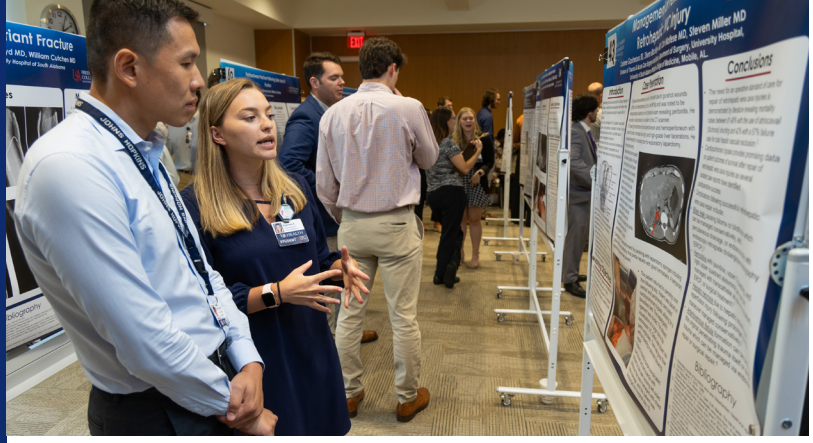




# Annual Report

## August 1, 2024 - July 31, 2025

FREDERICK P. WHIDDON
COLLEGE OF MEDICINE
UNIVERSITY OF SOUTH ALABAMA










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

**August 1, 2024 through July 31, 2025**

# FOREWORD

The 2024–2025 annual report highlights the remarkable achievements of the faculty, staff and students of the Frederick P. Whiddon College of Medicine in teaching, research, scholarship and community service. These accomplishments reflect the dedication, innovation and collaborative spirit that continue to advance our mission and strengthen our impact across the region and beyond.

This year marked significant progress toward the future of medical education and research at the University of South Alabama. In September, the Whiddon College of Medicine celebrated a major milestone in the construction of the new medical education and research building with a beam-signing ceremony. Faculty, staff, students and community partners signed the beam, including members of the Class of 2028, who will be the first graduating class to learn and train in the new facility. The 295,000-square-foot building is scheduled to open in 2027 and will serve as a transformative space for education, discovery and collaboration.

Student success was evident on Match Day this spring, when members of the Class of 2025 learned where they would continue their medical training in residency programs across the country. Nearly half of the class – 46% – matched at programs in Alabama, including 18 students who matched at USA Health hospitals.

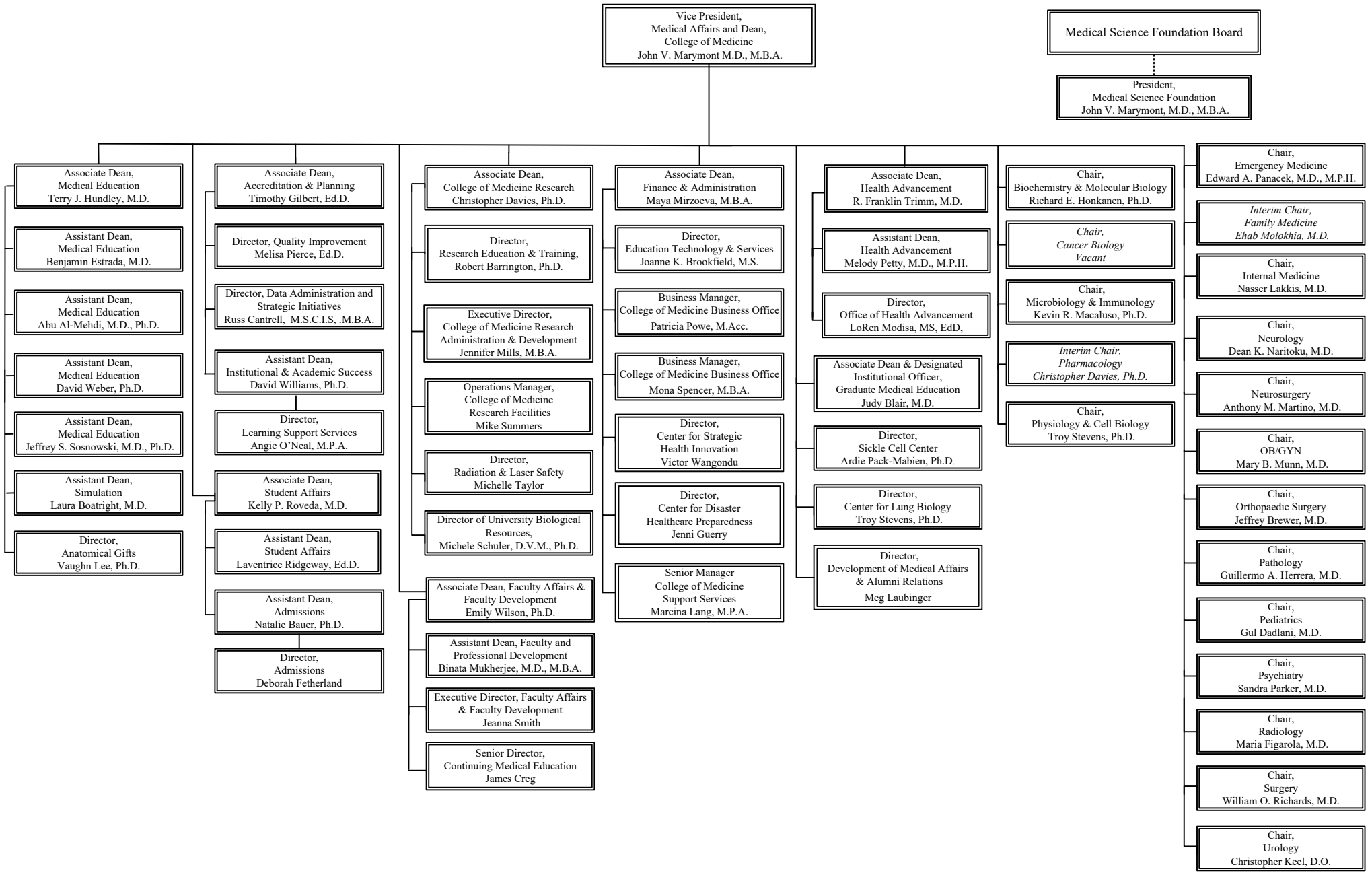
The College also welcomed dynamic leadership transitions that will help guide us into the future. Following the retirement of Kelly Roveda, M.D., Laventrice Ridgeway, Ed.D., was named associate dean for student affairs after previously serving as assistant dean for student affairs.

The collective and individual accomplishments featured throughout this report are made possible by the exceptional dedication of our faculty, staff and students. I extend my sincere gratitude to each member of our College community for their continued commitment to excellence and for the meaningful contributions they make to our mission every day.



Jeff La Rochelle (May 22, 2026 09:00:46 CDT)

Dr. Jeffrey La Rochelle
Dean
Frederick P. Whiddon College of Medicine


Vice President,
Medical Affairs and Dean,
College of Medicine
John V. Marymont M.D., M.B.A.
Medical Science Foundation Board
President,
Medical Science Foundation
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Assistant Dean,
Medical Education
Benjamin Estrada, M.D.
Assistant Dean,
Medical Education
Abu Al-Mehdi, M.D., Ph.D.
Assistant Dean,
Medical Education
David Weber, Ph.D.
Assistant Dean,
Medical Education
Jeffrey S. Sosnowski, M.D., Ph.D.
Assistant Dean,
Simulation
Laura Boatright, M.D.
Director,
Anatomical Gifts
Vaughn Lee, Ph.D.
Associate Dean,
Accreditation & Planning
Timothy Gilbert, Ed.D.
Director, Quality Improvement
Melisa Pierce, Ed.D.
Director, Data Administration and
Strategic Initiatives
Russ Cantrell, M.S.C.I.S, .M.B.A.
Assistant Dean,
Institutional & Academic Success
David Williams, Ph.D.
Director,
Learning Support Services
Angie O'Neal, M.P.A.
Associate Dean,
Student Affairs
Kelly P. Roveda, M.D.
Assistant Dean,
Student Affairs
Laventrice Ridgeway, Ed.D.
Assistant Dean,
Admissions
Natalie Bauer, Ph.D.
Director,
Admissions
Deborah Fetherland
Associate Dean,
College of Medicine Research
Christopher Davies, Ph.D.
Director,
Research Education & Training,
Robert Barrington, Ph.D.
Executive Director,
College of Medicine Research
Administration & Development
Jennifer Mills, M.B.A.
Operations Manager,
College of Medicine
Research Facilities
Mike Summers
Director,
Radiation & Laser Safety
Michelle Taylor
Director of University Biological
Resources,
Michele Schuler, D.V.M., Ph.D.
Associate Dean, Faculty Affairs &
Faculty Development
Emily Wilson, Ph.D.
Assistant Dean, Faculty and
Professional Development
Binata Mukherjee, M.D., M.B.A.
Executive Director, Faculty Affairs
& Faculty Development
Jeanna Smith
Senior Director,
Continuing Medical Education
James Creg
Associate Dean,
Finance & Administration
Maya Mirzoeva, M.B.A.
Director,
Education Technology & Services
Joanne K. Brookfield, M.S.
Business Manager,
College of Medicine Business Office
Patricia Powe, M.Acc.
Business Manager,
College of Medicine Business Office
Mona Spencer, M.B.A.
Director,
Center for Strategic
Health Innovation
Victor Wangondu
Director,
Center for Disaster
Healthcare Preparedness
Jenni Guerry
Senior Manager
College of Medicine
Support Services
Marcina Lang, M.P.A.
Associate Dean,
Health Advancement
R. Franklin Trimm, M.D.
Assistant Dean,
Health Advancement
Melody Petty, M.D., M.P.H.
Director,
Office of Health Advancement
LoRen Modisa, MS, EdD,
Associate Dean & Designated
Institutional Officer,
Graduate Medical Education
Judy Blair, M.D.
Director,
Sickle Cell Center
Ardie Pack-Mabien, Ph.D.
Director,
Center for Lung Biology
Troy Stevens, Ph.D.
Director,
Development of Medical Affairs
& Alumni Relations
Meg Laubinger
Chair,
Biochemistry & Molecular Biology
Richard E. Honkanen, Ph.D.
Chair,
Cancer Biology
Vacant
Chair,
Microbiology & Immunology
Kevin R. Macaluso, Ph.D.
Interim Chair,
Pharmacology
Christopher Davies, Ph.D.
Chair,
Physiology & Cell Biology
Troy Stevens, Ph.D.
Chair,
Emergency Medicine
Edward A. Panacek, M.D., M.P.H.
Interim Chair,
Family Medicine
Ehab Molokhia, M.D.
Chair,
Internal Medicine
Nasser Lakkis, M.D.
Chair,
Neurology
Dean K. Naritoku, M.D.
Chair,
Neurosurgery
Anthony M. Martino, M.D.
Chair,
OB/GYN
Mary B. Munn, M.D.
Chair,
Orthopaedic Surgery
Jeffrey Brewer, M.D.
Chair,
Pathology
Guillermo A. Herrera, M.D.
Chair,
Pediatrics
Gul Dadlani, M.D.
Chair,
Psychiatry
Sandra Parker, M.D.
Chair,
Radiology
Maria Figarola, M.D.
Chair,
Surgery
William O. Richards, M.D.
Chair,
Urology
Christopher Keel, D.O.

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# 2024-2025
# Summary of Scholarly Activities
# Department of Biochemistry and Molecular Biology

## Section I – Department Overview and Highlights

The Department of Biochemistry and Molecular Biology continues to advance the University of South Alabama College of Medicine's mission in teaching, research, and service. Over the past year, the department strengthened its academic and research portfolio through impactful faculty contributions, notable scientific discoveries, expanded scholarly activity, and sustained engagement in medical and graduate education. A national faculty search attracted strong candidates committed to multidisciplinary research; however, hiring is currently paused due to uncertainties in federal research allocations and pending administrative decisions intended to determine the most strategic direction for the University.

The department remains firmly committed to its educational mission, contributing substantively to the undergraduate medical curriculum across principles of foundational medicine, endocrinology, cardiovascular, and musculoskeletal modules. These efforts ensure medical students receive a strong integration of molecular mechanisms with clinical relevance. In the graduate program, faculty continued to lead essential coursework, including the newly developed IDL 590 Genome Engineering course directed by Dr. Mark Swingle, GSI 501 directed by Dr. Prakash, and additional core offerings such as IDL 576 and IDL 577 under the leadership of Drs. Swingle and Honkanen. All faculty within the department participate in teaching core graduate courses, including IDL 577, 580, and or 581, reflecting the department's commitment to comprehensive, collaborative, and high-quality graduate education.

Graduate and postdoctoral training remains a cornerstone of the department's mission. This year, the department supported three Ph.D. candidates who received advanced training in molecular and cellular biology. One of these students, Chenchen Li, successfully completed the Ph.D. program under the mentorship of Drs. Swingle and Honkanen. Postdoctoral fellows continued to receive advanced scientific training in the laboratories of Drs. Richter, Prakash, Swingle, and Davies, each offering specialized guidance in innovative and emerging areas of research. The department also maintains strong engagement in undergraduate and summer medical research training. A notable example is medical student Harris Bolus, mentored by Dr. Swingle, who presented his research findings at the ACP Internal Medicine Meeting in New Orleans.

Research productivity within the department remained robust, with faculty publishing in high-impact scientific journals and presenting their work at major national and international conferences. Significant research contributions this year included advances in tau biology, inositol phosphate signaling, protein phosphatases, multidrug resistance mechanisms, phosphodiesterase biology, and new insights into cancer and DNA damage repair. A major research highlight was the publication of Dr. Grelet's paradigm-shifting discovery related to neuron–cancer cell interactions in Nature, underscoring the department's growing impact in cancer biology. These research accomplishments were supported by extramural funding from the National Institutes of Health, the National Science Foundation, the American Cancer Society, the Cystic Fibrosis

Research Institute, and the Jordan's Guardian Angels Foundation, supplemented by internal funding from both the College of Medicine and the University of South Alabama.

Faculty received numerous recognitions for their scholarship and professional leadership. Dr. Grelet was invited to present his research on mitochondrial transfer in cancer at the World Congress on Targeting Mitochondria, where he received the Best Scientific Contribution Award for 2025. His achievements were further recognized through receipt of the Mayer Mitchell Annual Award for Excellence in Cancer Research. Dr. Prakash was similarly honored at the Research and Technology Showcase with an Award for Academic Research Excellence. Faculty members continued to contribute to national and international scientific organizations and editorial boards, reflecting their ongoing influence and leadership within the broader research community.

In summary, the Department of Biochemistry and Molecular Biology made significant progress this year in research, education, and service. The department maintained strong research output, enriched medical and graduate education, expanded scientific visibility, and continued to mentor trainees across multiple educational levels. With focused efforts to resume faculty recruitment, continued pursuit of competitive research funding, and a steadfast commitment to excellence in teaching and discovery, the department is well positioned for continued growth and success in the coming years.

**Section II – Faculty Scholarly Activity and Professional Recognition**

**Andrews, Joel, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Al-Rahahleh RQ, Roos WP, Saville KM, Andrews JF, Wu Z, Koczor CA, Prakash A, Sobol RW. Overexpression of the WWE domain of RNF146 modulates poly-(ADP)-ribose dynamics at sites of DNA damage. DNA Repair (Amst). 2025 Jun;150:103845.

Barik S, Andrews J. Host-parasite interactions in T*oxoplasma gondii*-infected cells: roles of mitochondria, microtubules, and the parasitophorous vacuole. Int J Mol Sci. 2024 Dec 16;25(24):13459.

