are new joint appointment faculty within our department. Dr. Pavlick is an Assistant Professor in the Department of Medical Education and Dr. Soltys is an Assistant Professor in the Department of Neurology.

The faculty actively submit and receive grants at a nationally competitive level. Dr. Mikhail Alexeyev received a grant from the National Science Foundation for his project entitled "Designer Mitochondria for Biotechnology, Healthcare, and Basic Research". This grant will help to create artificial "designer" mitochondria, enabling the development and testing of novel treatments for mitochondrial disease.

Dr. Thiago Bruder and Dr. Jamie Meegan, both new faculty members within the department, have been awarded grants from the National Institutes of Health. Dr. Bruder's grant entitled "Molecular mechanisms of progranulin as a regulator of endothelial biology and blood pressure control" focuses on molecular mechanism of progranulin as a regulator of endothelial biology and blood pressure control. Dr. Meegan's grant entitled "Cell-free hemoglobin-oxidized LDL-LOX-1 axis and microvascular hyperpermeability during sepsis" proposes to test the central hypothesis that microvascular endothelial hyperpermeability and lung injury during sepsis are mediated through oxidation of LDL by hemoglobin to induce LOX-1 receptor signaling and ectodomain shedding.

Dr. Bruder has also been awarded the Center for Lung Biology's 2024 Murray Bander Faculty Development Award. This award will provide support for one year, and is intended to foster innovative discoveries in pulmonary research.

Dr. Amy Nelson was awarded a grant from Coins for Alzheimer's Research Trust (CART). The grant will support a new study of a highly understudied protein known as caldesmon. The levels of caldesmon are reduced in brain pericytes in brain tissue from Alzheimer's disease patients, but why this happens remain to be determined and is the focus of Dr. Nelson's project.

Dr. Nelson has also received an R01 grant from the National Institutes of Health entitled "Nosocomial pneumonia impairs the cerebrovasculature". This is a translational project

bridging from cell culture, to *in vivo* models, and to human biomarkers, and is pioneering in that it synthesizes experts in lung and brain biology to understand the impact of pneumonia-elicited lung tau on cerebrovascular functions, with consideration of health disparities.

Dr. Nelson has received a new grant from the National Institute of Neurological Disorders and Stroke. The University of South Alabama has been selected as a clinical site for a national research study on Alzheimer's disease and other dementias – Diverse Vascular Contributions to Cognitive Impairment and Dementia (DVCID). This six-year study will focus on people from diverse backgrounds in order to understand the role that cerebrovascular disease plays in developing dementia.

Reece Stevens, a postdoctoral fellow working with Dr. Ji Young Lee, received an NIH F31 grant entitled "Carbonic anhydrase IX acts as a novel CO₂/HCO₃⁻-sensor and protects the pulmonary endothelial barrier from acidosis."

Three graduate students matriculated this year. Two of Dr. Michael Francis' students, Takreem Aziz and Jennifer Knighten, received their doctorate degrees. Drs. Aziz and Knighten are going to work in private industry. Dr. Ji Young Lee's graduate student, Reece Stevens, also received his doctorate degree. He is now a postdoctoral fellow within the department.

Dr. Amy Nelson's graduate student Samantha Chaney was awarded the Whiddon College of Medicine Dean's Predoctoral Fellowship. Miss Chaney also received the Center for Lung Biology's inaugural Gary and Susan Godwin Emerging Scholars Endowed Award. This award will support training opportunities for doctoral and postdoctoral scholars toward discovery of novel mechanisms in lung health and disease.

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

The faculty are actively involved in teaching within the Basic Medical Sciences Graduate Program. Drs. Mike Lin and Amy Nelson taught PHS 590: Special Topics in Neuroscience: Introduction to Neurobiology at the Dauphin Island Sea Lab. Dr. Sarah Sayner was graduate course director for IDL630 Lung Biology and Dr. Troy Stevens was the course director for IDL631 Lung Pathobiology.

Dr. David Weber, assistant dean for medical education and professor of Physiology & Cell Biology, taught a four-week culinary medicine course to fourth-year medical students at the teaching kitchen in University Commons. The focus of the course is for students to learn practical knowledge about nutrition, fitness/exercise and wellness/mindfulness so

that they are capable of discussing these topics with their future patients. This course is offered in collaboration with USA Health's Integrative Health and Wellness program.

In March 2024, Dr. Amy Nelson along with the department of Physiology & Cell Biology and the Gulf Coast Alzheimer's Disease Research Center, sponsored and hosted the second annual Brain Awareness Week at the Exploreum Science Center in downtown Mobile. Throughout the week, more than 18 volunteers from the Whiddon College of Medicine and the department of Health, Kinesiology and Sports presented hand-on activities related to brain cell types, the importance of wearing a helmet, exercise and the brain, and brain and eye dissections. Approximately 360 field trip students, their teachers, chaperones and families took part in these activities.

The department of Physiology & Cell Biology continues to recruit new faculty and strives to contribute to the College of Medicine's mission of education, research and service.

2023-2024
Summary of Scholarly Activities
Department of Psychiatry

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Basu N, Barinas J, Williams K, Clanton C, Smith PN. Understanding nurse suicide using an ideation-to-action framework: an integrative review. *J Adv Nurs*. 2023 Dec;79(12):4472-4488.

Basu N, Blanton MA, Gonzales J, Hendricks KE, Mehari K, Smith PN. Upward social comparisons and suicidal ideation on Facebook: moderating role of thwarted belongingness. *Psychology of Popular Media*. 2024 Jul; 13(3):513-517. Available from: <https://psycnet.apa.org/record/2024-23614-001> [subscription required].

Boone S, Schuler KR, Basu N, Smith PN. College extracurricular involvement as a suicide prevention and wellness promotion strategy: exploring the roles of social support and meaning. *J Am Coll Health*. 2023 Apr;71(3):677-685.

Brooks BM, Shih CD, Bratches RWR, Pham KT, Brooks BM, Hooshivar L, Wolff KB. Postoperative opioid-prescribing practice in limb preservation surgery. *J Am Podiatr Med Assoc*. 2024 Mar-Apr;114(2):21-256.

Coleman JN, Smith PN, Mehari KR, Farrell AD. Relations between perceptions of parental messages supporting fighting and nonviolence and adolescents' physical aggression: beliefs as mediators. *Aggress Behav*. 2024 Mar;50(2):e22135.

Currier JM, McDermott RC, Fernandez P, Salcone S, Hinkel HM, Schuler K, Fadoir N, Smith PN. Examining the outcomes and acceptability of a peer-led spiritual intervention for moral injury in a veteran service organization. *Psychol Serv*. 2024 May;21(2):276-286.

Mehari KR, Morgan S, Stevens LT, Coleman JN, Schuler K, Graves C, Lindsey DRB, Smith PN. Mixed methods evaluation of a jail diversion program: impact on arrests and functioning. *J Community Psychol*. 2024 May;52(4):551-573.

Ryans CP, Brooks BM, Tower DE, Robbins JM, Butterworth ML, Stapp MD, Nettles AM, Brooks BM. Evidence-based opioid education that reduces prescribing: the 10 principles of opioid prescribing in foot and ankle surgery. *J Foot Ankle Surg*. 2024 Mar-Apr;63(2):214-219.

II. PUBLISHED ABSTRACTS

Davis A, Engeriser JL. Consideration of delusional disorder in severe somatic symptom disorder. Alabama Psychiatric Physicians Association Spring Conference; 2024 Apr 26-28; Gulf Shores, AL. Abstract no. 24-1-15. Available from:

https://www.alabamapsych.com/wp-content/uploads/2024/04/Abstract-Entries_APPA-2024spring_Final-for-website.pdf

Malone J, Saitz M. Lymphocytic colitis: a rare complication of selective serotonin reuptake inhibitors. Alabama Psychiatric Physicians Association Spring Conference; 2024 Apr 26-28; Gulf Shores, AL. Abstract no. 24-1-13. Available from: https://www.alabamapsych.com/wp-content/uploads/2024/04/Abstract-Entries_APPA-2024spring_Final-for-website.pdf

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Engeriser JL. Invited speaker. Gas station pharmacology: commonly used drugs in the gray zone of legality and safety. Alabama Osteopathic Medical Association 34th Annual Emerald Coast Conference; 2024 Jul 24; Destin, FL.

Engeriser JL. Invited speaker. Gas station pharmacology: commonly used drugs in the gray zone of legality and safety. Georgia Society of Addiction Medicine 2024 Annual Conference; 2024 Jul 20; Savannah, GA.

Engeriser JL. Invited speaker. Addiction as a neurobiological disease. Helping Our Professionals Excel (H.O.P.E.) Conference Series; 2024 Jun 14; Mobile, AL.

Engeriser JL. Invited speaker. Buprenorphine: managing opioid use disorder. Thomas Hospital Department of Internal Medicine Grand Rounds; 2024 Mar 20; Fairhope, AL.

Engeriser JL. Invited speaker. Psychedelic drugs in the treatment of substance use disorders. 2024 Louisiana Psychiatric Medical Association and Mississippi Psychiatric Association 2024 Annual Spring Meeting; 2024 Mar 3; Baton Rouge, LA.

Engeriser JL. Invited speaker. Gas station pharmacology. Prescribing and Pharmacology of Controlled Drugs: Current Issues and Strategies for Successful Patient Care; 2024 Mar 2; Dothan, AL.

Engeriser JL. Invited speaker. Buprenorphine: managing opioid use disorder. Prescribing and Pharmacology of Controlled Drugs: Current Issues and Strategies for Successful Patient Care; 2024 Mar 2; Dothan, AL.

Engeriser JL. Invited speaker. New medically managed withdrawal unit [podcast]. “Time for a Check Up” segment, Midday Mobile, FM Talk 106.5, WAVH-FM; 2024 Jul 15; Mobile, AL. Available from: <https://fmtalk1065.com/podcast/time-for-a-check-up-dr-luke-engeriser-from-altapoint-7-15-24>

Engeriser JL. Invited speaker. Suicide rates for 2023 at an all-time high for the United States. “Health Alert” segment, NBC 15 News, WPMI-TV; 2024 Jan 3; Mobile, AL. Available from: <https://mynbc15.com/news/nation-world/suicide-rates-for-2023-at-an-all-time-high-for-the-united-states#>

Engeriser JL. Invited speaker. Xylazine dangers [podcast]. “Time for a Check Up” segment, Midday Mobile, FM Talk 106.5, WAVH-FM; 2023 Nov 20; Mobile, AL. Available from: <https://fmtalk1065.com/podcast/time-for-a-check-up-dr-engeriser-from-altapoint-health-xylazine-dangers>

Engeriser JL. Invited speaker. How deployment can impact veteran mental health [podcast]. “Veterans Month” segment, Midday Mobile, FM Talk 106.5, WAVH-FM; 2023 Nov 17; Mobile, AL. Available from: <https://fmtalk1065.com/podcast/veterans-month-dr-luke-engeriser-midday-mobile-november-17-2023>

Engeriser JL. Invited speaker. AltaPointe’s Behavioral Health Crisis Center offers innovative approach to fentanyl addiction treatment. PR Newswire; 2023 Nov 8; Mobile, AL. Available from: <https://smb.atmoreadvance.com/article/AltaPointes-Behavioral-Health-Crisis-Center-Offers-Innovative-Approach-to-Fentanyl-Addiction-Treatment-Using-Ketamine-in-Combination-with-Buprenorphine?storyId=654c21d92661f32216b41123>

Engeriser JL. Invited speaker. AltaPointe Health discusses new drug trend combining animal tranquilizer with fentanyl [podcast]. Midday Mobile, FM Talk 106.5, WAVH-FM; 2023 Dec 7; Mobile, AL. Available from: <https://www.youtube.com/watch?v=nDWFblGZTnw>

Finn E. Invited speaker. Targeting youth gun violence [interview]. Data for good: how ShotSpotter technology can be used to target youth gun violence, news segment, NBC 15 News; 2023 Oct 18; Mobile, AL. Available from: <https://mynbc15.com/news/local/how-shotspotter-technology-can-be-used-to-target-youth-gun-violence#>

Engeriser JL, Boyett B. Invited speakers. Ketamine in the treatment of substance use disorders [virtual presentation]. American Society of Addiction Medicine Psychedelic Medicine Special Interest Group; 2024 Jan 25; Rockville, MD.

Parker S. Invited speaker. Seasonal affective disorder. “Red Couch” segment, WKRG TV 5; 2023 Dec 7; Mobile, AL. Available from: <https://fb.watch/ptmYq9iXGb/>

Parker S. Invited speaker. Seasonal affective disorder [podcast]. “Time for a Check Up” segment, Midday Mobile, FM Talk 106.5, WAVH-FM; 2023 Dec 18; Mobile, AL. Available from: <https://fmtalk1065.com/podcast/time-for-a-check-up-dr-parker-from-altapointe-health>

Talerico C. Invited speaker. Supporting youth mental wellness. Let’s Talk Parents Night, Baldwin County Public Schools; 2024 Jan 30; Daphne, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

Drs. Sandra K. Parker and J. Luke Engeriser continue to serve on the Alabama Psychiatric Physician Association Education Committee. Dr. Parker is also on the Diversity and Inclusion Committee and Dr. Engeriser is on the Scientific Review Committee. Dr. Engeriser also holds the title of President of the Alabama Society of Addiction Medicine and Vice-Chair of the Psychedelic Medicine Special Interest Group of the American Society of Addiction Medicine. Dr. Parker, as Vice-President and CMO of AltaPointe Health, received the Most Innovative Member Award for 2023 by the Mental Health Corporation of America (MHCA). MHCA is recognized as the national leader in community mental health solutions.

Deputy Chief Medical Officer Dr. Luke Engeriser was recognized as a Distinguished Fellow of the American Society of Addiction Medicine – ASAM. The designation is awarded for making significant contributions to the field of addiction medicine and helping our community address addiction-related issues. The department, with the leadership of Dr. Engeriser, will continue to keep the CBCC clinic and other clinical programs on the cutting edge of addiction treatment.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Overall

The Department of Psychiatry continues our mission to expand integrated care in order to improve clinical outcomes for patients. Most recently we received an HRSA grant to place a psychiatrist and a therapist in our largest Family Medicine clinic. This clinic serves over 9,000 patients from birth to death, including pregnant women, HIV patients and transgender patients. The attending psychiatrists and psychiatry residents work closely with the Family Medicine residents to expand the knowledge base of both groups of residents in providing collaborative care and substance use disorder treatment in the setting of primary care.

An additional opportunity for the psychiatric residents is to rotate through the Alabama Bureau of Pardon and Paroles Day Reporting Centers. The residents participate as part of a team that provides counseling, education and treatment, including education medication assisted treatment when appropriate. The purpose of the DRC is to change criminal thinking and behavior. The program is evidence-based, and we have seen a large decrease in recidivism. The residents see firsthand how the biopsychosocial model leads to criminal behavior, but also is an important component of successful recovery.

Lastly, we were awarded money from the Alabama Department of Mental Health to open a six bed medically supervised withdrawal unit. Our residents are rotating on this unit to learn how to take care of these complicated patients.

Education

The department continues to demonstrate a strong emphasis on educating both medical students and resident physicians. The medical students' satisfaction with the second-year neuroscience and psychiatry module continues to receive overwhelmingly positive feedback, with students in particular noting that they enjoyed learning the mental status exam from our residents and found Dr. Detrinis' lectures about psychiatric diagnoses to be very useful and engaging. The third-year Psychiatry clerkship continues to perform very well, with students averaging around the 70th percentile nationally on their end of rotation NBME examination. Step 2 CK scores remain 0.5 standard deviations above the norm, with 13% of USA students scoring greater than 1 standard deviation above the national norm. Significant gains in content areas of neuroscience, psychotic disorders, anxiety disorders, mood disorders, and emergency psychiatric assessments all reflect success in our efforts to improve didactics sessions in these areas.

Medical student feedback on the psychiatry clerkship remains overwhelmingly positive. Early feedback from the first half of the 2024-2025 academic year reflects very strong student satisfaction with the new outpatient component of their rotation, with students reporting that they greatly appreciate seeing a side of psychiatry they would otherwise not be able to see at EastPointe alone. We had 10 students successfully match in psychiatry last year, which was a record for the University of South Alabama. This year, we have two students attempting to match in psychiatry, though the class of 2026 has been gaining steam with regards to interest in psychiatry; there are currently five students interested in going into psychiatry, with three entering the clerkship undecided and finishing the clerkship determined to pursue this field of medicine. Whether they are going into psychiatry or other specialties, students report that they feel that the psychiatry clerkship experience provided at EastPointe Hospital is well-structured, and they consistently report that they feel that the education that they receive through their attending and resident physicians exceeds that of other clerkships. Medical students consistently report that even if they decide not to pursue psychiatry, their experience on this clerkship is very enjoyable, and they often report that they feel that this clerkship helps strengthen their ability to interview patients and build rapport with them.

Changes made to the fourth-year ambulatory curriculum have been met with praise from medical students, who report that getting to spend one week in adult outpatient, one week in child outpatient, one week on consults, and one week at the BHCC gives them a much greater appreciation for the scope of careers available in psychiatry, and helps them to begin to find their niche in the field. In particular, students praise their ability to participate in Spravato and TMS treatments, as well as evaluations at the BHCC. Work remains ongoing to establish an ECT service, with plans to incorporate this into both medical student and resident education.

As medical student clerkship director and co-director, Drs. Putinta and Todd, have largely attempted to build off the successes of the past year, working to change the order of didactics in order to make the length of the students' lecture days more consistent. Incorporation of a "town hall" open feedback session at the end of the clerkship has also led to multiple minor changes in the learning environment of the clerkship that have yielded

more positive feedback from the medical students. All medical students in the past academic year have successfully passed the NBME miniboard in psychiatry, with only one student needing to remediate the examination, passing comfortably on their second attempt.

Psychiatry Residency Program

The psychiatry residency received approval for a complement increase to 24 residents, and the goal is to have an average of six residents in every class. This will allow us to train even more residents in high-quality psychiatric care, with the goal of increasing the psychiatric workforce in Alabama.

The new medically managed withdrawal unit at the BHCC gives residents additional experience in treating patients with alcohol, benzodiazepine, and opioid withdrawal safely and comfortably. This is a critical skill given the continued opioid epidemic and increase in alcohol use since the pandemic.

Child and Adolescent Psychiatry Fellowship Training Program

There has been a change in leadership for the Child and Adolescent Psychiatry Fellowship Training Program. Dr. Eddie Finn retired and Jeremy Clint Moore, D.O. has been passed the mantle of Program Director of the Child and Adolescent Program.

Fellows are provided with psychotherapy supervision from community providers with expertise in a variety of therapy modalities. This allows for a broadened perspective on theory and practice in the community. This outside supervision provides the fellow with protected time to learn and provides an additional opportunity for mentorship outside of the regular clinical faculty.

The expansion of our Child Outpatient Clinic to include integration with the Family Practice Residency Program will increase the interaction between our trainees and patients, trainees, and attending physicians in the Family Practice programs. We feel this will offer our trainees an increasing breadth of experiences.

The Addiction Medicine fellowship, administered by the Department of Psychiatry, provides physicians from psychiatry and other specialties with a local opportunity to consider continued fellowship training in Addiction Medicine following residency training.

The Alabama Psychiatric Physicians Association (APPA) has two statewide conferences per year, with opportunities for medical students, residents, and fellows to present posters related to research and clinical case studies, as well as to participate in presentations, at both meetings. This provides an opportunity for students, residents, and fellows and faculty mentors to engage in scholarly activity.

Support from the University of South Alabama College of Medicine has been exemplary. Staff and facilities are immediately available at the institutional level to provide support to faculty, residents, and fellows in their scholarly activities. We feel this will increase our

capabilities in research and curriculum development and facilitate overall program enhancements.

Clinical

In September, a dedicated six-bed medically managed substance withdrawal unit was opened at the Behavioral Health Crisis Center. This new addition represents a significant step forward in providing comprehensive and compassionate care for individuals facing substance use disorders and seeking recovery support. It is a direct response to the increase in fentanyl use locally and nationally, as well as the rise in alcohol use disorder since the pandemic.

The withdrawal unit is designed to offer a safe and supportive environment for individuals beginning their journey to sobriety. With a team of experienced medical professionals, licensed therapists, and support staff, the unit provides 24/7 supervision and evidence-based treatment tailored to meet the unique needs of each patient. The unit also provides educational opportunities for medical students, residents, and fellows to gain clinical experience in treating substance withdrawal.

Grants

Mobile/Baldwin County Access Now – Department of Justice
Alabama Hospital Association Distributed Telehealth Grants to EastPointe and BayPointe
Coosa County Rural Opioid Substance Abuse
ADMH Opioid Grant for 6 detox beds at Behavioral Health Crisis Center
Mobile County Mental Health Court

2023-2024
Summary of Scholarly Activities
Department of Radiology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Back SJ, Weiss DA, Marshall B Jr, Akbari E, Mackey M, Hinton E, Horn BD, Kidd M, Francavilla ML. Radiographic calibration for pubic diastasis assessment in bladder exstrophy-epispadias complex: a phantom study. *Pediatr Radiol*. 2024 Aug;54(9):1489-1496.

Baker A, Wong K, Gonzalez-Krellwitz L, Kim E, Strub GM. Bowel perforation following sclerotherapy of a massive intra-abdominal lymphatic malformation. *J Vasc Anom (Phila)*. 2024 Mar; 5(1):e081.

Cahanin R, Fallavollita A, Burley T, McQuiston S Jr. The reliability of clinical tools with and without ultrasound guidance to measure leg-length inequality. *Ultrasound*. 2024 May;32(2):86-93.

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Jakubowicz J, Lynch A, Wong K, Aucoin M. Hepatic arteriovenous malformation in a preterm infant with high-output cardiac failure. *Glob Pediatr Health*. 2023 Dec 6;10:2333794X231207347.

Kar J, Cohen MV, McQuiston SA, Poorsala T, Malozzi CM. Automated segmentation of the left-ventricle from MRI with a fully convolutional network to investigate CTRCD in breast cancer patients. *J Med Imaging (Bellingham)*. 2024 Mar;11(2):024003.

Lopez-Rippe J, Schwartz ES, Davis JC, Dennis RA, Francavilla ML, Jalloul M, Kaplan SL. Imaging stewardship: triage for neuroradiology MR during limited-resource hours. *J Am Coll Radiol*. 2024 Jan;21(1):70-80.

II. PUBLISHED ABSTRACTS

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Francavilla ML. Invited speaker. Pediatric board review. Mount Sinai Medical Center; 2024 Mar 14; Miami Beach, FL.

Gupta S. Invited speaker. The role of MRI for restaging patients with rectal cancer. Alabama and Mississippi Chapters of the American College of Surgeons; 2024 Jul 23; Gulf Shores, AL.

Klecker R. Invited speaker. It's the tip of the iceberg: imaging avulsion fractures. 76th Alabama Society of Radiologic Technologists Annual Conference; 2024 Apr 6; Orange Beach, AL.

Klecker R. Invited speaker. Shoulder arthrography: what is it, why do we do it, and how it's done [virtual presentation]. Society of Skeletal Radiology Committee for Strategic Advancement Undergraduate Outreach Symposium; 2024 Feb 29; East Dundee, IL.

V. NATIONAL PROFESSIONAL RECOGNITION

Greg Delgado. Member, American Society of Neuroradiology. Member, American College of Radiology.

Maria Figarola. Manuscript Reviewer, American Journal of Radiology. Member, Society of Pediatric Radiology. Advisory Role, Society of Pediatric Radiology online forums Q&A. Reviewer Radiology MOC Questions. Selection Committee Member, Alpha Omega Alpha Medical Honor Society. Member, Society of Chairs of Academic Radiology Departments. Children's Oncology Group Diagnostic Imaging Committee. Member, Society of Chiefs of Radiology at Children's Hospitals as well as the national discussion platform. Member, Radiology Society of North America. Member, American College of Radiology. Member, American Roentgen Ray Society. Member, Association of American Medical Colleges. Member, Association of University Radiologists. National MQSA (Mammography Quality Standards Act) Certification. Member, American Board of Radiology.

Michael Francavilla. Reviewer, Journal of Digital Imaging. Reviewer, Applied Radiology. Member, Society for Pediatric Radiology and the SPR Informatics and Public Policy Committee. Member, Society for Imaging Informatics in Medicine (SIIM) Education Committee. Board member, Journal of Applied Radiology. Journal peer reviewer, Pediatric Radiology, Journal of Digital Imaging, and Journal of the American College of Radiology. Member, Radiology Society of North America. Member, American College of Radiology

Shikha Gupta. Reviewer, American College of Radiology for Nuclear Medicine and PET/CT program accreditation. Member, American College of Radiology National Committee Member on Nuclear Medicine Accreditation. Member, Radiology Society of North America.

Marshall Hutchison. Member, American Board of Radiology. Member, Society of Interventional Radiology.

Rosemary Klecker. Reviewer, American Journal of Radiology and Skeletal Radiology. Membership Committee Member, Society of Skeletal Radiology. Moderated Scientific Session at RSNA. Program Committee Chair, OCAD Live 2024. Member, Radiology Society of North America. Member, American College of Radiology. Member, American Roentgen Ray Society.

Brett Martin. Member, Association of Program Directors in Radiology Finance Committee. Chair, Association of Program Directors in Radiology Development Committee. National MQSA (Mammography Quality Standards Act) Certification.

Samuel McQuiston. Question Writer and Reviewer, Rad Exam (American College of Radiology in-training exam). Reviewer, Journal of Radiology Case Reports, Cureus and RSNA Case Library. Editorial Manager, Journal of Radiology Case Reports. Founding Chair, Affinity Radiology Programs. Serves on two American Board of Radiology committees, one for the Core Examination and one for the Certification Examination. Member, Radiology Society of North America. Member, American College of Radiology. Member, American Roentgen Ray Society. Member, American Medical Association. Member, Association of American Medical Colleges. Member, Association of Program Directors in Radiology. Member, Association of University Radiologists.

Margaret Mowry. National MQSA (Mammography Quality Standards Act) Certification. Member, Radiology Society of North America. Member, American Association for Women Radiologists.

Elizabeth Park. Advisory Role, National Accreditation Programs for Breast Centers. National MQSA (Mammography Quality Standards Act) Certification. Member, Alpha Omega Alpha Medical Honor Society. Member, Society of Breast Imaging. Member, American College of Radiology.

Austin Trupp. Member, Society of Interventional Radiology. Member, American Board of Radiology.

Kevin Wong. Member, Education Committee for Society of Pediatric Radiology. Member, Physician Resource Committee for Society of Pediatric Radiology. Member, Interventional Radiology Committee for Society of Pediatric Radiology. Chair of Board, Editorial Board for the National Pediatric Fellowship Curriculum for Society of Pediatric Radiology. Member, Nominating Committee for Society of Pediatric Radiology. Member, Society of Chiefs of Radiology at Children's Hospitals as well as the national discussion platform.

Brian Wood. Member, Society of Interventional Radiology. Member, American Board of Radiology.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Dr. Gregg Delgado, a fellowship trained neuroradiologist and musculoskeletal radiologist, has been instrumental in contributing not only to resident education, but for providing subspecialty reads on an ever growing volume of advanced imaging in both of these areas. Dr. Delgado's service contributions and leadership include serving as the Vice Chair of our department Quality Assurance and Performance Improvement committee. He leads a monthly Peer Learning Conference and is our department representative for the Clinical Process Council.

Dr. Michael Francavilla is an Associate Professor and fellowship-trained pediatric radiologist, who joined our department April 1, 2022 after 8 years at CHOP. He has proven himself a tremendous asset to not only the pediatric radiology division but the entire department. In addition, he is a CMIO with particular emphasis on the imaging needs in the USA Health System and has made himself indispensable in that IT role. He has given multiple grand rounds regarding the 21st-Century Cures Act, having been the leader on that project implementation. He leads the Data Governance Committee and co-leads the Information Technology Governance Committee. Dr. Francavilla has had two published peer-reviewed articles over the last year and gave a presentation to the Mount Sinai Medical Center radiology residency program in Miami, FL on March 2024, "Pediatric Board Review". He has presented a grand rounds talk on "Imaging of Pediatric Arthritis" to the orthopedic surgery department. In addition, he has contributed to the administrative needs of the department, including being on the template task force. Work on the task force includes standardizing reporting templates used by the entire department. He is a member of the health system's Credentialing Committee. Dr. Francavilla was also awarded Teacher of the Year by the 2024 senior graduating radiology residents.

Dr. Shikha Gupta is an extremely valuable member of our faculty. She is division chief of the nuclear medicine section and excels in providing unique clinical services in advanced imaging, including high-quality PET CT interpretations, as well as expertise in cross-sectional imaging of liver, prostate, and colorectal cancers. She initiated use of F-18 Pylarify PET/CT for staging and management of patients with prostate cancer. This is being followed up with the addition of Pluvicto infusion for treatment of these patients. Recently, she has also been instrumental in adding F-18 Florbetapir PET CT for early diagnosis and management of Alzheimer's patients and use of the same tracer for diagnosis of cardiac amyloidosis. Her nuclear medicine conference is approved for category one CME credit. Beyond her clinical services, Dr. Gupta's service contributions include committee work for the hospital. She leads the imaging presentation for a biweekly colorectal multi-disciplinary tumor board. In addition, she is chair of the USA Health Radiation Safety Committee. Dr. Gupta also provides imaging guidance for a new Urology Case Conference. Her oral presentation on "The role of MRI for restaging patients with rectal cancer" at the Alabama Chapter of the College of Surgeons meeting in July 2024 was well received.

Dr. Rosemary Klecker is an Associate Professor and the division chief of musculoskeletal radiology. In the time since Dr. Klecker joined our department, she has provided excellent leadership of her section and outstanding efforts in scholarship and resident/student

education. As a fellowship-trained musculoskeletal radiologist, Dr. Klecker has participated in lectures and grand rounds, not only for radiology, but for orthopedic surgery as well. She provides outstanding subspecialty reads on an ever growing volume of advanced imaging in her area of expertise. Dr. Klecker has brought much scholarship in clinical practice to our department, including the introduction of MSK ultrasound procedures and muscle core biopsies. Dr. Klecker's service contributions and leadership to the department include serving on the PEC and CCC residency committees. In addition, she is a member of the CME Committee, as well as the Dose Reduction Committee. Dr. Klecker also completed her second year serving as Associate Program Director, with great feedback from our residents.

Dr. Brett Martin is an extremely engaged and productive faculty member who is also section chief of neuroradiology. As a fellowship-trained neuroradiologist, Dr. Martin provides resident lectures, an updated curriculum and advanced imaging protocols to the department. In addition, he has completed his second full year as Program Director for the radiology residency and has done a masterful job in this critical role. He gives regular lectures on neuroradiology to our residents and leads the multidisciplinary Neuroradiology, Neurology, Neurosurgery and Neurointerventional weekly conference, where he presents advanced imaging to medical students, residents, and faculty. Dr. Martin's service contributions and leadership include chair of the Program Evaluation Committee for the residency program and chair of the MRI Safety committee for the department of Radiology. He is a member of the Residency Selection Committee and Clinical Competency Committee for the residency program. He also serves on the trauma and ER peer review committee and the stroke steering committee for the USA Health system. Dr. Martin graduated from the University of South Alabama Mitchell School of Business with a Masters of Business Administration for Healthcare Professionals in the fall of 2022. In addition, Dr. Martin now has a joint appointment as Assistant Professor in the department of neurosurgery and has passed the ABR Neuroradiology Subspecialty Examination to earn a Subspecialty in Neuroradiology Certificate.

