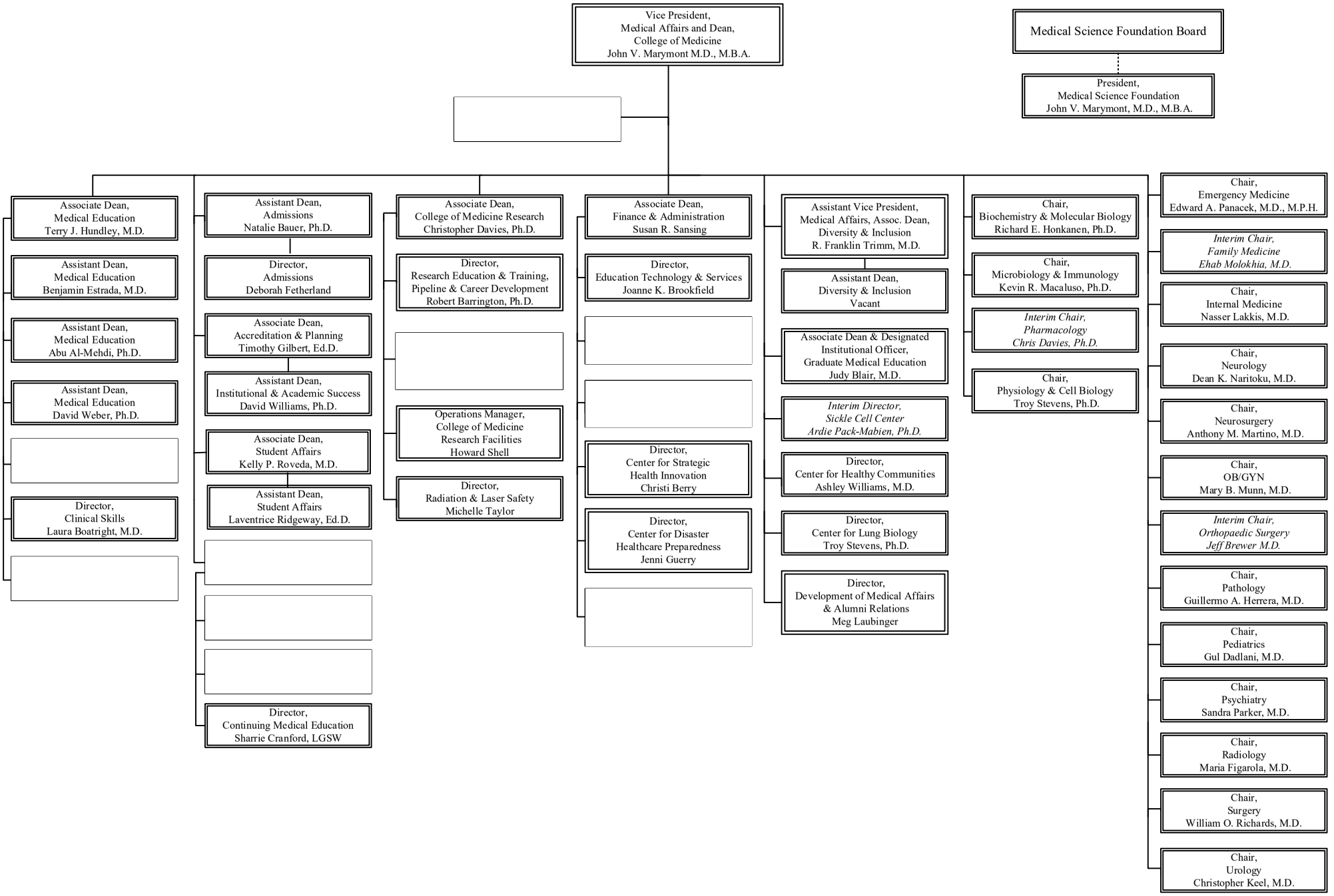
FREDERICK P. WHIDDON
COLLEGE OF MEDICINE
UNIVERSITY OF SOUTH ALABAMA

ANNUAL REPORT October 1, 2022 – September 30, 2023

ANNUAL REPORT
UNIVERSITY OF SOUTH ALABAMA
WHIDDON COLLEGE OF MEDICINE

October 1, 2022 through September 30, 2023

USA Frederick P. Whiddon College of Medicine
Organizational Chart
January 1, 2024



FOREWORD

What a historic year it has been for the Frederick P. Whiddon College of Medicine. We celebrated the 50th anniversary of the admission of the College's charter class. We also started the construction of a breathtaking new facility that will offer future medical students and researchers the most advanced learning and research opportunities. This 2022-2023 annual report catalogs the accomplishments of our faculty, staff and students related to teaching, research, scholarship, and community service.

In the spring, hundreds of alumni and friends attended the USA Medical Alumni Association Reunion Weekend and 50th Anniversary Celebration. During the event, we presented the 50 People of Influence Awards, honoring key individuals who made a significant impact on the College and the communities they serve.

As we celebrated the past, we also looked to the future. At the end of the fiscal year, we broke ground on a new Whiddon College of Medicine, a 250,000-square-foot facility that will anchor a hub for healthcare education on the University campus. When completed in 2026, it will allow us to expand class sizes from 80 to 100 students, and eventually to 120, as we answer a national call for more healthcare providers.

Meanwhile, the Class of 2023 – the students most impacted by the COVID-19 pandemic – demonstrated resilience as they matched in 24 states, with 51 students matching out of state and 22 matching within Alabama.

The College of Medicine welcomed new leaders to its ranks. Nasser Lakkis, M.Sc.-M.D., FACC, was named chair of the Department of Internal Medicine, and Gul H. Dadlani, M.D., was appointed chair of the Department of Pediatrics. Christopher Keel, D.O., FACS was named chair of the Department of Urology after having served as interim chair. Meanwhile, Ashley Williams Hogue, M.D., accepted the role of director of the USA Center for Healthy Communities. Additionally, Ehab Molokhia, M.D., was named interim chair of the Department of Family Medicine, as Allen Perkins, M.D., M.P.H., stepped down to focus on reaching underserved communities through training primary care physicians and obtaining grants to support health equity in rural communities. Jeffrey Brewer, M.D., also returned to USA Health to take the role of interim chair of the Department of Orthopaedic Surgery. In administration, Laventrice Ridgeway, Ed. D., joined the College of Medicine as assistant dean of student affairs, and Natalie Bauer, Ph.D., was appointed assistant dean of admissions.

The individual and collective accomplishments detailed in this report are the result of the focused and continual efforts of our excellent faculty, students and staff. I thank each of them for another successful year.

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

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2022-2023
Summary of Scholarly Activities
Department of Biochemistry & Molecular Biology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Ashton NW, Prakash A, Moiseeva TN. Regulatory networks in genome stability pathways. Front Genet. 2023 Mar 14;14:1171136.

Balczon R, Choi CS, deWeever A, Zhou C, Gwin MS, Kolb C, Francis CM, Lin MT, Stevens T. Infection promotes Ser-214 phosphorylation important for generation of cytotoxic tau variants. FASEB J. 2023 Jul;37(7):e23042.

Borneman RM, Gavin E, Musiyenko A, Richter W, Lee KJ, Crossman DK, Andrews JF, Wilhite AM, McClellan S, Aragon I, Ward AB, Chen X, Keeton AB, Berry K, Piazza GA, Scalici JM, da Silva LM. Phosphodiesterase 10A (PDE10A) as a novel target to suppress β-catenin and RAS signaling in epithelial ovarian cancer. J Ovarian Res. 2022 Nov 2;15(1):120.

Boyd A, Lochmaier P, Irelan D, Fiedler E, Lee JY, Fouty B, Abou Saleh L, Richter W. Non-selective PDE4 inhibition induces a rapid and transient decrease of serum potassium in mice. Biology (Basel). 2022 Oct 27;11(11):1582.

D'Arcy BM, Honkanen RE, Swingle MR, inventors; South Alabama Medical Science Foundation, assignees. Compositions and methods for enabling cholesterol catabolism in human cells. US patent 11,612,619 B2. 2023 March 28.

Galappaththi SL, Katz B, Howze PH 4th, Hoover G, Grelet S. A CRISPR/Cas9-based assay for high-throughput studies of cancer-induced innervation. Cancers (Basel). 2023 Mar 29;15(7):2026.

Irelan D, Boyd A, Fiedler E, Lochmaier P, McDonough W, Aragon IV, Rachek L, Abou Saleh L, Richter W. Acute PDE4 inhibition induces a transient increase in blood glucose in mice. Int J Mol Sci. 2023 Feb 7;24(4):3260.

Johnsen U, Ortjohann M, Reinhardt A, Turner JM, Stratton C, Weber KR, Sanchez KM, Maupin-Furlow J, Davies C, Schönheit P. Discovery of a novel transcriptional regulator of sugar catabolism in archaea. Mol Microbiol. 2023 Aug;120(2):224-240.

Koczor CA, Thompson MK, Sharma N, Prakash A, Sobol RW. Polβ/XRCC1 heterodimerization dictates DNA damage recognition and basal Polβ protein levels without interfering with mouse viability or fertility. DNA Repair (Amst). 2023 Mar;123:103452.

Salter EA, Wierzbicki A, Honkanen RE, Swingle MR. Quantum-based modeling implies that bidentate Arg89-substrate binding enhances serine/threonine protein phosphatase-

2A(PPP2R5D/PPP2R1A/PPP2CA)-mediated dephosphorylation. Front Cell Dev Biol. 2023 Jun 12;11:1141804.

Van Gundy T, Patel D, Bowler BE, Rothfuss MT, Hall AJ, Davies C, Hall LS, Drecktrah D, Marconi RT, Samuels DS, Lybecker MC. c-di-GMP regulates activity of the PlzA RNA chaperone from the Lyme disease spirochete. Mol Microbiol. 2023 Jun;119(6):711-727.

II. PUBLISHED ABSTRACTS

Abou Saleh L, Aragon I, Barrington R, Boyd A, Fielder E, Irelan D, King J, Richter W, Spadafora D. Ablation of two distinct phosphodiesterase subtypes produces diametrical (diametrically opposite) effects in an acute model of *pseudomonas aeruginosa*-induced lung injury in mice. J Cyst Fibros. 2022 Oct;21(S2):S242. Abstract no. 418.

Abou Saleh L, Boyd A, Fielder E, Fouty B, Irelan D, Lochmaier P, Richter W, Young Lee J. PDE4 inhibition induces an acute and transient reduction in serum potassium in mice. Am J Med Sci. 2023 Feb;365(S1):S70-S71. Abstract no. 133. Available from: https://www.amjmedsci.com/article/S0002-9629(23)00140-4/fulltext

Arrington J, Chakravarty S, Prakash A, Prevelige P, Sharma N, Terry D, Thompson M. Novel interaction interfaces mediate the interaction between the NEIL1 DNA glycosylases and mitochondrial transcription factor A. 7th US-EU Conference on Endogenous DNA Damage and Repair; 2022 Nov 6-9; Stony Brook, NY. 893806.

Deweever A, Subedi Paudel S, Battle K, Tambe DT, Leavesley S, Balczon R, Stevens T, Sayner SL. Inhibiting pyoverdine biosynthesis attenuates the virulence of *Pseudomonas aeruginosa* exoenzyme Y during infection. Am J Respir Crit Care Med. 2023 May;207(A62):A2123. Abstract no. P942. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2023.207.1_MeetingAbstracts.A2123?role=tab

Deweever A, Subedi Paudel S, Zhou C, Battle K, Balczon R, Tambe DT, Stevens T, Sayner SL. Exoenzyme Y-generated uridine 3,5-cyclic monophosphate contributes to pulmonary edema during *Pseudomonas aeruginosa* infection. Am J Respir Crit Care Med. 2023 May;207(A28):A2123. Abstract no. 610. Available from: https://www.atsjournals.org/doi/abs/10.1164/ajrccm-conference.2023.207.1_MeetingAbstracts.A1227

Kettenbach A, Li C, Honkanen R, Musiyenko A, Smolen K, Swingle M. Genomic editing of human cell lines precisely recapitulating pathogenic mutations in PPP2R5D associated with Jordan's syndrome provide a platform to explore how pathogenetic variants affect normal PPP2R5D/PP2A holoenzyme function. FASEB The Protein Phosphatase Conferences; 2022 Dec 11-15; Palm Springs, CA. p. 97.

Kettenbach A, Li C, Honkanen R, Smolen K, Swingle M. Genomic editing of human cell lines recapitulating pathogenic mutations in PPP2R5D associated with Jordan's syndrome

reveal altered RPS6 signaling and uncoordinated cell growth. FASEB The Protein Phosphatase Conferences; 2022 Dec 11-15; Palm Springs, CA. p. 24.

Stevens RP, Solodushko V, Pastukh VV, Stevens T, Honkanen R, Swingle M, Lee JY. Expression and purification of the human phosphatase PPM1B. Am J Respir Crit Care Med. 2023 May;207(A60):A2020. Available from: https://www.atsjournals.org/doi/abs/10.1164/ajrccm-conference.2023.207.1_MeetingAbstracts.A2020

Stratton C, Bala S, Nicholas RA, Davies C. Mutations in the β3-β4 loop of penicillin-binding protein 2 from cephalosporin-resistant *Neisseria gonorrhoeae* hinder cephalosporin acylation via restriction of protein dynamics. IPNC2023: 23rd International Pathogenic Neisseria Conference, Sept. 24-29 2023, Boston MA.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Honkanen R. Invited speaker. Genomic editing of human cell lines precisely recapitulating pathogenic mutations in PPP2R5D associated with Jordan's syndrome provide a platform to explore how pathogenetic variants affect normal PPP2R5D/PP2A holoenzyme function. FASEB The Protein Phosphatase Conference; 2022 Dec 11; Palm Springs, CA.

Honkanen R. Invited speaker. Novel insights into the etiology of Jordan's syndrome. Jordan's Syndrome Update symposium; 2022 Dec 10; Rancho Mirage, CA.

Prakash A. Invited speaker. A structural approach to understanding the function of DNA repair complexes. University of Arkansas for Medical Sciences Cancer Center; 2023 May 8; Little Rock, AR.

Prakash A. Invited speaker. A structural approach to understanding the function of DNA repair complexes [virtual presentation]. University of Illinois, Chicago; 2023 Mar 15; Chicago, IL.

Prakash A. Invited speaker. ATPase dead? What this means for PMS2 variants during mismatch repair. Gordon Research Conference; 2023 Feb 6; Ventura, CA.

Prakash A. Invited speaker. NEIL1 the tale of a disordered tail. ONES-RIVER; 2023 Jul 27; Durham, NC.

Prakash A. Invited speaker. Structural insights into DNA repair complexes. Creighton University; 2023 Jan 25; Omaha, NE.

V. NATIONAL PROFESSIONAL RECOGNITION

Ronald Balczon: Journal editor or editorial board member: Editorial Boards of Biology and Frontiers in Medicine; Judge – Mobile County Science Fair; Reviewer – Gorgas Scholarship Program: Alabama Academy of Sciences; Judge – Oral presentations: Alabama Academy of Sciences; Judge – Summer Student Research Day.

Christopher Davies: Study sections for grant review: Panel member Drug Discovery and Mechanisms of Antimicrobial Resistance (DDR) Study Section [now reconfigured as Drug Discovery and Molecular Pharmacology A (DMPA)].

Simon Grelet: Study sections for grant review: COM Dean's Predoctoral Fellowship and COM Intramural Grants Program 2022-2023; Journal peer review: Bioengineered, Molecular Cancer Research, Journal of Hematology & Oncology; Judge – MCI Research Day.

Richard Honkanen: Study sections for grant review: ZTR1 RD-7 NCATS Special Emphasis Panel (SEP) Understudied Proteins Associated with Rare Diseases panel member/reviewer; NIH ZRG1 OTC1-B (11) Cancer Therapeutics SBIR/STTR panel Chair and Reviewer; NIH ZRG1 BCMB G55 (Pilot Projects investigating Understudied G protein coupled receptors, ion channels and protein kinases) Special Emphasis Panel/Scientific Reviewer; Research grant reviewer; BSF. United States- Israel National Science Foundation: Reviewer; KU Leuven, Belgium: Ph.D. Jury member (Expert External Evaluation of Ph.D. students at midterm exams, dissertation, and final defense); Journal editor or editorial board member: Frontiers in Cell and Developmental Biology.

Aishwarya Prakash: 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); 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.

VI. BRIEF SUMMARY OF ACTIVITES AND PROGRESS

The department of Biochemistry and Molecular Biology contributes to the College of Medicine's and University of South Alabama's mission of teaching, research and service. In a continuing effort to revitalize the department, this year Dr. Lucia Rameh Plant was

recruited as an Assistant Professor from her previous appointment at Vanderbilt University. She will join the Department as an Associate Professor in October, adding to the recruitment of Dr. Mark Swingle, Dr. Simon Grelet, and Dr. Christopher Davies. A national search for additional faculty is ongoing, with a major goal of further increasing diversity in the department.

The department is a research-intensive academic unit that contributes primarily to undergraduate medical education, basic medical sciences graduate education and the service mission of the College of Medicine. In education, the faculty contribute significant effort to the systems-based medical curriculum, contributing to the basic science (Principles of Foundational Medicine), endocrine, cardiovascular, and musculoskeletal modules. In addition, the faculty have a major commitment to multiple graduate science courses in the various tracks. Dr. Balczon again served as the director of the endocrine module. Dr. Swingle is the director of a graduate course that he recently helped develop (IDL 590 Genome engineering). Dr. Swingle also served as the course director for IDL 576. Dr. Honkanen continues to serve as the course director for IDL 577.

Currently eight students enrolled in the Ph. D. Basic Medical Science graduate program are continuing their extensive small group training with faculty in the department. In addition, postdoctoral fellows in the department received intensive advanced training in the laboratories of Dr. Richter, Dr. Prakash, and Dr. Davies. To continue her research mentored by Dr. Richter, Dr. Abigail Boyd received a prestigious Cystic Fibrosis Research Institute (CFRI) Elizabeth Nash Postdoctoral Research Fellowship.

Members of the faculty also contribute to undergraduate and summer medical research training, acting as mentors for students enrolled in the BMD honors research programs and medical students. Conner Hall, a medical student mentored by Dr. Swingle, received a Clyde G. Huggins Award for Summer Research. The award honors the memory of Clyde G. Huggins, who served as the first dean of students at the Whiddon College of Medicine.

As evident by their publications and presentations at national and international at scientific meetings, all faculty in the department continue to demonstrate excellence in scholarly activity and research. The department's intensive research effort has been made possible by extramural grant support from NIH (NHLBI, NIEHS, NIAID, UAB CCTS) a subaward from the Regents of the University of California (UC-Davis) / Jordan's Guardian Angels (JGA)-foundation, and internal funds supplied by the College of Medicine and the University of South Alabama.

In recognition of her outstanding contribution to research in oncological science, Dr. Prakash was this year's recipient of the Mayer Mitchell Annual Award for excellence in cancer research.

2022-2023
Summary of Scholarly Activities
Department of Comparative Medicine

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

II. PUBLISHED ABSTRACTS

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

V. NATIONAL PROFESSIONAL RECOGNITION

Jonathan G. Scammell: Board Member, Alabama Board of Medical Scholarships; ad hoc reviewer for AAMC and the Endocrine Society.

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

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The faculty and staff of the Department of Comparative Medicine participate in service, education, and research in the university's animal care and use program. The department oversees the AAALAC International-accredited program, which received exemplary status at the last review. The faculty and staff provided essential and uninterrupted support of the animal care and use program during the continued pandemic and tropical storms.

The team:

Director of University Biological Resources: Dr. A. Michele Schuler
Manager, Vivarial Services: Leigh Ann Wiggins
Laboratory Animal Tech Supervisors: Benjamin Gumbs, Craig Youngman
Laboratory Animal Assistant: Hannah Bryant
Laboratory Animal Technicians: Francelina Nores, Carmen Thomas, Melanie Wiggins
Vivarium Maintenance Coordinator: Gavin Guy
Financial Operations Specialist: Kenyetta Grissom; Secretarial Support: Sheila Pierce

Leigh Ann Wiggins, LVT RLATG, was promoted to Manager of Vivarium Services. The department continues to upgrade equipment and maximize the use of facilities with the goal of enhancing research and teaching capabilities for the benefit of investigators throughout the university. The department supports the VEVO high resolution ultrasound

imaging system from VisualSonics, the hypoxia core for the development of pulmonary hypertensive rodents, the *Pseudomonas* delivery core, the behavior core, the Kimtron, Inc. IC-320 irradiator, IVIS Spectrum Imaging System, the OEC-Diasonics C-Arm Fluoroscopic Imaging System, clinical chemistry and the activities in the ABSL-3 facility of the Laboratory of Infectious Disease (LID).

A major commitment of time and effort continued this year on the design of the vivarium in the next medical sciences building. The goal is that the most contemporary design be incorporated into the facility with mutual benefit to personnel and researchers. The faculty continue formal and informal educational commitments within the department to technical staff, supervisors, and colleagues and outside the department to graduate students, postdoctoral fellows, and faculty. Dr. Schuler's commitment to collaboration and education reaches broadly within the university with formal participation with research groups in the Dauphin Island Sea Lab, the College of Arts and Sciences, and every department within the College of Medicine. She holds a joint appointment in the Department of Microbiology and Immunology and works with investigators in the LID. Outside of the university, Dr. Schuler works with the Alabama Marine Stranding Network collaborating with the NOAA's National Marine Fisheries Service to provide veterinary care to stranded cetacean species.

Members of the department play significant roles in other aspects of college and university life. Dr. Scammell serves as Assistant Dean for Admissions, member of the Endocrinology and Reproduction Module, Obstetrics and Gynecology clerkship and Clinical Pharmacology teaching staff, and chairs the MD with Research Honors Committee. Outside of the college, Dr. Scammell serves on the University's Committee on Standards in the Conduct of Research, the Scholarship and Financial Aid Committee, and the University Committee on Diversity and Inclusion. Dr. Schuler participates in undergraduate biomedical sciences and graduate, and medical courses within the COM. She also serves as a standing member of Institutional Animal Care and Use and Biosafety Committees and is a member of the Safety and Environmental Compliance Committee.

2022-2023
Summary of Scholarly Activities
Department of Emergency Medicine

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Butler D, Mellick LB, Clanton C. A systematic review of anesthetic, saline and dry needling injections for headache patients. Emerg Med Open J. 2023 Apr 17;9(1):28-32.

Henning PR, Mellick LB. Emergency department diagnosis and management of superior vena cava syndrome secondary to Hodgkin's lymphoma: a case report and limited literature review of emergency department management case report. Emerg Med Open J. 2023 Apr 24;9(2):33-38.

Mellick LB. The torsed testicle traction technique. Emer Med News. 2022 Nov;44(11):1,26. Available from: https://journals.lww.com/em-news/fulltext/2022/11000/m2e_too___the_torsed_testicle_traction_technique.2.aspx

Mellick LB, Mowery ML, Al-Dhahir MA. Cremasteric reflex. StatPearls Publishing [internet]. 2023 Apr 19. Available from: https://www.ncbi.nlm.nih.gov/books/NBK513348/

Mellick LB, Watters B. The torsed testicle traction technique and 2 case reports. Pediatr Emerg Care. 2023 May;39(5):364-367. Available from: http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=ovftz&NEWS=N&AN=00006565-202305000-00014

Mellick LB. A constipation primer for emergency providers [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2022 Oct 21. Available from: https://www.youtube.com/watch?v=gSZGHgDaxns&t=141s

Mellick LB. Mother knows best! [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2022 Oct 24. Available from: https://www.youtube.com/watch?v=3X4BoqDQPZU

Mellick LB. A six-year-old male with rare salivary gland stone [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2022 Oct 24. Available from: https://www.youtube.com/watch?v=UQrnvbkObco

Mellick LB. Instantly kill vampire ticks [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2022 Dec 15. Available from: https://www.youtube.com/watch?v=SsSd2aMFBYs

Mellick LB. Hemiballismus emergency [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2022 Oct 16. Available from: https://www.youtube.com/shorts/YBcDmRAap_g

Mellick LB. Ludwig Angina: an airway emergency [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2022 Dec 20. Available from: https://www.youtube.com/watch?v=QSIhQjLlgdU

Mellick LB. The wonderful ED gift of rapid covid testing [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2023 Jan 2. Available from: https://www.youtube.com/watch?v=-cXfLPlXB7w

Mellick LB. Skull fracture emergency in a 4-year-old-boy [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2023 Jan 18. Available from: https://www.youtube.com/watch?v=bVVi5HMFn50

Mellick LB. Rafael meets ring rescue [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2023 Feb 15. Available from: https://www.youtube.com/watch?v=XQa16fCCe0k&t=14s

Mellick LB. Teenage girl accidentally staples her finger [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2023 Feb 20. Available from: https://www.youtube.com/watch?v=M1E4b_apNec&t=18s

Mellick LB. Dr. Testicle's March 2023 interview with EM:RAP [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2023 Mar 12. Available from: https://www.youtube.com/watch?v=wxQCZVPYg-U

Mellick LB. The moving patellar apprehension test for patellar instability [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2023 Mar 13. Available from: https://www.youtube.com/watch?v=jZj3CMFIems

Mellick LB. The crying or inconsolable infant emergency [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2023 Mar 20. Available from: https://www.youtube.com/watch?v=lvXOIc1p05E&t=36s

Mellick LB. The stuck tungsten ring emergency [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical

Education Videos; 2023 Mar 22. Available from: https://www.youtube.com/watch?v=MqupCjkNqUk&t=53s

Mellick LB. The poop scan [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2023 Mar 31. Available from: https://www.youtube.com/watch?v=HB1RJlm_23c&t=71s

Mellick LB. The Seidel sign [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2023 Apr 9. Available from: https://www.youtube.com/shorts/ge5PG743DQA

Mellick LB. Lateral canthotomy and cantholysis [video]. University of South Alabama College of Medicine producer. Mobile, AL: University of South Alabama Medical Education Videos; 2023 Apr 9. Available from: https://www.youtube.com/watch?v=VBg0ST7upkg

Mellick LB. Posterior shoulder dislocation and reverse Hill Sachs [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2023 Apr 9 Available from: https://www.youtube.com/shorts/jqzmj3Rc6Oc

Mellick LB. Blind nasotracheal intubation cadaver demonstration [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2023 Apr 11. Available from: https://www.youtube.com/watch?v=y5pgFYRcSZE

Mellick LB. DermaClip wound closure demonstration [video]. University of South Alabama College of Medicine, producer. Mobile, AL: University of South Alabama Medical Education Videos; 2023 Apr 20. Available from: https://www.youtube.com/watch?v=45zLAlLFOUo

Mikros A, Comp GB, Wilson MD, Plash WB, Gardner JM, Lareau SA. Resident wilderness medicine curriculum consensus guidelines: summarization and recommendations for resident rotations in wilderness medicine. Wilderness Environ Med. 2023 Jun;34(2):193-200.

Miller K, Schneider RA. More than sniffles: a case of local paranasal sinus infection spreading to subdural empyema. Vis J Emerg Med. 2022 Nov 23;29:101574. Available from: https://www.clinicalkey.com/service/content/pdf/watermarked/1-s2.0-S2405469022002825.pdf?locale=en_US&searchIndex=

Mattingly CD, Sternberg ML. Is that a bear paw?: a case of Xanthogranulomatous pyelonephritis. Vis J Emerg Med. 2023 Apr 1;31:101697. Available from: https://www.clinicalkey.com/service/content/pdf/watermarked/1-s2.0-S2405469023001024.pdf?locale=en_US&searchIndex=

Miller K, Sternberg ML. A case of bilateral suprapatellar bursitis. Vis J Emerg Med. 2022 Nov 22;29:101568. Available from: https://www.clinicalkey.com/service/content/pdf/watermarked/1-s2.0-S240546902200276X.pdf?locale=en_US&searchIndex=

Hall M, Stokes T. Clot-in-transit during cardiac arrest. The Pocus Report. 2022 Winter;5(2):26-28. Available from: https://issuu.com/aaeminfo/docs/pocus_report_winter_2022

II. PUBLISHED ABSTRACTS

Ahmed NC, Sternberg ML. Wunderlick syndrome – case of spontaneous renal hemorrhage. EMerald Coast Conference; 2023 Jun 4-8; Destin, FL

Gross S, Sternberg ML. Mega cisterna magna. Society of Academic Emergency Medicine Annual Session; 2023 May 16-19. Austin, TX.

Lee JK, Sternberg ML. Occult femur fracture. Society of Academic Emergency Medicine Annual Session; 2023 May 16-19; Austin, TX.

Lee JK, Sternberg ML. Routine angina or OMI? – ACS in left bundle branch block criteria. EMerald Coast Conference; 2023 Jun 4-8; Destin, FL.

Mattingly CD, Washington AK, Bender JD, Sternberg ML. Spotty skin, spotty spleen, what does it all mean? – case of splenic sarcoidosis. EMerald Coast Conference; 2023 Jun 4-8; Destin, FL.

McRae CT, Sternberg ML. Killer constipation-case of fecal impaction with ischemic bowel. EMerald Coast Conference; 2023 Jun 4-8; Destin, FL.

Sternberg SA, Sternberg ML. Necrobiosis lipoidica. Society of Academic Emergency Medicine Annual Session; 2023 May 16-19; Austin, TX.

Washington AK, Sternberg ML. Sterno-clavicular joint dislocation. Society of Academic Emergency Medicine Annual Session; 2023 May 16-19; Austin, TX.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Martinez C, Molins C. Invited speakers. Roomers and zoomers: sustaining a hybrid learning model. Council of Emergency Medicine Residency Directors; 2023 Mar 21; Las Vegas, NV.

Martinez C. Invited speaker. Pediatric jeopardy. EMerald Coast Conference; 2023 Jun 6; Destin, FL.

Molins C. Invited speaker. Don't forget us! Enhancing the education experience for off-service rotators. Society of Academic Emergency Medicine 2023 Annual Meeting; 2023 May 19; Austin, TX.

Molins C. Invited speaker. Pediatric conundrums; diagnostic errors in PEM. EMerald Coast Conference; 2023 Jun 8; Destin, FL.

Panacek EA. Invited speaker. Pretest/introduction to workshop. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2022 Oct 28; Irvin, TX.

Panacek EA. Invited speaker. Process of research. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2022 Oct 28; Irving, TX.

Panacek EA. Invited speaker. Research questions. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2022 Oct 28; Irving, TX.

Panacek EA. Invited speaker. Research hypotheses, objectives. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2022 Oct 28; Irving, TX.

Panacek EA. Invited speaker. Research terminology. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2022 Oct 28; Irving, TX.

Panacek EA. Invited speaker. Introduction to study design. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2022 Oct 28; Irving, TX.

Panacek EA. Invited speaker. Practicum: your study design. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2022 Oct 28; Irving, TX.

Panacek EA. Invited speaker. Untold stories of the ER-my life as TV doctor. Mobile Optimist Club; 2023 Jan 18; Mobile, AL.

Panacek EA. Invited speaker. Developing an emergency medicine research program with funded researchers [webinar]. Society of Academic Emergency Medicine; 2023 Jun 12; Des Plaines, IL.

Plash W. Invited speaker. Being in balance with a salty world. 2023 Wilderness Medicine Society Winter Conference; 2023 Feb 13; Olympic Valley, CA.

Plash W. Invited speaker. Best practices for debriefing both simulation and real life scenarios in wilderness medicine. 2023 Wilderness Medicine Society Winter Conference; 2023 Feb 13; Olympic Valley, CA.

Stokes T. Invited speaker. Point of care ultrasound workshop for EMS. Marion Health; 2023 Jan 27; Marion State, IN.

V. NATIONAL PROFESSIONAL RECOGNITION

Plash WB. Wilderness Medical Society Membership Committee, Wilderness Medical Society Resident and Student Education Committee. Peer reviewer for Journal of Wilderness and Environmental Medicine.

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 6 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 Medial Museum.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The past year has been one of growth, expansion and maturation for the department and its various programs. Multiple new faculty were hired to both expand and improve academic programs, as well as to displace locums physicians in the new free standing emergency department. There have been increases in the size of clinical programs, the spectrum of educational activities, volume of scholarship and levels of participation in service activities.

Clinical Activities**:** Each of the three emergency departments experienced growth in patient volumes of at least 10%. In particular, the freestanding emergency department in West Mobile has now been open for 1 ½ 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. Adjustments were made in patient clinical work flows with some improvements, but boarding levels continue at an all-time high and overall hospital diversion (both partial and complete) continues at unacceptably high levels. The physician staffing of the freestanding emergency department has transitioned from a primarily locums physician staffing model to now only rare use of locums physicians. However, with the increase in volumes additional provider staffing with increased hours of APP

coverage, or physician coverage, will likely be required. The new Pediatric Emergency Department (called Pediatric Emergency Center) at CWH is more than 50% complete and anticipated to open in January 2024. In terms of overall size and capabilities, this will be a gross improvement over the current pediatric emergency department and will be the most sophisticated emergency facility in the state for caring for acutely ill children. A major step forward and a true community resource for pediatric care in the region.

Education: The relatively young emergency medicine program continues to strengthen its educational programs with more sophisticated use of simulation and a more refined curriculum. The fourth year acting internships and visiting student programs are recovering from the restrictive impact of Covid and the number of visiting students interested in ED rotations is one of the most robust such programs at USA Health. The EM residency achieved full accreditation and the residents score above national average on their standardized in-training exams. The initial classes graduated have all been successful in passing certification exams. The department continues to take a leadership role in simulation within the institution and has the goal of further expanding simulation capabilities both for medical students and graduate medical education.

Scholarship: Peer review publications and other scholarly activities continue to grow in the department of Emergency Medicine. This includes some publications of an extramurally funded clinical study that had been active for the past two years. Nonetheless faculty scholarship is below expectations for an academic department. Further developing clinical research is a primary focus of the department in the year ahead, including recruitment of a new research director and research-focused faculty to join the department.

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 as did Dr. Mellick. 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 elect of the Medical Society of Mobile County and the Chair of the County Health Board. Historically, EM faculty have not been very active on committee and other service activities at the College of Medicine and University level. However, this past year several faculty have served on very active COM committees. This represents the highest level of EM faculty participation on College of Medicine and task forces, in the history of the department. A goal of the department is to continue this high level of participation and expand it in the future.

2022-2023
Summary of Scholarly Activities
Department of Family Medicine

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Daniel CL, Cuffee YL. Health intervention studies. In: Coughlin SS, Williams LB, Akintobi TH, editors. Black health in the south. Baltimore: Johns Hopkins University Press; 2023. Chapter 4, p. 53-78.

Daniel CL, Fillingim S, James J, Bassler J, Lee A. Long COVID prevalence and associated characteristics among a south Alabama population. Public Health. 2023 Aug;221:135-141.

Haq C, Iroku-Malize T, Edgoose J, Prunuske J, Perkins A, Altman W, Elwood S. Climate change as a threat to health: family medicine call to action and response. Ann Fam Med. 2023 Mar/Apr;21(2):195-197.

Koskan AM, LoCoco IE, Daniel CL, Teeter BS. Rural Americans' COVID-19 vaccine perceptions and willingness to vaccinate against COVID-19 with their community pharmacists: an exploratory study. Vaccines (Basel). 2023 Jan 13;11(1):171.

Trimmier M, Cullifer J, Vickers R, Ward G, Catt M. Does long-term use of depot medroxyprogesterone acetate increase the risk of osteoporosis? Evid Based Pract. 2023 Jul;26(7):12-13.

II. PUBLISHED ABSTRACTS

Daniel CL, Brady K, Burch A, Koskan A, Pierce JY. Human papillomavirus vaccine acceptance post-COVID-19 vaccine release among Alabama mothers. American Society of Preventive Oncology 47th Annual Meeting; 2023 Mar 12-14; San Diego, CA. p. 20. Available from: https://aspo.org/abstracts/abstract-details/?pdb=3348

Daniel C, Fillingim S, James J, Bassler J, Burch A. Characterization of post-acute sequelae of COVID-19 (PASC) in a diverse south Alabama population. American Public Health Association 2022 Annual Meeting and Expo; 2022 Nov 6-9; Boston, MA. Available from: https://apha.confex.com/apha/2022/meetingapp.cgi/Paper/515439

Perkins R, Cheatham S, Blount A. Creating an interdisciplinary learning environment around the complex patient: perils, pitfalls, and ultimately successes. Society of Teachers of Family Medicine 2023 Annual Spring Conference. 2023 Apr 29-May 3; Tampa, FL. Abstract no. LD40B. Available from: https://www.stfm.org/conferences/1050/sessions/10222

Perkins R, Daniel C. Vaccine hesitancy in the time of COVID-19: the lower Alabama experience. Society of Teachers of Family Medicine 2023 Annual Spring Conference;

2023 Apr 29-May 3; Tampa, FL. Abstract no. CPH02. Available from: https://www.stfm.org/conferences/1050/sessions/10424

Pfleeger J, Trimmier M. Partnering to improve primary care: a longitudinal population health curriculum. Society of Teachers of Family Medicine 2023 Conference on Medical Student Education; 2023 Jan 26-29; New Orleans, LA. Abstract no. IPC04. Available from: https://www.stfm.org/conferences/1046/sessions/9337

Rippey P, Eisenman B, Cullifer J. Unlike Macbeth, this broken heart may prevent early demise. American Medical Society for Sports Medicine Annual Meeting; 2023 Apr 28-May 3; Phoenix, AZ. p. 75. Abstract no. 57.

Rippey P, Cook A. Double trouble in the fourth quarter. American Medical Society for Sports Medicine Annual Meeting; 2023 Apr 28-May 3; Phoenix, AZ. p. 81. Abstract no. 193.

Sucar-Marquez, J, Rippey P. Friday night palsy Saturday morning mystery. Clin J Sport Med. 2023 May;33(3):e74.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Daniel CL. Invited speaker. HPV vaccination in Alabama. Alabama Department of Public Health Immunization Managers Meeting; 2023 Mar 22; Mobile, AL.

Daniel C. Invited speaker. Interprofessional collaboration with dental health providers to increase HPV vaccination: #watchyourmouth [virtual presentation]. Alabama Dental Association 2023 Ski & Learn Seminar; 2023 Apr 3; Big Sky, MT.

Pfleeger J, Trimmier M. Invited speakers. Partnering to improve primary care: a longitudinal population health curriculum. Society of Teachers of Family Medicine 2023 Conference on Medical Student Education; 2023 Jan 27; New Orleans, LA.

V. NATIONAL PROFESSIONAL RECOGNITION

Allen Perkins was honored as one of the 50 most influential people in the history of the College of Medicine (COM) by the Medical Alumni Association, as were two of our previous chairs, Dr. Frank DeGruy and Dr. H.C. “Moon” Mullins. He was also honored for being the recipient of $25,000,000 in grant funding over the past 5 years, the largest of any faculty member in the institution. In addition, he is the Principal Investigator for the Mobile arm of the All of Us research project. He also serves as site Medical Director for the National Institutes of Health (NIH) RECOVER Initiative, which is focused on long-term effects of COVID and how to enhance recovery.

Ehab Molokhia continues to serve on the National Board of Medical Examiners Behavioral Health Test Material Development Committee and the Board of Directors for the Family Physician Inquiry Network.

Casey Daniel continues in her position as Director of Epidemiology and Public Health for the university and COM. She worked closely with undergraduate faculty this past year to develop an undergraduate minor in public health at USA, which starts Fall 2023. Dr. Daniel also continues her extensive research in the areas of health disparities, vaccine hesitancy, cancer prevention, and behavioral epidemiology. She has been an active member of the Health Equity Pathobiology Task Force of the NIH's RECOVER Initiative. She also serves as a research mentor for several undergraduate medical students, including those in the M.D. with Research Honors program and the COM Summer Research Program. She continues to serve as Board Chair for the non-profit organization VAX 2 STOP CANCER, focused on increasing HPV vaccination in Alabama and is an active leader and participant in numerous national, regional, and state organizations.

Peter Rippey served as a peer reviewer for familydoctor.org. He was also on a task force that helped re-write HB45 - Sudden Cardiac Arrest Prevention Act.

VI. SUMMARY OF ACTIVITIES AND PROGRESS

The department has continued to receive federal funding to implement an OB Fellowship. With this, we graduated the first class of Fellows in July 2023, with the second class starting as well. We supported telehealth services from Monroe Hospital to USA Health Children's & Women's Hospital, as well as the Labor Deck in Monroeville. We continue to receive funding for the Primary Care Pathway, enrolling the third class of students. 80% of the first group of students appear to be headed to a primary care specialty, bucking the national trends.

The departments educational offerings were well received, with the clerkship being rated very highly. The residency program is relocating to a new facility on the campus of AltaPointe behind USA Health University Hospital on September 1, 2023, where it will become a part of a federally qualified health center and the patients will have access to enhanced behavioral health and pharmacy services.

The department has hired one new faculty, Dr. Richelle Jefferson. Dr. Perkins stepped down as Chairman on July 1, 2023, after serving for 17½ years to serve as Chief, Population Health and Associate CMO for Ambulatory Services. Dr. Molokhia will serve as Interim Chairman until a search can be conducted. Dr. Jenna Pfleeger has taken over as Clerkship Director and Dr. Jefferson will take over as the lead faculty member for the Primary Care Pathway. Dr. Sollie continues to provide leadership to the OB fellowship.

2022-2023
Summary of Scholarly Activities
Department of Internal Medicine

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Amritphale A, Fonarow GC, Amritphale N, Omar B, Crook ED. All-cause unplanned readmissions in the United States: insights from the Nationwide Readmission Database. Intern Med J. 2023 Feb;53(2):262-270.

Boyd A, Lochmaier P, Irelan D, Fiedler E, Lee JY, Fouty B, Abou Saleh L, Richter W. Non-selective PDE4 inhibition induces a rapid and transient decrease of serum potassium in mice. Biology (Basel). 2022 Oct 27;11(11):1582.

Brandon A, Bardia N, Omar B. Paradoxical embolism: cryptogenic stroke culprit! Cardiofellows Newsletter. 2022 Oct; 5(10):30-33. Available from: https://cardiofellows.com/newsletter-october-2022.html

Galla J, Rahman MU, Shah N, Riad M, Awan GM, Malozzi C, Omar B. Brugada phenocopy: an electrocardiographic chameleon! Cardiofellows Newsletter. 2023 Jan; 6(1):1-3. Available from: https://cardiofellows.com/newsletter-january-2023.html

Gwin MS, Alexeyev MF, Geurts AM, Lee JY, Zhou C, Yang XM, Cohen MV, Downey JM, Barrington RA, Spadafora D, Audia JP, Frank DW, Voth S, Pastukh VV, Bell J, Ayers L, Tambe DT, Nelson AR, Balczon R, Lin MT, Stevens T. Gamma secretase activating protein promotes end-organ dysfunction after bacterial pneumonia. Am J Physiol Lung Cell Mol Physiol. 2023 Aug 1;325(2):L174-L189.

Kar J, Cohen MV, McQuiston SA, Malozzi CM. Can global longitudinal strain (GLS) with magnetic resonance prognosticate early cancer therapy-related cardiac dysfunction (CTRCD) in breast cancer patients, a prospective study? Magn Reson Imaging. 2023 Apr;97:68-81.

Khouri A, Moreno C, Niland B. New-onset Crohn's disease following initiation of secukinumab: a case report and review of the role of IL-17 in the pathogenesis of Crohn's disease. Case Rep Gastrointest Med. 2023 May 22;2023:1769290.

Lee JY, Stevens RP, Pastukh VV, Pastukh VM, Kozhukhar N, Alexeyev MF, Reisz JA, Nerguizian D, D'Alessandro A, Koloteva A, Gwin MS, Roberts JT, Borchert GM, Wagener BM, Pittet JF, Graham BB, Stenmark KR, Stevens T. PFKFB3 inhibits fructose metabolism in pulmonary microvascular endothelial cells. Am J Respir Cell Mol Biol. 2023 Sep;69(303):340-354.

Moreno C, Seaman R, Noles K. Quality improvement project to decrease the rates of Clostridium difficile infections in a tertiary care center. J Nurs Care Qual. 2023 Jan-Mar 01;38(1):10.