Hoover G, Gilbert S, Curley O, Obellianne C, Lin MT, Hixson W, Pierce TW, Andrews JF, Alexeyev MF, Ding Y, Bu P, Behbod F, Medina D, Chang JT, Ayala G, Grelet S. Nerve-to-cancer transfer of mitochondria during cancer metastasis. Nature. 2025 Aug;644(8075):252-262.

Saville KM, Al-Rahahleh RQ, Siddiqui AH, Andrews ME, Roos WP, Koczor CA, Andrews JF, Hayat F, Migaud ME, Sobol RW. Oncometabolite 2-hydroxyglutarate suppresses basal protein levels of DNA polymerase beta that enhances alkylating agent and PARG inhibition induced cytotoxicity. DNA Repair (Amst). 2024 Aug;140:103700.

Thompson MK, Eggers MH, Flores D, Valenzuela I, Yang Z, Andrews JF, Johnsten T, Prakash A. Development and characterization of a novel NEIL1 nanobody. DNA Repair (Amst). 2025 Jun;150:103849.

**Abstracts**

Balczon R, Choi SK, Kolb C, Andrews J, Stone M, Peoples J, deWeever A, Sayner S, Francis M, Alexeyev M, Fisher I, Nelson AR, Lin MT, Stevens T. Bigg tau assembles into cytotoxic hyperphosphorylated oligomers during *Pseudomonas aeruginosa* infection in lung capillary endothelial cells. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

Stevens RP, Andrews J, Solodushko V, Pastukh V, Stevens T, Honkanen R, Swingle M, Lee JY. In vitro phase separation of PPM1B during hypercapnia. Am J Respir Crit Care Med. 2025;211:A2182.

Stevens R, Solodushko V, Andrews J, Pastukh V, Stevens T, Honkanen R, Swingle M, Lee JY. PPM1B forms biomolecular condensates and inhibits NF-kB signaling during hypercapnia: evidence and support for direct carbon dioxide sensing? Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

**Professional recognitions**

Study sections for grant review: Swiss National Science Foundation (SNSF), Canadian Foundation for Innovation JELF program. Ad hoc journal reviewer, *Biomolecules, Cells, Journal of Imaging, Big Data, Cognitive Computing*.

**Balczon, Ronald, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

**Abstracts**

Balczon R, Choi SK, Kolb C, Andrews J, Stone M, Peoples J, deWeever A, Sayner S, Francis M, Alexeyev M, Fisher I, Nelson AR, Lin MT, Stevens T. Bigg tau assembles into cytotoxic hyperphosphorylated oligomers during *Pseudomonas aeruginosa* infection in lung capillary endothelial cells. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

Corrier G, Turnage E, Perkinson K, Balczon R, Choi CS, Frank D, Lin M, Stevens T, Morrow R, Morrow KA, Voth S. Pseudomonas infection generates Ser-214-phosphorylated tau to impair innate antimicrobial amyloid function. 2024 America College of Osteopathic Surgeons Annual Clinical Assembly of Osteopathic Surgeons; 2024 Sep 25-29; Orlando, FL.

Jackson L, Choi C, Stone M, Stevens RP, Clark J, Frank DW, Sayner S, Lee JY, Balczon R, Lin MT, Migaud ME, Stevens T. Filamentous actin as a determinant of ExoY-induced purine and pyrimidine cyclic nucleotide monophosphate signaling in pulmonary microvascular endothelium. Physiology. 2025 May;40(S1):0289. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.0289

Lin MT, Alexeyev M, Zhou C, Chaney S, Choi C, Stone M, Bauman AJ, Ayers L, Stevens RP, Lee JY, Sayner S, Balczon R, Nelson AR, Stevens T. Lung capillary endothelial tau expression promotes alveolar-capillary barrier integrity following *Pseudomonas aeruginosa* pneumonia. Physiology. 2025 May;40(S1):0390. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.0390.

Spedale J, Kolb C, Stevens T, Balczon R, Ravine T. *Pseudomonas aeruginosa* exoenzyme Y does not promote increased ubiquitin expression in pulmonary microvascular endothelial cells at 4 hours infection. J Biol Chem. 2025;301:5:109580. Abstract no. 1189.

**Professional recognitions**

Editorial Board: *Biology, Frontiers in Medicine*. Reviewer: Gorgas Scholarship Program, Alabama Academy of Sciences. Judge: Oral presentations, Alabama Academy of Sciences; Summer Student Research Day, College of Medicine.

**Davies, Christopher, Ph.D.**

**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

Uehara T, Zulli AL, Miller B, Avery LM, Boyd SA, Chatwin CL, Chu GH, Drager AS, Edwards M, Emeigh Hart SG, Myers CL, Rongala G, Stevenson A, Uehara K, Yi F, Wang B, Liu Z, Wang M, Zhao Z, Zhou X, Zhao H, Stratton CM, Bala S, Davies C, Tkavc R, Jerse AE, Pevear DC, Burns CJ, Daigle DM, Condon SM. bioRxiv [Preprint]. 2024 Dec 27:2024.12.27.630553. doi: 10.1101/2024.12.27.630553.

**Abstracts**

Bala S, Stratton C, Singh A, Monteiro-Pai J, Bivins M, Tomberg J, Nicholas R, Davies C. The central role of the β3-β4 loop of penicillin-binding protein 2 in the cephalosporin resistance of *N. gonorrhoeae*. 24th International Pathogenic Neisseria Conference; 2025 Mar 30-Apr 4; Florence, Italy. Available from:

https://ipnc2025.com/media/template/ipnc/download/Book%20of%20Abstract%20-%20IPNC%202025.pdf

Gentile G, Tomberg J, Lavigne S, Davies C, Nicholas R. Identification of two expanded-spectrum cephalosporins that target penicillin-binding protein 1 (PBP1) in *Neisseria gonorrhoeae*. 24th International Pathogenic Neisseria Conference; 2025 Mar 30-Apr 4; Florence, Italy. Available from: https://ipnc2025.com/media/template/ipnc/download/Book%20of%20Abstract%20-%20IPNC%202025.pdf

Monteiro-Pai J, Stratton C, Bala S, Bivins M, Nicholas R, Davies C. Active-site tyrosine-422 is crucial for acylation and transpeptidation in penicillin-binding protein 2 from multi-drug resistant *Neisseria gonorrhoeae* H041. 24th International Pathogenic Neisseria Conference; 2025 Mar 30-Apr 4; Florence, Italy. Available from: https://ipnc2025.com/media/template/ipnc/download/Book%20of%20Abstract%20-%20IPNC%202025.pdf

**Invited presentations**

Davies, C. Invited speaker: How mutations in penicillin-binding protein 2 confer cephalosporin resistance to *N. gonorrhoeae.* Department of Biochemistry, Microbiology and Immunology & Vaccine and Infectious Disease Organization (VIDO), University of Saskatchewan, Canada

**Professional recognitions**

Grant reviewer and panelist: NIAID Centers of Excellence for Translational Research. Journal peer reviewer for *mBio* and *ACS Infectious Diseases*.

**Grelet, Simon, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Hoover G, Gilbert S, Curley O, Obellianne C, Lin MT, Hixson W, Pierce TW, Andrews JF, Alexeyev MF, Ding Y, Bu P, Behbod F, Medina D, Chang JT, Ayala G, Grelet S. Nerve-to-cancer transfer of mitochondria during cancer metastasis. Nature. 2025 Aug;644(8075):252-262.

**Professional recognitions**

Study sections for grant review: 2 applications in NIH Study Section ZRG1 CTH-E (57) R; CCTS Pilot Award Review Panel; COM Dean's Predoctoral Fellowship; COM Intramural Grants Program. Journal peer reviewer: *Molecular Cancer*, *EBioMedicine-The Lancet Discovery Science*.

**Honkanen, Richard, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Mayer A, Derua R, Spahn E, Verbinnen I, Zhang Y, Guzman M, Swingle MR, Wadzinski BE, Honkanen R, Janssens V, Xia H. The phosphatase activity of the PPP2R5D-PP2A holoenzyme modulates liprin-α1 liquid-liquid phase separation. J Biol Chem. 2025 Jul;301(7):110349.

**Abstracts**

Bolus H, Smolen K, Li C, Camp A, Roberts J, Feld A, Swingle M, Wadzinski B, Kettenbach A, Honkanen R. Phosphoproteomics and immunoprecipitation reveal dysregulation of ARHGEF2, cytoskeletal synamics, and RNA processing in models of Jordan Syndrome. American College of Physicians Internal Medicine Meeting; 2025 Apr 3-5; New Orleans, LA.

Stevens RP, Andrews J, Solodushko V, Pastukh V, Stevens T, Honkanen R, Swingle M, Lee J. In vitro phase separation of PPM1B during hypercapnia. Am J Respir Crit Care Med 2025;211:A2182.

Stevens R, Solodushko V, Andrews J, Pastukh V, Stevens T, Honkanen R, Swingle M, Lee JY. PPM1B forms biomolecular condensates and inhibits NF-kB signaling during hypercapnia: evidence and support for direct carbon dioxide sensing? Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

Stevens RP, Solodushko V, Pastukh VV, Stevens T, Tambe DT, Honkanen R, Swingle M, Lee JY. Developing a phase separation assay to study PPM1B signaling. American Thoracic Society International Conference; 2025 May 17-22; San Diego, CA. Abstract no. P39.

**Professional recognitions**

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 editorial board member: *Frontiers in Cell*, *Developmental Biology*.

**Plant, Lucia, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Rameh LE, York JD, Blind RD. Inositol phosphates dynamically enhance stability, solubility, and catalytic activity of mTOR. J Biol Chem. 2025 Feb;301(2):108095.

**Abstracts**

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

**Professional recognitions**

Journal peer reviewer: *Nature*, *Biochemical Pharmacology*, *JBC*.

**Prakash, Aishwarya, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Al-Rahahleh RQ, Roos WP, Saville KM, Andrews JF, Wu Z, Koczor CA, Prakash A, Sobol RW. Overexpression of the WWE domain of RNF146 modulates poly-(ADP)-ribose dynamics at sites of DNA damage. DNA Repair (Amst). 2025 Jun;150:103845.

Thompson MK, Eggers MH, Benton RG, Johnsten T, Prakash A. Artificial targeting of the NEIL1 DNA glycosylase to the mitochondria. Environ Mol Mutagen. 2024 Oct;65(8):243-250.

Thompson MK, Eggers MH, Flores D, Valenzuela I, Yang Z, Andrews JF, Johnsten T, Prakash A. Development and characterization of a novel NEIL1 nanobody. DNA Repair (Amst). 2025 Jun;150:103849.

**Abstracts**

Lu H, Wise JT, Meaza I, Prakash A, Vincent JB, Wise JP Sr. Particulate hexavalent chromium exposure disrupts mismatch repair in human lung cells. Toxicologist. 2025 Mar 5;2024-2025:565. Abstract no. 4437.

Patterson M, Chokshi S, Scalici J, Prakash A. Gene-environment synergisms and their role in cancer progression. Environmental Mutagenesis and Genomics. 2024 Sep;65(Suppl2):43. Abstract no. P08. Available from: https://onlinelibrary.wiley.com/doi/epdf/10.1002/em.22620

Pittman M, Thompson M, Eggers M, Prakash A. NEIL1-Nanobody epitope determination. Environmental Mutagenesis and Genomics. 2024 Sep;65(Suppl2):82. Abstract no. PS049. Available from: https://onlinelibrary.wiley.com/doi/epdf/10.1002/em.22620

Prakash A, Eggers M, Patterson M, Chokshi S, Scalici J. Inhibition of DNA mismatch repair by toxic metals. Toxicologist. 2025 March 5;2024-2025:60. Abstract no. 1274.

Prakash A. Gene-environment synergisms and their role in cancer. 55th Annual of Environmental Mutagenesis and Genomics Society. 2024 Sep 7-11; Palm Springs, CA. p. 17 Abstract no. 08.

Prakash A. Gene-environment synergisms and their role in cancer progression. 15th International Society of Trace Element Research in Human Conference; 2024 Oct 6-10; Murcia, Spain. p. 41. Abstract no. OC18.2.

**Invited presentations**

Prakash A. Invited speaker. A structural approach to understanding the function of DNA repair complexes. 55th Annual of Environmental Mutagenesis and Genomics Society; 2024 Sep 8; Palm Springs, CA.

Prakash A. Invited speaker. Gene-environment synergisms and their role in cancer progression. 15th International Society of Trace Element Research in Human Conference Annual Meeting; 2024 Oct 9; Murcia, Spain.

Prakash A. Invited speaker. Inhibition of DNA mismatch repair by toxic metals. Society of Toxicology 64th Annual Meeting and ToxExpo; 2025 Mar 16; Orlando, FL.

**Professional recognitions**

Ad hoc Reviewer: NIH/ CSR: MSFB (Molecular Structure and Function, Section B); NIH/CSR: CMAD (Cellular Mechanisms in Aging and Development). Journal guest editor, *Frontiers in Genetics*, *Cancer Genetics and Oncogenomics*. Special Issue: *Regulatory Networks in Genome Stability Pathways*, *Environmental and Molecular Mutagenesis* - Member of the Editor's Choice Award Committee. Journal peer reviewer, *NAR Cancer*, *Methods*, *Gene Reports*, *Molecules*, *Acta D*, *International Journal of Molecular Sciences*, *Molecular Biology Reports*, *FASEB Journal*, *Journal of International Medical Research*, *Genes*, *Plos one*, *Environmental and Molecular Mutagenesis*, *Anti-cancer Agents in Medicinal Chemistry*, *Cell Reports*, *Nature Communications*, *Meta Gene, Mitochondrial DNA*, *Nucleic Acids Research*, *DNA Repair*. Co-chair Women in the EMGS. Chair of Young Scientist Award Committee in the EMGS. Committee Member for EMGS Environmental and Molecular Mutagenesis, Nominating Committee, and New Directions Task Force Committee. Award winner of the 2024 Samuel H. Wilson Award for Studies on DNA Repair at the 55th Annual of Environmental Mutagenesis and Genomics Society.

**Richter, Wito, Ph.D.**
**Publications:**
**Abstracts**

Chancey Z, Irelan D, Boyd A, Fiedler E, Miller J, McDonough W, Lochmaier P, Richter W. Inhibition of cAMP-phosphodiesterase 4 (PDE4) protects from lipopolysaccharide-induced salivary gland dysfunction in mice. Southern Regional Honors Conference; 2025 Mar 27-29; Chattanooga, TN.

Chancey Z, Irelan D, Boyd A, Fiedler E, Miller J, McDonough W, Lochmaier P, Richter W. Type 4D cAMP-phosphodiesterase (PDE4D) as a novel therapeutic target in obesity. Southern Regional Honors Conference; 2025 Mar 27-29; Chattanooga, TN.

Chancey Z, Miller J, Irelan D, Boyd A, Fiedler E, McDonald W, Richter W. Type 4D cAMP-phosphodiesterase (PDE4D) as a novel therapeutic target in obesity. 102nd Annual Meeting of the Alabama Academy of Science; 2025 Feb 27-28; Montgomery, AL. p. 30.

Irelan D, Boyd A, Fiedler E, McDonough W, Lochmaier P, Aragon IV, Rachek L, Saleh LA, Richter W. Ablation of PDE4D reduces body weight improves glucose handling and increases energy expenditure in mice. Obesity. 2024 Nov;32(Suppl1):267. Abstract no. 535. Available from: https://onlinelibrary.wiley.com/doi/epdf/10.1002/oby.24195

Miller J, Boyd A, Richter W, Chancey Z, Fielder E, Irelan D. Inhibition of cAMP-phosphodiesterase 4 (PDE4) protects from lipopolysaccharide-induced salivary gland dysfunction in mice. 102nd Annual Meeting of the Alabama Academy of Science; 2025 Feb 27-28; Montgomery, AL. p. 30.