Dr. Samuel McQuiston, Vice Chair for Quality Improvement and Education and Professor of radiology, provides invaluable contributions to the education, service and leadership in our department, as well as service and leadership to the College of Medicine. Also, he provides education in the Diagnostic Radiology Residency and multiple UME courses, including the M3 Radiology Selective for medical students considering a career in radiology and the M4 Applied Clinical Radiology course for medical students who are not pursuing a career in radiology to provide an understanding of how radiology is applied in clinical practice, i.e. "A Radiology User's Manual for the Non-Radiologist." His tireless contributions to education have earned him the Red Sash award, recognizing his outstanding teaching. His scholarly activity includes serving as a Co-PI on two projects, including one NIH/JIT grant funded at \$400,000. He also has three peer-reviewed articles in press. Dr. McQuiston established and chaired a multi-institutional bimonthly group meeting with other program directors in the southeast region, bringing shared wellness, education and research opportunities to all of the participating programs. This regional program was propagated nationally this year into the Wellness Works Program through the Association of Program Directors in Radiology. Dr. McQuiston is the Chair of the USA

Health Radiology Quality Assurance Program Improvement Committee and a member of the departmental Clinical Competency Committee.

Dr. Margaret Mowry continues to provide strong clinical service to our department at a 0.6 FTE. She provides expertise in interpretation and teaching in several subspecialty areas, including breast imaging, body imaging, prostate MRI and oncology/PET-CT. Mammography requires maintaining additional FDA credentialing and CME. As a body fellowship-trained radiologist, she provides resident lectures in this area. She participates in the oncology tumor board as the radiology representative. She is also on the MCI Commission on Cancer Committee and UH Multidisciplinary Peer Review Committee.

Dr. Elizabeth Park, a fellowship-trained breast imager, is section chief of breast imaging and continues to play a key role in the development of our women's imaging center. She is part of the multidisciplinary breast cancer treatment team made up of USA surgeons and oncologists and is a member of the committee on cancer and NAPBC (National Accreditation Program for Breast Centers). She is also a member of the departmental Program Evaluation Committee and Clinical Competency Committee for the residency program. Dr. Park has played an advisory role in implementing new Myriad Genetic testing for our high-risk mammography patients.

Dr. Brad Steffler, an Associate Professor, provides excellence in teaching, education and clinical service to the radiology department as the chief of the body imaging section. His background in interventional radiology has provided expertise in overseeing arthrograms and other basic interventional procedures. He is also a key instructor for fluoroscopic procedures and has led efforts to improve the curriculum and services in ultrasound and defacography.

Dr. Kevin Wong, a fellowship-trained pediatric interventional radiologist, joined our department as an Associate Professor on November 1, 2023. His training included diagnostic radiology at Michigan State University and pediatric diagnostic and IR fellowships at Phoenix Children's Hospital. He worked as an Assistant Professor of Radiology and Pediatrics at University of Arkansas for Medical Sciences and Arkansas Children's Hospital from July 2019 – April 2023. His area of interest and expertise is in treating pediatric vascular malformations. Since joining our faculty, Dr. Wong has formed an excellent support team of nurses and mid-levels in his efforts to establish a new pediatric IR service line at USA Children's and Women's Hospital. He has also worked with department and administrative leadership, as well as the USA Health development team, to seek funding for a new state-of-the-art IR lab at USA Children's and Women's Hospital. In addition, he is actively working with architects on the planning for this new facility, which will provide our pediatric patients the ability to have in-house interventional procedures, the first of its kind in our region.

Dr. Brian Wood has been indispensable in his leadership role following the departure of Dr. Zeiad Hussain. He has admirably taken the reigns in a time of rapid growth for the IR department, including overseeing the onboarding of four new IR faculty over the past year. He has not only successfully mentored these new hires but effectively established the

framework for a new service line of inpatient IR services at USA Providence Hospital. The wRVUs for the division have increased by approximately 100% with his oversight and guidance. Dr. Wood is the head of Early Specialization in Interventional Radiology. He is also a member of the departmental Program Evaluation Committee and Clinical Competency Committee.

We are excited to welcome several new adult interventional radiologists to our department. Dr. CJ Gaston joined us on June 1, 2024. He completed his residency in diagnostic radiology with Early Specialization in Interventional Radiology at the University of Tennessee Medical Center Knoxville, followed by a fellowship in vascular and interventional radiology at the University of Florida. Dr. Marshall Hutchison came on board on July 1, 2024. He completed his residency in diagnostic radiology with Early Specialization in Interventional Radiology at West Virginia University SOM, followed by a fellowship in vascular and interventional radiology at Ochsner Clinic Foundation. Finally, we are pleased to announce that Dr. Austin Trupp joined us on September 24, 2024. He completed his residency in diagnostic radiology with Early Specialization in Interventional Radiology at Saint Barnabas Medical Center, followed by a fellowship in vascular and interventional radiology at the University of Florida. We look forward to their contributions and productivity as we continue to grow our interventional radiology division.

We have further expanded the PRN faculty pool to help in our effort to provide efficient and quality reporting on the rapidly growing volume on imaging studies with USA Health.

Our senior residents matched in prestigious and highly competitive fellowship programs that include Yale University, University of North Carolina at Chapel Hill, University of Iowa, Thomas Jefferson University Hospital and University Hospital/Case Western. We have also had great success in our residency recruitment, with five new residents who joined us on July 1, 2024.

Our five new residents are: Dr. Morgan Cardon, who graduated from University of South Florida Morsani College of Medicine and completed her transitional year at the Largo Medical Center; Dr. Robert Chory, who graduated from Edward Via College of Osteopathic Medicine, and completed his transitional year in internal medicine at Thomas Hospital; Dr. Christopher Johnson who graduated from University of South Alabama College of Medicine and completed his preliminary year at University of South Alabama; Dr. Quinton Keigley, who graduated from Louisiana State University School of Medicine in Shreveport and completed his transitional year in internal medicine at the Keesler Medical Center; and Dr. Ian Thompson, who graduated from University of South Alabama College of Medicine and completed his transitional year in internal medicine at the University of South Alabama.

The radiology residency program is excited to introduce Dr. Jacqueline Melvin and Dr. Matthew Kassels as our Chief Residents for the 2024–2025 academic year. Their commitment and leadership will be invaluable to our team.

We are proud to share that Dr. Jacqueline Melvin has been awarded the title of Outstanding Resident of the Year by Association of Academic Radiology. Her hard work and dedication have truly made a difference. Additionally, Dr. Chris Johnson has been nominated for the Gold Humanism Honor Society. This nomination highlights his exceptional commitment to compassionate care.

The residency program has had continued success in filling residency slots and obtaining prestigious post residency fellowship positions. We have also maintained resident diversity with currently 25% females and 40% underrepresented minorities recruited into our program.

The radiology department has had many new additions and unprecedented growth over the last year, particularly with the acquisition of USA Providence Hospital. We have continued to have significant increases in volumes and charges with the departmental revenue up 6% over last year. We are able to provide quality imaging services and manage the ever-increasing imaging studies with strong support from our full-time and adjunct faculty.

We are also excited to have acquired several new high-end cross-sectional imaging devices for our health system. These include two new state-of-the-art Philips CT scanners at the University Hospital. One is the Phillips iQon CT with dual energy/spectral capabilities, which is an important new technology where a single conventional CT scan is paired with layers of spectral results, improving diagnostic quality and decreasing the need for repeat scans. We have also purchased a much-needed new Phillips Ingenia X MRI, which will be delivered to USA Children's and Women's Hospital in the next few months.

Our department continues to have a robust quality assurance and performance improvement process for both diagnostic and interventional radiology, which includes data on peer review, turnaround times, patient safety events, patient satisfaction, radiation safety, exam appropriateness and resource utilization. ACGME, ACR, ABR, and Joint Commission quality and safety requirements, including those needed for program accreditation, are also covered in this plan. Our quality metrics continue to meet or excel national standards.

Other new clinical services provided by the radiology department include:

- Offering Myriad at our breast imaging clinic, which is genetic testing for our high-risk patients;
- Strategic upgrades of radiology workstations, PACS, and related clinical applications;
- Initiated the use of F-18 Pylarify PET/CT for staging and management of patients with prostate cancer, and following up with the addition of Pluvicto infusion treatment for these patients;
- Initiating F-18 Florbetapir PET/CT for early diagnosis and management of Alzheimer's patients as well as for diagnosis of cardiac amyloidosis;
- Established a pulmonary embolism response team (PERT) and helped develop a standardized PE management protocol;

- Initiated plans providing more robust cardiothoracic imaging services at UH and CW;
- Provided new on-site IR services at Providence hospital, decreasing the need for patient transfers;
- Established a more streamlined and comprehensive contrast reaction policy;
- Established a new fast MRI protocol for ruling out stroke in ER patients to improve efficiency in patient throughput and decrease unnecessary admissions.

Major goals for the department, many of which are already underway, include:

- Increasing faculty numbers, particularly in the key areas of breast imaging, pediatric radiology, and body imaging;
- Further establish robust diagnostic and IR inpatient and outpatient services with new clinics at Providence Hospital;
- Improve on strategies to address increasing work volumes and maintain balance between patient care, education and research;
- Increase residency complement to allow residents new learning opportunities;
- Establish an integrated IR residency/fellowship;
- Work with a multidisciplinary team to become certified as a national center of excellence for our Women's Breast Center;
- Work with an interdisciplinary team on procuring a new noninvasive pulsed ultrasound technology device for cancer ablation

We were also pleased to again select this year's recipient of the Frank Greiner Award, a substantial USA Foundation endowment, recognizing excellence, self-motivation and a sense of humor to a well deserving radiology support employee. This year's recipient was Gwenn Moring, a medical assistant – hospital specialist at patient access for the FED. The award was given with much fanfare as usual on September 19th, "Talk Like a Pirate Day", as dictated by Dr. Greiner's wishes and reflecting his awesome sense of humor!

In summary, we anticipate further faculty recruitment in the coming year, expanded services at all of our imaging facilities, and look forward to new opportunities to advance our clinical service, teaching and research missions.

2023-2024
Summary of Scholarly Activities
Department of Surgery

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Alford H, Sinanian E, Yockers R, McMahon D. Open Inguinal Hernia Repair [video]. In: SCORE Portal [database online]. Charlottesville, VA: Silverchair Information/Systems; 2023 Oct. Available from: <https://www.surgicalcore.org/videoplayer/510000490> [Subscription required].

Blackley SK, Lawrence J, Blevins A, Howell C, Butts CC, Polite NM, Capasso TJ, Bright AC, Hall KA, Haiflich AN, Williams AY, Kinnard CM, Mbaka MI, Audia JP, Simmons JD, Lee YL. A single hospital-wide antibiogram is insufficient to account for differences in antibiotic resistance patterns across multiple ICUs. *Am Surg*. 2024 Sep;90(9):2165-2169.

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Howell CW, Lawrence JA, Hinkel HM, Clutton CH, Lee YL, Simmons JD, Williams AY. Patient resiliency and caregiver burden after traumatic spinal cord injury resulting in quadriplegia. *Am Surg*. 2024 Aug;90(8):2073-2074.

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Jackson ML, Thomas SC, Joyner MR, Hu M, Larry Lee YL, Capasso T, Polite NM, Kinnard CM, Mbaka MI, Williams A, Simmons JD, Butts CC. Time to mobility is associated with pulmonary complications in patients with spine fractures. *Am Surg*. 2024 Aug;90(8):2049-2053.

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Makris EA, Tran TB, Delitto DJ, Lee B, Ethun CG, Grignol V, Harrison Howard J, Bedi M, Clark Gamblin T, Tseng J, Roggin KK, Chouliaras K, Votanopoulos K, Cullinan D, Fields RC, Cardona K, Poultides G, Kirane A. Natural history of undifferentiated pleomorphic sarcoma: experience from the US Sarcoma Collaborative. *J Surg Oncol*. 2024 Jun;129(7):1354-1363.

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Zager JS, Orloff M, Ferrucci PF, Choi J, Eschelmann DJ, Glazer ES, Ejaz A, Howard JH, Richtig E, Ochsenreither S, Reddy SA, Lowe MC, Beasley GM, Gesierich A, Bender A, Gschnell M, Dummer R, Rivoire M, Arance A, Fenwick SW, Sacco JJ, Haferkamp S, Weishaupt C, John J, Wheeler M, Ottensmeier CH. Efficacy and safety of the melphalan/hepatic delivery system in patients with unresectable metastatic uveal melanoma: results from an open-label, single-arm, multicenter phase 3 study. *Ann Surg Oncol*. 2024 Aug;31(8):5340-5351.

II. PUBLISHED ABSTRACTS

Posey C, Bouillon V, Preus R, Vira A, Simmons J, Haiflich A, Lee Y, Mbaka M. Time to arrival as a predictor for cardiothoracic trauma patient outcomes. 19th Annual Academic Surgical Congress; 2024 Feb 6-8; Washington, DC. Abstract no. 09.22. Available from: <https://www.asc-abstracts.org/abs2024/09-22-time-to-arrival-as-a-predictor-for-cardiothoracic-trauma-patient-outcomes/>

Loing K, Bell R, Antonetti M, Yenchar J, Englehardt R, Janu P, Louie B, Lipham J, Richards W, Levy J, Speicher J, Hodgins B, Kothari S, Perry K, Bildzukewicz N, Veldhuis P, Tomaszewski J. Magnetic sphincter augmentation for gastroesophageal reflux disease: implications of sizing technique and device selection on safety outcomes using the LINX Reflux Management System. *Foregut*. 2024 Sep 26;4(3):342-343. Abstract no. 60.

Hill H, Polite N. Assessing risks of aspiration during enteral feeding in the trauma patient population. Southeastern Surgical Conference; 2024 Feb 3-6; Clearwater Beach, FL. Available from: <https://sma.org/abstracts/assessing-risks-of-aspiration-during-enteral-feeding-in-the-trauma-patient-population/>

Thornton L, Grimm L Jr. Excision of metachronous oligometastatic prostate cancer recurrence to rectum using transanal minimally invasive surgery technique: a case report. *Dis Colon Rectum*. 2024 Jun;67(6):e-649. Abstract no. eP176.

Thornton, L, Grimm L. Cecal bascule: rare complication and cause of large bowel obstruction following emergent cesarean. 2024 Alabama and Mississippi Chapters of the American College of Surgeons Annual Meeting. 2024 Jul 25-27. Gulf Shores, AL.

Vira A, Posey C, Preus R, Lee L, Simmons J, Roberts P, Haiflich A, Mbaka M. Managing Duodenal Trauma: Could Earlier Initiation of Nutritional Support Improve Patient Outcomes? 19th Annual Academic Surgical Congress; 2024 Feb 6-8; Washington, DC. Abstract no. 111.10. Available from: https://www.asc-abstracts.org/?fwp_abssearch2024=Management%20of%20Duodenal%20Trauma%20Patients

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Bright A. Invited speaker. Burns for EMS and nurses. Gulf Coast Trauma Symposium; 2024 Mar 21; Biloxi, MS.

Butts C. Invited speaker. Scientific papers that should change your practice. Eastern Association for the Surgery of Trauma 37th Annual Scientific Assembly; 2024 Jan 10; Orlando, FL.

Richards WO. Invited speaker. Success as a physician and surgeon. University of Kentucky Department of Surgery; 2024 June 13-14; Lexington, KY.

Williams A. Invited speaker. Addressing gun violence through a public health lens. Gulf Coast Trauma Symposium; 2024 Mar 20; Biloxi, MS.

V. NATIONAL PROFESSIONAL RECOGNITION

Bright A. Group Advisor, Military Medicine

Bright A. Journal Peer Review Annals of Plastic Surgery

Butts C. Vice-chair Alabama Committee on Trauma

Butts C. Member EAST Burn Committee

Butts C. Member EAST Manuscript and Literature Review Committee

Butts C. Member ABA Governmental Affairs Committee

Butts C. Member AAST AMC Education and Research Committee

Butts C. Member AAST AMC Communication Committee

Butts C. Member AAST AMC Scholarship, Awards, and Development Committee

Butts C. Invited Discussant on AAST Conference Paper 26 - Impact of State Admission Standards on Patient with Isolated Rib Fractures. 2024 Sep 11

Grimm L. Content Author for SCORE 2014-pres

Grimm L. General Surgery Editorial Board Member: Surgical Council on Resident Education (SCORE) 2020-pres

Grimm L. Reviewer: Diseases of the Colon & Rectum 2020-pres

Grimm L. President: AL Chapter of the American College of Surgeons 2022-23

Grimm L. Invited member Young Researchers Committee – American Society of Colon & Rectal Surgery (ASCRS), 2022-present

Grimm L. Invited member Video-based Education Committee - American Society of Colon & Rectal Surgery (ASCRS), 2023-present

Kinnard C. Journal Peer Review. *American Surgeon*

Howard J. Journal Peer Review. Ad hoc. *American Surgeons*

Hunter J. Journal Peer Review Abstract Reviewer. *Diseases of the Colon and Rectum*

Hunter J. Member. New Technology Committee American Society of Colon and Rectal Surgeons

Hunter R. Member Southeastern Surgical Society Women in Surgery Committee

Kinnard C. Journal Peer Review. *American Surgeon Journal of Surgical Research*

Lee L. Journal Peer Review. *American Surgeon Journal of Surgical Research*

Liles S. Journal Peer Review. *JAMA Open Access*

Liles S. Judge: Medical Student 3rd Year Case Symposium Poster Presentations 2024 Jun 7

Liles S. Moderator: Society of Surgical Oncology Annual Meeting, GI Oral Poster Session 2024 Mar 22

Mbaka M. Journal peer review, *American Surgeon Journal of Surgical Research*

Mbaka M. Chair – Communication Sub-committee Injury Prevention Committee (EAST National Organization)

Mbaka M. Vice Chair, Committee on Trauma (COT) –RTTDC, State of Alabama

McMahon D. Author, SCORE Video on Laparoscopic Cholecystectomy

Richards WO. Past President on Executive Council Southeastern Surgical Congress -The largest general surgery society in the US

Richards WO. Executive Council Alabama Chapter American College of Surgeons

Richards WO. American College of Surgeons Video Based Education Executive Committee Subcommittee on “ICONS” in Surgery

Richards WO. Member of the University of South Alabama video committee contracted with the Surgical Council on Resident Education (SCORE) teaching video series

Richards WO. Visiting Professor, University of Kentucky Department of Surgery

Rider P. Journal Peer Review, *Journal of Digestive Diseases and Disorder, International Journal of STD & AIDS Ochsner Journal* 2018 – present

Rider P. Invited Member, ASCRS Self-Assessment Committee CME Self-Assessment Exams, 2018-present

Rider P. Invited Member, ACS Video-based Education Committee, 2017-present

Rider P. Governor, Alabama Chapter of the American College of Surgeons 2020 – present

Rider P. Member, ASCRS – American College of Surgeons Video Based Education 2019 – 2024

Rider P. Member, CARSEP American College of Surgeons Video Based Education 2019 – 2024

Simmons J. Chair, Alabama Legislative Funding Committee. 2019-2024

Simmons J. Committee on Trauma (COT) – Vice Chair, State of Alabama. 2016-present

Simmons J. Alabama Statewide Trauma & Health Systems Advisory Council (STAC). 2018-present

Simmons J. Councilor, AOA Medical Honor Society (2016-current)

Simmons J. Invited Discussant on AAST Healthy Days at Home: Benchmarking Long-Term Outcomes in Geriatric Trauma

Williams A. Future Trauma Leader, American College of Surgeons Committee on Trauma, 2023-2025

Williams A. Co-Chair, EAST Community Engagement Subcommittee

Williams A. Member, EAST Injury Control and Violence Prevention Committee

Williams A. Member, Committee on Trauma Advocacy Pillar

Williams A. Member, Committee on Trauma Injury Prevention Pillar

Williams A. Moderator: Outreach & Injury Prevention. Gulf Coast Trauma Symposium

Williams A. Panelist: Combating Gun Violence in Non-Atlanta Georgia, Alabama and Mississippi, National Medical Association Surgical Section Trauma Symposium

Williams A. Moderator: Moving on Up: Advances in Upstream Approaches to Firearm Injury Prevention COT National Conference Resident Paper Competition

Williams A. Moderator: EAST Injury Prevention Resident Paper Competition

Williams A. Moderator: EAST, Scientific Session III: Cox-Templeton Injury Prevention

Williams A. Moderator: COT Moving On Up: Advances in Upstream Approaches to Firearm Injury Prevention

Williams A. Abstract Reviewer: TQIP 2023

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Medical Student Education: Students recognized a large number of surgical faculty for Red Sash awards (Drs. Andrew Bright, Ronald Brooks, Caleb Butts, Lee Grimm, J. Harrison Howard, Maryann Mbaka, and Ashley Williams).

Student evaluations were uniformly positive. The few negatives were largely regarding time and intensity of the faculty, noting the faculty sometimes seemed hurried and focused on clinical duties. Drs. Butts and Hunter have chosen a new textbook and spread students out over more services so that they can obtain more individualized attention. In addition, we have implemented more simulation and exercises outside of the high stress OR environment. Most of the Senior students matched in a highly competitive categorical general surgery match. This is a testament to our faculty writing letters and calling on behalf of students to achieve a match during match day. Again, the students are doing extremely well on step 2 exams testing for clinical knowledge and thus are able to match into the highly competitive general surgery residency programs.

Leadership: Faculty provided leadership both nationally and regionally. Leadership in the Alabama Chapter of the American College of Surgeons was prominent, with Dr. Richards serving on the Executive Council, Dr. Lynn Dyess and Dr. Paul Rider serving on the Board of Governors to the National American College of Surgeons. Dr. Paul Rider is past president of the Alabama Chapter of the American College of Surgeons, while Dr. Lee Grimm is the president for the 2023-2024 year and Dr. Spencer Liles is the secretary and President elect.

Dr. William Richards is currently serving as past president on the executive Council of the Southeastern Surgical Congress, the largest general surgery regional society in the US.

Dr. Lee Grimm serves on the Executive Committee of the Surgical Council on Resident Education (SCORE). This national resident education group is instrumental in identifying the key learning objectives and knowledge base for surgical residents across North

America. The SCORE leadership asked the University of South Alabama Department of Surgery and specifically, Dr. Lee Grimm as PI, to produce a series of training videos that are essential for surgical residents to learn. During the first year the Department faculty and residents produced 18 teaching videos for publication on the SCORE portal. Drs. John Hunter, Nathan Polite, Harrison Howard, William Richards and Marianne Mbaka comprise the other members of the SCORE video board of directors at USA. More than 30 educational videos of surgical techniques have been published on the SCORE video portal.

Dr. Paul Rider is the member of the video-based education committee for the American College of Surgeons. He served multiple times as a session moderator at the American College of Surgeons Clinical Congress video education sessions. Dr. Paul Rider serves on the American Society of Colorectal Surgeons' self-assessment committee as a question writer for the self-assessment exams.

Dr. Jon Simmons serves as counselor for the Alpha Omega Alpha Medical Honor Society Beta chapter. Dr. Simmons also is a member of the Alabama State Emergency Medical Control Committee and the Alabama Statewide Trauma and Health Systems Advisory Council and is Chair for the EMS region 6 RAC. Dr. Simmons also serves as the chief of the trauma, surgical critical care, burns and acute care surgery service. He serves as the leader for the quality programs within the division of trauma acute care surgery and burns.

Dr. Polite served as the advanced trauma life support course director and was the director of the neuroscience ICU. He is chair of the multidisciplinary trauma burn peer-review committee. He has transitioned to be the Chief Quality Officer for USA and has made multiple changes in the surgical processes and measurements of surgical quality that has greatly improved Quality of Care at USA Hospitals.

Dr. Maryann Mbaka serves as a chair of the general surgery program evaluation committee and is also serves on general surgery clinical competency, surgical critical care program evaluation, and the surgical critical care clinical competency committees. She also serves as the advanced trauma life support director for courses offered by the division of trauma.

Dr. Fonseca serves on several national committees, including the Association for Academic Surgery (AAS) as a SSAT program committee member and is a member of the Association of Women Surgeons Outreach Committee, the Society of Surgery of the Alimentary Tract (SSAT) diversity and inclusion liaison committee, and the Southeastern Surgical Congress (SESC) Diversity, Equity and Inclusion committee. In 2023 she left USA and took a position at UAB.

Dr. John Hunter has been instrumental in coordinating robotic training and credentialing for new faculty this past year. He serves on the New Technology Committee of the American Society of Colon and Rectal Surgeons. Regionally, he is a musician and fundraiser for the USA Health Doc Rock event.

Dr. Harrison Howard serves as the associate program director for the general surgical residency. He is also Chair of the general surgery residency Clinical Competency

Committee (CCC) and is the medical director of clinical trials at the Mitchell Cancer Institute. Dr. Howard was promoted to Professor of Surgery.

Dr. Spencer Liles is serving as the Chief Medical Information Officer for USA Health and is tasked with improving the electronic medical record and supporting hardware/software for clinicians to optimize the ability to care for our patients and grow our practices. He was the chair of the search committee for USA Health/MCI medical oncology section Chief in 2022. He is on the continuing medical education committee for USA and also on the summer medical student research committee as co-chair. Nationally, he serves as treasurer for the American College of Surgeons Alabama Chapter and he is a member of the Young Surgeons Committee of the Southeastern Surgical Congress.

Dr. Lee Grimm serves as a program director for the general surgery residency program. In addition, he was appointed to and is currently serving on the national education editorial board for the Surgical Council on Resident Education (SCORE), which is the official online educational curriculum for general surgery residents sponsored by the American College of Surgeons, the American Board of Surgery, the ACGME and the APDS. He is the PI for our SCORE video program board. He was elected to be president of the Alabama Chapter of the American College of Surgeons for the 2023-2024 year.

This past year, Dr. Ashley Williams served as faculty and Assistant Professor on the trauma acute care surgery and critical care surgery service. Dr. Ashley Williams has designed, instituted and continues to run Project Inspire: A comprehensive grass roots intervention for juveniles delinquent of gun crimes. In June 2023, she was appointed Director of the Center for Health Communities. She has excelled and is writing grants and has been invited speaker at multiple venues talking about “Project Inspire”. She was also invited to the White House and met with the President Joe Biden in 2024.

Dr. Chris Kinnard serves as program director of the surgical critical care fellowship, and he is the co-director of the ST ICU and neurosciences ICU. He is a member of the surgical critical care program evaluation committee and the surgical critical care competence committee. He has recently redesigned the curriculum for surgery critical care.

Dr. Caleb Butts serves as a board member for the Christian Medical Ministry of South Alabama. He also serves as Vice chair for the Alabama Committee on Trauma for the American College of Surgeons. He serves on the Eastern Association for the Surgery of Trauma (EAST) Burn Surgery Committee, the American Burn Association Governmental Affairs Committee, and on the American Association for the Surgery of Trauma (AAST) education and communication committees. Regionally, he served as the co-director of the medical student third year clerkship and serves on the medical student affairs committee, as well as the continuing medical education committee and the student promotions and evaluation committee.

Dr. Rachel Hunter was instrumental in organizing a band and participating in the event to raise money for the Mitchell Cancer Institute. In addition, she serves on several regional and local committees, including the Women in Surgery Committee of the Southeastern

Surgical Congress, the College of Medicine Continuous Quality Improvement Committee, the USA Health Breast Program Leadership Committee. She collaborates with several basic scientists on breast cancer research.

Dr. Andrew Bright serves as the director of the Burn intensive care unit and as director of the M4 acting internship on Burns and as the faculty medical advisor for the military medical interest group. He was instrumental in the mentorship of three junior faculty in burn reconstruction, through over 70 cases with detailed case discussion, review, and proper billing and coding. He has also supervised 4 advanced practice providers and expanded their supervised practice. He integrated the quality and process improvement review into weekly multidisciplinary conferences for the burns which has been instrumental to improving quality of care. Dr Bright traveled to several regional hospital and gave written hospital feedback to referral sources as part of the Burns Outreach program.

Dr. Michael Chang, the Chief Medical Officer for USA Health, serves as Chair of the American College of Surgeons Trauma Quality Improvement Program (TQIP) and has been appointed as the Secretary of the Mobile County Board of Health.

Dr. Doug Holmes Associate Professor of Surgery joined the faculty as an Pediatric Otolaryngologist and the Division leader. He has invigorated the Division of ENT and been able to perform many firsts in complex pediatric ENT surgery at USA. The Division of ENT has moved their clinics to the newly opened Midtown Old Shell Office Building.

Dr. Marty Heslin, Professor of Surgery and Director of the Mitchell Cancer Institute, resigned his position and moved to Birmingham to take leadership position at UAB.

General Surgery Residency Training: Dr. Lee Grimm serves as the program director for the general surgery residency training program. The residency program is highly sought after and the graduating residents this past year have successfully matched into their chosen fields of fellowship, including into minimally invasive surgery (MIS) and plastic reconstructive surgery. Dr. Emily Smith accepted a position at USA Department of Surgery for one year and has matched into a highly competitive breast oncology fellowship in 2025.

Recruitment: This past year we have recruited Cardiovascular and Thoracic Surgeons Carl Maltese, Dimitris Kyriazis, and Michael Damrich to serve as Associate Professors in the Division of CardioVascular and Thoracic Surgery in the Department of Surgery.

General Surgery Residency Training: During the time that Dr. Grimm has been Program Director of the General Surgery residency training program, we have witnessed advances in academics, ABSITE performance, and educational activities of the Department. The graduating residents continue to match into competitive fellowship programs or successfully transition to private practice in general surgery. In March 2024, we matched six new PGY 1 categorical residents into the residency program to start July 2025. Drs. Maryann Mbaka and Harrison Howard served as Associate Program Directors and added immensely to the education of the general surgery residents. Dr. Howard stepped in as the

chair of the Clinical Competency Committee of the General Surgery Residency program and Dr. Maryann Mbaka served as the Associate Program Director.

Tyronda Rogers continues to do an excellent job as the General Surgery Residency Program Coordinator while Cynthia Dennis as Assistant Program Coordinator for General Surgery and as the Program Coordinator for the Surgical Critical Care Fellowship Program. Both have done outstanding jobs in running these training programs and fostering a culture of excellence, comradery, inclusion, and success.

Division of Traumatology/Surgical Critical Care/Acute Care Surgery: During the past year, Dr. Simmons has recruited more faculty to the Division, expanded the number of patients seen through a decrease in diversion time, and expanded into additional critical care coverage in the Neuro ICU. The division has expanded to a total of 10 faculty members. Dr. Simmons served as vice chair state of Alabama American College of Surgeons Committee on Trauma and is a member of the Alabama Statewide Trauma and Health Systems Advisory Council. In addition, Dr. Simmons is a member of the scholarship committee for the American Association Surgery of Trauma. Dr. Butts and Mbaka directed multiple courses of Advanced Trauma Life Support Training. Dr. Chris Kinnard took over the directorship of the surgical critical care fellowship and completely revamped the educational activities and materials of Surgical Critical Care. Dr. Nathan Polite serves now as the Chief Quality Officer at USA Health.

Burn Surgery: Andrew Bright is in his sixth year as the director of the Arnold Luteran Regional Burn Center and has done a fantastic job continuing the excellence in clinical care. Drs. Caleb Butts, and Ashley Williams have been incorporated into all aspects of burn care. The burn unit continued to grow in number of patients seen and treated, as well as continuing the excellent quality of care as measured by the observed-to-expected mortality (O/E ratio). Seminal studies performed by Dr. Bright in the use of chemical debridement of burn wounds using Nexobrid have shown dramatic improvement in debridement specificity, mitigation of septic response, and mitigation of blood loss associated with surgical debridement.