Mulyala R, Parks A, Shah N, Rahman MU, Riad M, Awan GM, Malozzi C, Omar B. Right-sided defibrillator: elevated defibrillation threshold! Cardiofellows Newsletter. 2022 Dec; 5(12):36-38. Available from: https://cardiofellows.com/newsletter-december-2022.html

Mulyala R, Shah N, Riad M, Bardia N, Sarwar U, Patel M, Rahman MU, Malozzi C, Omar B. Bladder pacemaker: electrocardiographic interference! Cardiofellows Newsletter. 2022 Nov;5(11):34-35. Available from: https://cardiofellows.com/newsletter-november 2022.html

Parker LL, Bonner CM, Sobol RW, Arrieta MI. Co-creation and engagement in a DNA integrity cohort study. J Clin Transl Sci. 2023 May 22;7(1):e122.

Parks A, Riad M, Rahman MU, Mulyala R, Shah N, Awan GM, Malozzi C, Omar B. Roemheld's gastrocardiac syndrome: a gastrocardiology discipline! Cardiofellows Newsletter. 2023 Mar;6(3):7-9. Available from: https://cardiofellows.com/newsletter-march-2023.html

Riad M, Rahman MU, Parks A, Williams D, Shah N, Mulyala R, Awan GM, Malozzi C, Omar B. Hypokalemia: electrocardiographic & arrhythmic manifestations! Cardiofellows Newsletter. 2023 Feb;6(2);4-6. Available from: https://cardiofellows.com/newsletter-february-2023.html

Riad M, Rice M, Omar B. Dextrocardia imaging challenges: dextrocardiodiagnostics! Cardiofellows Newsletter. 2023 Apr;6(4):10-12. Available from: https://cardiofellows.com/newsletter-april-2023.html

Saad MA, Ahmed H, Elgohary R, Gendy HI. IgG4 related pericardium and lung disease in pediatric patient complicated with fatal massive hemoptysis: a case report and review of literature. Pediatr Rheumatol Online J. 2023 Feb 13;21(1):16. Available from: https://ped-rheum.biomedcentral.com/articles/10.1186/s12969-023-00799-7

Solodushko V, Fouty B. Terminal hairpins improve protein expression in IRES-initiated mRNA in the absence of a cap and polyadenylated tail. Gene Ther. 2023 Aug;30(8):620-627.

II. PUBLISHED ABSTRACTS

Arrieta M, Whiddon FP, Parker LL, Whiddon FP, Sutherland E, Whiddon FP, Sobol RW. Respectful closure of a CEnR DNA integrity study. J Clin Transl Sci. 2023 Apr 24;7(Suppl 1):67. Abstract no. 219.

Bardia N, Shah N, Riad M, Rajasekhar M, Mulyala R, Parks A, Malozzi C, Awan G, Omar B. Low serum magnesium predicts higher troponin and lower ejection fraction in acute coronary syndrome. Circulation. 2023 Feb 28;147(Suppl_1):AP411. Available from: https://oce.ovid.com/article/00003017-202302281-00338/HTML

Hamid S, Almalouf P. Thyrotoxic periodic paralysis: a grave disease. Am J Respir Crit Care Med 2023;207:A5283. Available from: https://www.atsjournals.org/doi/pdf/10.1164/ajrccm conference.2023.207.1_MeetingAbstracts.A5283?role=tab

Kar J, Bryant A, Chouhdry A, Cohen M, Revere C, McQuiston S, Malozzi C. Prognostic value of left ventricular global longitudinal strain for early prediction of cancer therapy-related cardiac dysfunction. Circulation. 2022 Oct 30;146(Suppl_1):A13581. Abstract no. 13581. Available from: https://www.ahajournals.org/doi/10.1161/circ.146.suppl_1.13581

Khouri A, Craig E, Niland B. VP shunt in the colon: a rare and missed complication. The Society for Surgery of the Alimentary Tract 64th Annual Meeting; 2023 May 6-9, Chicago, IL. Abstract no. TU1699. Available from: http://meetings.ssat.com/program/2023/Tu1699.cgi

Khouri A, Moreno C, Mir S, Bolanos G, Niland B. Second time is the charm: negative biopsy signet ring cell adenocarcinoma. Am J of Gastroenterol. 2022 Oct;117(10S2):e2300-e2301. Abstract no. S3668. Available from https://journals.lww.com/ajg/fulltext/2022/10002/s3668_second_time_is_the_charm__negative_biopsy.3668.aspx

Law W, Parker LL, Love K, Sutherland E, Arrieta MI. Partnering with the community: facilitating interest and trust in biomedical research. Am J Med Sci. 2023 Feb;365(S1):S298. Abstract no. 547. Available from: https://222.clinicalkey.com/#1content/journal/10s2.0-S0002962923005554

Malik HZ, Tran M, Spencer C, Henderson P. Iron overload in an H63D homozygote: looking beyond the genotype. Am J Gastroenterol. 2022 Oct;117(10S):e1973. Abstract no. S3057. Available from: https://journals.lww.com/ajg/fulltext/2022/10002/s3057_iron_overload_in_an_h63d_homozygote__looking.3057.aspx

Parks A, Rahman M, Riad M, Shah N, Bardia N, Mulyala R, Patel M, Sarwar U, Awan GM, Malozzi C, Omar BA. Prevalence and significance of poor R-wave progression on electrocardiography. Circulation. 2023 Feb;147(Suppl_1):AP413. Abstract no. P413. Available from: https://www.ahajournals.org/doi/10.1161/circ.147.suppl_1.P413

Parks A, Williams D, Riad M, Shah N, Bardia N, Malozzi C, Omar B. Left ventricular hypertrophy prevalence by electrocardiogram in patients presenting with cerebrovascular accident. Circulation. 2023 Mar 14;147(Suppl_1):AP475. Abstract no. P475. Available from: https://www.ahajournals.org/doi/10.1161/circ.147.suppl_1.P475

Patel A, Morgan S, Green R, Danila M, Merriman T, Wanzeck K, Ahmed H, Gaffo A. Vitamin B12 status and hyperhomocysteinemia in patients with methotrexate and folic acid. Arthritis Rheumatol. 2022 Nov 13;74(Suppl 9):1826. Abstract no. 0924.

Singh K, Kumar S, Almalouf P. Bleeding bronchial artery: to embolize or not? Am J Respir Crit Care Med. 2023;207:A2120. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2023.207.1_MeetingAbstracts.A2120?role=tab

Spencer C, Henderson P. Bleeding IGV2 from left-sided portal hypertension in a decompensated cirrhotic. "Am J Gastroenterol. 2022 Oct;117(10S):e1912. Abstract no. S2942. Available from: https://journals.lww.com/ajg/fulltext/2022/10002/s2942_bleeding_igv2_from_left_sided_portal.2942.aspx

Tran M, Malik H, Spencer C, Henderson P. Gastric neuroendocrine tumor of indeterminate type. Am J Gastroenterol. 2022 Oct;117(10S):2269. Abstract no. S3615. Available from: https://journals.lww.com/ajg/fulltext/2022/10002/s3615_gastric_neuroendocrine_tumor_of.3615.aspx

Williams D, Parks A, Rahman M, Mulyala R, Sarwar U, Patel M, Omar B, Malozzi C. Clinical significance of nonspecific T-wave abnormalities on electrocardiogram. Circulation. 2023 Feb;147(Suppl_1):AP590. Abstract no. P590. Available from: https://www.ahajournals.org/doi/10.1161/circ.147.suppl_1.P590

Zaman J, Pham J, Hundley G. Pursuing a supportive and non-invasive diagnostic process leading to the assessment and therapy for a pediatric patient with post-infectious cerebellar ataxia secondary to West Nile Virus. Am J Med Sci. 2023 Feb:365(S1):S171. Abstract no. 320.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

V. NATIONAL PROFESSIONAL RECOGNITION

DiPalma J: Editorial Advisory Board, Gastroenterology and Hepatology; Editorial Board, BMJ Open Gastroenterology Online; Editorial Board, Practical Gastroenterology; Past President, American College of Gastroenterology; Reviewer, American Journal of Gastroenterology; Reviewer, Southern Medical Journal; Reviewer, Global Faculty, *GastroHep.co;* Delegate, United States Pharmacopeial Convention, USA College of Medicine; Finance Committee, Member, World Gastroenterology Organization, Train-the-

Trainer Faculty and Program Committee; Foundation Board Member, 2015-Present; Secretary/Treasurer, World Gastroenterology Organization, 2011-2021.

Fagan K: American Thoracic Society; Society Representative – American College of Physician's Council of Subspecialty Societies; President, Association of Pulmonary, Critical Care and Sleep division Directors; Facilitator/moderator – Intern, Conference; Annual Meeting Organizing Committee, Tri-State Chapters of ATS (AL, MS, LA); PH clinicians and Researchers member, Research Committee, Pulmonary Hypertension Association; Speaker, Facilitator International Committee, Pulmonary Hypertension Committee.

Fagan K: Editorial Board, Pulmonary Circulation, 2014-Present.

Fagan K: NHLBI Program Project Review Committee (HLBP) – Institute wide committee to evaluate and recommend funding of multi-investigator program project grant applications.

Fagan K: NIH/NHLBI – PHANTOM – Pulmonary Hypertension and Anastrozole Trial, Member, 2017-Present; NIH/NHLBI – EDIPHY – DHEA in Pulmonary Arterial Hypertension Member, 2018-Present; NIH/NHLBI – REHAB-PH-H2 Blockade in Pulmonary Arterial Hypertension, Chair 2018-Present.

Fagan K: Advisor/Approval Committee, ABIM Pulmonary Longitudinal Knowledge Assessment, 2019-Present.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The Department of Medicine had a productive year in all missions of clinical care, education, research, and service.

Our clinical productivity was at an all-time high across all service lines and facilities. Providers were engaged in several projects to increase patient access in the ambulatory setting, as well as increasing throughput and capacity on inpatient service lines. Multiple recruitments of key faculty were and are currently ongoing to address critical needs, as well as to establish deeper and new services available to our community.

The educational efforts of the department continued to be a major strength, not only in the department but across the WCOM UME and GME programs. Many faculty served as instructors or directors in UME modules receiving recognition for excellence from the students. Residents and fellows achieved very highly on certification exams and the GME programs received reaccreditation without any citations of concern.

The department continued to be productive in publishing peer-reviewed manuscripts and abstracts, as well as presenting at regional, national, and international conferences.

The department and many individual faculty members were active in service within the Mobile community, as well as professional societies and governmental agencies, where they earned recognition by serving in leadership roles.

Lastly, we were able to recruit multiple key faculty positions over the past year, thus expanding our capacity in clinics and the hospital, and developing and strengthening service lines that will serve our patients.

2022-2023
Summary of Scholarly Activities
Department of Microbiology & Immunology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Gwin MS, Alexeyev MF, Geurts AM, Lee JY, Zhou C, Yang XM, Cohen MV, Downey JM, Barrington RA, Spadafora D, Audia JP, Frank DW, Voth S, Pastukh VV, Bell J, Ayers L, Tambe DT, Nelson AR, Balczon R, Lin MT, Stevens T. Gamma secretase activating protein promotes end-organ dysfunction after bacterial pneumonia. Am J Physiol Lung Cell Mol Physiol. 2023 Aug 1;325:L174-L189.

Kerr SM, Rayner JO, Wood RR, McCreadie J. Statewide survey of medically important ticks on white-tailed deer, *Odocoileus virginianus* Zimmerman, in Alabama, U.S.A. J Vector Ecol. 2022 Dec;47(2):210-216.

Laukaitis HJ, Cooper TT, Suwanbongkot C, Verhoeve VI, Kurtti TJ, Munderloh UG, Macaluso KR. Transposon mutagenesis of *Rickettsia felis* sca1 confers a distinct phenotype during flea infection. PLoS Pathog. 2022 Dec 21;18(12):e1011045.

Lu S, Danchenko M, Macaluso KR, Ribeiro JMC. Revisiting the sialome of the cat flea *Ctenocephalides felis*. PLoS One. 2023 Jan 17;18(1):e0279070.

Peng X, Kim J, Gupta G, Agaronyan K, Mankowski MC, Korde A, Takyar SS, Shin HJ, Habet V, Voth S, Audia JP, Chang D, Liu X, Wang L, Cai Y, Tian X, Ishibe S, Kang MJ, Compton S, Wilen CB, Dela Cruz CS, Sharma L. Coronavirus lung infection impairs host immunity against secondary bacterial infection by promoting lysosomal dysfunction. J Immunol. 2022 Oct 1;209(7):1314-1322.

Ravine TJ, Rayner JO, Roberts RW, Davis JH Jr., Soltani M. Boronium salt as an antiviral agent against enveloped viruses influenza A and SARS-CoV-2. Appl Biosci. 2022 Dec 1;1(3):289-298.

Taylor M, Rayner JO. Immune response to Chikungunya virus: sex as a biological variable and implications for natural delivery via the mosquito. Viruses. 2023 Sep 3;15(9):1869.

Wood RR, Roberts RW, Kerr SM, Wasden M, Hammer TG, McCreadie JW, Rayner JO. Tick-borne pathogens associated with medically important ticks in Alabama: a four-year survey. Vector Borne Zoonotic Dis. 2023 Feb;23(2):57-62.

Yang XM, Cohen MV, Sayner S, Audia JP, Downey JM. Lethal caspase-1/4-dependent injury occurs in the first minutes of coronary reperfusion and requires calpain activity. Int J Mol Sci. 2023 Feb 14;24(4):3801.

II. PUBLISHED ABSTRACTS

Esteves E, Assis J, Nassar M, Oliveira T, Junier PIS, Labruna M, Calvo E, Sá-Nunes A, Daffre S, Fogaça A. Antigenic salivary proteins from *Amblyomma sculptum*: potential targets to control ticks and block *Rickettisa rickettsia* transmission. 32nd Annual Meeting of the American Society for Rickettsiology; 2023 Jul 8-11; Snowbird, UT. p. 84. Abstract no. P44.

Hardy S, Fleck R, Gorodnya O, Walde R, Shea AE. Uncovering the interplay between patient variables and uropathogen biology. Microbial Pathogenesis and Host Response; 2023 Sep 11-15; Cold Springs Harbor, NY. p. 243.

Hermance M, Raney W, Langohr I, Herslebs E, Stone M. Transmission of Powassan virus by the invasive Asian longhorned tick, *Haemaphysalis longicornis*, under laboratory conditions. American Society of Tropical Medicine and Hygiene 71st Annual Meeting; 2022 Oct 30-Nov 3; Seattle, WA. p. 183. Abstract no. 0578.

Lal Sarkar S, Mitchell B, Esteves E, Macaluso K, Hermance M. Tissue localization and profiling of bacterial symbionts in the invasive Asian Longhorned Tick, *Haemaphysalis longicornis.* 32nd Annual Meeting of the American Society for Rickettsiology; 2023 Jul 8-11; Snowbird, UT. p. 113. Abstract no. P74.

Shea AE, Frick-Cheng AE, Smith SN, Mobley HLT. Enhanced motility in response to iron-limitation is a common mechanism across uropathogens**.** American Society for Microbiology Microbe 2023; 2023 Jun 15-19; Houston, TX. Abstract no. HMB-SATURDAY-1005. Available from: https://www.abstractsonline.com/pp8/#!/10789/presentation/5326

Shea A, Stocki J, Mobley HTL. Aquagenx™: water quality field test kits turned diagnostic tool for UTI. American Society for Microbiology Microbe 2023; 2023 Jun 15-19; Houston, TX. Abstract no. CPHM-SUNDAY-235. Available from: https://www.abstractsonline.com/pp8/#!/10789/presentation/5721

Suwanbongkot C, Danchenko M, Barrington R, Macaluso K. Role of γδ T cells in *Rickettsia parkeri* infection at the skin interface. 32nd Annual Meeting of the American Society for Rickettsiology; 2023 Jul 8-11; Snowbird, UT. p. 72. Abstract no. P32.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Audia JP. Invited speaker. A novel inflammatory role for amyloid-β in sepsis: from bedside to bench and beyond [virtual presentation]. Howard University Department of Physiology; 2023 Mar 20; Washington, D.C.

Barrington RA. Invited speaker. γδ T cells are master regulators of the acute antiviral response in the HSV-1 infected cornea. 87th Annual Mississippi Academy of Sciences Meeting; 2023 Feb 23; Biloxi, MS.

Barrington RA. Invited speaker. LCIF, LERI and USA Eye Research. Alabama Lions District 34C Convention; 2023 Mar 18; Eufaula, AL.

Gilk S, Allerdice M, Fuller L, Reed S, Saito T, Macaluso K. Invited speakers. Early career mentoring session. 32nd Annual Meeting of the American Society for Rickettsiology; 2023 Jul 8; Snowbird, UT.

Hermance ME. Invited speaker. Tick-virus-host interactions: lessons from laboratory modeling of a dynamic trio. Kansas State University Department of Entomology Seminar Series; 2023 Apr 4; Manhattan, KS.

Hermance ME. Invited speaker. Acquisition of North American tick-borne bandavirus and flavivirus by invasive *Haemaphysalis longicornis* during tick co-feeding. World Society for Virology 2023 Meeting; 2023 Jun 15; Riga, Latvia.

Kim JK. Invited speaker. Real-time tracking of influenza virus infection in mice. Kansas State University Center of Excellence for Emerging and Zoonotic Animal Diseases (CEEZAD)/Center on Emerging and Zoonotic Infectious Diseases (CEZID); 2023 Jul 20; Manhattan, KS.

Macaluso K. Invited speaker. The Department of Microbiology and Immunology at the University of South Alabama. Association of Medical School Microbiology and Immunology Chairs 2023 Annual Meeting; 2023 Jan 19; Puerto Vallarta, Mexico.

Macaluso K. Invited speaker. *Rickettsia*-arthropod interactions: a tale of two vectors. Keystone Symposium Immunology of Skin and Vector Biology; 2023 Feb 15; Breckenridge, CO.

Macaluso K. Invited speaker. Rickettsial determin. Keystone Symposium Immunology of Skin and Vector Biology; 2023 Feb 15; Breckenridge, CO.

V. NATIONAL PROFESSIONAL RECOGNITION

Audia JP: Grant Reviewer, National Institutes of Health/National Institute of Allergies and Infectious Diseases ZAI1 MFH-D-M2 NIH support for conferences and scientific meetings study section, U.S. Army Medical Research and Development Command, Congressionally Directed Medical Research Programs, Peer Reviewed Medical Research Program (PRMRP). Invited editor, *mBio*. Review Editor, *Frontiers in Cellular and Infection Microbiology*. Peer Reviewer, *Clinica Chimica Acta*, *Frontiers in Cellular and Infection Microbiology*, *mBio*, *International Journal of Molecular Science*, *Microorganisms*, *FASEB Journal*, *Neuroscience*, *PLoS ONE*.

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.

Hermance ME: Ad hoc Reviewer, National Institutes of Health/National Institute of Allergies and Infectious Diseases (NIH NIAID) vector biology study section, Department of Defense tick-borne disease research program, NIH NIAID member conflict review for transmission of vector-borne and zoonotic diseases study section. Review Editor, "Parasite and Host" section, *Frontiers in Cellular and Infection Microbiology*. Peer Reviewer, *Emerging Infectious Diseases, Vector-borne and Zoonotic Diseases; American Journal of Tropical Medicine and Hygiene; PLoSOne*. Executive Council Member, American Committee on Arthropod-Borne Viruses and Zoonotic Viruses. Member, American Society of Tropical Medicine and Hygiene American Committee on Arthropod-borne and Zoonotic Viruses, American Society of Tropical Medicine and Hygiene American Committee American Committee of Medical Entomology, NIH NIAID transmission of vector-borne and zoonotic diseases study section.

Macaluso KR: Reviewer, National Institutes of Health: rickettsial genetics. Subject Editor, *Journal of Medical Entomology*. Peer Reviewer, *PLoS Pathogens, PLoS Neglected Tropical Diseases, PLoS ONE, Journal of Medical Entomology, ASM–Infection and Immunity, American Journal of Tropical Medicine and Hygiene, Tick & Tick-borne Diseases, Frontiers Microbiology, Scientific Reports, CDC Emerging Infectious Diseases, Nature Communications, mBio, Cell*. Executive Committee Member, American Society for Rickettsiology. Scientific Program Committee Member, American Society of Tropical Medicine and Hygiene. Ad hoc Member, NIH NIAID Board of Scientific Counselors Program Review, Department of Health and Human Services.

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*. Member, American Committee on Arthropod-borne Viruses. Contributor, Growing our timber—PhD program development at the University of Liberia College of Health Sciences.

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 2022-2023 academic year for the Department of Microbiology and Immunology was progressive. The Department remains highly active in the education mission of the College.

Dr. Audia continued to oversee the graduate student teaching by coordinating the Infectious Diseases and Host Defense Track (IDHD) as track director. The Department has six graduate students in the IDHD track, and the faculty mentor graduate students across all tracks in the College of Medicine. Additionally, Dr. Meghan Hermance is mentoring a seventh graduate student as a part of a collaborative and innovative program with the Department of Biology, where the student will obtain her master's degree in biology and then transition into the BMS graduate program and IDHD track. Dr. Macaluso graduated one PhD student, Natthida Tongluan, who went on to a position with an up-and-coming biomedical research start-up company in Houston, TX. Faculty in the Department also mentor several trainees in the Medical School Summer Scholars program and the South Alabama Undergraduate Research program. The Department also hosted its inaugural Research Symposium, giving 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 efforts to the medical education experience. The faculty saw an increase in activity in research and scholarship with ten peer-reviewed papers published and numerous presentations. Additionally, faculty were invited to review grant proposals and papers in their fields, signifying recognition of their expertise in research. Dr. Hermance was invited to become a standing member of a National Institutes of Health (NIH) review panel on vector-borne diseases. Faculty in the Department also received fifteen awards for extramural research support from state/federal agencies, foundations, and industry. Examples include Dr. Audia and Dr. Barrington who received an NIH grant that will allow them to further investigate the role of amyloid precursor proteins and how they activate neutrophils to initiate immune responses in bacterial infections. Dr. Macaluso received an NIH award to study the role of arthropods in the transmission of leprosy. Dr. Rayner received United States Department of Agriculture funding to examine the arbovirus landscape in the southeastern United States, as well as additional funding from the Mobile County Health Department to continue research as a part of their ongoing mosquito surveillance program. Dr. Shea received an Innovative Science Accelerator Program grant to explore the role of amyloid-beta peptide plaque formation in pyelonephritis and urosepsis and its influence on UTI pathophysiology. Dr. Barrington received an instrument grant from Lions Eye Foundation to further support his immunological research.

Additionally, it was an active year for faculty hires and recruiting. Dr. Allyson Shea joined the Department in early 2023. 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 cancer immunology recruits, who will join the faculty in early 2024; this will provide the Department with additional opportunities to collaborate with faculty at the Mitchell Cancer Institute. 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. The faculty regularly lead and serve on committees *(e.g.,* IACUC and IBC) and organizations (Faculty Senate) 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.

2022-2023
Summary of Scholarly Activities
Department of Neurology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Baena E, Abelleira C, García M, Sánchez JA, Quintana FC, Díaz SA, Martel MC, Fernández JA, Giráldez A, Benítez N. Family intervention in severe mental disorder: an online intervention format in psychosocial rehabilitation centers. J Psychosoc Rehabil Ment Health. 2023;10(2):233-245.

El-Mallakh RS, Belnap A, Iyer S, Schreiber J, Matthews D, Lefler L, Dees D, Bott A, Vanegas-Arroyave N, Wolff A, Pesce U, Farahmand K, Shah C, Lundt L. Telehealth for assessing and managing tardive dyskinesia: expert insights from a cross-disciplinary virtual treatment panel. Telemed J E Health. 2023 Jul;29(7):1096-1104.

Nisar T, Lebioda K, Shaulov S, Shapouran S, Abu-Hadid O, Tofade T, Khandelwal P. Interplay between anemia parameters and collateral status in patients who undergo mechanical thrombectomy. J Clin Neurosci. 2022 Oct;104:34-41.

Nisar T, Tofade T, Lebioda K, Abu-Hadid O, Khandelwal P. Association of 24-hour blood pressure parameters post-thrombectomy with functional outcomes according to collateral status. J Neurol Sci. 2022 Oct 15;441:120369.

Padarti A, Penwell A, Saleemi MA, Sugg R, Nisar T. Cerebral cavernous malformation associated with left middle cerebral artery (MCA) aneurysm and bilateral internal carotid artery (ICA) dissections. Cureus. 2023 Feb 7;15(2):e34715.

Rawhani R, Sharma K, Maertens P. Echoencephalography of Möbius sequence: a congenital cranial dysinnervation disorder with brainstem calcifications. J Neuroimaging. 2023 Jan;33(1):35-43.

II. PUBLISHED ABSTRACTS

Lee J, Galecio-Castillo M, Nisar T, Farooqui M, Dajles A, Talbot C, Sonig A, Singla A, Gupta G, Abecassis TJ, Munich S, Renieri L, Starke RM, Yavagal D, Ortega-Gutierrez S, Khandelwal P, Chebl A, Mohamud A, Miller D. An international, multi-center-analysis of the safety and feasibility of transradial approach for carotid-artery stenting. Stroke Vasc Interv Neurol. 2023 Mar;3(S1):e12524. Abstract no. 94. Available from: https://www.ahajournals.org/doi/epub/10.1161/SVIN.03.suppl_1.094

Lee J, Nisar T, Memon MZ, Biswas A, Bach I, Gupta G, Singla A, Sonig A, Puri A, Satti R, Ortega-Gutierrez S, Khandelwal P. Prospective evaluation of the safety and suitability of the 088 Infinity catheter for radial neurointerventions. Stroke Vasc Interv Neurol. 2023 Mar;3(S1):e12444. Abstract no. 9. Available from: https://www.ahajournals.org/doi/epub/10.1151/SVIN.03suppl_009

Nisar T, Lebioda K, Rodriguez J, Patel J, Lee J, Bach I, Memon MZ, Singla A, Khanelwal P. The effect of aortic arch and carotid artery anatomy parameters on door-to-recanalization times at a comprehensive stroke center. Stroke. 2023 Feb;54(Suppl 1):ATP134. Abstract no. TP134. Available from: https://www.ahajournals.org/doi/10.1161/str.54.suppl_1.TP134

Nisar T, Tofade T, Shaulov S, Shapouran S, Abu-hadid O, Khandelwal P. Association of 24- hour blood pressure parameters post-thrombectomy pith functional outcomes in anemic and non-anemic patients. Stroke. 2023 Feb;54(Suppl 1):ATP 152. Abstract no. TP152. Available from: https://www.ahajournals.org/doi/10.1161/str.54.suppl_1.TP152

Padarti A, Amod A, Kilgo WA. Hospital readmission rates in multiple sclerosis and neuromyelitis optica spectrum disorder patients. Mult Scler. 2023 May;29(2 Suppl). Abstract no P098. Available from: https://journals.sagepub.com/doi/full/10.1177/13524585231169437

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Bassam B. Invited speaker. Acquired inflammatory myopathies. Clinical Neurological Society of America 49th Annual Meeting; 2023 Jan 16; Jupiter, FL.

Bassam B. Invited speaker. The sounds of muscles. 7th Annual Neuromuscular Disorder Seminar; 2023 Apr 15; Houston, TX.

Czarkowska H. Invited speaker. Mood changes in Parkinson's disease. Let's talk about it, Parkinson Foundation Seminar; 2023 Jan 27; Mobile, AL.

Kilgo W. Invited speaker. A rational approach to treatment decision making in multiple sclerosis. 8th Annual Neuroscience Symposium; 2023 Apr 15; Pensacola, FL.

V. NATIONAL PROFESSIONAL RECOGNITION

Bassam B: Board of Director member, American Lebanese Club of Mobile.

Bassam B: Member of St. Jude Miracles on the Bay, St. Jude Children's Research Hospital.

Dees D: Journal peer review, Parkinson & Related Disorders journal.

Kilgo W: Partner in multiple sclerosis care designation with National Multiple Sclerosis Society.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

2022-2023
Summary of Scholarly Activities
Department of Neurosurgery

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Darbin O. Discussion on S. Shirani, A. Valentin, G. Alarcon, F. Kazi and S. Sanei. Separating inhibitory and excitatory responses of epileptic brain to single-pulse electrical stimulation, International Journal of Neural Systems, vol. 33, no. 2 (2023) 2350008. Int J Neural Syst. 2023 Feb 24;33(9):2375001. Available from: https://www.worldscientific.com/doi/10.1142/S0129065723750011?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%20%200pubmed

Menger R, Beauchamp EC, Alexiades N, Szpilka RT, Anderson RCE. Neonatal halter traction for severe cervical spine deformity: a technical case report with 2-year follow-up. Oper Neurosurg (Hagerstown). 2023 Jun 1;24(6):e454-e457. Available from: https://oce.ovid.com/article/01787389-202306000-00035/HTML

Rella RT, Trent J, Menger R. Lumbo-pelvic dissociation in a patient with complex spinal deformity: a case report. Cureus. 2022 Oct 21;14(10):e30547. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9676009/?report=classic

II. PUBLISHED ABSTRACTS

Cales D, Harris L, Darbin O, Chason DN, Hummel U, Martino A, Thakur JD. Utilization of keyhole skull base approaches in first 2 years of practice: outcomes, complications, post-discharge narcotic use, and 30-day readmissions. J Neurol Surg B Skull Base. 2023 Feb;84(S01). Abstract no. P069. Available from: https://www.thieme-connect.com/products/ejournals/abstract/10.1055/s-0043-1762290#info

Cales D, Harris L, Butler D, Broadfoot W, Chason D, Hummel U, Darbin O, Thakur JD. Value of endoscopy in transcranial skull base pathologies to uncover blind spots: technical nuances. 73rd Southern Neurosurgical Meeting; 2023 Feb 8-11; Marco Island, FL. p. 8. Abstract no. 30.

Menger R, Park P, Bixby E, Marciano G, Cerpa M, Roye D, Roye B, Vitale M, Lenke L. Complications in ambulatory pediatric patients with non-idiopathic spinal deformity undergoing fusion to the pelvis using the sacral-alar-iliac technique within 2 years of surgery. 73rd Southern Neurosurgery Society Annual Meeting; 2023 Feb 8-11; Marco Island, FL. p. 5. Abstract no. 8.

Rallo MS, Berke C, Menger R. State-to-state variation in Medicaid and Medicare reimbursement: implications for healthcare access among vulnerable populations. Neurosurgery. 2023 Apr;69(Supplement_1):27. Abstract no. 115. Available from: https://journals.lww.com/neurosurgery/toc/2023/04001#168750646

Young P, Bowden V, Baker N, DiGeorgio A, Menger R. Efficient utilization of resources and safe overlapping surgery in a spinal deformity practice. Southern Orthopedic Association 40th Annual Meeting; 2023 Jul 26-29; Miramar Beach, FL. Abstract no. 37.

III. PUBLISHED BOOKS

Montgomery EB Jr, Darbin O. Nonlinear dynamics of Parkinson's disease and the basal ganglia-thalamic-cortical system. Academic Press: 2023, 410p.

IV. INVITED PRESENTATIONS

Baker N, Young P, Bowden V, DiGeorgio A, Menger R. Invited speakers. Efficient utilization of resources and safe overlapping surgery in a spinal deformity practice. [video presentation]. 8th Annual Safety in Spine Surgery Summit; 2023 Apr 15; New York, NY. Abstract no. 27. Available from: https://broad-water.com/safety-in-spine-surgery-summit-2023-videos/safety-summit-2023-videos-ep27-efficient-utilization-of-resources-and-safe-overlapping-surgery-in-a-spinal-deformity-practiefficient-utilization-of-resources-and-safe-overlapping-surgery-

Menger R. Invited speaker. Performing safe complex spinal deformity surgery: strategies and tactics. Neurosurgical Society of Alabama 2023 Conference; 2023 Jun 3; Point Clear, AL.

Menger R. Invited speaker. The value of a neurosurgeon. 2023 American Association of Neurological Surgeons Annual Meeting; 2023 Apr 22; Los Angeles, LA.

Menger R. Invited speaker. Defining and delivery the value of a neurosurgeon in negotiations. 2022 Congress of Neurological Surgeons Annual Meeting; 2022 Oct 8; San Francisco, CA.

Pearson M. Invited speaker. Pediatric epilepsy neurosurgery [video]. "Healthy Living with USA Health" segment Fox 10 News; 2023 Jun 21; Mobile, AL. Available from: https://www.fox10tv.com/2023/06/21/healthy-living-with-usa-health-pediatric-epilepsy-neurosurgery.

Pearson M. Invited speaker. International epilepsy day [video]. Health Medical Moment segment WKRG 5 News; 2023 Feb 13; Mobile, AL. Available from: https://www.wkrg.com/health/medical-moment-international-epilepsy-day.

Thakur JD. Invited speaker. Keyhole approaches for surgical management of trigeminal neuralgia and hemifacial spasms. 8th Annual University of South Alabama Neuroscience Symposium; 2023 Apr 16; Pensacola Beach, FL.

Thakur JD. Invited speaker. Adopting minimally invasive and keyhole mentality in skull base neurology. Neurosurgical Society of Alabama; 2023 Jun 4; Point Clear, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

Menger, R: Award winning abstract, Samuel Hassenbusch Young Neurosurgeon Award; Apr 2023.

Menger R: Reviewer, Socioeconomic abstract submissions, Congress of Neurological Surgeons Annual Meeting; Apr 2023.

Menger R: Reviewer, Spine abstract submissions, Congress of Neurological Surgeons Annual Meeting; Apr 2023.

Menger R: Reviewer, Deformity abstract submissions, North American Spine Society Annual Meeting; Mar 2023.

Menger R: Committee member, Ethics and professionalism, Scoliosis Research Society Annual Meeting; Nov 2023.

Thakur JD. Course director. New concepts in intra-operative guidance. Congress of Neurological Surgeons; 2023 Sep 11; Washington DC.

Thakur JD. Workshop. Mini pterional, lateral supra-orbital approaches. North American Skull Base Surgery; 2023 Aug 19; New Orleans, LA.

Thakur JD. Session moderator. Neoadjuvant chemotherapy in sinonasal malignancies; North American Skull Base Surgery, 2023 Feb 17; Tampa, FL.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The department of neurosurgery has continued to have significant growth this past year. We have added a fifth neurosurgeon, Dr. Andrew Romeo. A fellowship-trained functional neurosurgeon, Dr. Romeo has continued to grow the DBS program and has added stimulation of the anterior thalamus for epilepsy. He is also adding new surgical techniques for treatment of epilepsy. The next year is exciting, as he will introduce robotic surgery for epilepsy and DBS.

Drs. Merger and Thakur have continued to grow their respective clinical practices. Both have presented material to our national societies, and both have been recognized as young leaders in our field. They have moderated seminars on a national level and Dr. Thakur has been invited to write questions for the national boards.

We have recruited a 6th partner who will join us in January. Dr. John Amburgy will direct the neurological ICU and have an elective spine practice as well.

Now that we have met requirements for a neurosurgical residency, the application will be submitted this fall and we will await the RRC decision by the next spring.

The upcoming academic year brings forward some challenges as we will try to incorporate the new USA Providence Hospital in our practice.

2022-2023
Summary of Scholarly Activities
Department of Obstetrics and Gynecology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Allen EC, Goslawski MM, Taple BJ, Sakowicz A, Alvarado-Goldberg M, Miller ES. The association between adverse childhood experiences and perinatal depression symptom trajectories. Am J Obstet Gynecol MFM. 2023 Aug;5(8):101039.

Goulding AN, Antoniewicz L, Leach JM, Boggess K, Dugoff L, Sibai B, Lawrence K, Hughes BL, Bell J, Edwards RK, Gibson K, Haas DM, Plante L, Metz TD, Casey B, Esplin S, Longo S, Hoffman M, Saade GR, Hoppe KK, Foroutan J, Tuuli M, Owens MY, Simhan HN, Frey H, Rosen T, Palatnik A, Baker S, Reddy UM, Kinzler W, Su E, Krishna I, Nguyen N, Norton ME, Skupski D, El-Sayed YY, Ogunyemi D, Harper LM, Ambalavanan N, Oparil S, Szychowski JM, Tita AT; Chronic Hypertension and Pregnancy Trial Consortium. Breastfeeding initiation and duration among people with mild chronic hypertension: a secondary analysis of the Chronic Hypertension and Pregnancy trial. Am J Obstet Gynecol MFM. 2023 Jul 10;5(9):101086.

Ikeri K, Noles K, Dolma K, Roth T, Smithgall A, Skipper C, Zayek M. Optimizing the hospital discharge process to facilitate family-centered care for well newborns. J Perinatol. 2023 Jul;43(7):952-957.

Kampmann B, Madhi SA, Munjal I, Simões EAF, Pahud BA, Llapur C, Baker J, Pérez Marc G, Radley D, Shittu E, Glanternik J, Snaggs H, Baber J, Zachariah P, Barnabas SL, Fausett M, Adam T, Perreras N, Van Houten MA, Kantele A, Huang LM, Bont LJ, Otsuki T, Vargas SL, Gullam J, Tapiero B, Stein RT, Polack FP, Zar HJ, Staerke NB, Duron Padilla M, Richmond PC, Koury K, Schneider K, Kalinina EV, Cooper D, Jansen KU, Anderson AS, Swanson KA, Gruber WC, Gurtman A; MATISSE Study Group (Holliday NP, contributor; Roth T, collaborator). Bivalent prefusion F vaccine in pregnancy to prevent RSV illness in infants. N Engl J Med. 2023 Apr 20;388(16):1451-1464.

Porreco R, Garite TJ, Combs CA, Maurel K, Huls CK, Baker S, Fortner KB, Longo SA, Nageotte M, Lewis D, Tran L. Booster course of antenatal corticosteroids after preterm prelabor rupture of membranes: a double-blind randomized trial. Am J Obstet Gynecol MFM. 2023 May;5(5):100896.

II. PUBLISHED ABSTRACTS

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Dabezies C. Invited speaker. Women's health month in Alabama - dealing with menopause. Alabama Public Radio; 2023 May 25; Mobile, AL.

Goslawski M. Invited speaker. Reproductive psychiatry's role in an era of abortion restriction. 30th Annual University of South Alabama Obstetrics and Gynecology Conference; 2022 Oct 6; Mobile, AL.

Holliday CP. Invited speaker. The terrifying postmortem: a selection of medical malpractice cases from which to learn good habits. 30th Annual University of South Alabama Obstetrics and Gynecology Conference; 2022 Oct 6; Mobile, AL.

Holliday CP. Invited speaker. Hot medico-legal topics in Alabama. Whiddon College of Medicine Alumni Reunion; 2023 Jun 10; Point Clear, AL.

Perez W. Invited speaker. The more the scarier: multiple gestations. 30th Annual University of South Alabama Obstetrics and Gynecology Conference; 2022 Oct 7; Mobile, AL.

Varner SF. Invited speaker. Medications in vulvovaginal diseases. 30th Annual University of South Alabama Obstetrics and Gynecology Conference; 2022 Oct 6; Mobile, AL.

Winkler C. Invited speaker. CHAP study – CHTN in pregnancy. 30th Annual University of South Alabama Obstetrics and Gynecology Conference; 2022 Oct 6; Mobile, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Constance Collins Dabezies, M.D., FACOG, NCMP, named one of seven healthcare providers in Alabama to hold the NAMS Certified Menopause Practitioner designation from the North American Menopause Society
Stephen T.F. Varner, MD received The American College of Obstetricians and Gynecologists National Faculty Award of Excellence in Resident Education
Dr. Candice Holliday named Director of Resident Research
Dr. William Perez named Co-Director of Resident Research
Dr. William Perez named Medical Director, Labor & Delivery
Women's Behavioral Health Clinical Services Implemented into Practice
Two members of faculty volunteered for outreach in Rwanda, Jan. 2023
Recruitment of OBGYN Generalist
Recruitment of GYN Surgeon
USA Community Outreach – Women's Health Month March 2023
Community Outreach – Expanding the presence of PAG in the Community
Met eligibility criteria for the 2023 BCBS Blue Distinction Center for Maternity Care
Established the Postpartum Virtual Clinic for Patients

2022-2023
Summary of Scholarly Activities
Department of Orthopaedic Surgery

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Rella RT, Yockers RB, Cox T, Mullens J. Cheerleading accident resulting in bilateral Lisfranc injuries in a young female athlete: a case report. Foot Ankle Surg (NY). 2023 Autumn;3(3):100312.

Rella RT, Brandon AS, Garrison IA, Young P, McDonald TC. A fracture from a physical exam: a case reports of osteogenesis imperfecta and the use of Fassier-Duval Rods. Cureus. 2023 Apr 3;15(4):e37068.

Webb ML. CORR Insights®: do cultures obtained during primary THA predict the likelihood of revision? Clin Orthop Relat Res. 2023 Apr 1;481(4):786-788.

II. PUBLISHED ABSTRACTS

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Clay TB. Invited speaker. The effect of ulnar ligament repair with internal brace augmentation on articular contact mechanics: a cadaveric study. Angus McBryde Research Symposium; 2023 Jun 23; Mobile, AL.

Madison RD. Invited speaker. Emergencies in trauma surgery. Alabama Chapter of the American College of Surgeons; 2023 Jul 13; Gulf Shores, AL.

Madison RD. Invited speaker. Difficult patient populations in EMS. Gulf Coast Trauma Symposium; 2023 Mar 23; Mobile, AL.

McDonald TC. Invited speaker. How obesity affects orthopaedic conditions of childhood. Alabama Chapter of the American Academy of Pediatrics; 2023 May 26; Gulf Shores, AL.

McDonald TC. Invited speaker. Do patient-answered versus parent-answered patient reported outcomes (PRO) differ in pediatric fracture care? Alabama Orthopaedic Society Annual Meeting; 2023 May 19; Destin, FL.

McDonald TC. Invited speaker. Mid-term outcome of multimodal treatment for severe spinal deformity in osteogenesis imperfecta: minimum two years follow-up. 30th International Meeting on Advanced Spine Techniques; 2023 Mar 23; Dublin, Ireland.

Mullens J. Invited speaker. Ankle arthroscopy: not just for the foot and ankle orthopaedic surgeon. Southern Orthopaedic Association 40th Annual Meeting; 2023 Jul 29; Miramar Beach, FL.

Mullens J. Invited speaker. Ankle arthroscopy in ankle fractures. Angus McBryde Research Symposium; 2023 Jun 23; Mobile, AL.

Mullens J. Invited speaker. Sports case presentation. Southeastern Foot Club Annual Meeting; 2023 May 18; Destin, FL.

Mullens J. Invited speaker. Cases I rocked and cases that rocked me. Orthopaedic Foot and Ankle Society Annual Meeting Surgery; 2022 Nov 12; Charleston, SC.

Mullens J. Invited speaker. Peroneal tendon transfer, augmentation, and allograft reconstruction. Orthopaedic Foot and Ankle Society Annual Meeting; 2022 Nov 11; Charleston, SC.

Mullens J. Invited speaker. New advances in sports and forefoot/MIS: what's new and what's next? Lateral ankle instability [webinar]. American Orthopaedic Foot and Ankle Society OnDemand Course; 2023 Jun 13; Rosemont, IL.

Slauterbeck J. Invited speaker. ACL injury risk and prevention in high school athletes. Alabama Chapter of the American Academy of Pediatrics; 2023 May 26; Gulf Shores, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

Mullens J. Director and Moderator. Southeastern Foot Club.

Mullens J. Moderator. Rapid Fire Sessions / Southern Orthopaedic Association Annual Meeting.

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

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. Board of Directors. Alabama Orthopaedic Society.

McDonald TC. Candidate Fellow. Scoliosis Research Society.

McDonald TC. Reviewer. Clinical Orthopaedics and Related Research.

McDonald TC. Social Media Committee. Scoliosis Research Society.

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

Webb M. Top Reviewer Acknowledgment. Clinical Orthopaedics and Related Research.

Slauterbeck J. Reviewer. American Journal of Sports Medicine.

Slauterbeck J. Reviewer. Clinical Orthopaedics and Related Research.

Slauterbeck J. Reviewer. Journal of Orthopaedic Research.

Slauterbeck J. Reviewer. Medicine and Science in Sports and Exercise.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

In the past year, the department of orthopaedic surgery has been focused on expanding its department through recruitment of faculty and staff as well as preparing for our utilization of the Providence Hospital campus. We have added an additional pediatric orthopaedic surgeon with Dr. William Cutchen. We have also added a nonoperative sports family practice physician, Dr. Bishop Carmichael, who will help with our sports coverage, as well as providing nonoperative care to our patient population.