**Professional recognitions**

Study sections for grant review: NIH-ZRG1 CVRS - Small Business: Respiratory Sciences; NIH CSR ZRG1 RCCS –K. Journal editor: *MDPI*, *Biology*. Journal peer reviewer: *Biochemical Pharmacology*, *International Journal of Biological Macromolecules*, *International Journal of Molecular Sciences*, *Biology*, *Communications Biology*, *Life Sciences*.

**Swingle, Mark, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Mayer A, Derua R, Spahn E, Verbinnen I, Zhang Y, Guzman M, Swingle MR, Wadzinski BE, Honkanen R, Janssens V, Xia H. The phosphatase activity of the PPP2R5D-PP2A holoenzyme modulates liprin-α1 liquid-liquid phase separation. J Biol Chem. 2025 Jul;301(7):110349.

**Abstracts**

Bolus H, Smolen K, Li C, Camp A, Roberts J, Feld A, Swingle M, Wadzinski B, Kettenbach A, Honkanen R. Phosphoproteomics and immunoprecipitation reveal dysregulation of ARHGEF2, cytoskeletal dynamics, and RNA processing in models of Jordan Syndrome. American College of Physicians Internal Medicine Meeting; 2025 Apr 3-5; New Orleans, LA.

Stevens RP, Andrews J, Solodushko V, Pastukh V, Stevens T, Honkanen R, Swingle M, Lee J. In vitro phase separation of PPM1B during hypercapnia. Am J Respir Crit Care Med 2025;211:A2182.

Stevens R, Solodushko V, Andrews J, Pastukh V, Stevens T, Honkanen R, Swingle M, Lee JY. PPM1B forms biomolecular condensates and inhibits NF-kB signaling during hypercapnia: evidence and support for direct carbon dioxide sensing? Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

Stevens RP, Solodushko V, Pastukh VV, Stevens T, Tambe DT, Honkanen R, Swingle M, Lee JY. Developing a phase separation assay to study PPM1B signaling. American Thoracic Society International Conference; 2025 May 17-22; San Diego, CA. Abstract no. P39.

**Professional recognitions**

Journal peer reviewer: *Frontiers in Molecular Biosciences*.

**Section III – Research and Innovation Spotlight**




A new study, led by Simon Grelet, Ph.D., Assistant Professor of Biochemistry and Molecular Biology at USA's Frederick P. Whiddon College of Medicine, published in *Nature*, reveals that cancer cells can actively exploit the nervous system to promote tumor growth, survival, and metastasis. This groundbreaking research provides critical insights into how cancer cells interact with nearby nerve cells to enhance their aggressive behavior.

Grelet's team discovered that the nervous system contributes to cancer progression by giving tumor cells metabolic and survival advantages. Through experiments using botulinum neurotoxin type A (Botox) to disrupt communication between nerve cells and breast cancer cells, the researchers observed slower tumor growth, decreased tumor survival, and reduced aggressiveness when neural signaling was blocked. Bioinformatics analysis further showed that nerve-derived signals influence cancer metabolism, particularly energy production.

Using an advanced co-culture model and high-resolution microscopy, the team documented direct physical interactions between neurons and cancer cells, reinforcing the concept that tumors do not behave in isolation but instead form dynamic, reciprocal networks with surrounding nerve cells.

One defining characteristic of neurons, their exceptionally high energy metabolism, appears to be hijacked by cancer cells to fuel their own growth.

Further experiments demonstrated that cancer cells can acquire mitochondria from neurons, an event that boosts their metabolic capacity. Quantitative analysis revealed that blocking this mitochondrial transfer reduced energy flow from neurons to tumor cells by approximately 35%, significantly weakening the tumor's metabolic support system.

The study highlights that although neurons represent only a small fraction of the tumor mass, their contributions to cancer cell metabolism are disproportionately large. These findings provide a compelling explanation for why tumors enriched with nerve cells often grow more rapidly and are associated with poorer outcomes.

The publication was widely praised by leaders at USA, who noted that acceptance into *Nature* represents a major scientific achievement and underscores the national significance of the cancer research underway at the Mitchell Cancer Institute. The project involved a broad collaboration with multiple institutions, including researchers from McGovern Medical School at UTHealth Houston and faculty members within USA's College of Medicine.

Overall, this groundbreaking work identifies nerve–cancer interactions as a key driver of tumor aggressiveness and opens new avenues for therapeutic strategies targeting the neural contributions to cancer progression.

# 2024-2025
# Summary of Scholarly Activities
# Department of Emergency Medicine

## Section I – Department Overview and Highlights

In the past year, the Department of Emergency Medicine continued its trajectory of growth and maturation of multiple programs and activities. They are summarized by category:

**Clinical Activities:** The new Pediatric Emergency Center/Emergency Department at CWH became fully operational in the summer of 2024. It is arguably the most modern, state-of-the-art and sophisticated emergency department in the entire southeast dedicated to the care of children. During its first year, the patient care volume increased by over 5%. It is worth noting we have opened three new emergency departments in the past four years within the USA Health System. Patient care volumes in the UH ED and the Freestanding ED also increased by 3-8%. The University Hospital ED continued to be challenged by very high levels of boarding of admitted patients with resultant severe crowding. Nonetheless, the percentage of time the hospital was on diversion, and particularly full diversion, decreased. This is felt to be due to some changes in workflow and operational logistics in that emergency department. The Department of Emergency Medicine has collaborated with multiple other clinical service lines to standardize and optimize clinical patient care guidelines or pathways in all three of the emergency departments.

**Education:** The emergency medicine residency program continues to improve the quality and quantity of its educational activities, with an ongoing emphasis on simulation. The residents continue to score above the national average on national exams and there has been a 100% passing rate on the board certification exams to date. The residency program is increasing the number of residents, step by step, from six to 8 residents per class, and anticipates further expansion to 9-10 residents per class in the future. A proposal for a pediatric emergency medicine fellowship training program has been drafted and has received internal GMEC approval.

**Scholarship and Research:** During the past year, a new Vice-Chair for Emergency Medicine, Dr. Lisa Moreno-Walton, was hired. Her focus is on scholarship, research and faculty development. In conjunction with that, the number of peer review publications and other scholarly activities by EM faculty in 2024-25 were at the highest level in the history of the department. It is anticipated this will further increase in the years ahead. There has been scant extramural funding for research in EM and the goal is to expand that this coming year.

**Service and Leadership:** The level of EM faculty involvement in service and leadership activities both within the institution, as well as outside (nationally and even internationally), is at the highest level in its history. Several EM faculty are now serving on COM committees with an increasing EM presence on Health System committees. Internally, Dr. Panacek served as the Chair of the MEC for CWH and the immediate past-Chair of the MEC for UH. Dr. Timothy "Beau" Stokes chaired the relatively new and very active Point of Care Ultrasound committee for USA Health. In terms of extramural positions, Dr. Sternberg has been particularly active in leadership in multiple areas, including the Board of the Directors of the State Chapter of the American College of Emergency Physicians, President of the Medical Society of Mobile County, and on the Board of

Directors of the Mobile County Health Department. Dr. Rob Schneider is also on the State ACEP Board of Directors. The new Vice-Chair of the department, Dr. Lisa Moreno-Walton, has numerous national and international leadership positions in medicine. She is the immediate Past-President of the American Academy of EM and the President-elect of the American College of Academic International Medicine. Her involvement in national and international professional organizations is providing opportunities for participation of multiple other EM faculty at regional, national and international levels.

**Section II – Faculty Scholarly Activity and Professional Recognition**

**Dhillon, Reshvinder S., M.D.**
**Publications:**
**Journal Articles, Book Chapters and Patents**

Dhillon R, Nizami Z, Nair A. MYH7 hypertrophic cardiomyopathy with heart block presenting with papilledema: a case report. Prog Pediatr Cardiol. 2025 Mar;76:101798.

Dhillon RS, Weise M, Wrotniak BH, Cross K. Predictors of hospital admission in young patients with COVID-19. Int J Nurs Health Care Res. 2025 Feb 21;8(2):1620. Available from: https://www.gavinpublishers.com/article/view/predictors-of-hospital-admission-in-young-patients-with-covid-19

Nizami Z, Garcia P, Ahuja P, Nipper AJ, Patel S, Sheth H, Gajendran I, Dhillon R. Supraventricular tachycardia in children. Prog Pediatr Cardiol. 2025 Mar;76:101771.

**Abstracts**

Molins C, Dhillon R, Monaco D, Stroud S, Stokes T. Teaching ultrasound guided fascia iliaca block to EM residents. West J Emerg Med. 2025 Jun;26(3.1):S6. Abstract no. 10.

Nizami Z, Dhillon R. Effectiveness of sequential simulation-based training on pediatric resident performance: a 7-month prospective study. Pediatric Academic Societies Meeting; 2025 Apr 24-28. Honolulu, HI. Abstract no. 170. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=714695&Query=Effectiveness+of+sequential+simulation%2Dbased+training+&mode=posterinfo

**Invited presentations**

Dhillon RS. Invited speaker. Sonograph and subpoenas: point of care verdict [virtual presentation]. P2 Pediatric Emergency POCUS Educational Collaborative, Connecticut Children's; 2025 Mar 27; Harford, CT. Available from: https://nam11.safelinks.protection.outlook.com/?url=https%3A%2F%2Fconnecticutchildrens.zoom.us%2Frec%2Fshare%2FTUB_lZjazcy5DvHABXQqZ9lCHdjjZLP8SREavw_5CW9hP3G2WdCOmr4g937kNgr4.dZNo4-5g7KMynCoR%3Fpwd%3D4SUsmij140MC87nVCXd5r0EoxDpydfeq&data=05%7C02%7Cpthomas%40health.southalabama.edu%7C1771259c19064205e9b808de4f9ae986%7C220cf175e0

184a0cb122ff76febc4f2a%7C0%7C0%7C639035723926540913%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=nHzgTZzENegeepUnehRYMZs8JFFfkOzXS1gTnldByWs%3D&reserved=0

**Professional recognitions**

Pediatric Teacher of the Year.

**Garri, Richard, M.D.**
**Publications:**
**Journal Articles, Book Chapters and Patents**

Coots R, Garri R. I'm plugged up [Internet]. In: Hoglund J, Gallegos M, editors. SAEM clinical images series. San Francisco: Academic Life in Emergency Medicine; 2025 Apr 18; San Francisco, CA. Available from: https://www.aliem.com/saem-clinical-images-series-im-plugged-up/

**Goodloe, Travis B. 3rd, M.D.**
**Publications:**
**Journal Articles, Book Chapters and Patents**

Hargadon KM, Goodloe TB 3rd. A highly sensitive tissue-specific qRT-PCR-based assay for detection of melanoma cells in tumor-draining lymph nodes. Curr Protoc. 2025 Apr;5(4):e70139.

Hargadon KM, Goodloe TB 3rd, Woodall SL 2nd. Lymph node invasion by melanoma cells is not required for the induction of incomplete differentiation by tumor-specific CD8+ T cells. Cancer Rep (Hoboken). 2025 Feb;8(2):e70145.

**Invited presentations**

Goodloe TB 3rd. Invited speaker. Critical care blitz-cardiopulmonary review. 2024 Alabama EMS Conference; 2024 Nov 14; Orange Beach, AL.

Goodloe TB 3rd. Invited speaker. Implementation of rapid sequence intubation in a fire based EMS system. 2024 Alabama EMS Conference; 2024 Nov 13; Orange Beach, AL.

Goodloe TB 3rd. Invited speaker. Publications that every paramedic and nurse should know. 14th Annual Gulf Coast Trauma Symposium; 2025 Mar 27; Biloxi, MS.

Goodloe TB 3rd. Invited speaker. Alabama trauma communication system overview and question and answer session. Mobile County Healthcare Coalition; 2025 Jul 16; Mobile, AL.

**Professional recognitions**

Emergency Medicine Representative on the Regional Advisory Council of Alabama EMS Region Six.

**Lagasse, Grace, M.D.**
**Invited presentations**

Lagasse G. Invited speaker. EM approach to fever in the returning traveler. University Hospital; 2025 Jan 15; Cleveland, OH.

Lagasse G. Invited speaker. Advanced airway and use of capnography for EMS and ED nurse. 14th Annual Gulf Coast Trauma Symposium; 2025 Mar 27; Biloxi, MS.

**Professional recognitions**

Clinical non-IM Teacher of the year (Internal Medicine Graduation) 2025 June.

**Martinez Martinez, Carmen, M.D.**
**Publications**
**Articles, Book Chapters and Patents**

Molins C, Martinez Martinez CJ. Direct Observation Teaching Shifts (DOTS): an approach to using 360-degree assessments [internet]. Academic Medicine & Surgery. 2024 Dec 17. Available from: https://academic-med-surg.scholasticahq.com/article/125584-direct-observation-teaching-shifts-dots-an-approach-to-using-360-degree-assessments

**Abstracts**

Martinez Martinez CJ, Molins CM. Cost-effective low-fidelity pericardiocentesis training model. CORD Academic Assembly, MedTech Track; 2025 Mar 1-5; Seattle, WA.

**Molins, Caroline, M.D.**
**Publications**
**Journal Articles, Book Chapters and Patents**

Molins C, Martinez Martinez CJ. Direct Observation Teaching Shifts (DOTS): an approach to using 360-degree assessments. Academic Medicine & Surgery. 2024 Dec 17.
Available from: https://academic-med-surg.scholasticahq.com/article/125584-direct-observation-teaching-shifts-dots-an-approach-to-using-360-degree-assessments

**Abstracts**

Molins C, Dhillon RS, Monaco D, Stroud S, Stokes TB. Teaching ultrasound guided fascia iliaca block to EM residents. West J Emerg Med. 2025 Jun;26(3.1):S6. Abstract no. 10.

Martinez Martinez CJ, Molins CM. Cost-effective low-fidelity pericardiocentesis training model. CORD Academic Assembly, MedTech Track; 2025 Mar 1-5; Seattle, WA.

**Invited presentations**

Molins C. Invited speaker. Teaching on shift in emergency medicine; an introduction. Society for Academic Emergency Medicine 2025 Annual Meeting; 2025 May 14; Philadelphia, PA.

Molins C. Invited speaker. Transforming medical education with artificial intelligence. Society for Academic Emergency Medicine 2025 Annual Meeting; 2025 May 14; Philadelphia, PA.

Molins C. Invited speaker. Cost-effective low-fidelity pericardiocentesis training model. Council of Residency Directors in Emergency Medicine; 2025 Scientific Assembly; 2025 Mar 4; Seattle, WA.

**Professional recognitions**

ACEP Scientific Assembly Planning Committee. Florida Journal of Emergency Medicine (Editor). Education Committee-Sponsored.

**Moreno-Walton, Lisa, M.D.**
**Publications:**
**Journal Articles, Book Chapters and Patents**

Thakur S, Chauhan V, Galwankar S, Lateef F, Daniel P, Cakir Z, Lugo KM, Basnet S, Bildik B, Azahaf S, Vural S, Difyeli BH, Moreno-Walton L. Gender disparities and burnout among emergency physicians: a systematic review by the World Academic Council of Emergency Medicine-Female Leadership Academy for Medical Excellence. West J Emerg Med. 2025 Mar;26(2):338-346.

**Invited presentations**

Moreno-Walton L. Invited speaker. Creating a successful career in emergency medicine. Carolinas Medical Center Emergency Medicine Graduation Program; 2025 Jun 26; Charlotte, NC.

Moreno-Walton L. Invited speaker. Managing imposter syndrome. Haley Academy Bridge to the Future Program, American Board of Emergency Medicine; 2025 Jun 19. East Lansing, MI.

Moreno-Walton L. Invited speaker. What does Juneteenth mean to the practice of medicine? LSU Health Service Center; 2025 Jun 18; New Orleans, LA.