Pediatric Surgery: Chip Hartin, M.D. FACS, has been Chief of the Division since July 2016 and he has done a remarkable job recruiting excellent faculty into the division, expanding the number of surgical cases, improving patient care, and improving the educational experience for residents and students. Dr Tuan Pham and Dr Aaron Seimes both very well trained and highly experienced board-certified pediatric surgeons were recruited and have improved the surgical care of children at C&W.

Colorectal Surgery: Dr. Rider is in his ninth year as the Chief of the Division of Colorectal Surgery, continuing the development of the colorectal surgery division. Dr. Rider served as Governor American College of Surgeons and as Past President of the Alabama Chapter of the American College of Surgeon. Drs. Grimm and Rider developed the multidisciplinary colorectal cancer multidisciplinary tumor conference (MDT) in collaboration with radiation and medical oncologists in order to provide improved cancer care in the region. Since the establishment of the colorectal cancer MDT in October 2015,

this multi-disciplinary team has treated hundreds of patients. The team has just undergone a site visit for continued recognition as a rectal cancer Center of Excellence. CRS continues to deliver best care as evidenced by the National Surgical Quality Improvement Project reports of observed-to-expected mortality, which was substantially better than expected and considered exemplary in many aspects of care. This exemplary performance has been an accomplishment made possible through excellence in provision of patient care by all the surgeons, residents, and clinical staff of the DOS. NSQIP is the most exhaustive and comprehensive analysis of quality of care delivered and it is a great accomplishment that the Colorectal service was considered exemplary in their surgical care in 2023 and in the first 6 months of 2024.

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 and faculty to present their scientific work at regional and national meetings. One of the major improvements in resident autonomy and education was creation of a Chief Resident Clinic, which is run by the PGY 5 Chief Resident with close attending supervision. This allows the chief residents to run their own clinic and increase their decision-making in preparation for complete autonomy. There has been substantial improvement in quality of general surgical services, which includes our Gastrointestinal, Colorectal and Oncologic Surgery Divisions, as measured by the Vizient Quality and NSQIP Quality data.

Breast and Endocrine: Drs. Spencer Liles and Lynne Dyess serve as co-directors of the Breast Cancer Multidisciplinary Conference, and both Drs. Liles and Dyess have moved to the Strada Patient care center where they have increased their 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. Dr. Rachel Hunter has expanded the availability for surgical consultation for breast cancer and is working to through our communications department to expand awareness of breast cancer treatment available at USA Health.

Plastic and Reconstructive Surgery: Ron Brooks, M.D., as faculty member, established himself as an expert plastic and reconstructive surgeon who was able to collaborate with many of our faculty in the care of trauma, cancer, and infectious wounds. He has added very valuable expertise in the reconstruction after breast cancer, melanoma, and rectal cancer surgery. Kelsey McKee, MD, recruited to join the faculty in plastic/reconstructive surgery in September 2020 has developed a thriving practice. Active recruitment of another plastic surgeon is ongoing.

Gastrointestinal and Bariatric surgery: The Bariatric surgery program under Dr Richards' direction 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. Complex Bariatric and GI surgical procedures are increasingly being performed using the Da Vinci robotic system. Studies showing improvements in patient outcomes using low pressure pneumoperitoneum and advances in patients' outcomes using

the DaVinci robot were presented and published. Active recruitment of another MIS and bariatric surgeon is ongoing.

Surgical Oncology: Dr. Liles has continued in his role as one of the Chief Medical Information Officers for USA Health. This entailed working with IT to improve the electronic health record (EHR) support of hardware and software to optimize our ability to care for patients. Harrison Howard, MD serves as Medical Director of Clinical Trials at the MCI.

Humanitarian Efforts: The mission trip to Rwanda in 2023 did occur and was a rousing success. Andrew Bright gave the oath of office for the senior medical students graduating in May 2023 and served as the faculty advisor for the Medical Military Interest Group, which has as its aims to improve awareness, resources, networking, and community service.

Research: Academically, the Department has published an astounding 25 peer-reviewed publications and 16 videos in the medical literature. The faculty have also published 1 book chapter in major textbooks of surgical sciences this past year. The faculty of the Department of Surgery presented multiple abstracts (papers, posters) this past year, demonstrating high level of academic involvement locally, regionally, and nationally.

Grant funding also increased this past year with several new grants being funded. All told, the Department generated \$884,436 in extramural funding and includes five clinical trials, nine endowments, and a pilot award from the Center for Clinical and Translational Science (CCTS). Dr. Fonseca continued to work on her research program and completed a pilot grant from the CCTS entitled “Patient and stakeholder reported perspectives on barriers and access to oncologic care in pancreatic cancer.” In May, she was awarded a K-23 grant. Dr. Fonseca was recruited to UAB shortly after the award was made.

The research collaboration between Jon Simmons, MD, and Mark Gillespie, PhD., has been very fruitful. Dr. Jon Simmons has completed the 5-year 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 surgeon scientist. Additional grant applications to fund this research have been submitted.

Dr. Richards has been collaborating with Lyudmila Rachev, PhD, on the project “Mitochondrial DNA Damage and DAMPs in inflammation and insulin resistance.” A R01 grant application was resubmitted to the NIH.

Our surgical oncologists have been very involved in clinical trials, including Dr. Howard’s participation in SWOG 1801 as institutional PI on “A phase II randomized study of adjuvant versus neoadjuvant MK-3475 (pembrolizumab) for clinically detectable stage III-IV high risk melanoma.” Dr. Howard also serves as institutional PI for MK-3475-630 “A phase III randomized double-blind placebo-controlled study to evaluate Pembrolizumab versus placebo as adjuvant therapy following surgery and radiation of high-risk locally advanced cutaneous squamous cell carcinoma”.

Dr. Bright has shown excellent results using Nexo-bred for chemical debridement of burn wounds, Drs. Rider and Grimm were also co-authors for the podium presentation on: “Outcomes of a prospective randomized study of transanal dearterialization verses Ferguson hemorrhoidectomy”. Drs. Richards and McMahon continued enrollment in the long-term LINX registry sponsored by Ethicon. This study looks at short and long term (10 year) outcomes post Magnetic Sphincter Augmentation for GERD.

In summary, the Department of Surgery faculty are collaborating with basic scientists at the MCI, the University and with 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 expertise the faculty in the Department has developed. Increasingly, the Department of Surgery is recognized for expertise in the care of trauma, burns, colorectal cancer, hepatic-pancreatic-biliary cancer, breast cancer, melanoma, and esophageal disorders.

Federal Grants

Sponsor: National Institutes of Health; National Institute on Minority Health and Health Disparities (NIMHD)

Title: Reducing health disparities in foregut cancers by using modifiable barriers to predict risk

for inequitable care: a novel implementation science-based approach

Dates: 5/9/2023- 11/30/2023

Role: Principal Investigator Annabelle Fonseca

Award amount: \$809,080

2023-2024 Summary of Activities USA Center for Lung Biology

General Operations

The mission of the Center for Lung Biology (CLB) 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 50 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.

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 (<https://www.southalabama.edu/colleges/com/research/lung-biology/>). 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 Conference, and the International American Thoracic Society.

Our Critical Care Conference series in conjunction with the Pulmonary Division hosted four speakers. This conference focuses on translational research and acute lung injury and is held monthly on Fridays at 2:00 pm. CLB faculty members and invited guest presented this year's series.

Dr. Brian Fouty, Professor, Department of Internal Medicine, Pulmonary and Critical Care, presented *The Development of mRNA Vaccines*; Dr. Andrew J. Bryant, Associate Professor, Department of Medicine, College of Medicine, University of Florida, presented *Story: Equipment for living*; Dr. Mahendra Damarla, Associate Professor, Division of Pulmonary and Critical Care Medicine, Department of Medicine, Johns Hopkins University, presented *A death defying role for executioner caspase 3 during lung injury*; Dr. Troy Stevens, Professor and Chair,

Department of Physiology and Cell Biology, presented *The Pulmonary Circulation and Principles of the Barrier to Fluid Accumulation in the Lung*.

The CLB also hosted two guests for Grand Rounds (Medical and Pediatric), Dr. Mahendra Damarla, Associate Professor, Division of Pulmonary and Critical Care Medicine, Department of Medicine, Johns Hopkins University, presented Medical Grand Rounds *A non-oncologist's take on chemoresistance in non-small cell lung cancer*; Dr. Rebecca Frances Hough, Assistant Professor, Pediatric Critical Care Medicine, Columbia University Irving Medical Center, New York, NY, presented Pediatric Grand Rounds *Pediatric Acute Respiratory Distress Syndrome: A Mechanistic View*; Special Research in Progress (RIP) presentation *Alveolar-capillary Crosstalk in Acute Lung Injury*.

Extramural Funding

In the past year, CLB principal investigators submitted 73 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 \$14 million in new revenue over the next five years.

Dr. Jonathon Audia, Professor, Department of Microbiology and Immunology, received the following NIH R21 entitled *The Pseudomonas aeruginosa virulence factor ExoU activates pyroptosis*; Dr. Mark Gillespie, Professor, Department of Pharmacology received the following NIH UM1 entitled *1/6 - CTSA UM1 at the University of Alabama at Birmingham*; Dr. Amy Nelson, Associate Professor, Department of Physiology and Cell Biology received the following NIH R01 entitled *Nosocomial pneumonia impairs the cerebrovasculature*; Dr. Thomas Rich, Professor, Department of Pharmacology received the following NSF MRI entitled *MRI: Track 1# Acquisition of a Light Sheet Microscope*; Dr. Mikhail Alexeyev, Professor, Department of Physiology and Cell Biology received the following NSF (Designer Cells) entitled *Designer Mitochondria for Biotechnology, Healthcare, and Basic Research*; Dr. Justin Roberts, Assistant Professor, Department of Pharmacology, received the following American Thoracic Society (ATS) Research Program entitled *Regulation of Alternate Splicing In Hypoxic Pulmonary Vascular Cells*; Dr. Raymond Langley, Associate Professor, Department of Pharmacology, received the following NIH CCTS Pilot Program (subcontract with The University of Alabama at Birmingham (UAB) Dr. Peter Morris) entitled *Addressing Inpatient Trial Design Translational Barriers through Refining Post-ICU Recovery Trajectories to Inform Hospital Re-Admissions*; Drs. Mark Gillespie Professor, Department of Pharmacology, and Jonathon Audia, Professor, Department of Microbiology and Immunology, received an NIH R01 MPI grant entitled *The mitochondrial genome in lung disease: a signaling hub linking the persistence and severity of inflammation to recovery*; Samantha Chaney, Graduate Student, Department of Physiology and Cell Biology (Mentor- Dr. Amy Nelson) received the following NIH F99/K00 award entitled *Pneumonia-induced microglial activation causes blood-brain barrier breakdown, astrocyte activation, and tau pathology*; Dr. Mike Lin, Professor, Department of Physiology and Cell Biology received the following NIH R01 Administrative Supplement entitled *Nosocomial pneumonias impair cognitive function*; and Dr. Jamie Meegan, Assistant Professor, Department of Physiology and Cell Biology received the following award NIH R00 entitled *Cell-free hemoglobin-oxidized LDL-LOX-1 axis and microvascular hyperpermeability during sepsis*.

Our Murray Bander Faculty Development Award recipients for 2024 are: Dr. Natalie Bauer, Associate Professor, Department of Pharmacology entitled *“Develop a robust model to investigate the sex dimorphism of inflammation in pulmonary hypertension”*, Dr. Saminathan Anbalagan, Assistant Professor, Department of Pediatrics-Neonatology entitled *“Role of Amyloid Precursor Protein (APP) in Lung Development and Bronchopulmonary Dysplasia (BPD) of Prematurity”*, Dr. Raymond Langley, Associate Professor, Department of Pharmacology entitled *“To create a humanized mice model to assess nicotinamide riboside mitigation of sepsis-induced bioenergetic crisis”* and Dr. Thiago Bruder do Nascimento, Assistant Professor, Department of Physiology and Cell Biology entitled *Exploring the Role of Endothelial Progranulin in the Genesis of Pulmonary Hypertension*.

Previous recipients of the Murry Bander award

2023 Dr. Robert Barrington, Dr. Kalsang Dolma, and Dr. Raymond Langley

2022 Dr. Natalie Bauer, Dr. Amy R. Nelson, and Dr. Sarah Sayner

2021 Dr. Jin Kim, Dr. Jon Audia, Dr. Michael Francis, and Dr. Lyudmila Rachev

2020 Dr. Natalie Gassman and Dr. Sarah Sayner

2019 Dr. Silas Leavesley and Dr. Thomas Rich

Education

During this academic year, 30 predoctoral fellows trained in the laboratories of CLB faculty and others affiliated with the Lung Biology track in the Basic Medical Sciences Doctoral Program. Two Lung Biology trainees completed the requirements for the Ph.D. within this academic year (Althea deWeever, and Reece Stevens). Althea deWeever is a Research Associate I at the University of South Alabama in the Department of Pediatrics-Neonatology, working with Drs. Kalsang Dolma and Saminathan Anbalagan. Reece Stevens is a Postdoctoral Fellow at the University of South Alabama in the Department of Physiology and Cell Biology, working with Dr. Ji Young Lee.

2023-2024
Summary of Scholarly Activities
Department of Center for Healthy Communities

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Alexander KM, Davis SN, Butts CC, Morgan J, Croft LK, Lee YL, Kinnard CM, Polite NM, Mbaka MI, Williams AY, Barrington RA, Audia JP, Simmons JD. Defining pathogen and susceptibility patterns for early versus late ventilator associated pneumonia in trauma patients to guide empiric treatment decisions. *Am Surg*. 2023 Nov;89(11):4536-4541.

Blackley SK, Lawrence J, Blevins A, Howell C, Butts CC, Polite NM, Capasso TJ, Bright AC, Hall KA, Haiflich AN, Williams AY, Kinnard CM, Mbaka MI, Audia JP, Simmons JD, Lee YL. A single hospital-wide antibiogram is insufficient to account for differences in antibiotic resistance patterns across multiple ICUs. *Am Surg*. 2024 Sep;90(9):2165-2169.

Gautreaux CE, Robinson TW, Dunbar EG, Lee YL, Mbaka M, Kinnard CM, Bright AC, Williams AY, Polite NM, Capasso TJ, Simmons JD, Butts CC. Admission medication reconciliation discrepancies in trauma patients: consistent nursing care may not be the answer. *Am Surg*. 2024 Jul;90(7):1954-1956.

Hart K, Thames MA, Massey AC, Capasso T, Lee YL, Mbaka M, Kinnard CM, Bright AC, Williams AY, Polite NM, Simmons JD, Butts CC. Diabetes in trauma patients: a potential gateway to a medical home. *Am Surg*. 2024 Jul;90(7):1849-1852.

Howell CW, Lawrence JA, Hinkel HM, Clutton CH, Lee YL, Simmons JD, Williams AY. Patient resiliency and caregiver burden after traumatic spinal cord injury resulting in quadriplegia. *Am Surg*. 2024 Aug;90(8):2073-2074.

Ingram J, Williams AY, Bright AC, Butts CC. Use of lateral femoral cutaneous nerve blocks by landmark technique is ineffective in decreasing narcotic usage after skin grafts: a retrospective case-control study. *Burns*. 2024 May;50(4):997-1002.

Robinson TW, Gautreaux CE, Lee YL, Mbaka M, Kinnard CM, Bright AC, Williams AY, Polite NM, Capasso TJ, Simmons JD, Butts CC. Monotherapy antibiotic prophylaxis of lower extremity long bone type III open fractures. *Am Surg*. 2024 Aug;90(8):2068-2069.

Williams A, Evans C, Nehra D, Stadel KM, Bulger EM, Dicker R. Building community: community engagement models for violence prevention. *Trauma Surg Acute Care Open*. 2024;9(1):e001483.

II. PUBLISHED ABSTRACTS

Ashford J, Williams AY. Trends in pediatric gun violence along the Alabama and Mississippi Gulf Coast: a 5-year retrospective analysis. 60th Annual Medical Education Conference 2024; 2024 Mar 27-31; New Orleans, LA.

Clutton CH, Howell CW, Williams AY. Patient-reported outcomes provide qualitative insight into patient conditions in trauma patients. 19th Annual Academic Surgical Congress; 2024 Feb 6-8; Washington, DC. Abstract no.110.04.

Francis-Shearer A, Trammell RH, Garland MC, Tyus M, Parker LL, Hanks R, Arrieta M. Stepping up for community equity – a look at a pilot clinical CHW integration in Mobile, Alabama. American Public Health Association 2023 Annual Meeting and Expo; 2023 Nov 12-15; Atlanta, GA. Abstract no. 534506.

Francis-Shearer A, Trammell RH, Mueller L, McCants K, Jolly DM, Bolanos KG, Hanks R, Arrieta MI, Williams AY. CHWs as the pivot of patient-centered care teams. 17th Health Disparities Conference; 2024 Apr 7-9; New Orleans, LA. Abstract no. 01.06.15. Available from: <https://docs.google.com/presentation/d/1b8X8sMNoGH1gLaq-Cy2NhF9bYfh5F5SB/edit?pli=1#slide=id.p1>

Francis-Shearer A. Seeding sustainability – spreading the CHW purpose. Community Health Worker Sustainability Summit; 2024 April 16 -18; Spokane, WA.

Howell C, Robinson T, Cleveland E, Hinson C, Francis-Shearer A, Williams A. MOWA medical hub partnership: a student-run free clinic’s approach to addressing community needs of an underserved population. Association of Clinicians for the Underserved 2024 Conference; 2024 Aug 4-7; Washington, DC. <https://whova.com/embedded/session/HDJ9sBCAWnivRGOsneR1yKnJwsNSsIYNwe1G1znaIOM%3D/3856074/?widget=primary>

Parker LL, Arrieta MI. Developing a community engaged COVID-19 education campaign. 17th Health Disparities Conference; 2024 Apr 7-9; New Orleans, LA. Abstract no. 05.01.16.

Smith RN, Velopulos C, Williams A, Dicker R. Improving knowledge, attitudes and beliefs about trauma-informed care by implementing a novel national curriculum: a study of 23 US trauma centers. 83rd Annual Meeting of American Association for the Surgery of Trauma and Clinical Congress of Acute Care Surgery and 7th World Trauma Congress. 2024 Sep 11-14. Las Vegas, NV. p. 229. Abstract no. 50.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Johnson P, Childers L, White L, Newbegin-Fraction S, Francis-Shearer A, Roddy L, Taylor J. Invited speakers. Project Homeless Connect as an impactful service-learning

opportunity. [virtual presentation]. 14th Annual South Alabama Conference on Teaching and Learning; 2024 May 7; Mobile, AL.

Williams A. Invited speaker; Addressing gun violence through a public health lens. Gulf Coast Trauma Symposium; 2024 Mar 20; Biloxi, MS.

V. NATIONAL PROFESSIONAL RECOGNITION

Ashley Williams Hogue: Journal Peer Review: Journal of Trauma and Acute Care Surgery 2023. Abstract Reviewer: TQIP 2023, 2024. EAST Injury Control and Violence Prevention Committee Member. EAST Community Engagement Subcommittee Co-Chair. EAST Advocacy Ad Hoc Task Force. EAST Firework Clinical Practice Guideline Author. ACS COT Future Trauma Leader. ACS COT ISAVE Workgroup Member. ACS COT HCFIP Community Engagement Committee Member. ACS COT Advocacy Pillar Member. ACS COT Injury Prevention Pillar Member. AAST Associate Member. NASEM Climate Communities Network Member. Moderator: COT National Conference Resident Paper Competition (3/2024). Moderator: EAST Injury Prevention Resident Paper Competition (1/2024). Moderator: Spotlight discussions at EAST and COT (1/2024, 3/2024). Panel member for Combating Gun Violence in Non-Atlanta Georgia, Alabama, and Mississippi. National Medical Association Surgical Section Trauma Symposium. (3-7 Aug 2024)

Antonette Francis-Shearer: National Association of Community Health Workers, Workforce Development Committee Member; Co-Chair Curriculum Development, Alabama CHW Coalition; Abstract Reviewer: American Public Health Association (APHA) 2023, 2024; Member – CHW Section, Member Injury Control & Emergency Health Services Section, Member- Community Based Health Promotion Section. Executive Leader Fellowship 2023 - 2024 University of South Alabama.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The 2023-2024 academic year continued as a year of transition for the Center for Healthy Communities (CHC). Dr. Martha Arrieta, long-serving research director, retired in March of 2024 and CHC transitioned to USA Health on July 1, 2024. Through these transitions, CHC continues with its three core functions: research, community engagement, and student research and educational opportunities.

Research:

The overall aim of the All of Us Research Program is to accelerate research advances and precision medicine by collecting health information from one million or more people living in the United States. The CHC All of Us Project team enrolled 2,262 participants, and of those, 1,716 completed physical measurement and biospecimen collections since the project's inception in 2018. Additionally, the CHC team received supplemental funding to improve and facilitate participant enrollment amongst young people (ages 19-23) into the research program by increasing the implementation of campus-wide strategies to reduce health disparities and promote health equity. In partnership with USA Student Health, the

project team organized and mobilized a Student Engagement Team (SET) to increase student & faculty enrollment on campus. Within 4 months of implementation, the SET increased campus enrollment by 43%.

In July 2024, the CHC ended enrollment, recruitment, retention, and engagement activities related to the Southern All of Us Research Program due to federal budget constraints that led to a change in the overall project's scope of work within the Southern Network. However, given the longitudinal nature of the project, the CHC continues to upload electronic health record data (EHR) for 76% of our core participants, as requested by the Southern Network Lead, UAB.

CHC also closed out all activities related to the sub-award from the NIH Community Engagement Alliance Against COVID-19 Disparities award to the University of Alabama at Birmingham (UAB). The final year activities included five focus groups with 18 participants to review COVID-19 educational messages developed to educate the community about how to navigate the respiratory virus post-pandemic. The focus group information was used to craft seven social media campaign messages that were distributed through the UAB partner Acclimate with a focus on the Mobile and Prichard areas. CHC also worked with a four-person research partner committee made up of previous research participants to develop a three-hour informational session providing community members with information on types of research and the protections of human subjects participating in research. Forty-nine community members participated in sessions held at the Toulminville Library. Pre & Post tests demonstrated increased knowledge around research for 55% of participants and around human subjects protections for 75% of participants.

Dr. Ashley Williams received funding for two research studies related to Project Inspire, the hospital-based community-based violence intervention program. One study will evaluate the impact of Project Inspire on young people referred by the Mobile County Juvenile Gun Court to the program. The second study is investigating the efficacy of three different arts-based approaches to elevate the voices of Project Inspire participants in discussing gun violence and ways to address it. The program will use Talking Circles to foster intergenerational dialogue between the Project Inspire Participants and community members around gun violence. Photovoice will capture images related to questions around gun violence and safety. The final art approach is based on the Japanese art of Kintsugi in which participants will create ceramic pieces that will be broken and mended using a golden patch. The process will also incorporate discussions around injury and healing.

Under Dr. Williams leadership, CHC is also working to develop data management and evaluation strategies as USA Health prepares to launch the Hospital-based Violence Intervention program under an award (\$1.1 million for two years) from the City of Mobile. This program will provide three violence intervention specialists at University Hospital to provide services for all patients admitted with gunshot wounds. This program merges medical and social care to address the social determinants that increase risk of revictimization and reinjury. Several outcomes will be tracked, measured, and reported.

Community Engagement:

Our Community Health Advocate program continues with many of the CHAs providing long-term service and leadership in their community in the form of health advocacy through education and health initiatives. In this reporting year, CHAs have continued the focus on mental health awareness, exercise for seniors, cancer education, heart health, monthly health focus, and healthy eating initiatives. CHAs organized both health fairs and blood drives during the year.

This was the third year of the community health worker program, developed through a sub-award from a three-year project with the Mobile County Health Department. Trained CHWs continued providing social determinants of health services to patients at the Stanton Road Clinic. The CHWs, along with the CHC Health Education Manager, also conduct community outreach events. Over the year, they provided referrals related to health needs for 833 clients and provided health education to 3,471 community members. Through the CHW program, CHC continued a partnership with the city of Mobile Parks and Recreation to deliver health education programs tailored to senior adults. Summary data from the program has received peer approval for presentation in the Aging Caucus Section of the APHA Annual Meeting and Expo 2024. Additionally, the program expanded to include one other site during 2024, i.e. the Leola Tricksey Center. The CHC also coordinated efforts for a CHW Collaborative made up of CHWs from MCHD, Southern Alabama AHEC and Boat People SOS. The combined CHW team lent support to homeless individuals or residents experiencing housing insecurity during the annual Homeless Connect Mobile hosted by Housing First Inc. Referrals and observation data was shared with the organizers and the Office of Community Engagement and became part of the formative discussions in the USA COTL Conference 2024 virtual panel held in May 2024. CHC continued its responsibility to CHW training, workforce development and CHW dissemination in and amongst USA peers and professionals, with the organization of two professional development sessions. In December of 2023, the first – ‘Social Exchange’ concentrated on the improvement to CHW social connection skills through tech and social care agency collaborations with community resources. Collaborative facilitating faculty and students of the university’s Communication Program resulted in a CHW scripted and collaboratively produced video that may be used as a teaching tool for digital storytelling in the future. The second professional development session in June 2024 – ‘The Calling: People, Purpose, Passion’ focused on enhancing CHW skills for branding and professional presence in view of the recent CMS dictate to allow CHW delivered services as billable via Medicare and expanded Medicaid. During the June 2024 session, CHC collaborated with USA Marketing and PR department, and with the College of Social Work, Sociology and Anthropology. The former delivered content on professional branding for community-based workers and the latter shared culturally and professionally appropriate home visit protocols for social care environments. Currently, CHC has developed a CHW certification course targeted for launch via CCE in January 2024.

CHC continued its co-sponsorship of Project Inspire. In September 2024, the program opened its 7th class of participants. During the summer of 2024, Project Inspire took program graduates to the White House to learn more about turning their lived experiences

into advocacy. Two research studies are currently underway to provide more insight into the program and activities/intervention to better serve participating Youth. The “Arts for Justice” study will study the impact of three types of art activities can amplify the voices of young people impacted by gun violence. The EAST qualitative analysis, funded by a \$10,000 grant from EAST, will document the impact of the Project Inspire program for participants. Dr. Williams also served as an advisor for a Project Inspire expansion program in Mississippi.

Student Educational and Research Opportunities:

The STARS and STRIPES education pipeline focuses its efforts on high school students from underserved and underrepresented communities. It aims to reinforce STEM courses, expose students to the health professions, and influence their choice of health professions career. This year STARS and STRIPES celebrated its 20th class. Fourteen (14) students tackled the five-week rigorous schedule of academics, activities, guest speakers, and engaging and fun activities. The students also participated in team projects in which they established a research question, developed and tested an intervention in response to the question, and developed a business plan to market their products.

In August, CHC was awarded a two-year, \$947,928 grant from the Gulf Research Program. This funding will extend STARS and STRIPES to incorporate environmental education and research into the STARS and STRIPES curriculum. The environmental programming will also pair students from the Gulf Scholars Program from the Stokes School of Marine and Environmental Sciences to work with program participants to conduct a community needs assessment and project. The student work will be showcased at a closing ceremony on the USA campus. The students will also partner with local nonprofit organizations in conducting their community projects.

CHC continues to offer research opportunities to both graduate and undergraduate students.

Dr. Williams and CHC staff is working with three undergraduate students to conduct a survey on the social determinants of health, experiences of gun violence, environmental concerns, and primary care access.

Over the summer, CHC worked with three medical students in the MD Summer Research Program on projects related to geospatial analysis of gun violence patterns, experiences of hospital-based violence intervention specialists, and experiences of heart failure patients.

Dr. Williams continues mentoring students on research studies related to gun violence and the social determinants of health and the cost burden of gun violence on communities and the health system. Over the 2023-2024 academic year, Dr. Williams served as a faculty sponsor and research mentor for three undergraduate students and eight medical students. She was an advisor and research mentor for three resident research projects.

Dr. Williams is the founding president of the College of Medicine Chapter of the Aequitas Health Equity Medical Honor Society (Aequitas Health). This society was founded in 2021

in recognition of the health disparities that exist within the healthcare ecosystem. Medical students entering their fourth year who demonstrate significant dedication to health equity in their communities will be eligible for fellowship in Aequitas Health. Each incoming class of Aequitas Fellows will jointly adopt a service project to advance health equity in the greater community.

2023-2024
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**
- V. NATIONAL PROFESSIONAL RECOGNITION**
- VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS**

The Center for Strategic Health Innovation (CSHI) continues to serve as a leader in innovative healthcare technology applications and solutions. CSHI continues; 1) our long partnership with innovative programs with the Alabama Medicaid Agency 2) health technology development and application 3) applied informatics and healthcare analytics services 4) technical assistance for meeting Meaningful Use requirements. CSHI actively promotes collaboration on projects with other USA colleges, College of Medicine departments, and other Regional Extension Centers (REC's) in the southeast US. We are continuing our partnership with four of Medicaid's Alabama Coordinated Health Networks (ACHN) to serve as their Health Information Management System (HIMS) vendor. The ACHN's provide coordinated consolidated case management services to Medicaid Eligible Individuals (EI) across Alabama.

Medical Informatics and Healthcare Technology: RMEDE™, our in house developed Realtime Medical Electronic Data Exchange platform, continues as our platform 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 management system that serves as the HIMS system for the ACHNs. The HIMS system supports EI care coordination for the following: 1) General and Transitional Care 2) Maternity 3) Family Planning 4) Medical Monitoring. The RMEDE™ addresses all facets of care coordination from assessing needs, creating care plans, tracking goals, monitoring progress, and reporting results. The system securely receives and sends data, compiles billing data, and provides reporting capabilities to the ACHNs. Reports are delivered via a secure web portal that utilizes Tableau®. The CSHI

department partners with Medicaid and the ACHNs to enable data-driven decisions on patient care improvements.

CSHI continues to enhance and support our RMEDE™ Remote Patient Monitoring (RPM) program. 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. In addition to these chronic conditions, the program has been expanded to cater to gestation diabetes and pediatric asthma. Patients are instructed to input their key physiologic parameters either via dial-in or through an app, and an ADPH nurse is assigned to monitor the results and submit reports to the patient's provider. Data are utilized by Medicaid to determine benchmarks for compliance and comparisons.

The Alabama Regional Extension Center (ALREC) continues to operate within CSHI. Since the ONC grant has ended, as part of its sustainability model, ALREC continues to offer its fee-for-service line providing assistance to eligible clinicians throughout the multiple stages of Promoting Interoperability (formerly Meaningful Use) and MIPS attestations. Since Medicaid's Promoting Interoperability Incentive program has phased out, the REC is now focused on assisting eligible clinicians with their Merit-based Incentive Program submissions, including conducting annual Security Risk Analyses. ALREC is currently consulting with multiple medical practices throughout southern Alabama, working directly with roughly 350 physicians, nurse practitioners, and physician assistants. Approximately \$111,000 was received in revenue from ALREC's membership service line. ALREC continues to work with USA Health University Hospital and USA Health Mitchell Cancer Institute to monitor 335 physicians, helping them to complete their MIPS data submission while scoring above the exceptional performance threshold, which can result in up to 9% in positive payments adjustments.

CSHI and the USA Department of Family Medicine continue partnering on a HRSA grant, Partnering to Improve Population Care. The purpose of the grant is to increase the number of primary care physicians and improve the health of the population in the USA Health area through the expansion and enhancement of a Population Care Pathway program. Forty medical students are given the opportunity to receive enhanced community training at one of the community clinical sites during their four years as a medical student. Five rural health clinics have been established as the clinical sites for the telehealth program. Telehealth carts are in place at each site location along with a site coordinator to guide and assist the medical students with the technology. The students have full access to the telehealth carts and can virtually connect with each other during online sessions, which provides each student with a unique experience to engage with one another using this telemedicine technology in rural areas.