Even though our department has a young faculty, they continue to be active in local, regional and national sub-specialty organizations within orthopaedic surgery. They are taking on more leadership roles within these organizations and are even directing and organizing large meetings and educational conferences. As we continue to put forth effort this upcoming year with these organizations, I believe this will lead to more national recognition of the University of South Alabama in our specific subspecialties.

Education has been a top priority for our department this year. Our faculty are required to take an active role in grand rounds and lecture series for our residents and we have received good feedback from their lectures. These lectures are attended by undergraduate and medical students and often by orthopaedic surgeons in the community private practices. This gives us the opportunity for outreach and building relationships within our community. Our activity within our subspecialty organizations will lead to more opportunities for educational lectures at regional and national levels.

We continue to devote significant resources, time, and effort to service within our community. Our relationship with the Mobile County Public Schools has allowed us to provide sports physicals to most of the high school students across the city. This relationship has also created a pathway for these students to be seen in an expedited fashion by one of our sports surgeons. Our department covers the high school football games and gives physician coverage for athletic injuries.

Other areas of service and outreach have been realized on a national level and international level. Dr. Mullens provides coverage throughout the year with the US Ski and Snowboard Team. Drs. McDonald and Slauterbeck also traveled on week-long trips to Ecuador to provide medical care to underserved populations.

Our department is currently working with our information/technology department to provide the ability to collect patient reports outcomes within our clinics and hospital. The ability to use modern technology to collect patient outcomes and have quick analysis of the information will allow our department to expedite meaningful research projects to publication and participate in other quality improvement projects across the University of South Alabama.

It is one of our top priorities this coming year to recruit a research director within our department to give direction to these projects. Not only is it important to find someone skilled in constructing research projects and carrying them out, but to find someone who understands the infrastructure that is needed to get these projects off the ground. This director would assist in recruitment of students from the undergraduate college and college of medicine to aid with research.

Current projects planned for the coming year include management of diabetic foot infections in systems; use of c-arm with transitional ankle fractures; patient-reported outcomes with nonoperative and operative interventions in orthopaedic surgery; biomechanical studies concerning knee and hip mechanics; outcomes of traumatic fractures related to timing of surgery; and outcomes for pediatric scoliosis surgery.

2022-2023
Summary of Scholarly Activities
Department of Pathology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Acharya S, Anand S, Khan MA, Zubair H, Srivastava SK, Singh S, Singh AP. Biphasic transcriptional and posttranscriptional regulation of MYB by androgen signaling mediates its growth control in prostate cancer. J Biol Chem. 2023 Jan;299(1):102725.

Anand S, Khan MA, Singh AP. Turning adversity into strength and transferring it to the uninitiated: the tricks cancer cells play to survive hypoxic stress and fight chemotherapy. Cancers (Basel). 2022 Dec 28;15(1):166.

Anand S, Khan MA, Zubair H, Sudan SK, Vikramdeo KS, Deshmukh SK, Azim S, Srivastava SK, Singh S, Singh AP. MYB sustains hypoxic survival of pancreatic cancer cells by facilitating metabolic reprogramming. EMBO Rep. 2023 Mar 6;24(3):e55643.

Anand S, Vikramdeo KS, Singh S, Singh AP, Dasgupta S. Racial disparities in the genetic landscape of lung cancer. Cancer Health Disparities. 2022;6:210.

Brady KC, Stephens CP, Sudan SK, Singh AP, Dasgupta S, Singh S. Breast and cervical cancer disparities in Alabama: current scenario, ongoing efforts to reduce the disparity gaps, and what more we could be doing. Cancer Health Disparities. 2022;6:e1-e10.

Chakroborty D, Goswami S, Fan H, Frankel WL, Basu S, Sarkar C. Neuropeptide Y, a paracrine factor secreted by cancer cells, is an independent regulator of angiogenesis in colon cancer. Br J Cancer. 2022 Nov;127(8):1440-1449.

Chakroborty D, Sarkar C. Role of neuromodulators in regulation of the tumor microenvironment of gastric and colorectal cancers. Rezaei N, editor. Cancer research: an interdisciplinary approach. Cham: Springer; 2022. p.1-36. (Interdisciplinary Cancer Research; Vol. 2).

Cui M, Sadri N, Awadallah A, Zhou L, Xin W. Late recurrence of colorectal carcinoma in patients with malignant polyp and risk factors. Int J Surg Pathol. 2023 Sep;31(6):967-974.

de la Cruz Jasso MA, Mejía-Vilet JM, Del Toro-Cisneros N, Aguilar-León DE, Morales-Buenrostro LE, Herrera G, Uribe-Uribe NO. Leukocyte chemotactic factor 2 amyloidosis (ALECT 2) distribution in a Mexican population. Am J Clin Pathol. 2023 Jan 4;159(1):89-97.

del Pozo-Yauner L, Herrera GA, Perez-Carreon JI, Turbat-Herrera EA, Rodriguez-Alvarez FJ, Ruiz-Zamora RA. Role of the mechanisms for antibody repertoire diversification in monoclonal light chain deposition disorders: when a friend becomes foe. Front Immunol. 2023 Jun 13;14:1203425.

Goswami S, Sarkar C, Singh S, Singh AP, Chakroborty D. Racial differences in prostate tumor microenvironment: implications for disparate clinical outcomes and potential opportunities. Cancer Health Disparities. 2022;6:214.

Haastrup MO, Vikramdeo KS, Singh S, Singh AP, Dasgupta S. The journey of mitochondrial protein import and the roadmap to follow. Int J Mol Sci. 2023 Jan 27;24(3):2479.

Herrera GA, Teng J, Zeng C, del Pozo-Yauner L, Liu B, Turbat-Herrera EA. AL(light chain)-amyloidogenesis by mesangial cells involves active participation of lysosomes: an ultrastructural study. Heliyon. 2023 Apr 7;9(4):e15190.

Herrera-López EE, Guerrero-Escalera D, Aguirre-Maldonado I, López-Hernández A, Montero H, Gutiérrez-Nava MA, del Pozo-Yauner L, Arellanes-Robledo J, Camacho J, Pérez-Carreón JI. Annexins A2 and A5 are potential early biomarkers of hepatocarcinogenesis. Sci Rep. 2023 Apr 28;13(1):6948.

Hertweck KL, Vikramdeo KS, Galeas JN, Marbut SM, Pramanik P, Yunus F, Singh S, Singh AP, Dasgupta S. Clinicopathological significance of unraveling mitochondrial pathway alterations in non-small-cell lung cancer. FASEB J. 2023 Jul;37(7):e23018.

Ibodeng GO, Uche IN, Mokua R, Galo M, Odigwe B, Galeas JN, Dasgupta S. A snapshot of lung cancer: where are we now? -a narrative review. Ann Transl Med. 2023 Mar 31;11(6):261.

Kakkat S, Pramanik P, Singh S, Singh AP, Sarkar C, Chakroborty D. Cardiovascular complications in patients with prostate cancer: potential molecular connections. Int J Mol Sci. 2023 Apr 10;24(8):6984.

Khan SM, Bauman AJ, Elkadi O, Nelson AR. Identifying matrix- and transporter-type pericytes in human brain. Alzheimers Dement. 2022 Dec 20;18(S3):e066945.

Logan SJ, Yin H, Rogers B, Arva N, Conces MR, Cope-Yokoyama S, Dehner LP, Galliani C, Garg S, He M, Husain AN, Keisling M, Krishnan C, Puscasiu E, Rossi C, Siddiqui F, Sutton L, Terry J, Thaker AI, Huang Y, Zhang J, McCracken C, Rytting H. Calretinin staining in anorectal line biopsies accurately distinguished Hirschsprung disease in a retrospective study. Pediatr Dev Pathol. 2022 Nov-Dec;25(6):645-655.

López-Torres CD, Torres-Mena JE, Castro-Gil MP, Villa-Treviño S, Arellanes-Robledo J, del Pozo-Yauner L, Pérez-Carreón JI. Downregulation of indolethylamine N-methyltransferase is an early event in the rat hepatocarcinogenesis and is associated with poor prognosis in hepatocellular carcinoma patients. J Gene Med. 2022 Aug;24(8):e3439.

Phung TL. Histopathology of vascular malformations. Dermatol Clin. 2022 Oct;40(4):345-355.

Sharma A, Singh AP, Singh S. Shaping up the tumor microenvironment: extracellular vesicles as important intermediaries in building a tumor-supportive cellular network. Cancers (Basel). 2023 Jan 13;15(2):501.

Singh S, Singh AP. Exosomes: tools and targets for cancer diagnosis, prognosis, and therapy. Cancer Lett. 2022 Oct 28;547:215865.

Tahir M, Ahmed Z, Elkadi O. Cranial juvenile psammomatoid ossifying fibroma: a rare entity. Cureus. 2023 Jul 19;15(7):e42122.

Tahir M, Elkadi O, Liu SS, Dasaraju S. Pityriasis lichenoides chronica of esophagus: a rare case report. Cureus. 2022 Dec 7;14(12):e32290.

Tahir M, Zedan M, Bellamkonda V, Dyess DL, Wei EX. Primary malignant peripheral nerve sheath tumor of the breast: a rare case report and review of literature. Cureus. 2022 Nov 16;14(11):e31586.

Tran GH, Le NTA, Dang MH, Doan TTP, Phung TL. Concordance of clinical, histologic, and direct immunofluorescence findings in patients with autoimmune bullous dermatoses in Vietnam. Dermatopathology (Basel). 2023 Jan 10;10(1):30-40.

Vikramdeo KS, Anand S, Khan MA, Khushman M, Heslin MJ, Singh S, Singh AP, Dasgupta S. Detection of mitochondrial DNA mutations in circulating mitochondria-originated extracellular vesicles for potential diagnostic applications in pancreatic adenocarcinoma. Sci Rep. 2022 Nov 2;12(1):18455.

Vikramdeo KS, Anand S, Pierce JY, Singh AP, Singh S, Dasgupta S. Distribution of microbiota in cervical preneoplasia of racially disparate populations. BMC Cancer. 2022 Oct 18;22(1):1074.

Vikramdeo KS, Sharma A, Anand S, Sudan SK, Singh S, Singh AP, Dasgupta S. Mitochondrial alterations in prostate cancer: roles in pathobiology and racial disparities. Int J Mol Sci. 2023 Feb 24;24(5):4482.

Vikramdeo KS, Sudan SK, Singh AP, Singh S, Dasgupta S. Mitochondrial respiratory complexes: significance in human mitochondrial disorders and cancers. J Cell Physiol. 2022 Nov;237(11):4049-4078.

II. PUBLISHED ABSTRACTS

Dasgupta S, Acharya S, Khan MA, Pramanik P, Marbut SM, Yunus F, Galeas JN, Singh S, Singh AP, Dasgupta S. Frequent loss of CACNA1C, a calcium voltage-gated channel subunit is associated with lung adenocarcinoma progression and poor prognosis. Cancer Res. 2023 Apr 1;83(7Suppl):3318. Available from:

https://aacrjournals.org/cancerres/article83/7_Supplement/3318/724728/Abstract-3318-Frequent-loss-of-CACNA1C-a-calcium?searchresult=1

Kakkat S, McClellan SB, Chakroborty D, Sarkar C. Selective blockade of neuropeptide Y receptor 1 induces cell cycle arrest and promotes apoptosis in colon cancer cells. Cancer Res. 2023 Apr 1;83(7Suppl):1424. Available from: https://aacrjournals.org/cancerres/article/83/7_Supplement/1424/719847/Abstract-1424-Selective-blockade-of-neuropeptide-Y?searchresult=1

Singh S, Khan MA, Herrera ET, Singh S, Singh AP, Dasgupta S. Differences in tumor vascular density between smoker and non-smoker cancer patients. Cancer Res. 2023 Apr 1;83(7_Supplement):4602. Available from: https://aacrjournals.org/cancerres/article/83/7_Supplement/4602/720405/Abstract-4602-Differences-in-tumor-vascular?searchresult=1

Vikramdeo KS, Keel CE, Heslin MJ, Singh S, Singh AP, Dasgupta S. Racially divergent mitochondrial ND5 gene mutation promotes prostate cancer progression and confers therapeutic resistance. Cancer Res. 2023 Apr 1;83(7 Suppl):1965. Available from: https://aacrjournals.org/cancerres/article/83/7_Supplement/1965/719228/Abstract-1965-Racially-divergent-mitochondrial-ND5?searchresult=1

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Herrera G. Invited speaker. Renal AL-amyloidosis: from the bedside to the research laboratory. Impact of electron microscopy on this journey [virtual presentation]. Egyptian Society of Electron Microscopy Conference 2022; 2022 Oct 11; Cairo, Egypt.

Herrera G. Invited speaker. Welcome and introduction. South Coast Diagnostic Pathology Updates Meeting; 2022 Oct 29; Gulf Shores, AL.

Herrera G. Invited speaker. Monoclonal gammopathies of renal significance. A view from pathological assessment of renal biopsies. Hospital Corporation of America Florida Largo Hospital Lecture Series; 2022 Oct 29; Largo, FL.

Herrera G. Invited speaker. Introduction to renal pathology. Hospital Corporation of America Brandon Hospital Renal Pathology Lecture Series; 2022 Nov 2; Brandon, FL.

Herrera G. Invited speaker. Specimen handling and techniques. Hospital Corporation of America Brandon Hospital Renal Pathology Lecture Series; 2022 Nov 2; Brandon, FL.

Herrera G. Invited speaker. Glomerular disease I. Hospital Corporation of America Brandon Hospital Renal Pathology Lecture Series; 2022 Nov 3; Brandon, FL.

Herrera G. Invited speaker. Glomerular disease II. Hospital Corporation of America Brandon Hospital Renal Pathology Lecture Series; 2022 Nov 3; Brandon, FL.

Herrera G. Invited speaker. Systemic diseases. Hospital Corporation of America Brandon Hospital Renal Pathology Lecture Series; 2022 Nov 3; Brandon, FL.

Herrera G. Invited speaker. Tubulo-interstitial renal diseases. Hospital Corporation of America Brandon Hospital Renal Pathology Lecture Series; 2022 Nov 4; Brandon, FL.

Herrera G. Invited speaker. Vascular diseases. Hospital Corporation of America Brandon Hospital Renal Pathology Lecture Series; 2022 Nov 4; Brandon, FL.

Herrera G. Invited speaker. Cystic diseases. Hospital Corporation of America Brandon Hospital Renal Pathology Lecture Series; 2022 Nov 4; Brandon, FL.

Herrera G. Invited speaker. Mechanisms of renal dysfunction and damage in monoclonal gammopathy of renal significance (MGRS). Fifth International Meeting of International Kidney & Monoclonal Gammopathy Research Group (IKMG); 2023 May 18; Milan, Italy.

Herrera G, Turbat-Herrera EA. Invited speakers. Discuss flat lesions of the urinary bladder with surgical and cytology correlation. South Coast Diagnostic Pathology Updates Conference; 2022 Oct 29; Gulf Shores, AL.

Phung T. Invited speaker. Molecular and genomic techniques in the diagnosis of infectious skin diseases [virtual presentation]. 4th Annual Meeting of the Asian Society of Dermatopathology; 2022 Oct 24; Manila, Philippines.

Phung T. Invited speaker. Genetic testing: from specimen to reimbursement: improving patient outcomes every step of the way. 2023 Executive War College Conference; 2023 Apr 27; New Orleans, LA.

Singh A. Invited speaker. MYB in solid malignancies: gaining new grounds. Department of Structural and Cellular Biology, Tulane University School of Medicine; 2022 Nov 15; New Orleans, LA.

Singh A. Invited speaker. Expanding its territories: emerging new roles of MYB in solid malignancies. Department of Physiology, University of Louisville School of Medicine; 2023 Mar 7; Louisville, KY.

Singh A. Invited speaker. EV-derived mitochondrial biomarkers for early detection of pancreatic cancer [virtual presentation]. Alliance of Pancreatic Cancer Consortia (APaCC) and European Liquid Biopsy Society (ELBS) Workshop; 2023 May 26; Hamburg, Germany.

Xin W. Invited speaker. Navigate the marshland of duodenum: not all about celiac disease. United States and Canadian Academy of Pathology 112th Annual Meeting; 2023 Mar 14; New Orleans, LA.

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 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.* 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*. 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, 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 Review - *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, lmmunotherapy, 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 Review- *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.

Two residents completed the residency program this year. Dr. Vindhya Bellamkonda will be attending her fellowship at Hartford specializing in Cytopathology, and Dr. Zan Ahmed will be attending his fellowship at Mayo Clinic (Rochester, MN) specializing in Blood Bank. Dr. Ahmed will then return to USA, Department of Pathology Clinical Division as a faculty member.

Once again, the department had a successful residency recruiting year with three new residents. Kim Juyeon, M.D., PhD from Korean University College of Medicine, Charu Shastri, M.D. from Lala Lajpat Rai Memorial Medical College, India, and Rasha Mohammed, M.D., PhD from Ain Shams University Faculty of Medicine, Egypt.

The department also graduated its first Renal Fellow, Rodney Shackelford, D.O., Ph.D. Dr. Shackelford accepted a faculty position as a Pathologist in the Department of Pathology at the University of South Alabama. He has truly been a remarkable addition to the department.

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 Residents Dr. Lingling Xian and Dr. Muhammad Tahir.

Furthermore, the pathology residents recognition award (Christmas in July) was awarded to staff member Bettina Kelson for her dedication and hard work with the residents and faculty member Dr. Jacek Polski for his excellence in and dedication to teaching.

The Department of Pathology welcomed a new faculty member, Dr. Mohammad Barouqa, as Director of Blood Bank. Dr. Barouqa comes from Cleveland Clinic Lerner College of Medicine, Cleveland, Ohio, where he was a fellow and trained in Transfusion Medicine/ Blood Bank, and previously, Mayo Clinic College of Medicine, Rochester, Minnesota,

where he was a fellow in Hematopathology. He brings with him his wealth of knowledge in blood banking and transfusion medicine.

Recruitment of faculty in Anatomic Pathology have continued, providing significant additions to the depth in the Department of Pathology and has resulted in better service to our clinicians and patients.

The Research Division of Pathology continues having a comprehensive biomedical research program that spans a wide range of clinical, basic, and translational research. The physicians and scientific investigators are searching for breakthrough discoveries to improve the lives of patients. The division also continues to maintain and obtain solid extramural funding and expanding its translational efforts.

As the department continues to grow, we have also had key staff members to retire. Nancy Lamborn, who served as the Outreach Coordinator for Pathology, retired after 3 years. Debra Reynolds has served in Accounting for the Department of Pathology for 45 years and 10 months. The department will truly miss them both and wishes them the best on their next chapter.

The department's recognition has grown regionally, nationally, and internationally, with several faculty members participating in professional meetings outside of the university and also gaining notoriety in the efforts of publications. The department of Pathology will continue to provide excellent, innovative diagnostic services for optimal patient outcomes and health and continuously enhance our departmental culture of diversity, respect, and professional growth.

2022-2023
Summary of Scholarly Activities
Department of Pediatrics

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Dolma K, John S, Gulati R. Effect of severe acute respiratory syndrome coronavirus 2 (SARS-COV-2) Delta variant (B.1.617.2) on maternal and neonatal outcomes. J Glob Health Rep. 2023 Jun 27;7:e2023037. Available from: https://www.joghr.org/article/77985-effects-of-severe-acute-respiratory-syndrome-coronavirus-2-sars-cov-2-delta-variant-b-1-617-2-on-maternal-and-neonatal-outcomes

Estrada B. Pediatric poliomyelitis [internet]. Medscape. 2022 Nov 4. Available from: https://emedicine.medscape.com/article/967950-overview

Gremse D. USA Pediatrics: Spanish-speaking clinic addresses health disparities. Alabama Pediatrician. 2022;2022(3rd Quarter):8. Available from: https://static1.squarespace.com/static/562e7aaae4b07a09bd62c597/t/6331ca45c40598022542323e/1664207434161/3rd+qtr+2022.pdf

Gremse D. USA Pediatrics: Pulmonary hypertension clinic meets growing demand. Alabama Pediatrician. 2022;2022(4th Quarter):8. Available from: https://static1.squarespace.com/static/562e7aaae4b07a09bd62c597/t/63a0df03e70e5958acc038a4/1671487239240/Ala+Pediatrician+4th+Quarter+2022.pdf

Gremse D. USA Pediatrics: Diversity Coalition showcases the documentary Descendant. Alabama Pediatrician. 2023;2023(1st Quarter):11. Available from: https://static1.squarespace.com/static/562e7aaae4b07a09bd62c597/t/6407a2372d33ad7b907fd342/1678221883058/1st+quarter+2023.pdf

Gremse D. USA Pediatrics: Mapp Family Campus Clinic provides access to pediatric care in Alabama's fastest growing county. Alabama Pediatrician. 2023;2023(2nd Quarter):13. Available from: https://static1.squarespace.com/static/562e7aaae4b07a09bd62c597/t/64c01e98f3463930862685c9/1690312350489/112607-1+AAP-final+web.pdf

Hazra S, Li R, Vamesu BM, Jilling T, Ballinger SW, Ambalavanan N, Kandasamy J. Mesenchymal stem cell bioenergetics and apoptosis are associated with risk for bronchopulmonary dysplasia in extremely low birth weight infants. Sci Rep. 2022 Oct 19;12(1):17484.

Ikeri K, Noles K, Dolma K, Roth T, Smithgall A, Skipper C, Zayek M. Optimizing the hospital discharge process to facilitate family centered care for well newborns. J Perinatol 2023 Jun;43:952-957.

Mattoo TK, Mohammad D. Primary vesicoureteral reflux and renal scarring. Pediatr Clin North Am. 2022 Dec;69(6):1115-1129.

Pack-Mabien A, Hogue A, Wilson F. Sickle cell disease awareness: general information and relevant facts. Sickle Cell Today. 2023 Jun;20(1):1-2. Available from: https://marketingassetstorage.blob.core.windows.net/pdf/sickle-cell-newsletter-2023.pdf

Sharma KP. Temporary hypoxemia at high altitude in an intensive care unit physician. SAGE Open Med Case Rep. 2023 Feb 7;11:2050313X231153526.

Sharma K, Sheikh A, Maertens P. Use of duplex echoencephalography in the evaluation of brain death in children: a novel approach to the diagnosis. J Neuroimaging. 2022 Sep 12;33(1):167-173.

Vamesu BM, Nicola T, Li R, Hazra S, Matalon S, Kaminski N, Ambalavanan N, Kandasamy J. Thyroid hormone modulates hyperoxic neonatal lung injury and mitochondrial function. JCI Insight. 2023 Apr 24;8(8):e160697.

Warren D, Michaeli D, Estrada B, Slauterbeck J. Treatment of an unusual infection following anterior cruciate ligament reconstruction. West J Orthop. 2023 Jun;12(1):47-49. Available from: https://digitalrepository.unm.edu/wjo/vol12/iss1/6

II. PUBLISHED ABSTRACTS

Andrews K, Meshinchi S, Marri P, Siddiqui AH, Polski J, Molina A, Chewning J, Eidenschink Brodersen L, Hudson CA, Imran H. Pediatric acute myeloid leukemia with co-occurring BCR::ABL and CBFA2T3::GLIS2 dual fusion with deep response to FOLR1-targeting antibody drug conjugate Stro-002 and tyrosine kinase inhibitor. Blood. 2022 Nov 15;140(Suppl 1):11757-11758. Available from: https://ashpublications.org/blood/article/140/Supplement%201/11757/488232/Pediatric-Acute-Myeloid-Leukemia-with-Co-Occurring?searchresult=1

Durant O, Gavrilita C, Saway JP, Sehgal M. Echocardiogram findings in pediatric Covid-19 patients: a 30-month experience. Crit Care Med. 2023 Jan;51(Suppl 1):69. Abstract no. 170.

Gavrilita C, Golani K, Davis N, Wilstrup M, McKay B, Vidal R, Sehgal M, Keller J. Effect of Covid-19 lockdown on length of hospitalization following suicide attempts in adolescents. Crit Care Med. 2023 Jan;51(Suppl 1):38. Abstract no. 111.

Gavrilita C, Sehgal M, Chung A. Efficacy of lactobacillus GG for prevention of antibiotic associated diarrhea in the PICU. Crit Care Med. 2023 Jan;51(Suppl 1):333. Abstract no. 685.

Gavrilita C, Wood A, Chung A, Vidal R. Ethanol intoxication in an infant with lethargy. Crit Care Med. 2023 Jan;51(Suppl 1):318. Abstract no. 657.

Golani K, Sharma K, Gavrilita C, Estrada B. Acute flaccid myelitis diagnosed after IVIG: a diagnostic dilemma. Am J Med Sci. 2023 Feb;1):S208-S209. Abstract no. 391.

Golani K, Sanchez O, Imran H, Marri P, Wood B, Sharma KP. Preventing extensive venous thrombosis: sometimes it's about digging deep into the history. Am J Med Sci. 2023 Feb;365(Suppl 1):S209. Abstract no. 392.

John S, Nelson D, Ponnambalam AM. A diagnostic conundrum: case of acute appendiceal abscess mimicking multisystem inflammatory syndrome in children in a toddler. Am J Med Sci. 2023 Feb;365(Suppl 1):S24. Abstract no. 43.

John S, Roca Garcia MR. Planning and executing a health fair to bridge accessibility gaps and language barriers for the Hispanic community in Mobile County, Alabama. Am J Med Sci. 2023 Feb;365(Suppl 1):S173. Abstract no. 324.

Rawhani R, Sharma K, Maertens P. Echoencephalography of Möbius sequence: a congenital cranial dysinnervation disorder with brainstem calcifications. J Neuroimaging. 2023 Jan;33(1):35-43.

Sucar-Marquez J, Murray C, Gavrilita C, Chung A, Vidal R. Retrospective review of accidental toddler ingestion; the clinical manifestations and length of stay. Am J Med Sci. 2023 Feb;365(Suppl 1):S408. Abstract no. 743.

Surti, AS, Gremse D, Parsell KJ. Concurrence of hypothyroidism and alpha-1-antitrypsin deficiency in an infant with trisomy 21. Am J Med Sci. 2023 Feb;365(Suppl 1):S180-S181. Abstract no. 340.

Surti AS, Paredes SL, Gremse D, Parsell KJ. Congenital tufting enteropathy a rare cause of failure to thrive in an infant-a case report. Am J Med Sci. 2023 Feb;365(Suppl 1):S220-S221. Abstract no. 414.

Surti AS, Roca Garcia MR. Scurvy mimicking rheumatic manifestations in a pediatric patient with trisomy 21. Am J Med Sci. 2023 Feb;365(1):S392-S393. Abstract no. 715.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Custodio H, Richardson Q, Johnsten M, Mukherjee B. Invited speakers. Understanding mentee engagement and hesitancy in a pediatric faculty mentorship for promotion program. Association of Pediatric Program Directors LEAD Meeting; 2023 Mar 27; Atlanta, GA.

Goslings S. Invited speaker. Triggered & hooked: tools to enhance your emotional agility. Association of Pediatric Program Directors Annual Meeting; 2023 Mar 27; Atlanta, GA.

Gremse D. Invited speaker. BRUE, aspiration, and reflux: evaluation and management from the subspecialists' perspective. Pediatric Academic Societies Meeting; 2023 Apr 30; Washington, DC.

Gremse D. Invited speaker. USA Health Children's & Women's Hospital. Alabama Mississippi District of Optimist International; 2022 Nov 5; Fairhope, AL.

Marri P. Invited speaker. Sickle cell disease. Mobile Chapter of the Sickle Cell Association of America, Counselor Certification Training Course; 2022 Nov 9; Mobile, AL.

Marri P. Invited speaker. Sickle cell disease. Mobile Chapter of the Sickle Cell Association of America, Counselor Certification Training Course; 2023 May 16; Mobile, AL.

Marri P. Invited speaker. Social determinants of health in pediatric cancer. Mobile Chapter of the Sickle Cell Association of America, Fall Meeting; 2023 Sep 8; Birmingham, AL.

Marri P. Invited speaker. Thalassemia. Mobile Chapter of the Sickle Cell Association of America, Counselor Certification Training Course; 2022 Nov 9; Mobile, AL.

Marri P. Invited speaker. Thalassemia. Mobile Chapter of the Sickle Cell Association of America, Counselor Certification Training Course; 2023 May 16; Mobile, AL.

Perez-Garcia ME. Invited speaker. Growth as a biomarker of health in children: review and update. Alabama Chapter of the American Academy of Pediatrics, Spring Meeting; 2023 May 28; Gulf Shores, AL.

Ramani M. Invited speaker. Basics of Hypoxic-ischemic encephalopathy examination. University Teaching Hospital; 2023 Jun 21; Lusaka, Zambia.

Roberson-Trammell K. Invited speaker. Alabama Coordinated Health Networks Quality update and importance of documenting and coding for social determinants of health [virtual presentation]. Gulf Coast TotalCare Medical Management Meeting; 2023 Jan 19; Mobile, AL.

Roberson-Trammell K. Invited speaker. Alabama Coordinated Health Networks Quality update and importance of documenting and coding for social determinants of health [virtual presentation]. Gulf Coast TotalCare Medical Management Meeting; 2023 Jan 26; Mobile, AL.

Roberson-Trammell K. Invited speaker. COVID 19 unwinding and Medicaid alerts. Gulf Coast TotalCare Medical Management Meeting; 2023 Jun 15; Mobile, AL.

Roberson-Trammell K. Invited speaker. COVID 19 unwinding and Medicaid alerts. Gulf Coast TotalCare Medical Management Meeting; 2023 Jun 22; Mobile, AL.

Roberson-Trammell K. Invited speaker. Primary care practice: quality of care and practice level processes. Mostellar Medical Clinic; 2023 Jan 19; Irvington, AL.

Roberson-Trammell K. Invited speaker. Primary care practice: quality of care and practice level processes. Emerald Sands Medical Center; 2023 Jan 26; Foley, AL.

Roberson-Trammell K. Invited speaker. Primary care practice: quality of care and practice level processes [virtual presentation]. Millry Pediatric Clinic; 2023 Jan 12; Millry, AL.

Roberson-Trammell K. Invited speaker. Primary care practice: quality of care and practice level processes [virtual presentation]. Poarch Creek Indians; 2023 Jan 12; Atmore, AL.

Siddiqui AH. Invited speaker. Pathophysiology and manifestation of Sickle cell disease. Mobile Chapter of the Sickle Cell Disease Association of America; 2022 Nov 7; Mobile, AL.

Siddiqui AH. Invited speaker. Pathophysiology and manifestation of Sickle cell disease. Mobile Chapter of the Sickle Cell Disease Association of America; 2023 May 16; Mobile, AL.

Wilson F. Invited speaker. Sickle cell management and treatment updates [virtual presentation]. United Healthcare Virtual Grand Rounds; 2023 Sep 14; Mobile, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

Ibrahim Ahmed: 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.

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 A. 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; 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). *American Academy of Pediatrics 2023 Marsha Raulerson Advocacy Award Recipient*.

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 (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.*

Nita Davis: Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, Mobile Pediatric 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.

Eliane F. Eakin: Charter Member, American College of Pediatricians; Fellow, American Academy of Pediatrics; Fellow, American College of Chest Physicians; Fellow, American Thoracic Society; Member, Alabama Chapter American Academy of Pediatrics; Member,

Brazilian Society of Pediatrics; Member, Christian Medical and Dental Society; Member, Mobile Pediatric Society.

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, South Bell Conference COVID-19 Committee; Member, Society for Healthcare Epidemiology of America (SHEA); Member, Team-Based Learning Collaborative. Reviewer: *Infectious Diseases in Clinical Practice*.

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

Sheryl Falkos: 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.

Induja Gajendran: Fellow, American Academy of Pediatrics; Member, Alabama Chapter 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 A. Gremse: Executive Board, American Academy of Pediatrics, Alabama Chapter; Member, American Board of Pediatrics (ABP); Medical Editor, ABP Subboard of Pediatric Gastroenterology Exam Committee; Member, Chair, ABP Credentials Committee; Fellow of the American College of Gastroenterology; Member, American Gastroenterological Association; Member, American Medical Association; Member, American Pediatric Society; 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, The Gold Humanism Honor Society; Member, Alpha Omega Alpha Medical Honor Society; Editorial Board, *Pediatric Drugs*; Reviewer: *Pediatric Drugs*; *Digestive Diseases and Sciences*; *Pediatrics*; *Journal of Pediatric Gastroenterology and Nutrition, Clinical Pediatrics.*

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 Endocrine Society; Member, The Lawson Wilkins Pediatric Endocrine Society.

Sara A. McConnell: Member, Alabama Chapter American Academy of Pediatrics; Member American Academy of Pediatrics; Member, American College of Physicians; Member, American Medical Association; Member, American Osteopathic Association; Member, Mobile Pediatric 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.

Brittany Mock: Member, Alabama Chapter American Association of Pediatrics; Member, American Association of Pediatrics; Member, American College of Physicians; Member, American Medical Association; Member, American Osteopathic Association; 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.

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).

Daniel Preud'Homme: Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, Mobile Pediatric Society; Member, Quality Improvement Coach and Faculty, Alabama Child Health Initiative Alliance (ACHIA); Reviewer: *Clinical Pediatrics*.

Manimaran Ramani: Co-chair 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

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, 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; Medical Director, Gulf Coast Total Care; Member, Pediatric and Adult Workgroup, Regional Care Organization-Region E; Member, Children with Medical Complexity Collaborative Improvement and Innovation Network (CMC CoIIN)

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 (MCCKAP) 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 Shank: Member, Alabama Chapter American Academy of Pediatrics; Member, Alabama Interagency Autism Coordinating Council, Diagnostics and Health Committee; Member, American Academy of Pediatrics; Member, Mobile Pediatric Society; Member, Society for Developmental and Behavioral Pediatrics

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.*

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-Velasquez: Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, American Medical Association;

Member, Mobile Pediatric Society; Member, Society of Critical Care Medicine.

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.

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

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.

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. Jane Messemer, Sara Shank, Vamshi Revuri, Daniela Tenorio Vasquez, and Induja Gajendran.

Dr. Messemer joined the faculty as Associate Professor of Pediatrics in the Division of General Pediatrics and Medical Director of the Pediatric Residency Clinic in January 2023. Dr. Messemer earned her doctor of medicine at Indiana University School of Medicine in Indianapolis, Indiana in 1992. She completed her Pediatric Residency at the James Whitcomb Riley Hospital for Children and Indiana University Medical Center in 1995. After practicing General Pediatrics in private practice in Indiana, she accepted an appointment in the Department of Pediatrics at the Indiana University School of Medicine as a member of the clinical faculty as Assistant Professor in 1997. She then moved to north Georgia as a primary care pediatrician in private practice in Lawrenceville, GA and Gainesville, GA. During these years Dr. Messemer dedicated herself to providing culturally competent care to underserved, Spanish-speaking populations. Dr. Messemer began her career in academic pediatrics in earnest by moving to Akron Children's Hospital in 2006, beginning at the rank of Clinical Assistant Professor in the Department of Pediatrics at Northeast Ohio University of Medicine. After joining the Department of Pediatrics, Dr. Messemer distinguished herself as an outstanding clinician and dedicated educator leading to her promotion to Clinical Associate Professor.

Dr. Shank joined the faculty as Assistant Professor of Pediatrics in the Division of Developmental and Behavioral Pediatrics in August 2023. Dr. Shank received her medical degree from Louisiana State University in 2017. She went on to complete her Pediatrics Residency at the Texas Tech University Health Sciences Center in Lubbock TX in 2020. Dr. Shank completed fellowship in Developmental and Behavioral Pediatrics at Baylor College of Medicine Meyer Center for Developmental Pediatrics and Autism in Houston, TX in June 2023.

Dr. Vamshi Revuri joined the faculty as Assistant Professor of Pediatrics in the Division of Critical Care Medicine in September 2023. Dr. Revuri received his medical degree Mamata Medical College in Khammam, India in 2013. He went on to complete his Pediatrics Residency at the Monmouth Medical Center in Long Branch, NJ in 2020. Dr. Revuri completed fellowship in Pediatric Critical Care Medicine at Children's Memorial Hermann Hospital/University of Texas Health Science Center in Houston, TX in June 2023.

Dr. Tenorio-Velasquez joined the faculty as Assistant Professor of Pediatrics in the Division of Critical Care Medicine in September 2023. Dr. Tenorio-Velasquez received her medical degree from Universidad Tecnologica de Pereira-Risaralda Columbia in 2013. She went on to complete her Pediatrics Residency at the NYC Health+ Hospitals/Woodhull Medical Center in Brooklyn, NY in 2020. Dr. Tenorio-Velasquez completed fellowship in Pediatric Critical Care Medicine at UT Health Science Center in San Antonio TX in June 2023.

Dr. Induja Gajendran joined the faculty as Assistant Professor of Pediatrics in the Division of Cardiology in September 2023. Dr. Gajendran received her medical degree from Theni Government Medical College in Theni, India in 2013. She went on to complete her Pediatrics Residency at The Brooklyn Hospital Center in Brooklyn, NY in 2020. Dr.

Gajendran completed fellowship in in Pediatric Cardiology Medicine at Children's Hospital Montefiore in Bronx, NY in June 2023.

The Department of Pediatrics mourned the loss of two leaders in the Department who gave their dedicated service throughout their careers. Dr. Daniel Preud'Homme, Professor and Medical Director of the Adolescent Clinic and founder of the USA Health Pediatric Healthy Life Center, passed away on July 14, 2023. Dr. Cindy Sheets, Pediatrician and Director of the Reach Out and Read Program, passed away on August 7, 2023.

Drs. Lynn Batten, Benjamin Estrada, Pretthi Marri, Karen Parsell and Dr. Melody Petty were recognized by the USACOM Class of 2023 as Red Sash Distinguished Faculty at the 2023 Hooding Ceremony.

Diversity Coalition Exemplary Leadership Awards were presented to: Pedro Ricardo Cabrera, MD; Karen Parsell, MD; and Maria Renee Roca, MD.

Resident Advocate Faculty Awards were presented by the Pediatric Residency Class of 2023 to: Jane Messemer, MD; Karen Parsell, MD; E. Melissa Perez, MD; Daniel Preud'Homme, MD; Manimaran Ramani, MD; Ananthasekar Ponnambalam, MD; and LaTasha Williams, C-TAGME.

The Robert C. Boerth Award for the Best Attending was presented to: Karen Parsell, MD.

The twenty-fifth recipient of the Hollis J. Wiseman Award for Excellence in Pediatrics during the Pediatric Clerkship for the Class of 2023 was Kasey Grant Andrews.

Of the pediatric housestaff completing residency training in 2023, one entered private practice, nine entered into fellowship training, and two remained in the department as Pediatric Chief Residents. Two graduating Medicine-Pediatrics residents entered private practice and one entered into fellowship training. Twelve new first year residents entered the pediatric residency program, and three first-year residents entered the combined Medicine-Pediatrics Residency Program.

Drs. Natalie Carlisle and Stephanie Leon Paredes completed their terms as Pediatric Chief Residents and Drs. Pedro Ricardo Cabrera and Jorge Sucar-Marquez took over duties as the Pediatric Chief Residents for the 2023-2024 academic year.

The scholarly activities by the faculty of the Department of Pediatrics this year included 14 original articles, 14 published abstracts and 22 invited lectures. Departmental faculty were active in mentoring pediatric residents in clinical research. There were 28 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 undergraduate and graduate medical education programs. Dr. Richard Whitehurst completed his third full year as Pediatric Residency Program Director. Drs. Karen Parsell and E. Melissa Perez Garcia

completed their first full year as Assistant Pediatric Residency Program Directors. In March of 2023, after leading for almost two years, Dr. Lynn Batten resigned as Pediatric Clerkship Director and Dr. Rick Rowell accepted the position of Pediatric Clerkship Director.

The USA Department of Pediatrics is proud to continually promote the Pediatric Residency Program Diversity Coalition. The coalition publishes the newsletter "Variegated" which celebrates the diversity that exists within the department. The department derives its strength from its diversity that enriches the skills, characteristics and attributes of our members. The department congratulates Myria Mack-Williams, MD, and Haidee Custodio, MD, both Associate Program Director of the Pediatric Residency are Co-Directors of the Diversity Coalition with the assistance of LaTasha Williams, our Pediatric Residency Program Coordinator. As pediatricians, we see the damaging effects of health disparities on children and their families. For the benefit of all children, the USA Department of Pediatrics pledges to do its part to commit to working with others to eliminate inequities in healthcare. We pledge to do our part to create a society where all children can grow up with the same expectation of safety, health, and opportunity.

The Department of Pediatrics expanded its access to care for children with the addition of new clinic locations. Dr. Perrin Windham, alumna of the Whiddon College of Medicine Class of 2019, opened a practice in Spanish Fort and Pediatric Cardiology, Pediatric Endocrinology and Pediatric Gastroenterology opened clinics at the Mapp Family Campus in Fairhope.

Health inequities continue to create barriers to achieving good health. Latinos who are monolingual in Spanish have been reported to experience worse health outcomes than those who are primarily English-speaking or bilingual in English and Spanish. It is these principles that led our pediatric residents and staff to host the Second Annual Community Health Fair and to create a Spanish Speaking Clinic within the USA Health General Pediatrics clinic. All those involved in the Spanish Speaking Clinic are working to identify health disparities that they can address to achieve better health outcomes for all children. The Spanish Speaking Clinic is one example where achieving health equity is incorporated into the care we deliver, with a goal of helping the children and families we serve live healthier lives and to help make the health system work better for everyone.

2022-2023
Summary of Scholarly Activities
Department of Pharmacology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Balducci E, Braidy N, Migaud M. Editorial: NAD+ metabolism as a novel target against infection-Volume II. Front Mol Biosci. 2022 Nov 21;9:1087897.

Browning CM, Cloutier R, Rich TC, Leavesley SJ. Endoscopy lifetime systems architecture: scoping out the past to diagnose the future technology. Systems (Basel). 2022 Oct;10(5):189.

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Chellappa K, McReynolds MR, Lu W, Zeng X, Makarov M, Hayat F, Mukherjee S, Bhat YR, Lingala SR, Shima RT, Descamps HC, Cox T, Ji L, Jankowski C, Chu Q, Davidson SM, Thaiss CA, Migaud ME, Rabinowitz JD, Baur JA. NAD precursors cycle between host tissues and the gut microbiome. Cell Metab. 2022 Dec 6;34(12):1947-1959.e5.

Daly GT, Pastukh VM, Tan YB, Francis CM, Aggen CZ, Groark SC, Edwards C, Mulekar MS, Hamo M, Simmons JD, Kutcher ME, Hartsell EM, Dinwiddie DL, Turpin ZM, Bass HW, Roberts JT, Gillespie MN, Langley RJ. Novel attributes of cell-free plasma mitochondrial DNA in traumatic injury. Clin Transl Med. 2022 Oct;12(10):e1055.

Dhuguru J, Dellinger RW, Migaud ME. Defining NAD(P)(H) catabolism. Nutrients. 2023 Jul 7;15(13):3064.

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Hernandez A, Sonavane M, Smith KR, Seiger J, Migaud ME, Gassman NR. Dihydroxyacetone suppresses mTOR nutrient signaling and induces mitochondrial stress in liver cells. PLoS One. 2022 Dec 6;17(12):e0278516.

Godang NL, DeMeis JD, Houserova D, Chaudhary NY, Salter CJ, Xi Y, McDonald OG, Borchert GM. Global switch from DICER-dependent microRNA to DICER-independent snoRNA-derived RNA biogenesis in malignancy. MicroPubl Biol. 2023 Feb 2;2023:10.17912/micropub.biology.000725.

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Kropotov A, Kulikova V, Solovjeva L, Yakimov A, Nerinovski K, Svetlova M, Sudnitsyna J, Plusnina A, Antipova M, Khodorkovskiy M, Migaud ME, Gambaryan S, Ziegler M, Nikiforov A. Purine nucleoside phosphorylase controls nicotinamide riboside metabolism in mammalian cells. J Biol Chem. 2022 Dec;298(12):102615.

Lee JY, Stevens RP, Pastukh VV, Pastukh VM, Kozhukhar N, Alexeyev MF, Reisz JA, Nerguizian D, D'Alessandro A, Koloteva A, Gwin MS, Roberts JT, Borchert GM, Wagener BM, Pittet JF, Graham BB, Stenmark KR, Stevens T. PFKFB3 inhibits fructose metabolism in pulmonary microvascular endothelial cells. Am J Respir Cell Mol Biol. 2023 Sep;69(3):340-354.