Moreno-Walton L. Invited speaker. Establishing work-life balance in an academic career. 5th International Emergency Medicine Congress; 2025 Apr 19; Antalya, Turkey.

Moreno-Walton L. Invited speaker. Ethical considerations in the practice of emergency medicine. 5th International Emergency Medicine Congress; 2025 Apr 18; Antalya, Turkey.

Moreno-Walton L. Invited speaker. Updates of wound management ED. 9th Central European Emergency Medicine Congress; 2025 Apr 12; Lodz, Poland.

Moreno-Walton L. Invited speaker. Strategies to increase DEI in medical toxicology. American College of Medical Toxicology Annual Scientific Meeting; 2025 Apr 4. Vancouver, Canada.

Moreno-Walton L. Invited speaker. Closing gaps in screening and linkage to care for HIV and viral hepatitis in urgent and emergency care settings. Gilead Sciences, Inc., Internal Medicine Meeting 2025; 2025 Feb 24; New Orleans, LA.

**Professional recognitions**

Kazzi International Emergency Medicine Leadership Award; Master of the American Academy of Emergency Medicine, moderator for the Trauma session of 9th Central European Medicine Congress.

**Musselwhite, Christopher, M.D.**
**Publications:**
**Journal Articles, Book Chapters and Patents**

Sullivan R, Musselwhite C. Massive pancreatic mass. Vis J Emerg Med. 2024 Oct;37:102157.

**Abstracts**

Musselwhite C. Umbilical hernia case. EMerald Coast Conference; 2025 Jun 2-5; Destin, FL.

Musselwhite C. Pheochromocytoma case. EMerald Coast Conference; 2025 Jun 2-5; Destin, FL.

**Panacek, Edward A, M.D**.
**Publications:**
**Journal Articles, Book Chapters and Patents**

Hamilton RJ, Becker LB, Wolfe RE, Algren DA, Arnold T, Baumann M, Berkeley RP, Caffery TS, Cannon CM, Corbin TJ, Chansky ME, Dhindsa HS, Emerman CL, Farcy DA, Fox C, Gibbs MA, Goode CS, Godwin SA, Jehle D, Johnson D, Keim SM, Khazaeni B, Knapp BJ, Hawthorne C, Hoyle JD Jr, Kurz MC, Leibner E, McNamara R, McCormack RF, Michelson EA, Miller C, Norse A, Nugent A, O'Neil BJ, Overton DT, Panacek EA, Paolo WF, Pauzé DR, Perez AL, Riviello RJ, Rodi SW, Pang PS, Gonzalez Sanchez JA, Seaberg D, Schwartz A, Shiver SA, Sklar DP, Smith BC, Stowell JR, Squillante MD, Thomas JJ, Hoek TV, Volturo GA, Walters EL, Wyatt TE, Yealy DM. Letter of concern from the Association of Academic Chairs of Emergency Medicine regarding ACGME proposed changes. West J Emerg Med. 2025 Jun 27;26(4):769-772.

**Abstracts**

Michelson EA, Liesenfeld O, Arora S, Aufderheide TP, Clements CM, DeVos EL, Fischer M, Giamarellos-Bourboulis EJ, House SL, Humphries R, Gill J, Liu E, Mace SE, May LS, Osborn T,

Panacek EA, Rothman RE, Self WH, Smithline H, Steingrub J, VanHeukelom P, Weissman AJ, Polk D, Wright DW, Shapiro NI. Accuracy of a rapid messenger ribonucleic acid host response test: results from the SEPSIS-SHIELD Registrational Trial. Acad Emerg Med; 2025 May;32(S1):18-19. Abstract no. 22.

**Invited presentations**

Panacek EA. Invited speaker. Pretest/introduction to workshop. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2024 Oct 28; Irving, TX.

Panacek EA. Invited speaker. Process of research. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2024 Oct 28; Irving, TX.

Panacek EA. Invited speaker. Research questions. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2024 Oct 28; Irving, TX.

Panacek EA. Invited speaker. Research hypotheses, objectives. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2024 Oct 28; Irving, TX.

Panacek EA. Invited speaker. Research terminology. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2024 Oct 28; Irving, TX.

Panacek EA. Invited speaker. Introduction to study design. American College of Emergency Physicians Emergency Medicine Basic Research Skills Workshop; 2024 Oct 28; Irving, TX.

**Professional recognitions**

ABEM Meritorious Lifetime Service Award 2024. American College of Emergency Physicians (ACEP), Research Forum Abstract Session Moderator (2 sessions). American Academy of Emergency Medicine Abstracts Committee Co-Chair; 13th MEMC.

**Peters, Melissa, M.D**.
**Invited presentations**

Peters M. Invited speaker. The genital examination in forensic setting. Pediatric Sexual Abuse Nurse Examiner Course; 2024 Sep 1; Covington County, AL.

Peters M. Invited speaker. Child physical abuse overview. Pediatric Sexual Abuse Nurse Examiner Course; 2024 Sep 1; Covington County, AL.

Peters M. Invited speaker. Forensic medical documentation. Pediatric Sexual Abuse Nurse Examiner Course; 2024 Sep 1; Covington County, AL.

Peters M. Invited speaker. Forensic medical photography. Pediatric Sexual Abuse Nurse Examiner Course; 2024 Sep 1; Covington County, AL.

**Plash, Walker, M.D.**
**Publications:**
**Abstract**

Cantrell R, Campbell A, Loftis B, Plash W, Arnold A, Mukherjee B. "Now you see me": tracking medical faculty and resident wellness in tableau. 54th Annual Meeting of the Southeast Decision Sciences Institute; 2025 Jan 29-31. Greenville, SC.

**Invited Presentations**

Plash W, Phillips L, Lareau S, Irons H, Timpe J, Comp G. Invited speakers. Designing an experience-based wilderness medicine educational activity [video]. Society for Academic Emergency Medicine; 2025 May 15, Philadelphia, PA.

Plash W, Gardner J, Comp G, Lareau S. Invited speakers. Teaching wilderness medicine basics [virtual presentation]. Wilderness Medical Society Fireside Chat Webinar; 2024 Oct 14; Austin, TX.

Plash W. Invited speaker. ACEP: your champion. Your whole career. Magnolia Health Emergency Medicine Residency Program; 2024 Sep 19; Corinth, MS.

Plash W. Invited speaker. ACEP: your champion. Your whole career. University of Alabama Birmingham Emergency Medicine Residency Program; 2025 Jun 12; Corinth, MS.

**Sternberg, Michael L., M.D.**
**Publications:**
**Journal Articles, Book Chapters and Patents**

Sternberg ML, Sternberg SA. Unusual presentation of an exophytic tumor a case of atypical presentation of a cutaneous horn. [Internet]. In: Hoglund J, Gallegos
M, editors. SAEM clinical images series. San Francisco: Academic Life in Emergency
Medicine; 2025 Jan 31. Available from: https://www.aliem.com/saem-clinical-images-series-unusual-presentation-of-an-exophytic-tumor

Sternberg ML, Williams AA. Megaesophagus, a complication of long-standing achalasia. Vis J Emerg Med; 2024 Nov 7;37:102144.

**Abstracts**

Blacksher KE, Hill HG, Sternberg ML. My beard can't hide this anymore-case of CLL with gross lymphadenopathy. EMerald Coast Conference; 2025 Jun 2-5; Destin, FL.

Preus RI, Sternberg ML. The art of foreshadowing an occlusive myocardial infarction-case of Wellens syndrome. EMerald Coast Conference; 2025 Jun 2-5; Destin, FL.

Que NA, Sternberg ML. One tail, two tales-cases: of Agkistrodon misidentification and mismanagement. EMerald Coast Conference; 2025 Jun 2-5; Destin, FL.

**Professional recognitions**

Red Sash Award. Academic Teacher of the Year-Department of Emergency Medicine. President of Mobile County Medical Society. Board of Directors of Mobile County Board of Health. Board of Directors for Alabama Chapter of the American College of Emergency Physicians.

**Stokes, Timothy, M.D.**
**Publications:**
**Abstracts**

Molins C, Dhillon RS, Monaco D, Stroud S, Stokes TB. Teaching ultrasound guided fascia iliaca block to EM residents. West J Emerg Med. 2025 Jun;26(3.1):S6. Abstract no. 10.

**Professional recognitions**

Emergency Medicine Clinical Educator of the Year.

**Wattenbarger, Sara, D.O.**
**Professional recognitions**

SAEM Education committee member 2025-2026. SAEM Faculty Development committee member 2025-2026.

**Section III – Research and Innovation Spotlight**

Starting in 2020, the Department of Emergency Medicine at University Hospital participated in a large multi-center investigation called the "SEPSIS SHIELD" study. The purpose of this study was to perform a clinical validation of an AI-based novel blood testing approach for the diagnosis and prognosis of acute infection and sepsis. Over 1,200 patients were enrolled. Edward Panacek, M.D., MPH was the principal investigator for the USA University Hospital site. The truly novel approach involved analyzing patterns of messenger RNA expression to identify patients with likelihood of a bacterial infection, versus a viral infection and a severity score predicting the need for critical care. The study showed very good sensitivity and specificity; substantially better than other serologic markers in current use. The study results were published as an abstract at the Society for Academic Emergency Medicine meeting in May 2025. The full manuscript was subsequently published in Nature Medicine. That study provided support for FDA approval of a new clinical diagnostic test called "Triverity". University Hospital was the first hospital in Alabama or the region to implement the use of this Triverity test in the emergency department. The department of Emergency Medicine at University Hospital is now performing further investigations to measure the impacts on clinical patient care decision making and workflow.

# 2024-2025
# Summary of Scholarly Activities
# Department of Family Medicine

## Section I – Department Overview and Highlights

The Department of Family Medicine continued to advance its clinical and educational mission through strong community partnerships, faculty engagement, and continuous program improvement. Our collaboration with Accordia Health remains central to supporting primary care access for our community. The Family Medicine clinic generated a positive margin and provided the resources for Accordia to deliver care to our underserved community within the FQHC framework, demonstrating the viability and sustainability of this care model.

The Primary Care Obstetrical Fellowship, led by Dr. Danielle Turnquest, graduated its third class this year. The program is actively working with rural partners to transition from a grant-funded model to a long-term, sustainable structure. Our partnership with Andalusia Health continues to enrich obstetrical and rural training experiences for both fellows and residents.

Departmental collaboration expanded through Dr. Peter Rippey's joint appointment with the Department of Orthopedics. This partnership has strengthened musculoskeletal education for our Sports Medicine fellows and enhanced patient care coordination across departments. The sports medicine fellowship successfully graduated another class this year.

Educational innovation continues to be the department's priority. Dr. Rebecca Sollie implemented a new simulation curriculum beginning in July, utilizing the USA Simulation Lab. This curriculum has now been integrated across residency rotations. She and Dr. Jenna Pfleeger continue to serve as ALSO instructors and provide essential training to residents and medical students.

The department's educational programs were well received. USACOM learners rated their rotations highly, and the USA Family Medicine Residency Program remains fully accredited with no citations. Additionally, 100% of residents passed their board certification exam this academic year.

This academic year also marked important growth in departmental faculty and expertise.

· Dr. Alicia Evans joined as Director of Quality and leads quality improvement and value-based care initiatives in the Family Medicine clinic, while contributing to the practice management curriculum.
· Dr. Timberly Wilson joined our UME team, enhancing medical student teaching and departmental educational capacity.
· Dr. Hakeem Lumumba joined as Director of Behavioral Medicine, expanding integrated behavioral health training for residents and medical students.
· Dr. Derek Werthmann joined our research team. In addition to his research activities, he is assisting the Primary Care Pathway students with their summer projects.

**Section II – Faculty Scholarly Activity and Professional Recognition**

**Daniel, Casey, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Brady K, Lee A, Bassler J, Young-Pierce J, Daniel CL. Human papillomavirus vaccine beliefs and intentions post-COVID-19 vaccine release among mothers in Alabama. Vaccine. 2024 Oct 3;42(23):126046.

Shah DP, Thaweethai T, Karlson EW, Bonilla H, Horne BD, Mullington JM, Wisnivesky JP, Hornig M, Shinnick DJ, Klein JD, Erdmann NB, Brosnahan SB, Lee-Iannotti JK, Metz TD, Maughan C, Ofotokun I, Reeder HT, Stiles LE, Shaukat A, Hess R, Ashktorab H, Bartram L, Bassett IV, Becker JH, Brim H, Charney AW, Chopra T, Clifton RG, Deeks SG, Erlandson KM, Fierer DS, Flaherman VJ, Fonseca V, Gander JC, Hodder SL, Jacoby VL, Kotini-Shah P, Krishnan JA, Kumar A, Levy BD, Lieberman D, Lin JJ, Martin JN, McComsey GA, Moukabary T, Okumura MJ, Peluso MJ, Rosen CJ, Saade G, Shah PK, Sherif ZA, Taylor BS, Tuttle KR, Urdaneta AE, Wallick JA, Wiley Z, Zhang D, Horwitz LI, Foulkes AS, Singer NG; RECOVER Consortium (Daniel CL, collaborator). Sex differences in long COVID. JAMA Netw Open. 2025 Jan 2;8(1):e2455430.

**Abstracts**

Daniel C, Lavender G, Newson D, Barnhill E, Lee A. HPV vaccination completion and parental knowledge, attitudes, and intentions at a medically underserved Federally Qualified Health Clinic in south Alabama. National HPV Conference; 2025 Apr 15-17; Indianapolis, IN.

Daniel C, Lee A, Bassler J. Outcomes and implications of HPV vaccination in a large, school-based vaccination clinic (SBVC) program in the U.S [virtual]. 2024 International Papillomavirus Conference Annual Meeting; 2024 Nov 12-15; Edinburgh, UK. Abstract no. 2477.

Dinelli I, Rasmussen M, Aljabi Q, Robinson T, Lee A, Daniel CL. Disciplinary participation at a student-run free clinic. Medical Association of the State of Alabama 2025 Research Symposium; 2025 Apr 11-13; Orange Beach, AL.

Poudel PG, Mirzael S, Xing M, Brinkman TM, Daniel CL, Ness KK, Hudson MM, Brandt HM. HPV vaccination gaps in childhood cancer survivors. National HPV Conference; 2025 Apr 15-17; Indianapolis, IN.

Poudel PG, Mirzaei S, Xing M, Brinkman TM, Daniel CL, Ness KK, Hudson MM, Brandt HM. HPV vaccination gaps in childhood cancer survivors. 10th Annual St. Jude Comprehensive Cancer Center Postdoctoral Symposium; 2025 Jan 31; Memphis, TN.

Poudel PG, Mirzaei S, Xing M, Brinkman T, Daniel C, Ness K, Hudson M, Brandt H. Examining HPV vaccination coverage among childhood cancer survivors. 2024 International Papillomavirus Conference Annual Meeting; 2024 12-15; Edinburgh, UK. Abstract no. 1019.

**McMullin, Sarah, M.D.**
**Publications:**
**Abstracts**

Etheredge SG, McMullin S, Rippey P. Fumble on the field: case report on perilunate dislocation. American Medical Society for Sports Medicine Annual Meeting; 2025 Apr 22-27; Kansas City, MO.

Marquez J, McMullin S. Knee pain in a healthy adult: case report and diagnostic utility of ultrasound. American Medical Society for Sports Medicine Annual Meeting; 2025 Apr 22-27; Kansas City, MO.

**Molokhia, Ehab, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Anderson T, Raza D, Villanueva D, Molokhia E. Is the McKenzie method effective for the treatment of low back pain compared with no treatment? Evid Based Pract. 2025 Jul;28(7):23-24.

Molokhia E, Jefferson RA, Pfleeger J, Sollie R, Payne-Johnson A. Are mindfulness-based interventions effective in reducing blood pressure compared with no treatment? Evid Based Pract. 2025 Jun 25;28(12):11-13.