2023-2024
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

Guerry J. Invited speaker. Disaster healthcare preparedness whole community approach. Thomas Hospital Internal Resident Conference; 2024 Nov 1; Fairhope, AL.

Guerry J. Invited speaker. Aligning efforts - collaborative strategies for disaster preparedness. Alabama Association of Emergency Managers 2024 Alabama Disaster Preparedness Conference; 2024 Jun 25; Gulf Shores, AL.

Guerry J., Williams E. Invited speakers. Enhancing healthcare coordination: AIMS Platform and patient transfer module. 2024 Alabama Hospital Association Annual Meeting; 2024 Jun 8; San Destin, FL.

William E. Invited speaker. Healthcare Coalition and Alabama Incident Management Systems (AIMS). Alabama Chapter of the American Academy of Pediatrics 2024 Spring Meeting & Pediatric Update; 2024 Apr 19; Gulf Shores, AL.

William E. Invited speaker. Exploring public health and emergency preparedness. Bayshore Christian School Senior Class; 2024 May 6; Fairhope, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The Center for Disaster Healthcare Preparedness (CDHP) has served as a leader in healthcare disaster preparedness, coordination and response training since 2004. Jenni Guerry serves as the Director of CDHP. The department manages the Alabama Healthcare Coalition Coordination Program, the Healthcare Coalition Fiscal Agent grant and the Alabama Incident Management System (AIMS) through a cooperative agreement with the Alabama Department of Public Health Center for Emergency Preparedness (ADPH-CEP), and Health & Human Services (HHS), Administration for Strategic Preparedness and Response (ASPR). This annual report will provide an overview of activities demonstrating

the services and support for the Healthcare Coalitions (HCCs) and State of Alabama by CDHP.

ALABAMA HEALTHCARE COORDINATION PROGRAM

CDHP serves as a statewide coordination center and fiscal agent for the Alabama Healthcare Coalitions (HCC) and works closely with each of the nine coalitions and ADPH to advise, support, oversee, provide guidance and coordination to accomplish the mission set forth in the Hospital Preparedness Program (HPP) grant, administered by ASPR delineated in the Funding Opportunity Announcement (FOA): EP-U3R-19-001. An HCC is a network of individual public and private health care and response organizations in a defined geographic location that partner to conduct preparedness activities and collaborate to ensure each member and collective network is prepared to respond to emergencies and maintain continuity of care. In Alabama, the 9 HCCs follow the geographic boundaries as set by the ADPH Districts with the exception of the Northern District, which is divided into two geographic area comprising the Shoals District and North Alabama District. Collectively, the 9 Alabama HCCs include: Shoals, North Alabama, Northeastern, East Central, Southeastern, Mobile, Southwestern, Jefferson and West Central.

This mission of the HPP Healthcare Coalition program is to prepare health care systems to save lives, improve patient outcomes during emergencies and disasters, and plan for and respond to large-scale emergencies and disasters that exceed the day-to-day capacity of health care and emergency response systems. To achieve this mission throughout Alabama, CHDP provides routine communication, technical assistance, collaboration, and support to each HCC in meeting HPP programmatic benchmarks, performance measures, capabilities, objectives and activities as outlined in the 2017-2022 Healthcare Preparedness and Response Capabilities document. CDHP provided HCCs with a grant year tracker of the forementioned requirements, assisted HCCs in their program development, implement and management of activities and monitored HCC compliance to ensure continued progress, advancement and sustainment of the Alabama coalitions.

The activities listed were supported and/or conducted in coordination with each HCC Coordinator and/or ADPH. CDHP staff reviewed and assisted with completion of the annual work plans and budgets for the Fiscal Grant. CDHP assisted HCCs in the annual review and revision of the Hazard Vulnerability Assessment (HVA) as part of the continual planning and preparedness cycle. CDHP supported HCCs in the completion of their annual Gap Analysis to determine gaps and strategies needed to achieve prioritized HCC capabilities and funded projects. CDHP assisted HCCs in their annual review, update and maintenance of each respective coalition plans: HCC Governance, including membership contact review and revision; Preparedness Plan, Response Plan, Continuity of Operations Plan, Supply Chain Integrity Assessment, Infectious Disease Surge Annex, Pediatric Surge Annex, Burn Surge Annex and Radiological Surge Annex. CDHP concentrated effort, research, coordination and planning to support the development and testing of an HCC Chemical Surge Annex as required by HPP. CDHP monitors incorporation of HHS emPower data, a required data source for HCCs, for identifying-at risk populations and that the data was shared with appropriate HCC members on a biannual basis. At risk planning

is integral to HCC preparedness to ensure vulnerable populations are identified and accounted for during planning, training, exercising and response. In addition, CDHP supported efforts to advance responder health and safety and initiatives to build HCC sustainability.

Throughout the year, CDHP supported numerous HCC exercises, as required by the HPP, designed to determine capacity and capability of the HCCs and provide a measure for benchmark of performance. CHDP support included the development, implementation, facilitation, and evaluation of: the Medical Response and Surge Exercise (MRSE); Tabletop Exercises (TTX) to evaluate various HCC Response Plan Surge Annexes; Bi-Annual Redundant Communications Drill and the National Disaster Medical System (NDMS) Bed Reporting Exercise as part of the Federal Patient Movement program.

FISCAL AGENT - ALABAMA HEALTHCARE COALITIONS

Beginning in 2018, Healthcare Coalitions across the county and in Alabama were required by HPP to determine their fiscal structure to receive funding for sustainability by obtaining tax exempt status or contracting with an organization to serve as the Fiduciary Agent. Building on an 18-year partnership to advance Healthcare Preparedness and Healthcare Coalitions, ADPH entered into a Fiscal Agent grant with CDHP to serve as the state-wide Fiduciary Agent, which limited overall management cost while maximizing direct funding to increase HCC sustainability. CDHP provided centralized purchases at the best price available, in accordance with USA purchasing requirements and/or state bid laws. Purchases were communicated and coordinated throughout the HCCs to provide awareness of and consistency in equipment, training, greater interoperability and sharing of resources during events. Through inception of the Fiduciary Grant, CDHP has managed over \$2,880,000 in Fiscal Funds plus an additional \$2,630,000 in COVID-19 Fiscal Funds, which were distributed by ADPH to the 9 Healthcare Coalitions based on their annual work plans and budgets. Funding is awarded to support HCC sustainability projects to build capacity and capability, and sustain continuity of care throughout patient surge events. CDHP in collaboration with the HCCs and ADPH managed purchase requests, ensuring that all expenditures are allowable under the Federal guidelines. Healthcare Coalitions followed purchase request processes, including storage and inventory protocols, as outlined in the Healthcare Coalition Fiscal Agent Agreement between the HCC, CDHP and USA. All purchase requests include but are not limited to: Estimated Cost, Justification, Resource Management Plan, Security Plan, Mobilization & Demobilization, Training & Exercise Plan. Requests are voted on by HCC members and approved by their Executive Leadership with final approval for purchase from ADPH before CDHP initiates procurement. CDHP maintains detailed reporting and provides monthly budget reports to the HCCs and ADPH and maintains an accounting and inventory of all items purchased which remain property of the HCC and ADPH. Examples of purchases this year included extensive communications equipment, hospital evacuation equipment; CAPR/PAPR systems to enhance workers safety and protect frontline staff from dangerous airborne pathogens; Mass Casualty Response Bags; Pediatric MCI Kits; Decontamination Supplies; Stipends to support HCC Clinical Advisors and HCC member participation in specialized training and conferences such as ABLIS, Workplace Violence/Active Shooter, Hazardous

Decontamination Training; Radiological Training; and The National Healthcare Coalition Conference.

ALABAMA INCIDENT MANAGEMENT SYSTEM (AIMS)

In 2004, AIMS launched its beginnings as a simple bed capacity reporting system with approximately 10% of Alabama Hospitals participating in response to Hurricane Ivan. Nearly twenty years later, AIMS has grown into a mature, reliable, and trusted disaster management tool, with 100% of hospitals participating. AIMS encompasses data collection and analysis, resource requests, communications, people tracking and situational awareness and much more, among its statewide users. Users include Hospitals; Nursing Homes; Public Health; Emergency Management Agencies; Emergency Medical Services; Community Health Centers and numerous healthcare entities affiliated with the Alabama Healthcare Coalitions. The growth in AIMS operational capacity and capability has been an outcome of responding to events, such as hurricanes, tornadoes, heat-related incidents, transportation accidents and response to the COVID-19 pandemic.

AIMS was certified by the Department of Health and Human Services (DHHS) as the state's sole system for Hospitals to report the Federally required COVID-19 Capacity & Utilization data from March 2020 – April 2024. To date, Hospitals continue to voluntarily submit COVID data into AIMS, which is transmitted to NHSN through an established API. Throughout the mandated reporting period, AIMS collected, transmitted and provided situational data to support internal and external stakeholders and partners including: HHS Protect/Centers for Medicaid and Medicare Services (CMS); National Healthcare Safety Network (NHSN), Alabama Department of Public Health (COVID-19 Dashboard; Center for Emergency Preparedness (CEP), State Health Officer and chief medical personnel, Division of Epidemiology, State Pharmacy, Public Information/Media Relations); the Alabama Hospital Association (AlaHA); the Mobile County Health Department (MCHD) and others response agencies as requested.

Through a supplemental grant from ADPH, AIMS designed, tested and implemented the following enhancements identified to further advance situational awareness and response capabilities to support Hospitals and HCCs in a patient surge event, including the development of: Resource Repository and Request Module; Patient Transfer Request Module with EMS integration; Incident Module to track state events requiring support and activation of HCCs; Meetings Module to provide users with access to a video conference system to support planning and response communications during activations; Development of an AIMS APP for IOS and Android devices; Synchronization of IT systems and interfaces through developed Application Programming Interfaces (API) with external key stakeholders and response partners; Enhancements to People Tracking capabilities; Added Virtual Situational Awareness, Graphics and Reporting capabilities to support the development of several new Dashboards for at a glance awareness of response activities such as COVID-19 data analysis and Medical Needs Shelter activations; Offline Reporting Capabilities through text based interfaces to support data collection during times of limited online connectivity; Enhancements to the Documents Module and Support Module; New Account Management Tools; and the development of AIMS Automation for bed capacity

reporting. AIMS/CDHP collaborated with USA University Hospital and USA Children's and Women's Hospital on a pilot program to successfully integrate and demonstrate the automation of bed reporting into AIMS. AIMS will continue to work with hospitals statewide to integrate the AIMS Automation capability to further enhance real-time, actionable data to support response during emergencies.

In addition to serving as a hospital data collection platform for our state, AIMS equally served as a communication tool amongst the thousands of users and response organizations. AIMS follows the national tiered response structure, beginning at the individual facility level, to the county in which the facility is located, expanding to the Healthcare Coalition/Public Health District in which the organization is a part of, to the top of the tier of Statewide communications. Hospitals and HCC members continued to use AIMS as a primary source to communicate resource needs, patient transfer requests, share information, respond to real-events and participate in HCC and facility-based exercises include the annual Medical Response Surge Exercise (MRSE); National Disaster Medical System (NDMS) bed reporting exercises, HCC Redundant Communication Drills and Medical Needs Shelter functional exercises.

AIMS continued to provide ongoing 24/7 customer support with organizations and/or individual accounts, data submissions for all reporting tools, monitoring and assistance with all notifications and requests, and operational training through in person sessions, zoom, email, phone calls and text.

2023-2024
Summary of Scholarly Activities
USA Johnson Haynes, Jr., MD Comprehensive Sickle Cell Center

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Abdel Razeq NM, Ali RA, Aqel A, Pack-Mabien AV, Sabbah EA, Qadiri IA, Aldasoqi KY. Nurses' attitudes concerning analgesia administration for pediatric patients with sickle cell disease in Jordan: a cross-sectional study. *Pain Manag Nurs*. 2024 Feb;25(1):e29-e36.

II. PUBLISHED ABSTRACTS

Pack-Mabien A, Judges C, Dosummu G, King J, Hogue A, Bessette S, Haynes J. Renoprotective effects of angiotensin converting enzyme inhibitors or angiotensin receptor blockers on protein wasting nephropathy in sickle cell disease. *Sickle Cell Disease Association of America 51st Annual National Convention*; 2023 Oct 11-14; Arlington, VA. Abstract no. 8.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Hogue A. Invited speaker. Sickle Cell 101: the crisis beneath the storm. Spring 2024 Sickle Cell Disease Educator/Counselor Certification Program, Sickle Cell Disease Association of America - Mobile Chapter; 2024 Apr 23; Mobile, AL.

Imran H. Invited speaker. Sickle cell disease management. Fall 2023 Sickle Cell Disease Educator/Counselor Certification Program, Sickle Cell Disease Association of America – Mobile Chapter; 2023 Oct 23; Mobile, AL.

Imran H. Invited speaker. Sickle cell disease management. Spring 2024 Sickle Cell Disease Educator/Counselor Certification Program, Sickle Cell Disease Association of America – Mobile Chapter; 2024 Apr 22; Mobile, AL.

Imran H. Invited speaker. Sickle cell disease [video]. “Medical Moment” segment, WKRG News 5; 2024 Jun 11; Mobile, AL. Available from: <https://www.wkrg.com/health-2/medical-moment-sickle-cell-disease-with-dr-hamayun-imran/>

Marri P. Invited speaker. Thalassemia. Introduction to genetics. Fall 2023 Sickle Cell Disease Educator/Counselor Certification Program, Sickle Cell Disease Association of America - Mobile Chapter; 2023 Oct 24; Mobile, AL.

Marri P. Invited speaker. Thalassemia. Introduction to genetics. Spring 2024 Sickle Cell Educator/Counselor Certification Program, Sickle Cell Disease Association of America - Mobile Chapter; 2024 Apr 23; Mobile, AL.

Pack-Mabien A. Invited speaker. Sickle cell disease and sickle cell trait: nursing management. Fall 2023 Sickle Cell Disease Educator/Counselor Certification Program, Sickle Cell Disease Association of America – Mobile Chapter; 2023 Oct 23; Mobile, AL.

Pack-Mabien A. Invited speaker. Sickle cell disease treatment demonstration program: overview of the University of South Alabama Johnson Haynes, Jr., MD Comprehensive Sickle Cell Center. Embrace Annual Meeting; 2023 Nov 3; Atlanta, GA.

Pack-Mabien A. Invited speaker. Case presentation: the crisis beneath sickle cell pain [virtual presentation]. Embrace Monthly ECHO Session Meeting; 2024 Mar 12; Mobile, AL.

Pack-Mabien A. Invited speaker. Sickle cell disease and sickle cell trait: nursing management. Sickle Cell Disease Educator/Counselor Certification Program, Sickle Cell Disease Association of America - Mobile; 2024 Apr 22; Mobile, AL.

Pack-Mabien A. Invited speaker. World Sickle Cell Day and its significance [video]. “The Doctor is In” segment, WKRG News 5; 2024 Jun 21; Mobile, AL. Available from: <https://www.wkrg.com/the-doctor-is-in/dr-ardie-pack-mabien-explains-sickle-cell-disease>

Pack-Mabien A. Invited speaker. Oxbryta for patients with sickle cell disease. Pfizer Speaker Bureau; 2024 Feb 23; Ridgeland, MS.

Pack-Mabien A. Invited speaker. The complex underlying pathophysiology of sickle cell disease and the complication. Pfizer Speaker Bureau; 2024 Mar 12; Mobile, AL.

Pack-Mabien A. Invited speaker. The complex underlying pathophysiology of sickle cell disease and the disease complications. Pfizer Speaker Bureau; 2024 Mar 19; Gulfport, MS.

Pack-Mabien A. Invited speaker. The complex underlying pathophysiology in sickle cell disease and the disease complications. Gulf Coast Oncology Nurse Leadership Quarterly Meeting; 2024 May 23; Spanish Fort, AL.

Pack-Mabien A. Invited speaker. Historical overview of sickle cell disease and the University of South Alabama Johnson Haynes Jr., MD Comprehensive Sickle Cell Center [video]. “Healthy Living” segment, Fox 10 News; 2024 Sep 11; Mobile, AL. Available from: <https://www.fox10tv.com/2024/09/11/healthy-living-with-usa-health-sickle-cell-center/>

Siddiqui A. Invited speaker. Pathophysiology and manifestations of sickle cell disease. Fall 2023 Sickle Cell Disease Educator/Counselor Certification Program, Sickle Cell Disease Association of America – Mobile Chapter; 2023 Oct 24; Mobile, AL.

Siddiqui A. Invited speaker. Pathophysiology and manifestations of sickle cell disease. Spring 2024 Sickle Cell Disease Educator/Counselor Certification Program, Sickle Cell Disease Association of America – Mobile Chapter; 2024 Apr 23; Mobile, AL.

Wilson F. Invited speaker. Newborn screening. Fall 2023 Sickle Cell Disease Educator/Counselor Certification Program, Sickle Cell Disease Association of America – Mobile Chapter; 2023 Oct 26; Mobile, AL.

Wilson F. Invited speaker. Newborn screening. Spring 2024 Sickle Cell Disease Educator/Counselor Certification Program, Sickle Cell Disease Association of America – Mobile Chapter; 2024 Apr 24; Mobile, AL.

Wilson F. Invited speaker. Sickle cell disease [video]. “The Doctor is In” segment, WKRG News 5; 2024 Jun 16; Mobile, AL. Available from: <https://www.wkrg.com/the-doctor-is-in/sickle-cell-disease-with-dr-felicia-wilson/>

V. NATIONAL PROFESSIONAL RECOGNITION

Johnson Haynes, Jr. MD Comprehensive Sickle Cell Center-Associate member of the National Alliance of Sickle Cell Centers. March 17, 2023 – Present.

Pack-Mabien A. Alabama Sickle Cell Oversight and Regulatory Commission. Confirmation No. 125. Jun 6, 2023 – Oct 1, 2027.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

General Operations/ Service: Effective January 2024, Ardie Pack-Mabien, PhD, FNP-BC was named the Executive Director and Dr. Antwan Hogue was named Medical Director of the USA Health Johnson Haynes, Jr. MD Comprehensive Sickle Cell Center. The USA Health J. Haynes Jr. MD 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.

Education: Historically, the Center faculty has provided a broad series of lectures throughout the academic and private medical community, along with lectures for the Counselor/Educator Certification Program, which takes place at the Sickle Cell Disease Association of America, Mobile Chapter. Lectures were also provided to Internal Medicine residents and emergency department residents and faculty as well as advance providers, registered nurses, and licensed practical nurses. The USA Health J. Haynes Jr. MD Comprehensive Sickle Cell Center has sponsored a clinical-based, regional conference on practical issues involving sickle hemoglobinopathies for the last 18 years. *Sickle Cell Disease Practical Issues XIX: Nurses the Anchors of Healthcare* is tentatively scheduled for September 2025, plans are underway.

The Dr. Cecil L. Parker, Jr. Sickle Cell Disease Distinguished Lectureship Endowment is in its 16th year and continues to provide funding to support the USA Health J. Haynes Jr.,

MD Comprehensive Sickle Cell Center educational agenda in perpetuity. We will continue the clinical operations with the same determination and sincerity as we have previously. We continue to seek the necessary grant support to maintain 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.

The Watson Henderson Higher Achievement Award is in its 3rd year of providing financial assistance for higher education to young adults with sickle cell disease and participants of the Pediatric to Adult Care Transition Program. Each recipient receives \$500. The J. Haynes, Jr. MD Comprehensive Sickle Cell Center hosts an award ceremony, during which recipients are recognized and families and guests are invited to attend. Center faculty and staff, department of pediatrics, hematology/oncology, along with the director of the Sickle Cell Disease Association of America, Mobile Chapter, attends to congratulate recipients on yet another successful transition in life to pursuing their higher education. Total amounts of funds disbursed to date \$2,000.00.

Research: Ongoing research projects include:

1. Alabama Sickle Cell Tracking Access Towards Equality. This contract was originally awarded for three years (10/1/2023– 9/29/2028).
2. Education and Mentoring to BRing Access to CarE (EMBRACE) SCD Network. This contract was originally funded for one year (9/1/22-8/31/26).
3. An Open Label, Observational, Prospective Registry of Participants With Sickle Cell Disease (SCD) Treated With Oxbryta® (Voxelotor). GBT 440-4R2. 1 Year before and up to 5 Years after initiation of Oxbryta treatment. Enrollment of study participants n = 7.
4. Global Blood Therapeutics/Pfizer, C5351004 (GBT021601-021): A Phase 2/3 Randomized, Multicenter Study of Osivelotor Administered Orally to Participants with Sickle Cell Disease and an Open-Label Pharmacokinetics Study in Pediatric Participants with Sickle Cell Disease. This clinical trial is in the regulatory/start-up phase.
5. NIH; HEAL Initiative: Understanding Individual Differences in Human Pain Conditions (R01 - Clinical Trial Option). Project Title: "Personalized Prediction of Acute Sickle Cell Pain in Adolescents and Young Adults Study". PREDICT SCPAIN. (Application submitted 2024 Jun 6).
6. Peer Support for Adolescents and Emerging Adults with Sickle Cell Pain: Promoting Engagement in Cognitive Behavioral Therapy (PRESENCE). Clinical and Translations Science Awards Program. This project is in the regulatory/start-up phase.

Clinical Operations / Services: The Adult Sickle Cell Clinic has operated as a subspecialty clinic for over 20 years. This clinic serves 378 clients and continues to grow. The pediatric clinic provides services to over 200 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 Antwan Hogue MD; Ardie Pack-Mabien PhD, FNP-BC, Nurse Practitioner; Jessica King, Nurse Practitioner; Mikayla Johnson, PA-

C, and T'Shemika Perryman, RN. Additional medical and collaborative practice support is provided by hospitalist Dr. Rachel Seamen through the department of Internal Medicine. The pediatric sickle cell clinic physician staff include Drs. Hamayun Imran (chief), Felicia Wilson, Preethi Marri, and Abdul Hafeez Siddiqui and Nurse Practitioners, Ardie Pack-Mabien PhD-FNP-BC, Jennifer Williams, CRNP, and Sybil Poiroux, CRNP. Family Medicine, Internal Medicine, and Pediatric residents, and Hematology Oncology Fellows rotate monthly through the Pediatric Sickle Cell Clinics. Both clinics have expanded to four clinic days a week. Like the USS Hope (Outpatient infusion center for pediatrics) located at Children's and Women's hospital and across the nation, there is a growing and ongoing need for an adult sickle cell patient infusion center to meet the growing needs of our adult patients and lessen the healthcare cost burden and utilization of the emergency departments. The Center collaborates with the Sickle Cell Disease Association of America, Mobile Chapter to provide psychosocial services. To further address the growing psychosocial issues faced by individuals and their families affected by SCD more efficiently, the Center has expanded its collaborative efforts beyond the Sickle Cell Disease Association of America, Mobile Chapter to include collaboration with Gulf Coast Total Care Southwest Region to meet both psychosocial, cognitive, and behavior health needs of our patient population that includes pharmacy support, home visits by a case manager, community health worker, and nursing personnel. The Center is in conversations with the Department of Clinical Psychology to provide a broader scope of behavioral assessment and counseling services in the outpatient adult SCD provider clinics similar to the services provided in the pediatric sickle cell outpatient clinics.

Pack-Mabien, PhD, FNP-BC and Ms. Perryman RN 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 eleventh year with more than 94 participants. Seventy-seven participants (82%) have successfully transferred from pediatric to adult care thus far. In the PACT Program, a Learning Resource and Development Center (LRDC) is available and serves clients 13-19 years old. The LRDC is in the Moorer Clinical Sciences Building in room 1515. In the upcoming years, we hope to continue to bridge the gap and make the transition process from pediatric to adult care smoother.

Adult hematology support for adult operations remains lacking and there is no proposed formal or written solution to this deficit of overall clinical operations currently. However, preliminary conversations are underway to establish a partnership with the Hematology/Oncology Fellows program at MCI.

Other Activities: The Center's newsletter "Sickle Cell Today" is distributed across the State of Alabama to physicians, nurses, governmental officials to include but not limited to the Governor and legislators, clients, client families, administrators, and community sickle cell foundations in March and September of each year. To increase the public's awareness, knowledge, and understanding of sickle cell disease; the Center's faculty and staff participated with its' TRISICKLE for sickle cell disease campaign in the City of Mobile Art Walk. Apr. 9, 2023, Mobile, AL. The center in collaboration with University Hospital Department of Staff Development created the first Sickle Cell Disease Health

Stream Educational Learning Module for nursing and other health care professionals on January 1, 2024. Inaugural Lighting of the RSA Tower recognizing September as National Sickle Cell Awareness month and the University of South Alabama Johnson Haynes Jr., MD Comprehensive Sickle Cell Center took place on September 8, 2024. Inaugural Proclamation Signing recognizing September as National Sickle Cell Awareness Month, the University of South Alabama Johnson Haynes, Jr., MD Comprehensive Sickle Cell Center, and Department of Pediatric Hematology/Oncology Sickle Cell Clinic by the City of Mobile Mayor took place on September 10, 2024. Both signature events were initiated by the Center to further increase awareness and shine the spotlight on Sickle Cell Disease and the University of South Alabama Johnson Haynes Jr., MD Comprehensive Sickle Cell Center along the Gulf coast and surroundings communities.

2023-2024

Division of Medical Education and Student Affairs

The Divisions of Medical Education and Student Affairs are responsible for all undergraduate educational programs as well as numerous student support programs in the Whiddon College of Medicine. Activities in the Division of Medical Education and Student Affairs are accomplished through offices in the Medical Sciences Building, Mastin Building, and USA Health University Hospitals and associated clinics. Students in the clinical years of undergraduate medical education rotate at all USA Health Campus sites including University Hospital, Children's and Women's Hospital, and the Strada Patient Care Center with the possibility of clinical interaction and research opportunities at USA Health Mitchell Cancer Center. USA Whiddon College of Medicine students have the opportunity to evaluate patients in the outpatient settings at Stanton Road Clinic and Strada Patient Care Center.

Student Affairs

The Whiddon College of Medicine hosted all student celebratory events marking milestones for College of Medicine students during the academic year 2023-2024. Match Day 2024 returned to the University of South Alabama campus. Students were first welcomed with a breakfast in the John Counts Room with the ceremonial pinning of the map of the United States in the USA Mitchell Center. Families and friends of the Class of 2024 gathered with USA Health and University administration, Whiddon COM faculty, staff and students to watch these soon-to-be residents open their envelopes, announce their residency matches and pin the U.S. map. The arena floor was set to host 600 guests to mark this event for these students. During the breakfast, students were provided swag bags which included a Match Day T-shirt, other branded gifts, and a fillable sign that read, "I Matched at _____". The Whiddon COM was proud to have this important event return to campus as that South and Jag spirit was felt by all.

The match results were impressive, including three students in Urology, two students in Anesthesiology, five students in Emergency Medicine, three students in Diagnostic Radiology, one student in Neurosurgery, two students in Otolaryngology, two students in Pathology, one student in Radiation Oncology, and one student in Plastic Surgery. With respect to primary care fields, the following were the match results: eleven students in Categorical Internal Medicine, twelve students in Family Medicine, nine students in Psychiatry, six students in Pediatrics, and one student in combined Internal Medicine/Pediatrics. Regarding General Surgery, two students matched into categorical programs and four into preliminary programs. Regarding OB/Gyn, five students matched into categorical programs and one into a preliminary program. Seventy-six percent of students matched into out-of-state residency programs with the remaining twenty-four percent staying in Alabama programs. Twelve USA Whiddon COM students chose to continue their graduate medical education in the USA Health Hospitals. Students from USA Whiddon COM were placed into programs spanning the entire continental United States.

Later, in the spring, the COM hosted an Honors Ceremony for the Class of 2024 and their guests. This event was hosted in the USA campus Student Ballroom, with breakfast provided prior to the event in the Terrace Room. This event was followed in May by the Class of 2024 Academic

Hooding Ceremony held at the USA Mitchell Center. At this ceremony, the M.D. as well as the Ph.D. doctoral students received their academic hoods bestowed upon them either by a guest of their choice or their major professor. During this ceremony, the graduating class of 2024 chose to be addressed by Dr. Antwan J. Hogue, Senior Hospitalist, Medical Director for the Johnson Haynes, Jr. M.D. Comprehensive Sickle Cell Center and Assistant Professor, USA Health Department of Internal Medicine; and Carey Patrick Johnson, a member of the graduating class. The Military Oath of Office was administered by Dr. Andrew C. Bright, LCDR United States Navy and Assistant Professor in the Department of Surgery along with Dr. Richard Menger, CDR United States Navy Medical Corps and Assistant Professor in the Department of Neurosurgery. The M.D. doctoral students recited the Hippocratic Oath led by Dr. John Marymont, Vice President of Medical Affairs and Dean of the USA Whiddon College of Medicine.

The White Coat ceremony, which marks the transition at the Whiddon COM from the preclinical to the clinical years, for the Class of 2026 was held in the USA Mitchell Center. Rising third year medical students processed in with their white coats and sat with the one guest of their choosing who accompanied them to the stage for the donning of the White Coat. At this ceremony, as in previous years, those students, residents and faculty who were elected into the Arnold P. Gold Humanism Honor Society were inducted. Dr. Brian Fouty, Director of the Pulmonary and Critical Care Fellowship Program and Professor of Internal Medicine and Pharmacology at the Whiddon COM, faculty inductee, addressed the class and the class response was provided by Thomas Robinson, President of the Class of 2026. Dr. Abu Bakr Al-Mehdi, Assistant Dean for Medical Education and Professor in the Department of Pharmacology at the Whiddon COM, was also elected as a faculty inductee into the Arnold P. Gold Humanism Honor Society; however, he was unable to attend the event to express his remarks. The Medical Student Oath was recited by the class and led by Dr. Edward Panacek, Professor and Chair USA Health Department of Emergency Medicine and President of the USA Medical Alumni Association. As in past years, the USA Medical Alumni Association purchased the White Coats for the Class of 2026, as well as provided meaningful notes of inspiration for each of the students.

Hosting these events allows us to highlight the meaningful transitions these events mark in the lives of our future healthcare providers. These classes and the documentation of these events will forever be etched into the history of these young people and the USA Whiddon College of Medicine.

The number of visiting medical students who participated in senior elective courses at USACOM is outlined below.

	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Total Visitors	47	0	19	33	28
From LCME Schools	18	0	5	14	4
From Osteopathic Schools	29	0	14	19	24
From Foreign Schools	0*	0*	0*	0*	0*
Completed Paperwork, but Cancelled Visit					
From LCME Schools	6	0	3	2	2
From Osteopathic Schools	3	0	8	2	7
From Foreign Schools	0*	0*	0*	0*	0*
Disciplines in which Electives were taken					
Anesthesiology	0	0	0	0	0
Clinical Pharmacology	0	0	0	0	0
Emergency Medicine	14	0	1	6	7
Family Medicine	3	0	2	0	0
Internal Medicine	7	0	4	3	3
Neurology	1	0	0	0	1
Neurological Surgery	0	0	0	0	0
Obstetrics/Gynecology	1	0	0	3	5
Ophthalmology	0	0	0	0	0
Orthopedics	5	0	1	6	0
Pathology	1	0	0	0	0
Pediatrics	6	0	4	4	6
Psychiatry	4	0	3	2	1
Radiology	2	0	0	3	3
Surgery	3	0	4	6	2
Urology	0	0	0	0	0

*We joined the AAMC VSAS in 2014 and no longer rotate foreign students.

NOTE: Due to Covid-19, no visiting students in 2020-2021. Per COPA, visiting students limited in 2021-2022.