Moore BB, Ballinger MN, Bauer NN, Blackwell TS, Borok Z, Budinger GRS, Camoretti-Mercado B, Erzurum SC, Himes BE, Keshamouni VG, Kulkarni HS, Mallampalli RK, Mariani TJ, Martinez FJ, McCombs JE, Newcomb DC, Johnston RA, O'Reilly MA, Prakash YS, Ridge KM, Sime PJ, Sperling AI, Violette S, Wilkes DS, Königshoff M. Building career paths for Ph.D., basic and translational scientists in clinical departments in the United States: an official American Thoracic Society workshop report. Ann Am Thorac Soc. 2023 Aug;20(8):1077-1087.

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Parker M, Annamdevula NS, Pleshinger D, Ijaz Z, Jalkh J, Penn R, Deshpande D, Rich TC, Leavesley SJ. Comparing performance of spectral image analysis approaches for detection of cellular signals in time-lapse hyperspectral imaging fluorescence excitation-scanning microscopy. Bioengineering (Basel). 2023 May 25;10(6):642.

Solodushko V, Fouty B. Terminal hairpins improve protein expression in IRES-initiated mRNA in the absence of a cap and polyadenylated tail. Gene Ther. 2023 Aug;30(7-8):620-627.

II. PUBLISHED ABSTRACTS

Gwin MS, Alexeyev M, Borchert GM, Stevens T. *Pseudomonas aeruginosa* infection induces a lung endothelial cell antiviral gene response: role of a novel tRNA mir residing in the gamma secretase activating protein gene. Am J Respir Crit Care Med. 2023;207:A2124. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2023.207.1_MeetingAbstracts.A2124?role=tab

Houserova D, Brown CL, Bauer NR, Huang J, Audia JP, Foster JW, Borchert GM. Salmonella outer membrane vesicles contain tRNA fragments (tRFs) that inhibit bacteriophage P22 infection. Keystone Innate Immunity Symposium; 2023 Apr 17; Salt Lake City, UT. Abstract no. 1510.

Houserova D, Brown CL, Bauer NR, Huang J, Audia JP, Foster JW, Borchert GM. Salmonella outer membrane vesicles contain tRNA fragments (tRFs) that inhibit bacteriophage P22 infection. RNA Society Annual Meeting; 2023 Jun 1; Singapore. Abstract no. P1-034.

Leavesley SJ, Johnson S, Paudel SS, Knighten J, Tambe DT, Francis M, Gong N, Taylor MS, Rich TC. Combined hyperspectral imaging, monolayer stress microscopy, and S8 image analysis approaches for simultaneously interrogating cellular signals and biomechanics. Proc SPIE Int Soc Opt Eng. 2023 Mar 15;12383:123830D.

Yuzefovych L, Pastukh VM, Richards W, Rachek L. 282-LB: Analysis of cell-free mitochondrial DNA in obese patients with and without type 2 diabetes after bariatric surgery. Diabetes. 2023 Jun 20;72(Supplement_1):282-LB. Available from: https://diabetesjournals.org/diabetes/article/72/Supplement_1/282-LB/149530/282-LB-Analysis-of-Cell-Free-Mitochondrial-DNA-in?searchresult=1

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Bauer N. Invited speaker. cAMP-enriched extracellular vesicle signaling. Boston Children's Hospital, Harvard University; 2022 Dec 13; Boston, MA.

Bauer N. Invited speaker. Extracellular Vesicle Signaling in the Pulmonary Endothelium. American Physiological Summit; 2023 Apr 22; Long Beach, CA.

Borchert GM. Invited speaker. Panning for gold: noncoding RNA discovery via RNA-seq mining. University of Alabama Huntsville; 2022 Nov 11; Huntsville, AL.

Gillespie MN. Invited speaker. Mitochondria in lung disease and sleep medicine [virtual presentation]. National Heart, Lung, and Blood Institute; 2022 Dec 1; Bethesda, MD.

Langley RJ. Invited speaker. Metabolomic signatures of a mitochondrial-associated bioenergetic crisis in critically ill patients [virtual presentation]. National Heart, Lung, and Blood Institute; 2022 Dec 2; Bethesda, MD.

Rich TC. Invited speaker. Hyperspectral imaging techniques to measure subcellular localization of cAMP in Space: the final frontier for cAMP signaling. American Society for Pharmacology and Experimental Therapeutics 2023; 2023 May 21; St. Louis, MO.

V. NATIONAL PROFESSIONAL RECOGNITION

Abu-Bakr Al-Mehdi: Member, NBME Test Material Development Committee, Pharmacology & Biochemistry for Step 1, Step 2CK, and Step 3. Reviewer, USMLE Pharmacology Subject Exam.

Natalie N. Bauer: Standing member of the Respiratory Integrative Biology and Translational Research (RIBT) study section of NHLBI. Journal reviewer, *Circulation*, *Scientific Reports*, *AJP Lung*, *Science Translational Medicine*, *Respiratory Research*, *ATVB*, *Pulmonary Circulation*, *Cardiovascular Research*. Planning Committee Chair-Pulmonary Circulation Assembly. Member, ATS Pulmonary Circulation Assembly Executive Committee PhD and Basic and Translational Scientists Working Group.

Glen M. Borchert: Grant reviewer, NSF GRFP review panel, NSF EDGE review panel, NSF GM grant ad hoc reviewer, NSF CISE grant ad hoc reviewer. Editor-in-Chief, *Journal of Gene Regulation*. Member, *PeerJ* editorial board. Journal reviewer, *International Journal of Molecular Sciences*, *RNA Biology*, *DNA Repair*, *Scientific Reports*, *Frontiers in Immunology*. Poster judge, RNA Meeting.

Mark N. Gillespie: Member: Prevention and Early Treatment of Acute Lung Injury study section. Grant reviewer, CCTS grant program, UCSD intramural review program. Journal reviewer, *Nucleic Acids Research*, *American Journal of Physiology: Lung Cell and Molecular Physiology*. Co-Director and Executive Committee, UAB Clinical and Translational Sciences Award. Site Lead for UAB sub-award. Member, Alabama Rare Disease Advisory Council.

Raymond J. Langley: Grant reviewer, USAMRDC MIDRPW-1 Review Panel. Journal reviewer, *Translational Psychology*, *Science Translational Medicine*, *European Respiratory Journal*, *Clinical and Translational Medicine*, *FASEB Journal*. Member, American Thoracic Society Critical Care Committee.

Marie E. Migaud: Grant reviewer, Ad hoc committee member (NIH, NSF, EC-Marie Curie). Journal editor, *Frontiers in Molecular Biosciences*. Journal reviewer, *Cancer Letters*, *Nutrients*, *Antioxidants*, *Biochemical Journal*, *Journal of Medicinal Chemistry*, *Journal of Biological Chemistry*, *Tetrahedron*, *Organic Letters*, *Journal of Organic Chemistry*, *Chemical Communication*, *Green Chemistry*, *Carbohydrate Research*, *Journal of Pharmacy and Pharmacology*, *Biological and Medicinal Chemistry Letters*, *Organic and Biomolecular Chemistry*, *Journal of Carbohydrate Chemistry, Nucleoside, Nucleotide and Nucleic Acids*. Chair, ACS local section. Member, ESNIA advisory board (EMGS).

Thomas C. Rich: Grant reviewer, NIH ZRG1 CB-T(30), AHA Innovative Project Award Cardiac Basic Science. Journal reviewer, *Infrared Physics and Technology*, *Optics and Lasers in Engineering*, *Microvascular Research*.

Mykhaylo Ruchko: Journal reviewer, *Mitochondrion*.

Victor Solodushko: Journal reviewer, *BMC Research Notes*, *BMC Microbiology*, *Molecular Pharmaceutics*, *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. Abu-Bakr Al-Mehdi was selected to wear the Red Sash in the College of Medicine Honors Convocation and was named Best Pre-Clerkship Educator by the Class of 2022. Dr. Natalie Bauer accepted the position of Assistant Dean for Admissions in the College of Medicine. Dr. Glen Borchert was promoted to Professor of Pharmacology with tenure. Three faculty members, Drs. Bauer, Borchert, and Tom Rich, received the "Top Prof" award from the Sally Steadman Azalea Chapter of Mortar Board Honor Society. Dr. Borchert was named Scholar of the Year by the USA Chapter of the Honor Society of Phi Kappa Phi, as well as USA National Alumni Association Faculty Innovator of the Year. Emily Hartsell became the first medical student at USA to receive a TL1 scholarship through the Center for Clinical and Translational Sciences under the mentorship of Dr. Ray Langley. Dr. Marie Migaud received the Olivia Rambo McGlothren National Alumni Association Outstanding Scholar Award, as well as an invitation to the National Academies of Sciences, Engineering, and Medicine's Toward Sequencing and Mapping of RNA Modifications: Ideation Challenge. Marcy Cage, a BMS graduate student mentored by Dr. Rich, is the first student from the University of South Alabama to be named a Howard Hughes Medical Institute Gilliam Fellow.

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. Faculty provided more hands-on learning opportunities to include RNAseq data analysis by Drs. Borchert and Langley and coordinated rotations in the Mass Spectrometry Core Laboratory by Dr. Migaud.

The Pharmacology Department's research programs remained productive. After accepting an invitation and attending a National Science Foundation think tank, Dr. Glen Borchert received a grant for his collaborative research grant, "The Role of Extracellular RNA in Intercellular and Interkingdom Communication." Dr. Mark Gillespie was awarded a multi-PI R01 from the NIH entitled, "Mitochondrial DNA injury is a key contributor to the development of chemical lung injury." Dr. Marie Migaud has been especially busy. The American Chemical Society awarded Dr. Migaud funds to manage USA's first Project SEED (originally "Summer Experiences for the Economically Disadvantaged") site. Dr. Migaud was awarded a two-year grant from NASA's Translational Research Institute for Space Health (TRISH) for her project "Lessening NAD(P) hyper-oxidation to retain repair and maintenance capacity in space." Elysium Health, Inc., also awarded Dr. Migaud a Small Business Technology Transfer grant, "STTR: Development of Nicotinamide-Riboside plus Pterostilbene as a Disease Modifying Osteoarthritis Therapeutic." Dr. Tom Rich is collaborating with Dr. Allen Perkins, Professor of Family Medicine at USA Health, on a Health Resources Services Administration (HRSA) Medical Student Education Program (MSEP) grant entitled "Partnering to Transform Training."

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 such as the National Rural Health Association on the importance of research. Faculty spent time outside of their regular duties to judge local high school science fairs, present lectures to local middle and high school students, and build houses for Habitat for Humanity. Department faculty also reviewed manuscripts submitted for publication to all notable scientific journals relevant to their areas of expertise.

2022-2023
Summary of Scholarly Activities
Department of Physiology & Cell Biology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Audia JP, Downey JM, Alvarez D, Cohen MV, inventors; South Alabama Medical Science Foundation, assignees. Combined administration of cysteine-aspartase protease inhibitors with $P2Y^{12}$ receptor antagonists protects the heart against myocardial infarction. US patent 11,612,615 B2. 2023 May 28.

Balczon R, Choi CS, deWeever A, Zhou C, Gwin MS, Kolb C, Francis CM, Lin MT, Stevens T. Infection promotes Ser-214 phosphorylation important for generation of cytotoxic tau variants. FASEB J. 2023 Jul;37(7):e23042.

Boyd A, Lochmaier P, Irelan D, Fiedler E, Lee JY, Fouty B, Abou Saleh L, Richter W. Non-selective PDE4 inhibition induces a rapid and transient decrease of serum potassium in mice. Biology (Basel). 2022 Oct 27;11(11):1582.

Cleveland WJ, Hees JE, Balzer C, Douglas HF, Stevens T, Riess ML. Design and implementation of a rat ex vivo lung perfusion model. J Vis Exp. 2023 May 26;(195). Available from: https://app.jove.com/t/64740/design-and-implementation-of-a-rat-ex-vivo-lung-perfusion-model

Dietrich A, Behringer EJ, Taylor MS, Sonkusare SK. Editorial: Transient receptor potential channels (TRP): signal transduction. Front Mol Biosci. 2023 Apr 28;10:1201614.

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Kar J, Cohen MV, McQuiston SA, Malozzi CM. Can global longitudinal strain (GLS) with magnetic resonance prognosticate early cancer therapy-related cardiac dysfunction (CTRCD) in breast cancer patients, a prospective study? Magn Reson Imaging. 2023 Apr;97:68-81.

Kisler K, Sagare AP, Lazic D, Bazzi S, Lawson E, Hsu CJ, Wang Y, Ramanathan A, Nelson AR, Zhao Z, Zlokovic BV. Anti-malaria drug artesunate prevents development of amyloid-β pathology in mice by upregulating PICALM at the blood-brain barrier. Mol Neurodegener. 2023 Jan 27;18(1):7. Erratum in: Mol Neurodegener. 2023 Feb 24;18(1):14.

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Lee JY, Stevens RP, Pastukh VV, Pastukh VM, Kozhukhar N, Alexeyev MF, Reisz JA, Nerguizian D, D'Alessandro A, Koloteva A, Gwin MS, Roberts JT, Borchert GM, Wagener BM, Pittet JF, Graham BB, Stenmark KR, Stevens T. PFKFB3 inhibits fructose metabolism in pulmonary microvascular endothelial cells. Am J Respir Cell Mol Biol. 2023 Sep 1;69(3):340-354.

Wiese LAK, Gibson A, Guest MA, Nelson AR, Weaver R, Gupta A, Carmichael O, Lewis JP, Lindauer A, Loi S, Peterson R, Radford K, Rhodus EK, Wong CG, Zuelsdorff M, Saidi LG, Valdivieso-Mora E, Franzen S, Pope CN, Killian TS, Shrestha HL, Heyn PC, Ng TKS, Prusaczyk B, John S, Kulshreshtha A, Sheffler JL, Besser L, Daniel V, Tolea MI, Miller J, Musyimi C, Corkey J, Yank V, Williams CL, Rahemi Z, Park J, Magzamen S, Newton RL Jr, Harrington C, Flatt JD, Arora S, Walter S, Griffin P, Babulal GM. Global rural health disparities in Alzheimer's disease and related dementias: state of the science. Alzheimers Dement. 2023 Sep;19(9):4204-4225.

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Lytle E, Morrow R, Morrow KA, Choi CS, Lin M, Stevens T, Voth S. ExoY impairs TAK1-mediated endothelial amyloid innate defense. 2023 Edward Via College of Ostheopathic Medicine Research Recognition Day; 2023 Apr 14; Monroe, LA. p. 19. Abstract no. 07.

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Sen P, Knighten JM, Aziz T, Macarilla C, Gong N, Taylor MS, Francis CM. Dynamic region of interest histometric analysis of endogenous calcium activity in intact lung tissue. Proc. SPIE 12383, imaging, manipulation, and analysis of biomolecules, cells, and tissues XXI. 2023 Mar 15;12383:50-57. [Subscription required].

Stevens RP, Solodushko V, Pastukh VV, Stevens T, Honkanen R, Swingle M, Lee J. Expression and purification of the human phosphatase PPM1B. Am J Respir Crit Care Med. 2023;207:A2020. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2023.207.1_MeetingAbstracts.A2020?role=tab

Stevens RP, Viktoriya P, Pastukh VM, Kozhukhar N, Alexeyev M, Reisz J, Nerguizian D, D'Alessandro A, Graham BB, Stenmark KR, Stevens T, Lee J. PFKFB3 inhibits fructose metabolism in pulmonary microvascular endothelial cells. Am J Respir Crit Care Med. 2023;207:A2021. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2023.207.1_MeetingAbstracts.A2021?role=tab

Stevens RP, Kondaveeti R, Pastukh VV, Stevens T, Lee JY. Metabolic acidosis does not increase lung permeability in carbonic anhydrase IX knockout mice. Am J Respir Crit Care Med. 2023;207:A3763. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2023.207.1_MeetingAbstracts.A3763?role=tab

Subedi Paudel S, deWeever A, Singh N, Cox-Flaherty KE, Pereira M, Tambe DT, Stevens T. Human pulmonary artery endothelial cells isolated from patients with pulmonary hypertension exhibit heterogeneous sensitivity to mechanical sensing. Am J Respir Crit Care Med. 2023;207:A6132. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm-conference.2023.207.1_MeetingAbstracts.A6132?role=tab

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Kozhukhar N, Alexeyev MF. Invited speakers. TFAM's contributions to mtDNA replication and OXPHOS biogenesis are genetically separable. 2023 United Mitochondrial Disease Foundation Mitochondrial Medicine Symposium; 2023 Jun 28; Charlotte, NC.

Lin M. Invited speaker. Lung derived taus impair brain function. University of Tennessee Health Science Center; 2023 Jan 9; Memphis, TN.

Lin M. Invited speaker. Peripheral tau initiates acute and chronic neurological dysfunction after lung infections. University of Alabama at Birmingham, Department of Pulmonary, Allergy and Critical Care Medicine, Pulmonary Grand Rounds; 2023 May 11; Birmingham, AL.

Nelson A. Invited speaker. Brain microvascular dysfunction in aging and Alzheimer's. Weill Cornell Medicine, Feil Family Brain and Mind Research Institute, Emerging Leaders in Neuroscience lecture series; 2022 Dec 2; New York, NY.

Nelson A. Invited speaker. Brain microvascular dysfunction in aging and Alzheimer's. HudsonAlpha Institute for Biotechnology; 2023 Feb 8; Huntsville, AL.

Stevens T. Invited speaker. Infectious proteinopathy of the lung. University of California at San Diego, Department of Physiology; 2022 Dec 5; San Diego, CA.

Stevens T. Invited speaker. Infectious proteinopathy of the lung. South Florida Translational Research Symposium; 2023 Mar 16; Miami, FL.

Taylor M. Invited speaker. Emergent signal patterning in cardiovascular disease. International Symposium on Ion Channels and Cardiovascular Diseases; 2023 Apr 4; Lake Tahoe, CA.

V. NATIONAL PROFESSIONAL RECOGNITION

Mikhail F. Alexeyev: Member, *Clinical Science*, *PLoS One*, *Biochimica et Biophysica Acta, International Journal of Molecular Sciences*, *International Journal of Biochemistry and Cell Biology*, *Genes.* Editorial Board Member, *DNA, Genes*. Grant Reviewer, American Federation for Aging Research.

Michael V. Cohen: Member, American Heart Association, *New England Journal of Medicine*, International Society for Heart Research (ISHR); 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: Junior Editor in Training, *American Journal of Respiratory & Critical Care Medicine*; Member, American Thoracic Society. Reviewer, *The FASEB Journal,* COM Dean's Pre-doctoral Fellowship 2023.

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

Amy R. Nelson: Moderator, ISTAART Preconference on Evaluating the Human Vasculature for VCID, Alzheimer's Association International Conference, 2023 Jul 14, Amsterdam, Netherlands. Member, *Frontiers in Aging Neuroscience*; Editorial Board Member, *Frontiers in Aging Neuroscience, International Journal of Molecular Sciences, Frontiers in Cellular and Molecular Mechanisms of Dementia, Frontiers in Neurodegeneration, Frontiers in Alzheimer's Disease and Related Dementia*, Vascular Contributions to Dementia. Co-chair of the Alzheimer's Association Diversity Professional Interest Area (PIA) on Rural Health Disparities, Executive Board Member, ISTAART PIA to Elevate Early Career Researchers (PEERS).

Sarah L. Sayner: Member, 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 Member, COM Dean's Fellowship Award.

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, American Physiological Society, American Heart Association. Editorial Board Member, *International Journal of Molecular Sciences.* Reviewer, *Journal of Molecular and Cellular Cardiology, Circulation Research, Arteriosclerosis, Thrombosis and Vascular Biology, Cells, Nutrients, International Journal of Molecular Sciences, International Journal of Environmental Research and Public Health.* Study Section Reviewer, National Institutes of Health SEP Fellowships: Cancer Immunology and Immunotherapy (F0C9).

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 faculty actively submit and receive grants at a nationally competitive level.

Dr. Amy Nelson was awarded a grant from the National Institute of Neurological Disorders and Stroke. Her project is to study the diverse vascular contributions to cognitive impairment and dementia. Dr. Nelson hopes to improve meaningful diagnosis for people at risk for dementia. Dr. Nelson also received the Center for Lung Biology's Murray Bander award for her project "Understanding how pneumonia-induced lung endothelial tau impacts the cerebrovascular system".

Dr. Troy Stevens was awarded a National Institutes of Health R01 grant entitled "Soluble adenylyl cyclases in lung endothelial tauopathy". This project will test the hypothesis that the *Pseudomonas aeruginosa* exoenzyme Y generates cUMP, which contributes to the tau phosphorylation, microtubule breakdown, and SARM1-dependent NAD+ hydrolase activity that causes lung injury and hinders repair.

Two of Dr. Stevens' graduate students received their doctorate degrees during the Spring convocation. The students were Meredith Gwin and Sunita Subedi Paudel. Dr. Gwin is a postdoctoral fellow in the department of Pulmonary, Critical Care and Sleep Medicine at Yale University. Dr. Paudel is a postdoctoral fellow for Dr. Glen Borchert in the department of Pharmacology at USA.

Dr. Steven's graduate student Marcy Cage received the Howard Hughes Medical Institute's Gilliam Fellowship. The program recognizes students and their advisors for outstanding research in their respective scientific fields and their commitment to building a more inclusive scientific ecosystem.

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. Dr. Michael Francis and Dr. Mark Taylor were graduate course co-directors for Statistics and Experimental Design in Biomedical Research (IDL640). Dr. Sayner was module co-director for Principles in Foundational Medicine (PFM) and Hematology and Oncology (ONC). Dr. Stevens was graduate course director for IDL630 Lung Biology and 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.

Richard Fu, a rising sophomore medical student, won the 2023 Clyde G. Huggins award at the 50th Annual Medical Student Summer Research Program. Mr. Fu's oral presentation was entitled "Studying Alzheimer's disease development using human brain organoids" and was sponsored by Dr. Amy Nelson.

Dr. Amy Nelson's graduate student Samantha Chaney was accepted to the Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment

(ISTAART) Ambassador Program. The program provides early career researchers with year-round leadership and unique networking opportunities to engage with and learn from leaders in the field of Alzheimer's and related dementias. Also, Dr. Nelson continues to serve as an Alzheimer's Ambassador for U.S. Representative Jerry Carl. As part of her ambassadorship through the Alzheimer's Association, she will meet with the Alabama congressman four times a year to discuss important Alzheimer's disease-related policies.

In March 2023, the department of Physiology & Cell Biology and the Gulf Coast Alzheimer's Disease Research Center sponsored and hosted the first-ever Brain Awareness Week at the Exploreum Science Center in downtown Mobile. The event was organized by Dr. Amy Nelson. Throughout the week, more than 20 volunteers from the Whiddon College of Medicine and the department of Health, Kinesiology and Sport presented hands-on activities related to brain cell types, the importance of wearing a helmet, exercise and the brain, and brain and eye dissections. A total of 991 field trip students, their teachers, chaperones and families took part in these activities.

Dr. Stevens was recognized by the American Thoracic Society for his years of dedicated leadership and service to the pulmonary circulation research community. He received this award in May 2023 at the ATS International Conference in Washington, DC.

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.

2022-2023
Summary of Scholarly Activities
Department of Psychiatry

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

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, Brooks BM, Tower DE, Tran TT, Simon JE, Armstrong DG. The diabetic foot-pain-depression cycle. J Am Podiatr Med Assoc. 2023 May-Jun;113(3):22-126.

Caggiano C, Engeriser JL. American College Academic Addiction Medicine self-assessment module 172: percentage of heavy drinking days following psilocybin-assisted psychotherapy vs placebo in the treatment of adult patients with alcohol use disorder: a randomized clinical trial. American College of Academic Addiction Medicine Portal; 2023. Available from: https://acaam.mclms.net/en/package/9871/course/19034/view [subscription required].

Fadoir NA, Marie L, Basu N, Schuler K, Granato S, Smith PN. Exploring interpersonal theory of suicide typologies in patients with cancer: a latent profile analysis. Death Stud. 2023:47(1):84-93.

Jha MK, Williamson DJ, Magharehabed G, Turkoz I, Daly EJ, Trivedi MH. Intranasal esketamine effectively treats treatment-resistant depression in adult regardless of baseline irritability. J Affect Disord. 2023 Jan 15;321:153-160.

Rabinowitz J, Williams JBW, Hefting N, Anderson A, Brown B, Fu DJ, Kadriu B, Kott A, Mahableshwarkar A, Sedway J, Williamson D, Yavorsky C, Schooler NR. Consistency checks to improve measurement with the Hamilton Rating Scale for Anxiety (HAM-A). J Affect Disord. 2023 Mar 15;325:429-436.

Silva C, Smith PN, Rogers M, Joiner TE, Foote B, Van Orden KA. Clinically significant scores for thwarted belonging and perceived burden from the Interpersonal Needs Questionnaire (INQ-15). Crisis. 2023 Sep;44(5):406-414.

Smith PN, Kuhlman S, Wolford-Clevenger C. Examining the interpersonal theory of suicide in acutely suicidal psychiatric inpatients. Death Stud. 2022;46(8):1785-1791.

Turkoz I, Nelson JC, Wilkinson ST, Borentain S, Macaluso M, Trivedi MH, Williamson D, Sheehan JJ, Salvadore G, Singh J, Daly E. Predictors of response and remission in patients with treatment-resistant depression: a post hoc pooled analysis of two acute trials of esketamine nasal spray. Psychiatry Res. 2023 May;323:115165.

Williamson D, Sheehan J, Daly E. Post-approval research in drug development: priorities and practices. Adv Neurobiol. 2023;30:169-180.

Williamson D, Turkoz I, Wajs E, Singh JB, Borentain S, Drevets WC. Adverse events and measurement of dissociation after the first dose of esketamine in patients with TRD. Int J Neuropsychopharmacol. 2023 Mar 22;26(3):198-206.

II. PUBLISHED ABSTRACTS

Brady K, Chavers E. Locked units and lockup: delusional disorder and the justice system. Alabama Psychiatric Physicians Association Spring Conference; 2023 Mar 31-Apr 2; Destin, FL. Abstract no. 23-1-02. Available from: http://www.alabamapsych.com/wp-content/uploads/2023/03/Poster-Abstracts-2023_website.pdf

Carassco T, Lee J, Chavers E. Methamphetamine-induced catatonia: considerations in ED setting. Alabama Psychiatric Physicians Association Spring Conference; 2023 Mar 31-Apr 2; Destin, FL. Abstract no. 23-1-03. Available from: http://www.alabamapsych.com/wp-content/uploads/2023/03/Poster-Abstracts-2023_website.pdf

Carter T, Engeriser JL. Whose personality is it anyway? A case report on dissociative identity disorder. Alabama Psychiatric Physicians Association Fall Conference; 2022 Oct 7-8; Auburn, AL. Abstract no. 22-2-17. Available from: http://www.alabamapsych.com/wp-content/uploads/2022/10/Abstracts_APPA-2022f_web.pdf

Davis A, Stephenson S, Crowell M, Narahari P. Depakote augmentation in the treatment of catatonia. Alabama Psychiatric Physicians Association Spring Conference; 2023 Mar 31-April 2; Destin, FL. Abstract no. 23-1-04. Available from: http://www.alabamapsych.com/wp-content/uploads/2023/03/Poster-Abstracts 2023_website.pdf

Gallagher K, Engeriser JL, Brown F. Delirium due to tianeptine withdrawal: a case report. Alabama Psychiatric Physicians Association Spring Conference; 2023 Mar 31-Apr 2; Destin, FL. Abstract no. 23-1-08. Available from: http://www.alabamapsych.com/wp-content/uploads/2023/03/Poster-Abstracts-2023_website.pdf

Gavan S, Hollis M. Delusional ideation resulting from long-term PTSD: a case study. Alabama Psychiatric Physicians Association Spring Conference; 2023 Mar 31-Apr 2; Destin, FL. Abstract no. 23-1-07. Available from: http://www.alabamapsych.com/wp-content/uploads/2023/03/Poster-Abstracts-2023_website.pdf

Hudson A, Lee S, Tucker A, Finn EW. ASD diagnosis in a previously undiagnosed adult. Alabama Psychiatric Physicians Association 2023 Spring Conference; 2023 Mar 31-Apr 2; Destin, FL. Abstract no. 23-1-12. Available from: http://www.alabamapsych.com/wp-content/uploads/2023/03/Poster-Abstracts-2023_website.pdf

Jetsu M, Mussell L, Rayburn T, Detrinis R. Treating concurrent obsessive-compulsive disorder and autism spectrum disorder. Alabama Psychiatric Physicians Association Spring Conference; 2023 Mar 31-Apr 2; Destin, FL. Abstract no. 23-1-13. Available from: http://www.alabamapsych.com/wp-content/uploads/2023/03/Poster-Abstracts-2023_website.pdf

King C, Malone J, Hollis M. Examination of quetiapine in the role of delirium. Alabama Psychiatric Physicians Association Spring Conference; 2023 Mar 31-Apr 2; Destin, FL. Abstract no. 23-1-15. Available from: http://www.alabamapsych.com/wp-content/uploads/2023/03/Poster-Abstracts-2023_website.pdf

Lassiter B, Smith PN, Shelley-Tremblay J. Suicide capability predicts suicide attempt history. Annual Southeastern Psychological Association 69th Annual Meeting; 2023 Apr 5-8; New Orleans, LA. p. 106. Abstract no. 5.

Mehari KR, Smith PN, Coleman JN, Stevens LT, Kim H. Lived experiences of people who used guns in violent situations. Society for Prevention Research 31st Annual Meeting; 2023 May 30-Jun 2; Washington, D.C. Abstract no. 418. Available from: https://spr.confex.com/spr/spr2023/meetingapp.cgi/Paper/32408

Malone J, Burns W. Mutism as the presenting symptoms of psychosis and identifying first episode psychosis. Alabama Psychiatric Physicians Association Spring Conference; 2023 Mar 31-Apr 2; Destin, FL. Abstract no. 23-1-18. Available from: http://www.alabamapsych.com/wp-content/uploads/2023/03/Poster-Abstracts-2023_website.pdf

Mussell L, Jetsu M, Rayburn T, Parker S. Managing behavioral symptoms in autoimmune limbic encephalitis. Alabama Psychiatric Physicians Association Spring Conference; 2023 Mar 31-Apr 2; Destin, FL. Abstract no. 23-1-21. Available from: http://www.alabamapsych.com/wp-content/uploads/2023/03/Poster-Abstracts-2023_website.pdf

Prestage A, Hudson A, Engeriser L. Gas station heroin: tianeptine withdrawal symptom presentation, risk factors for use and withdrawal management. Alabama Psychiatric Physicians Association Spring Conference; 2023 Mar 31-Apr 2; Destin, FL. Abstract no. 23-1-25. Available from: http://www.alabamapsych.com/wp-content/uploads/2023/03/Poster-Abstracts-2023_website.pdf

Rayburn T, Parker S. Managing psychiatric symptoms in a patient with autoimmune limbic encephalitis. Alabama Psychiatric Physicians Association Spring Conference; 2023 Mar 31-Apr 2; Destin, FL. Abstract no. 23-1-26. Available from: http://www.alabamapsych.com/wp-content/uploads/2023/03/Poster-Abstracts-2023_website.pdf

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Coleman JN, Smith PN, Mehari KR, Farrell AD, Coleman JN, Bettencourt AF. Invited speakers. Relation between parental messages and physical aggression: beliefs as mediators. Society for Prevention Research 31st Annual Meeting; 2023 Jun 2; Washington, DC. Available from: https://spr.confex.com/spr/spr2023/meetingapp.cgi/Paper/32874

Engeriser JL. Invited speaker. National Recovery Month with AltaPointe Health. Fox10 News, WALA-TV [video]. 2023 Sep 1; Mobile, AL. https://www.fox10tv.com/2023/09/01/national-recovery-month-with-altapointe-health/

Engeriser JL. Invited speaker. Psychedelic drugs in the treatment of substance use disorders: a review of clinical studies [virtual presentation]. American Society of Addiction Medicine Psychedelic Medicine Special Interest Group; 2023 Jun 22; Rockville, MD.

Engeriser JL. Invited speaker. Psychopharmacology and substance-related and addictive disorders. Crisis Intervention Team Training; 2023 Jun 6; Mobile, AL.

Engeriser JL. Invited speaker. Addiction as a neurobiological disease. Stop Judging, Start Healing Summits; 2023 Jan 20; Auburn AL.

Engeriser JL. Invited speaker. Addiction as a neurobiological disease. Stop Judging, Start Healing Summits; 2023 Jan 24; Mobile, AL.

Engeriser JL. Invited speaker. Addiction as a neurobiological disease. Stop Judging, Start Healing Summits; 2023 Jan 25; Montgomery, AL.

Engeriser JL. Invited speaker. Psychopharmacology and substance-related and addictive disorders. National Alliance on Mental Health Crisis Intervention Team Training; 2023 Jan 17; Loxley, AL.

Engeriser JL. Invited speaker. There and back again: psychedelic drugs in the treatment of substance use disorders [virtual presentation]. Tulane University Department of Psychiatry Grand Rounds; 2022 Dec 9; New Orleans, LA.

Engeriser JL. Invited speaker. Gas station pharmacology: commonly used drugs in the gray zone of legality and safety. Alabama Society of Addiction Medicine 5th Annual CME Conference; 2022 Nov 12; Birmingham, AL.

Engeriser JL. Invited speaker. Benzodiazepines and the diagnosis and treatment of anxiety disorders. Nurse Practitioner Alliance of Alabama 16th Annual Conference; 2022 Oct 15; Mobile, AL.

Engeriser JL. Invited speaker. Identifying people-at-risk with psychiatric problems. Nurse Practitioner Alliance of Alabama 16th Annual Conference; 2022 Oct 15; Mobile, AL.

Engeriser L. Invited speaker. Animal tranquilizer now showing up in illegal drugs like fentanyl. Scripps News; 2023 Apr 21; Available from: https://scrippsnews.com/stories/animal-tranquilizer-now-showing-up-in-illegal-drugs-like-fentanyl/

Engeriser L. Invited speaker. Health experts raise concerns about new drug that combines fentanyl with animal tranquilizer [video]. FOX 10 News, WALA-TV; 2023 Mar 14; Mobile, AL. Available from: https://www.fox10tv.com/2023/03/14/health-experts-raise-concerns-about-new-drug-that-combines-fentanyl-with-animal-tranquilizer/

Engeriser JL. Invited speaker. Tackling the post-football season blues [video]. FOX 10 News, WALA-TV; 2023 Feb 12; Mobile, Alabama. Available from: https://www.fox10tv.com/2023/02/13/tackling-post-football-season-blues/

Engeriser JL, Furr SP, Westfall JM. Invited speakers. Psychiatric issues in prescribing. Medical Association of the State of Alabama Intensive Course, Prescribing and Pharmacology of Controlled Drugs: Current Issues and Strategies for Successful Patient Care; 2023 Mar 4; Huntsville, AL.

Engeriser JL. Invited speaker. Veterans' mental healthcare [podcast]. Midday Mobile, FM Talk 1065, WAVH-FM; 2022 Nov 21; Mobile, AL. Available from: https://fmtalk1065.com/podcast/time-for-a-check-up-altapointes-deputy-chief-medical-officer-dr-luke-engeriser

Engeriser JL, Westfall JM. Invited speakers. Psychiatric issues in prescribing. Medical Association of the State of Alabama Intensive Course, Prescribing and Pharmacology of Controlled Drugs: Current Issues and Strategies for Successful Patient Care; 2023 Aug 5; Destin, FL.

Gipson C. Invited speaker. AltaPointe, law enforcement partnership helps those in mental health crisis [video]. Fox10 News, WALA-TV; 2023 May 11; Mobile, AL. Available from: https://www.fox10tv.com/2023/05/11/altapointe-law-enforcement-partnership-helps-those-mental-health-crisis/ [video].

Gipson C. Invited speaker. Mental health and related disorders and de-escalation training. National Alliance on Mental Illness 40-hour Crisis Intervention Team Training; 2023 Jan 16; Stapleton, AL.

Gipson C. Invited speaker. Mental health and related disorders and de-escalation training. National Alliance on Mental Illness 40-hour Crisis Intervention Team Training; 2023 Jun 5; Mobile, AL.

Mehari KR, Smith PN, Coleman JN, Stevens LT, Kim H, Farrell AD. Invited speakers. Participatory action research to understand gun-related attitudes, behaviors, and practices.

National Research Conference on Firearm Injury Prevention; 2022 Nov 30; Washington, DC.

V. NATIONAL PROFESSIONAL RECOGNITION

Drs. Sandra Parker and J. Luke Engeriser serve on the Alabama Psychiatric Physician Association (APPA) Education Committee and Membership Committees, respectively. Dr. Engeriser also serves on the Scientific Review Committee. Dr. Edgar Finn was chosen to be one of four Fellows in the Balint Group Fellowship Training Program.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Overall

Overall, the Department of Psychiatry, in collaboration with AltaPointe, continues to be a leader in integrated health care. Much of the outpatient care has been moved to the integrated model, where primary care physicians in family medicine and pediatrics share patients in the same setting with adult psychiatrists and child psychiatrists. This allows for better collaboration and communication between physicians which results in better care and outcomes for patients. We are doing this in a Federally Qualified Health Center (FQHC) Model. Learners, both medical students and residents can rotate through these clinics.

The department is also collaborating in providing crisis response services with the Mobile Police Department (MPD). Students and residents can participate in ride-alongs to provide mental health services and deescalate crisis situations.

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 be very positive, with overwhelmingly positive feedback, demonstrating an appreciation for tying clinical medicine into team learning activities. USMLE data on Step I is still in early stages of processing to determine the effectiveness of last year's didactic sessions, as the recent changes in Step I going to pass/fail only has changed their metrics significantly. 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 II scores remain 0.2-0.5 standard deviations above the norm, with 11% of USA students scoring greater than 1 standard deviation above the national norm.

Medical student feedback on the psychiatry clerkship has been overwhelmingly positive, and this positivity is best demonstrated by a record number of USA students preparing to interview for psychiatry residency spots this year. 10 USA students are entering psychiatry this year and are utilizing several different faculty members as faculty mentors. Students report, whether they are going into psychiatry or other specialties, that they feel that the

psychiatry clerkship experience provided at EastPointe Hospital is well-structured, and they greatly appreciate the amount of hands-on educational experiences provided by attending and resident physicians at their clinical sites. Medical students continue to report that their direct involvement in the care of psychiatric patients is a highlight of their medical school experience.

Dr. Putinta has worked closely with Regina Molyneux to revamp the 4th year ambulatory psychiatry rotation, to get students more exposure to the BHCC, as well as exposure to both outpatient adult and child psychiatry. Dr. Putinta has begun incorporating Transcranial Magnetic Stimulation (TMS) and Spravato initial evaluations and treatments into this ambulatory psychiatry rotation, which students have universally praised. 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 reworked several areas of the psychiatry clerkship curriculum, including standardization of lectures given by resident physicians, as well as introduction of a comprehensive review lecture which incorporates high-yield psychiatric facts as well as test-taking strategies. Upon creation and unveiling of this review lecture, all USA students have passed the NBME miniboard successfully on their first attempt.

Dr. Edgar Finn and the Child and Adolescent Psychiatry Fellowship Training program increased their involvement with the Juvenile Justice System by taking over management of patients seen in the Child Outpatient Clinic referred by Strickland Youth Center. These patients often present challenging clinical issues for the Fellows, who learn with supervision to manage the various complexities with supervision from the on-site Attending Psychiatrist. We were able to recruit two incoming PGY-4 Fellows from within our own Department of Psychiatry, who transitioned from the Adult Psychiatry Program to the Child & Adolescent Psychiatry Fellowship following the completion of their PGY-3 year of training in June 2023.

Balint Groups were successfully initiated for the Psychiatry Residents. Two separate groups, one for PGY 1s and 2s and the other for PGY 3s and 4s, began monthly meetings in August 2022. These were well-received by the majority of residents and will be continuing in the 2023-24 Academic Year, with the addition of PGY-5 residents (in Child & Adolescent Psychiatry and Addiction Medicine) during the upcoming academic year.

Clinical

Dr. J. Luke Engeriser serves as the Deputy Chief Medical Officer for AltaPointe Health and Medical Director and lead physician of the Behavior Health Crisis Center (BHCC). The BHCC is in its third year of operation and has been serving the community's mental health needs. The BHCC has also filled an important gap in the community by helping patients with opioid, methamphetamine, and alcohol withdrawal. The BHCC has been an important educational site for the department and is a core rotation for psychiatry residents

and addiction medicine fellows, and has been an elective rotation for fourth year medical students.

The department has continued to expand its integrated care initiatives, increasingly co-locating primary care and behavioral health services in the same clinical sites. Accordia Health (primary care) and AltaPointe Health (behavioral health and psychiatry) are co-located in the main pediatric and adult outpatient practices, and throughout our clinical continuum, primary care physicians, psychiatrists, and mental health specialists work side-by-side. This allows easy collaboration between primary care physicians and psychiatrists, improving the overall clinical care for our community.

Grants

Sandra Parker, MD
Baldwin County Commission AltaPointe Health Assisted Outpatient Treatment Program April 2023 – March 2025
Byrne JAG Program for Law Enforcement 10/01/2022 – 09/30/2023
FY 2023 Expanding COVID-19 Vaccination Grant 12/01/22 – 05/31/2023
FY 2023 Bridge Access Program (COVID) – 09/01/2023 – 12/31/2024
Alabama Business Charitable Trust Fund Community Grant 03/09/2023 – 03/08/2024
AL Department of Mental Health Coosa County Rural Opioid Treatment 10/01/2023 – 09/30/2024

Phillip N. Smith, PhD
Mehari and Smith (Co-PIs) 05/16/2022 – 02/28/2027
National Institute of Minority Health and Health Disparities & Office of Disease Prevention. Preventing Youth Violence Through Building Equitable Communities: An Evaluation of a Multisystemic Intervention.
Mehari and Smith (Co-PIs) 09/30/2020 – 09/29/2023
Centers for Disease Control and Prevention
Participatory Action Research to Inform a Social-Ecological Model of Gun-Related Attitudes, Behaviors, and Practice

Leadership
Dr. J. Luke Engeriser began a two-year term as President of the Alabama Society of Addiction Medicine in January 2023. Dr. Engeriser continues to serve as a Regional Board Representative for the Medical Association of the State of Alabama Political Action Committee (ALAPAC), a position he has held since 2021. Finally, he serves as Vice-Chair of the American Society of Addiction Medicine Psychedelic Medicine Special Interest Group.

2022-2023
Summary of Scholarly Activities
Department of Radiology

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Bulman JC, McQuiston SA, Bedi HS, Rawson JV. "Coopetition" in practice: regional collaborations in radiology resident education. Acad Radiol. 2023 Apr;30(4):621-624.

Ghosh A, Bose S, Patton D, Kumar I, Khalkhali V, Henry MK, Ouyang M, Huang H, Vossough A, Sze RW, Sotardi S, Francavilla M. Deep learning-based prediction of rib fracture presence in frontal radiographs of children under two years of age: a proof-of-concept study. Br J Radiol. 2023 Apr 1;96(1145):20220778.

Ghosh A, Patton D, Bose S, Henry MK, Ouyang M, Huang H, Vossough A, Sze R, Sotardi S, Francavilla M. A patch-based deep learning approach for detecting rib fractures on frontal radiographs in young children. J Digit Imaging. 2023 Aug;36(4):1302-1313.

Kar J, Cohen MV, McQuiston SA, Malozzi CM. Can global longitudinal strain (GLS) with magnetic resonance prognosticate early cancer therapy-related cardiac dysfunction (CTRCD) in breast cancer patients, a prospective study? Magn Reson Imaging. 2023 Apr;97:68-81.

Lerman MA, Francavilla M, Waqar-Cowles L, Levine MA. Denosumab treatment does not halt progression of bone lesions in multicentric carpotarsal osteolysis syndrome. JBMR Plus. 2023 May 15;7(5):e10729.

Patton D, Ghosh A, Farkas A, Sotardi S, Francavilla M, Venkatakrishna S, Bose S, Ouyang M, Huang H, Davidson R, Sze R, Nguyen J. Automating angle measurements on foot radiographs in young children: feasibility and performance of a convolutional neural network model. J Digit Imaging. 2023 Aug;36(4)1419-1430.