**Professional recognitions**

Healthcare Leadership Certificate program started in January 2025.

**Rippey, Peter, M.D.**
**Publications:**
**Abstracts**

Etheredge SG, McMullin S, Rippey P. Fumble on the field: case report on perilunate dislocation. 2025 American Medical Society for Sports Medicine Annual Meeting; 2025 Apr 22-27; Kansas City, MO.

Rippey P. Not your average scraped knee: conservative management of a pediatric tibial eminence fracture. 2025 American Medical Society for Sports Medicine Annual Meeting; 2025 Apr 22-27; Kansas City, MO.

**Invited presentations**

Rippey P. Invited speaker. Too much warm up? Exercising in an era of climate change. University of Calgary Department of Kinesiology; 2024 Sep 27; Calgary, Alberta, Canada.

Rippey P. Invited speaker. Too much warm up? Exercising in an era of climate change. University of Alberta, Edmonton Department of Physical Medicine & Rehabilitation; 2024 Oct 4; Edmonton, Alberta, Canada.

Rippey P. Invited speaker. Introduction to MSK ultrasound. 2nd Annual Yellowhammer Fellows Conclave; 2025 Jul 12; Birmingham, AL.

Rippey P. Invited speaker. Starting peripheral IVs in the training room. 2nd Annual Yellowhammer Fellows Conclave; 2025 Jul 12; Birmingham, AL.

**Professional recognitions**

Dr. Rippey was a panelist in Top 10 Sports Medicine Articles of 2024.

**Werthmann, Derek, Ph.D**
**Publications:**
**Abstracts**

Werthmann D, Norton E, Rabito F. The effect of pesticide exposure on immunological responses in children against SARS-CoV-2. J Clin Transl Sci. 2025 Apr 11;9(S1):28. Abstract no. 91.

**Section III – Research and Innovation Spotlight**

Dr. Allen Perkins was awarded a HRSA Rural Residency Planning Grant, which will support development of a new rural Family Medicine residency program in Clarke County, Alabama, with a primary care clinical training site planned in Jackson, Alabama.

Dr. Perkins also received $1,000,000 from the Alabama Opioid Restitution Fund to strengthen regional services for individuals with substance use disorders. Funding will support enhanced community resources, wrap-around services, and medically assisted treatment, with an emphasis on care for pregnant patients.

# 2024-2025
# Summary of Scholarly Activities
# Department of Internal Medicine

## Section I – Department Overview and Highlights

The Department of Medicine had a productive year with remarkable clinical achievements, faculty recruitment and development, research milestones, educational advancements, and community outreach. Clinically, our department was able to attract multiple talented faculty and leaders to join the department. We have successfully recruited 2 external division chiefs to the Geriatrics and Cardiology divisions and appointed two new internal division chiefs in hospital Medicine and Nephrology. Additionally, we have hired multiple faculty members, where we filled all the open faculty positions in Hospital Medicine, Nephrology, Infectious Diseases, Cardiology and Pulmonology. We also launched the Interventional Pulmonology service, and ICU coverage at Providence Hospital, marking a pivotal step toward clinical integration of our hospitals. Our commitment to the professional trajectory of our faculty is reflected in successfully promoting three faculty members: two of them from the rank of assistant professor to associate professor, and one to the rank of full professor. Many junior and mid-career faculty members were encouraged and supported to attend leadership courses provided by the university to further their professional development, and we have established a faculty development series in our department.

Our clinical services remain very active in all disciplines of Internal Medicine. Billing and compliance continue to improve, and we have removed obstacles hindering patients from timely access to professional and expert care. All our clinics at Mastin are assigned to attending physicians, with fellows and residents assigned to work with them. This has been one of the major culture changes in our department for outpatient care. The Hillcrest Cardiology clinic continues to grow, and our referral base has expanded, which contributed significantly to the 45% increase in procedures at our invasive cardiology laboratories. Another major change in our department is the policy we established to prevent abrupt cancellations, which minimize unexpected disruptions in outpatient care across our department venues. Our clinical productivity this year has matched the above implemented changes, where our department has increased its clinical productivity at all locations by over 10%.

The educational efforts of the department remain a major strength at both the GME and UME levels. Many faculty members serve as educators, instructors, and course directors in multiple modules. Their efforts were highlighted by the improved and positive feedback from our learners, as well as the pass rate in national exams and the increased interest of our students and trainees to join our training programs at the residency and fellowship level. Last year we had the highest ever number of our own medical students starting their residency in Internal Medicine at South. Another major recognition is the continued accreditation of our parent Medicine program and all the subspecialty fellowships without citation. Finally, we have secured ACGME approvals to start two new fellowship programs (ID and Interventional Cardiology). We have already activated the ID fellowship program, and we have recruited one fellow last year and 2 fellows for the upcoming academic year. Many of our faculty have received teaching awards from our medical students and residents (Red Sash: 6; Gold Humanism honor society 1; Best Clerkship award 1; Best subspecialty attending 1; AOA 1).

In conclusion, although our department enjoyed tremendous growth and hit a new trajectory of excellence, we remain focused on reaching our full potential. We are dedicated to serving as a benchmark for academic medicine at the University of South Alabama.

**Section II – Faculty Scholarly Activity and Professional Recognition**

**Ahmed, Hamdy, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Ahmed H, Sattui SE, Sun D, Alkassm A, Gaffo A. Comparison of clinical characteristics of patients with Behçet's disease in two different geographical areas in the United States. Egypt Rheumatol. 2025 Oct;47(4):187-191.

**Almalouf, Philip, M.D.**
**Publications:**
**Published Journal Articles, Book Chapters and Patents**

Boeur BY, Haidari H, Buchanan K, Kumar S, Almalouf P. *Vibrio vulnificus* causing severe multiorgan failure in a patient with underlying cirrhosis. Cureus. 2025 May 24;17(5):e84728.

Hough RF, Alvira CM, Bastarache JA, Erzurum SC, Kuebler WM, Schmidt EP, Shimoda LA, Abman SH, Alvarez DF, Belvitch P, Bhattacharya J, Birukov KG, Chan SY, Cornfield DN, Dudek SM, Garcia JGN, Harrington EO, Hsia CCW, Islam MN, Jonigk DD, Kalinichenko VV, Kolb TM, Lee JY, Mammoto A, Mehta D, Rounds S, Schupp JC, Shaver CM, Suresh K, Tambe DT, Ventetuolo CE, Yoder MC, Stevens T, Damarla M. Studying the pulmonary endothelium in health and disease: an official American Thoracic Society workshop report. Am J Respir Cell Mol Biol. 2024 Oct;71(4):388-406.

**Abstracts**

Cutrell PK, Cook T, Kumar S, Almalouf P. A vein and fungi affair: a case of non-cirrhotic fungal peritonitis. Am J Respir Crit Care Med. 2025 May 211:A1639. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A1639?role=tab

**Fouty, Brian, M.D.**
**Publications:**
**Published Journal Articles, Book Chapters and Patents**

Ashfaq MA, Malik HZ, Fahmawi Y, Barnett T, Hacker P, Jones J, McGough M, Tuckey A, Solodushko V, Audia J, Fouty B. *Vibrio vulnificus* bacteremia with compartment syndrome: a case report and characterization of the isolate. Cureus. 2024 Oct 23;16(10):e72217.

Solodushko V, Kim JH, Fouty B. A capless hairpin-protected mRNA vaccine encoding the full-length influenza A hemagglutinin protects mice against a lethal influenza A infection. Gene Ther. 2025 Jul;32(4):349-358.

**Abstracts**

Healey L, Yendrapalli U, Hughes H, Fouty BW, Adams M. Pancreaticopleural fistula secondary to acute pancreatitis. Am J Respir Crit Care Med. 2025 May;211:A4152. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A4152?role=tab

Noland B, Fouty BW, Petrossian R, Yendrapalli U, Grannum M. Tracheostomy care: a hospital's dilemma. Am J Respir Crit Care Med. 2025 May;211:A1533. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A1631?role=tab

Kumar S, Yendrapalli U, Tobin G, Stevens RP, Kondaveeti R, Ayers L, Strickland J, Wiggins L, Bryant H, Johnson J, Schuler M, Yuliya A, Seluanov A, Gorbunova V, Boyd A, Tambe DT, Audia J, Fouty BW, Stevens T, Lee J. Erythrocytes from animals and humans subjected to frequent hypoxia exposures undergo fructolysis and transfer fructose to pulmonary endothelium. Am J Respir Crit Care Med. 2025 May;211:A6446. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A6446?role=tab

Paille A, Dutta A, Yendrapalli U, Fouty BW, Kumar S. A fatal case of fulminant sepsis from *Capnocytophaga canimorsus* infection. Am J Respir Crit Care Med. 2025 May;211:A1631. Available from:
https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A1631?role=tab

Yendrapalli U, Kumar S, Dutta A, Wood B, Schaphorst K, Fouty BW. Outcomes of pulmonary embolism management by a multidisciplinary pulmonary embolism response team. Am J Respir Crit Care Med. 2025 May;211:A3762.
Available from:
https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A3762?role=tab

**Hundley, T.J., M.D.**
**Invited presentations**

Hundley TJ. The art of medicine: healing the heart, body and soul. Creative Arts and Storytelling for Health and Wellness Summit, University of South Alabama; 2024 Nov 11; Mobile AL.

**Lakkis, Nasser, M.D.**
**Publications:**
**Published Journal Articles, Book Chapters and Patents**

Odigwe C, Mulyala R, Malik H, Ruiz B, Riad M, Sayiadeh MA, Honganur S, Parks A, Ur Rahman MU, Lakkis N. Emerging role of GLP-1 agonists in cardio-metabolic therapy - focus on semaglutide. Am Heart J Plus. 2025 Mar 1;52:100518.

**Lee, Ji Young, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

Stevens RP, Holston J, Maatouk K, Zhou C, Stone M, Pastukh VV, Francis CM, Kumar S, Gwin MS, Sayner SL, Stevens T, Lee JY. Carbonic anhydrase IX promotes acute lung injury and mortality in females during metabolic acidosis and pneumonia. Am J Physiol Lung Cell Mol Physiol. 2025 Aug 1;329(2):L266-L281.

**Malozzi, Christopher, D.O.**
**Publications:**
**Published Journal Articles, Book Chapters and Patents**

Acharya D, Qureshi AM, Goulding-Avedisian T, Omar B, Malozzi C, Manoharan S. Patent ductus arteriosus: the aortopulmonary shunt! Cardiofellows Newsletter. 2025 Jul 8(7):14-15. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/pda-aortopulmonary_shunt.pdf

As Sayaideh M, Parks A, Nagaraj S, Malik, H, Ruiz B, Odigwe C, Mumtaz M, Omar B, Manoharan S, Malozzi C. Antitachycardia pacing: averting shock! Cardiofellows Newsletter. 2025 May; 8(5):10-11. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/atp_-_averting_shock_-_mod2.pdf

As Sayaideh M, Ur Rahman M, Ruiz B, Odigwe C, Nagaraj S, Parks A, Malik H, Riad M, Omar B, Malozzi C, Manoharan S. Electrocardiographic tremor artifact: pseudo atrial fibrillation/flutter! Cardiofellows Newsletter 2024 Dec;7(12):28-29. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/pseudo-a-fib.pdf

Malik H, Ruiz B, Odigwe C, Ur Rahman M, Riad M, As Sayaideh M, Parks A, Nagaraj S, Omar B, Manoharan S, Malozzi C. Atrial tachycardia or long RP supraventricular tachycardia! Cardiofellows Newsletter. 2025 Feb;8(2):4-5. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/long_rp-svt_-_mod.pdf

Malik H, Ruiz B, Odigwe C, Ur Rahman M, Riad M, Parks A, Nagaraj S, As Sayaideh M, Malozzi C, Omar B. QRS fragmentation: squiggly curiosities! Cardiofellows Newsletter. 2024 Aug;7(8):19-20. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/qrs_fragmentation_-_malik.pdf

Nagaraj S, Parks A, Malik H, Riad M, As Sayaideh M, Ur RaEhman M, Odigwe C, Ruiz B, Manoharan S, Omar B, Malozzi C. Iatrogenic Lutembacher: percutaneous mitral balloon valvuloplasty sequel! Cardiofellows Newsletter. 2025 Jan;8(1):1-3. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/iatrogenic_lutembacher.pdf

Odigwe C, Ruiz B, As Sayaideh M, Malik H, Parks A, Nagaraj S, Mumutaz M, Omar B, Malozzi C, Manoharan S. Ventricular septal aneurysm mimicking sinus of valsalva aneurysm!

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Odigwe C, Ruiz B, Malik H, Ur Rahman M, Riad M, As Sayaideh M, Nagaraj S, Parks A, Omar B, Manoharan S, Malozzi S. Catheter-induced coronary dissection: why? and what next? Cardiofellows Newsletter. 2024 Sep;7(9): 21-23. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/iatrogenic_coronary_dissection_post_pci_-_mod.pdf

Parks A, Nagaraj S, As Sayaideh M, Malik H, Ruiz B, Odigwe C, Omar B, Manoharan S, Malozzi C. Isoelectric PVC mimicking AV block! Cardiofellows Newsletter. 2025 Jun; 8(6):12-13. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/isoelectric_pvc_mimicking_av_block_-_mod.pdf

Parks A, Nagaraj S, As Sayaideh M, Riad M, Ur Rahman M, Ruiz B, Malik H, Odigwe C, Omar B, Manoharan S, Malozzi C. Apical sparing in amyloid strain imaging: the cherry on top! Cardiofellows Newsletter. 2024 Nov;7(11):26-27. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/iatrogenic_coronary_dissection_post_pci_-_mod.pdf

Ruiz B, Malik H, Odigwe C, As Sayaideh M, Parks A, Nagaraj S, Omar B, Manoharan S, Malozzi C. Accessory pathway: intermittent conduction! Cardiofellows Newsletter 2025 Apr;8(4):8-9. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/intermittent_accessory_pathway_conduction_-_mod.pdf

Ruiz B, Riad M, Rahman M, Odigwe C, Malik H, Nagaraj S, As Sayaideh M, Parks A, Malozzi C, Omar B, Manoharan S. Invisible pacing spikes: pseudo LBBB! Cardiofellows Newsletter 2024 Oct;7(10):24-25. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/invisible_pacing_spikes_-_pseudo_lbbb.pdf

**Manoharan, Suganya M. D.**
**Publications:**
**Published Journal Articles, Book Chapters and Patents**

Acharya D, Qureshi AM, Goulding-Avedisian T, Omar B, Malozzi C, Manoharan S. Patent ductus arteriosus: the aortopulmonary shunt! Cardiofellows Newsletter. 2025 Jul 8(7):14-15. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/pda-aortopulmonary_shunt.pdf

As Sayaideh M, Parks A, Nagaraj S, Malik, H, Ruiz B, Odigwe C, Mumtaz M, Omar B, Manoharan S, Malozzi C. Antitachycardia pacing: averting shock! Cardiofellows Newsletter. 2025 May; 8(5):10-11. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/atp_-_averting_shock_-_mod2.pdf

As Sayaideh M, Ur Rahman M, Ruiz B, Odigwe C, Nagaraj S, Parks A, Malik H, Riad M, Omar B, Malozzi C, Manoharan S. Electrocardiographic tremor artifact: pseudo atrial fibrillation/flutter!