Visiting Medical Students Months Electives Taken

	2020-2021		2021-2022		2022-2023		2023-2024	
	American	Foreign	American	Foreign	American	Foreign	American	Foreign
January	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0
June	0	0	0	0	2	0	0	0
July	0	0	1	0	3	0	2	0
August	0	0	6	0	6	0	3	0
September	0	0	5	0	7	0	7	0
October	0	0	3	0	7	0	11	0
November	0	0	4	0	8	0	5	0
December	0	0	0	0	0	0	0	0

Away rotations limited by COPA 2021-2022; Due to COVID, no visiting students 2020-2021

Letters of evaluation (Medical Student Performance Evaluations) were written for each of the 74 seniors who graduated in May, 2024. Students applied to 4396 residency programs through the AAMC Electronic Residency Application Service (ERAS).

Seventy-four (74) students matched for residency positions. Sixty-nine (69) of the May graduates used the NRMP as their primary means of obtaining residency, three (3) graduates participated in a specialty match, and two (2) graduates participated in the military match.

	Number of Graduates	Match Utilized	
		NRMP	Non-NRMP
2020	66	63	2
2021	69	64	3
2022	75	65	4
2023	73	67	7
2024	74	69	5

University of South Alabama Seniors

	Class of 2020		Class of 2021		Class of 2022		Class of 2023		Class of 2024	
PRIMARY CARE:	27	42%	22	33%	25	35%	34	47%	33	44%
Internal Medicine	16	25%	10	15%	14	20%	15	21%	11	14%
Family Medicine	6	9%	7	10%	4	6%	11	15%	12	16%
Pediatrics	3	5%	4	6%	3	4%	8	11%	6	8%
Med/Peds	2	3%	1	1%	2	3%	0	0%	1	1%
Internal Med Prelim	0	0%	0	0%	2	3%	0	0%	3	4%
Anesthesiology	4		1		4		6		2	
Dermatology	2		0		0		1		0	
Emergency Medicine	6		4		4		2		5	
Neurology - Child	1		0		0		0		0	
Neurology	2		0		2		2		0	
Neurological Surgery	2		0		0		0		1	
OB/Gyn	2		8		8		6		5	
OB/GYN Preliminary	0		1		0		0		1	
Ophthalmology	1		2		1		1		0	
Orthopaedic Surgery	1		5		2		4		0	
Otolaryngology (ENT)	0		2		1		0		2	
Pathology	1		0		0		0		2	
Psychiatry	3		4		6		2		9	
Radiology - Diagnostic	2		5		4		2		3	
Radiology - Interventional	0		0		0		0		0	
Radiation Oncology	1		1		0		1		1	
Surgery – General	7		6		6		6		2	
Surgery – Plastics	0		0		0		0		1	
Surgery – Preliminary	3		2		4		4		4	
Transitional	0		2		1		0		0	
Urology	0		2		3		2		3	
TOTAL Graduating Seniors	65		67		71		73		74	

Residencies Received by Discipline

University of South Alabama Seniors
Residencies Received by State

	Alabama		USA Hospitals (Mobile)	Out-of-State		Number of Different States
2020	23	35%	8	42	65%	23
2021	24	36%	17	43	64%	19
2022	26	37%	21	45	63%	16
2023	22	30%	10	51	70%	24
2024	18	24%	12	56	76%	21

On May 3, 2024, 74 medical students received the Doctor of Medicine degree and two graduate students received the Doctor of Philosophy degree at the 49th annual USA Frederick P. Whiddon College of Medicine Academic Hooding Ceremony which took place in the Mitchell Center. Prior to the hooding and presentation of the doctoral degrees, Dr. Antwan Hogue addressed the class and Carey Johnson responded for the graduates. On the morning of April 24, the College held its Honors and Awards Ceremony which took place in the ballroom at the Student Center where the following awards were presented:

Dean's Award – Arcole Brandon

Merck Award – Jordan Ingram Chappell and Rachel Emig

Glasgow-Rubin Achievement Citations – Madeleine Boudreaux, Jordan Ingram Chappell, Rachel Emig, and Taylor Coe Yockers

Dr. Robert A. Kreisberg Endowed Award of Excellence – Claudia Stephens

Leonard Tow Humanism in Medicine Award – Marjorie Jones and Dr. Antwan Hogue

Medical Alumni Leadership Award – Carey Johnson

Community Service Award – Taran Carrasco and Alexander Polski

SNMA Leadership Award – Carey Johnson

Outstanding Student in the Pre-clerkship Curriculum – Arcole Brandon

Award for Excellence in Teaching Clinical Skills – Zara Ijaz

Clinical Pharmacology & Therapeutics Excellence Award – Shane Stephenson

Hollis J. Wiseman Award for Excellence in Pediatrics – Justin Penninger

Samuel Eichold Award – Arcole Brandon

Dr. Michael M. Linder Endowed Award – Mia Jetsu

The Orthopaedic Excellence Award – Robert Rella

John W. Donald Memorial Award in Surgery – Jordan Ingram Chappell

H. C. Mullins, M.D. Award – Jarrett Barnes

Obstetrics/Gynecology Award – Claudia Stephens

Excellence in Emergency Medicine Award – Jelani Bender

Society for Academic Emergency Medicine (SAEM) Award – Jonathan Keith Lee

Excellence in Psychiatry Award – Alexandra Templin

Grade Distribution 2023 - 2024 Academic Year

Freshman Courses

	H	P	F
Principles of Infection & Immunity	8	67	3
Principles of Foundational Medicine	9	69	1
Patients & Human Structure	9	69	1
Cardiovascular System	11	56	1
Urinary System	9	67	2
Clinic I	16	61	0
Musculoskeletal System	9	69	0

Sophomore Courses

	H	P	F
Digestive System	7	70	0
Endocrine & Reproductive Systems	11	66	0
Hematology & Oncology	19	58	0
Neuroscience & Behavioral Science	15	63	0
Respiratory System	9	68	0
Clinic II	13	64	0

Junior Clerkships

	H	P	F	Out of sequence
Family Medicine	26	43	0	3
Internal Medicine	8	61	0	0
Neurology	6	52	0	2
OB/GYN	18	50	0	0
Pediatrics	16	54	0	4
Psychiatry	22	49	0	4
General Surgery	8	63	0	2

Academic Progress of Medical Students
Source: Part II of LCME Annual Medical School Questionnaire

	2020	2021	2022	2023	2024
Initial Students in Class	74	77	77	75	75
Graduates	66	69	72	74	74
True Attrition (will not receive M.D. in any year)	0	3	2	2	2

	2019-20	2020-21	2021-22	2022-23	2023-24
Dismissed					
Freshmen	0	0	0	0	0
Sophomores	0	0	0	0	0
Juniors	0	0	0	1	0
Seniors	0	0	0	0	0
Placed on Leaves of Absence (LOA)					
Freshmen	1	1	1	3	1
Sophomores	0	0	1	0	0
Juniors	12	6	6	15	5
Transferred to Another Medical School	0	0	0	0	0
Withdrew	2	2	2	3	4
Admitted with Advanced Standing or Re-entered from Graduate School	0	0	0	0	0
Deceased	0	1	0	0	0
Repeated All or Part of the Year	1	6	7	5	8
Enrolled on a Decelerated Schedule	0	0	0	0	0

Minority Students (Black, Native American, Hispanic)	2019-20	2020-21	2021-22	2022-23	2023-24
Total	47	42	41	40	55
Freshmen	16	9	9	10	36
All Other Classes	31	33	32	30	19

United States Medical Licensure Examination (USMLE) Step 1
First Time Takers

	2019	2020	2021	2022	2023
Number of Students	69	69	74	73	72
National Overall Mean	231	245	230	Pass/Fail	Pass/Fail
USACOM Overall Mean	231	247	228	Pass/Fail	Pass/Fail
Failure Rate – National	3%	2%	4%	7%	8%
Failures at USA	4%	1%	5%	14%	12%

Minimum passing score = 176 in 1997; 179 in 1998-2000; 182 beginning in 2001; 185 in 2007; 188 in 2010; 192 in 2014; 194 in 2018; Pass/Fail in 2022

United States Medical Licensure Exam (USMLE) Step 2
First Time Takers

	2019-20	2020-21	2021-22	2022-23	2023-24
Number of Students	52	62	79	74	73
National Overall Mean	245	246	247	248	249
USACOM Overall Mean	249	247	249	249	248
Failure Rate – National	2%	1%	1%	2%	2%
Failures at USA	0%	2%	1%	0%	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; 214 beginning with the Class of 2023.

United States Medical Licensure Examination (USMLE) Step 3

	Class of 2017	Class of 2018	Class of 2019	Class of 2020	Class of 2021
National Percentage Passing	98	98	98	98	98
USA Percentage Passing	100	99	100	97	96
USA Number of Students	76	67	71	63	68

Evaluation of Student Performance in the First Postgraduate Year

The College of Medicine was selected for participation in the AAMC Resident Readiness Program. This program continues to be a pilot initiative by the AAMC to collect information on the performance of a medical school's post-graduate year 1 (PGY-1) learners, known as interns, in their residency programs. This initiative was designed to improve data collection for curriculum enhancement, revise the process for dissemination and collection of surveys, and reduce the administrative burden of medical schools and residency programs.

The AAMC has distributed standardized surveys on behalf of medical schools to their graduates' residency programs. Given the nature of this pilot, the AAMC has requested data remain confidential and not disseminated until further review by them. We are hopeful in the coming years that we will be able to share the data as it becomes available.

Curriculum Committee

The Curriculum Committee met twice a month this past academic year. Meeting agendas consisted of subcommittee reports with recommendations for action, as well as informational sessions updating Committee members on issues such as continuous quality improvement of our educational program, ongoing oversight of the pre-clerkship, clerkship, and primary care pathway.

The Committee is charged with oversight of the UME curriculum in accordance with LCME standards. This encompasses the establishment of policies and practices for design, delivery, monitoring, mapping, and assessment of educational content, and assuring that curricular problems are effectively addressed. The Committee was chaired by Benjamin Estrada, MD.

Subcommittees of the Curriculum Committee also met regularly to perform portions of the work of the parent Committee through 2023-2024. The subcommittees and their chairs included:

M1-M2 (David Weber, PhD)
M3 (Nicolette Holliday, MD)
M4 (T.J. Hundley, MD)
Assessment and Evaluation (Anna Foust, MD)
Clinical Skills (Laura Boatright, MD)
Student Subcommittee (Mr. Conner Hall)

A summary of Curriculum Committee activities and actions for 2023-2024 follows.

CURRICULUM COMMITTEE RESTRUCTURING

The initial actions of the Curriculum Committee during the academic year included the development and approval of action plan for each of the Curriculum Committee subcommittees. Each action plan was subsequently operationalized by each of the subcommittees which provided the Curriculum Committee with updates throughout the academic year. A summary of the activities and action plan outcomes of each of the subcommittees is presented below.

M1-M2 YEARS

The M1-M2 years subcommittee successfully executed its action plan for the 2023-2024 academic year, focusing on curriculum maintenance, innovation, faculty development, and administrative oversight. Key accomplishments included the development of Self-Directed Learning (SDL) approaches, review of exam question quality, approval of module sequencing and time allocation, and incorporation of UWorld content. Additionally, efforts to integrate clinical reasoning with the basic sciences was coordinated with the Clinical Skills team. Faculty development was also prioritized, with training sessions offered to improve content delivery. The subcommittee quantified pre-clerkship course hours and examined recurring curricular content, ensuring alignment with USMLE standards.

M3 YEAR

The M3 Subcommittee implemented a comprehensive action plan for the 2023-2024 academic

year, focusing on curriculum innovation, maintenance, faculty development, and LCME standard review. Significant activities included the integration of virtual cases, development of seven innovative clerkship projects, and a thorough review of M3 structure and clerkship length. Standardization of educational activities across clerkships, faculty development efforts, optimization of the Primary Care Pathway M3 year, and LCME standard review were also accomplished. Clerkship innovations, such as the use of EPAs and trauma-informed care scenarios, were introduced, enhancing the educational experience.

M4 YEAR

The M4 Subcommittee successfully executed its action plan for the 2023-2024 academic year, focusing on curriculum maintenance, innovation, assessment, and LCME standard review. Key accomplishments included reviewing M4 objectives in course requirements, review of M4 assessment methods, and developing an Individualized Learning Plan (ILP) for M4 students. The Transitions to Residency Course was reviewed and integrated with the University of South Alabama's LevelUP program. Two new electives were implemented, and at least two additional electives for the upcoming academic year were created including OB-Gyn research, Law and Medicine and Applied Clinical Radiology. Policies for away rotations, visiting students, and international electives were reviewed.

CLINICAL SKILLS CURRICULUM

The Clinical Skills Subcommittee successfully executed its action plan for the 2023-2024 academic year with a focus on curriculum maintenance, innovation, faculty development, and LCME standard review. This plan was strategically designed to enhance the integration of clinical skills into the medical curriculum, improve the quality and relevance of assessments, and ensure compliance with accreditation standards. The subcommittee worked closely with all module directors to ensure that clinical skills content was thoroughly reviewed and integrated into the curriculum. This led to increased student satisfaction, improved perception of the relevance of the clinical skills course for LCME standards review, and enhanced retention of knowledge among students.

Blueprinting for all Objective Structured Clinical Examinations (OSCEs) was another critical achievement, with comprehensive blueprints developed for each of the four OSCEs, resulting in significant improvements in exam quality and a stronger correlation between learned skills and assessment outcomes. Additionally, two new OSCE cases were developed, piloted, and refined for both M1 and M2 Spring sessions, increasing the number of OSCE stations and enhancing the validity of these exams.

Competency standards were established for all four OSCEs, ensuring fair and consistent evaluation of student competencies without the need for post-hoc statistical adjustments. A thorough review and mapping of course objectives to COM competencies were also completed, addressing any areas of concern in preparation for the upcoming LCME accreditation in 2026. Finally, the subcommittee identified and addressed gaps in faculty development by collaborating with the Faculty Affairs office to create targeted training sessions, which led to improvements in content delivery and assessment methods as reflected in course and faculty evaluations.

STUDENT SUBCOMMITTEE

The Student Subcommittee's action plan for the 2023-2024 academic year focused on curriculum evaluation, resource development, and enhancing student engagement. The subcommittee's efforts were designed to improve the educational experience across both pre-clerkship and clerkship phases, ensuring that student needs were effectively met and incorporated into the curriculum.

Key accomplishments included the development and submission of the M3 Clerkships Assessment and Evaluation (A&E) report which was produced by a working group of M4 students and provided a comprehensive review that contributed to continuous quality improvement in the clerkship phase. The subcommittee also evaluated best practices to increase attendance at post-module town hall meetings resulting in a plan that led to improved participation.

In addition, the subcommittee compiled comprehensive resource lists for both pre-clerkship modules and M3 clerkships. These lists were distributed to the relevant student cohorts, ensuring they had access to valuable resources as they progressed through their studies. The subcommittee also evaluated best practices for administering Self-Directed Learning (SDL) activities and developed alternative SDL activities, which were then submitted to the Curriculum Committee for consideration.

Another significant contribution was the collection and presentation of feedback on the Step 1 Workshop and Prep Course by a working group of M3 students. This report provided insights that informed future improvements to the Step 1 preparation process. The subcommittee also explored best practices for student representation at Curriculum Committee meetings, resulting in a consensus on representation that was communicated to the Curriculum Committee.

ASSESSMENT AND EVALUATION SUBCOMMITTEE

The Assessment & Evaluation (A&E) Subcommittee established a standardized process for reviewing all courses within the curriculum, ensuring a consistent and comprehensive evaluation across the entire educational program. This process began with a detailed assessment of the learning objectives for each course. The subcommittee carefully evaluated the extent to which these objectives were met, categorizing each outcome as fully met, partially met, not met, or not assessed. This categorization allowed for a clear understanding of how effectively each course met its educational goals, and specific comments were provided to highlight strengths and areas where improvements were necessary.

In collaboration with course directors, the subcommittee reviewed updates made to courses based on previous evaluations, emphasizing the integration of past feedback. The strengths of each course were identified, showcasing successful elements that contributed positively to student learning. Course directors were also encouraged to outline any planned changes for future iterations, with an analysis of the resources needed to implement these improvements. This collaborative approach ensured that course directors were supported in their efforts to enhance course quality.

Student feedback was systematically gathered and analyzed as part of the review process,

offering valuable insights into the strengths and areas for improvement from the students' perspective. This feedback was crucial in identifying aspects of the course that worked well and those that could be enhanced to better meet student needs. Additionally, the subcommittee reviewed the administrative components of the courses, ensuring that logistical and operational aspects were aligned with the educational goals of the curriculum.

The learning environment was also a key focus of the review process. End-of-course evaluations were analyzed to assess student satisfaction and identify any recurring themes or issues. This review ensured that all courses maintained a supportive and respectful learning environment. Student performance data was another critical aspect of the review, with an analysis of grade distributions and remediation efforts to ensure that all students were appropriately supported in their educational journey.

After completing the standardized review, the subcommittee generated tailored recommendations for each course. These recommendations were designed to guide course directors in making evidence-based improvements that aligned with the overall objectives of the curriculum. By providing actionable insights and fostering a culture of continuous improvement, the A&E Subcommittee's standardized review process played a vital role in maintaining and enhancing the quality of the medical education provided.

CURRICULUM PHASE REVIEW PROCESS

The Curriculum Committee has been working on the development of a Curriculum Phase Review process. The Curriculum Phase Review is a requirement from the Liaison Committee on Medical Education (LCME) for medical schools.

During the 2023-2024 academic year, the Curriculum Committee has been working on developing a process customized to our specific curricular needs. At our institution, the proposed phase review process will be divided into two distinct phases:

1. **Pre-clerkship Phase:** This phase encompasses the first (M1) and second (M2) years of medical education. The focus during this phase is primarily on foundational medical knowledge, skills and attitudes that set the groundwork for clinical training. It concludes with a transition that prepares learners for their entry into more hands-on, clinical experiences.
2. **Clerkship Phase:** Covering the third (M3) and fourth (M4) years, this phase emphasizes clinical application and practice. It is designed to provide comprehensive exposure to patient care, allowing students to integrate their pre-clerkship experiences with real-world clinical scenarios. The conclusion of this phase marks a critical transition toward residency and independent practice.

The phase review process for the medical school curriculum involves several components: a comprehensive evaluation of the program's overall structure and goals and a review of curriculum content, including a detailed mapping of educational objectives to ensure integration and alignment with the College of Medicine (COM) goals and LCME standards, identifying any gaps, redundancies, and to optimize educational outcomes and content delivery. Additionally, the process includes analyzing assessment and feedback data to gauge student achievement and

readiness, as well as examining student progression through the curriculum to identify at-risk students, remediation needs, and trends in advancement, graduation, and residency outcomes. Coaching is also integrated into the review process to support continuous student development, facilitate improvement, and help students achieve their educational and professional goals

CURRICULUM MAPPING AND ENHANCEMENT PLAN

To enhance mapping of educational objectives and to better monitor the stage of achievement of different COM objectives across the continuum of four years of instruction, an innovative curriculum mapping tool was developed by the Division of Medical Education and the Office of Accreditation and Planning and approved by the Curriculum Committee. This tool will allow visualization of the level of achievement of each of the competency-based objectives by course.

LCME STANDARDS REVIEW

During the academic year, the Curriculum Committee devoted significant time to review and monitor compliance with LCME standards related to curriculum development, implementation, and monitoring. These reviews were enhanced by feedback received from the Committee on Quality Improvement. To further integrate LCME standards into our educational program, each of the tasks included in the subcommittee action plans was linked to the pertinent LCME standards.

PRE-ORIENTATION EVIDENCE-BASED LEARNING STRATEGIES COURSE

The Division of Medical Education and the Office of Accreditation and Planning planned and offered the second iteration of our pre-orientation course for incoming medical students entitled, “Rx for Success: Achieving Academic Excellence in Medical School.” The course aimed to teach students how to create implementation plans for evidence-based learning strategies, time-management, and organization skills which are essential to success in medical school. The majority of incoming medical students participated in this activity.

RESILIANCE CURRICULUM

The Curriculum Committee approved the "Resilience Curriculum" for medical students which is designed to enhance skills for managing stress, fostering professionalism, and promoting wellness. It is structured around key domains: relationship management, self-awareness, self-regulation, self-management, and social awareness, each taught through specialized workshops. The curriculum includes clear objectives such as identifying traits of professionalism, developing confidence, and understanding ethical responsibilities related to wellness. Methods of delivery include didactic teaching, reflective exercises, and group discussions. Assessment is integrated through self-reflection, participation, and feedback, encouraging students to recognize growth areas and apply concepts like the PERMA model to personal and professional contexts. This holistic approach prepares students for the emotional and ethical challenges they will face in their medical careers.

CONTINUOUS PROFESSIONAL DEVELOPMENT

The Continuous Professional Development Program is a comprehensive initiative approved by the Curriculum Committee integrated into the first three years of the medical school curriculum to foster professional growth, lifelong learning, and skills development among medical students.

It requires all M1, M2, and M3 students to earn 20 professional development credits annually, with a minimum of 8 credits from approved community service activities. Students can participate in a variety of activities including community service, research, interest and affinity groups, professional seminars, and leadership roles, all of which are documented and credited. The program encourages involvement through diverse opportunities such as “Lunch and Learn” activities, grand rounds, and seminars, while also offering recognition through awards for outstanding contributions in professional development and community service. Regular feedback and monitoring ensure compliance with new activities requiring pre-approval. The program aims to instill essential non-clinical competencies, preparing students for future medical careers by enhancing both their personal and professional development. In the first year of implementation, M1 and M2 students generated over 3,000 different logs and over 2,600 community service hours. The latter supported a variety of community needs at over 80 distinct service sites and/or activities.

PRIMARY CARE PATHWAY (PCP)

The 2023-24 academic year saw the first 8 students graduating as PCP scholars. The Curriculum Committee performed a comprehensive review of the multiple PCP courses. The different curricular activities within the Pathway were enhanced by active student participation in “PCP connect” sessions between students and faculty.

The task force that the Curriculum Committee appointed to develop this curriculum continued to manage the content and implantation of educational activities and provided frequent updates to the Curriculum Committee for its oversight of educational activities. M1 students enrolled in the Pathway successfully completed multiple quality improvement centered research projects related to primary care which were presented in different outlets including the annual medical student research day. During the 2023-24 academic year, additional Pathway courses were implemented for the M4 year including an elective course in population and practice management and another course focusing on application of basic science concepts in primary care. During the 2023-2024 academic year, the Pathway introduced the implementation of educational resources aimed to enhance Health Systems Science education.

REVIEW OF AAMC GRADUATION QUESTIONNAIRE (GQ) AND MISSION MANAGEMENT DATA

The Curriculum Committee reviewed the compiled data from the 2023 GQ Questionnaire. Our students noted they are satisfied with the quality of their medical education which is above the national average. Overall, the survey results were positive in a large majority of the areas. Emphasis was also placed by the Curriculum Committee on the AAMC’s Mission Management Tool and the missions of a medical school prioritized therein. Overall, the results tied to student education were positive in numerous areas. Each of the 6 mission topics were summarized and distributed to the appropriate stakeholders for incorporation into their ongoing goal setting and actions. Specifically, the Primary Care Pathway task force continues to focus on Mission 1 (graduating a workforce to address the priority health needs of a nation). Mission 4 (provide high quality education as judged by your recent graduates) will be a focus of the Curriculum Committee and all subcommittees.

EXPANSION OF PROFESSIONAL DEVELOPMENT

The Division of Medical Education and the Curriculum Committee collaborated with the Office of Faculty Affairs and Faculty Development and the Graduate Medical Education (GME) office to plan and implement multiple professional development initiatives. The group planned workshops for clinical faculty on delivering effective feedback, grading equity, writing effective comments, and teaching at the bedside. These workshops were delivered to faculty in Internal Medicine, Pediatrics, and Family Medicine. The “Residents as Teachers” curriculum was also improved with the addition of core workshops provided as part of GME orientation for new interns. In addition to the above, planning continued for workshops to train faculty on conducting medical education research and foundational skills for medical educators.

In addition, the Division of Medical Education collaborated with the Office of Faculty Affairs and Faculty Development to implement a faculty development series around foundational teaching skills for faculty and orientation sessions on the educational program for new faculty, as well as implementing the AAMC Medical Education Research Certificate (MERC) program. The MERC program was a first for the institution with a diverse group of faculty and staff from the College of Medicine participating.

Executive Committee of Student Assembly

Student Assembly meetings were held on the second Wednesday of every month and took place on zoom. Meetings were held at 5:30 p.m. and did not take place in December, 2023 or May, June and July of 2024.

As set forth in the Student Handbook, Student Assembly addressed issues affecting student life and interest groups. The officers were:

- President: Krisha Amin
- Vice President: Walker Phillips
- Secretary: Thomas Robinson
- Treasurer: Will Farley
- SGA Liaison: Jordan Ingram
- Faculty Advisors: Dr. Kelly Roveda, Dr. Caleb Butts

1. Events funded by Student Assembly

- a. Halloween Party on October 27, 2023 at Alchemy Tavern
 - i. Student Assembly approved \$300 that was used to purchase food and decorations for the event which was overseen by the M1 and M2 class officers.
- b. Gold Humanism Solidarity Week: February 13-17, 2024 and “Thank a Resident Day” on February 23, 2024
 - i. Student Assembly approved \$500 that was used to purchase items that were handed out during Solidarity week. This included gift cards for hospital nurses and food for resident physicians.
- c. USA Whiddon COM M3 Case Report Symposium: June 7, 2024
 - i. Student Assembly approved up to \$1500 to cover the cost of thank you gifts for judges, food, award plaques, and poster board delivery. Leftover funds were returned to Student Assembly.
- d. Asclepian Ball on March 9th at Mobile Museum of Art
 - i. Student Assembly approved \$2,000 for the event which covered catering for the event which was organized and planned by a joint committee of the social chairs from all 4 years of the medical school.

2. Dates of Special Events, August 2023-July 2024 were as follows:

- a. Match Day ceremony for the Class of 2024 was held at the Mitchell Center on the University of South Alabama campus on March 15, 2024.
- b. USA Whiddon COM Class of 2024 Honors ceremony was held at the USA campus Student Ballroom on April 24, 2024, with a breakfast at 9am and ceremony at 10am.
- c. The academic Hooding ceremony for the USA Whiddon COM Class of 2024 was held at the Mitchell Center on May 3, 2024, at 8:30am.
- d. The Commencement Ceremony for the USA Whiddon COM Class of 2024 was held at the Mitchell Center on May 4, 2024, at 9:30am.

- e. White Coat Ceremony for the Class of 2026 and Gold Humanism Honor Society Induction for the Class of 2025 was held on June 14, 2024 at 2pm in the Mitchell Center.
 - f. The Wellness Committee organized several events for the College of Medicine as a whole.
 - i. Wellness forums were held on a monthly basis
 - ii. POST on the Hill: April 5, 2024
 - iii. Honest Conversations: February 26, 2024
 - iv. 2nd Annual Art of Medicine: November 14, 2023
 - v. Other events were open to all Whiddon COM students throughout the Fall and Spring semesters at various times.
 - g. Volunteer opportunities for M1-M4 students at the USA Whiddon COM were discussed on a monthly basis.
 - h. SRFC reopened in April, 2024.
 - i. Travel for research conferences were discussed on a monthly basis and means of getting funding through appropriate channels were also discussed.
 - j. New Attendance policy forms were discussed on a monthly basis. Google forms is the new channel to get approval for life day events through Dr. Roveda and Dr. Ridgeway.
3. Changes to Student Assembly
- a. No alterations to the Student Assembly constitution this year.
 - b. The Student Assembly fund remains as is since established. The fund allows \$500 per academic year and is to be used to increase the Student Assembly meeting attendance. No funds were used this year and will be transferred to next year.
 - c. However, Article III of the constitution was reiterated during the September, 2024 meeting to describe membership of the Student Assembly as follows:
 - i. The Student Assembly shall consist of all students currently enrolled at the University of South Alabama seeking an MD degree, membership being automatically conferred upon matriculation, and the status of membership shall be changed only if the student is no longer a member of the Whiddon College of Medicine as recorded per the Registrar. In addition, each student will be assessed an annual fee, the amount to be determined by the Executive Committee with approval of the student body.
 - d. Article VI describes the voting policy for the class officers as well as a vote of confidence to be held in the middle of each term. A new policy regarding removal of a class officer from office. This section now states:

ARTICLE VI: CLASS REPRESENTATIVES

Section 1. Three (3) members from each class shall be elected as Class Representatives: President, Vice President and Secretary/Treasurer. The election shall be within one month after the beginning of the year for the M1 and M3 classes.

Section 2. The procedure for election of Student Representatives shall be as follows:

- a. Elections for the M1 Class will be conducted by the Student Assembly President or his/her designee. Elections for other classes shall be conducted by the Class President and Vice President of the class above them (e.g. M2 President leads elections for the M1 class) or Student Assembly President and Vice President.
- b. Nominations for President will be taken until there is a motion, second and majority vote that nominations be closed. The number of candidates shall only be limited by a majority of the class quorum. The person receiving the majority of the votes will be elected President. If no candidate receives the majority, then there will be a run-off between the top two nominees. The nominee who receives the most votes in the run-off will be elected President.

The above procedure will be repeated for the elections of Vice President, Secretary, Treasurer, and the remaining class representatives.

- c. Elections will be by secret ballot, unless two-thirds of the class present prefers use of a hand count.
- d. Officers will hold these positions for no more than a 2 year term with a vote of confidence taken every other year as described in ARTICLE VI, Section 3.
- e. A new slate of officers will then be elected at the beginning of M3 year.

Section 3. To ensure adequate representation, the M1 class will take a vote of confidence at the beginning of M2 year utilizing the following procedure:

- a. A secret ballot, virtual or printed copy, will be cast by each class member with the words “confidence” or “no confidence” listed next to the name of each of the three representatives.
- b. If one-third or more of the class members do not have confidence in a class representative, a new election will be conducted in the manner described in ARTICLE VI, Section 2. The current representative may be re-nominated and re-elected.
- c. A vote of confidence may be called by any Whiddon COM class at any time by securing signatures of one-third of the class and presenting them to a class Honor Council member who will then schedule the vote.
- d. A confidence vote shall be conducted by the class Honor Council members.

Section 4. In the event a Class Representative resigns or is otherwise unable to fulfill his/her duties, written notification via university email to the current Whiddon College of Medicine Associate Dean of Student Affairs and Student Assembly President is required. A replacement shall be elected within 1 month of their vacancy and shall be conducted as previously described in ARTICLE VI, Section 2.

Section 5. Duties of Class Representatives shall be:

- a. To represent their class in the Executive Committee as evidenced by attendance of at least 2/3 of Student Assembly meetings.
- b. To act as liaison between their class and the faculty and administration of the University.
- c. To keep their respective classes informed of decisions of the Executive Committee.
- d. To transact such business that concerns the welfare of their class.
- e. The duties of the class President shall be:
 - 1) conduction of class meetings
 - 2) to act as class spokesperson or delegate this role
 - 3) to consult with the other class representatives prior to decision making
 - 4) make decisions affecting the class when the other class representatives are unavailable for input
 - 5) explain the workings of Student Assembly Government
- f. The duties of the Vice President will be:

- 1) to act in the absence of the President
 - 2) coordinate special class projects
 - g. The duties of the class Treasurer shall be:
 - 1) to coordinate all fund-raising activities
 - 2) control of class funds
 - h. The duties of the class Secretary shall be:
 - 1) act as class correspondent
4. New Student Assembly officers were elected in April, 2024, for the 2024-2025 school year. The transitional meeting took place on May 15, 2024, and new officers elected were:
- President: Olivia Brookins
 - Vice President: Macy Wright
 - Secretary: Thomas Robinson
 - Treasurer: Juliette Lewis
 - SGA Liaison: Olivia Brookins (incoming class is taking charge of fulfilling SGA liaison role)
 - Faculty Advisors: Dr. Kelly Roveda and Dr. Caleb Butts

The Student Assembly account is currently under Will Farley and Jordan Ingram. The account will be transferred to the incoming treasurer, Juliette Lewis, in the coming weeks.