Weiss PF, Brandon TG, Lambert RG, Biko DM, Chauvin NA, Francavilla ML, Herregods N, Hendry AM, Maksymowych WP. Consensus-driven definition for unequivocal sacroiliitis on radiographs in juvenile spondyloarthritis. J Rheumatol. 2023 Sep 1;50(9):1173-1177.

Weiss PF, Brandon TG, Lambert RG, Biko DM, Chauvin NA, Francavilla ML, Jaremko JL, Herregods N, Kasapcopur O, Yildiz M, Hendry AM, Maksymowych WP. Data-driven magnetic resonance imaging definitions for active and structural sacroiliac joint lesions in juvenile spondyloarthritis typical of axial disease: a cross-sectional international study. Arthritis Care Res (Hoboken). 2023 Jun;75(6):1220-1227.

II. PUBLISHED ABSTRACTS

Cahanin R, Burley T, Fallavollita A, McQuiston S. The reliability of ultrasound-guided leg-length measurement. American Physical Therapy Association Combined Sections Meeting 2023; 2023 Feb 23-25; San Diego, CA. Available from: https://apta.confex.com/apta/csm2023/meetingapp.cgi/Paper/35126

Kar J, Cohen MV, McQuiston SA, Malozzi, CM. Prognostic value of left ventricular global longitudinal strain for early prediction of cancer therapy-related cardiac dysfunction. Circulation. 2022 Nov 8;146(Suppl 1):A13581. Abstract no. 13581. Available from: https://www.ahajournals.org/doi/10.1161/circ.146.suppl_1.1358

Rana H, Knight C, Shamim, M, Wood B, Hussain Z. Role of interventional radiology in sacral mass resection. Society of Interventional Radiology Annual Scientific Meeting; 2023 Mar 4-9; Phoenix, AZ. p. 19. Abstract no. 743. Available from: https://www.jvir.org/pb-assets/Health%20Advance/journals/jvir/7979_sir_2023_JVIROnlineSupplement_Proof5-1681756264187.pdf

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

V. NATIONAL PROFESSIONAL RECOGNITION

Maria Figarola. Manuscript Reviewer, *American Journal of 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 of national discussion platform, Society of Chairs of Academic Radiology Departments. Children's Oncology Group Diagnostic Imaging Committee

Michael Francavilla. Reviewer, *Journal of Digital Imaging*. Reviewer, *Applied Radiology.* Member of Society for Pediatric Radiology Informatics and Public Policy Committee.

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

Zeiad Hussain. Reviewer, *European Journal of Radiology*.

Rosemary Klecker. Reviewer, *American Journal of Radiology* and *Skeletal Radiology*. Membership Committee Member, *Society of Skeletal Radiology*.

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.

Elizabeth Park. Advisory Role, *National Accreditation Programs for Breast Centers*.

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 becoming the Vice Chair of our departmental Quality Assurance and Performance Improvement committee. He leads a monthly Peer Learning Conference and is our departmental representative for the Clinical Process Council.

Dr. Michael Francavilla is an Associate Professor and fellowship trained pediatric radiologist, has been in our department for the last year having joined April 1, 2022. He has proven himself a tremendous asset to not only the pediatric radiology division but the entire department. In addition, he is a new CMIO with particular emphasis on the imaging needs in the USA Health System, he has made himself indispensable in that IT role. He has given multiple grand rounds regarding the 21st-Century Cures Act, having been a major contributor on that committee. Dr. Francavilla has had six published peer-reviewed articles over the last year and gave a poster presentation at the SIIM titled A sex specific bone age report template with pick list decreases reporting errors. In addition, he has contributed to the administrative needs of the department including being on the template task force. Nationally, he is a member of the SPR Informatics and Public Policy committee and is a journal editor for Applied Radiology and a journal peer reviewer for the Journal of Digital Imaging.

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. Her nuclear medicine conference is approved for category one CME credit. She is an instructor for our UME Ray 480/481 program. Beyond her clinical services, Dr. Gupta's service contributions include committee work for the department involving the residency program evaluation committee. 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 and a member of the Medical School Admissions Committee. Dr. Gupta also provides imaging guidance for a new Urology Case Conference. Nationally, Dr. Gupta is an ACR reviewer for Nuclear Medicine and PET/CT accreditation and a member of the ACR National Committee on Nuclear Medicine Accreditation.

Dr. Zeiad Hussain is the division chief of interventional radiology. Dr. Hussain is a fellowship-trained interventional radiologist who, together with Dr. Brian Wood, has built

a thriving and robust IR division. The services provided by Dr. Hussain and his team range from complex minimally invasive therapeutic treatments for cancer such as Y- 90 chemoembolizations, to life-saving interventions for patients in hepatic failure and high acuity vascular embolizations for our trauma patients, just to name a few. Dr. Hussain also holds multiple additional leadership positions which include Chair of the IR Quality Assurance and Performance Improvement committee, chief interventionalist of the Early Specialization in Interventional Radiology residency program, and lead interventionalist for the IR simulation center. He is a member of the multidisciplinary hepatobiliary tumor board. In addition, Dr. Hussain is collaborating with Astro Zeneca to establish a new site for their Phase II Clinical Study in Liver Cancer with durvalumab and bevacizumab. Dr. Hussain's service contributions include Medical Director over the University Hospital PICC team.

Dr. Rosemary Klecker is an Associate Professor and the division chief of musculoskeletal radiology. In the time since Dr. Klecker has 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 first year serving as Associate Program Director, with much success.

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 first 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.

Dr. Samuel McQuiston, 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. His recent promotion to full professor is well deserved. As the

recent past residency program director, Dr. McQuiston has provided excellent guidance and mentorship to the new resident program director. He is also very active in providing lectures and leadership in multiple UME course modules including the Radiology Selective rotation for the medical students. 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 three projects, one NIH/JIT grant funded at $400,000 and a second grant funded at $5000 through USA Allied Health. He also has two peer reviewed article in press, two presented or published abstract/poster, and a submitted manuscript to Ultrasound Journal. Dr. McQuiston established and Chairs a multi-institutional bimonthly group meeting with other program directors in the southeast region, bringing shared education and research opportunities to all of the participating programs. Dr. McQuiston is the Chair of the Radiology Quality Assurance Program Improvement committee. Nationally, Dr. McQuiston is question writer and editor for RadExam (an ACR in-training exam) and is a peer reviewer for multiple national radiology journals.

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. 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 whole breast ultrasound technology and is the only certified breast imager to read these studies.

Dr. Todd Standley is an outstanding fellowship trained pediatric radiologist, with an added certificate of additional qualification. As one of the few subspecialty certified pediatric radiologists in the region, Dr. Standley provides higher level interpretations of all pediatric imaging studies performed in the USA Health System. He is the course director over the pediatric radiology clerkship for M3 and M4 medical students and pediatric residents. He is a primary radiology faculty advisor at the monthly pediatric tumor board conference and radiology representative for the monthly Children with Special Needs conference. Dr. Standley has collaborated on several case reports with the radiology residents this past year.

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. Brian Wood is an Assistant Professor in the division of interventional radiology. Dr. Wood has been an indispensable member of the IR team providing exceptional IR clinical services as well as excellent resident education. As a fellowship trained interventional radiologist, Dr. Wood and Dr. Hussain provide a broad range of complex minimally invasive therapeutic services including treatments for cancer, life-saving interventions for patients in hepatic failure as well as high acuity vascular embolizations for bleeding trauma patients, to name a few. In addition, Dr. Wood provides hands-on simulation workshops in ultrasound guided procedures and is a key faculty member in the Early Specialization in Interventional Radiology residency training program. Dr. Wood's service contributions include being an interventional radiology member of the weekly multidisciplinary hepatobiliary tumor board. Dr. Wood has been very active in contributions to scholarships including a presentation on the "Role of IR in Sacral Masses", published in the JVIR in 2023. He has also had two abstracts/posters, one published in The American Surgery 2023 and a second presented at the Southern Society for Pediatric Research, Southern Regional Meeting, New Orleans, Feb. 2023.

Our senior residents matched in prestigious and highly competitive fellowship programs that include University of Colorado, Anschutz Medical Campus, The University of Alabama at Birmingham, and MD Anderson Cancer Center. We have also had great success in our residency recruitment, with four new residents who joined us on July 1, 2023.

Our four new residents are: Dr. Phillip Friedlander, who graduated from University of South Alabama Medical School and completed his preliminary year in Internal Medicine at the University of South Alabama; Dr. Rylan Holmberg, who graduated from Nova Southeastern University College of Osteopathic Medicine and completed his transitional year at Broward Health Program; Dr. Archit Patel who graduated from Edward Via College of Osteopathic Medicine, Auburn Campus and completed his transitional year at Piedmont Macon Medical Center; Dr. Lucas Sheridan, who graduated from Alabama College of Osteopathic Medicine and completed his transitional year at the Northside Hospital, Gwinnett.

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 30% females and 45% underrepresented minorities recruited into our program.

The department of radiology has had many additional successes over the last year. We have continued to have unprecedented increases in volumes and charges with departmental revenue up 8% over last year. We are able to provide quality imaging services and manage the markedly increased imaging volumes, with strong support from our full time and adjunct faculty.

Another key accomplishment for our department over the last year has been the further development of a robust Quality Assurance and Performance Improvement plan 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.

We have recruited Assistant Professor Dr. Rife Hucakbee, as a 0.5 FTE generalist with a breast imaging certification. He joined our faculty April 10, 2023. We have also successfully recruited multiple PRN community private practice partners as adjunct faculty.

Other new clinical services provided by the department of radiology include:

Installed new whole breast ultrasound unit (ABUS) at Strada Breast Imaging Center, providing an additional advanced breast imaging services began October 2022;

Began using a new breast localizing device in breast imaging and surgery;

Strategic upgrades of radiology workstations, PACS, and related clinical applications;

Updated hospital based services including Navigo MRI/US Prostate Fusion Biopsy mapping, providing urologist intraoperative guidance for prostate cancer treatment.

New imaging services began March 2023 at the Mapp Eastern Shore Facility;

Implemented new clinical practices/ protocols in multiple areas:

- Initiated switch to Cu 64 Dotatate PET at Mitchell Cancer Institute to diagnose and stage neuroendocrine tumor;
- Initiated use of F-18 Pylarify PET/CT for staging and further management of patients with prostate cancer;
- Lower extremity venous therapy (ablation, sclerotherapy, stripping);
- Established the Endovascular AV fistula creation service;
- Peritoneal Catheter Placement and management in collaboration with Nephrology;
- Developed and automated radiology reporting templates to standardize and increase efficiency of the reporting process.

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

- Increasing faculty numbers, particularly in the key areas of breast imaging, interventional radiology and body imaging;
- Integrate RAD Associates with the acquisition of Providence

- Implementing strategies to address the increasing volumes to maintain balance between patient care and education, as well as providing protected academic time for residents and faculty;
- Further enhance our faculty development plan;
- Re-initiate Heart & Vascular meetings (IR, Cardiology, and Neuro) focused on expanding schedules for elective interventional procedures. With the support of executive administration;
- Establishing a PERT Team and standardizing PE management protocol in USA University Hospital;
- Work with administration to create shared agendas and prioritization of upcoming year's goals both clinically and educationally is a main priority for the department. This will be key in staying on pace with volume growth across all modalities and services provided by the department;

We anticipate further faculty recruitment in the coming year and look forward to new opportunities to advance our clinical service, teaching and research missions.

2022-2023
Summary of Scholarly Activities
Department of Surgery

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Alexander KM, Butts CC, Lee YL, Kutcher ME, Polite N, Haut ER, Spain D, Berndtson AE, Costantini TW, Simmons JD. Survey of venous thromboembolism prophylaxis in trauma patients: current prescribing practices and concordance with clinical practice guidelines. Trauma Surg Acute Care Open. 2023 May 12;8(1):e001070.

Barnes BM, Bouillon V, Haiflich A, Butts CC, Capasso T, Bright A, Polite N, Williams AY, Kinnard C, Simmons JD, Lee YL, Mbaka M. Blunt cerebrovascular injury (BCVI) management: is there a right answer? Am Surg. 2023 Aug;89(8):3536-3538.

Blackley SK, Smith WC, Lee YL, Kinnard C, Williams AY, Butts CC, Mbaka MI, Haiflich A, Bright A, Simmons JD, Polite NM. Identifying radiographic and clinical indicators to reduce the occurrence of nontherapeutic laparotomy for blunt bowel and mesenteric injury. Am Surg. 2023 Aug;89(8):3471-3475.

Cockrell BE, Haiflich AN, Lee YL, Kinnard CM, Butts CC, Polite NM, Mbaka MI, Bright AC, Simmons JD, Williams AY. Social determinants of health impact physical recovery after blunt injury. Am Surg. 2023 Jul;89(7):3295-3297.

Daly GT, Pastukh VM, Tan YB, Francis CM, Aggen CZ, Groark SC, Edwards C, Mulekar MS, Hamo M, Simmons JD, Kutcher ME, Hartsell EM, Dinwiddie DL, Turpin ZM, Bass HW, Roberts JT, Gillespie MN, Langley RJ. Novel attributes of cell-free plasma mitochondrial DNA in traumatic injury. Clin Transl Med. 2022 Oct;12(10):e1055.

DiVincenzo MJ, Schwarz E, Ren C, Barricklow Z, Moufawad M, Yu L, Fadda P, Angell C, Sun S, Howard JH, Chung C, Slingluff C, Gru AA, Kendra K, Carson WE. Expression patterns of microRNAs and associated target genes in ulcerated primary cutaneous melanoma. J Invest Dermatol. 2023 Apr;143(4):630-638.e3.

Donnellan KA, Hinson CS, Blevins AC, Weaver KL, Lintner AC, Butts CC, Williams AY, Lee LY, Simmons JD, Bright AC. Treatment of chronic hypertrophic burn scars with a fractional CO2 laser is well tolerated in an outpatient clinic setting. Ann Plast Surg. 2023 May 1;90(5):444-446.

Dunbar EG, Massey AC, Lee YL, Mbaka M, Kinnard CM, Bright AC, Williams AY, Polite NM, Simmons JD, Butts CC. Incidence and severity of medication reconciliation discrepancies in trauma patients. Am Surg. 2023 Jul;89(7):3272-3274.

Halleluyan R, McNally AP, Iliff G, Grimm LM. Thrombosed external hemorrhoidectomy [video]. In: SCORE Portal [database online]. Charlottesville, VA: Silverchair Information/Systems [2023 Apr]. Available from:

https://www.surgicalcore.org/Search.aspx?q=Thrombosed%20External%20Hemorrhoidectomy [subscription required].

Huffmaster CE, Williams AY, Lee YL, Butts CC, Polite NM, Mehari KR, Simmons JD. Association between adverse childhood experiences and posttraumatic stress disorder symptoms in adults with injury. JAMA Surg. 2022 Dec;157(12):1158-1159.

Khan H, Cherla D, Mehari K, Tripathi M, Butler TW, Crook ED, Heslin MJ, Johnston FM, Fonseca AL. Palliative therapies in metastatic pancreatic cancer: does Medicaid expansion make a difference? Ann Surg Oncol. 2023 Jan;30(1):179-188.

Khan H, Crook ED, Heslin MJ, Johnston FM, Fonseca AL. ASO author reflections; disparities in receipt of palliative therapies for pancreatic cancer: did Medicaid expansion help? Ann Surg Oncol. 2023 Jan;30(1):189-190.

Khan H, Heslin MJ, Crook ED, Mehari K, Johnston FM, Fonseca AL. Fragmentation of care in pancreatic cancer: effects on receipt of care and survival. J Gastrointest Surg. 2022 Dec;26(12):2522-2533.

Manne A, Mulekar M, Escobar D, Prodduturvar P, Fahmawi Y, Henderson P, Abdul-Rahim O, Hussain Z, Liles S, Fonseca A, Howard JH, Mneimneh W, Gilbert R, Alkharabsheh O, Pai S, White ZB, Nelson C, Khushman M. The adherence to the American Association for the Study of Liver Diseases 2018 guidelines in the management of hepatocellular carcinoma and its impact on survival. J Cancer Res Ther. 2023 Jul-Sep;19(5):1103-1108.

Massey AC, Dunbar EG, Lee YL, Mbaka M, Kinnard CM, Bright AC, Williams AY, Polite NM, Capasso TJ, Simmons JD, Butts CC. Incidence and outcomes of undiagnosed and untreated diabetes mellitus in trauma patients. Am Surg. 2023 Jul;89(7):3243-3245.

McKee K, Easton J, Mullis B, Hadad I. Chitosan sponges are associated with higher rates of wound complications compared to calcium sulfate beads. Cureus. 2023 May 3;15(5):e38490.

Richards W, Rieske R. Magnetic sphincter augmentation for GERD. In: Pryor AD, Hawn MT, editors. Operative techniques in foregut surgery. 2nd ed. Philadelphia, PA: Wolters Kluwer Health; 2023. Chapter 12, p. 87-95.

Shriver M, McCaul M, Mullen P, Grimm L. Excisional hemorrhoidectomy with an energy device. Surgical Council on Resident Education (SCORE). 2023 Jan. Available from: https://www.surgicalcore.org/Search.aspx?q=Excisional%20Hemorrhoidectomy%20with%20an%20Energy%20Device [subscription required].

Sykora LA, Yoder AC, Richards WO. Evaluation of high-interval education to improve outcomes for bariatric patients with health disparities. Gastroenterol Nurs. 2023 Jan-Feb 01;46(1):54-62.

Tahir M, Knowles K, Turbat-Herrera E, Lazarchick JJ, Liles JS. Scalp metastasis as an initial manifestation of squamous cell carcinoma of the lung: case report of an extremely rare entity. Cureus. 2023 Feb 16;15(2):e35074.

Vines K, Ward M, Butts C, Capasso T, Bright A, Lee YL, Polite N, Kinnard C, Simmons J, Maltese C, Williams A, Mbaka M. Aortic injury from high-speed deceleration against a lap belt in a 10-year-old. Am Surg. 2023 Aug;89(8):3554-3556.

II. PUBLISHED ABSTRACTS

Alford H, Huett W, Hinson CS, Chapman A, Williams A, Butts C, Mbaka M, Simmons J, Bright AC. Use of skin from amputated limbs for grafting burn wounds. Southern Region Burn Conference; 2022 Nov 10-13; Baton Rouge, AL. p. 03. Abstract no.13.

Amin K, Vobbilisetty V, Watterson M, Fonseca AL. Disparities in receipt of guideline concordant care in pancreatic cancer: a single-institution study. 18th Annual Academic Surgical Congress; 2023 Feb 7-9; Houston, TX.

Hinson CS, Alford H, Williams A, Butts C, Mbaka M, Simmons J, Bright AC. Autologous skin cell suspension with split thickness grafts effectively treated burns in early third trimester. Southern Region Burn Conference; 2022 Nov 10-13; Baton Rouge, AL.

Khan H, Cherla D, Mehari K, Tripathi M, Butler TW, Crook ED, Heslin MJ, Johnston FM, Fonseca AL. ASO Visual Abstract: palliative therapies in metastatic pancreatic cancer-does Medicaid expansion make a difference? Ann Surg Oncol. 2023 Jan;30(1):191-192.

Khan H, Heslin MJ, Johnston FM, Fonseca AL. Socioeconomic inequalities in surgical resection for pancreatic cancer: a meta-analysis. Society for Surgery of the Alimentary Tract 64th Annual Meeting; 2023 May 6-9. Chicago, IL. Abstract no. 1430. Available from: https://meetings.ssat.com/program/2023/Tu1430.cgi

Malone K, Hogue A, Naman E, Graves C, Haiflich A, Simmons JD, Williams AY. Project Inspire pilot study: a hospital-led comprehensive intervention reduces gun violence among juveniles delinquent of gun crimes. J Trauma Acute Care Surg. 2023 Jul;95(1):137-142.

McCaul M, Richards WO. The evolution of Heller myotomy with Dor fundoplication utilizing robot assisted techniques to improve patient outcomes. Southeastern Surgical Congress 2023 Annual Meeting; 2023 Feb 11-14; Savannah, GA.

Vobbilisetty V, Amin K, Watterson M, Fonseca AL. Factors associated with receipt of guideline concordant treatment in gastric cancer: a single-institution study. 18th Annual Academic Surgical Congress; 2023 Feb 7-9; Houston, TX.

Waggener K, Cherla D, Bernard J, Rider PF Jr, Grimm LM Jr, Hunter JD III. Ureteral dye injection as an alternative to ureteral stent placement for intraoperative identification of the ureter: a retrospective study. J Am Coll Surg. 2023 May;236(5):S18.

West K, Mehari K, Coleman J, Ahmed R, Fonseca AL. Assessing barriers to oncologic care: a patient-centered approach in the deep south. Southeastern Psychological Association 69th Annual Meeting; 2023 Apr 5-8; New Orleans, LA.

Yuzefovych L, Pastukh VM, Richards W, Rachek L. Analysis of cell-free mitochondrial DNA in obese patients with and without type 2 diabetes after bariatric surgery. Diabetes. 2023 Jun;72(Suppl 1):282-LB. Available from: https://diabetesjournals.org/diabetes/search-results?page=1&q=Analysis%20of%20Cell-Free%20Mitochondrial%20DNA%20in%20Obese%20Patients%20With%20and%20Without%20Type%202%20Diabetes%20after%20Bariatric%20Surgery&fl_SiteID=1000001&fl_IssueNo=Supplement_1&fl_Volume=72

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Bright A. Invited speaker. Lessons in soft tissue healing: a surgical perspective. Tennessee Osteopathic Medical Association 125th Anniversary Annual Convention; 2023 Apr 29; Chattanooga, TN.

Butts C. Invited speaker. Emergencies in trauma surgery. 2023 Alabama and Mississippi Chapters of the American College of Surgeons Joint Meeting; 2023 Jul 13; Gulf Shores, AL.

Grimm L. Invited speaker. Current management of Perianal Crohn's diseases. 2023 Alabama and Mississippi Chapters of the American College of Surgeons Joint Meeting; 2023 Jul 14; Gulf Shores, AL.

Hunter J. Invited speaker. Emergent biliary disease [podcast]. Hippo Education, Colorado Technical University; 2022 Nov 14; Colorado Springs, CO.

Hunter J. Invited speaker. Bloated and blocked: bowel obstruction in the ED. Essentials of Emergency Medicine Annual Conference; 2023 Jun 1; Las Vegas, NV.

Hunter J. Invited speaker. Rectal misadventures. Essentials of Emergency Medicine Annual Conference; 2023 Jun 1; Las Vegas, NV.

Hunter J. Invited speaker. Gallbladder myths and missteps. Essentials of Emergency Medicine Annual Conference; 2023 Jun 1; Las Vegas, NV.

Hunter J. Invited speaker. Robotic colorectal techniques. 2023 Alabama and Mississippi Chapters of the American College of Surgeons Joint Meeting; 2022 Jul 22; Gulf Shores, AL.

Hunter R. Invited speaker. Breast cancer. Mobile Rotary Club Weekly Meeting; 2023 Aug 22; Mobile, AL.

Lee B. Invited speaker. Current management of the open abdomen. 2023 Alabama and Mississippi Chapters of the American College of Surgeons Joint Meeting; 2023 Jul 14; Gulf Shores, AL.

Liles S. Invited speaker. Medicaid coverage & breast cancer screening [video]. Medical Moment" segment WKRG News 5; 2023 Feb 27; Mobile, AL. Available from: https://www.wkrg.com/health/medical-moment-medical-coverage-breast-cancer-screenings/

Polite N. Invited speaker. Rural trauma team development course. Thomasville Regional Medical Center; 2022 Nov 11; Thomasville, AL.

Polite N. Invited speaker. Meet the physicians: an exploration of how to become a doctor [virtual presentation]. American Association of Colleges of Osteopathic Medicine; 2023 Aug 3; Bethesda, MD.

Richards W. Invited speaker. Comparison of outcomes of robot assisted laparoscopic and laparoscopic Heller myotomy with Dor fundoplication. Society of American Gastrointestinal and Endoscopic Surgeons Annual Meeting; 2023 Apr 1; Montreal, Canada.

William A. Invited speaker. Project Inspire. outreach & injury prevention. 12th Annual Gulf Coast Trauma Symposium; 2023 Mar 23; Mobile, AL.

Williams A. Invited speaker. Hospital-led community approach to curbing gun violence among high-risk teens. Mississippi Trauma Symposium 2023; 2023 May 4; Biloxi, MS.

Williams A. Invited speaker. Project Inspire: reducing violence through mentorship. Mississippi Trauma Symposium 2023; 2023 May 4; 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. Journal Peer Review, Burns Trauma Surgery and Acute Care Open American Surgeon.

Capasso T. Author SCORE Video on Laparoscopic Gastric Tube Placement

Dyess L. Member American College of Surgeons Best Practices- Surgical Site Infection Anticoagulation Guidelines

Dyess L. Governor Alabama Chapter American College of Surgeons

Dyess L. Committee Member ACS Item Writing Committee

Fonseca A. Committee Member Association of Women Surgeons (AWS): Outreach

Fonseca A. Committee Member Southeastern Surgical Congress (SESC): Diversity, Equity & Inclusion

Fonseca A. Member Society for Surgery of the Alimentary Tract (SSAT): Program Committee- Pancreas Subcommittee, Member

Fonseca A. Committee Member Association for Academic Surgery (AAS): Clinical & Health Services Research

Fonseca A. Committee Member Society of Asian Academic Surgeons (SAAS): Publications

Fonseca A. Committee, Member Society of Surgical Oncology: CME

Fonseca A. Committee, Member American College of Surgeons: Cancer Research Program; Cancer Data Modeling.

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-elect: 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

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

Lee L. Journal Peer Review. American Surgeon

Lee L. Journal Peer Review. Journal of Surgical Research

Liles S. Journal Peer Review. JAMA Open Access

Liles S. Secretary AL Chapter of the American College of Surgeons 2023

Liles S. Committee Member. Young Surgeons Committee, Southeastern Surgical Congress.

Mbaka M. Content Author. Surgical Council on Resident Education (SCORE).

Mbaka M. Journal peer review. Pulse pressure utilization in trauma patients' National clinical guidelines development. SAGE

Mbaka M. Committee Member. Injury Prevention Committee. EAST

Mbaka M. Committee Member. Residents and Fellows Committee. SBAS

Mbaka M. Question writer. Step, Board, CME self-assessment exams.

McMahon D. Author SCORE Video on Laparoscopic Cholecystectomy

Polite N. Moderator. Emerging Technologies and Treatment for Pre-hospital Trauma Management. Gulf Coast Trauma Symposium. 2023 Mar 23. Mobile, AL.

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 W. Moderator. ICONS in Surgery Video session I, American College of Surgeons Clinical Congress San Diego CA, October 15, 2022

Richards W. Moderator. ICONS in Surgery Video session II, American College of Surgeons Clinical Congress San Diego CA, October 16, 2022

Richards W. Moderator. Plenary Session 6, American College of Surgeons Clinical Congress San Diego CA, February 13, 2023

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 – present

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

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

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

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. Alabama State Emergency Medical Control Committee (SMECC). 2015-2022

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

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

Manuscripts published (total number) 34 manuscripts, 15 video published, Book chapters/books published (total number) 3, Conference abstracts published (total number) 20, Aggregate extramural funding (total dollars/number of awards):
NIH $52,601
Other federal government (HRSA, DOD, etc.)
Foundation $471,533
Clinical trials $187,347
Other revenue (total dollars/source)

1. **Individual goals:**
   a. Incorporated new surgical techniques into practice- robotic Heller and robotic sleeve gastrectomy- Significantly lower leak/perforation rates. The DaVinci robot has fundamentally changed the practice of General Surgery and is documented to improve quality.

   b. Developed translational research program re DNA damage in Barrett's esophagus with Mark Gillespie. Breakthrough this summer with significant RNA damage noted only in biopsies of Barrett's esophagus and not in the normal esophagus, and not in the esophagus of patients who had erosive esophagitis.

   c. Recruitment and retention of highly talented, skilled and diverse group of faculty who have excelled at education, clinical and research activities. Many members of the department of Surgery were given the Red Sash by the medical students. All students in the SUR 454 m4 course in GI surgery rated the course as "agree or strongly agree" that the course helped them to plan their career.

   d. Leader in the American College of Surgeons locally and nationally and in charge of a major video program "ICONS in SURGERY"

   e. Clinical activities excellent producing over 50% wRVU's/ year.

   f. Leadership in Alabama chapter American College of Surgeons and in the largest regional general surgery organization the Southeastern Surgical Congress.

2. Departmental goals:
   a. Key fellowship trained faculty were added in Trauma (Tom Capasso) General Surgery (Bonnie Lee).

b. The department produced 20 teaching videos to the Surgical council on Resident Education SCORE). We will produce 20 more this year and are being compensated for our efforts.

c. 8 faculty members established robotic surgery programs in colorectal, oncologic, GI, and general surgery. Improved outcomes were noted in all areas (John Hunter, Paul Rider, Annabelle Fonseca, W. Richards, K Weaver, D McMahon, M Mbaka, Bonnie Lee)

d. Quality of surgical care continues to be better than expected in the Vizhient data.

e. Continued collaborations with Basic Science departments and submission of several grants.

f. All of the students going into general surgery were matched into residency programs, which is a testament to the faculty teaching, mentoring, and advice for a very successful match.

g. The General surgery residency program successfully increased our compliment of residents from 5 to 6 per year. Our resident match was very successful with matching our top candidates.

h. Continued support of robotic simulation software and trainer $650,000 from Intuitive surgery.

i. Annabelle Fonseca was awarded a NIH K23 award, which had 5 years of funding.

3. Summary of student feedback on faculty teaching during this report year:
Overall, the DOS is doing well with students, with many positive comments and ratings. One of the issues that continue to hamper our ability to teach is the pace of clinical activities, i.e. the number of patients in clinic and amount of operative time makes us seem harried, and not giving enough time for education.

4. Specific departmental goals for the next academic year:

a. Research: Attract external funding for clinical and translational studies. Increase collaborations between basic science and surgery.

b. Increase number of industry-supported clinical trials.

c. Develop support and protected time for faculty pursuing K08 mentored clinical research training grants.

d. Education: Increase simulations for students and residents. Increase technical skills outside of the OR in order to improve operative efficiency. Improve student interaction with EHR and improve documentation.

e. Clinical service: Optimize outpatient clinical services through increased training of MA's and LPN's. Increase OR efficiency and throughput.

f. Develop more ERAS and COE's with increased emphasis on standardized care pathways. Improve documentation in EHR to reflect the severity of illness and our time and effort in care of critically ill patients.

g. Implement incentive plan for academic, scholarly, and educational work performed by the faculty.

h. Recruit academic surgeons to fill positions in pediatric ENT, plastic/reconstructive, thoracic oncology, pediatric surgery, vascular surgery.

i. Improve simulation and surgical skills for residents and students outside of OR.

j. Produce at least 20 teaching videos for the SCORE program.

k. Develop philanthropy to support the academic mission of the DOS.

l. Operationalize the MAPP family campus and ASC

m. Develop a General Surgery teaching service at Providence. Recruit cardiothoracic and vascular specialists and provide modern good quality care in those fields.

Medical Student Education:
Students recognized a large number of surgical faculty for Red Sash awards (Lee Grimm, Ron Brooks, Spencer Liles, Maryann Mbaka, Paul Rider John Simmons, Ashley Williams and Caleb Butts) and the graduating senior medical students chose Caleb Butts to be the Invited Speaker at the University of South Alabama College of Medicine, Graduation Commencement, May 5, 2023.

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. Senior students all matched in a highly competitive 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 and Dr. Heslin 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. 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.

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 serves as the advanced trauma life support course director and is the director of the neuroscience ICU. He also serves as the co-director of the surgical ICU and as co-director of the trauma ICU. He is chair of the multidisciplinary trauma burn peer-review committee.

Dr. Ashley Williams has designed, instituted and continues to run Project Inspire: A comprehensive grass roots intervention for juveniles delinquent of gun crimes.

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.

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). He is also 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. Nationally, he is 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.

Dr. Katrina Weaver serves as the director of pediatric burns and trauma at the Children's and Women's Hospital and as Assistant Professor on the trauma acute care surgery and critical care surgery service. Dr. Weaver serves on the Childhood Obesity committee of APSA. Dr. Weaver gave notice of her resignation from USA in June 2023 and moved to Montana.

This past year, Dr. Ashley Williams served as faculty and Assistant Professor on the trauma acute care surgery and critical care surgery service. In June 2023, she was appointed Director of the Center for Healthy Communities.

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.

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 Doc Rock 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, and the USA Health Breast Program Leadership Committee.

Dr. Andrew Bright serves as the director of the burns 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 burns, which has been instrumental to improving quality of care. Dr Bright traveled to several regional hospitals 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. Marty Heslin, who is Director of the Mitchell Cancer Institute, served as a Professor of Surgery in the Surgical Oncology Division. 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 all of the graduating residents this past year have successfully matched into their chosen fields of fellowship, including into peripheral vascular, surgical oncology, minimally invasive surgery (MIS) and plastic reconstructive surgery.

Recruitment:
This past year, we have recruited Dr. Douglas Holmes to be an Associate Professor on the ENT Division; specifically, to serve as director of Pediatric ENT services and will start December 2023. Dr Tuan Pham was recruited to serve as an Associate Professor of Surgery in the Division of Pediatric Surgery and will also start December 2023.

General Surgery Residency Training:
During the five years 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 2020, Dr. Grimm applied to the Residency Review Committee (RRC) to expand the general surgical residency from five categorical residents to six categorical residents per year. In March 2021, we matched six new PGY 1 categorical residents and successfully added residents to fill out the PGY 2nd, 3rd, and 4th year classes with six categorical residents.

Drs. Hanna Alemayehu and Harrison Howard continued 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 four years, 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. With the addition of Dr. Williams in September 2021, Dr. Nathan Polite in January 2021, and Dr. Maryann Mbaka in 2021, and Dr. Tom Capasso in September 2022, the division has expanded to a total of 10 faculty members. Dr. Capasso took over the direction of the acute and chronic wound care service.

Dr. Sid Brevard retired in June 2022, leaving behind a legacy of excellence in trauma, critical care, and acute care surgery. 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. Drs. 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 from Dr. Brevard. Dr. Nathan Polite took over the job of the assistant program director and has been named the director of the Neurosciences ICU. Dr. Henry Barber had serious health issues, which required hospitalization, and has left USA.

Burn Surgery:
Dr. Andrew Bright is in his fifth year as the director of the Arnold Luterman Regional Burn Center and has done a fantastic job continuing the excellence in clinical care. With the help of Caleb Butts, Andrew mentored Drs. Mbaka and Williams in 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. He plans to extend the study of Nexobrid for pediatric patients in a clinical trial.

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. Weaver started a pediatric bariatric surgery program and has added greatly to the clinical and academic success of the Division through improvements in pediatric trauma and burn care. She unexpectedly resigned in June 2023 to take a position in Montana.

Colorectal Surgery:
Dr. Rider is in his eighth 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 recognition as a rectal cancer Center of Excellence. More than half of the patients came to USA from outside Mobile to obtain expert care for their colorectal cancer. John Hunter, MD, continued as the director of Robotic Surgery at USA and has been instrumental and maintaining the robotic simulation system, as well as training and helping to proctor Drs. Maryann Mbaka at University Hospital and Katrina Weaver at Children's and Women's Hospital.

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 observed-to-expected mortality, which was substantially better than expected. This better-than-average performance has been an accomplishment made possible through excellence in provision of patients care by all the surgeons, residents, and clinical staff of the DOS.

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., in his seventh year 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. Dr. Curtis Harris retired in the Spring of 2022 after providing expert care for patients needing plastic and reconstructive surgery for 32 years at USA Health. He was honored at the annual Graduating Chief Resident Banquet in June 2022. 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.

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. Marty Heslin, MD, Director of the USA Health Mitchell Cancer Institute, has already made a huge impact within the entire system and continues to provide services as a skilled surgical oncologist. He has formulated plans to support research fellowship for general surgical residents training at the University of South Alabama.

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 34 peer-reviewed publications and 18 videos in medical literature. The faculty have also published 3 book chapters in major textbooks of surgical sciences this past year. The faculty of the Department of Surgery presented 20 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, including five clinical trials, nine endowments, and a pilot award from the Center for Clinical and Translational Science (CCTS). Dr. Fonseca has 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 K23 grant. The research collaboration between Jon Simmons, MD, and the Chair of Pharmacology 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 grants to fund this research have been submitted.

Dr. Richards has been collaborating with Lyudmila Rachek, 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 verse 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-brid for chemical debridement of burn wounds, and Dr. Rider has presented the outcomes of Oliceridine and IV opioid analgesic in reducing post-operative ileus based on an industry-sponsored study. 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 started 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
CCTS Pilot Program Grant
Sponsor: Center for Clinical and Translational Science
Title: Patient and Stakeholder reported perspectives on Barriers in Access to Oncologic Care in Pancreatic cancer
PI: Annabelle Fonseca
Duration: 5/1/2022- 4/30/2023
Award amount: $ 52,601
USA

2022-2023
Summary of Activities
USA Center for Lung Biology

General Operations

The CLB's mission is to provide state-of-the-art scientific development in lung biology that advances the understanding of human health and disease, to improve patient care, and to serve as the foundation for outstanding graduate, post-graduate, and fellowship training. More than 40 faculty members and 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 five speakers. This conference focuses on translational research and acute lung injury and is held monthly on Fridays at 2:00 pm. CLB faculty members presented this year's series.

Dr. Troy Stevens, Professor and Chair, Department of Physiology and Cell Biology, presented *Introduction to Research;* Dr. Dhananjay Tambe, Associate Professor, Department of Mechanical Aerospace, and Biomedical Engineering, Director, Cell Culture, Small Animal and Tissue Engineering Core, Center for Lung Biology, Department of Pharmacology, presented *The mechanical side of adherent cells*; Dr. Karthik Suresh, Associate Professor of Pulmonary and Critical Care Medicine at Johns Hopkins University School of Medicine, presented *Metabolic shifts and calcium signaling in lung microvascular endothelial cells in PAH*; Sunita Paudel,

Graduate Student Department of Physiology and Cell Biology (Mentors Drs. Troy Stevens and Dhananjay Tambe), presented *Human Pulmonary Artery Endothelial Cells Isolated from Patients with Pulmonary Hypertension Exhibit Anoikis Resistance*; Dr. Corey Ventetuolo, Associate Chief and Director of Academic Affairs, Division of Pulmonary, Critical Care and Sleep Medicine, Brown University, presented *Translating Epidemiology to Therapeutics in Pulmonary Vascular Disease*; Dr. Silas Leavesley, Professor, Department of Chemical and Biomolecular Engineering; Department of Pharmacology; Center for Lung Biology, presented *Hyperspectral imaging technologies for biomedical and clinical imaging*; Reece Stevens, Graduate Student (Mentors Drs. Ji Young Lee and Ron Balczon), Department of Physiology and Cell Biology, presented *New Mechanisms of CO2 Sensing and Implications for Permissive Hypercapnia*; Dr. Ray Langley, Assistant Professor, Department of Pharmacology, Center for Lung Biology, presented *Is a bioenergetic crisis driving dysregulated metabolism of acetaminophen in septic shock patients?*

Extramural Funding

In the past year, CLB principal investigators submitted 60 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 $7.6 million in new revenue over the next five years.

Reece Stevens, Graduate Student, Department of Physiology and Cell Biology (Mentors- Drs. Ji Young Lee and Ronald Balczon), received the following two awards AHA Predoctoral Fellowship (relinquished) and NIH F31 Predoctoral Fellowship, both entitled *Carbonic Anhydrase IX Acts as a Novel CO2/HCO3- Sensor and Protects the Pulmonary Endothelial Barrier from Acidosis*. Dr. Wito Richter, Associate Professor, Department of Biochemistry, received the following ORED Faculty Development Council Track 1, entitled *PDE4D expression in human metabolic cells and tissues*. Dr. Mark Gillespie, Professor and Chair, Department of Pharmacology, received the following NIH R01 (subcontract with The University of Alabama at Birmingham (UAB) Dr. Sadis Matalon), entitled *Mitochondrial DNA Injury is a key contributor to the development of Chemical Lung Injury.* Dr. Troy Stevens, Professor and Chair, Department of Physiology and Cell Biology, received the following NIH R01, entitled *Soluble adenylyl cyclases in lung endothelial tauopathy*. Dr. Abigail Boyd, Postdoctoral Fellow, Department of Biochemistry (Mentor Dr. Wito Richter), received the following CFF Postdoctoral Research Fellowship Award, entitled *Selective inactivation of PDE4 isoforms as a Therapeutic Approach for Cystic Fibrosis.* Marcy Cage, Graduate Student, Department of Pharmacology (Mentors- Drs. Thomas Rich and Troy Stevens), received the following two awards CCTS TL1 Predoctoral Fellowship (relinquished) and Howard Hughes Medical Institute (HHMI) Predoctoral Fellowship, both entitled *PM2.5 and P. aeruginosa synergistically triggers increased permeability in the lung*. Emily Hartsell, 2nd-year Medical Student, Department of Pharmacology (Mentor Dr. Raymond Langley), received the following CCTS TL1 Predoctoral Fellowship, entitled *Transcriptomic Endotypes in ARDS, Pneumonia and Sepsis via Liquid Biopsy*. Dr. Thomas Rich, Professor, Department of Pharmacology, received the following NIH MPI R01 Award, entitled *Compartmentalized signaling and crosstalk in airway myocytes*. Dr. Jonathon Audia, Professor Department of Microbiology and Immunology, received the following NIH R21, entitled *The amyloid precursor protein protects against acute lung injury.*

Our Murray Bander Faculty Development Award recipients for 2023 are Dr. Robert Barrington, Associate Professor, Department of Microbiology & Immunology, entitled *"Trained Immunity to Facilitate Repair of Acute Lung Injury"*, Dr. Kalsang Dolma, Assistant Professor, Department of Pediatrics-Neonatology, entitled *"Role of Infection-Induced Taupathy in Bronchopulmonary Dysplasia"*, and Dr. Raymond Langley, Assistant Professor, Department of Pharmacology, entitled *"Determine if nicotinamide riboside restores bioenergetics capacity in a preclinical Pseudomonas aeruginosa murine model of sepsis"*.

Previous recipients of the Murry Bander award
2022 Dr. Natalie Bauer, Dr. Amy R. Nelson, Dr. Sarah Sayner
2021 Dr. Jin Kim, Dr. Jon Audia, Dr. Michael Francis, and Dr. Lyudmila Rachek
2020 Dr. Natalie Gassman, Dr. Sarah Sayner
2019 Dr. Silas Leavesley and Dr. Thomas Rich

Education

During this academic year, 31 predoctoral fellows trained in the laboratories of CLB faculty and others affiliated with the Lung Biology track in the Basic Medical Sciences Doctoral Program. Three Lung Biology trainees completed the requirements for the Ph.D. within this academic year (Meredith Gwin, Jenny Hewes, and Sunita Subedi Paudel). Meredith Gwin is a Postdoctoral Fellow at the Yale University School of Medicine in the Department of Internal Medicine. Jenny Hewes is a Postdoctoral Fellow at the Tulane University School of Medicine in the Tulane Center for Translational Research in Infection & Inflammation (CTRII). Sunita Subedi Paudel is a Postdoctoral Fellow at the University of South Alabama in the Department of Pharmacology.

Two Lung Biology trainees are supported by individual predoctoral fellowships (Marcy Cage and Reece Stevens). Reece Stevens-AHA Predoctoral Fellowship (relinquished to accept F31) and NIH F31 Predoctoral Fellowship; Marcy Cage-CCTS TL1 Predoctoral Fellowship (relinquished to accept HHMI) and Howard Hughes Medical Institute – HHMI Predoctoral Fellowship.

2022-2023
Summary of Scholarly Activities
Center for Healthy Communities

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Donnellan KA, Hinson CS, Blevins AC, Weaver KL, Lintner AC, Butts CC, Williams AY, Lee YL, Simmons JD, Bright AC. Treatment of chronic hypertrophic burn scars with a fractional CO 2 laser is well tolerated in an outpatient clinic setting. Ann Plast Surg. 2023 May 1;90(5):444-446.

Huffmaster CE, Williams AY, Lee YL, Butts CC, Polite NM, Mehari KR, Simmons JD. Association between adverse childhood experiences and posttraumatic stress disorder symptoms in adults with injury. JAMA Surg. 2022 Dec 1;157(12):1158-1159.