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Malik H, Ruiz B, Odigwe C Acharya D, Qureshi AM, Goulding-Avedisian T, Omar B, Malozzi C, Manoharan S. Patent ductus alorteriosus: the aortopulmonary shunt! Cardiofellows Newsletter. 2025 Jul 8(7):14-15. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/pda-aortopulmonary_shunt.pdf

Nagaraj S, Parks A, Malik H, Riad M, As Sayaideh M, Ur Rahman M, Odigwe C, Ruiz B, Manoharan S, Omar B, Malozzi C. Iatrogenic Lutembacher: percutaneous mitral balloon valvuloplasty sequel! Cardiofellows Newsletter. 2025 Jan;8(1):1-3. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/iatrogenic_lutembacher.pdf

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Odigwe C, Ruiz B, Malik H, Ur Rahman M, Riad M, As Sayaideh M, Nagaraj S, Parks A, Omar B, Manoharan S, Malozzi S. Catheter-induced coronary dissection: why? and what next? Cardiofellows Newsletter. 2024 Sep;7(9): 21-23. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/iatrogenic_coronary_dissection_post_pci_-_mod.pdf

Parks A, Nagaraj S, As Sayaideh M, Malik H, Ruiz B, Odigwe C, Omar B, Manoharan S, Malozzi C. Isoelectric PVC mimicking AV block! Cardiofellows Newsletter. 2025 Jun; 8(6):12-13. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/isoelectric_pvc_mimicking_av_block_-_mod.pdf

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Ruiz B, Riad M, Rahman M, Odigwe C, Malik H, Nagaraj S, As Sayaideh M, Parks A, Malozzi C, Omar B, Manoharan S. Invisible pacing spikes: pseudo LBBB! Cardiofellows Newsletter 2024 Oct;7(10):24-25. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/invisible_pacing_spikes_-_pseudo_lbbb.pdf

Ur Rahman M, Riad M, As Sayaideh M, Parks A, Nagaraj S, Omar B, Manoharan S, Malozzi C. Atrial tachycardia or long RP supraventricular tachycardia! Cardiofellows Newsletter. 2025 Feb;8(2):4-5. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/long_rp-svt_-_mod.pdf

**Omar, Bassam, M.D.**
**Publications:**
**Published Journal Articles, Book Chapters and Patents**

Acharya D, Qureshi AM, Goulding-Avedisian T, Omar B, Malozzi C, Manoharan S. Patent ductus arteriosus: the aortopulmonary shunt! Cardiofellows Newsletter. 2025 Jul 8(7):14-15. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/pda-aortopulmonary_shunt.pdf

As Sayaideh M, Parks A, Nagaraj S, Malik, H, Ruiz B, Odigwe C, Mumtaz M, Omar B, Manoharan S, Malozzi C. Antitachycardia pacing: averting shock! Cardiofellows Newsletter. 2025 May; 8(5):10-11. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/atp_-_averting_shock_-_mod2.pdf

As Sayaideh M, Ur Rahman M, Ruiz B, Odigwe C, Nagaraj S, Parks A, Malik H, Riad M, Omar B, Malozzi C, Manoharan S. Electrocardiographic tremor artifact: pseudo atrial fibrillation/flutter! Cardiofellows Newsletter 2024 Dec;7(12):28-29. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/pseudo-a-fib.pdf

Malik H, Ruiz B, Odigwe C, Ur Rahman M, Riad M, As Sayaideh M, Parks A, Nagaraj S, Omar B, Manoharan S, Malozzi C. Atrial tachycardia or long RP supraventricular tachycardia! Cardiofellows Newsletter. 2025 Feb;8(2):4-5. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/long_rp-svt_-_mod.pdf

Malik H, Ruiz B, Odigwe C, Ur Rahman M, Riad M, Parks A, Nagaraj S, As Sayaideh M, Malozzi C, Omar B. QRS fragmentation: squiggly curiosities! Cardiofellows Newsletter. 2024 Aug;7(8):19-20. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/qrs_fragmentation_-_malik.pdf

Nagaraj S, Parks A, Malik H, Riad M, As Sayaideh M, Ur Ur Rahman M, Odigwe C, Ruiz B, Manoharan S, Omar B, Malozzi C. Iatrogenic Lutembacher: percutaneous mitral balloon valvuloplasty sequel! Cardiofellows Newsletter. 2025 Jan;8(1):1-3. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/iatrogenic_lutembacher.pdf

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Odigwe C, Ruiz B, Malik H, Ur Rahman M, Riad M, As Sayaideh M, Nagaraj S, Parks A, Omar B, Manoharan S, Malozzi S. Catheter-induced coronary dissection: why? and what next? Cardiofellows Newsletter. 2024 Sep;7(9): 21-23. Available from:

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Parks A, Nagaraj S, As Sayaideh M, Malik H, Ruiz B, Odigwe C, Omar B, Manoharan S, Malozzi C. Isoelectric PVC mimicking AV block! Cardiofellows Newsletter. 2025 Jun; 8(6):12-13. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/isoelectric_pvc_mimicking_av_block_-_mod.pdf

Parks A, Nagaraj S, As Sayaideh M, Riad M, Ur Rahman M, Ruiz B, Malik H, Odigwe C, Omar B, Manoharan S, Malozzi C. Apical sparing in amyloid strain imaging: the cherry on top! Cardiofellows Newsletter. 2024 Nov;7(11):26-27. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/iatrogenic_coronary_dissection_post_pci_-_mod.pdf

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Ruiz B, Riad M, Rahman M, Odigwe C, Malik H, Nagaraj S, As Sayaideh M, Parks A, Malozzi C, Omar B, Manoharan S. Invisible pacing spikes: pseudo LBBB! Cardiofellows Newsletter 2024Oct;7(10):24-25. Available from: https://cardiofellows.com/uploads/3/4/7/2/34727532/invisible_pacing_spikes_-_pseudo_lbbb.pdf

**Petrossian, Robert, M.D.**
**Publications:**

**Abstracts**

Dutta A, Buchanan K, Yendrapalli U, Chapagain A, Petrossian R. An unusual case of lactobacillus rhamnosus-induced pleural empyema in an immunocompromised patient: diagnostic challenges and therapeutic insights. Am J Respir Crit Care Med. 2025 May;211:A4586. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A4586?role=tab

**Schaphorst, Kane, M.D.**
**Publications:**
**Abstracts**

Weidow D, Kumar S, Schaphorst K. Early clinical suspicion and hemodialysis as life-saving interventions in metformin-associated lactic acidosis: a case report. Am J Respir Crit Care Med. 2025 May;211:A5731.
Available from:
https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A5731?role=tab

**Sonnier, William, M.D.**

**Publications:**
**Published Journal Articles, Book Chapters and Patents**

Khouri A, Dickson C, Green A, Hanjar A, Sonnier W. Effect of computer aided detection device on the adenoma detection rate and serrated detection rate among trainee fellows. JGH Open. 2024 Sep 9;8(9):e70018.

**Section III – Research and Innovation Spotlight**

Our research productivity and national recognition remain consistent, where our faculty, fellows and residents have succeeded in publishing major articles in nationally reputable journals and our research was presented at multiple local, state and national podiums. Additionally, our faculty is currently involved with multiple industry sponsored studies, investigator-initiated projects, multiple international collaborative projects on the potential application of artificial intelligence in gastroenterology (Cholangioscopy, EUS, esophageal manometry, and interpretation of capsule endoscopy), two NIH/AHA funded projects, and we are pioneering a translational project collaborating with an investigator from the Department of Physiology and Cell Biology to assess the role of a newly identified protein in causing and propagating systemic hypertension.

Many faculty members were tasked with national courses and symposia directorships, along with invitations to speak at local and national grand rounds. Our faculty members and leaders were sought out by local TV channels and other media platforms to discuss various topics pertaining to various health issues, new innovations in medicine and unique services provided by our system to serve our patients and the Gulf Coast area. Finally, our teams led multiple community projects to provide aid to needy members of our community.

# 2024-2025
# Summary of Scholarly Activities
# Department of Microbiology and Immunology

## Section I – Department Overview and Highlights

The 2024-2025 academic year for the Department of Microbiology and Immunology was one of continued growth. The Department remains highly active in the education mission of the Frederick P. Whiddon College of Medicine (COM). Dr. Hermance assumed the role of track director of the Infectious Diseases and Host Defense (IDHD) Track and will oversee graduate student teaching. The Department now has nine graduate students in the IDHD track, and our faculty mentor graduate students from all tracks in the College of Medicine. Two students from the Department, Mr. Olu Adesunloro and Mr. Shovon Lal Sarkar, were awarded the Whiddon COM Dean's Predoctoral Fellowship. Faculty in the Department also mentored several trainees in the Medical School Summer Research Day program and the South Alabama Undergraduate Research program.

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 eleven peer-reviewed papers and three book chapters published, seven invited external presentations, and numerous internal presentations and conference abstracts. Of note, Dr. Macaluso was featured as a keynote speaker at the 34$^{th}$ Annual Meeting of the American Society for Rickettsiology (ASR), and Dr. Shea presented her research in a TedTalk-style format to a diverse audience, including NIH program directors, scientists, physicians, and members of the public, at the EmpowerUS Gulf South Women's Health Forum. Furthermore, faculty were invited to review grant proposals and papers in their fields, signifying recognition of their expertise in research. Faculty in the Department also received nine awards for extramural research support from state/federal agencies, foundations, and industry.

It was also an active year for faculty hires and recruiting. We were able to secure one of our top recruits who joined the faculty in early 2025. Dr. Timothy Casselli studies host-microbe interactions and the immunopathology of Lyme disease with his lab group and received National Institutes of Health (NIH) extramural grant funding early in his career here. Additionally, Dr. Meghan Hermance was promoted to Associate Professor with tenure. The faculty remain active in service at the University, College, and community levels. Dr. Barrington continues to oversee the flow cytometry core facility, with laboratories located in MSB and at the MCI, and as well as serve as the Director of the Office of Research, Education, and Training (ORET). The faculty regularly lead and serve on committees *(e.g.,* IACUC, IBC, and SPEC) and organizations (Faculty Senate and Dauphin Island Sea Lab) throughout the year. The faculty continued with community outreach, and Dr. Barrington remains actively involved with Lions Club, which supports components of his research program. These activities are considered essential to our service mission.

## Section II – Faculty Scholarly Activity and Professional Recognition

**Audia, Jonathon P., Ph.D.**

**Publications:**
**Journal Articles, Book Chapters, and Patents**

Ashfaq MA, Malik HZ, Fahmawi Y, Barnett T, Hacker P, Jones J, McGough M, Tuckey A, Solodushko V, Audia J, Fouty B. *Vibrio vulnificus* bacteremia with compartment syndrome: a case report and characterization of the isolate. Cureus. 2024 Oct 23;16(10):e72217.

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

**Abstracts**

Shea A, Adesunloro O, Jeffreys J, Audia J. Amyloid-β accumulation during bacterial infection contributes to disease pathophysiology. 2024 Midwest Microbial Pathogenesis Conference; 2024 Sep 13-14; Bloomington, IN. p. 98. Abstract no. 44.

Adesunloro OO, Jeffreys J, Bryant H, Audia JP, Shea AE. Investigating the role of Amyloid-β in UPEC-Driven Urinary Tract Infection. American Society for Microbiology Microbe 2025; 2025 Jun 19-23; Los Angeles, CA. Abstract no. 4038.

**Professional recognitions**

Ad hoc member, National Institutes of Health (NIH) Special Emphasis Panel—P01 Review, NCATS Special Emphasis Panel—SBIR/STTR Review, U.S. Army Medical Research and Development Command, Congressionally Directed Medical Research Programs, Peer Reviewed Medical Research Program (PRMRP). Review Editor, *Frontiers in Cellular and Infection Microbiology*. Ad hoc Peer Reviewer, *Clinica Chimica Acta, Frontiers in Cellular and Infection Microbiology*, and *Microbiology Spectrum*.

**Barrington, Robert A., Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Rodenberg RR, Spadafora D, Fitzpatrick S, Daly G, Lausch R, Barrington RA. γδ T17 cells regulate the acute antiviral response of NK Cells in HSV-1-infected corneas. Invest Ophthalmol Vis Sci. 2024 Nov 4;65(13):16.

**Abstracts**

Brewer KZ, Stone M, Motamed R, Walde R, Sayner S, Barrington RA. *Neutrophil hyperresponsiveness contributes to lung pathology in STAT3V463Δ mice*. Immunology 2025; 2025 May 3-7; Honolulu, HI. Abstract no. 4304. Available from https://s2.goeshow.com/aai/aai/2025/poster_sessions.cfm

Stone M, Brewer K, Choi C-S, Barrington R, Sayner S. Soluble adenylyl cyclase isoform 10 (AC10 aka sAC) is an edema factor that increases mortality in an acute mouse model of *P. aeruginosa*-induced lung injury. Physiology. 2025 May;40(S1):0521. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.0521

**Invited presentations**

Barrington R. Invited speaker. Immune mechanisms regulating autoimmune pulmonary alveolar proteinosis in mice. University of California Los Angeles (UCLA) Seminar; 2025 Jul 18; Los Angeles, CA.

Barrington R. Invited speaker. LCIF, LERI and USA Eye Research. Alabama Lions District 34C Convention/Cabinet Meeting #3; 2025 Feb 22; Atmore, AL.

**Professional recognitions**

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.

**Casselli, Timothy R., Ph.D.**
**Professional recognitions**

Ad hoc Grant Reviewer, NIH Fellowship Review Panel Immunology B ZRG1 F07- B (20)L). Ad hoc Journal Reviewer, *Frontiers in Immunology*.

**Michael R. Elliott, Ph.D.**
**Publications:**
**Abstracts**

Chu CC, Bui V, Chung AH, Heffernan CB, Zent JM, Herne CA, Baran AM, Elliott MR, Zent CS. Annotation of antibody-dependent cellular phagocytosis video images by ImageJ plugin provides ground truth for artificial intelligence development. Immunology 2025; 2025 May 3-7; Honolulu, HI. Abstract no. 3372. Available from https://s2.goeshow.com/aai/aai/2025/poster_sessions.cfm

Chu CC, Heffernan CB, Bruno JE, Herne CA, Jaimes-Delgadillo N, Baran AM, Barr PM, Elliott MR, and Zent CS. Intravenous low-dose anti-CD20 Rituximab infusion contrasted with subsequent subcutaneous Rituximab injection during CLL patient treatment. Immunology 2025; 2025 May 3-7; Honolulu, HI. Abstract no. 3374. Available from: https://s2.goeshow.com/aai/aai/2025/poster_sessions.cfm

Mitchell BL, Chu CC, Zent CS, Elliott MR. Defining the mechanisms of first dose infusion reactions in monoclonal antibody therapies. University of Alabama at Birmingham 2024

Southeastern Immunology Symposium; 2024 Aug 16-17; Birmingham, AL. p. 48. Abstract no. F21.

**Professional recognitions**

Grant Reviewer, NIH CNBT Study Section. Associate Editor, *Frontiers in Immunology*. Reviewer, *Journal of Clinical Investigation*.

**Esteves, Eliane D., Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Fogaca AC, Esteves E, Pavanelo DB, Daffre S. O sistema immune de carrapatos. In Fogaca AS, da Silva Vaz I Jr, editors. Tópicos avançados em entomologia molecular. 2nd ed. Porto Alegre, Brazil: Universidade Federal do Rio Grande do Sul; 2024. Chapter 6, p. 172-213. Available from: https://www.inctem.bioqmed.ufrj.br/destaques/noticias/3300-inct-em-lanca-2-edicao-do-livro-topicos-avancados-em-entomologia-molecular.

Molari WS, Jmel MA, Assis JB, Frazão-Silva A, Bernardi JM, Huamanrayme G, Medina JM, Esteves E, Antão SC, Costa GCA, Tanaka AS, Fogaça AC, Franta Z, Tirloni L, Kotsyfakis M, Sá-Nunes A. Amblyostatin-1, the first salivary cystatin with host immunomodulatory and anti-inflammatory properties from the Neotropical tick *Amblyomma sculptum*, vector of Brazilian spotted fever. Front Immunol. 2025 Jul 17;16:1585703.