Office of Financial Aid

	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Total Financial Aid	\$10,720,589	\$11,268,453	\$12,005,884	\$12,936,115	\$13,697,689
Students on Aid	243	253	254	262	267
Loans					
Direct Unsubsidized	7,573,878	7,813,881	7,730,029	7,961,100	8,475,842
Direct Grad Plus	1,001,350	1,062,267	1,344,904	1,629,074	1,830,391
Outside Private Loans	0	0	0	35,000	0
Total Loans	\$8,575,228	\$8,876,148	\$9,074,933	\$9,625,174	\$10,306,233
Scholarships					
University Sponsored	1,113,020	1,158,865	1,073,188	1,231,238	1,167,687
Outside Sponsored	290,094	447,983	955,495	1,329,236	1,677,734.88
Military – Army	258,454	221,298	229,964	104,291	73,067
Military – Navy	157,740	164,268	105,165	111,937	76,296
Military - Air Force	163,092	200,950	239,590	285,115	181,950.50
Alabama VA Benefits	31,476	31,476	0	0	0
US Federal VA Benefits	32,116	31,677	0	0	0
GI Bill	0	31,860	98,298	102,592	49,432.12
Faculty Staff Reimbursement	99,369	103,928.50	127,005	146,532	165,288.25
Total Scholarships	\$2,145,361	\$2,392,305.50	\$2,930,951	\$3,310,941	\$3,391,456
Average Indebtedness of a Graduating Senior					
	\$160,870	\$158,602	\$149,721	\$170,291	\$175,754

An Emergency Loan Fund is available to medical students. Loans of up to \$1,000 may be obtained by students through a fund administered by the Office of Student Affairs 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, 2023, through July 31, 2024, six (6) emergency loans were approved totaling \$4,950 and four (4) loan payments totaling \$3,650 were paid back into the loan account.

Office of Diversity and Inclusion

The Office of Diversity and Inclusion (ODI) within the USA Frederick P. Whiddon College of Medicine (COM) is a mission-driven environment with a focus towards achieving health equity and a commitment to assure the USA COM is a safe and productive place for every person within our community. As an office, we strive to develop and improve policies, best practices, programming, and interventions directed at the outreach, recruitment and retention of a more diverse and inclusive student body, staff and faculty. The report below is organized around our core values to illustrate the mission-driven nature of our work.

It is through the support of and collaboration with departments, committees, and offices throughout USA COM and USA Health that the ODI has been able to strengthen and expand efforts throughout the 2023-2024 academic year.

Workforce Diversity

One strategy to achieve health equity is to have a medical workforce that represents the community it serves. In striving towards a diverse medical student body, two diversity pathway programs have been coordinated through the ODI. Our pathway programs address the need for an increased number of student physicians from marginalized communities by intentional recruitment and support. Access to the field of medicine and exposure to URiM physicians and medical students is also critical for a diversified medical workforce.

In the summer of 2023, the United States Supreme Court, case *Students for Fair Admissions, Inc. (SFFA) v. President & Fellows of Harvard College (Harvard)* and *SFFA v. University of North Carolina (UNC)*, ruled that admissions to higher education could not consider race/ethnicity in the decision-making process. In compliance with this change, both pathway programs were closed with no new applications considered beginning with the 2023-2024 academic year.

Inclusion and Belonging

The creation of an inclusive environment where students feel as if they belong requires collaboration and collectivism. The ODI values its relationships with partners within USA COM, within the larger USA community, and with our external partners throughout our service area and the state of Alabama.

Within USA COM, ODI has the continued privilege of working alongside the offices of Medical Education, Faculty Affairs, Graduate Medical Education, Institutional Effectiveness and Student Success, Student Affairs, and Admissions to ensure USA COM is positioned to be responsive to our ever-changing, increasingly diverse communities. The benefits of these relationships are multitudinous and can be seen throughout our institution from curriculum development to faculty recruitment to student admissions processes.

Within the larger university and local community, the ODI works actively with the following organizations:

- Minority Association of Pre-Health Students (MAPS)
- Alpha Epsilon Delta (AED) Pre-Health Honor Society
- USA Center of Academic Excellence
- USA Office of Academic Advising and Transfer Services
- USA Office of Diversity, Equity and Inclusion
- USA Black Faculty and Staff Association
- Mobile Metropolitan Medical Society (MMMS)

Together, these alliances are making the path to medical school for URiM students more visible, more accessible, and more navigable.

Current medical students are supported by celebrating what makes each student unique and how that uniqueness positively impacts everyone. The ODI supports several student-led groups that not only serve as spaces of community for medical students but also as means of peer support, education and community outreach.

Those groups include:

- Student National Medical Association (SNMA)
- American Medical Women’s Association (AMWA)
- MedPride and Allies
- Culinary and Lifestyle Medicine Interest Group (CLMIG)
- Muslims in Medicine (MIM)
- Medical Spanish Interest Group (MSIG)
- Black Men in White Coats (BMWC)
- IDEAMed (Inspiring Diversity, Equity, and Access to Medicine)

These groups, in partnership with the ODI, develop, host and facilitate educational “Lunch and Learn” sessions that are open to all students, faculty, and staff as well as outreach activities for the larger community.

Education Supporting Health Equity

Below is a summary of the training and development provided within the 2023-2024 year:

- **95** participants trained in implicit bias, including a majority of USA COM and USA Health leadership, and almost all residency program leaders and selection committee members as well as Primary Care Pathway faculty.
- **20** participants on the USA COM Admissions committees (MD programs) underwent implicit bias training in preparation for upcoming admission cycles.
- **77** medical student participants trained in implicit bias, including M1 students during first year orientation
- **73** participants amongst USA COM & USA Health received training on “Why Diversity Matters.”

- **78** medical student participants trained in creating safe spaces and patient care approaches for LGBTQ+ members of the healthcare community and the patients we serve.
- **77** participants trained on Diversity & Equity in Health Care, including M3 medical students.
- **95** participants trained on the Excellence in Leadership in Medicine, including M1 students and primary pathway students
- **45** student and faculty participants trained in Resilience & Wellness, including PhD graduate students and summer pathway students.
- **97** participants trained on microaggressions in healthcare, including USA COM and USA Health faculty and staff, and M4 students during their transition to residency.

The Primary Care Pathways Program is an educational track that provides 4 years of specialized training in primary care. The goal of the program is to increase primary physicians in underserved communities. The Office of Diversity and Inclusion partners with the Primary Care Pathways Program by providing core faculty & curriculum.

In response to Alabama Act 2024-34 (SB 129), the Office of Diversity and Inclusion will close in July, 2024.

Office of Admissions Annual Report for 2023-2024

Applicant and Acceptance Data

The University of South Alabama Whiddon College of Medicine participates in the American Medical College Application Service (AMCAS). The period for receiving AMCAS applications to the College of Medicine for the class entering July 29, 2024, opened June 1, 2023, and closed November 1, 2023. The matriculating Class of 2024 represents twenty (20) colleges and universities from the United States. Sixty-six percent (66%) of this year's class come from the four (4) largest universities in the state. Additional details of the 2023-2024 admissions cycle are shown in Table 1.

Recruitment and Retention Efforts

1. Undergraduate campus recruiting visits were completed via Zoom and in person. These USA COM recruiting teams interviewed and counseled over two hundred (200) premedical students at five (5) colleges and universities.
2. The Director and Assistant Director of Admissions served as admissions counselors and advised prospective students on a daily basis. In addition, selected faculty members advised prospective applicants periodically.
3. The following publication was updated and approved by the Admissions Committee: Policies and Procedure Manual. The website was also updated and maintained by the Admissions Office.
4. Special admissions reports and correspondence were produced and distributed annually to in-state college premedical advisors and selected out-of-state college advisors.
5. A total of sixteen (16) Interview Day programs were conducted from September until February. The interviewers, primarily College of Medicine clinical and basic science faculty, serve as members of the Committee on Admissions and as *ad hoc* members. These members interviewed two hundred twenty-one (221) candidates; each interviewee was interviewed by two committee members, giving a total of four hundred forty-two (442) interviews. These interviews were conducted virtually via Zoom.
6. The following Admissions Committee subcommittees were active in 2023-2024: Interview Selection Subcommittee, the Scholarships Subcommittee, Wait List Subcommittee, and the Early Assurance Subcommittee.

Table 1. University of South Alabama Whiddon College of Medicine Admissions Report

	2021	2022	2023	2024
<u>Total Applicants (Completed Secondary Applications)</u>	1830 (1062)	1802 (1076)	1586 (966)	1439 (880)
Residence: Alabama	535 (474)	516 (470)	485 (433)	445 (397)
Out-of-State (OOS)	1218 (536)	1231 (562)	1065 (496)	994 (437)
Service Areas (FL & MS)	68 (50)	55 (44)	46 (37)	57 (46)
Rural	103 (80)	107 (103)	97 (85)	83 (76)
Alabama Female	301 (265)	274 (159)	259 (229)	238 (205)
<u>Total Applicants Interviewed</u>	203	205	197	221
Residence: Alabama	189	192	187	210
Out-of-State	4	5	4	0
Service Areas (FL & MS)	10	8	6	11
Rural	37	35	36	31
Female	112	100	99	115
<u>Total Applicants Accepted</u>	126	133	131	151
Residence: Alabama	118	125	122	142
Out-of-State	3	4	4	0
Service Areas (FL & MS)	5	4	5	9
Rural	21	24	23	22
Female	77	64	76	87
<u>Total Matriculants</u>	74	78	78	79
Average MCAT	509	509	507	507
Average GPA	3.81	3.86	3.84	3.83
Early Decision Program	21	15	9	9
Residence:				
Alabama	69	73	74	73
Out-of-State	2	2	2	0
Service Areas (FL & MS)	3	3	2	6
Rural	15	14	12	14
Female	45	35	45	43

2023-2024
Summary of Activities
Graduate Program in Basic Medical Sciences

Administration

Administration of the graduate program falls under the purview of the Office of Research, Education, and Training, which was directed by Dr. Robert Barrington, who also serves as the Director of the Basic Medical Sciences Graduate Program.

Admissions

The BMS Graduate Program Office began using the Slate admissions application program for the 2023-24 Academic Year. The Office of Research Education and Training accessed and processed prospective student applications. An Admissions Committee was composed of representatives from all six tracks. Committee members reviewed all applications to determine who would be invited to interview and then participated in the interviews. The Office of Research Education and Training hosted interviews with eligible students via Zoom video conferencing.

The Basic Medical Sciences Graduate Program interviewed applicants for the Fall 2024 class between January and June 2024. A summary is provided below.

Admissions – BMS Graduate Program

		2024 Cohort
Applications	US/Perm. Res.	8
	International	54
Acceptances	US/Perm Res.	5
	International	9
Matriculants	US/Perm. Res.	4
	International	3
	Avg. UG GPA	3.52
	Avg. GR GPA	3.39

Curriculum

1. The BMS Graduate Program presented its fifteenth Edwin R. Hughes Memorial Award to **Jonathan Cortez** on August 17, 2024. The Award honors the first-year student with the best academic performance in the Basic Medical Sciences Graduate Program's core curriculum (IDL 580 and IDL 581).

Financial Support for Graduate Training

1. In 2017, a COM Dean's Pre-doctoral Fellowship program was established. The program awards up to three one-year fellowships to eligible students in the Basic Medical Sciences (BMS) Graduate Program. Awards include the student's stipend, individual health insurance, and \$5,000 to cover travel and expenses for awardees to present their work at a national or international conference, or to attend an extramural course/workshop. The awardees of the fellowship for 2024 were **Samantha Chaney, Chanakan Suwanbongtot, and Adeyeye Haastrup.**

Graduates

9 students officially completed all requirements during the academic year (August 2023 – July 2024):

Chelsie Carpenter

Ph.D. in Basic Medical Sciences

Dissertation Title: "*Jordan's Syndrome E198K variants exhibit increased proliferation and delayed neurogenesis*"

Major Professors: Mark Swingle, PhD

Althea Deweever

Ph.D. in Basic Medical Sciences

Dissertation Title: "*BiologycUMP and Pyoverdine Promote Virulence in Pseudomonas aeruginosa infection*"

Major Professor: Troy Stevens, Ph.D.

Reece Stevens

Ph.D. in Basic Medical Sciences

Dissertation Title: "*Carbonic Anhydrase IX Promotes Acute Lung Injury and Mortality During Metabolic Acidosis and Pneumonia*"

Major Professors: Ji Young Lee, M.D., Ph.D. and Ron Balczon, Ph.D.

Amanda Tuckey

Ph.D. in Basic Medical Sciences

Dissertation Title: "*Elucidating a novel regulatory relationship between amyloid-beta and caspase-1 during infection*"

Major Professors: Jonathon Audia, Ph.D.

Jennifer Knighten

Ph.D. in Basic Medical Sciences

Dissertation Title: "*Remodeling Vascular Research: Pioneering Tools for Advancing Shear Stress Studies*"

Major Professors: Christopher M. Francis, Ph.D.

Takreem Aziz

Ph.D. in Basic Medical Sciences

Dissertation Title: "*OGG1 preserves endothelial dependent vasodilation and regulates endothelial calcium frequency and spatial area*"

Major Professors: Christopher M. Francis, Ph.D.

Jeffrey De Meis

Ph.D. in Basic Medical Sciences

Dissertation Title: “*Long G4-rich enhancers physically interact with promoters via a G4:G4 DNA-based mechanism*”

Major Professors: Glen Borchert, Ph.D.

Caleb Stratton

Ph.D. in Basic Medical Sciences

Dissertation Title: “*Stability of a productive conformation drives acylation in N. gonorrhoeae PBP2*”

Major Professors: Christopher Davies, Ph.D.

Rachel Rodenberg

Ph.D. in Basic Medical Sciences

Dissertation Title: “ *$\gamma\delta$ T17 cells regulate the acute antiviral response in the HSV-1 infected cornea*”

Major Professors: Robert Barrington, Ph.D.

2023-2024
Summary of Activities
Office of Continuing Medical Education

I. NATIONAL PROFESSIONAL RECOGNITION

II. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

As a jointly accredited provider, USA Office of CME (OCME) offers continuing education credits to physicians, nurses, pharmacists, pharmacy technicians, dietitians, athletic trainers, mental health professionals, and others, together or separately, through the Accreditation Council for Continuing Medical Education, the American Nurses Credentialing Center, the Accreditation Council for Pharmacy Education, and other national accrediting bodies.

During 2023-2024, the Office of Continuing Medical Education provided numerous educational activities that addressed the ever-changing practice gaps of all healthcare providers including the healthcare team. The OCME coordinated CME activities provided by the clinical and university academic departments, the OCME, and outside agencies. There were approximately 60 regularly scheduled series (grand rounds), and 16 conferences, all combining for 37,332 CME hours of instruction offered and 717 events and sessions. In total 10,511 physicians, 2,522 nurses, 324 physician assistants, 135 pharmacists, 101 pharmacy techs, 487 social workers, 376 psychologists, 19 athletic trainers, 19 dentists, and 3,050 others were awarded continuing education credits. We had 17,525 attendees for the year. Activities were jointly provided through the collaboration with the HomeTown Health, Gulfport Behavioral Health System, Singing River Hospital System, Springhill Medical Center, USA College of Business, and Department of Education, Mississippi Trauma Care Systems, University of Alabama VitAL Program, Veterans Administration, and other organizations in our region.

III. SIGNIFICANT PROFESSIONAL AND CME ACHIEVEMENTS

- We are currently accredited with Joint Accreditation for Interprofessional Continuing Education to offer physician, nurse, pharmacy, and social work credit.

CME Plans for 2025

- Improve offerings of Joint Accreditation criteria for commendation.
- Update Policy and Procedure Manual.
- Review all forms and documents.
- Prepare for reaccreditation process beginning in May of 2025.

2023-2024
Summary of Scholarly Activities
Department of Graduate Medical Education

I. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Organizational Structure

Dr. Judy Blair-Elortegui served as Associate Dean for Graduate Medical Education (GME), Designated Institutional Official (DIO), and chair of the Graduate Medical Education Committee (GMEC) at the University of South Alabama that together oversee all GME training programs at the institution. 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 fellows and designated representatives of the major teaching hospitals including representation from USA Health Quality and Safety. 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 Associate Dean to the Vice President for Medical Affairs/Dean of the College of Medicine. There were several leadership changes within the GME programs:

- Dr. Haidee Custodio became program director for the Pediatrics residency program on 11/10/2023.
- Dr. Clint Moore became program director for the Child and Adolescent Psychiatry fellowship program on 2/1/2024.
- Dr. Lorie Fleck became program director for the Urology residency program on 2/1/2024.

Overview of GME Programs and Accreditation

As detailed below, University of South Alabama Health sponsors 13 ACGME accredited residency and 11 ACGME accredited fellowship programs with a combined total of 354 approved training positions. The institution also sponsors 1 non-ACGME accredited neurosurgery fellowship program. During the 2023 – 2024 academic year, the majority of residency and fellowship positions were filled through the National Resident Matching Program (NRMP) main match and the Medical Subspecialty NRMP Match. 90 physicians completing training during the 2023 – 2024 academic year.

The most recent institutional site visit for University of South Alabama Health (USAH) was June 19, 2012. Based on that site visit the Institutional Review Committee (IRC) of

the ACGME accredited USA with the status of “Continued Accreditation” in the letter of notification dated November 29, 2012. The Institutional Review Committee at its January 16, 2024 meeting accredited USA Health with the status of continued accreditation and commended the institution for its demonstrated substantial compliance with the ACGME's Institutional Requirements without any citations or areas for improvement. Additionally, the institution has Initial Recognition for Non-Standard Training Recognition Status which allows J-1 visa holders to participate in additional non-accredited training such as chief residencies and fellowships that do not fall under the accreditation pathways.

Residency Program	Department Chair	Program Director	ACGME Accreditation Status	ACGME Approved Complement
Family Medicine	Dr. Ehab Molokhia (Interim)	Dr. Ehab Molokhia	Continued Accreditation	18
Internal Medicine	Dr. Nasser Lakkis	Dr. Judy Blair-Elortegui	Continued Accreditation	60
Internal Medicine and Pediatrics (Combined)	See Internal Medicine and Pediatrics	Dr. Grace Hundley	Continued Accreditation	11
Neurology	Dr. Dean Naritoku	Dr. William Kilgo	Continued Accreditation	20
Obstetrics & Gynecology	Dr. Mimi Munn	Dr. Tracy Roth	Continued Accreditation	16
Orthopedic Surgery	Dr. Jeffrey Brewer	Dr. Jess Mullens	Continued Accreditation	15
Pathology	Dr. Guillermo Herrera	Dr. Osama Elkadi	Continued Accreditation	15
Pediatrics	Dr. Gul Dadlani	Dr. Haide Custodio	Continued Accreditation	36
Psychiatry	Dr. Sandra Parker	Dr. Luke Engeriser	Continued Accreditation	24
Radiology	Dr. Suzy Figarola	Dr. Brett Martin	Continued Accreditation	20
Surgery	Dr. William Richards	Dr. Lee Grimm	Continued Accreditation	34
Emergency Medicine	Dr. Ed Panacek	Dr. Paul Henning	Continued Accreditation	30
Urology	Dr. Christopher Keel	Dr. Lorie Fleck	Initial Accreditation	5

Fellowship Program	Department Chair	Program Director	ACGME Accreditation Status	ACGME Approved Complement
Child & Adolescent Psychiatry	Dr. Sandra Parker	Dr. Edgar Finn	Continued Accreditation	4
Cardiovascular Disease	Dr. Nasser Lakkis	Dr. Bassam Omar	Continued Accreditation	9
Clinical Neurophysiology	Dr. Dean Naritoku	Dr. Juan Ochoa	Continued Accreditation	1
Gastroenterology	Dr. Nasser Lakkis	Dr. Jack Di Palma	Continued Accreditation	9
Pulmonary Disease & Critical Care Medicine	Dr. Nasser Lakkis	Dr. Brian Fouty	Continued Accreditation	9
Hematology-Oncology	Dr. Nasser Lakkis	Dr. Omar Alkarabsheh	Initial Accreditation	6
Gynecologic Oncology	Dr. Mimi Munn	Dr. Jennifer Pierce	Continued Accreditation	3
Family Medicine Sports Medicine Andrews	Dr. James Andrews	Dr. Joshua Hackel	Continued Accreditation	1
Surgery Critical Care	Dr. William Richards	Dr. Chris Kinnard	Continued Accreditation	1
Family Medicine Sports Medicine USA	Dr. Ehab Molokhia (Interim)	Dr. Peter Rippey	Continued Accreditation	1
Addiction Medicine	Dr. Sandra Parker	Dr. Luke Engeriser	Continued Accreditation	2

Summary of GME Activities

Institutional Collaboration

- **Quality Improvement and Patient Safety:** The Associate Dean and GME Office communicate with each of the GME programs to maintain awareness of the requirements for the ACGME accreditation and the Clinical Learning Environment Review (CLER). USA Health has continued its consulting relationship with HPI Press Ganey to educate all health care providers, including the residents and fellows, in our institution's ongoing efforts to build a high reliability organization. The USA Health House staff Quality and Safety Council, mentored by the CMO and other quality and safety representatives, continues to provide opportunities and support for houseofficers to engage in quality and safety related projects.
- **Housestaff Council:** Composed of senior fellows and the chief residents from the GME Programs, provides a platform for house staff to address clinical and work-related concerns with USA Health administrators and GME leadership, including patient care issues, improving efficiency in clinical workflow, workplace safety, and the safety of residents and fellows. Chair of the USA Health Housestaff Council presents to Medical Executive Committee and GMEC representing all GME trainees.
- **Faculty Development:** A collaborative relationship with Dr. Emily Wilson, Associate Dean for Faculty Affairs and Faculty Development, was continued to assist with meeting ACGME-specific requirements for faculty development. Crucial Conversations training, sponsored by the Faculty Development Office, was offered to GME program leadership and selected residents. The sessions were facilitated by certified Crucial Conversations trainers, including the GME Institutional Administrator, Danielle Haynes and additional trainers from the College of Medicine.
- **Simulation:** With the opening of the USA Whiddon COM Simulation Lab, many programs were able to expand their use of simulation and improve the quality of simulation activities provided to their trainees.

Program Support

- GME office staff participated in the annual ACGME annual educational meeting to increase and update their knowledge in order to provide better program support.
- GME Office staff assigned to individual programs to work closely with their leadership ensuring timely completion of monthly "Action Items" assigned by the GME Office to ensure deadlines are met and loops are closed.

Well-being

- The GMEC Subcommittee on well-being is charged with establishing a clinical learning environment that fosters resident well-being in accordance with the ACGME requirements. The GMEC assumes responsibility for the well-being of house staff at USA and supports GME program efforts toward this purpose. Each program and the institution have developed policies and procedures governing the clinical experience and education. Well-being initiatives included provision of well-being resources to programs and individual houseofficers, implementation of policies and procedures for parental, caregiver, and medical leave in line with the new ABMS guidelines, five "Fifth Friday" resident/fellow

appreciation events, and participation in the Gold Humanism Society "Thank A Resident Day."

Resident and Fellows Scholarship Exposition

- The USA Resident and Fellow Scholarship Exposition was conducted May 1, 2024. There were a total of 42 posters selected in the categories of "Clinical Vignettes/Case Reports", "Clinical and Translational Research", and "Quality Improvement and Performance Improvement". Awards were presented to the winning posters in each category. The top submissions in each category were chosen for oral presentations. The best oral presentation also received an award.

**2023-2024
Summary of Activities
Medical Student Summer Research Program**



The 51st Annual Medical Student Research Day was held on Friday, July 26, 2024 hosting over 100 attendees in the Medical Sciences Building for both oral and poster presentations. Fifty-one 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.

Troy Moon, MD, MPH, Professor of Tropical Medicine and Pediatrics, Tulane University School of Public Health & Tropical Medicine was the keynote speaker. Dr. Moon's seminar was entitled: *"Bobbles, Mishaps, and a Good bit of fun: Adventures on the road to becoming a Physician-Scientist-Educator"*.

Culmination of the summer's work was the presentation of 8 oral and 43 poster presentations at the Annual Medical Student Research Day. Student presentations and their faculty sponsors were as follows:

ORAL PRESENTATIONS

PROTECTING PANCREATIC BETA CELLS FROM DETRIMENTAL EFFECTS OF HIGH GLUCOSE EXPOSURE. **Thinh Q. Truong**. Sponsored by Lucia R. Plant Ph.D. Department of Biochemistry. University of South Alabama College of Medicine, Mobile, AL.

SURVIVAL OF GROWTH-RESTRICTED NEWBORNS AT THE LOWER LIMITS OF VIABILITY. **Priscilla Agyemang**. Sponsored by Mary Munn, M.D. Department of Obstetrics and Gynecology. University of South Alabama Frederick P Whiddon College of Medicine, Mobile AL.

PERICYTE CALDESMON IS DECREASED IN MILD-COGNITIVE IMPAIRMENT AND ALZHEIMER'S DISEASE. **Andrew Roberts**. Sponsored by Amy R. Nelson Ph.D. Department of Physiology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

Assessing Physician Well-Being and Job Satisfaction Among Complex Spine Surgeons: A Survey. **Garrett Dyess**. Sponsored by Richard Menger, MD, MPA. Department of Neurosurgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

REPAIR OF ENDOTHELIAL DYSFUNCTION IN PULMONARY HYPERTENSION: PKA-MEDIATED SIGNALING. **Frederic Bonnie Jr.** Sponsored by Natalie Bauer, Ph.D. Department of Pharmacology, Center for Lung Biology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

DETERMINING STRUCTURES AND MOLECULAR DYNAMICS OF PROTEIN INTERACTIONS THROUGH THE USE OF ARTIFICIAL INTELLIGENCE. **Israel Valenzuela**. Sponsored by Aishwarya Prakash, Ph.D. Department of Biochemistry & Molecular Biology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

ASSESSMENT OF DETECTABLE ATHEROSCLEROSIS ON COMPUTED TOMOGRAPHY IMAGING IN GYNECOLOGIC CANCER PATIENTS ENTERING TREATMENT. **Josephine Jalkh**. Sponsored by Christopher Malozzi, D.O. University of South Alabama Frederick P. Whiddon College of Medicine and the USA Health Division of Cardiology, Mobile, AL.

TRAINED IMMUNITY PROVIDES PROTECTION AGAINST PSEUDOMONAS AERUGINOSA KERATITIS. **Kamryn Carroll**. Sponsored by Robert Barrington, Ph.D. Department of Microbiology and Immunology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

POSTER PRESENTATIONS

UNDERSTANDING THE IMPACT OF HOSPITAL-BASED VIOLENCE INTERVENTION PROGRAMS FROM THE PERSPECTIVE OF CREDIBLE MESSENGERS. **Makenna Taylor**. Sponsored by Ashley Williams, M.D. Department of Trauma Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

TIME TO REVASCULARIZATION AND CLINICAL OUTCOMES IN ACUTE LIMB ISCHEMIA. **Jensen Hammons**. Sponsored by Yann-Leei Lee, M.D. Department of Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

IS THE SCREENING VENOUS DUPLEX SCAN ASSOCIATED WITH A REDUCTION IN SYMPTOMATIC PULMONARY EMBOLISM INCIDENCE IN STROKE PATIENTS? **Phoebe Garcia**. Sponsored by Nathan Polite, DO. Department of Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

ASSESSING HEALTH LITERACY AT LOXLEY FAMILY MEDICAL CENTER (LMFC): A QUALITY IMPROVEMENT (QI) PROJECT. **Trinity Elston and AJ Nipper**. Sponsored by Casey Daniel, PhD, MPH. Department of Family Medicine. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

HEART FAILURE AND HEALTH EQUITY: A HEALTH SYSTEM ANALYSIS. **Alexandria Eubanks**. Sponsored by Dr. Ashley Williams, M.D. Department of Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

ASSESSING PATIENT ABILITY TO ACCURATELY DETERMINE COSTS OF SPINE SURGERY AND IMAGING: AN EVALUATION OF THE 2021 HOSPITAL PRICE TRANSPARENCY FINAL RULE IN ALABAMA. **Christian Cooper**. Sponsored by Richard Menger, MD, MPA. Department of Neurosurgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

EFFECT OF CAPSAICIN AND CURCUMIN ON ACE2 EXPRESSION IN RAT PULMONARY ENDOTHELIAL CELLS. **Kate Seibels**. Sponsored by Abu-Bakr Al-Mehdi M.D., PhD. Department of Pharmacology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

ASSESSING HEALTH LITERACY IN SOUTH ALABAMA FQHC'S: SOUTH BALDWIN FAMILY HEALTH. **Alexander Williams and Gregory Williams**. R. Allen Perkins, MD and Casey L. Daniel, PhD MPH. USA Department of Family Medicine. Primary Care Pathway Program. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

GEOSPATIAL ANALYSIS COMPARING LOCATION OF GUNSHOT INJURY TO VICTIM RESIDENCE. **Carlyle Salter**. Mentored by Ashley Williams MD. Department of Trauma Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL

RNA DEGRADATION INCREASE FOUND IN BARRETT'S ESOPHAGUS and ESOPHAGEAL ADENOCARCINOMA. **Ian Hall**. Sponsored by William Richards, M.D. and Mark Gillespie, Ph.D. Department of Surgery and Pharmacology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

MELANOMA'S HIDDEN PATTERNS: THE IMPACT OF PRIMARY TUMOR LOCATION ON TUMOR CHARACTERISTICS AND DISEASE OUTCOMES. **Tram (Cindy) N. Nguyen**. Sponsored by John H. Howard, MD. Department of Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

ASSESSING HEALTH LITERACY AT FRANKLIN MEDICAL MALL: A QUALITY IMPROVEMENT PROJECT. **Taryn Hartley, MS, Ian Singer, Natalie Simpkins.** Sponsored by Casey Daniels, Ph.D. and Allen Perkins, MD, MPH. Department of Family Medicine. Primary Care Pathway Program. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

USE OF AMBULATORY BLOOD PRESSURE MONITORING TO PREDICT LVMI IN THE PEDIATRIC POPULATION: A SINGLE CENTER EXPERIENCE. **Isha Patel.** Sponsored by Uzoma Obiaka, M.D., Department of Pediatric Cardiology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

IMPROVED OUTCOMES AFTER ROBOTIC HELLER MYOTOMY COMPARED TO LAPAROSCOPIC HELLER MYOTOMY WITH DOR FUNDOPLICATION. **George Chen.** Sponsored by William Richards MD. Department of Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

INVESTIGATING THE ROLE OF WNK1 IN MODULATING THE CANCER CELL AND CAF INTERACTION. **James Pittman.** Sponsored by Debanjan Chakroborty, Ph.D. Department of Pathology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

HPV/HPV VACCINE KNOWLEDGE, ATTITUDES, AND BELIEFS AMONG PARENTS. **Destyni Newson, MPH. Grace Sekaya, BA.** Sponsored by Casey Daniel PhD, MPH, Allen Perkins, MD, MPH. Primary Care Pathway Program; Department of Family Medicine, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

ANALYSIS OF ONLINE REVIEWS FOR SKULL BASE NEUROSURGEONS IN PRIVATE AND ACADEMIC PRACTICE. **Mohammed Ghalib.** Sponsored by Jai Thakur, M.D. Department of Neurosurgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile AL.