Malone K, Hogue A, Naman E, Graves C, Haiflich A, Simmons JD, Williams AY. Project Inspire pilot study: a hospital-led comprehensive intervention reduces gun violence among juveniles delinquent of gun crimes. J Trauma Acute Care Surg. 2023 Jul 1;95(1):137-142.

Parker LL, Bonner CM, Sobol RW, Arrieta MI. Co-creation and engagement in a DNA integrity cohort study. J Clin Trans Sci. 2023 May 22;7(1):e122.

Sakran JV, Bornstein SS, Dicker R, Rivara FP, Campbell BT, Cunningham RM, Betz M, Hargarten S, Williams A, Horwitz JM, Nehra D, Burstin H, Sheehan K, Dreier FL, James T, Sathya C, Armstrong JH, Rowhani-Rahbar A, Charles S, Goldberg A, Lee LK, Stewart RM, Kerby JD, Turner PL, Bulger EM. Proceedings from the second medical summit on firearm injury prevention, 2022: creating a sustainable healthcare coalition to advance a multidisciplinary public health approach. J Am Coll Surg. 2023 Jun 1;236(6):1242-1260.

Williams AY, Butts CC. Stress disorders: the trauma surgeon as the second victim. Curr Trauma Rep. 2023 Sep;9(3):83-90.

II. PUBLISHED ABSTRACTS

Arrieta M, Parker LL, Sutherland E, Sobol RW. Respectful closure of a CEnR DNA integrity study. J Clin Trans Sci. 2023 Apr 24;7(S1):67. Abstract no. 219.

Cockrell BE, Haiflich AN, Lee YL, Kinnard CM, Butts CC, Polite NM, Mbaka MI, Bright AC, Simmons JD, Williams AY. Social determinants of health impact physical recovery after blunt injury. Am Surg. 2023 Jul;89(7):3295-3297.

Francis-Shearer A, McCants K, Parker L, Hanks R, Arrieta M. Lessons learned from a CHW integration pilot at an academic health system in Mobile, AL. National Association of Community Health Workers Annual Conference. 2023 Aug 3-5; Austin, TX.

Hanks R, Lio S, Arrieta M, Parker LL, Carter M. Generational blame in community perceptions of adverse environmental and health events. Society for the Study of Social Problems in Pursuit of Social Justice 73rd Annual Meeting. 2023 Aug 18-20; Philadelphia, PA. p. 27.

Law W, Parker L, Love K, Sutherland E, Arrieta M. Partnering with the community: facilitating interest and trust in biomedical research. Am J Med Sci. 2023 Feb 1;365(S1):S298. Abstract no. 547.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Arrieta MA. Invited speaker. Engaging at-risk communities to address health disparities: unpacking the "employment" model of peer research involvement in CBPR practice [virtual presentation]. Louisiana Public Health Institute and the Gulf Research Program, National Academy of Sciences, Engineering and Medicine Webinar; 2023 May 9. Available from https://www.nationalacademies.org/event/05-09-2023/engaging-at-risk-communities-to-address-health-disparities

Arrieta MA. Invited speaker. Community engagement in research [virtual presentation]. CCTS Translational Research Summer Series; 2023 Jun 21; Birmingham, AL. Available from:
https://mediaspace.uab.edu/media/Translational%20Research%20Summer%20Series%3A%20Community%20Engagement%20in%20Research/1_gtmlehod

Williams AY. Invited speaker. Project inspire. Gulf Coast Trauma Symposium. 2023 Mar 23; Mobile, AL.

Williams AY. Invited speaker. Project inspire: reducing violence through mentorship. Mississippi Trauma Symposium; 2023 May 4; Biloxi, MS.

Williams AY. Invited speaker. Community engagement models for violence prevention. 82nd Annual Meeting of the American Association for the Surgery of Trauma and Clinical Congress of Acute Care Surgery; 2023 Sep 21; Anaheim, CA.

V. NATIONAL PROFESSIONAL RECOGNITION

Ashley Y. Williams: Future Trauma Leader, American College of Surgeons Committee on Trauma, 2023. EAST Cox-Templeton Injury Prevention Paper Competition Winner, 2023. National Whitney M. Young, Jr. Service Award – Boy Scouts of America 2023.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

With the departure of Dr. Errol Crook in September of 2022, the University of South Alabama Center for Healthy Communities entered a transitional period with Dr. Martha Arrieta taking on the role of interim director. In June 2023, Dr. Ashley Williams was named director. The Center's efforts are focused on research and community engagement. We have maintained NIH funding via projects outlined in the Research Core section. We also continue membership in a consortium of similar academic centers in Alabama, Mississippi, and Louisiana organized under the UAB CCTS.

Below we outline the efforts of our research and community engagement efforts.

Research:
The Research Core, led by Dr. Martha Arrieta, has continued to focus on providing support to the research projects within the Center.
1) We are a member of the Southern *All of Us* Network, a consortium of Academic partners across Alabama, Mississippi, and Louisiana. The *All of Us* Research Program is an NIH sponsored trial that will enroll one million participants to make precision medicine a reality. Enrollment continues to go well. The *All of Us* team conducted many outreach events to recruit individuals from populations often historically underrepresented in research. To date, we have enrolled 1,922 participants.
2) The Center completed work under a sub-award on the 5-year project investigating DNA damage and repair capacity in partnership with Dr. Robert Sobol, formerly at the USA Health Mitchell Cancer Institute and now at Brown University. Dr. Arrieta led the recruitment of the cohort via community-engaged methods. The project recruited a total of 191 individuals for the study. At the end of community-designed closure procedures, the Center remains in contact with 117 study partners.
3) The Center continued activities under the sub-award from the NIH Community Engagement Alliance Against COVID- 19 Disparities (CEAL) award to the University of Alabama at Birmingham. The project focuses on COVID-19 awareness and the understanding of misinformation, mistrust and misconceptions, and of barriers to participation in clinical trials. The focus expanded to include Long COVID and chronic conditions. The Center continued its partnership with a Strategic Planning Board (SPB) to formulate strategies for addressing the needs of the community in relation to the project's focus. We engaged 18 community members in focus groups to learn more about COVID-19 knowledge in the community. Working with the partner churches, CHC continues to provide educational resources that can be shared via social and print media.

Community Engagement:
Roma Hanks, Ph.D., directs the Community Engagement Core. This core consists of The Community Health Advocate (CHA) Program, The Pipeline Program, and The Community Health Worker (CHW) Program.

Our CHA 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.

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 nine (9) students tackled the five-week rigorous schedule of academics, activities, guest speakers, and engaging and fun activities.

CHC continues to use the blog "The CHC Advocate" to disseminate information related to health disparities and community engagement

This was the second 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 were deployed at Stanton Road Clinic at the end of 2022. 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 277 clients and provided health education to 518 community members. Through the CHW program, CHC entered a partnership with the city of Mobile Parks and Recreation to deliver health education programs tailored to senior adults and youth.

In June 2023, CHC began cosponsoring Project Inspire. This hospital-led community-based violence intervention program is the first of its kind. USA Health partners with the Juvenile Court of Mobile County to provide a comprehensive curriculum focused on education, exposure, and mentorship to youth with first-time, nonviolent gun offenses. To date, the program has successfully graduated 4 classes with an 11% rate of recidivism, compared to 42% in Mobile County. The program has brought local and national attention to our region and serves as a model for youth mentorship for other municipalities struggling with gun violence. We submitted a proposal for an Impact100 Mobile grant to continue growing the program.

USA Health's Explorer Post is a partnership with the Boy Scouts of America to provide an opportunity for educational experiences in the healthcare fields for youth at under-resourced high schools. Participants visit our trauma center on a monthly basis, gaining exposure to a variety of specialties. USA Health is the first medical post in the Southeast region.

Research Training and Mentoring:
CHC continues to provide opportunities to undergraduate and graduate students to develop research skills related to health equity.

CHC research staff continued working with Warren Law, III after his 2022 summer research experience with CHC. We further developed the analysis of the qualitative data from the project. In February 2023, Mr. Law presented the findings on community members perceptions of research at the Southern Regional Meeting in New Orleans.

In May 2023, an honors student, Priscilla A. Agyemang, submitted her thesis for degree completion. Guided by Dr. Roma Hanks, the student's research focused on the motivators for becoming a Community Health Advocate.

Looking to the Future:
CHC continues to explore ways of connecting with the Mobile community. To expand our impact, we have taken steps to build relationships with stakeholders and city leadership in both Mobile and Prichard to begin working together on building community resilience in the wake of climate change. To that end, we have applied to be a part of the Climate Communities Network at the National Academy of Medicine.

We are also exploring ways to expand community outreach and access to care. Recently, CHC submitted the proposal *Healthcare on the go-Mobile Medical Unit* to the All In Credit Union annual grant competition. Our goal is to create a mobile medical unit that can be used for health outreach and to foster the recruitment of young people from underrepresented communities to pursue careers in healthcare.

2022-2023
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, 5) innovation programs with Medicare for value-based payment programs. 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 (4) of Medicaid's new Alabama Coordinated Health Networks (ACHN) to serve as their Health Information Management System (HIMS) vendor. The ACHNs 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 life-state management system that serves as the HIMS system for the ACHNs. The HIMS system supports care coordination for (EIs) 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. Patients are instructed to dial-in their key physiologic parameters, and an ADPH Biomonitoring Nurse is assigned to monitor the results and submit reports to the patient's provider. Data are utilized by Medicaid to determine benchmarks for compliance and comparisons.

The Alabama Regional Extension Center (ALREC) continues to operate within the Center for Strategic Health Innovation at the University of South Alabama (USA). 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 $115,500 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 338 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 Practice 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 are able to 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.

2022-2023
Summary of Scholarly Activities
Center for Disaster Healthcare Preparedness

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

II. PUBLISHED ABSTRACTS

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

V. NATIONAL PROFESSIONAL RECOGNITION

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The Center for Disaster Healthcare Preparedness (CDHP) 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 Incident Management System (AIMS) and healthcare coordination through a cooperative agreement with the Center for Emergency Preparedness (CEP), Alabama Department of Public Health (ADPH) and Health & Human Services (HHS), Administration for Strategic Preparedness and Response (ASPR).

Healthcare Coordination

CDHP serves as a coordination center and fiscal agent for the ADPH, supporting the efforts of strengthening healthcare preparedness and response capabilities for the State of Alabama. CDHP works closely with all nine Health Care Coalitions (HCC) and ADPH to advise, support, oversee, and provide guidance to coalitions striving 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. The mission of the HPP Program is to ensure consistent healthcare delivery and improve patient outcomes in the aftermath of catastrophic disasters. Implementation of the activities and objectives found in the U.S. Department of Health and Human Services (HHS) *2017-2022 Healthcare Preparedness and Response Capabilities* document, aims to ensure a comprehensive coordination program designed to accomplish the benchmarks and programmatic activities set forth in the grant guidance.

Activities conducted to support the mission include training, workshops, exercises, planning, evaluation, guidance interpretation, administrative support, as well as providing

the essential data collection and communication services of the Alabama Incident Management System (AIMS). This supports situational awareness to maintain a common operating picture for response for healthcare facilities around the state. This annual report will provide an overview of activities in more detail, demonstrating the services and support for the Health Care Coalitions (HCCs) for the State of Alabama by CDHP.

CDHP strives to bring together essential partners and organizations such as hospitals, emergency medical service providers, emergency management agencies, and public health agencies to increase health care delivery services during times of disaster. Coordinated planning, preparedness, training, exercising, and testing with partners improves response capability and builds more resilient networks. CHDP works closely with the ADPH HCC Program Director, HCC District Coordinators, and HCC membership to assist in support activities within the four capabilities of the Hospital Preparedness Program (HPP). These four capabilities are:

Capability 1: Foundation for Healthcare Medical Readiness
Capability 2: Healthcare and Medical Response Coordination
Capability 3: Continuity of Healthcare Service Delivery
Capability 4: Medical Surge

All activities included in this annual report reflect efforts to support, facilitate, and expand the four capabilities of the Hospital Preparedness Program. CDHP staff assist in the HCCs accomplishment of the programmatic benchmarks, measured performance measures, capabilities, objectives, and other required activities delineated in the Scope of Work for Healthcare Coalition Coordination and the HPP Cooperative Agreement. CDHP is immersed in community planning activities and assessments with each of the nine HCCs in Alabama to develop and strengthen preparedness and response capabilities. CDHP supports recruitment of members and conducts hazard vulnerability assessments to ensure accurate reflection of community threats and risks. This year, the department streamlined processes and created consistency in mechanisms to promote planning, training, collaborating and exercising across the coalition districts to expand radiological response. Each year, the coalition efforts will focus around specific incidents that may result in medical surge. CDHP worked closely with the Office of Radiation Control, Alabama Office of EMS, Alabama Hospital Association, and the nuclear power plants within Alabama to educate, train, and exercise radiological response activities.

Activities listed below indicate activities completed by each of the HCC Districts. These activities were supported and/or conducted in coordination with each HCC Coordinator and/or HCC Program Director. CDHP staff review and assist with completion of the annual work plans and budgets for the Fiscal Grant, as well as the Healthcare Coordination Grant funded by HPP/ASPR. Collaboration with each HCC is instrumental for progression of program requirements which are subdivided into 6 categories:

Sustainability
Planning
At-Risk Populations
Training; Exercise

Testing and Reporting
Assessments

Planning and preparedness are key components of the HCC Readiness Program. Throughout the year, HCCs construct and test the Radiological Surge Annex of the Response Plan. CDHP assisted HCCs in annual review and revision of the Hazard Vulnerability Assessment (HVA) as part of the continual planning and preparedness cycle. HCC Districts conducted an annual Gap Analysis to determine gaps and strategies needed to achieve prioritized HCC capabilities and funded projects. CDHP assisted HCCs in annual review, update and maintenance of each respective HCC governance structure. HHS emPower data, which is key to identifying at-risk populations, is shared with appropriate HCC members on a biannual basis to help ensure vulnerable populations are identified and accounted for during planning and response efforts. In order to build sustainability, direct efforts to advance responder health and safety are conducted.

Exercises

Exercise and training support the preparedness capabilities and test coalition plans and processes. Redundant communication drills are conducted two times a year within each HCC District. CDHP also supported, planned, executed, and validated the Radiological Surge Annex, utilizing a tabletop exercise in each of the coalition districts. The planning, coordination, and execution for the virtual and onsite deliveries were conducted during this project period. CDHP vets training appropriate to support initiatives for the coalition as well as provides training.

Training

Now in its nineteenth year, CDHP is a recognized regional coordination and response center designed to support collaborative healthcare community response to all disasters, natural or man-made. This program is made possible by a grant from ADPH-CEP through a cooperative agreement from ASPR.

Orientation to Health Care Coalitions

To aid in educating and supporting new HCC Coordinators as they onboard, CDHP created an in-depth orientation program to provide an overview and understanding of the HPP Program, HCC requirements, as well as introduce them to the resources available to them through USA/CDHP. This training serves an essential foundational orientation for new as well as seasoned HCC Coordinators.

The HCC Orientation includes the following:

- Funding Opportunity Announcement (FOA) # EP-U3R-19-001 & Hospital Preparedness Program
- Full review of Appendix A of the FOA that outlines 2019-2023 HPP FOA Requirements, Capabilities, Objectives, and Activities
- Review of the FOA Cooperative Agreements of 2020, 2021, & 2022

- 2017-2022 Health Care Preparedness & Response Capabilities
- 2019-2023 Hospital Preparedness Program Performance Measures Implementation Guidance
- 2017-2022 HPP-PHEP Cooperative Agreement CDC-FRA-TP17-1701 / HPP-PHEP Exercise Requirements
- Capabilities Assessment Tool (CAT) Reporting Forms & Website
- ASPR HCC Work plans & Budget Templates
- ASPR TRACIE resource website
- Fiscal Agent Roles & Responsibilities
- Performance measure tools used for tracking activities of the coalition (BP Trackers, Calendars, Plan Checklists)
- Plan writing, strategic planning, and project management

ALABAMA INCIDENT MANAGEMENT SYSTEM (AIMS)

In 2004, AIMS launched its beginnings as a simple bed capacity reporting system with only 10% of Alabama Hospitals participating. Nearly twenty years later, AIMS has evolved into a mature, reliable, and trusted disaster management tool encompassing data collection and analysis, resource requests, communications, people tracking and situational awareness among its 2300 users. Users include Hospitals (100%); Nursing Homes; Public Health; Emergency Management Agencies; Emergency Medical Services; Community Health Centers and numerous healthcare entities affiliated with one of the nine Alabama HCCs. The growth in AIMS operational capacity and capability has been a result of being put through incredibly challenging events, such as hurricanes, tornadoes, heat-related incidents, transportation accidents and response to COVID-19 pandemic.

AIMS was certified by the Department of Health and Human Services (DHHS) in 2020 as the state's sole system for Hospitals to report the Federally required COVID Capacity & Utilization data, which is then compiled, reviewed and uploaded to HHS Protect for compliance. This continues to be the case to date.

AIMS equally serves as a communication tool for thousands of users and response organizations. Hospitals and HCC members continued to use AIMS as a primary source to communicate resource needs, information sharing, response to real-world incidents and participate in HCC and facility based exercises.

2022-2023
Summary of Scholarly Activities
Johnson Haynes, Jr., MD Comprehensive Sickle Cell Center

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Hoppmann AL, Dai C, Daves M, Imran H, Whelan K, Kenzik K, Bhatia S. Persistent child poverty and mortality in a cohort of children with cancer in Alabama. Cancer Epidemiol Biomarkers Prev. 2023 Mar; 32(3):380-386.

II. PUBLISHED ABSTRACTS

Andrews K, Meshinchi S, Marri P, Siddiqui AH, Polski J, Molina A, Chewning J, Brodersen LE, Hudson CA, Imran H. Pediatric acute myeloid leukemia with co-occurring BCR::ABL and CBFA2T3::GLIS2 dual fusion with deep response to FOLR1-targeting antibody drug conjugate Stro-002 and tyrosine kinase inhibitor. Blood. 2022 Nov 15;140 (Suppl 1):11757–11758.

Golani K, Imran H, Marri P, Sanchez O, Sharma K. Preventing extensive venous thrombosis: sometimes it's about digging deep into the history. Am J Med Sci. 2023 Feb; 365(S1):S209. Abstract no. 392.

Soheil M, Lane M, Massaro S, Williams R, Krieger E, Pauly M, Nelson C, Bhojwani D, Johnson R, Horton TM, Imran H, Chang W, Philip N, Kutny M, Ribeiro RC, Bautista F, Guinipero T, Murray K, Butte A, Molina A. Anti-leukemic activity of STRO-002 a novel folate receptor-α (FR-α)-targeting ADC in relapsed/refractory CBF2AT3-GLIS2 AML. Blood. 2022 Nov 15;140(Suppl 1):159–161.

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Imran H. Invited speaker. Sickle cell disease management. Sickle Cell Educator/Counselor Certification Program, Sickle Cell Disease Association of America- Mobile Chapter; 2022 Nov 7; Mobile, AL.

Imran H. Invited speaker. Sickle cell disease management. Sickle Cell Educator/Counselor Certification Program, Sickle Cell Disease Association of America- Mobile Chapter; 2023 May 15; Mobile, AL.

Marri P. Invited speaker. Thalassemia. Introduction to genetics. Sickle Cell Educator/Counselor Certification Program, Sickle Cell Disease Association of America-Mobile Chapter; 2022 Nov 7; Mobile, AL.

Marri P. Invited speaker. Thalassemia. Introduction to genetics. Sickle Cell Educator/Counselor Certification Program, Sickle Cell Disease Association of America-Mobile Chapter; 2023 May 15; Mobile, AL.

Pack-Mabien A. Invited speaker. Development and utilization of the emergency care plan in the care of pediatric and adult patients with sickle cell disease. Sickle Cell Trevor Thompson Transition Project (ST3P-UP Trial) Investigator's Meeting; 2022 Oct 7; Charlotte, NC.

Pack-Mabien A. Invited speaker. Sickle cell disease management: caregivers' attitudes, challenges, and barriers [webinar]. 16th Annual Community Advancement Foundation Education Series. 2023 Sep 23; Dothan, 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 Chapter; 2022 Nov 7; 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 Chapter; 2023 May 15; Mobile, AL.

Siddiqui A. Invited speaker. Pathophysiology and manifestations of sickle cell disease. Sickle Cell Educator/Counselor Certification Program, Sickle Cell Disease Association of America-Mobile Chapter; 2022 Nov 7; Mobile, AL.

Siddiqui A. Invited speaker. Pathophysiology and manifestations of sickle cell disease. Sickle Cell Educator/Counselor Certification Program, Sickle Cell Disease Association of America-Mobile Chapter; 2023 May 15; Mobile, AL.

Wilson F. Invited speaker. Newborn screening. Sickle Cell Educator/Counselor Certification Program, Sickle Cell Disease Association of America-Mobile Chapter; 2022 Nov 7; Mobile, AL.

Wilson F. Invited speaker. Newborn screening. Sickle Cell Educator/Counselor Certification Program, Sickle Cell Disease Association of America-Mobile Chapter; 2023 May 15; Mobile, AL.

V. NATIONAL PROFESSIONAL RECOGNITION

The center's application as an associate member of the National Alliance of Sickle Cell Centers was accepted March 17, 2023. Additionally, the center collaborates with the National Sickle Cell Disease Association of America, Mobile Chapter.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

General Operations/ Service: Effective December 1, 2022, Ardie Pack-Mabien, PhD, FNP-BC was named the Interim Director of the USA Health Johnson Haynes, Jr. MD Comprehensive Sickle Cell Center. The 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 provided to Internal Medicine and emergency department residents and faculty. The USA 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 2024* plan are underway.

The Dr. Cecil L. Parker, Jr. Sickle Cell Disease Distinguished Lectureship Endowment is in its 15th 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 2nd 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 amount awarded to date October 1, 2023-$2,000.00.

Research: Ongoing research projects include:

1. Comparative Effectiveness of Peer Mentoring- vs Structured Education-Based Transition Programming for the Management of Care Transitions in Emerging Adults with Sickle Cell Disease (Sub-Contract with Carolinas Healthcare System, Standard (STE) Arm, Patient-Centered Outcomes Research Institute). This contract ended March 1, 2023.
2. Alabama Sickle Cell Tracking Access Towards Equality. This contract was originally awarded for three years (9/30/2020 – 9/29/2023). The contract is in the process of being renewed for an additional three years.
3. Education and Mentoring to BRing Access to CarE (EMBRACE) SCD Network. This contract was originally funded for one year (9/1/22-8/31/23). Additional funds have been received through 8/31/26.

4. 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. This clinical trial is in its start-up phase for enrollment of study participants.
5. A multicentre, phase 2 trial evaluating the efficacy and safety of oral decitabinetetrahydrouridine (NDec) in patients with sickle cell disease. ASCENT. (NN7533-4470). This clinical trial is in its start-up phase.
6. Long term use of reno-protective effect of angiotensin-converting enzyme inhibitors or angiotensin receptor blockers on protein wasting nephropathy in sickle cell disease. Site initiated descriptive observational study.

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 150 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; Ms. Jessica King, Nurse Practitioner; and Ms. T'Shemika Perryman, RN. The pediatric sickle cell clinic physician staff include Drs. Hamayun Imran, Felicia Wilson, Preethi Marri, and Abdul Hafeez Siddiqui and Nurse Practitioners, Ardie Pack-Mabien PhD-FNP-BC, and Jennifer Williams, CRNP. There is also a Physician Assistant Mikayla Johnson. 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. Pediatric sickle cell services extend to the USS Hope, a designated outpatient infusion center for pediatrics sickle cell, hematology, and oncology patients. The USS Hope is staffed by and located at Children's and Women's hospital. This service is not currently available at University Hospital for the adult sickle cell patient population.

Pack-Mabien, PhD, FNP-BC and Ms. Perryman 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 and efforts are underway to establish a partnership with the Hematology/Oncology Fellows program at MCI.

Additionally, the center currently lacks a medical director, dedicated outpatient infusion center which would improve patient outcomes and lessen the healthcare system economic burden, and social services support to address the psychosocial barriers to access for care for both the pediatric and adult patient populations the center serves.

Other Activities: In September 2022, the USA Board of Trustees authorized the naming of the center as the Johnson Haynes Jr., M.D., Comprehensive Sickle Cell Center in recognition of his longstanding commitment to the treatment, research, and education of sickle cell disease. Ardie Pack-Mabien, PhD, FNP-BC, interim director, was appointed and confirmed by the Alabama Senate to serve as a member of the Alabama Sickle Cell Oversight and Regulatory Commission. The Center's newsletter "Sickle Cell Today" is distributed across the State of Alabama to physicians, legislators, clients, client families, administrators, and community sickle cell foundations in June and December of each year. Commendation by the Governor of Alabama Kay Ivey was signed on the 22nd of February 2023 honoring the life and dedication to the field of medicine by Dr. Johnson Haynes, Jr. MD.

2022-2023
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 out-patient settings at Stanton Road Clinic and Strada Patient Care Center.

Student Affairs

The Whiddon College of Medicine saw a return to in-person celebrations for all events for the academic year 2022-2023. Match Day 2023 was held in the Mobile Convention Center Ballroom, where students were first welcomed with a breakfast, followed by the ceremony. Families and friends of the Class of 2023 gathered with USA administration, faculty, staff and students to watch these soon-to-be residents open their envelopes, announce their match and pin the U.S. map, as has been done in previous years. During the breakfast, the students were provided swag bags with a Match Day T-shirt and a fillable sign that read, "I Matched at _____". The Whiddon COM was proud to share this occasion with USA Administration, as Dr. Andi Kent, Executive Vice President and Provost, also welcomed the soon to be physicians to the next phase of their training.

The match results were impressive, including one student in Ophthalmology, two students in Urology, six students in Anesthesiology, two students in Emergency Medicine, four students in Orthopedic Surgery, two students in Neurology, two students in Diagnostic Radiology, one student in Dermatology, and one student in Radiation Oncology. With respect to primary care fields, the following were the match results: fifteen students in Categorical Internal Medicine, eleven students in Family Medicine, two students in Psychiatry, and eight students in Pediatrics. Regarding General Surgery, six students matched into categorical programs and four into preliminary programs. Regarding OB/Gyn, six students matched into categorical programs. Seventy percent of students matched into out-of-state residency programs, with the remaining thirty percent staying in Alabama programs. Ten USA COM students chose to continue their graduate medical education in the USA Health Hospitals. Students from USA 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 2023 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 2023 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 2023 chose to be addressed by Dr. Charles “Caleb” Butts, Assistant Professor, USA Health Department of Surgery; and Donavon Dahmer, 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 College of Medicine.

The White Coat ceremony, which marks the transition from the preclinical to the clinical years for the Class of 2025, 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. Anna Foust, Associate Professor, Internal Medicine and Pediatrics, USA Health, faculty inductee, addressed the class and the class response was provided by Victoria Antonello, President of the Class of 2025. 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 2025, as well as providing 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 College of Medicine.

The number of visiting medical students who participated in senior elective courses at USA-COM is outlined below.

	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Total Visitors	38	47	0	19	33
From LCME Schools	9	18	0	5	14
From Osteopathic Schools	29	29	0	14	19
From Foreign Schools	0*	0*	0*	0*	0*
Completed Paperwork, but Cancelled Visit					
From LCME Schools	12	6	0	3	2
From Osteopathic Schools	11	3	0	8	2
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	0	14	0	1	6
Family Medicine	5	3	0	2	0
Internal Medicine	11	7	0	4	3
Medical Genetics	0	0	0	0	0
Neurology	2	1	0	0	0
Neurological Surgery	0	0	0	0	0
Obstetrics/Gynecology	0	1	0	0	3
Ophthalmology	0	0	0	0	0
Orthopedics	4	5	0	1	6
Pathology	1	1	0	0	0
Pediatrics	7	6	0	4	4
Psychiatry	4	4	0	3	2
Radiology	1	2	0	0	3
Surgery	3	3	0	4	6

*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.

Months Electives Taken

	2019-2020		2020-2021		2021-2022		2022-2023	
	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	0	0	2	0
July	18	0	0	0	1	0	3	0
August	11	0	0	0	6	0	6	0
September	11	0	0	0	5	0	7	0
October	6	0	0	0	3	0	7	0
November	1	0	0	0	4	0	8	0
December	0	0	0	0	0	0	0	0

Letters of evaluation (Dean's Letters) were written for each of the 74 seniors who graduated in May 2023. Students applied to 4872 residency programs through the AAMC Electronic Residency Application Service (ERAS).

Seventy-three (73) students matched for residency positions. Sixty-seven (67) of the May graduates used the NRMP as their primary means of obtaining residency, three (3) graduates participated in a specialty match, and four (4) graduates participated in the military match.

	Number of Graduates	Match Utilized	
		NRMP	Non-NRMP
2019	80	70	7
2020	66	63	2
2021	69	64	3
2022	75	65	4
2023	73	67	7

*We joined the AAMC VSAS in 2014 and no longer rotate foreign students

University of South Alabama Seniors
Residencies Received by Discipline

	Class of 2019		Class of 2020		Class of 2021		Class of 2022		Class of 2023	
PRIMARY CARE:	28	36%	27	42%	22	33%	25	35%	34	47%
Internal Medicine	12	16%	16	25%	10	15%	14	20%	15	21%
Family Medicine	10	13%	6	9%	7	10%	4	6%	11	15%
Pediatrics	6	8%	3	5%	4	6%	3	4%	8	11%
Med/Peds	0	0%	2	3%	1	1%	2	3%	0	0%
Internal Med Prelim	0	0%	0	0%	0	0%	2	3%	0	0%
Anesthesiology	3		4		1		4		6	
Dermatology	1		2		0		0		1	
Emergency Medicine	4		6		4		4		2	
Neurology - Child	0		1		0		0		0	
Neurology	1		2		0		2		2	
Neurological Surgery	1		2		0		0		0	
OB/Gyn	7		2		8		8		6	
OB/GYN Preliminary	1		0		1		0		0	
Ophthalmology	5		1		2		1		1	
Orthopaedic Surgery	3		1		5		2		4	
Otolaryngology (ENT)	1		0		2		1		0	
Pathology	2		1		0		0		0	
Psychiatry	7		3		4		6		2	
Radiology - Diagnostic	3		2		5		4		2	
Radiology - Interventional	0		0		0		0		0	
Radiation Oncology	1		1		1		0		1	
Surgery – General	4		7		6		6		6	
Surgery - Plastics	0		0		0		0		0	
Surgery – Preliminary	5		3		2		4		4	
Transitional	0		0		2		1		0	
Urology	0		0		2		3		2	
TOTAL Graduating Seniors	77		65		67		71		73	

University of South Alabama Seniors
Residencies Received by State

	Alabama		USA Hospitals (Mobile)	Out-of-State		Number of Different States
2019	19	25%	12	58	75%	20
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

On May 4, 2023, 74 medical students received the Doctor of Medicine degree and four graduate students received the Doctor of Philosophy degree at the 48th 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. Caleb Butts addressed the class and Donavon Dahmer responded for the graduates. On the morning of April 28, 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 – Emily Paige Elliott
Merck Award – MengJie Hu and Jesse Lowell Stutzman
Glasgow-Rubin Achievement Citations – Mary Kash Andrews, Emily Paige Elliott, Sarah Elizabeth Fillingim, and Trista Diane Phelps
Dr. Robert A. Kreisberg Endowed Award of Excellence – Jeffrey Clay Krout
Leonard Tow Humanism in Medicine Award – Kasey Grant Andrews and Dr. Melody Petty
Medical Alumni Leadership Award – Sarah Elizabeth Fillingim
Excellence in Public Health Award – Jacob M. Williams
Community Service Award – Kasey Grant Andrews and Jacob M. Williams
SNMA Leadership Award – Fredrick Chambers II
Outstanding Student in the Pre-clerkship Curriculum – Mary Kash Andrews
Award for Excellence in Teaching Clinical Skills – Magnolia Marie Elizabeth McElyea
Clinical Pharmacology & Therapeutics Excellence Award – Justin Jacob Chediak
Hollis J. Wiseman Award for Excellence in Pediatrics – Kasey Grant Andrews
Samuel Eichold Award – Veena Bharadwaj Krishnan
Dr. Michael M. Linder Endowed Award – Jesse Lowell Stutzman
The Orthopaedic Excellence Award – Hunter E. Lucas
John W. Donald Memorial Award in Surgery – Matthew Ryan Joyner
H. C. Mullins, M.D. Award – Elizabeth Carey Beddingfield
Obstetrics/Gynecology Award – Rennan S. Zaharias
Excellence in Emergency Medicine Award – Ifeoluwa A. Akisanya
Society for Academic Emergency Medicine (SAEM) Award – Payal K. Patel
Excellence in Psychiatry Award – Sarah Elizabeth Bouslog
AAN Medical Student Prize for Excellence in Neurology Award – Ashley Nguyen

Grade Distribution 2022 - 2023 Academic Year

Freshman Courses

	H	P	F
Principles of Infection & Immunity	9	71	1
Principles of Foundational Medicine	8	72	1
Patients & Human Structure	8	73	0
Cardiovascular System	13	64	2
Urinary System	10	67	0
Clinic I	14	69	0
Musculoskeletal System	10	68	0

Sophomore Courses

	H	P	F
Digestive System	11	64	0
Endocrine & Reproductive Systems	10	65	0
Hematology & Oncology	8	64	0
Neuroscience & Behavioral Science	11	61	0
Respiratory System	8	67	0
Clinic II	10	65	0

Junior Clerkships

	H	P	F	Out of sequence
Family Medicine	10	57	1	1
Internal Medicine	8	68	0	0
Neurology	9	47	0	2
OB/GYN	15	60	0	0
Pediatrics	12	63	0	2
Psychiatry	17	54	0	0
General Surgery	13	59	2	0

Academic Progress of Medical Students
Source: Part II of LCME Annual Medical School Questionnaire

	2019	2020	2021	2022	2023
Initial Students in Class	75	74	77	77	75
Graduates	73	66	69	72	74
True Attrition (will not receive M.D. in any year)	0	0	3	2	2

	2018-19	2019-20	2020-21	2021-22	2022-23
Dismissed					
Freshmen	0	0	0	0	0
Sophomores	0	0	0	0	0
Juniors	0	0	0	0	1
Seniors	0	0	0	0	0
Placed on Leaves of Absence (LOA)					
Freshmen	0	1	1	1	3
Sophomores	4	0	0	1	0
Juniors	3	12	6	6	15
Transferred to Another Medical School	0	0	0	0	0
Withdrew	2	2	2	2	3
Admitted with Advanced Standing or Re-entered from Graduate School	0	0	0	0	0
Deceased	0	0	1	0	0
Repeated All or Part of the Year	5	1	6	7	5
Enrolled on a Decelerated Schedule	0	0	0	0	0

Minority Students (Black, Native American, Hispanic)	2018-19	2019-20	2020-21	2021-22	2022-23
Total	39	47	42	41	40
Freshmen	10	16	9	9	10
All Other Classes	29	31	33	32	30

United States Medical Licensure Examination (USMLE) Step 1
First Time Takers

	2018	2019	2020	2021	2022
Number of Students	67	69	69	74	73
National Overall Mean	230	231	245	230	Pass/Fail
USACOM Overall Mean	232	231	247	228	Pass/Fail
Failure Rate – National	4%	3%	2%	4%	7%
Failures at USA	3%	4%	1%	5%	14%

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

	2018-19	2019-20	2020-21	2021-22	2022-23
Number of Students	76	52	62	79	74
National Overall Mean	243	245	246	247	248
USACOM Overall Mean	247	249	247	249	249
Failure Rate – National	2%	2%	1%	1%	2%
Failures at USA	3%	0%	2%	1%	0%

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 2016	Class of 2017	Class of 2018	Class of 2019	Class of 2020
National Percentage Passing	98	98	98	98	98
USA Percentage Passing	99	100	99	100	97
USA Number of Students	69	76	67	71	63

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 that in the coming years, 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 curricula, and the various curricular changes necessary to navigate students and faculty through the challenges posed by the global coronavirus pandemic.

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 2022-2023. 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)

A summary of Curriculum Committee activities and actions for 2022-2023 is as follows:

CURRICULUM COMMITTEE RESTRUCTURING AND BY-LAWS UPDATE
The initial actions of the Curriculum Committee during the academic year included updating the Committee by-laws to allow subcommittee restructuring and updates to the Committee's processes. These changes included renaming the Pre-Clerkship Directors, Clerkship Directors, and Clinical Pathways subcommittees, respectively, into the M1-M2, M3 and M4 subcommittees. Curriculum integration tasks and processes were added to each of the newly named subcommittees, which resulted in the dissolvement of the former Integration Subcommittee.

At the beginning of the AY 2022-2023, the Curriculum Committee focused its activities on the review of LCME standards and elements related to curriculum and to the development of action plans for the M1-M2, M3 and M4 subcommittees. Each of the action plans included multiple tasks to be accomplished during the academic year as well as measures of accountability and desired task outcomes. The chair of each one of the subcommittees oversaw updating to the Curriculum Committee a progress report on the status of the action plans throughout the academic year. In addition, a plan for scheduled review of individual courses by the Assessment and Evaluated subcommittee was developed and approved early during the academic year.

M1-M2 YEARS
The M1 and M2 curriculum underwent enhancements related to the sequence of content delivery within the different modules. In addition, integration of clinical content included enhanced

integration of clinical skills and module content, as well as additional development of illness scripts. The latter was enhanced with the addition of clinical reasoning sessions into this curricular phase. Efforts to continue integration of course objectives with USMLE specifications and NBME content review continued being led by M1-M2 leadership. New co-directors for Patient and Human Structure, Musculoskeletal, and Neuroscience & Behavior modules were appointed. In addition, the point-of-care ultrasound curricular thread was fully implemented in M1 and M2 modules. To improve academic support for students, the Division of Medical Education and the Office of Accreditation and Planning implemented a formal academic advising program for students. This program includes regularly scheduled sessions on effective study strategies for all students, individualized counseling sessions, academic metrics to identify and support students, and a transformation of the peer tutoring program into the Peer Academic Learning Support (PALS) program.

M3 YEAR

The M3 clerkship curriculum underwent a review aimed at standardization of integrated virtual learning resources into the majority of the M3 clerkships. In addition, the curriculum objectives were reviewed and consistently mapped to the College of Medicine educational objectives. Course objectives and content were also reviewed to satisfy updated USMLE CK specifications. New associate clerkship directors for Psychiatry, Pediatrics, Internal Medicine and Family Medicine were appointed. In addition, enhancements were introduced related to ethics content delivered during this period. A new selective experience for the Primary Care Pathway (PCP) students, the PCP Selective, was successfully implemented this past year.

M4 YEAR

Four new electives were added for senior medical students. These included two electives in the general curriculum: the Ultrasound in Emergency Medicine elective, and the Obstetrics and Gynecology screening room elective. Additionally, two Primary Care Pathway electives were developed for implementation during the 2023-2024 academic year. The PCP electives focus on the Basic Science in Primary Care course, which focuses on the application of practical basic science concepts in primary care and the Population Health/Practice Management elective. In addition, the Transition to Residency course underwent a revision to include a significant increase in hands-on residency skills training, including those necessary to satisfy current health care documentation standards.

ASSESSMENT AND EVALUATION

The review of curriculum objectives, methods of delivery and assessment for multiple courses was spearheaded by the Assessment and Evaluation subcommittee and subsequently discussed and approved by the entire Curriculum Committee. M3 courses reviewed included clerkships in Psychiatry, Pediatrics, Ob-Gyn, Internal Medicine, Family Medicine, Neurology and Surgery. All M1 and M2 modules were reviewed as well. The Primary Care Pathway underwent a comprehensive review, which included its ongoing 4 courses in the M1 through M3 year. Given that PCP has experienced significant growth, including the previously mentioned M4 electives to be implemented during the 2023-2024 academic year, future PCP reviews will include individualized scheduled analysis for each of its six courses. In addition to reviewing individual courses, the Committee focused on the development of an innovative project aimed at evaluating curriculum structure and outcomes in different phases, each of which will include different

course sequences. The implementation of curriculum phase's review is planned to begin during the 2023-2024 academic year.

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 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. As part of this process, community service expectations were reviewed and updated.

PRE-ORIENTATION EVIDENCE-BASED LEARNING STRATEGIES COURSE

The Office of Accreditation and Planning and the Division of Medical Education planned and offered a 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. Additionally, during the course, students reflected on the importance of collaboration, teamwork, and professional behavior as they begin their medical school journey. The capstone assignment was to create individual learning plans using learning science and self-assessments to help them set and achieve their goals throughout the year.

COLLABORATION WITH THE UNIVERSITY'S QUALITY ENHANCEMENT PROGRAM

The Curriculum Committee approved plans to collaborate with "Level-Up" project, which is the new University of South Alabama Quality Enhancement Program (QEP). The purpose of this program is to provide students with the necessary elements, instruction, and guidance to develop individualized learning plans (ILPs) from the time they matriculate into the College of Medicine through graduation. It is anticipated that the development of ILPs by medical students will allow them to reflect on their individual academic goals at different stages during their career and will also be catalytic to self-directed learning.

CLINICAL SKILLS CURRICULUM

A new state-of-the-art simulation center neared completion in the main campus and is scheduled to open during the 2023-2024 academic year. College of Medicine Clinical Skills faculty and staff continue to work in collaboration with the University of South Alabama Simulation Program to enhance the accuracy of case scenarios in the standardized patient program. Integration of learning objectives between the different organ-system modules and the clinical skills program was enhanced. The type and quantity of feedback that students received in this area was significantly enhanced during the 2022-2023 academic year. A new clinical skills co-

director was appointed and 8 faculty members from different clinical departments were approved for participation in assisting on clinical skills teaching activities for M1 and M2 medical students. These faculty, known as Clinical Skills Education Scholars, received increased training on pedagogy and debriefing skills to enhance support of clinical skills education. The CLINIC program, in collaboration with multiple clinical preceptors in working in and around Mobile County, continued to provide M1 and M2 medical students with exposure and participation in early real-life clinical experiences. The Director of Clinical Skills and Simulation continues to represent the College of Medicine on the AAMC CLASS project which is reimagining the future of clinical skills education at a national level.

CULTURALLY RESPONSIVE MEDICINE

The Curriculum Committee, Division of Medical Education, and the Office of Diversity and Inclusion continue its collaboration to provide curriculum focusing on culturally responsive medicine in the M1 year. Additional content was added this year through collaboration with Clinical Skills in its second year and feedback from students and outcome measures were used to improve the curriculum. The instructional methods involve mostly small group learning activities, reflection assignments and some lectures. In preparing for the third year, the Office of Diversity and Inclusion is collaborating with the College of Education to further develop the curriculum and to assess the impact of the curriculum. Aspects of Culturally Responsive Medicine continue to be integrated throughout the M1 – M4 curriculum.

EVUALUATION AND ENHANCEMENT OF USMLE PREPARATION SUPPORT

The College of Medicine performed an in-depth evaluation of resources aimed to assist students in optimal USMLE performance. As a result of this process, additional resources are now being provided to students who are planning on taking the examination. These include increased number of practice exams, additional question repositories, and interactive multimedia educational tools. This initiative also resulted in the creation of three workshops for students to further hone skills related to test taking, using educational resources, and time management related to licensure exam preparation. The program also piloted the use of the Learning and Study Strategies Inventory (LASSI) to assess individual student study skills. If the pilot is successful, the tool will be evaluated for broader use among students. In addition, the Curriculum Committee approved the implementation of the Academic Success Elective, which was implemented this past academic year and will be available during the 2023-2024 academic year. The course objectives have been designed to provide students with optimal performance of basic science content and its integration to clinical sciences. The Division of Medical Education also collaborated with NBME and third-party testing vendors to establish the first temporary USMLE testing center for USA students at the COM. This endeavor was incredibly successful with more than 40 students using the location.

WELLNESS CURRICULUM

The Wellness Forums, a specific curricular element utilizing small group learning in M3 year, have continued since 2019. These sessions covered six core topics selected by students and faculty to promote resiliency and reduce burnout in students. These sessions also helped the COM achieve one of its overall educational program objectives. These sessions were successfully integrated within each clerkship based on specific content alignment. As a result, the topics were revised and placed in clerkships where they would be the most representative.

The new topics included reflective practice, traits of a professional, working within teams, difficult patient encounters, and several others.