Sales-Campos H, Desidério CS, Trevisan RO, Timóteo RP, Flávio-Reis VHP, Pessoa-Gonçalves YM, da Silva MV, Esteves E, de Jesus Oliveira T, da Silva Junior PI, Oliveira CJF. Anti-IL-4, Anti-IL-17, and Anti-IFN-gamma activity in the saliva of *Amblyomma sculptum* ticks. Int J Mol Sci. 2025 May 15;26(10):4734.

**Abstracts**

Esteves E, Hettinger B, Garba A, Obellianne C, Hermance M. Defining the kinetics of thrombocytopenia syndrome virus (SFTSV) acquisition and dissemination within feeding *Haemaphysalis longicornis* nymphs. Am J Trop Med Hyg. 2025 Jun 3;112(Suppl 6):490. Abstract no. 7559. Available from: https://www.ajtmh.org/view/journals/tpmd/112/6_Suppl/article-p1.xml?tab_body=pdf

Hettinger B, Esteves E, Garba A, Obellianne C, Hermance ME. Minimum feeding time required for *Haemaphysalis longicornis* to transmit severe fever with thrombocytopenia syndrome virus. Am J Trop Med Hyg. 2025 Jun 3;112(Suppl 6):302. Abstract no. 6960. Available from: https://www.ajtmh.org/view/journals/tpmd/112/6_Suppl/article-p1.xml?tab_body=pdf.

Obellianne C, Norman PD, Esteves E, Hermance ME. First evidence of non-viremic transmission of Powassan virus between co-feeding ticks. Am J Trop Med Hyg. 2025 Jun 3;112(Suppl 6):490. Abstract no. 7558. Available from: https://www.ajtmh.org/view/journals/tpmd/112/6_Suppl/article-p1.xml?tab_body=pdf.

**Hermance, Meghan E., Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Paine DN, Hermance M, Thangamani S. Early transcriptomic changes at the skin interface during Powassan virus transmission by *Ixodes scapularis* ticks. Front Immunol. 2025 Jan 13;15:1511132.

Santos RI, Hermance ME. Immunofluorescence assays to visualize tick-borne flaviviruses in mouse skin or brain. In: Thangamani S, editor. Tick-borne viruses: methods and protocols. New York: Springer Nature; 2025. Chapter 10, p. 85-98. (Methods in Molecular Biology; Vol. 2936).

Santos RI, Hermance ME. Immunohistochemical assays to visualize tick-borne flaviviruses at the tick feeding site. In: Thangamani S, editor. Tick-borne viruses: methods and protocols. New York: Springer Nature; 2025. Chapter 9, p. 71-84 (Methods in Molecular Biology; Vol. 2936).

**Abstracts**

Esteves E, Hettinger B, Garba A, Obellianne C, Hermance M. Defining the kinetics of thrombocytopenia syndrome virus (SFTSV) acquisition and dissemination within feeding *Haemaphysalis longicornis* nymphs. Am J Trop Med Hyg. 2025 Jun 3;112(Suppl 6):490. Abstract no. 7559. Available from: https://www.ajtmh.org/view/journals/tpmd/112/6_Suppl/article-p1.xml?tab_body=pdf

Hettinger B, Esteves E, Garba A, Obellianne C, Hermance ME. Minimum feeding time required for *Haemaphysalis longicornis* to transmit severe fever with thrombocytopenia syndrome virus. Am J Trop Med Hyg. 2025 Jun 3;112(Suppl 6):302. Abstract no. 6960. Available from: https://www.ajtmh.org/view/journals/tpmd/112/6_Suppl/article-p1.xml?tab_body=pdf.

Macon-Foley S, Hermance M. Nonviremic co-feeding transmission of tick-borne flavivirus: investigating the role of cutaneous innate immune cells in virus transmission between co-feeding ticks. 97th Annual Meeting of the Southeastern Branch Entomological Society of America; 2025 Mar 9-12; Baton Rouge, LA. p. 32. Abstract no. P-28. Available from: https://entsoc.org/sites/default/files/files/Branches/Southeastern/2025-SEB-Program-Book.pdf

Obellianne C, Norman PD, Esteves E, Hermance ME. First evidence of non-viremic transmission of Powassan virus between co-feeding ticks. Am J Trop Med Hyg. 2025 Jun 3;112(Suppl 6):490. Abstract no. 7558. Available from: https://www.ajtmh.org/view/journals/tpmd/112/6_Suppl/article-p1.xml?tab_body=pdf.

Ward E, Hermance M. The affect of abiotic factors on the off-host survivability of *Amblyomma maculatum* in Mobile and Baldwin counties, Alabama. 97th Annual Meeting of the Southeastern Branch Entomological Society of America; 2025 Mar 9-12; Baton Rouge, LA. p. 32. Abstract no. P-29. Available from: https://entsoc.org/sites/default/files/files/Branches/Southeastern/2025-SEB-Program-Book.pdf

**Invited presentations**

Hermance M. Invited speaker. Tick-virus-host interactions: exploring the infection and transmission biology of emerging tick-borne viruses. Purdue University Department of Entomology Seminar; 2025 Apr 17; West Lafayette, IN.

Hermance M. Invited speaker. Tick-virus host interactions: insights from laboratory modeling of a dynamic trio. Entomological Society of America Southeastern Branch 2025 Meeting; 2025 Mar 11; Baton Rouge, LA.

**Professional recognitions**

Councilor and Treasurer, American Committee on Arthropod-Borne Viruses and Zoonotic Viruses (ACAV). Member, NIH: Transmission of Vector-Borne and Zoonotic Disease Study Section. Ad hoc reviewer, NIH: Member Conflict Review for Transmission of Vector-Borne and Zoonotic Diseases, Fulbright Visiting Scholar Program. J. William Fulbright Commission for Educational Exchange in the Slovak Republic. Peer Reviewer, *Emerging Infectious Diseases*, *Scientific Reports*, and *NPJ Vaccines*.

**Kim, Jin H., D.V.M., Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Smith S, Rayner JO, Kim JH. Fluorofurimazine, a novel NanoLuc substrate, enhances real-time tracking of influenza A virus infection without altering pathogenicity in mice. Microbiol Spectr. 2025 Mar 4;13(3):e0268924.

**Abstracts**

Holdbrooks DC, Kim JH, Rayner JO, Stevens T. Infection and replication of the WSN strain of H1N1 influenza A virus in pulmonary microvascular endothelial cells. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. Abstract no. 10.

**Macaluso, Kevin R., Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Fongsaran C, Verhoeve VI, Jirakanwisal K, Harris EK, Macaluso KR. Identification and characterization of a Relish-type NF-κB, DvRelish, in *Dermacentor variabilis* in response to *Rickettsia rickettsii* infection. Front Cell Infect Microbiol. 2024 Dec 16;14:1494450.

Valdes SM, Simonson S, Scott-Waldron C, Balsamo G, Grasperge BJ, Foil LD, Balasuriya U, Macaluso KR. Surveillance of tick-borne pathogens present in ticks (Acari: Ixodidae) removed from companion animals in Louisiana, USA. J Med Entomol. 2025 Jan 13;62(1):181-188.

Vondrak CJ, Sit B, Suwanbongkot C, Macaluso KR, Lamason RL. A conserved interaction between the effector Sca4 and host clathrin suggests additional contributions for Sca4 during rickettsial infection. Infect Immun. 2024 Dec 10;92(12):e0026724.

**Abstracts**

Jaimipuk J, Danchenko M, Cornwall-Brady S, Macaluso K. The characterization of glycine-rich microbial peptide (*cf83*) in *Ctenocephalides felis* and its impact on *Rickettsia felis* infection. American Society for Rickettsiology 34th Annual Meeting; 2025 Jul 13-16; Asheville, NC. p. 57. Abstract no. P18.

Sarkar SR and Macaluso K. Characterization of *Amblyomma maculatum* saliva microRNAs and their role in *Rickettsia* transmission. American Society for Rickettsiology 34th Annual Meeting; 2025 Jul 13-16; Asheville, NC. p. 84. Abstract no. P45.

Suwanbongkot C and Macaluso K. Spotted fever group *Rickettsia* transmission, dissemination kinetics during tick feeding. American Society for Rickettsiology 34th Annual Meeting; 2025 Jul 13-16; Asheville, NC. p. 91. Abstract no. P52.

**Invited presentations**

Macaluso KR. Invited speaker. The biology of rickettsial transmission: a tale of two vectors. University of Texas Medical Branch Infectious Diseases & Immunity Colloquium Seminar; 2025 4 Feb; Galveston, TX.

Macaluso K. Invited speaker. Rickettisal transmission: old is new again. ASR Lecture, American Society for Rickettsiology 34th Annual Meeting; 2025 13 Jul; Asheville, NC.

**Professional recognitions**

Reviewer, National Institutes of Health: Director's Initiative. 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*. Professional Societies: American Society for Rickettsiology, American Society for Microbiology. Scientific Program Committee Member, American Society of Tropical Medicine and Hygiene. Secretary/Treasurer, Association of Medical Schools Microbiology and Immunology Chairs (AMSMIC).

**Rayner, Jonathan O., Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Smith S, Rayner JO, Kim JH. Fluorofurimazine, a novel NanoLuc substrate, enhances real-time tracking of influenza A virus infection without altering pathogenicity in mice. Microbiol Spectr. 2025 Mar 4;13(3):e0268924.

**Abstracts**

Holdbrooks DC, Kim JH, Rayner JO, Stevens T. Infection and replication of the WSN strain of H1N1 influenza A virus in pulmonary microvascular endothelial cells. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. Abstract no. 10.

Taylor MM, Roberts RA, Rayner JO. CHIKV-induced type I interferon expression in human dermal fibroblasts. Annual Meeting of the American Society of Tropical Medicine and Hygiene; 2024 Nov 13-17; New Orleans, LA. p. 19. Abstract no. LB-9063.

Taylor MM, Rayner JO. Differential infection of primary human dermal fibroblasts by Dengue virus (DENV) and Chikungunya virus (CHIKV). ASV 2025: Annual Meeting of the American Society of Virology; 2025 Jul 14-17; Montréal, Québec, Canada. Abstract no. 16-2.

**Professional recognitions**

Adjunct Faculty, College of Health Sciences, Department of Biomedical Science, University of Liberia, Monrovia, Liberia. Senior Fellow, VIC Fellows Program, VIC Technology Venture Development. Academic Editor, *PLOS One*. Topic Editor, *Vaccines*.

**Schuler, A. Michele, D.V.M, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Yuzefovych LV, Noh HL, Suk S, Schuler AM, Mulekar MS, Pastukh VM, Kim JK, Rachek LI. Mitochondria-targeted DNA repair glycosylase hOGG1 protects against HFD-induced liver oxidative mitochondrial DNA damage and insulin resistance in OGG1-deficient mice. Int J Mol Sci. 2024 Nov 13;25(22):12168.

**Abstracts**

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

**Professional recognitions**

Secondary veterinarian for the Alabama Marine Mammal Stranding Network.

**Shea, Allyson E., Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Stocki JA, Fleck RC, Nguyen IB, Walde R, Mobley HLT, Shea AE. Asymptomatic bacteriuria screening for developing countries using a modified water quality test kit. Appl Environ Microbiol. 2024 Nov 20;90(11):e0156724.

**Abstracts**

Adesunloro OO, Fleck RC, Tipton C, Diaz N, Shea AE. Predicting sepsis progression through microbial genomics and community dynamics. American Society for Microbiology Microbe 2025; 2025 Jun 19-23; Los Angeles, CA. Abstract no. 5196.

Shea A, Adesunloro OO, Jeffreys J, Audia J. Amyloid-β accumulation during bacterial infection contributes to disease pathophysiology. 2024 Midwest Microbial Pathogenesis Conference; 2024 Sep 13-14; Bloomington, IN. p. 98. Abstract no. 44.

Adesunloro OO, Jeffreys J, Bryant H, Audia JP, Shea AE. Investigating the role of Amyloid-β in UPEC-driven urinary tract infection. American Society for Microbiology Microbe 2025; 2025 Jun 19-23; Los Angeles, CA. Abstract no. 4038.

Hardy SL, Pandey S, Shea AE. Genotypic and phenotypic variability of uropathogenic *Escherichia coli* linked to patient variables and clinical outcomes. American Society for Microbiology Microbe 2025; 2025 Jun 19-23; Los Angeles, CA. p. 38. Abstract no. 4266.

Pearson M, Shea A, Kuo S, Mobley H. The ins and outs of *Proteus mirabilis* sugar transport during urinary tract infection. 2024 Midwest Microbial Pathogenesis Conference; 2024 Sep 13-14; Bloomington, IN. p. 92. Abstract no. 38.

Shea AE, Kuo S, Mobley HLT, Pearson MM. The ins and outs of *Proteus mirabilis* sugar transport during urinary tract infection. American Society for Microbiology Microbe 2025; 2025 Jun 19-23; Los Angeles, CA. Abstract no. 4908.

**Invited presentations**

Shea A. Invited speaker. Urine trouble: recurrent UTIs after menopause. EmpowerUS Gulf South Women's Health Forum; 2024 Dec 12; New Orleans, LA.

**Professional recognitions**

Reviewer, Infectious Disease Drug Development and Molecular Pharmacology Study Section. Peer Reviewer, *BMC Pediatrics, Frontiers, Microbiology Spectrum, Journal of Bacteriology*. Member, American Society for Microbiology, Urinary Tract Infection Global Alliance (UTIGA), American Urology Association. Committee Member, Planning Committee for the 6$^{th}$ Clinical and Scientific Advances in UTI Meeting by UTIGA.

**Section III – Research and Innovation Spotlight**

**Title:** UroBacT: A Rapid, Low-Cost Diagnostic Kit for Urinary Tract Infections

**Collaborators:** Dr. Allyson Shea, Rachel Fleck, Ethan Myers

**Summary:**
Over the past year, Dr. Shea and her team developed a simple, low-cost method for urinary tract infection (UTI) screening intended for use in settings without specialized laboratory equipment. This diagnostic approach emerged from participation in the USA I-Corps and Launch USA programs and resulted in a provisional U.S. utility patent filed in October 2024, with plans to convert to a non-provisional application.

As part of the USA I-Corps program, the team conducted structured customer discovery interviews with clinicians and patients to refine the technology based on identified clinical and community needs. In Fall 2025, Dr. Shea will present the invention in a Shark Tank-style pitch at the Launch USA Big Ideas Challenge to seek funding for innovation and commercialization. Collectively, these activities represent the progression of the work from a research concept to a patent-pending diagnostic tool intended to enable earlier UTI detection and support appropriate antibiotic use in low-resource settings.

# 2024-2025
# Summary of Scholarly Activities
# Department of Neurology

## Section I – Department Overview and Highlights

## Section II – Faculty Scholarly Activity and Professional Recognition

**Aita, Stephen, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters and Patents**

Aita SL, Holding EZ, Bolander RP, Marshall K, Oberg C, Schuler B, Derosier M, Teevens EF, Lichtenstein JD. Associations of tackling characteristics, player position, and head contact risk during game play in college football. J Athl Train. 2025 May 13;60(9):653–663.

Darwazah H, Hammond JB, Aita SL, Moncrief GG, Thompson RC, Lichtenstein JD, Roth RM. Coronavirus anxiety and its relationship to mood and cognition in post-acute sequelae of COVID-19. Appl Neuropsychol Adult. 2025 Feb 24:1-9.

Knapp SAB, Austin DS, Aita SL, Caron JE, Owen T, Borgogna NC, Del Bene VA, Roth RM, Milberg WP, Hill BD. Neurocognitive and psychiatric outcomes associated with postacute COVID-19 infection without severe medical complication: a meta-analysis. J Neurol Neurosurgy Psychiatry. 2024 Nov 18;95(12):1207-1216.