THE IMPACT OF THE SMARTBX™ SYSTEM ON PROSTATE CANCER DETECTION. **Hridhay Sheth.** Sponsored by Jatinder Kumar, MD. Department of Urology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

METABOLIC BIOMARKERS OF RECURRENT URINARY TRACT INFECTIONS AMONG POSTMENOPAUSAL WOMEN. **Ivy Nguyen.** Sponsored by Lorie Fleck, M.D. and Allyson Shea, Ph.D., Department of Urology and Department of Microbiology and Immunology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

SKIN CANCER SCREENING AND PERCEPTIONS QUALITY IMPROVEMENT. **Danielle Flores and Heather Lien Inman.** Casey Daniel, PhD. Primary care Pathway Program. Department of Family Medicine. University of South Alabama Frederick P. Whiddon College of Medicine, Primary Care Pathway.

FIREARM-RELATED INJURIES IN THE TIME OF PERMITLESS CARRY. **Jay Herrin**. Sponsored by Caleb Butts, MD, Yannleei Lee, MD. Department of Trauma Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

NEGATIVE INSPIRATORY FORCE AS A PREDICTOR OF PULMONARY OUTCOMES IN SPINAL CORD INJURY. **Leah Kunneth**. Sponsored by Yann-Leei Lee, M.D. Department of Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

IMPROVING CANCER OUTCOMES THROUGH PERSONALIZED CARE PLANNING AND SYMPTOM MANAGEMENT. **Rachel Cotter**. Sponsored by Jennifer Pierce, M.D., M.P.H. Division of Cancer Control and Prevention, Mitchell Cancer Institute. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

RACIAL DIFFERENCES IN EXPERIENCE OF PREMENSTRUAL SYMPTOMS . **Anne Elizabeth Crowell**. Sponsored by C.P. Holliday J.D. M.D. Department of Obstetrics and Gynecology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile AL.

ANTIGENIC PROTEINS FROM TICK SALIVA AS POTENTIAL TARGETS FOR VACCINATING MICE AGAINST TICK-BORNE PATHOGENS. **Matthew Tao**. Sponsored by Dr. Meghan Hermance and Dr. Eliane Esteves. Department of Microbiology and Immunology, Laboratory of Infectious Disease. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

POST-INTUBATION HYPOTENSION IN ISOLATED TRAUMATIC BRAIN INJURY. **Chase A. Jordan**. Sponsored by C. Caleb Butts, M.D. Department of Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

UNCOVERING THE INTERPLAY BETWEEN PATIENT VARIABLES AND UROPATHOGENIC E. COLI BIOLOGY. **Maddison Hill**. Sponsored by Allyson Shea, Ph.D. Department of Microbiology and Immunology, University of South Alabama College of Medicine, Mobile, AL.

THE ROLE OF CHRONIC STRESS, TUMOR IMMUNITY AND DNA DAMAGE IN CERVIX CANCER. **Rachel Lusk**. Sponsored by Kevin Lee, Ph.D. Department of Gynecologic Oncology. University of South Alabama College of Medicine, Mobile, AL.

COMPREHENSIVE ANALYSIS OF MICRORNA PROCESSING ENZYME DEPENDENCIES. **Noel Godang**. Sponsored by Glen Borchert, Ph.D. Department of Pharmacology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

ASSESSING PRICE TRANSPARENCY FEATURES OF ALABAMA HOSPITALS: A CROSS-SECTIONAL POLICY EVALUATION. **Charles A. Ogles**. Sponsored by Richard Menger, MD, MPA. Department of Neurosurgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

UNDERSTANDING RSV INFECTION PATTERNS IN A REFERRAL PEDIATRIC HOSPITAL ON THE US GULF COAST. **Roger Trey Smith III**. Sponsored by Nita Davis MD, FAAP, Department of Pediatrics, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

EMOTIONAL INTELLIGENCE IN ORTHOPAEDIC SURGEONS OF VARIOUS SUBSPECIALTIES. **Zachariah El-Fallah**. Sponsored by Tyler McDonald, M.D. Department of Orthopaedic Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

CHARACTERIZING THE SUCCESS OF THE NURSING DIFFICULT CATHETER INSERTION PROTOCOL (DCIP). **Abby Castillo**. Sponsored by Dr. Austin Younger and Dr. Christian Manganti. Department of Urology. University of South Alabama College of Medicine, Mobile, AL.

AQUAGENX® AS A UTI DIAGNOSTIC IN LOW-RESOURCE SETTINGS. **Mariana Boutwell**. Sponsored by Allyson Shea, Ph.D. Department of Microbiology and Immunology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

GENOTYPIC CHARACTERIZATION OF MUTATIONS IN ANTIVIRAL RESISTANT HSV-2 GENITAL LESION. **Megan Hwang**. Sponsored by Robert Barrington, PHD. Department of Immunology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

HYPERSPPECTRAL IMAGING FOR COLORECTAL CANCER DETECTION IN A MOUSE MODEL. **Robert LeDoux**. Sponsored by Drs. Leavesley, Sarkar, & Rich. Departments of Chemical and Biomolecular Engineering, Pathology, and Pharmacology and the Center for Lung Biology. University of South Alabama College of Medicine, Mobile AL.

THE CLINICOPATHOLOGICAL SIGNIFICANCE OF TOMM40 IN HEPATOCELLULAR CARCINOMA. **Mason O'Rourke**. Sponsored by Santanu Dasgupta. Department of Pathology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

A NOVEL REGULATORY INTERPLAY BETWEEN THE INFLAMMASOME AND MACROPHAGE VESICULAR TRAFFICKING IN RESPONSE TO PSEUDOMONAS AERUGINOSA INFECTION. **Skyler Hamilton**. Sponsored by Jonathon P. Audia, Ph.D. Department of Microbiology & Immunology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

THE EFFECT OF EARLY ENTERAL NUTRITION ON GASTROINTESTINAL INTOLERANCE IN EMERGENT BOWEL RESECTION PATIENTS. **Breia Pettaway**. Sponsored by Loree Thornton, M.D. and Nathan Polite, D.O. Department of Surgery, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

OPTIMIZATION OF HEMOLYMPH COLLECTION IN A. AMERICANUM TICKS ACROSS DIFFERENT LIFE STAGES. **John Citrin**. Sponsored by Meghan Hermance, PhD, and Elaine Esteves, PhD. Laboratory of Infectious Disease. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

INVESTIGATING AN INTERACTION BETWEEN PPP5C AND PPP2R5D IN JORDAN'S SYNDROME. **Ashlyn Conner**. Sponsored by Richard E. Honkanen, Ph.D. Department of Biochemistry and Molecular Biology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

UNDERSTANDING EOSINOPHILIC CYSTITIS: A DEBILITATING, RARE UROLOGIC CONDITION. **Allison Omohundro**. Sponsored by Lorie Fleck, M.D., F.A.C.S., Department of Urology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

IMPLEMENTING HEALTH-EQUITY CHECKLISTS IN OB/GYN OUTPATIENT CARE. **Brianna Gilner**. Sponsored by Candice Holliday, J.D., M.D. Department of Obstetrics and Gynecology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

CARBONIC ANHYDRASE IX INCREASES LUNG PERMEABILITY BUT DOES NOT AFFECT BACTERIAL CLEARANCE DURING PNEUMONIA. **Jacob Holston**. Sponsored by Ji Young Lee, M.D., Ph.D., Department of Physiology and Cell Biology, Center for Lung Biology, University of the South Alabama Whiddon College of Medicine, Mobile, AL.

ASSOCIATION BETWEEN UNLOCKED FIREARMS AND PEDIATRIC FIREARM INJURIES. **Bailee Price**. Sponsored by Nathan Polite, MD. Department of Surgery. University of the South Alabama Whiddon College of Medicine, Mobile, AL.

TUBE THORACOSTOMY OUTPUT AND LIKELIHOOD OF COMPLICATIONS AFTER REMOVAL. **Lee Givens**. Sponsored by Dr. C. Caleb Butts, MD. Department of Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

HYPERSPPECTRAL WIDEFIELD FLUORESCENCE MICROSCOPY IMAGING OF ENTERIC NERVES IN SAMPLES TAKEN FROM PATIENTS WITH HIRSCHSPRUNG DISEASE. **Manvinder Suden**. Sponsored by Tuan Hoai Pham, M.D., Ph.D., FACS, F.A.A.P. Department of Surgery and Pediatrics,.University Of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

SYNTHESIS AND HYDROGEN BONDING INTERACTIONS IN AN IONIC LIQUID OF A BORONIUM-UREA CATION. **Novita Whillock**. Sponsored by James H. Davis, Ph.D. Department of Chemistry. University of South Alabama College of Arts and Sciences. Mobile, AL.

ASSESSING BANDAVIRUS LOCALIZATION WITHIN TICKS FED ON VIREMIC HOSTS. **Maggie Schuler**. Sponsored by Meghan Hermance, Ph.D. Department of Microbiology and Immunology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

Enhancement of Biological Image Analysis with AI. **Brandon L. Pham**. Sponsored by C. Michael Francis, Ph.D. Department of Physiology and Cell Biology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

EXCITATION-BASED HYPERSPECTRAL IMAGING MICROSCOPY FOR MULTIPLEXED FLUORESCENCE IMAGING. **Taylor Jackson**. Drs. Leavesley and Rich. Departments of Chemical and Biomolecular Engineering and Pharmacology, and the Center of Lung Biology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

ASSESSMENT OF TIME-LAPSE IMAGING CAPABILITIES OF AN EXCITATION SCAN-BASED HYPERSPECTRAL IMAGING MICROSCOPE. **Peyton Baker**. Drs. Leavesley and Rich. Departments of Chemical and Biomolecular Engineering and Pharmacology, and the Center of Lung Biology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

EVALUATION OF UBIQUITIN EXPRESSION IN PULMONARY MICROVASCULAR ENDOTHELIAL CELLS INTOXICATED WITH PSEUDOMONAS AERUGINOSA EXOENZYME Y (EXOY). **Jack Spedale**. Drs. Leavesley and Rich. Departments of Chemical and Biomolecular Engineering and Pharmacology, and the Center of Lung Biology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

CALDESMON AS A MARKER FOR PERICYTES IN MOUSE AND HUMAN BRAIN. **Jacob Kim**. Sponsored by Dr. Amy R. Nelson. Department of Physiology and Cell Biology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

THE IMPACT OF PSYCHOSOCIAL FACTORS ON OVARIAN CANCER PATIENT OUTCOMES. **Victoria Pitruzzello**. Sponsored by Rebecca Arend, MD/MSPH, Department of Gynecologic Oncology, O'Neal Comprehensive Cancer Center. University of Alabama at Birmingham, Birmingham, AL.

NOVEL SYNTHETIC ANTIOXIDANTS OF VITAMIN-B3 AND THEIR MODE OF ACTION. **Jordan Simmons**. Sponsored by Dr. Jyothi Dhuguru, Mr. Brandon English, Dr. Marie. E. Migaud, (ACS-ProjectSEED). Department of Pharmacology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

ISOLATION AND CHARACTERIZATION OF CHITIN DEGRADING BACTERIA. **Jalia Monaé**. Sponsored by Sinéad M. Ní Chadhain, Ph.D. Department of Biology. University of South Alabama, Mobile, AL.

DETERMINING OPTIMAL CHAPERONE PROTEINS TO ASSIST PROTEIN FOLDING AND SOLUBILITY FOR NEIL 1, NEIL 2, ANTI-NEIL 1 NANOBODIES, AND PARG. **Wei Yi Cui**. Sponsored by Aishwarya Prakash, Ph.D. Department of Biochemistry and Molecular Biology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

GENOMIC LANDSCAPES AND PROGNOSTIC SIGNATURES IN ENDOMETRIAL CANCER. **Joseph Tucker**. Sponsored by Rebecca C. Arend, MD MSPH. Department of Gynecologic Oncology, O'Neal Comprehensive Cancer Center. University of Alabama at Birmingham, Birmingham, AL.

Clyde G. “Sid” Huggins Medical Student Research Awards

The Clyde G. “Sid” Huggins Medical Student Research Awards were presented to the following: **Kamryn Carroll**, rising sophomore medical student, for the best oral presentation award. Three medical students were presented awards for best poster presentations: **Hriday Sheth, James Pittman, and Megan Hwang**, all rising sophomores. Each winner was presented with a plaque of recognition and cash award. The award honors the memory of Clyde G. "Sid" Huggins, who served as the first dean of students for the USA College of Medicine.



2023-2024
Summary of Scholarly Activities
Office of Accreditation and Planning

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

II. PUBLISHED ABSTRACTS

Williams DS. Rx for Success - achieving academic excellence in medical school: evaluating the impact of pre-orientation learning science instruction and development of individual learning plans for medical students. Seventh Annual Medical Education Learning Specialists Meeting 2023; 2023 Nov 2-3; Seattle, WA.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Cantrell R, Stupavsky J. Invited speakers. Welcome and opening remarks. Inaugural Gulf Coast Tableau User Group Meeting; 2023 Nov 16; Mobile, AL.

Cantrell R. Invited speaker. The art of data visualization [virtual presentation]. Medical Education Research Certificate Program, Association of American Medical Colleges; 2024 Jan 18; Washington, DC.

Cantrell R. Invited speaker. Advanced tableau tips: dashboard actions: shuffling the stacks with stacked bar charts. Gulf Coast Tableau User Group Spring Meeting; 2024 Feb 20; Mobile, AL.

Cantrell R. Invited speaker. Data culture trio: data literacy, training, and hackathons. Tableau Conference 2024; 2024 Apr 29; San Diego, CA.

Cantrell R. Invited speaker. Data culture trio: data literacy, training, and hackathons [virtual presentation]. Tableau Conference 2024; 2024 Apr 29; San Diego, CA.

Cantrell R. Invited speaker. Advanced tableau tips: innovations unveiled at TC24. Gulf Coast Tableau User Group Summer Meeting; 2024 May 8; Mobile, AL.

Cantrell R, Pierce M, Williams DS. Invited speakers. Advancing accreditation: integrative heatmap strategies for enhanced continuous quality improvement in medical education [virtual presentation]. Accreditation Preparation and Quality Improvement 2024, National Association of County and City Health Officials; 2024 May 22; Washington, DC.

Cantrell R. Invited speaker. Tableau essentials: unleash your DataViz potential [virtual presentation]. Tableau Academic Educator Data Camp; 2024 Jul 30; Seattle, WA.

Martin CG, Williams DS. Invited speakers. Outcomes, objectives, and goals, oh my! Negotiation as a communication strategy to promote learning improvement. 2023 Assessment Institute in Indianapolis; 2023 Oct 31; Indianapolis, IN.

O'Neal A. Invited speaker. Implementing individual learning plans in medical school to create life-long learners. Learn Serve Lead 2023, Association of American Medical Colleges; 2023 Nov 4. Seattle, WA.

O'Neal A, Ridgeway L, Smith B, Williams DS. Invited speakers. The multifaceted student: a wrap-around approach to student support. 14th Annual South Alabama Conference on Teaching and Learning 2024; 2024 May 7; Mobile, AL.

Pierce M. Invited speaker. Obtain course evaluations and student feedback that provide the information necessary for continuous quality improvement in medical education. Learn Serve Lead 2023, Association of American Medical Colleges 2023; 2023 Nov 4; Seattle, WA.

Pierce M. Invited speaker. Enhancing medical education course evaluation: validating a new student evaluation of teaching survey [virtual presentation]. Accreditation Preparation and Quality Improvement 2024, National Association of County and City Health Officials; 2024 May 22; Washington, DC.

Pierce M. Invited speaker. Moving the needle on LCME 8.5: four approaches to closing the loop on student feedback. Accreditation Preparation and Quality Improvement 2024, National Association of County and City Health Officials; 2024 May 22; Washington, DC.

Williams DS. Invited speaker. Pre-matriculation programs focused on academic success to ease the transition to medical school. Learn Serve Lead 2023, Association of American Medical Colleges 2023; 2023 Nov 4; Seattle, WA.

V. NATIONAL PROFESSIONAL RECOGNITION

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

July 2023 – June 2024

The Office of Accreditation and Planning (OAP) plays a pivotal role in advancing the Whiddon College of Medicine's mission of academic excellence, strategic alignment, and continuous improvement. This year, the OAP focused on enhancing data utilization, strengthening student feedback mechanisms, and fostering collaboration across departments to ensure accreditation compliance and support student success. The OAP also engaged in regional and national forums, contributing to broader discussions on medical education and accreditation.

One of the OAP's primary goals is to ensure the college not only meets but exceeds the standards set by the Liaison Committee on Medical Education (LCME). The OAP's work extends beyond accreditation compliance, supporting a culture of continuous improvement throughout the Whiddon COM. From refining assessment tools to advancing student support services, the OAP has made significant strides toward the institution's long-term goals. Through ongoing engagement with faculty, students, and external partners, the OAP ensures the college remains a leader in medical education.

Continuous Quality Improvement

Continuous Quality Improvement (CQI) remains a central focus of the Office of Accreditation and Planning (OAP), with significant strides made this year in refining processes to better serve the Whiddon College of Medicine. A major achievement was the enhancement of the LCME Heat Map, a tool that visually tracks the College's compliance with all 93 LCME elements. This year, the Heat Map was further refined with interactive features that allow real-time monitoring, facilitating timely interventions and ensuring transparency for all stakeholders. As a result, the tool has become a model for other institutions seeking to improve their accreditation monitoring processes.

Additionally, the OAP expanded CQI efforts by redesigning the post-clerkship/module review form, based on evidence-based best practices. This new form reduces survey fatigue while generating more actionable feedback to improve both teaching and student support services. The streamlined form will be fully integrated into the assessment and evaluation (A&E) process, ensuring that continuous feedback contributes to the enhancement of educational quality.

This year also saw a key refinement in the CQI process through the introduction of a review team meeting structure. CQI Committee members were assigned to review standards in teams of two or three. After completing their reviews, the teams conducted meetings with key stakeholders to ensure response accurately met the accreditation standard. This process allowed for open discussion of findings, resulting in more clarity and transparency at the CQI Committee meetings. Additionally, many action items were identified, and several concerns were resolved before the full committee meeting, expediting the resolution process.

Recognizing the importance of student perspectives, we also made the decision to include an additional student representative on the CQI Committee. As key stakeholders in the educational process, students provide invaluable insight, and their expanded representation ensures that their voices are heard in shaping continuous improvement efforts.

Through these initiatives, the OAP has made substantial progress in streamlining operations and fostering a culture of continuous improvement within the Whiddon College of Medicine.

Program Development and Curriculum Assessment

Program development and curriculum assessment are at the forefront of the OAP's efforts, particularly in enhancing the medical education program. The implementation of the first comprehensive curriculum map was a major achievement. This map aligns course objectives with program-level outcomes, offering faculty and administrators a clear understanding of how and when key competencies are introduced and assessed across the curriculum. This alignment ensures that the educational experience remains both comprehensive and cohesive.

In collaboration with the Assessment and Evaluation Subcommittee, the OAP developed new processes for evaluating clerkships and modules, emphasizing faculty engagement and the creation of actionable items based on student feedback and performance data. This approach has improved the curriculum's responsiveness to student needs while ensuring program objectives are consistently met. Continuous refinement ensures that the curriculum remains aligned with both institutional goals and accreditation standards.

The OAP also expanded the use of the Canvas Outcomes tool in the pre-clerkship phase to enhance the tracking of competency-based assessments. This tool now monitors student progress in Clinical Skills courses and simulation-based activities, providing a more accurate and comprehensive view of student development. By integrating data from multiple sources, the OAP has strengthened the ability to make informed decisions about curriculum improvements and student support.

Academic Advising and Support Programming

The establishment of the Office of Academic Success (OAS) has transformed the Whiddon College of Medicine's student support system. Over the past year, the OAS conducted more than 225 individual student sessions, addressing academic and personal challenges. These personalized sessions were complemented by workshops on study skills, time management, and Step exam preparation, ensuring students receive the support they need to thrive in the demanding medical education environment.

A highlight of OAS programming was the "Rx for Success" pre-matriculation program, which supported 47 incoming M1 students. This program emphasized critical academic skills such as time management, study strategies, and goal-setting, providing students with the tools necessary for medical school success. Feedback was overwhelmingly positive, with students reporting increased confidence in managing coursework demands.

The Peer Academic Leaders (PALs) program was also significantly enhanced, focusing on professional development and peer-led academic support. PALs received targeted training on leadership and teaching strategies, enabling them to lead study sessions and offer academic guidance. The integration of Individual Learning Plans (ILPs) into the PALs program further supported personalized academic goal-setting, ensuring students have a clear path to success. These efforts reflect the OAP's commitment to creating a supportive, student-centered learning environment.

Elevating Education through Student Feedback

The "You Asked, We Listened" initiative, developed in collaboration with Student Affairs, significantly enhanced student engagement. This initiative integrated student feedback into institutional decision-making processes, ensuring student voices play a central role in shaping the educational experience. Through surveys, focus groups, and student representation on committees, Whiddon COM gained a comprehensive understanding of student needs and concerns.

Key improvements resulting from this initiative included increased access to academic advising, the expansion of study spaces, and additional Step Exam practice tests. These changes reflect the OAP's commitment to fostering a responsive, student-centered environment where feedback is valued and acted upon. The initiative not only enhanced the student experience but also empowered students to play an active role in shaping their educational journey.

Completion and Implementation of New Student Evaluation Surveys

The completion and implementation of new Student Evaluation of Teaching course surveys marked another significant achievement for the OAP. After thorough pilot testing, the surveys were deployed across the Whiddon COM, providing a more effective means of gathering feedback on student perceptions of teaching practices and course content. The new survey instrument offers faculty more meaningful insights into their teaching effectiveness while providing students with a streamlined, user-friendly platform for providing feedback.

This initiative has been instrumental in improving teaching quality across the College of Medicine. The feedback gathered has informed individual teaching practices and broader curriculum development efforts. Faculty now have access to actionable data, allowing for targeted improvements to courses and teaching methods. The successful implementation of these surveys demonstrates the OAP's commitment to fostering continuous improvement in medical education.

Collaboration and Whiddon College of Medicine Representation

The OAP has continued to elevate the Whiddon College of Medicine's national profile through active participation in key conferences and leadership roles within medical education organizations. This year, OAP staff presented at the AAMC Learn Serve Lead and Accreditation Preparation and Quality Improvement (APQI) conferences, sharing insights on accreditation processes, student success programs, and data-driven tools such as the LCME Heat Map. These presentations highlighted our innovative approaches and reinforced its reputation as a leader in medical education.

OAP staff also served on national committees and working groups, contributing to broader discussions on quality improvement and accreditation in medical education. These roles allowed the OAP to share expertise and learn from the experiences of other institutions.

This collaborative approach ensures the Whiddon College of Medicine remains at the forefront of emerging trends and best practices in medical education.

At the institutional level, the OAP has supported several internal initiatives, including strategic planning and cross-departmental collaborations. By aligning institutional goals with trends in medical education, the OAP has helped shape the academic and operational priorities. These efforts underscore the office's commitment to fostering collaboration and continuous improvement within the institution and beyond.

In summary,

The Office of Accreditation and Planning (OAP) continues to drive the College of Medicine's success in maintaining accreditation standards, fostering academic excellence, and promoting continuous improvement. This year, the OAP made significant progress in integrating student feedback, refining curriculum assessment tools, and enhancing support services for students and faculty. These efforts have strengthened the institution's ability to meet accreditation requirements and contributed to a more dynamic, responsive educational environment.

By emphasizing data-driven decision-making, collaboration, and innovation, the OAP ensures that the Whiddon College of Medicine remains a leader in medical education. As we prepare for future challenges, including the 2026 LCME site visit, the OAP will continue to play a critical role in guiding the institution toward long-term success. Through its commitment to excellence, the OAP supports the academic and professional growth of students and faculty, ensuring that the Whiddon College of Medicine remains at the forefront of medical education innovation.

2023-2024
Summary of Activities
Office of Medical Alumni Relations

Representing 49 graduating classes (1976-2024), the total number of M.D. graduates of the USA Whiddon College of Medicine is 3,055 (not including former USAMC house staff or graduates of the Ph.D. program).

2023-2024 USA Medical Alumni Association Board of Directors

Officers

- Dr. Edward Panacek, '81, *President*
- Dr. Russell Goode, '10, *Vice President*
- Dr. Mark Mitchell, '81, *Secretary/Treasurer*
- Dr. Lynn Crawford, '99, *Chair, Alumni and Student Services Committee*
- Dr. Christopher Semple, '85, *Immediate Past President*

Directors

- Dr. Romsel Ang, '01
- Dr. Sabrina Bessette, '03
- Dr. Ashleigh Butts-Wilkerson, '12
- Dr. Jason Dyken, '91
- Dr. Druhan Howell, '03
- Dr. Steve Kinsey, '89
- Dr. Juan Ronderos, '85
- Dr. Kaci Sims, '13
- Dr. Brandi Trammell, '02
- Dr. Stacey Wing, '96
- Dr. Nancy Wood, '07

Student Directors

- Naden Kreitz, M3
- Brennan Smith, M4

At the end of the 2023-2024 years, Dr. Jason Dyken and student directors, Naden Kreitz and Brennan Smith rotated off the Board. The USA Medical Alumni Association recognizes and thanks these members for their support and involvement over their tenure.

MAA Scholarship & Award Recipients for the 2023-2024 Academic Year

Student Name	Scholarship Received	Award Amount
Noel Godang	2023 Medical Alumni Association Scholar	\$15,000
Ashley Bates	2023 Medical Alumni Association Scholar	\$15,000
Hridhay Sheth	2023 Medical Alumni Association Scholar	\$15,000
Carey Johnson	2024 Medical Alumni Leadership Award	\$500
Total of 2023-2024 MAA Student Awards		\$45,500

2024 Medical Alumni Reunion Weekend

The 2024 USA Medical Alumni Association Reunion Weekend was held from June 21st through 23rd at The Lodge at Gulf State Park in Gulf Shores, Alabama. More than 100 medical alumni and friends attended the weekend festivities. This year marked the return to the traditional five-year anniversary cycle, honoring the medical classes of 1979, 1984, 1989, 1994, 1999, 2004, 2009, 2014 and 2019. The weekend provided ample opportunities for class camaraderie and networking, and featured a State of the College address by Whiddon College of Medicine Dean, John V. Marymont, M.D., M.B.A. Alumni attendees also enjoyed the following CME lectures:

- T.J. Hundley, M.D., '04, “*Updates and Emerging Topics in Medical Education*”
- Mark S. Williams, M.D., M.B.A., J.D., C.P.E., '80, “*Is Medicine Now Simply a ‘Business’?*”
- Michael T. Ledet, M.D., '84, “*Consequences of Sleep Disorders on Cardiovascular Disease*”
- Elizabeth VandeWaa, Ph.D., “*Safe Opioid Prescribing: Trends Affecting Use*”

One of the highlights of this year’s reunion was the reintroduction of the annual Medical Alumni and Leadership Awards at the MAA Awards Luncheon on Saturday, June 22nd. The USA Medical Alumni Association was proud to present the following recipients with their respective awards:

- Robert W. Chagrasulis, M.D., '81, *2024 Medical Alumni Humanitarian Award*
- Daniel C. Potts, M.D., F.A.A.N., '93, *2024 Distinguished Medical Alumni Award*
- S. Lane Rutledge, MD, '81, *2024 Distinguished Medical Alumni Memorial Award*
- Jonathan G. Scammell, Ph.D., *2024 Distinguished Service Award*

In April of 2022, Dr. Gene de Juan Jr, USA Whiddon COM Class of 1979, and his brothers-in-law, Dr. Michael Chambers and William Oppenheimer, along with their spouses, established an Endowment at the Whiddon College of Medicine to honor the memory of their late father, Dr. Eugene de Juan, Sr. The annual distributions of the endowment are awarded to an exceptional adjunct faculty member or healthcare leader in our region. The de Juan, Chambers, Oppenheimer Healthcare Award was presented by Dr. Gene de Juan Jr at the Medical Alumni & Leadership Awards Luncheon at the 2024 MAA Reunion weekend. Dr. Robert Lightfoot received the inaugural award in recognition of his selfless service and commitment to providing healthcare to those in need.

Save the Date for the 2025 Medical Alumni Reunion

The 2025 MAA Reunion weekend will be held Friday, June 13th through Sunday, June 15th, 2025, at The Lodge in Gulf Shores, Alabama. All medical alumni classes are welcome to attend this reunion weekend, which will honor the classes ending in 5 and 0: 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015, and 2020.

2024 MAA Student Career Exploration Mixer

The USA Medical Alumni Association hosted more than 45 Whiddon College of Medicine students and 24 physicians, representing 16 unique student-requested specialties, at the MAA Student Career Exploration Mixer. The event, held for the first time since 2019, took place Tuesday, April 2, at the Strada Patient Care Center.

The mixer provided a valuable opportunity for Whiddon College of Medicine alumni to engage with current South medical students, as they explored different career paths in medicine, and built meaningful connections. The evening featured speed-interview-style rotations as medical students visited physician tables representing a variety of medical specialties, as requested by the students.

Save the date for the 2025 MAA Student Career Exploration Mixer, which will be held on February 4, 2025, at 5:30 pm at the Strada Patient Care Center.

2023-2024 MAA Fundraising Results

The USA MAA is grateful for the funds raised through alumni support:

MAA Annual Fund contributions: \$23,949.27

MAA Membership contributions: \$32,200

In 2023, the MAA pledged \$100,000 to name the 3rd Floor Student Lounge in the new Whiddon College of Medicine building. To date, over \$45,000 has been raised towards the pledge balance, thanks to the generosity of our esteemed medical alumni.