PRIMARY CARE PATHWAY

The 2022-23 academic year saw the first 8 students complete the third year, 8 students finish the second year and 9 students complete the first year of the parallel Primary Care Pathway (PCP) curricular track. The task force that the Curriculum Committee appointed to develop this curriculum continued to oversee the content of the PCP track and recruit and train the 9 PCP faculty fellows that provide instruction to these students in the clinical sites where they carry out their additional clinical experiences. A full-time coordinator for the PCP track, as well as dedicated staff at each clinical site, ensure that students are fulfilling the requirements of the curriculum. The Curriculum Committee continued to provide oversight of this pathway, which was fully reviewed by the Committee during the academic year. M1 students enrolled in the pathway successfully completed multiple research projects related to primary care, which were presented in different outlets. During the 2023-24 academic year, additional courses will be implemented for the M4 year, including a course in practice management and another in application of basic science concepts in primary care. During the 2023-2024 academic year, the Pathway will introduce implementation of educational resources 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 2022 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.

Executive Committee of Student Assembly

Student Assembly meetings were held on the second Wednesday of every month and took place in either the 1st floor auditorium of MSB or on zoom. Meetings were held at 5:30 p.m. and did not take place in December, 2022 or May, June and July of 2023.

As set forth in the Student Handbook, Student Assembly addressed issues affecting student life. The officers were:

- President: Jordan Ingram
- Vice President: Kaylee Hart
- Secretary: Bailey Manning
- Treasurer: Will Farley
- SGA Liaison: John Paul Saway
- Faculty Advisors: Dr. Kelly Roveda, Dr. Caleb Butts

1. Events funded by Student Assembly
    a. Halloween Party on October 28, 2022
        i. Student Assembly approved $500 that was used to purchase food and decorations for the event which was overseen by the M2 class officers.
    b. Gold Humanism Solidarity Week: February 13-17, 2023 and "Thank a Resident Day" on February 24, 2023
        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. National Public Health Week: April 4-10, 2022
        i. Student Assembly approved $265 to provide incentives for those that participated.
    d. USACOM M3 Case Report Symposium: June 9, 2023
        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.
    e. Asclepian Ball on March 4th at Ezell House
        i. Student Assembly approved $2,000 (previously donated by the Medical Alumni Association) 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 2022-July 2023 were as follows:
    a. Match Day ceremony for the Class of 2023 was held at the Arthur R. Outlaw Mobile Convention Center on March 17, 2023.
    b. USA COM Class of 2023 Honors ceremony was held at the USA campus Student Ballroom on April 28, 2023, with a breakfast at 9am and ceremony at 10am.
    c. The academic Hooding ceremony for the USA COM Class of 2023 was held at the Mitchell Center on May 4, 2023, at 10am.

d. The Commencement Ceremony for the USA COM Class of 2023 was held at the Mitchell Center on May 5, 2022, at 2pm.
e. USA COM M3 Case Report Symposium was held on May 27, 2022 from 1-3pm in the 1st floor conference room of the Strada Patient Care Center.
f. White Coat Ceremony for the Class of 2024 and Gold Humanism Honor Society Induction for the Class of 2023 was held on June 16, 2022 at 7pm in the Mitchell Center.
g. The Wellness Committee organized several events for the College of Medicine as a whole.
    i. M3 wellness forums were held on a monthly basis
    ii. Other events were open to all College of Medicine students throughout the Fall and Spring semesters at various times.
h. Volunteer opportunities for M1-M4 students at the University of South Alabama Student Run Free Clinic were discussed on a monthly basis.

3. Changes to Student Assembly
    a. Article III of the constitution was amended to further 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 M.D. 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 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.
    b. Article VI was revised to describe a new 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 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 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 evidence 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, 2023 for the 2023-2024 school year.
    - President: Krisha Amin

- Vice President: Walker Phillips
- Secretary: Thomas Robinson
- Treasurer: William Farley
- SGA Liaison: Jordan Ingram

Faculty Advisors: Dr. Kelly Roveda and Dr. Caleb Butts

Office of Financial Aid

	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Total Financial Aid	$10,570,736	$10,720,589	$11,268,453	$12,005,884	$12,936,115
Students on Aid	270	243	253	254	262
Loans					
Direct Unsubsidized	7,623,544	7,573,878	7,813,881	7,730,029	7,961,100
Direct Grad Plus	1,021,921	1,001,350	1,062,267	1,344,904	1,629,074
Outside Private Loans	0	0	0	0	35,000
Total Loans	$8,645,465	$8,575,228	$8,876,148	$9,074,933	$9,625,174
Scholarships					
University Sponsored	1,276,612	1,113,020	1,158,865	1,073,188	1,231,238
Outside Sponsored	58,614	290,094	447,983	955,495	1,329,236
Military – Army	189,522	258,454	221,298	229,964	104,291
Military – Navy	126,048	157,740	164,268	105,165	111,937
Military - Air Force	189,127	163,092	200,950	239,590	285,115
Alabama VA Benefits	31,440	31,476	31,476	0	0
US Federal VA Benefits	0	32,116	31,677	0	0
GI Bill	0	0	31,860	98,298	102,592
Faculty Staff Reimbursement	53,908	99,369	103,928.50	127,005	146,532
Total Scholarships	$1,925,271	$2,145,361	$2,392,305.50	$2,930,951	$3,310,941
Average Indebtedness of a Graduating Senior					
	$160,870	$158,602	$149,721	$170,291	$189,932

An Emergency Loan Fund is available to medical students. Loans of up to $500 may be obtained by students through a fund administered by the Office of Student Affairs and Medical Education for a period of up to 60 days for the purpose of alleviating an unanticipated financial need. There is no interest charged. During the period August 1, 2022, through July 31, 2023, four (4) emergency loans were approved totaling $3,600 and two (2) loan payments totaling $1,600 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.

As an operating body, our office is composed of:

- *Administrative Assistant,* Sherry Parnell
- *Education and Training Specialist,* Tiquera Hall
- *Director,* LoRen Modisa
- *Assistant Dean of Diversity and Inclusion,* Dr. Johnson Haynes, Jr. (through 11/2022)
- *Associate Dean of Diversity and Inclusion*, Dr. Franklin Trimm

We also benefit from and value the support of the USA COM Committee on Diversity and Inclusion (CDI) and the Student Diversity, Equity, and Inclusion (DEI) Advisory Committee, which are both integral to the development and oversight of our programmatic efforts.

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 2022-2023 academic year.

Workforce Diversity

One strategy to achieve health equity is to have a medical workforce that looks like the community it serves. In striving towards a diverse medical student body, two diversity pathway programs are 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.

- The Diversity, Recruitment, and Enrichment for Admission into Medicine (DREAM) Program, first developed as the Biomedical Enrichment and Recruitment (BEAR) Program in 1985, continues to develop each year. The DREAM Program aims to prepare first-time college seniors or non-traditional students for admission into and success within medical school through preparation for the Medical College Admission Test (MCAT), building interview and written communication skills, developing teamwork skills and other elements important for medical school success. Students are recruited from colleges and institutions across the state of Alabama and the USA service area. Facilitated over the course of an eight-week summer session, students are immersed in coursework, professional development sessions, and cultural immersion experiences led by faculty members.

DREAM Program Progress Chart, 2019-2023

Year Entering DREAM	Entered DREAM (# of participants)	Successfully Completed DREAM (# of participants)	Matriculated to USA COM (# of participants)	Matriculated to Other Professional School (# of participants)	Completed MD Program (# of participants)
2019	**12**	**12**	**8**	**1**	**TBD**
2020 (Virtual Program)	**9**	**9**	**2**	**1**	**TBD**
2021	**13**	**13**	**8**	**4**	**TBD**
2022	**12**	**12**	**6**	**TBD**	**TBD**
2023	**11**	**11**	**TBD**	**1**	**TBD**

- The SouthMed Prep Scholars (SMPS) Program aims to prepare high-achieving pre-medical students for admission into and success within medical school. SMPS occurs over two summers, and recruitment begins during a student's freshman year. Students in SMPS Phase 1 engage in basic science research under the tutelage of investigators within USA College of Medicine, shadowing experiences within the USA Health System and additional professional development activities. Students in Phase 2 have activities like DREAM. Students for this program are recruited from colleges and universities across the state of Alabama and Southeast region with a focus on Alabama residents. The founding director of the SMPS Program, Dr. Johnson Haynes, Jr., passed away in December 2022.

SouthMed Prep Scholars Program Progress Chart, 2019-2023

Year Entering SMPS	Entered SMPS (Phase I)	Successfully Completed SMPS (# of participants)	Matriculated to USA COM (# of participants)	Matriculated to Other Professional School (# of participants)	Completed MD Program (# of participants)
2019	**5**	**3**	**1**	**1**	**TBD**
2020	**6**	**5**	**4**	**0**	**TBD**
2021	**2**	**5**	**2**	**0**	**TBD**
2022	**4**	**2**	**TBD**	**TBD**	**TBD**
2023	**8**	**4**	**TBD**	**TBD**	**TBD**

**Within the progress charts above, "To Be Determined, TBD" has been placed in categories where program participants' participation is still ongoing.*

Diversity Pathway Programs Contributions to Diversity in USA COM Medical Student Body

- 2023-2024 Medical Student Enrollment
    - 65% of URiM students
    - 73% of Black or African American students

In April 2023, ODI, in partnership with USA COM Office of Admissions, hosted the annual COM Admissions Medical Student Second Look "Office Hours". The purpose of this annual event is to recruit already-accepted USA COM students by highlighting reasons why USA COM is an attractive place for URiM students to study medicine, showing accepted students the diversity within USA COM/Health, and informing accepted students of support mechanisms and community that await them here if they decide to attend.

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.

Partnerships with Historically Black Colleges and Universities (HBCUs), such as Tuskegee University, Xavier University (New Orleans), and Spelman College (Atlanta, Georgia), and other state-wide institutions, such as Auburn University and University of Alabama at Huntsville, have

given ODI the opportunity to engage with competitive and scholarly URiM Alabama residents throughout the region. Locally, our office has been able to forge partnerships with local institutions, such as the University of Mobile and Spring Hill College, to recruit historically marginalized pre-med students across the city of Mobile.

As an office, ODI understands that recruitment is only a small piece of the puzzle. Pride is taken to support current medical students 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 safe 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 Diversity & Inclusion "Lunch and Learn" sessions that are open to all students, faculty, and staff, as well as outreach activities for the larger community. Topics of past "Lunch and Learns" include *Motherhood & Medicine* hosted by AMWA, *Intersectionality in Medicine* by SNMA, and *Gender Affirming Care* by MedPride Allies. Outreach activities such the Wellness Screening Workshop hosted by SNMA in Partnership with BWC allowed our medical students of color to interact with students at the Alabama School of Math and Science.

Additionally, celebrating uniqueness and individual identity is integral to the creation of spaces of belonging. Over the past several years, ODI has acknowledged several holidays and commemorative celebrations to increase visibility and declare solidarity with our diverse student, staff, and faculty body within USA COM and USA Health. Since 2021, ODI has acknowledged and celebrated the following yearly holidays, to name a few:

- Dr. Martin Luther King, Jr. Day
- Black History Month
- Women's History Month
- Asian American and Pacific Islander Month
- Ramadan & Eid al Fitr
- Pride Month
- Juneteenth
- Women in Medicine Month

Equity and Justice

Advancing DEI Initiative priorities were established by the Committee on Diversity and Inclusion and work was started on advancing the prioritized areas. This set of DEI strategies will be the focus of work of ODI and the Committee on Diversity and Inclusion moving forward. ODI continues to provide *unconscious bias training,* as well as other specific training, to our USA COM/USA Health partners. Below is a summary of the training and development provided within the 2022-2023 year:

- **170** participants trained in unconscious 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 (PhD and MD programs) underwent unconscious bias training in preparation for upcoming admission cycles.
- **190** medical student participants trained in unconscious bias, including M1 students during first year orientation and summer pathway students and allied health students.
- **69** participants amongst USA COM & USA Health received training on "Why Diversity Matters."
- **228** medical student participants trained in creating safe spaces and patient care approaches for LGBTQ+ members of the healthcare community and the patients we serve.
- **140** participants trained on the Diversity & Equity in Health Care, including M3 medical students.
- **82** student participants trained in a Resilience & Wellness 5-part series, including PhD graduate students and summer pathway students.
- **187** participants trained on microaggressions in healthcare, including USA COM and USA Health faculty and staff, and M4 students during their transition to residency.

Overviews of unconscious bias continued to be included in all leadership selection committee orientations that were initiated during this academic year. A diversity, equity, and inclusion advocate is appointed to all leadership selections committees.

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.

As the year progresses, the ODI looks forward to continued growth and expanded reach for the purpose of impacting healthcare outcomes for the state of Alabama, one student, faculty, and staff-person at a time.

2022-2023
Office of Admissions

Applicant and Acceptance Data

The University of South Alabama 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 31, 2023, opened June 1, 2022 and closed November 1, 2022. The matriculating Class of 2023 represents twenty-three (23) colleges and universities from the United States. Seventy-six percent (76%) of this year's class come from the four (4) largest universities in the state. Additional details of the 2022-2023 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 one hundred ninety-seven (197) candidates; each interviewee was interviewed by two committee members, giving a total of three hundred ninety-four (394) interviews. These interviews were conducted virtually via Zoom.

6. The following Admissions Committee subcommittees were active in 2022-2023: Interview Selection Subcommittee, the Scholarships Subcommittee, Wait List Subcommittee, and the Early Assurance Subcommittee.

Table 1. University of South Alabama College of Medicine Admissions Report

	2020	2021	2022	2023
Total Applicants (Completed Secondary Applications)	1433 (872)	1830 (1062)	1802 (1076)	1586 (966)
Residence: Alabama	460 (425)	535 (474)	516 (470)	485 (433)
Out-of-State (OOS)	928 (410)	1218 (536)	1231 (562)	1065 (496)
Service Areas (FL & MS)	45 (37)	68 (50)	55 (44)	36 (37)
Rural	89 (89)	103 (80)	107 (103)	85 (85)
Alabama Female	239 (224)	301 (265)	274 (159)	259 (229)
Total Applicants Interviewed	238	203	205	197
Residence: Alabama	217	189	192	187
Out-of-State	11	4	5	4
Service Areas (FL & MS)	10	10	8	6
Rural	49	37	35	36
Female	117	112	100	99
Total Applicants Accepted	122	126	133	131
Residence: Alabama	106	118	125	122
Out-of-State	8	3	4	4
Service Areas (FL & MS)	8	5	4	5
Rural	25	21	24	23
Female	66	77	64	76
Total Matriculants	74	74	78	78
Average MCAT	507	509	509	507
Average GPA	3.80	3.81	3.86	3.84
Early Decision Program	12	21	15	9
Residence:				
Alabama	65	69	73	74
Out-of-State	5	2	2	2
Service Areas (FL & MS)	4	3	3	2
Rural	14	15	14	12
Female	43	45	35	45

2022-2023
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 co-directed by Drs. Tom Rich and Mark Taylor. Dr. Mark Taylor also served 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 2022-23 Academic Year. Prospective student applications were accessed and processed within the Office of Research Education and Training. An Admissions Committee was composed of representation from all 6 tracks. Committee members reviewed all applications to determined who would be invited to interview, and then participated in the interviews. Interviews with eligible students were hosted via Zoom video conferencing by the Office of Research Education and Training.

The Basic Medical Sciences Graduate Program interviewed applicants for the Fall 2023 class between January and June 2023. A total of 36 applicants were invited to interview. A summary is provided below.

Admissions – BMS Graduate Program

		2023 Cohort
Applications	US/Perm. Res.	17
	International	31
Acceptances	US/Perm Res.	12
	International	5
Matriculants	US/Perm. Res.	10
	International	3
	Avg. UG GPA	3.29
	Avg. GR GPA	3.64

Curriculum

1. The BMS Graduate Program presented its fifteenth Edwin R. Hughes Memorial Award to Brusi Kola on August 17, 2023. 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 provides up to three one-year $30,000 fellowships through an annual competition. The awardees of the fellowship for 2023 were Jenny Hewes, Rachel Rodenberg, and Edward Fiedler

Graduates

9 students officially completed all requirements during the academic year (August 2022 – July 2023):

Alexander Coley
Ph.D. in Basic Medical Sciences
Dissertation Title: " *Novel Regulators of Human Gene Expression*"
Major Professors: Glen Borchert, PhD

Meredith Selby Gwin
Ph.D. in Basic Medical Sciences
Dissertation Title: "*Impact of Gamma Secretase Activating Protein on End-Organ Dysfunction in the Aftermath of Pneumonia in a Novel Gamma Secretase Activation Protein Knockout Rat*"
Major Professor: Troy Stevens, Ph.D.

Mary Oluwadamilola Haastrup
Ph.D. in Basic Medical Sciences
Dissertation Title: "*The Role of Mitochondrial Outer Membrane Translocase Subunit, TOMM22, in Pancreatic Cancer Pathobiology*"
Major Professors: Santanu Dasgupta, Ph.D., Ajay Singh, Ph.D.

Jenny Lee Hewes
Ph.D. in Basic Medical Sciences
Dissertation Title: " *Inflammation in Pulmonary Arterial Hypertension: Where can the SUGEN/Hypoxia Rodent Model Take Us?*"
Major Professors: Natalie Bauer, Ph.D.

Md Ibrahim
Ph.D. in Basic Medical Sciences
Dissertation Title: "*Replication Associated Base Excision Repair Regulates Replication Stress Induced PARP1/PARP2 Activation and Impacts PARP and PARG Inhibitor Resistance*"
Major Professors: Robert Sobol, PhD

Krit Jirakanwisal
Ph.D. in Basic Medical Sciences
Dissertation Title: "*Interaction of Rickettsai felis and Wolbachia Endosymbionts in Cat Fleas, Ctenochphalides felis*"

Major Professors: Kevin Macaluso, PhD

Kate Saville
Ph.D. in Basic Medical Sciences
Dissertation Title: "*The Role of PARP1 and NAD+ Bioavailability in Base Excision and Single-Strand Break Repair*"
Major Professors: Robert Sobol, PhD

Sunita Subedi Paudel
Ph.D. in Basic Medical Sciences
Dissertation Title: "*Substrate Stiffness: A Mechanical Determinant of Endothelial Phenotype*"
Major Professors: Troy Stevens, Ph.D. and Dhananjay Tambe, Ph.D.
Award: CCTS 2022 Scientific Excellence Award, ATS Student Scholar for 2020, 2022 and 2023

Natthida Tongluan
Ph.D. in Basic Medical Sciences
Dissertation Title: " *The Significance of Rickettsia Parkeri Outer Membrane Protein B in the Tick Host Infection and Autophagy* "
Major Professors: Kevin Macaluso, PhD

2022-2023
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. Brett Martin became program director for the Diagnostic Radiology residency program on 8/1/2022.
- Dr. Paul Henning became program director for the Emergency Medicine residency program on 10/12/2022.
- Dr. Jess Mullens became program director for the Orthopedic residency program on 10/12/2022.
- Dr. Osama Elkadi became program director for the Pathology residency program on 1/15/2023
- Dr. Omar Alkharabsheh became program director for the Hematology-Oncology fellowship program on 5/15/2023.
- Ms. Danielle Haynes was promoted from GME Accreditation Specialist to GME Administrator on 4/24/2022.

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 331 training positions. The ACGME granted initial accreditation for a Urology residency program and a Hematology-Oncology fellowship. The Hematology-Oncology fellowship

replaces the previous medical oncology fellowship to offer expanded training in hematology. The institution also sponsors 1 non-ACGME accredited neurosurgery fellowship program. During the 2022 – 2023 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. 80 physicians completing training during the 2022 – 2023 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 03, 2023 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 received 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. Allen Perkins	Dr. Ehab Molokhia	Continued Accreditation	18
Internal Medicine	Dr. Karen Fagan	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	16
Obstetrics & Gynecology	Dr. Mimi Munn	Dr. Tracy Roth	Continued Accreditation	16
Orthopedic Surgery	Dr. James Slauterbeck	Dr. Jess Mullens	Continued Accreditation	15
Pathology	Dr. Guillermo Herrera	Dr. Osama Elkadi	Continued Accreditation	15
Pediatrics	Dr. David Gremse	Dr. Richard Whitehurst	Continued Accreditation	36
Psychiatry	Dr. Sandra Parker	Dr. Luke Engeriser	Continued Accreditation	20
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	18
Urology	Dr. Christopher Keel	Dr. Christopher Keel	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. Karen Fagan	Dr. Bassam Omar	Continued Accreditation	6
Clinical Neurophysiology	Dr. Dean Naritoku	Dr. Juan Ochoa	Continued Accreditation	1
Gastroenterology	Dr. Karen Fagan	Dr. Jack Di Palma	Continued Accreditation	9
Pulmonary Disease & Critical Care Medicine	Dr. Karen Fagan	Dr. Brian Fouty	Continued Accreditation	9
Hematology-Oncology	Dr. Karen Fagan	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. Allen Perkins	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 administers 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.
- Diversity, Equity, and Inclusion: The GMEC Diversity, Equity and Inclusion Subcommittee's primary aim is to develop and support initiatives that create a diverse, equitable, inclusive, and safe environment for resident physicians at USA Health. The committee will achieve this aim through a variety of short- and long-term goals involving promoting a just, safe, and inclusive culture within our clinical learning environment. An additional aim will be to train physicians that will go on to practice and promote health equity in medicine in their future careers. Dr. Franklin Trimm, USA COM Associate Dean for Diversity and Inclusion, serves as an ad hoc member of the subcommittee.
- 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.
- Simulation: The GMEC Subcommittee on Simulation advocates for GME needs related to simulation to advance the acquisition and maintenance by house staff of clinical skills with a competency-based method of evaluation. The subcommittee has been engaged in the process of developing the simulation lab at USA Health, University Hospital.

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, establishment of the GME Pulse Newsletter 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 24, 2023. There were a total of 26 posters selected in the categories of "Clinical Vignettes/Case Reports", "Clinical and Translational Research", and "Quality Improvement and Performance Improvement". Cash 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 a cash award.

2022-2023
Summary of Activities
Office of Continuing Medical Education

I. NATIONAL PROFESSIONAL RECOGNITION

II. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The University of South Alabama (USA) Office of Continuing Medical Education (OCME) submitted their reaccreditation report for commendation with final determination expected December 2023. As a jointly accredited provider, USA OCME offers continuing education credits to physicians, nurses, pharmacists, pharmacy technicians, dieticians, 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 2022-2023, the Office of Continuing Medical Education (OCME) 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 58 regularly scheduled series (grand rounds), 49 conferences, and 24 online activities, all combining for 2,520 CME hours of instruction and collaboration and 706 events/talks. In total 10,293 physicians, 2,201 nurses, 327 physician assistants, 89 pharmacists, 74 pharmacy techs, 600 social workers, 568 psychologists, 327 physician assistants, 13 athletic trainers, 15 dentists, and 3,194 others were awarded continuing education credits. We had 17,345 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

- Received full accreditation with four-year term, after submitting one-year progress report.

CME Plans for 2024

- Improve offerings of Joint Accreditation criteria for commendations
- Update Policy and Procedure Manual.
- Hire Assistant Director and Coordinator.
- Create committee for renewed five-year strategic plan.

2022-2023
Summary of Activities
Medical Student Summer Research Program

The Fiftieth Annual Medical Student Research Day was held on Friday, July 21, 2023 hosting over 100 attendees in the Medical Sciences Building for both oral and poster presentations. Forty-five first and second-year medical students participated in research projects with basic science and clinical faculty in the College of Medicine during the summer. A weekly seminar series introduced students to important research related topics. The program aims to highlight the relation between scientific discoveries and their application in clinical medicine.

Russell S. Terry, MD, Assistant Professor, Department of Urology, American Urological Association, Southeastern Section of the AUA, Endourological Society was the keynote speaker. Dr. Terry's seminar was entitled: *"From Classroom to Clinical Practice: Maintaining a Research Throughline Along the Medical Training Journey"*.

Culmination of the summer's work was the presentation of 8 oral and 37 poster presentations at the Annual Medical Student Research Day. Student presentations and their faculty sponsors were as follows:

ORAL PRESENTATIONS

ANALYSIS OF SMALL NON-CODING RIBONUCLEIC ACIDS IN THE PROGNOSIS OF COVID-19 CASES. **Nathaniel S. Olliff**. Rising Sophomore. Sponsored by Glen M. Borchert, PhD., Department of Pharmacology.

PERK+ POLYPLOID GIANT CANCER CELLS AND POTENTIAL PRECURSORS IN RESISTANCE TO THERAPY AND TUMOR RECURRENCE IN HIGH-GRADE SEROUS OVARIAN CARCINOMA. **Bethany Beck**. Rising Sophomore. Sponsored by Luis del Pozo-Yauner, M.D., Ph.D., Elba Turbat-Herrera, M.D., Veronica Ramirez-Alcantara, Ph.D., and Terry Pierce, HT, ASCP. Department of Pathology, USA Health Biobank and Histology Core Facility.

PEDIATRIC GUNSHOT WOUNDS PRESENTING TO THE UNIVERSITY OF SOUTH ALABAMA HOSPITALS. **Matthew Westerfield**. Rising Sophomore. Sponsored by Linda Hassouneh and Cristina Gavrilita. Department of Pediatrics.

THE CRITICAL ROLE OF MANGANESE TRANSPORT IN *E. COLI* UROPATHOGENESIS. **Bree Cobine**. Rising Sophomore. Sponsored by Dr. Allyson Shea, Ph.D., Department of Microbiology and Immunology.

USING GIS MAPPING TO ASSESS SPATIAL ACCESSIBILITY OF HPV VACCINATION AND OPPORTUNITIES FOR INTERVENTION. **E. Grace Dunbar**. Rising Sophomore. Alyssa Lee, MPH, Steve Schultze, PhD., Sponsored by Casey Daniel, PhD. Division of Cancer Control and Prevention, Mitchell Cancer Institute.

PRODUCTION OF AMYLOID PRECURSOR PROTEIN IS HERPES SIMPLEX VIRUS 1 STRAIN-DEPENDENT. **Brooke Tarrant**. Rising Sophomore. Sponsored by Robert Barrington, Ph.D., Department of Microbiology and Immunology.

ANTIBIOTIC PROPHYLAXIS OF LOWER EXTREMITY LONG BONE TYPE III OPEN FRACTURES. **Thomas W. Robinson**. Rising Sophomore. Sponsored by C. Caleb Butts, M.D., Division of Trauma & Acute Care Surgery and Burns, Department of Surgery.

STUDYING ALZHEIMER'S DISEASE DEVELOPMENT USING HUMAN BRAIN ORGANOIDS. **Richard Fu**. Rising Sophomore. Sponsored by Amy Nelson, Ph.D., Department of Physiology and Cell Biology.

POSTER PRESENTATIONS

APPLICATION OF ARTIFICIAL INTELLIGENCE: A DEEP LEARNING DIAGNOSTIC FRAMEWORK TO DETECT MALIGNANT MELANOMA. **Cya Johnson**. Rising Sophomore. Sponsored by Thuy Phung, MD., Ph.D., Department of Pathology.

OUTCOMES AFTER LAPAROSCOPIC SLEEVE GASTRECTOMY: A COMPARISON OF OPERATIVE APPROACH AND STAPLER TYPE. **Joshua Baroody**. Rising Sophomore. Sponsored by William Richards, M.D., Department of Surgery.

TYPE I DIABETES AND METFORMIN DURING PREGNANCY. **Madeline Wing**. Incoming Freshman. Sponsored by Dr. Heather Fishel, M.D., Department of Internal Medicine.

INCIDENCE AND CAUSES OF MULTIPLE SCLEROSIS MISDIAGNOSIS IN A NEW ACADEMIC MULTIPLE SCLEROSIS CLINIC. **Max Bassett**. Rising Sophomore. Sponsored by William Kilgo, M.D., Department of Neurology.

SRNA-MEDIATED REGULATION OF *SALMONELLA* STRESS RESPONSE. **Noel Godang**. Incoming Freshman. Sponsored by Glen Borchert, Ph.D., Department of Pharmacology.

ASSESSMENT OF DETECTABLE ATHEROSCLEROSIS ON COMPUTED TOMOGRAPHY IMAGING IN LUNG CANCER PATIENTS ENTERING TREATMENT. **Noah Baker**. Rising Sophomore. Pranitha Proddutuvar, MD, Bassam Omar MD, PhD. Sponsored by Christopher Malozzi, DO, Department of Cardiology.

EXPLORING TOMM22 AS A NOVEL BIOMARKER AND THERAPEUTIC TARGET IN LIVER HEPATOCELLULAR CARCINOMA. **Kelly Blacksher**. Rising Sophomore. Mohammad Aslam Khan, Seema Singh, Ajay Singh, Devanand Sarkar, Santanu Dasgupta. Mitchell Cancer Institute, Department of Pathology, Department of Biochemistry and Molecular Biology.

MANAGEMENT OF DUODENAL TRAUMA PATIENTS: COULD EARLIER INITIATION OF NUTRITIONAL SUPPLEMENTATION IMPROVE PATIENT OUTCOMES? **Anjali A. Vira.** Rising Sophomore. Sponsored by Maryann Mbaka, M.D. Department of Surgery, Division of Trauma Acute Care Surgery & Burns.

STAGE BASED DETECTION METHODS AND RECURRENCE PATTERNS FOR CUTANEOUS MELANOMA. **Grace Sullivan**. Rising Sophomore. Sponsored by J. Harrison Howard, MD FACS, Department of Surgery.

MODELING EMERGENT BEHAVIORS IN ENDOTHELIAL NETWORKS. **Danielle Flores**. Incoming Freshman. Sponsored by Michael Francis, Ph.D., Department of Pharmacology, Center for Lung Biology.

LOW-LOAD BLOOD FLOW RESTRICTION EXERCISE INCREASES HEMODYNAMICS AND AROUSAL TO SAME EXTENT AS HIGH-LOAD EXERCISE BUT INDUCES LOWER HEART RATES. **Christian Cooper**. Incoming Freshman. Sponsored by Joshua Keller, Ph.D., Integrative Laboratory of Exercise and Applied Physiology (iLEAP), Department of Health, Kinesiology and Sport.

RELATIONSHIP OF NATRIURETIC PEPTIDE LEVELS AND ECHOCARDIOGRAPHIC MEASUREMENTS IN DIASTOLIC HEART FAILURE. **Ian Singley**. Rising Sophomore. Bassam Omar MD, PhD, and Christopher Malozzi DO. Department of Internal Medicine, Division of Cardiology.

PATIENT-REPORTED OUTCOMES PROVIDE QUALITATIVE INSIGHT INTO PATIENT CONDITIONS IN TRAUMA PATIENTS. **Caroline Clutton**. Rising Sophomore. Sponsored by Ashley Williams, M.D., Division of Trauma & Acute Care Surgery and Burns, Department of Surgery.

AQUAGENX^{TM}: WATER QUALITY FIELD KIT TEST TURNED DIAGNOSTIC TOOL FOR URINARY TRACT INFECTIONS. **Ivy Nguyen**. Incoming Freshman. Sponsored by Allyson Shea, Ph.D., Department of Microbiology and Immunology.

DISCOVERY OF FRAGMENT-LIKE LIGANDS OF SERINE/THREONINE PROTEIN PHOSPHATASE 5. **Conner Hall**. Rising Sophomore. Sponsored by Mark Swingle, Ph.D., Department of Biochemistry and Molecular Biology.

PATIENT RESILIENCY AFTER TRAUMATIC SPINAL CORD INJURY RESULTING IN QUADRIPLEGIA, CAREGIVER BURDEN. **Caroline W. Howell**. Rising Sophomore. Sponsored by Ashley Williams, M.D., Division of Trauma & Acute Care Surgery and Burns, Department of Surgery.

EXPOSURE TO AMYLOID-BETA 1-42 UPREGULATES ICAM-1 SURFACE EXPRESSION IN RAT LUNG MICROVASCULAR ENDOTHELIAL CELLS. **Jonathon Hubbert**. Rising Sophomore. Sponsored by Dr. Jonathon P. Audia, Department of Microbiology and Immunology, Center for Lung Biology.

CORRELATIVE GENOMICS AND TRANSCRIPTOMICS OF BARRETT'S ESOPHAGUS. **William C. Gannaway**. Rising Sophomore. William O. Richards, MD, Justin Roberts, PhD, and Mark N. Gillespie, PhD. University Hospital Department of Surgery.

HE EFFECT OF CADMIUM EXPOSURE ON MICROSATELLITE INSTABILITY AND GENE EXPRESSION IN HEK293 CELLS. **Megan Rasmussen**. Rising Sophomore. Sponsored by Aishwarya Prakash PhD. Department of Biochemistry and Molecular Biology.

ASSESSING RISKS OF ASPIRATION DURING ENTERAL FEEDING IN THE TRAUMA PATIENT POPULATION. **Hannah Hill**. Rising Sophomore. Sponsored by Nathan Polite D.O., Division of Trauma & Acute Care Surgery and Burns, Department of Surgery.

OBSTETRICAL COMPLICATIONS PRE AND POST COVID OUTBREAK. **Charlie Crider**. Rising Sophomore. Sponsored by Tracy Roth, MD, Residency Program Director for Obstetrics and Gynecology; Assistant Professor of Obstetrics and Gynecology; Focused Practice Designation in Pediatric and Adolescent Gynecology.

STUDY OF PREVALENCE OF ATYPICAL MYCOBACTERIAL INFECTIONS IN THE USA HEALTHCARE SYSTEM WITH A SUB ANALYSIS OF THE DIFFERENT NTM INFECTIONS TO IMPROVE TIMELY DIAGNOSIS AND APPROPRIATE MANAGEMENT FOR BETTER PATIENT OUTCOMES. **Chase Smith**. Rising Sophomore. Sponsored by Dr. Amber Bokhari, M.D., Department of Infectious Diseases.

ADMISSION MEDICATION RECONCILIATION DISCREPANCIES IN TRAUMA PATIENTS: CONSISTENT NURSING CARE MAY NOT BE THE ANSWER. **Corinne E. Gautreaux**. Rising Sophomore. Sponsored by C. Caleb Butts, M.D., Division of Trauma & Acute Care Surgery and Burns, Department of Surgery.

INVESTIGATING THE ROLE OF CALDESMON IN PERICYTE-MEDIATED ALZHEIMER'S DISEASE PATHOLOGY. **Aimee J. Knott**. Rising Sophomore. Sponsored by Amy Nelson. Department of Physiology and Cell Biology.

METHOTREXATE INDUCED ENCEPHALOPATHY IN CHILDREN WITH ACUTE LYMPHOBLASTIC LEUKEMIA. **Sam Motz**. Rising Sophomore. Sponsored by Abdul Hafeez Siddiqui, MD, Department of Pediatric Hematology-Oncology.

IMPACT OF THE COVID-19 PANDEMIC ON GESTATIONAL WEIGHT GAIN. **Madison Poiroux**. Rising Sophomore. Sponsored by Candice P. Holliday, J.D., M.D. Department of Obstetrics and Gynecology.

A NOVEL TECHNIQUE OF SACRO-ILIAC FUSION IN LONG DEFORMITY CONSTRUCTS. **Ryan McIlwain**. Rising Sophomore. Sponsored by Richard Menger, M.D., M.P.A., Department of Neurosurgery.

EFFECT OF CAPSAICIN AND CURUCMIN ON ACE2 EXPRESSION IN RAT PULMONARY ENDOTHELIAL CELLS. **Anthony Fant**. Rising Sophomore. Sponsored by Abu-Bakr Al-Mehdi, M.D, Ph.D., Department of Pharmacology.

TIME TO ARRIVAL AS A PREDICTOR OF OUTCOMES FOR CARDIOTHORACIC TRAUMA PATIENT. **Connor Posey**. Rising Sophomore. Maryann Mbaka, M.D., Department of Surgery, Division of Trauma.

STUDY OF PREVALENCE OF FUNGAL DISEASES IN THE UNIVERSITY OF SOUTH ALABAMA HEALTH SYSTEM WITH A SUB-ANALYSIS OF DIFFERENT FUNGAL INFECTIONS TO IMPROVE TIMELY DIAGNOSIS AND APPROPRIATE MANAGEMENT FOR BETTER PATIENT OUTCOMES. **Caleb Thomas**. Rising Sophomore. Sponsored by Dr. Amber Bokhari, M.D., Department of Infectious Diseases.

THE DOSE-DEPENDENT EFFECT OF *PSEUDOMONAS AERUGINOSA* EXOY ON ACUTE LUNG INJURY IN CARBONIC ANHYDRASE IX KNOCKOUT MICE. **Karam Maatouk**. Rising Sophomore. Reece Stevens. Sponsored by Ji Young Lee, M.D., Ph.D., Department of Physiology and Cell Biology, Center for Lung Biology.

INPATIENT INTERVENTION FOR POST-TRAUMATIC STRESS DISORDER AND SUBSTANCE ABUSE MAY IMPROVE READMISSION RATES AMONG INJURED PATIENTS. **Lauren Kate Dodd**. Rising Sophomore. Sponsored by Ashley Williams, M.D., Department of Trauma.

ENDOTHELIAL $K_{Ca}2.3$ CHANNEL EXPRESSION UNDER LOW SHEAR STRESS. **Noah Que**. Rising Sophomore. Sponsored by Mark S. Taylor, Ph.D. and David Weber, Ph.D. Department of Physiology and Cell Biology.

OCCUPATIONAL EXPOSURE IN EMERGENCY DEPARTMENT THORACOTOMIES**. Richard Preus.** Rising Sophomore. Maryann Mbaka, M.D. Department of Surgery, Division of Trauma.

THE IMPACT OF BACTERIAL PNEUMONIA ON THE BLOOD-BRAIN BARRIER. **Peter H. Doan**. Rising Sophomore. Sponsored by Amy R. Nelson, Ph.D. Department of Physiology & Cell Biology.

TRAINED IMMUNITY PROVIDES PROTECTION AGAINST *PSEUDOMONAS AERUGINOSA* KERATITIS. **Qays Aljabi**. Rising Sophomore. Sponsored by Robert Barrington, Ph.D., Department of Microbiology and Immunology.

REGULATORY B CELLS IN AUTOIMMUNE PULMONARY ALVEOLAR PROTEINOSIS. **Macy Wright**. Rising Sophomore. Sponsored by Robert Barrington, PH.D., Department of Microbiology and Immunology, Center for Lung Biology.

The Clyde G. “Sid” Huggins Medical Student Research Awards were presented to the following: Brooke Tarrant, rising sophomore medical student and Richard Fu, rising sophomore medical student, tied for the best oral presentation award. Three medical students were presented awards for best poster presentations: Conner Hall, Cya Johnson, and Kelly Blacksher, all rising sophomores. Each winner was presented with a plaque of recognition and cash award.

2022-2023
Summary of Scholarly Activities
Office of Accreditation and Planning

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

McMullan T, Williams DS, Ortiz YL, Lollar J. Is consistency possible? Course design and delivery to meet faculty and student needs. Curr Issues Educ (Tempe). 2022 Dec 12;23(3):1-22. Available from: https://cie.asu.edu/ojs/index.php/cieatasu/article/view/2092/912

II. PUBLISHED ABSTRACTS

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Pierce M. Invited speaker. Assessment and accreditation in health sciences: building sustainable processes [webinar]. Weave Education; 2022 Apr 27; Scottsdale, AZ.

Pierce M. Invited speaker. Obtain course evaluations and student feedback that provide the information necessary for continuous quality improvement in medical education. Association of American Medical Colleges Annual Meeting 2022; 2022 Nov 15; Nashville, TN.

Williams DS. Invited speaker. Buying into the curricular mapping process: collaboration among faculty and administrators to build shared understanding of program assessment. Association of American Medical Colleges Annual Meeting 2022; 2022 Nov 15; Nashville, TN.

V. NATIONAL PROFESSIONAL RECOGNITION

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

July 22-July 23

The Office of Accreditation and Planning plays a crucial role in ensuring the College of Medicine's commitment to excellence in medical education and quality improvement. This annual report highlights the purpose and significance of planning and accreditation within the college, with a focus on academic success, data utilization and management, and continuous quality improvement. Planning serves as a guiding force, aligning the college's goals with the dynamic landscape of medical education. The Office of Accreditation and Planning establishes priorities to ensure the institution exceeds accreditation standards and

meets the mission and vision of the strategic plan by addressing the unique needs of students, faculty, and the community. Accreditation validates the college's commitment to meeting rigorous standards, fostering a culture of continuous improvement and accountability. Data utilization and management are central to achieving academic success. The office collects, analyzes, and interprets data related to student performance, faculty productivity, curriculum effectiveness, and student satisfaction to support all stakeholders. By leveraging this data, evidence-based decisions are made to enhance teaching, learning, and overall educational outcomes. Continuous quality improvement is a core focus of the Office of Accreditation and Planning. Through program evaluations and feedback loops, areas of strength and opportunities for growth are identified. The Office of Accreditation and Planning is dedicated to supporting stakeholders, fostering academic success, and promoting a culture of improvement within the College of Medicine.

Continuous Quality Improvement (CQI)

The CQI Committee review process for the LCME Standards and Strategic Plan review was restructured and represents a significant enhancement in terms of efficiency and collaboration for both stakeholders and committee members. This revamped process places a strong emphasis on transparency and the reduction of confusion by engaging all pertinent stakeholders. Every CQI Committee member is encouraged to participate in a monthly review team and pre-CQI meeting with stakeholders. This ensures that a broad spectrum of voices is heard and that all involved parties are well-informed regarding the findings and recommendations. Such inclusivity fosters an environment conducive to open communication and collaboration, allowing for comprehensive discussions that clarify and address any comments or recommendations. Consequently, this approach mitigates the possibility of misunderstandings or concealed information, as it considers diverse perspectives.

Furthermore, the pre-CQI meetings serve a dual purpose, extending beyond their primary function of evaluating LCME Standards and SP Priority Reviews. They also serve as a catalyst for identifying other areas within the institution that could benefit from the expertise of the CQI Committee and the improvement process. By engaging a wide array of stakeholders in these deliberations, the process frequently uncovers valuable insights into domains that may necessitate attention and enhancement. These encompass not only standards compliance but also broader facets of institutional quality, such as curriculum development, faculty advancement, or student support services. Ultimately, this approach strengthens the institution's overall capacity for self-assessment and sustainable improvement.

A needs assessment and formal evaluation on student surveys throughout the College of Medicine with stakeholders and administration was conducted. After determining that a redesign of the current student module and clerkship evaluation surveys was needed, an in-depth literature review to find the best practices supported by scientific evidence was conducted. A new survey instrument was designed, and successfully pilot tested. Further evaluation on the new survey instrument is being conducted as data from the pilot is

analyzed to determine effectiveness and improvement with implementation pending stakeholder approval.

The Independent Student Analysis (ISA) Survey was conducted by students who are members of the CQI Committee. These students not only actively participated in administering the survey, which is a crucial requirement for accreditation, but they also formed a dedicated ISA Subcommittee. Dr. Vaughn Lee played a significant role in leading and assisting with the analysis of the subcommittee results, while the students also made substantial contributions conducting a thorough analysis of the survey results, identifying areas in need of attention and improvement. By aligning our efforts with LCME standards, our goal is to strengthen our educational programs and uphold our institutional mission. The insights obtained through this collaborative approach enable us to proactively address any areas of concern well in advance of our next accreditation site visit. This ensures the continuous enhancement of the quality of our academic offerings.

In continuing our proactive approach for the next LCME accreditation site visit, we introduced an innovative LCME Heat Map, which is a dynamic dashboard designed to enhance our accreditation processes. This interactive tool incorporates all 12 standards, providing a comprehensive overview of our compliance status. What makes this heat map truly exceptional is its user-friendly interface, featuring active hyperlinks that lead to detailed information.

Our heat map employs a clear legend to convey critical information:

- Has Met the Intention: Elements that have successfully met the intention of the entire standard based on a review of current LCME requirements.
- Needs Review by CQI Oversight Committee: Elements requiring further review by the CQI Oversight Committee to ensure compliance with current LCME requirements.
- May Not Meet the Intent: Elements that may not fully meet the intent of the standard based on a review of current LCME requirements.
- Previously Unsatisfactory: Elements previously identified as unsatisfactory during the 2018 site visit.
- Needs Continued Monitoring: Elements previously identified as requiring continued monitoring during the 2018 site visit.
- Dissatisfied >10% in ISA: Elements identified as dissatisfactory by more than 10% of respondents in the Independent Student Analysis (ISA).
- Open Items/Comments by CQI Committee: Elements with open items or comments from the CQI Committee.
- Frequently Cited by LCME: Elements frequently cited by LCME.