The USA MAA in Action

These contributions supported a variety of medical student and alumni events and awards, including the following:

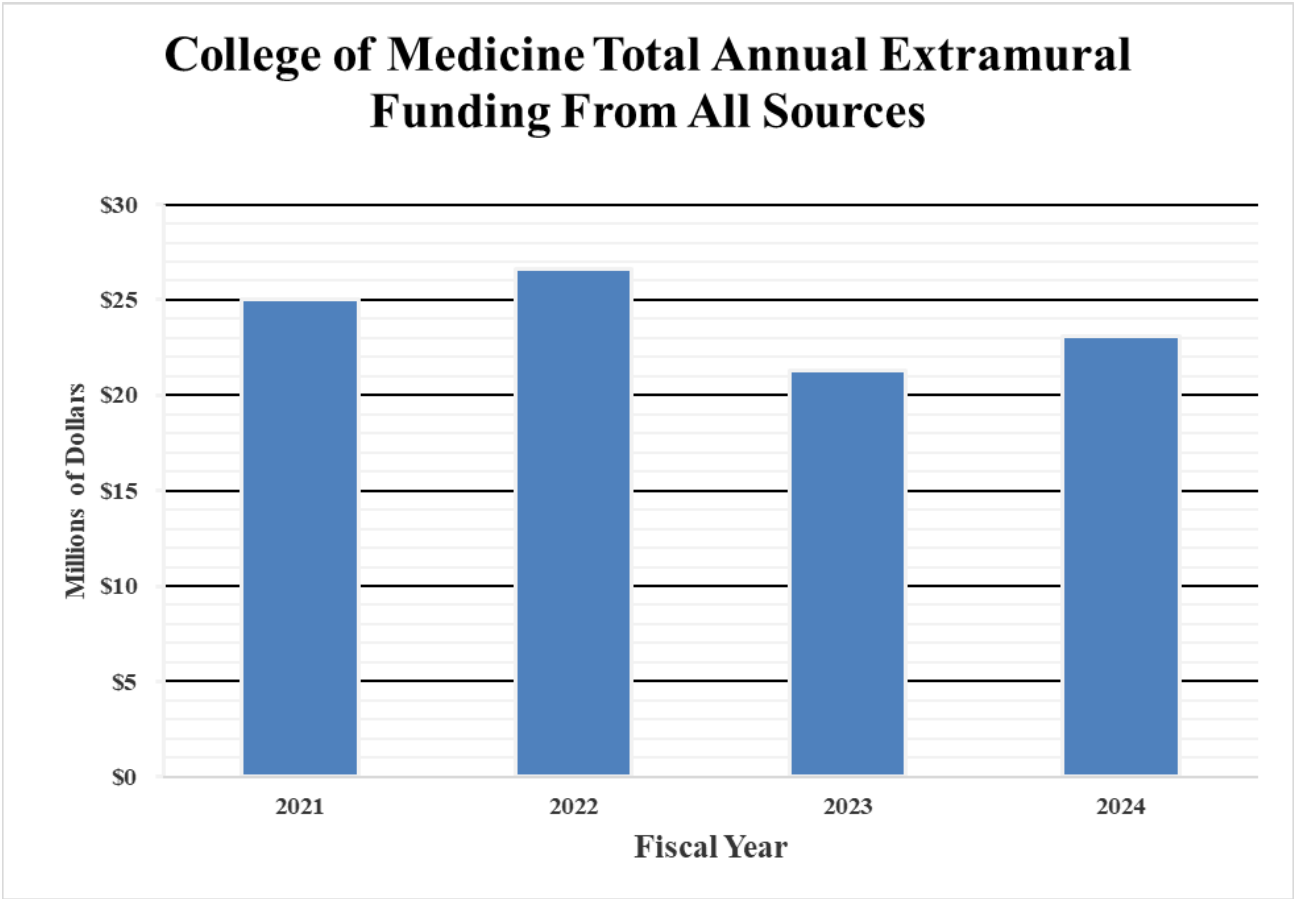
- \$45,000 in scholarships awarded to M1s
- Continuing Medical Education programming for alumni
- MAA Student Career Exploration Mixer
- Hosting of regional alumni gatherings
- White coats for medical students
- Medical Alumni & Leadership Awards Luncheon
- Financial support of Medical Student Milestone programming including the White Coat Ceremony, Match Day and Commencement Events
- MAA Reunion Weekend programming

Summary of Extramural Support

Funding for the 2023-2024 academic year includes \$22,424,414 and \$698,068.17 in awards and revenue administered through the Office of Sponsored Programs and the South Alabama Medical Science Foundation, respectively. Note that MPI awards (awards with multiple principal investigators) are only counted once in the extramural fund totals.

Extramural Funds Totals for Last 4 Years

2021	\$25,010,809
2022	\$26,625,746
2023	\$21,293,535
2024	23,122,482



EXTRAMURAL FUNDING

October 1, 2023- September 30, 2024

Biochemistry and Molecular Biology

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
DAVIES, CHRISTOPHER	MEDICAL UNIVERSITY OF SOUTH CAROLINA	A24-0090-S001	Inhibition of Hepatic (V)LDL Production by a Novel Antagonist of Carboxyl Esterase 1	\$114,621.00
DAVIES, CHRISTOPHER	VIRGINIA COMMONWEALTH UNIVERSITY	FP0001737_SA001	PlzA, cyclic di-GMP Receptors and the Enzootic Cycle of Lyme Disease	\$117,225.00
DAVIES, CHRISTOPHER	NATIONAL INSTITUTES OF HEALTH	5R01AI164794-03	Molecular Mechanism of Cephalosporin Resistance of N. Gonorrhoeae Conferred by Mutated PBP2	\$696,246.00
GRELET, SIMON	BREAST CANCER RESEARCH FOUNDATION OF ALABAMA	A24-0600-001	Targeting the nerve-cancer crosstalk to prevent breast cancer metastasis	\$49,770.00
HONKANEN, RICHARD E.	STATE OF CALIFORNIA	A22-2853-S003	Identification of treatments for PPP2R5D variants	\$450,000.00
HONKANEN, RICHARD E.	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000520679-SC010	Development of phosphatase inhibitors	\$19,250.00
RICHTER, WITO	CYSTIC FIBROSIS FOUNDATION	004903F222	Selective Inactivation of PDE4 Isoforms as a Therapeutic Approach for Cystic Fibrosis	\$76,000.00
Total				\$1,523,112.00

Center For Disaster Healthcare Preparedness

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
GUERRY, JENNI	ALABAMA DEPARTMENT OF PUBLIC HEALTH	C30116223A	Alabama Healthcare Coalition Coordination Program	\$59,231.00
GUERRY, JENNI	ALABAMA DEPARTMENT OF PUBLIC HEALTH	C30116224A	Fiscal Agent for Alabama Healthcare Coalitions Program	\$2,371,224.00
GUERRY, JENNI	ALABAMA DEPARTMENT OF PUBLIC HEALTH	C40117150	Alabama Healthcare Coalition Coordination Program	\$769,920.00
Total				\$3,200,375.00

Center For Healthy Communities

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
PERKINS, ALLEN	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000519041-SC004	Alabama Precision Medicine Initiative	\$199,772.00
PERKINS, ALLEN	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000519041-SC004	Alabama Precision Medicine Initiative	\$217,206.00
WILLIAMS, ASHLEY	EASTERN ASSOCIATION FOR THE SURGERY OF TRAUMA (EAST)	A24-0146-001	Project inspire: Curbing gun violence through youth empowerment	\$10,000.00
WILLIAMS, ASHLEY	UNIVERSITY OF ALABAMA AT BIRMINGHAM	A24-0128-001	Fee for Service CEAL	\$6,171.00
WILLIAMS, ASHLEY	CITY OF MOBILE	A24-0180-001	Hospital based violence intervention program	\$360,000.00
WILLIAMS, ASHLEY	DEPARTMENT OF TREASURY	A24-0210-001	Hospital based violence intervention program	\$750,000.00
Total				\$1,543,149.00

Center For Lung Biology

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
GILLESPIE, MARK	UNIVERSITY OF ALABAMA BIRMINGHAM	000520679-SC010	University of South Alabama Translational Research Service Center	\$1,848.00
Total				\$1,848.00

Family Medicine

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
PERKINS, ALLEN	HEALTH RESOURCES AND SERVICES ADMINISTRATION	T34HP42151-04-00	Partnering to Improve Maternal Outcomes	\$599,964.00
PERKINS, ALLEN	NATIONAL INSTITUTES OF HEALTH	000542378-SC001	All of Us Southern Network V2.0-Post submission	\$35,505.00
PERKINS, ALLEN	ALABAMA FAMILY PRACTICE RURAL HEALTH BOARD	A224-0174-001	A Resident Curriculum in Rural Family Medicine at The University of South Alabama Family Practice Residency Program	\$50,000.00
PERKINS, ALLEN	HEALTH RESOURCES AND SERVICES ADMINISTRATION	T99HP52112-02-01	MSEP – Partnering to Transform Training	\$4,000,000.00
PERKINS, ALLEN	ALABAMA FAMILY PRACTICE RURAL HEALTH BOARD	A24-0026-001	Student preceptorship FY24	\$20,000.00
Total				\$4,705,469.00

Internal Medicine

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
HOGUE, ANTWAN	NOVO NORDISK	63949	NN7533-4470- ASCENT A Multicentre Trial Evaluating the Efficacy and Safety of Oral Decitabine-Tetrahydouridine (NDec) in Patients with Sickle Cell Disease (NN7533-4470 - ASCENT)	\$2,800.00
MALOZZI, CHRISTOPHER	BAYER US LLC	63939	Protocol No. 19767: A multicenter, international, randomized, active comparator-controlled, double-blind, double dummy, parallel-group, 2-arm, Phase 3 study to compare the efficacy and safety of the oral FXIa inhibitor asundexian (BAY 2433334) with apixaban for the prevention of stroke or systemic embolism in male and female participants aged 18 years and older with atrial fibrillation at risk for stroke (BAY 19767)	\$16,257.00
PACK-MABIEN, ARDIE	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000540473-SC001	Alabama Lifespan Sickle Cell Tracking Access Towards Equality (ALSTATE) a Sickle Cell Data Collection Program	\$37,500.00
PACK-MABIEN, ARDIE	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000532208-SC013	Sickle Cell Disease Treatment Demonstration Program	\$57,999.00
PACK-MABIEN, ARDIE	GLOBAL BLOOD THERAPEUTICS, INC	63945	GBT 440-4R2 An Open Label, Observational, Prospective Registry of Participants With Sickle Cell Disease (SCD) Treated With Oxbryta® (Voxelotor) (GBT-440-4R2)	\$54,659.70
SONNIER, WILLIAM	COREVITAS	63891	CorEvitas Inflammatory Bowel Disease (IBD) Drug Safety and Effectiveness Registry (Corrona IBD-600 Registry)	\$39,930.00
Total				\$209,145.70

Microbiology and Immunology

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
AUDIA, JONATHON	NATIONAL INSTITUTES OF HEALTH	5R21A174215-02	The amyloid precursor protein protects against acute lung injury	\$192,500.00
AUDIA, JONATHON	NATIONAL INSTITUTES OF HEALTH	1R21A176267-1-A01	The Pseudomonas Aeruginosa Virulence Factor ExoU Activates Pyroptosis	\$231,000.00
HERMANCE, MEGHAN	NATIONAL INSTITUTES OF HEALTH	5R01A171398-03	Intra-tick and Intra-host Infection Dynamics of a Tick-borne Bunyavirus	\$524,351.00

MACALUSO, KEVIN	NATIONAL INSTITUTES OF HEALTH	5R01AI122672-08	Emerging Flea-borne Rickettsial Diseases: Vector Competence and Transmission Biology	\$460,013.00
MACALUSO, KEVIN	NATIONAL INSTITUTES OF HEALTH	5R21AI173708-02	Exploiting the Arthropod Vector: Novel Mechanisms of Mycobacterium Leprae Transmission	\$231,000.00
RAYNER, JONATHAN	NATIONAL INSTITUTES OF HEALTH	75N93024D00041	Pre-Clinical Models of Infectious Disease	\$2,500.00
RAYNER, JONATHAN	Latham BioPharm Group	2021-001	Discovery & Development of Broad-Spectrum Small Molecule Inhibitors Targeting the Alphavirus Helicase Protein	\$48,700.00
RAYNER, JONATHAN	ALABAMA DEPARTMENT OF PUBLIC HEALTH	A24-0099-001	Tick and tick-borne disease surveillance in Alabama - 2024	\$75,000.00
RAYNER, JONATHAN	INNOVATE ALABAMA	A24-0022-001	South Alabama Biotechnology Research Plan	\$124,999.00
SHEA, ALLYSON	MODERNA, INC	A24-0075-001	Bacterial mutants for Moderna	\$27,520.00
SHEA, ALLYSON	MODERNA, INC.	A24-0106-001	De-identified human samples for pre-existing antibody surveillance	\$50,442.00
Total				\$1,968,025.00

Neurology

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
NARITOKU, DEAN	XENON PHARACEUTICALS, INC	63867	A Randomized, Double-blind, Placebo-controlled, Multicenter Study to Evaluate the safety, Tolerability and Efficacy of XEN1101 as Adjunctive Therapy in Focal-onset Epilepsy (Xenon XPF-008-201)	\$3,966.06
NARITOKU, DEAN	XENON PHARACEUTICALS, INC	63940	A Randomized, Double-blind, Placebo-Controlled, Multicenter Phase 3 Study to Evaluate the Safety, Tolerability, and Efficacy of XEN1101 as Adjunctive Therapy in Focal-Onset Seizures (Xenon XPF-010-301)	\$15,400.00
NARITOKU, DEAN	XENON PHARACEUTICALS, INC	63941	A Randomized, Double-blind, Placebo-Controlled, Multicenter, Phase 3 Study to Evaluate the Safety, Tolerability, and Efficacy of XEN1101 as Adjunctive Therapy in Primary Generalized Tonic-Clonic Seizures (Xenon XPF-010-303)	\$9,450.00
NISAR, TAHA	UNIVERSITY OF CINCINNATI	A20-0053-003	Saturn 3B: R26-S02 - StAtins Use in intrRacerebral Hemorrhage Patients (SATURN) Study	\$1,810.00
SUGG, REBECCA	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000539634-SC001	NIH StrokeNet: Regional Coordinating Stroke Centers for Year 2023	\$20,000.00
Total				\$50,626.06

Neurosurgery

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
MENGER, RICHARD	SI-BONE, INC	63952	PAULA - Pelvic fixation and fusion during multilevel spinal surgery (SI-BONE - PAULA)	\$26,857.50
Total				\$26,857.50

Obstetrics and Gynecology

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
BAKER, SUSAN	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000530812-SC012	A Window to Future Outcomes of Antihypertensive Therapy and Superimposed Preeclampsia for Mothers with Mild Chronic Hypertension (CHAP Maternal Follow-up Study)	\$48,943.00
BAKER, SUSAN	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000538651-SC029	Offspring Neurodevelopment and Growth after Early-Pregnancy Antihypertensive Therapy OR Preeclampsia in Women with Chronic Hypertension (CHAP Child)	\$10,591.00

BAKER, SUSAN	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000538651-SC029	Offspring Neurodevelopment and Growth after Early-Pregnancy Antihypertensive Therapy OR Preeclampsia in Women with Chronic Hypertension (CHAP Child)	\$15,965.00
BAKER, SUSAN	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000536895-SC003	Alabama Maternal Health Innovation and Data Capacity Program	\$30,000.00
MUNN, MARY ROTH, TRACEY	ALABAMA DEPARTMENT OF PUBLIC HEALTH PFIZER	C40117062 63887	Perinatal Coordinator Grant FY24 A Phase 3, Randomized, Double- or Observer-Blinded, Placebo-Controlled Trial to EvaluateThe Efficacy and Safety of a Respiratory Syncytial Virus (RSV) Perfusion FSubunit Vaccine in Infants Born to Women Vaccinated During Pregnancy Investigational (Pfizer C3671008)	\$46,000.00 \$2,329.27
Total				\$153,828.27

Orthopaedic Surgery

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
MULLENS, JESS	Johnson & Johnson MedTech	A24-0113-001	AO trauma NA blended course - Advanced principles of fracture management	\$1,350.00
Total				\$1,350.00

Pathology

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
CHAKROBORTY, DEBANJAN DASGUPTA, SANTANU	BREAST CANCER RESEARCH FOUNDATION OF ALABAMA NATIONAL INSTITUTES OF HEALTH	A23-0023 R21MD019400	WNK1, A Novel Regulator of Metastatic Breast Cancer Mitochondrial DNA in extracellular vesicles for early detection and recurrence prediction in triple negative breast cancer racial disparity	\$50,000.00 \$231,000.00
DASGUPTA, SANTANU	BREAST CANCER RESEARCH FOUNDATION OF ALABAMA	A24-0029	Circulating Mitochondrial DNA for the Detection of Breast Cancer Progression and Recurrence	\$50,000.00
DEL POZO-YAUNER, LUIS	BREAST CANCER RESEARCH FOUNDATION OF ALABAMA	A23-0024	Contribution of PERK+ Polyploid Giant Cancer Cells in the Ethnic Disparity of Triple Negative Breast Cancer	\$50,000.00
SARKAR, CHANDRANI	BREAST CANCER RESEARCH FOUNDATION OF ALABAMA	A24-0030-001	Adipocyte and lymphatec endothelial cell cross talk in breast cancer	\$50,000.00
SINGH, AJAY	BREAST CANCER RESEARCH FOUNDATION OF ALABAMA	A24-0028-001	Unfolding a novel mechanism for endocrine resistance in breast cancer	\$50,000.00
SINGH, SEEMA	BREAST CANCER RESEARCH FOUNDATION OF ALABAMA	A23-0022-001	Influence of Stress on Immune Landscape and Spatial Heterogeneity of Breast Cancer	\$50,000.00
XIN, WEI	HOUSTON METHODIST RESEARCH INSTITUTE	AGMT00013669	Mechanism of JAG1-driven pancreatic cancer therapy resistance	\$25,564.00
Total				\$556,564.00

Pediatrics

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
ANDERSON, STEPHANIE	ALABAMA DEPARTMENT OF MENTAL HEALTH/MENTAL RE	A24-0012	Regional Autism Network	\$140,000.00

GREMSE, DAVID	TAKEDA DEVELOPMENT CTR AMERICAS, INC	63926	A Phase 2, Double-Blind, 12-Week, Multicenter Study to Assess the Safety and Effectiveness of Daily Oral Administration of Dexlansoprazole Delayed-Release Capsules in Pediatric Subjects Aged 2 to 11 Years With Symptomatic Nonerosive Gastroesophageal Reflux Disease (TAK-390MR 204)	\$23,728.00
GREMSE, DAVID	TAKEDA DEVELOPMENT CTR AMERICAS, INC	63927	A Phase 2, Double-Blind, 36-Week, Multicenter Study to Assess the Safety and Effectiveness of Daily Oral Administration of Dexlansoprazole Delayed-Release Capsules for Healing of Erosive Esophagitis (EE) and Maintenance of Healed EE in Pediatric Subjects Aged 2 to 11 Years With EE (TAK-390MR 205)	\$33,399.00
GREMSE, DAVID	QOL MEDICAL LLC	63931	Evaluation of a 7-Day Therapeutic Trial Dose of Commercial Sucraid® (sacrosidase) Oral Solution for Alleviating Congenital Sucrase-Isomaltase Deficiency (CSID) Symptoms in Pediatric Subjects with Low, Moderate, and Normal Sucrase Levels (QOL - SSDXP-13)	\$23,702.60
GREMSE, DAVID	FERRING PHARMACEUTICALS	63932	A Randomized, Assessor-Blind, Parallel-Groups, Multicenter Trial Assessing the Safety and Efficacy, Including Pharmacokinetic Assessments, of CLENPIQ in Children Aged 2 Years to Less Than 9 Years (FIPCUS CLENPIQ 000359)	\$46,127.00
GREMSE, DAVID	PHATHOM PHARMACEUTICALS, INC	63951	A Phase 1, Randomized, Parallel-group, Open-label, Multicenter Study to Evaluate the Pharmacokinetics, Pharmacodynamics and Safety of Vonoprazan (10 or 20 mg Once Daily) in Children Aged >= 6 to < 12 Years Who Have Symptomatic Gastroesophageal Reflux Disease (VPED-103)	\$14,200.00
ESTRADA, BENJAMIN	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000522211-SC016	CMV Follow-up Study DMID Protocol 22-0013 A Retrospective Follow-up Study of Durability of Antiviral Therapy on Long-term Hearing and Neurodevelopmental Outcomes Among Patients Treated for Congenital Cytomegalovirus Infection as Infants or Toddlers.	\$6,000.00
ESTRADA, BENJAMIN	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000522211-SC016	Congenital and Perinatal Infections Rare Diseases Clinical Research Consortium - EV Study	\$5,000.00
IMRAN, HAMAYAN	JAZZ PHARMACEUTICALS	A22-0093-003	A Phase 3 Randomized Trial for Patients with de novo AML Comparing Standard Therapy Including Gemtuzumab (GO) to CPX-351 with GO, and the Addition of the FLT3 Inhibitor Gilteritinib for Patients with FLT3 Mutations	\$6,000.00
IMRAN, HAMAYAN	CHILDREN'S ONCOLOGY GROUP	A23-0201-001	AH"OD2131: A randomized phase 3 interim response adapted trial comparing standard therapy with immunology therapy for children and adults with newly diagnosed stage I and II classic Hodgkin Lymphoma	\$0.00
IMRAN, HAMAYAN	CHILDREN'S ONCOLOGY GROUP FOUNDATION	A22-0199-002	Project Every child (AEC14B1) Per Case Reimbursement	\$12,300.00
IMRAN, HAMAYAN	PUBLIC HEALTH INSTITUTE	A21-0184-005	PHI Workload Intensity under NCTN Grant U10CA180886	\$13,325.00

IMRAN, HAMAYAN	ST. BALDRICKS FOUNDATION	A22-0212-002	St. Baldrick's Foundation Supplemental Per-Case Reimbursement	\$1,250.00
IMRAN, HAMAYAN	PUBLIC HEALTH INSTITUTE	U10CA180886-11	Per Case Reimbursement - NCTN Operations Grant U10CA180886	\$11,400.00
KAULFERS, ANNE-MARIE MARRI, PREETHI	ALABAMA DEPARTMENT OF PUBLIC HEALTH BAYER	C40117034 63869	Endocrinology Clinic Newborn Screening Bayer Healthcare Pharmaceuticals, Inc. / "HEM-POWR: Observational Study Evaluating Effectiveness and Safety of Real-World Treatment with Damoctocog alfa pegol in Previously Treated Patients with Hemophilia A" (Bayer HEM-POWR)	\$22,000.00 \$2,860.00
MARRI, PREETHI	GLOBAL BLOOD THERAPEUTICS, INC	63913	An Open-Label Extension Study to Evaluate the Long-Term Safety of Inclacumab Administered to Participants with Sickle Cell Disease Who Have Participated in an Inclacumab Clinical Trial (GBT2104-133)	\$8,560.60
WILSON, FELICIA	ALABAMA DEPARTMENT OF PUBLIC HEALTH	C40117042	Comprehensive Sickle Cell Center for the State Newborn Screening Program	\$22,000.00
Total				\$391,852.20

Pharmacology

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
BORCHERT, GLENN, PHD	NATIONAL SCIENCE FOUNDATION	2219900	Salmonella sRNAs Drive the Decision Between Active Stress Resistance and Persister\nt Cell Dormancy	\$362,583.00
GILLESPIE, MARK	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000535933-SC001	Mitochondrial DNA Injury is a Key Contributor to the Development of Chemical Lung Injury	\$198,998.00
GILLESPIE, MARK	NATIONAL INSTITUTES OF HEALTH	23042423	The Mitochondrial Genome in Lung Disease: A Signaling Hub Linking the Persistence and Severity of Inflammation to Recovery	\$724,530.00
GILLESPIE, MARK	American Thoracic Society	A24-0101-001	Regulation of alternate splicing in hypoxic pulmonary vascular cells	\$100,000.00
GILLESPIE, MARK GILLESPIE, MARK	UNIVERSITY OF ALABAMA AT BIRMINGHAM UNIVERSITY OF ALABAMA AT BIRMINGHAM	000544030-SC002 000539056-SC005	Deep South SARS-CoV-2 Recovery (DSR) Cohort CTSA UMI at the University of Alabama at Birmingham	\$115,500.00 \$369,103.00
LANGLEY, RAYMOND	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000539056-SC005	Addressing inpatient trial design translational barriers through refining post-ICU recovery trajectories to inform hospital re-admissions	\$15,415.00
MIGAUD, MARIE MIGAUD, MARIE	UNIVERSITY OF ALABAMA AT BIRMINGHAM UNIVERSITY OF PENNSYLVANIA	000534308-SC001 585559	Dihydroxyacetone Induced Metabolic Reprogramming Understanding the Roles of Cardiac NAD Pools and Therapeutic Effects of Precursor Supplements in Heart Failure	\$57,422.00 \$77,186.00
MIGAUD, MARIE MIGAUD, MARIE	AMERICAN CHEMICAL SOCIETY NATIONAL AERONAUTICS AND SPACE ADMINISTRATION	A24-0127-001 700000049	ACS Project SEED 2024 Lessening NAD(P) Hyper-oxidation to Retain Repair and Maintenance Capacity in Space	\$20,000.00 \$122,892.00
MIGAUD, MARIE	ELYSIUM HEALTH, INC.	A19-0143-004	Design, Development and Chemical Syntheses of Tools and Processes to Explore the Landscape of B-vitamin in Health and in Disease	\$160,692.00
MIGAUD, MARIE	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION	700000049	Lessening NAD(P) Hyper-oxidation to Retain Repair and Maintenance Capacity in Space	\$104,182.00
RICH, THOMAS	NATIONAL SCIENCE FOUNDATION	2408000	MRI: Trach 1# acquisition of a light sheet microscope	\$476,440.00

RICH, THOMAS	UNIVERSITY OF ALABAMA BIRMINGHAM	000524523-SC003	Probing Gq and Arrestin Mediated Regulation of Mechanical and Chemical Signals in Human Airway Smooth Muscle Cells	\$4,792.00
RICH, THOMAS	AMERICAN HEART ASSOCIATION	A22-0049-003	Undergraduate Summer Research Experience at University of South Alabama	\$33,946.00
RICH, THOMAS	NATIONAL INSTITUTES OF HEALTH	5R01HL169522-02	Compartmentalized Signaling and Crosstalk in Airway Myocytes	\$543,494.00
Total				\$3,487,175.00

Physiology and Cell Biology

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
ALEXEYEV, MIKHAIL	NATIONAL SCIENCE FOUNDATION	2419655	Designer mitochondria for biotechnology, healthcare, and basic research	\$999,996.00
BRUDER, THIAGO	NATIONAL INSTITUTES OF HEALTH	1R01HL169202-01A1	Molecular mechanisms of progranulin as a regulator of endothelial biology and blood pressure control	\$570,263.00
LEE, JI YOUNG	NATIONAL INSTITUTES OF HEALTH	5R01HL160988-03	Acidosis in Pulmonary Endothelial Injury and Repair	\$385,000.00
LIN, MIKE	NATIONAL INSTITUTES OF HEALTH	5R01HL140182	Nosocomial pneumonias impair cognitive function	\$453,573.00
LIN, MIKE	NATIONAL INSTITUTES OF HEALTH	5R01HL140182-04	Nosocomial Pneumonias Impair Cognitive Function	\$384,949.00
MEEGAN, JAMIE	Parker B Francis Fellowship Program - PBF	A24-0222-001	Oxidation of LDL by CFH and lung microvascular hyperpermeability during sepsis	\$20,000.00
MEEGAN, JAMIE	NATIONAL INSTITUTES OF HEALTH	4R00HL166865-02	Cell-free hemoglobin-oxidized LDL-LOX-1 axis and microvascular hyperpermeability during sepsis	\$249,000.00
NELSON, AMY	Coins for Alzheimer's Research Trust	A24-0098-001	Pericyte caldesmon in Alzheimer's disease	\$300,000.00
NELSON, AMY R	NATIONAL INSTITUTES OF HEALTH	1R01NS135147-01A1	Nosocomial pneumonia impairs the cerebrovasculature	\$546,966.00
NELSON, AMY R	NATIONAL INSTITUTES OF HEALTH	1F99NS141403	Pneumonia-induced microglial activation causes blood-brain barrier breakdown, astrocyte activation and tau pathology	\$33,974.00
NELSON, AMY R	UNIVERSITY OF CALIFORNIA	A21-1324-S024	Diverse VCID: White Matter Lesion Etiology of Dementia in Diverse Populations	\$118,048.00
STEVENS, TROY	NATIONAL INSTITUTES OF HEALTH	5R01HL167997-02	Soluble Adenylyl Cyclases in Lung Endothelial Tauopathy	\$472,870.00
TAYLOR, MARK	NATIONAL INSTITUTES OF HEALTH	5R01HL155288-04	Network Signature of Low-Flow Endothelial Dysfunction	\$385,000.00
Total				\$4,919,639.00

Surgery

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
GRIMM, LEANDER	John Hopkins University	2006415023	Inertive Visual Learning to Decrease Time to Autonomy in Surgical Residency	\$9,625.00
BRIGHT, ANDREW	Medi wound	63879	Use of Nexobrid for Treatment of Acute Deep Partial and Full Thickness Burn Injuries (MediWound MW2018-06-21)	\$48,703.26
RICHARDS, WILLIAM	Torax Medical/Ethicon Endo-Surgery	63910	Research to further inform thinking about the role of LINX for Reflux Disease (Torax Rethink Reflux Registry - TRX_2018_01)	\$9,355.00
BUTTS, CALEB	CSL Behring LLC	63930	A Prospective, Multicenter, Randomized, Double-Blind, Placebo-Controlled, Large Simple Trial Evaluating the Use of BE1116 (4 Factor Prothrombin Complex Concentrate [Kcentra® / Beriplex®]) to Improve Survival in Patients with Traumatic Injury and Acute Major Bleeding (BE1116_3006)	\$178,974.87

MBAKA, MARY	Stimdia Medical, Inc.	63961	Randomized Study of the pdSTIM™ System (phrenic nerve to diaphragm STIMulation) in Failure to Wean Mechanically Ventilated Patients (ReInvigorate Study - CIP0002)	\$13,460.00
Total				\$260,118.13

Urology

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
BLANCHARD-BURCH, K	Valencia Technologies	63944	111-5702 A Real World Study of eCoin® for Urgency Urinary Incontinence: Post Approval Evaluation (RECIPE 111-5702)	\$10,585.00
Total				\$10,585.00

Mitchell Cancer Institute (SAMSF Only)

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
Dr Abdalla, A	AstraZeneca Pharmaceuticals LP	63955	A Phase IIlb, Single Arm, Open-label, Multicentre Study of Durvalumab in Combination with Chemotherapy for the First Line Treatment for Patients with Advanced Biliary Tract Cancers (TOURMALINE - D4191C00140)	\$34,202.80
Dr Alkharabsheh, O	Loxo Oncology, Inc.	63946	A Phase 3 Open-Label, Randomized Study of Fixed Duration Pirtobrutinib (LOXO-305) plus Venetoclax and Rituximab versus Venetoclax and Rituximab in Previously Treated Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma (BRUIN CLL-322) (LOXO-BTX-20022)	\$15,210.00
Dr Alkharabsheh, O	BeiGene, Ltd.	63953	A Phase 4, Observational Study Evaluating the Efficacy and Safety of the Bruton Tyrosine Kinase (BTK) Inhibitor Zanubrutinib in Patients With Waldenström Macroglobulinemia (BeiGene - BGB-3111-402)	\$10,200.00
Dr Alkharabsheh, O	Merck Sharp & Dohme LLC	63960	A Phase 3, Randomized Study to Compare Nemtabrutinib Versus Comparator (Investigator’s Choice of Ibrutinib or Acalabrutinib) in Participants With Untreated Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma (BELLWAVE-011) (MK-1026-011-0014)	\$10,500.00
Dr Butler, T	Xiamen LP Pharmaceuticals	63937	A Randomized, Double-blind, Double-dummy, Parallel Group Study to Assess theEfficacy and Safety of Palonosetron HCl Buccal Film versus IV Palonosetron 0.25 mg for thePrevention of Chemotherapy-induced Nausea and Vomiting in Cancer Patients ReceivingModerately Emetogenic Chemotherapy (LP-CT-PALO 202101)	\$9,650.51
Dr Prodduturbar, P	Roche - Genentech, Inc.	63938	BO44178- A Phase II, Randomized, Multicenter, Double-Blind, Controlled Study Of RO7247669 Plus Platinum-Based Chemotherapy Versus Pembrolizumab Plus Platinum-Based Chemotherapy In Patients With Previously Untreated Locally Advanced Or Metastatic Non Small Cell Lung Cancer (Roche - BO44178)	\$16,200.00

Dr Prodduturbar, P	Amgen, Inc.	63957	A Randomized, Open-label, Phase 3 Study of Tarlatamab Compared With Standard of Care in Subjects With Relapsed Small Cell Lung Cancer After Platinum-based First-line Chemotherapy (DeLLphi 304) (AMG 757-20210004)	\$14,700.00
Dr Prodduturbar, P	Alliance Foundation	63799	PALLAS: Palbociclib CoLaborative Adjuvant Study: A randomized phase III trial of Palbociclib with standard adjuvant endocrine therapy versus standard adjuvant endocrine therapy alone for hormone receptor positive (HR+) / human epidermal growth factor receptor 2 (HER2)-negative early breast cancer	\$2,100.00
Total				\$112,763.31