Our LCME Heat Map serves as a centralized hub, allowing stakeholders to gain immediate insights into our accreditation status and identify areas of focus. It empowers us to proactively address compliance issues and make data-informed decisions.
Our department has made significant strides in enhancing our qualitative data analysis process by incorporating QDA Miner into our toolkit. This powerful software has

revolutionized the way we handle qualitative data, allowing for more efficient and insightful analysis. With QDA Miner, we can now streamline the coding and categorization of qualitative data, making it easier to identify trends, patterns, and key insights. This improvement has not only expedited our data analysis but has also enriched the depth of our qualitative research, ultimately leading to more informed decision-making and research outcomes.

Furthermore, our commitment to optimizing data utilization is exemplified by the recent addition of our Director of Data Administration and Strategic Initiatives who also serves as a Tableau ambassador. Leading the implementation and use of business intelligence tools for data visualization and dashboard design, this expertise elevates our capabilities in this crucial area. Tableau, known for its powerful data visualization capabilities, complements our data analysis tools, enabling dynamic and interactive presentation of findings. This proficiency in Tableau ensures effective communication of research outcomes and data-driven insights to stakeholders, enhancing our decision-making and performance tracking. By harnessing QDA Miner for qualitative analysis and Tableau for data visualization, our department is primed for further advancements in data utilization and research excellence.

Program Development and Curriculum Assessment

In the domain of program development and curriculum assessment, the College of Medicine has achieved significant progress and embarked on crucial initiatives over the past year. We have enhanced our MD program assessment reporting, covering the past three years and the 2021-2022 academic year. This improvement streamlines our reporting process while providing valuable data insights for academic enhancement.
Our proficient utilization of Weave assessment tools during the reporting process underscores our mastery of this software. We anticipate that Weave will remain an invaluable tool for future program review activities and for tracking the implementation of our strategic plan.

One notable achievement is the creation of a draft for a revised MD program curriculum map. This map serves to elucidate the categories of College of Medicine objectives and offers a more detailed representation of where and when program outcomes are introduced and assessed, extending beyond certification exams. This initiative has been presented to the Division of Medical Education Leadership for consideration.

Furthermore, in collaboration with Medical Education, we successfully piloted the use of the Canvas outcomes tool to collect data on Individual Learning Activities (ILAs) and Self-Directed Learning (SDL) in the CVR and URN modules. The positive outcomes of this pilot have prompted discussions to expand the use of this tool for program-level data collection throughout the pre-clerkship phase.

Our efforts extend to revamping assessment processes for Clinical Skills in collaboration with Dr. Boatright, building on lessons learned during the Spring 2023 pilot with CVR and

URN. This endeavor aims to streamline assessment and grading for Clinical Skills in the 2023-2024 academic year.

Additionally, we have initiated a research project in collaboration with Dr. Foust, investigating the relationship between Competency-Based Education (CBE) and Entrustable Professional Activities (EPA) on the Internal Medicine Clerkship. This research seeks to enhance instruction and align learning outcomes for a more streamlined and effective educational experience. Moreover, we have begun planning for improvements in the Assessment and Evaluation (A&E) process, contributing to a more refined and strategic approach in the future.

Academic Advising and Support Programming

Within the realm of academic support and student development, the College of Medicine has undertaken a range of initiatives and accomplishments over the past year. These endeavors reflect our commitment to equipping students with the necessary skills and support for academic success and personal growth.

One significant achievement has been the development of a comprehensive training program for peer tutors, ensuring they possess essential skills to provide effective academic support. To further enhance our support services, a Director of Learning Support Services joined who leads and collaborates on initiatives that support student learning and academic success, including individual or small group academic counseling, assisting students with the development of their individual development plans, and academic skill building in areas such as time management, productivity modeling, and test-taking strategies. This role includes evaluating student support services offerings via formal and informal data to make decisions about existing, new, and potential services.

Collaborative efforts with Dr. Hundley have led to the formulation of new policies for academic advising, instrumental in promptly identifying at-risk and in-risk students, enabling proactive intervention and support. As a result, academic outcomes have shown improvement.

A novel academic programming initiative was introduced for M2 students, focusing on Step 1 exam preparation, comprising four special session workshops and 24 individual student planning meetings. These efforts aimed to guide students in reflecting on their learning using the LASSI self-assessment, ultimately facilitating strategic improvement. Throughout the academic year (until March), an average of 2-3 academic advising appointments were conducted per week, encompassing M1-M3 years, providing students with valuable guidance and support in their academic journey.

To enhance students' personal and professional growth, a more formal lunch and learn development schedule was established in collaboration with Student Affairs, covering various academic-focused topics, enriching students' overall learning experience.

Professional development workshops were facilitated for BMS students in September, focusing on time management and essay writing best practices. These workshops equipped students with essential skills for academic success and effective time management.

Active involvement in BMS advisory committee meetings contributed valuable insights and perspectives, supporting the development and enhancement of the program.
In June 2023, two training sessions were developed and delivered to students in the ODI summer programs. These sessions centered on learning and study strategies, as well as test-taking skills, providing students with essential tools for academic success.

Expanded academic advising sessions, particularly through Zoom, were initiated for M3 students preparing for Step 2CK exams. Collaboration with Drs. Hundley and Smith led to the expansion of academic programming, including Step 2 CK preparation, encompassing special sessions on test-taking anxiety, study skills, and strategy preparation.

A co-taught four-week series, "Becoming a Resilient Scientist," was conducted for BMS students in collaboration with colleagues. This series aimed to foster resilience and well-being among students, equipping them with strategies to navigate challenges and thrive in their academic pursuits.

In support of directed student learning, Dr. Williams served as a dissertation committee member for Yolany Lagos-Ortiz who presented the dissertation “Relationship between social, cognitive presence and a collaborative study guide in nursing graduate courses,” for Counseling and Instructional Sciences in the spring 2023.

Looking forward, two new programs are set to be implemented in 2023-2024. "Rx for Success: Achieving Academic Excellence in Medical" is a pre-orientation course for incoming students focusing on essential skills and individual learning plans. Additionally, a new Peer Academic Leader (PALs) plan for M2-M4 students will emphasize teaching and learning professional development to mentor students under them in near-peer teaching and learning strategy development. These initiatives underscore our commitment to academic excellence and student support within the College of Medicine.

Participation in design and development of new physical facilities

The office has been heavily involved in the design of a new COM building that will house the preclinical instruction for medical students, the BMS instruction for PhD students, and be the primary location for the COM research mission. The involvement of the office began as a part of the time to conduct initial review of architect firms and continues to review progress to design and plans. Infrastructure re-construction has begun as actual construction is imminent.

Our team, with support from the Dean, led the effort to renovate the Baugh Medical Library. The desire is to create a space more conducive to the needs of 21st century learners by removing unused physical resources in favor of study, collaboration, and relaxation

space. In AY 2023-24, the Baugh Medical Library will undergo a complete refurbishment that will modernize the space and increase student access.

Collaboration and College of Medicine Representation

Throughout the past year, our department has been actively engaged in initiatives aimed at fostering inclusivity, promoting academic excellence, and enhancing assessment practices within the College of Medicine.

One notable contribution from our team was our collaboration with the Office of Diversity and Inclusion to improve their summer programming. As a team, we provided valuable insights to a consultant who is guiding their assessment and program improvement efforts. This collaborative effort is dedicated to creating an inclusive and supportive environment that benefits all students.

In March 2023, we facilitated a workshop focusing on the scholarship of teaching and learning. This session served as a preview of the MERC program, inviting participants to join this valuable academic initiative, thereby promoting continuous learning and academic excellence.

Our collaboration with the Office of Faculty Development on various CME sessions, as part of the CME committee, allowed for the dissemination of knowledge and expertise, contributing to the professional growth of faculty members.

Our department's role as the COM's representative on the QEP Assessment Team during the LevelUp QEP development was instrumental in shaping institutional priorities for implementation fidelity assessment and student learning outcome assessment. These priorities were carefully aligned with the College of Medicine's strategic goals and mission, ensuring that assessment efforts are purposeful and strategic.

Additionally, our department serves as the College of Medicine representatives on the committees of University Libraries, Institutional Assessment, and University Policies.

In January, our team joined the university's e-portfolio development team, representing the College of Medicine in this endeavor sponsored through the AAC&U. This participation enabled us to explore emerging best practices for e-portfolio assessment and identify opportunities for integration into curricular assessment. We have been actively working together to leverage these tools, resources, and ideas to enhance our assessment practices, particularly in areas where e-portfolios can be effectively implemented.

In summary

The Office of Accreditation and Planning within the College of Medicine has been instrumental in shaping a culture of excellence and continuous improvement. Our commitment to academic success, data utilization, and continuous quality improvement is reflected in various initiatives and accomplishments.

Our revamped CQI Committee review process for LCME Standards and SP Priority Reviews underscores our dedication to transparency, collaboration, and inclusivity. By engaging all stakeholders and fostering open communication, we ensure that our institution thrives in compliance with the highest standards. Additionally, our proactive ISA Survey and ISA Subcommittee further enhance our commitment to accreditation excellence, enabling us to address problem areas well in advance of our next accreditation site visit. The introduction of the LCME Heat Map as a dynamic dashboard for accreditation represents a significant step forward. This interactive tool empowers stakeholders to gain immediate insights into our accreditation status and proactively address compliance issues.

In the domain of program development and curriculum assessment, we've made significant progress. From enhancing MD program assessment reporting to piloting the use of Canvas outcomes tools, we are committed to data-driven improvements. Our academic advising and support programming have benefited students at various levels, providing personalized guidance and fostering personal and professional growth.

Collaboration and representation within the College of Medicine have been pivotal in promoting inclusivity, academic excellence, and assessment best practices.

As we look ahead, our department remains dedicated to driving quality improvement and academic excellence within the College of Medicine. Together, we will continue to chart a course towards a brighter future for our institution.

2022-2023
Summary of Activities
Office of Medical Alumni Relations

Representing 48 graduating classes (1976-2023), 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).

2022-2023 Medical Alumni Association Board of Directors

Officers

- Dr. Edward Panacek, ’81, *President*
- Dr. Russell Goode, ’10, *Vice President*
- Dr. Mark Mitchell, ’81, Secretary/Treasurer, *Chair, Governance Committee*
- 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

Beginning with the 2022 Board year, 4 members of the Board ended their terms; the USA Medical Alumni Association recognized these members for their support and involvement over their tenure:

- Dr. Matthew Cepeda, ’03
- Dr. Bibb Lamar, ’98
- Dr. Wes Pickard, ’88
- Dr. John Todd, ’88

Beginning with the 2022 Board year, 2 student members were also appointed:

- Naden Kreitz, ’26
- Brennan Smith, ’24

MAA Scholarship & Award Recipients for the 2022-2023 Academic Year

Student Name	Scholarship Received	Award Amount
Noel Godang	2022 Medical Alumni Association Scholar	$15,000
Ashley Bates	2022 Medical Alumni Association Scholar	$15,000
Hridhay Sheth	2022 Medical Alumni Association Scholar	$15,000
Sarah Elizabeth Fillingim	2023 Medical Alumni Leadership Award	$500
	Total of 2022-2023 MAA Student Awards	**$45,500**

2023 Medical Alumni Reunion Weekend

The 2023 USA Medical Alumni Association Reunion Weekend was held from June 8th through 10th at The Grand Hotel Golf Resort & Spa in Point Clear, Alabama. 237 medical alumni and friends attended the weekend festivities culminating in the college's 50th Anniversary Celebration where 50 People of Influence were recognized for their service to our college, our students, and the medical community at large. The 50 distinguished honorees are listed below, in alphabetical order:

- David P. Adkison, M.D.
- Sr. Marilyn J. Aiello, O.P., M.D.
- Lewis D. Anderson, M.D.
- John L. Atkinson, M.D.
- John B. Bass Jr., M.D., M.A.C.P.
- Charles M. Baugh, Ph.D.
- Joseph N. Benoit Jr., Ph.D.
- Vera A. Bittner, M.D., F.A.C.P.
- Stanley Crawford, M.D.
- Errol D. Crook, M.D., F.A.C.P.
- Eugene de Juan, M.D.
- Frank V. DeGruy III, M.D.
- Arthur J. Donovan, M.D.
- Samuel Eichold II, M.D. F.A.C.P.
- Benjamin Estrada, M.D.
- Steven P. Furr, M.D.
- Mark N. Gillespie, Ph.D.
- Michael D. Goodlett, M.D.
- David Gremse, M.D.
- Johnson Haynes Jr., M.D.
- Clyde "Sid" Huggins, Ph.D.
- Wanda G. Kirkpatrick, M.D.
- Robert A. Kreisberg, M.D., M.A.C.P.
- Susan LeDoux, Ph.D.
- Marcia Littles, M.D.
- Arnold Luterman, M.D.
- John V. Marymont, M.D., M.B.A.
- John S. Meigs Jr., M.D.
- Frederick N. Meyer, M.D.
- Thomas M. Miller, M.D., M.P.H.
- Thomas B. Montgomery, M.D.
- Henry C. Mullins Jr., M.D.
- Edward Panacek, M.D., M.P.H.
- R. Allen Perkins, M.D., M.P.H.
- Eugene A. Quindlen, M.D.
- William O. Richards, M.D., F.A.C.S.
- Charles B. Rodning, M.D., Ph.D.
- Janyce M. Sanford, M.D., M.B.A., F.A.C.E.P.
- Anne F. Schott, M.D.
- Alan M. Siegal, M.D., M.A.C.P.
- Troy Stevens, Ph.D.
- Steven H. Stokes, M.D.
- Samuel J. Strada, Ph.D.
- Aubrey E. Taylor, Ph.D.
- Mary I. Townsley, Ph.D.
- J. Allen Tucker, M.D.
- Terrence M. Tumpey, Ph.D.
- Wladimir Wertelecki, M.D.
- Mark S. Williams, M.D., M.B.A., J.D., C.P.E.
- Hollis J. Wiseman, M.D.

Save the Date for the 2024 Medical Alumni Reunion

The 2024 MAA Reunion weekend will be held Friday, June 21st through Sunday, June 23rd, 2024, at The Lodge in Gulf Shores, Alabama. All medical alumni are welcome to attend this reunion weekend, which will honor classes ending in 4 and 9: 1979, 1984, 1989 1994, 1999, 2004, 2009, 2014 and 2019.

2022-2023 MAA Fundraising Results

The USA MAA is grateful for the funds raised through alumni support:

MAA Annual Fund contributions: $18,940
MAA Annual & Lifetime Memberships: $27,000
COM Building Fund:

- COM Alumni contributions received: $101,000
- COM Alumni contributions pledged: $100,000
- MAA pledge (Student Lounge naming): $100,000

The USA MAA in Action

These contributions supported a variety of medical student and alumni events and awards, including the following:

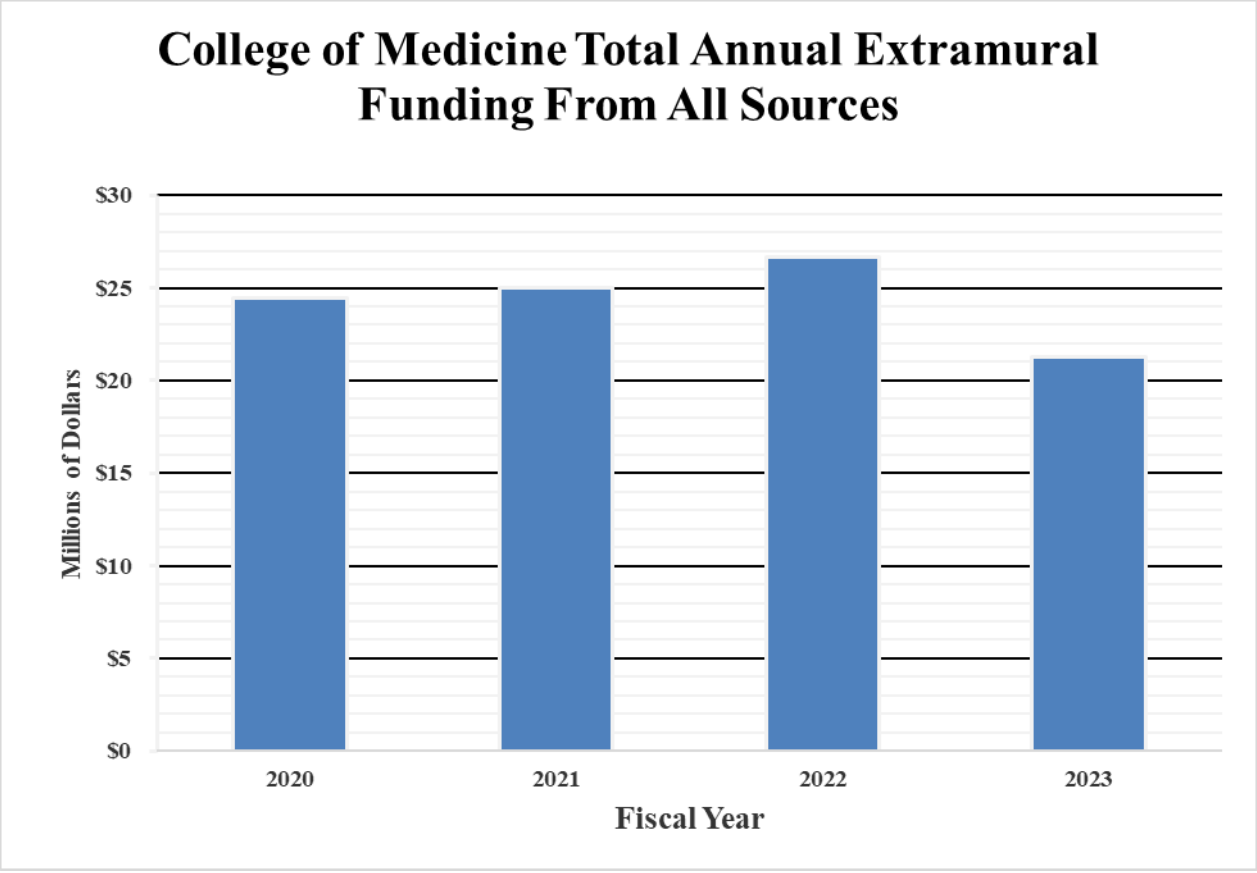
- $45,000 in scholarships awarded to M1s
- Continuing Medical Education programming
- Regional Alumni Networking and Social Events
- Financial support of Medical Student Milestone programming including the White Coat Ceremony, Match Day and Commencement Events
- MAA Reunion Weekend & 50th Anniversary Celebration programming

Summary of Extramural Support

Funding for the 2022-2023 academic year includes $20,971,740 and $321,795 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

2020	**$24,462,635**
2021	**$25,010,809**
2022	**$26,625,746**
2023	**$21,293,535**



EXTRAMURAL FUNDING
October 1, 2022- September 30, 2023

Biochemistry and Molecular Biology

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
DAVIES, CHRISTOPHER	VIRGINIA COMMONWEALTH UNIVERSITY	FP00017347_SA001	PlzA, cyclic di-GMP Receptors and the Enzootic Cycle of Lyme Disease	129,896.00
DAVIES, CHRISTOPHER	NATIONAL INSTITUTES OF HEALTH	5 R01 AI164794-02	Molecular Mechanism of Cephalosporin Resistance of N. Gonorrhoeae Conferred by Mutated PBP2	697,600.00
GRELET, SIMON	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000520679-SC010-01	Targeting Breast Cancer Neo neurogenesis to Overcome Therapeutic	46,038.00
HONKANEN, RICHARD E.	STATE OF CALIFORNIA	A22-2853-S003-A3	PPP2R5D Variants	349,900.00
HONKANEN, RICHARD E.	STATE OF CALIFORNIA	A19-3376-S003-02A	PPP2R5D Variants	151,315.00
PRAKASH, AISHWARYA	NATIONAL INSTITUTES OF HEALTH	5 R01 ES030084-05	Repair of Environmentally Induced Mitochondrial DNA Damage	$423,500
RICHTER, WITO	CYSTIC FIBROSIS FOUNDATION	004903F222	Selective Inactivation of PDE4 Isoforms as a Therapeutic Approach for Cystic Fibrosis	$75,000
			Total	$1,873,249

Center for Disaster Healthcare Preparedness

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
GUERRY, JENNI	ALABAMA DEPARTMENT OF PUBLIC HEALTH	GC-22-357A (C20115249A)	Alabama Healthcare Coalition Coordination Program	$99,374
GUERRY, JENNI	ALABAMA DEPARTMENT OF PUBLIC HEALTH	GC-23-360 (C30116224)	Fiscal Agent for Alabama Healthcare CoalitionS Program	$892,205
GUERRY, JENNI	ALABAMA DEPARTMENT OF PUBLIC HEALTH	GC-23-359 (C30116223)	Alabama Healthcare Coalition Coordination Program	$769,920
GUERRY, JENNI	ALABAMA DEPARTMENT OF PUBLIC HEALTH	C20115248 (GC-22-356A)	COVID-19 Supplemental HCC Fiscal Agency Program	$59,915
			Total	$1,821,414

Center for Healthy Communities

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
ARRIETA, MARTHA *CO-INVESTIGATORS* HANKS, ROMA	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000534462-SC002-A03	Alabama Community-Engagement Research Alliance Against COVID-19 in Disproportionately Affected Communities (Alabama CEAL)	73,662.00
ARRIETA, MARTHA *CO-INVESTIGATORS* ARRIETA, MARTHA HANKS, ROMA	MOBILE COUNTY HEALTH DEPARTMENT	A21-0208-03	Mobile County Community Health Worker Coalition Sub-Award	421,898.00
ARRIETA, MARTHA	BROWN UNIVERSITY	00002297	Measuring Genomic DNA Damage and DNA Repair Capacity in Longitudinal Population	99,789.00

CROOK, ERROL *CO-INVESTIGATORS* PERKINS, ALLEN ARRIETA, MARTHA	UNIVERSITY OF ALABAMA AT BIRMINGHAM	3OT20D026548-01S5-Amendment	Alabama Precision Medicine Initiative	$341,937
PERKINS, ALLEN *CO-INVESTIGATORS* PERKINS, ALLEN ARRIETA, MARTHA	UNIVERSITY OF ALABAMA AT BIRMINGHAM	3OT2OD026548-01S2-NCE	Alabama Precision Medicine Initiative	$122,792
			Total	$1,060,078

Family Medicine

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
PERKINS, ALLEN	ALABAMA FAMILY PRACTICE RURAL HEALTH BOARD	22-0582	Student Curriculum in Family Medicine for the Medical Students FY23	$60,000
PERKINS, ALLEN	ALABAMA FAMILY PRACTICE RURAL HEALTH BOARD	22-0581	Student Preceptorship FY23	$20,000
PERKINS, ALLEN	HEALTH RESOURCES AND SERVICES ADMINISTRATION	5 T34HP42151-03-00	Partnering to Improve Maternal Outcomes	$599,964
PERKINS, ALLEN	ALABAMA FAMILY PRACTICE RURAL HEALTH BOARD	22-0462	Resident Curriculum in Rural Family Medicine FY23	$45,000
PERKINS, ALLEN *CO-INVESTIGATORS* ESTRADA, BENJAMIN HUNDLEY, TJ RICH, THOMAS RICE, NANCY SWIGER, BRAN WEBER, DAVID	HEALTH RESOURCES AND SERVICES ADMINISTRATION	1 T99HP52112-01-00	MSEP – Partnering to Transform Training	$4,000,000
			Total	$4,724,964

Internal Medicine

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
MALOZZI, CHRISTOPHER	LUITPOLD PHARMACEUTICALS, INC	63842	A Randomized, Double-Blind, Placebo-Controlled Study to Investigate the Efficacy and Safety of Injectafer (Ferric Carboxymaltose) as Treatment for Heart Failure with Iron Deficiency (HEART-FID) (Luitpold - 1VIT15043)	$4,985
MALOZZI, CHRISTOPHER	CSL BEHRING	63847	A Phase 3, Multicenter, Double-blind, Randomized, Placebo-controlled, Parallel-group Study to Investigate the Efficacy and Safety of CSL112 in Subjects with Acute Coronary Syndrome (CSL112_3001)	$8,800
NILAND, B	TAKEDA DEVELOPMENT CTR AMERICAS, INC	63786	Entyvio (vedolizumab) long-term safety study: An international observational prospective cohort study comparing vedolizumab to other biologic agents in patients with ulcerative colitis or Crohn's Disease (Entyvio PASS MLN-0002_401)	$8,635
PACK-MABIEN, ARDIE CO-INVESTIGATORS MARRI, PREETHI	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000532208-SC013	Sickle Cell Disease Treatment Demonstration Program	$52,999
SONNIER, WILLIAMS	COREVITAS	63891	Corrona Inflammatory Bowel Disease (IBD) Registry (IBD-600 Registry)	$29,900

VANDE WAA, JOHN	HEALTH RESOURCES AND SERVICES ADMINISTRATION	5 H12 HA24771-11-00	University of South Alabama Family Specialty Clinic	$377,778
			Total	$483,097

Microbiology and Immunology

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
AUDIA, JONATHON	NATIONAL INSTITUTES OF HEALTH	1 R21 AI174215-01	The Amyloid Precursor Protein Protects Against Acute Lung Injury	$231,000
BARRINGTON, ROBERT	LIONS CLUB INTERNATIONAL FOUNDATION	MAT21617/34 C	Equipment to Assess Immunotherapy Strategies for Ocular Diseases by Vision Scientists with the Lions/USA Eye Research Institute	$46,737
BARRINGTON, ROBERT	MOWYCAL, LLC	A19-0046-supp5	Pre-clinical Studies to Determine the Efficacy of N-formyl0methionyl-leucyl-phenylalanine (N-f-MLF) Peptide Prevention of Most Cell Degranuation	$40,646
HERMANCE, MEGHAN	UNIVERSITY OF FLORIDA	SUB00003264-02	CDC Southeastern Regional Center of Excellence in Vector-Borne Diseases: The Gateway Program	$53,899
HERMANCE, MEGHAN	UNIVERSITY OF FLORIDA	SUB00003264-01	CDC Southeastern Regional Center of Excellence in Vector-Borne Diseases: The Gateway Program	$38,170
HERMANCE, MEGHAN	NATIONAL INSTITUTES OF HEALTH	5 R01 AI171398-02	Intra-tick and Intra-host Infection Dynamics of a Tick-borne Bunyavirus	$534,361
MACALUSO, KEVIN	NATIONAL INSTITUTES OF HEALTH	5 R01 AI122672-07	Emerging Flea-borne Rickettsial Diseases: Vector Competence and Transmission Biology	$459,309
MACALUSO, KEVIN	UNIVERSITY OF FLORIDA	SUB00003404-01	Rickettsial Influence on Host Membrane Physiology in Arthropod Vectors	$81,900
MACALUSO, KEVIN	NATIONAL INSTITUTES OF HEALTH	1 R21 AI73708-01	Exploiting the Arthropod Vector: Novel Mechanisms of Mycobacterium Leprae Transmission	$192,500
RAYNER, JONATHAN	MOBILE COUNTY HEALTH DEPARTMENT	23-0250	Mobile County Public Health Department Mosquito-borne Infectious Disease Surveillance - 2023	$210,876
RAYNER, JONATHAN	ALABAMA STUDY COMISSION ON TICK BORNE ILLNESS	2023-05-20 SUB FUND	Survey of the Prevalence of Tick-borne Pathogens Associated with Medically Important Ticks in Alabama	$45,936
RAYNER, JONATHAN	U.S. DEPARTMENT OF AGRICULTURE	58-3022-3-035	Southeastern USA Arbovirus Landscape	$302,951
SHEA, ALLYSON	INNOVATIVE SCIENCE ACCELERATOR PROGRAM	3635014	The Role of Amyloid-Beta in Pyelonephritis and Urosepsis	$96,451
			Total	$2,334,736

Neurology

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
DEES, DANIEL	HUNTINGTON'S DISEASE SOCIETY OF AMERICA	A23-0170	HDSA Center of Excellence Program 2023	$14,500
KILGO, WILLIAM	JOHN HOPKINS UNIVERSITY	R-1902-33620	Traditional versus Early Aggressive Therapy for Multiple Sclerosis	$180
KILGO, WILLIAM	CELGENE INTERNATIONAL II SARL	63886	A Multicenter, Longitudinal, Open-label, Single-arm Study Describing Cognitive Processing Speed Changes in Relapsing Multiple Sclerosis Subjects Treated With Ozanimod (Celegene RPC-1063-MS-001)	$3,042
NISAR, TAHA	YALE UNIVERSITY	012043-138674-02	Anticoagulation in ICH Survivors for Prevention and Recovery (ASPIRE) Study	$3,178
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)	$8,153

SALEEMI, MUHAMMAD	THE NEUROLOGICAL INSTITUTE OF NEW YORK	010785-138674-02a	ARCADIA Clinical Trial through the NIH Stroke Net	$11,834
SUGG, REBECCA	UNIVERSITY OF CINCINNATI	012044-138674-02	Saturn 3B: R26-S02	$1,500
			Total	$42,387

Obstetrics and Gynecology

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
ROTH, TRACY	PFIZER	63887	A Phase 3, Randomized, Double- or Observer-Blinded, Placebo-Controlled Trial to EvaluateThe Efficacy and Safety of a Respiratory Syncytial Virus (RSV) Perfusion FSubunit Vacine in Infants Born to Women Vaccinated During	$46,868
			Total	$46,868

Orthopaedics

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
MCDONALD, TYLER	ORTHOPEDIATRICS	23-0327	Orthopediatrics Educational Grant for HCPs in-Training	$1,000
			Total	$1,000

Pathology

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
CHAKROBORTY, DEBANJAN *CO-INVESTIGATORS* SINGH, SEEMA HERRERA, ELBA	BREAST CANCER RESEARCH FOUNDATION OF ALABAMA	CHECK# 002070	WNK1, A Novel Regulator of Metastatic Breast Cancer	$50,000
DEL POZO-YAUNER, LUIS *CO-INVESTIGATORS* MULEKAR, MADHURI HERRERA, ELBA	BREAST CANCER RESEARCH FOUNDATION OF ALABAMA	CHECK# 002072	Contribution of PERK+ Polyploid Giant Cancer Cells in the Ethnic Disparity of Triple Negative Breast Cancer	$50,000
KNOWLES, KURT	ALABAMA DEPARTMENT OF PUBLIC HEALTH	GC-23-337 (C30116207)	USA Maternal Autopsy Program	$100,000
SINGH, AJAY *CO-INVESTIGATORS* SINGH, SEEMA DASGUPTA, SANTANU CARTER, ELLIOT	DEPARTMENT OF DEFENSE	HT9425-23-1-0452	Signaling Interplay Underlying Prostate Cancer Racial Disparity	$1,386,000
SINGH, SEEMA	BREAST CANCER RESEARCH FOUNDATION OF ALABAMA	CHECK# 002071	Influence of Stress on Immune Landscape and Spatial Heterogeneity of Breast Cancer	$50,000
SINGH, SEEMA *CO-INVESTIGATORS* SINGH, AJAY DANIEL, CASEY HANKS, ROMA	NATIONAL INSTITUTES OF HEALTH	5 R01 CA231925-05	Impact of Social Factors on Breast Cancer Biology in African-American Women	$605,875
			Total	$2,241,875

Pediatrics

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
ANDERSON, STEPHANIE	ALABAMA DEPARTMENT OF MENTAL HEALTH/MENTAL RE	A23-0008	Regional Autism Network (RAN)	$137,000
ESTRADA, BENJAMIN *CO-INVESTIGATOR* CUSTODIO, HAIDEE	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000522211-SC016-Amend 5 EV Stu	Congenital and Perinatal Invections Rare Diseases Clinical Research Consortium-EV STUDY	$5,000
ESTRADA, BENJAMIN	UNIVERSITY OF ALABAMA AT BIRMINGHAM	A22-0217	Acute Flaccid Myelitis (AFM)	$25,750
ESTRADA, BENJAMIN	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000522211-SC016-A05 CMV FU	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.	$6,999
EYALS, FABIEN	ROCHE DIAGNOSTICS OPERATIONS, INC	63915	Reference Range and Clinical Performance Evaluation of Elecsys IL-6 Assay in Neonatal Sepsis (US); Collection Study (Roche Study #0165/0661)	$2,632
GREMSE, DAVID	PHATHOM PHARMACEUTICALS, INC	63917	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 Adolescents with Symptomatic Gastroesophageal Reflux Disease (Phathom VPED-102)	$65,963
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)	$38,893
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)	$13,067
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)	$8,800
GREMSE, DAVID	FERRING PHARMACEUTICALS	93932	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)	$8,700
IMRAN, HAMAYAN	JAZZ PHARMACEUTICALS	AR06985-02	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

IMRAN, HAMAYAN	AMAZON	A22-0200-02	Amazon Supplemental Payments	$10,000
IMRAN, HAMAYAN	SPRINGWORKS THERAPEUTICS, INC.	A21-0240-01	ARST1921 "A Safety, Pharmacokinetic and Efficacy Study of y-Secretase Inhibitor, Nirogacestate (PH03084014) in Children and Adolescents with Progressive, Surgically Unresectable Desmoid Tumors"	$23,480
IMRAN, HAMAYAN	PUBLIC HEALTH INSTITUTE	NON-INDUSTRY RCR-02	COG Per Case Reimbursement Non-Industry Sources from PHI	$8,720
IMRAN, HAMAYAN	PUBLIC HEALTH INSTITUTE	PCR Per Case Reimbursement-3	Per Case Reimbursement - NCTN Operations Grant U10CA180886	$36,876
IMRAN, HAMAYAN	PUBLIC HEALTH INSTITUTE	WLI - Work Load Intensity-02	PHI Workload Intensity under NCTN Grant U10CA180886	$11,000
IMRAN, HAMAYAN	CHILDRENS HOSPITAL OF PHILADELPHIA	FP00026528_SYB364-04	Per Case Reimbursement - NIH National Clinical Trials Network (NCTN) Grant (2U10CA180886) Successor to NIH National Clinical Trials Network (NCTN Grant (U10CA180886)	$2,000
IMRAN, HAMAYAN	GEORGETOWN UNIVERSITY	AR60689	ALTE2031 A Randomized Trial of Mobile Health and Social Media Physical Activity Intervention Among Adolescent and Young Adult Childhood Cancer Survivors.	$600
IMRAN, HAMAYAN	ST. BALDRICKS FOUNDATION	A22-0212-001-01	St. Baldrick's Foundation Supplemental Per-Case Reimbursement	$7,200
KAULFERS, ANNE-MARIE	ALABAMA DEPARTMENT OF PUBLIC HEALTH	GC-23-097 (C30116059)	Endocrinology Clinic for Newborn Screening	$22,000
MARRI, PREETHI	GLOBAL BLOOD THERAPEUTICS, INC	63911	A Randomized, Double-blind, Placebo-controlled, Multicenter Study to Assess the Safety and Efficacy of Inclacumab in Participants with Sickle Cell Disease Experiencing Vasoocclusive Crises (GBT2104-131)	$16,626
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)	$4,216
MESSEMER, JANE	AMERICAN ACADEMY OF PEDIATRICS	23-0277	Section on Pediatrics Trainees Health Equity Grant Program	$3,300
RAMANI, MANIMARAN	UNIVERSITY OF PITTSBURGH	AWD00001006(133613-19)	Neonatal Intensive Care Unit Antibiotics and Outcomes Trial	$21,569
WHITEHURST, R	CHIESI FARMACEUTICI	63895	A Phase II, multicenter, double blind, double dummy, randomized, 2 arms parallel study to evaluate the efficacy, safety and pharmacokinetics of CHF6563 in babies with Neonatal Opioid Withdrawal Syndrome (Chiesi CLI-06563AA1-02)	$2,050
WILSON, FELICIA	ALABAMA DEPARTMENT OF PUBLIC HEALTH	GC-23-098 (C30116060)	Comprehensive Sickle Cell Center for the State Newborn Screening Program	$22,000
			Total	$510,441

Pharmacology

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
BORCHERT, GLENN	NATIONAL SCIENCE FOUNDATION	2243532	Collaborative Research: D2R2 Ideas Lab: The Role of Extracellular RNA in Intercellular and Interkingdom Communication	$796,460
BORCHERT, GLENN	NATIONAL SCIENCE FOUNDATION	NSF 2219900-02	Salmonella sRNAs Drive the Decision Between Active Stress Resistance and Persister Cell Dormancy	$318,036

GILLESPIE, MARK CO-INVESTIGATORS PASTUKH, VICTOR	UNIVERSITY OF ALABAMA BIRMINGHAM	000535933-SC001	Mitochondrial DNA Injury is a Key Contributor to the Development of Chemical Lung Injury	$221,109
GILLESPIE, MARK *CO-INVESTIGATORS* BORCHERT, GLENN WILSON, EMILY MULEKAR, MADHURI GRAVES, REBECCA ARRIETA, MARTHA	UNIVERSITY OF ALABAMA BIRMINGHAM	00520679-SC010-06	University of South Alabama Translational Research Service Center	$193,978
GILLESPIE, MARK CO-INVESTIGATORS BORCHERT, GLENN WILSON, EMILY MULEKAR, MADHURI GRAVES, REBECCA ARRIETA, MARTHA	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000520679-SC010-A05	University of South Alabama Translational Research Service Center	$3,234
GILLESPIE, MARK	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000528823-SC001-A01	Mitigation of Chlorine Injury to Mitochondria	$15,000
LANGLEY, RAYMOND *CO-INVESTIGATORS* BENTON, RYAN	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000524523-SC003-A02A	Transcriptomic Endotypes in ARDS, Pneumonia and Sepsis via Liquid Biopsy	$51,595
MIGAUD, MARIE	AMERICAN CHEMICAL SOCIETY	A23-0110	Project Seed 2023	$4,000
MIGAUD, MARIE	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000534308-SC001-A01	Dihydroxyacetone Induced Metabolic Reprogramming	$63,040
MIGAUD, MARIE	UNIVERISTY OF IOWA	S04093-01	Targeting Serotonin Metabolism in SBNETs	$10,000
MIGAUD, MARIE	ELYSIUM HEALTH	A23-0098	Development of Nicotinamide-Riboside plus Pterostilbene as a Disease Modifying Osteoarthritis Therapeutic	$30,626
MIGAUD, MARIE	UNIVERSITY OF BERGEN	309567-02	Norwegian Students for Training in Medicinal Chemistry	$16,185
MIGAUD, MARIE	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION	P70000049	Lessening NAD(P) Hyper-oxidation to Retain Repair and Maintenance Capacity in Space	$122,892
MIGAUD, MARIE	UNIVERSITY OF PENNSYLVANIA	10086652	Understanding the Roles of Cardiac NAD Pools and Therapeutic Effects of Precursor Supplements in Heart Failure	$81,036
MIGAUD, MARIE	ELYSIUM HEALTH, INC.	A19-0143-03	Design, Development and Chemical Syntheses of Tools and Processes to Explore the Landscape of B-vitamin in Health and in Disease	$229,263
RICH, THOMAS	NATIONAL INSTITUTES OF HEALTH	1 R01 HL169522-01	Compartmentalized Signaling and Crosstalk in Airway Myocytes	$581,585
RICH, THOMAS *CO-INVESTIGATORS* CAGE,MARCY	HOWARD HUGHES MEDICAL INSTITUTE	GT16679	PM2.5 and P. Aeruginosa Synergistically Triggers Increased Permeability in the Lung	$159,000
RICH, THOMAS	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000524523-sc003-A02	PM2.5 and P. Aeruginosa Synergistically Triggers Increased Permeability in the Lung	$51,595
RICH, THOMAS	AMERICAN HEART ASSOCIATION	AHA 903376-02	Undergraduate Summer Research Experience at University of South Alabama	$33,946
			Total	$2,982,580

Physiology and Cell Biology

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding

COHEN, MICHAEL	BOEHRINGER INGELHEIM PHARMACEUTICALS, INC.	A20-0072-04	Cluster-randomized Clinical Trial to Test the Effectiveness of an Innovative, Clinic-level Implementation Strategy to Improve the Management of Patients with T2DM and Cardiovascular Disease	$3,074
LEE, JI YOUNG *CO-INVESTIGATORS* ALEXEYEV, MIKHAIL RICH, THOMAS STEVENS, TROY	NATIONAL INSTITUTES OF HEALTH	5 R01 HL160988-02	Acidosis in Pulmonary Endothelial Injury and Repair	$385,000
LEE, JI YOUNG *CO-INVESTIGATORS* STEVENS, TROY	NATIONAL INSTITUTES OF HEALTH	23PRE1020594	Carbonic Anhydrase IX Acts as a Novel C02/HC03 - Sensor and Protects the Pulmonary Endothelial Barrier from Acidosis	$32,553
LEE, JI YOUNG *CO-INVESTIGATORS* STEVENS, TROY	NATIONAL INSTITUTES OF HEALTH	1 F31 HL165873-01A1	Carbonic Anhydrase IX Signaling Protects the Pulmonary Endothelial Barrier	$31,694
LIN, MIKE *CO-INVESTIGATORS* BALCZON, RONALD STEVENS, TROY	NATIONAL INSTITUTES OF HEALTH	5 R01 HL140182-06	Nosocomial Pneumonias Impair Cognitive Function	$464,129
NELSON, AMY R.	UNIVERSITY OF CALIFORNIA	A21-1324-S024	Diverse VCID: White Matter Lesion Etiology of Dementia in Diverse Populations	$510,279
NELSON, AMY R.	UNIVERSITY OF CALIFORNIA	A21-1324-S024-01	Diverse VCID: White Matter Lesion Etiology of Dementia in Diverse Populations	$57,750
STEVENS, TROY	NATIONAL INSTITUTES OF HEALTH	1 R01 HL167997-01	Soluble Adenylyl Cyclase's in Lung Endothelial Tauopathy	$496,752
STEVENS, TROY CO-INVESTIGATOR ALEXEYEV, MIKHAIL BALCZON, RONALD D. LEE, JI YOUNG	NATIONAL INSTITUTES OF HEALTH	5 R01 HL148069-04	Lung Endothelial Aß in Infectious Proteinopathy	$385,000
STEVENS, TROY *CO-INVESTIGATOR* RICH, THOMAS	OFFICE OF NAVAL RESEARCH	A22-0136 SUBFUND-02	Development of Next Generation C02 Capture Processes for Naval Applications	$350,600
TAYLOR, MARK CO-INVESTIGATORS FRANCIS, MICHAEL LIN, MIKE WEBER, DAVID	NATIONAL INSTITUTES OF HEALTH	5 R01 HL155288-03	Network Signature of Low-Flow Endothelial Dysfunction	$385,000
			Total	$3,101,831

Surgery

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
BRIGHT, ANDREW	MEDIWOUND	63879	Use of Nexobrid for Treatment of Acute Deep Partial and Full Thickness Burn Injuries (MediWound MW2018-06-21)	$6,129

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)	$10,362
HOWARD, JOHN	NRG ONCOLOGY	51801-02	A Phase II Randomized Study of Adjuvant Versus Neoadjuvant Pembrolizumab for Clinically Detectable Stage III-IV High-Risk Melanoma	$8,550
HOWARD, JOHN	SOUTHWEST ONCOLOGY GROUP	A23-0095	S2015 Melanoma Margins Trial (MelMArT): A Phase III, Multi-Centre, Multi-National Randomized Control Trial Investigating 1 cm v 2cm Wide Excision Margins for Primary Cutaneous Melanoma	$10,000
RICHARDS, WILLIAM	TORAX MEDICAL, INC.	63910	The CALIBER Study: Randomized Controlled Trial of LINX versus Double-Dose Pump Inhibitor Therapy for Reflux Disease (Torax Rethink Reflux Registry)	$8,252
RIDER, PAUL	PALISADE	63914	A Randomized, Double-Blind, Placebo-Controlled Proof of Concept Study to Evaluate LB1148 for Return of Gastrointestinal Function, Post-Operative Ileus and Intra-Abdominal Adhesions in Subjects Undergoing Elective Bowel Resection (PROFILE) (Palisade Bio LBS-POI-201)	$16,099
			Total	$59,392

Mitchell Cancer Institute (SAMSF PROJECTS ONLY)

Principal Investigator	Agency	Grant ID#	Title	Fiscal Year Funding
BUTLER, THOMAS	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)	$9,624
			Total	$9,624