Pizer JH, Hernandez KA, Aita SL, Ikonomou VC, Myers MA, Hawley NA, Brasil KM, Borgogna NC, Spiegel JA, Smitherman TA, Hill BD. Neuropsychological functioning in pediatric primary headache disorders: a meta-analysis. Pediatrics. 2025 May 1;155(5):e2024067838.

**Abstracts**

Kiselica AM, Compton S, Lin SSH, Kaser A, Mikula C, Milam A, Woods SP, Webber T, Weitzner D, Aita S, Borgnona N, Walker KA, Kamath V, Visscher K, Murchison CF, Geldmacher DS, Roberson ED, Hill BD, Boone A, Wolf T, Bene VD. Developing and validating normed scores for cognitive dispersion among older adults. Alzheimers Dement. 2025 Dec 25;21(Suppl 3):e105896.

Milam A, Aita SL, Saeed M, Borgogna N, Campbell I, Ikonomou V, Walker KA, Kamath V, Visscher K, Murchison C, Geldmacher DS, Roberson E, Hill BD, Del Bene V. The association of cerebrospinal fluid biomarkers of Alzheimer's disease with cognitive intra-individual variability. Arch Clin Neuropsychol. 2024 Oct;39(7):929.

**Bassam, Bassam, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Bassam BA. Nerve conduction pitfalls [video]. In: VUMEDI [database online]. Oakland, CA: VUMEDI; 2024 Nov 4. Available from: https://www.vumedi.com/video/nerve-conduction-pitfalls/ [Subscription required].

Bassam BA. Recent advances in NMDs therapies [video]. In: VUMEDI [database online]. Oakland, CA: VUMEDI; 2025. Available from: https://vumedi.com/videoyear-in-review-recent-advances-in-nmd-therapies [Subscription required].

**Invited presentations**

Bassam, BA. Invited speaker. Nerve Conduction Study (NCS) pitfalls. 2024 American Association of Neuromuscular and Electrodiagnostic Medicine 70th Annual Meeting; 2024 Oct 15; Savannah, GA.

Bassam, BA. Invited speaker. Peripheral neuropathy: pearls and pitfalls. 10th Annual USA Health Neuroscience Symposium; 2025 Apr 26; Orange Beach, AL.

**Professional recognitions**

Bassam was nominated and facilitated registration of Akhil Padarti, MD to attend "CIDP Ambassador Program" by CNSA at Raleigh, North Carolina November 14 -16, 2024.

Bassam received A. B. Backer Teaching Recognition Award by the American Academy of Neurology (AAN). He also received USA Medical Alumni Association "Distinguished Service Award" in recognition of excellent in clinical services, education and scholarly work at Whiddon College of Medicine, Gulf Shores, AL 2025 June 13.

Bassam contributes to the annual Resident's Summer Emergency Course, as well as the annual "Clinical and Basic Science Course" regularly. Bassam invited Mohamed Kazamel, MD Professor of Neurology, UAB for USA Neurology Grand Rounds POTs October 1, 2024. Bassam invited Rima Abassi, MD Associate Professor of Neurology, LSU for USA Neurology Grand Rounds "Spectrum of Neuromuscular Complications in Alcoholics" 2024 October 8.

**Czarkowska, Hanna, M.D.**
**Invited presentations**

Czarkowska H. Invited speaker. I'm stuck! the inpatient management of Parkinson's disease. 10th Annual USA Health Neuroscience Symposium; 2025 Apr 27; Orange Beach, AL.

**Dees, Daniel, M.D.**
**Invited presentations**

Dees D. Invited speaker. Parkinson's Research and Opportunities. Moving Day South Alabama Parkison's Walk; 2025 Apr 12; Mobile, AL.

Dees D. Invited speaker. Why does grandma fall? 10th Annual USA Health Neuroscience Symposium; 2025 Apr 26; Orange Beach, AL.

**Kilgo, William, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Sanchez A, Sheng E, Eagleman S, Eubanks JL, Izbicki P, McCurdy S, Burrill M, Qureshi F, Ghoreyshi A, Williams MJ, Weigel M, Kilgo W, Nicholas J, Okai A, Belkin M, Burnham J, Jassam Y, Sy M, Gonyou T. Real-world clinical utility of a multi-protein, blood-based biomarker assay for disease activity assessments in multiple sclerosis. Mult Scler J Exp Transl Clin. 2025 Apr 16;11(2):20552173251331030.

**Invited presentations**

Kilgo, W. Invited speaker. Updated Material for diagnosing multiple sclerosis. 10th Annual USA Health Neuroscience Symposium; 2025 Apr 26; Orange Beach, AL.

Kilgo W, Sanchez J. Invited speakers. Neurology career mentoring. 10th Annual Neuroscience Symposium; 2025 April 26; Orange Beach, AL.

**Kobelja, Robert, M.D.**
**Invited presentations**

Kobelja R. Invited speaker. Comprehensive care in amyotrophic lateral sclerosis. 10th Annual USA Health Neuroscience Symposium; 2025 Apr 26; Orange Beach, AL.

**Naritoku, Dean, M.D.**
**Invited presentations**

Naritoku D. Invited speaker. Clinical pearls for seizure management. 10th Annual USA Health Neuroscience Symposium; 2025 Apr 27; Orange Beach, AL.

**Nisar, Taha, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Kim Y, Salazar-Marioni S, Abdelkhaleq R, Iyyangar A, Haussen D, Grossberg J, Dolia J, Pabaney A, Mohammaden M, Hassan A, Tekle W, Saei H, Abdalkader M, Klein P, Nisar T, Saleemi A, Majidi S, Fifi J, Valestin G, Linares G, Christopher K, Liebeskind DS, Jumaa M, Zaidi S, Nogueira

R, Mehta B, Sessa J, Vivanco-Suarez J, Rodriguez-Calienes A, Galecio-Castillo M, Ortega-Gutierrez S, Siegler J, Penckofer M, Linfante I, Sheth SA; SVIN Registry Consortium. Comparison of thrombectomy alone versus bridging thrombolysis in a US population using regression discontinuity analysis. Sci Rep. 2025 May 28;15(1):18757.

**Invited presentations**

Nisar T. Invited speaker. Starting anti-platelets and anti-coagulation after intracranial hemorrhage and ischemic stroke. 10th Annual USA Health Neuroscience Symposium; 2025 Apr 27; Orange Beach, AL.

**Ramsay, Eugene, M.D.**
**Invited presentations**

Ramsay R. Invited speaker. Subclinical status epilepticus: a hidden inpatient dilemma. 10th Annual USA Health Neuroscience Symposium; 2025 Apr 27; Orange Beach, AL.

**Saleemi, Adeel, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Kim Y, Salazar-Marioni S, Abdelkhaleq R, Iyyangar A, Haussen D, Grossberg J, Dolia J, Pabaney A, Mohammaden M, Hassan A, Tekle W, Saei H, Abdalkader M, Klein P, Nisar T, Saleemi A, Majidi S, Fifi J, Valestin G, Linares G, Christopher K, Liebeskind DS, Jumaa M, Zaidi S, Nogueira R, Mehta B, Sessa J, Vivanco-Suarez J, Rodriguez-Calienes A, Galecio-Castillo M, Ortega-Gutierrez S, Siegler J, Penckofer M, Linfante I, Sheth SA; SVIN Registry Consortium. Comparison of thrombectomy alone versus bridging thrombolysis in a US population using regression discontinuity analysis. Sci Rep. 2025 May 28;15(1):18757.

**Abstracts**

Saleemi A, Daniel Isaza-Pierotti. A rare case of ruptured mycotic aneurysm. 10th Annual USA Health Neuroscience Symposium; 2025 Apr 25-27; Orange Beach, AL.

Saleemi A, Daniel Isaza-Pierotti. Posterior Circulation Syndrome with Negative MRI. 10th Annual USA Health Neuroscience Symposium; 2025 Apr 25-27; Orange Beach, AL.

**Professional recognitions**

Local Pl for University of South Alabama - CAPTIVA trial (Anticoagulation vs. Antiplatelet for treatment of symptomatic intracranial vascular atherosclerosis) Local co-Pl for ASPIRE - Anticoagulation in ICU Survivors for Stroke Prevention and Recovery Local sub-Pl for SATURN - Statin use in lntracerebral hemorrhage patients Local sub-Pl for SVIN Registry.

**Sanchez, Jose, M.D.**
**Invited presentations**

Sanchez J. Invited speaker. Neuropathic pain: evaluation & management. 10th Annual USA Health Neuroscience Symposium; 2025 Apr 25; Orange Beach, AL.

**Soltys, John, M.D.**
**Invited presentations:**

Soltys J. Invited speaker. Autoimmune encephalitis: lurking in the shadows. 10th Annual USA Health Neuroscience Symposium; 2025 Apr 25; Orange Beach, AL.

**Professional recognitions**

2024-2025 Outstanding Teaching Award, Neurology Residency Program

**Sugg, Rebecca, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Davies JM, Taqi MA, Coon AL, Lin LM, Bohnstedt B, Mascitelli J, Levy EI, Siddiqui A, Birnbaum L, Rodriguez P, Noufal M, Taussky P, Kilburg C, Gooch MR, Puri AS, Diaz O, Fifi JT, Majidi S, Yoo AJ, Soomro J, Bhuva P, Taylor RA, Oni-Orisan AO, Chen M, Sauvageau E, Cordina SM, Sugg RM, Singh J, Goren O, Liebeskind DS, Hanel RA. Comaneci-assisted embolization of wide-necked aneurysms: results from the SUCCESS postmarket US study. J Neurointerv Surg. 2025 Nov 19:jnis-2025-024136.

Rodriguez-Calienes A, Siddiqui FM, Galecio-Castillo M, Mohammaden MH, Dolia JN, Grossberg JA, Pabaney A, Hassan AE, Tekle WG, Saei H, Miller S, Majidi S, T Fifi J, Valestin G, Siegler JE, Penckofer M, Zhang L, Sheth SA, Salazar-Marioni S, Iyyangar A, Nguyen TN, Abdalkader M, Linfante I, Dabus G, Mehta BP, Sessa J, Jumma MA, Sugg RM, Linares G, Nogueira RG, Liebeskind DS, Haussen DC, Ortega-Gutierrez S. Rescue Therapy for Failed Mechanical Thrombectomy in Acute Ischemic Stroke: A Pooled Analysis of the Society of Vascular and Interventional Neurology Registry. Ann Neurol. 2024 Aug;96(2):343-355.

**Section III – Research and Innovation Spotlight**

# 2024-2025
# Summary of Scholarly Activities
# Department of Neurosurgery

## Section I – Department Overview and Highlights

The USA Department of Neurosurgery continued to show significant growth, with the successful onboarding of a new surgeon with a subspecialty in degenerative spine, Dr Marc Manix. We successfully relocated our elective clinical practice from Strada Patient Care Center to the Providence Outpatient Complex. We had our first successful completions of our two non-accredited Fellowships this past year: Dr. Sudhir Suggala for Complex Spine and Dr. Adnan Shahid for Cranial and Skull Base Neurosurgery. Starting in July, a new fellow, Dr. Mehdi Khaleghi, began his Cranial and Skull Base fellowship under Dr. Jai Thakur. Dr. Andrew Romeo, our Functional Movement specialist, performed the first radio frequency ablation for seizure control in our region. He has also grown the Inspire program for those patients with sleep apnea. We are planning to institute an interdisciplinary collaboration with the Department of Orthopedics to merge orthopedic and neurosurgery spine care for more complete patient coverage and on-call sharing for USA hospitals. Dr. Asra Toobaie has joined us in this new combined spine service. She works primarily at Providence Hospital, but also at University Hospital. Dr. Menger now has a satellite spine clinic in Fairhope twice a month. As a department, we are actively in the process of re-applying to the ACGME for an accredited neurosurgery residency program. In conjunction with this, we have established a relationship with Emory University Healthcare for collaboration in pediatric and vascular neurosurgery rotations.

## Section II – Faculty Scholarly Activity and Professional Recognition

**Darbin, Oliver, MD**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Darbin O, Eghbalnia HR, Romeo A, Montgomery EB Jr. Emergence of structures in neuronal network activities. Sci Rep. 2025 Jan 2;15(1):220.

Darbin O, Eghbalnia HR, Romeo A, Montgomery EB Jr. Author correction: emergence of structures in neuronal network activities. Sci Rep. 2025 Mar 26;15(1):10490.

Magnant GA, Darbin O, McKee K, Martino A. Management of cutaneous scalp complications in deep brain stimulation: illustrative cases. J Neurosurg Case Lessons. 2025 May 5;9(18):CASE24833.

Suggala S, Dyess GA, Darbin O, Menger RP. Delayed neurological deficit due to a medially misplaced thoracic pedicle screw during adolescent idiopathic scoliosis correction: a complication 6 years in the making. Spine Deform. 2025 Jan;13(1):311-324.

**Professional recognitions**

Reviewer; International Journal of Neural Systems, Scientific Reports (Springer Nature), Biological Cybernetics (Springer Nature), Communication Biology (Springer Nature), Molecular Neurobiology (Springer Nature), Cognitive Neurodynamics (Springer Nature), Journal of Biological Physics (Springer Nature), Brain Informatics (Springer Nature), Pattern Analysis and Applications (Springer Nature), Advances in Neuroscience, Experimental Neurology, Movement Disorders, The Journal of Neuroscience, Journal of Neuroscience Methods, Brain Research, Seizure: European Journal of Epilepsy, Clinical Neurophysiology, BioMed Research International Cancers, Frontier Neurology, Frontier Neurosciences, Frontier System Neurosciences Frontier Human Neurosciences. Editorial board for International Journal of Neural Systems (Editorial board member), Brain Research (Editorial board member), Frontier System Neurosciences (Editorial board member), Advances in Neuroscience (Editorial board member), BioMed Research International (Editorial board member), Frontier Neurology Special Topic (Guest Associate Editor), Frontier Human Neurosciences Special Topic (Guest Associate Editor).

**Manix, Marc, MD, FAANS**
**Invited presentations**

Manix M. Invited speaker. Endoscopic spine surgery [video]. "The Doctor is In" segment, WKRG News 5; 2024 Dec 27; Mobile, AL. Available from: https://www.wkrg.com/the-doctor-is-in/endoscopic-spine-surgery-with-dr-marc-manix/

Manix M. Invited speaker. Spine problems [video]. "The Doctor is In" segment, News 5; 2024 Oct 15; Mobile, AL. Available from: https://www.wkrg.com/health-2/medical-moment-spine-problems-with-dr-marc-manix/

Manix M. Invited speaker. Lower back pain: evaluation, diagnosis, and treatment. 10th Annual Neuroscience Symposium; 2025 Apr 26; Orange Beach, AL.

**Martino, Anthony, MD**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Magnant GA, Darbin O, McKee K, Martino A. Management of cutaneous scalp complications in deep brain stimulation: illustrative cases. J Neurosurg Case Lessons. 2025 May 5;9(18):CASE 24833.

**Menger, Richard MD, MPA**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

Dyess G, Bassett M, Baker N, Cooper C, Dinelli I, Aljabi Q, McIlwain R, Baroody J, Butler DW, Sotello B, Rallo M, Goldsmith N, Dribbus B, Bolus H, Ogles C, Nguyen I, Thakur J, Agarwal N,

Gordon PV, Menger RP. Publication volume and equity in competitive surgical residency programs: a bibliometric analysis of the 2023-2024 match. Cureus. 2025 Apr 17;17(4):e82451.

Eastlack RK, Menger RP, Turner JD, Ashcraft KR, Carlton Recking W, Kleck CJ. Spinopelvic fixation using an osseointegrative implant: analysis of postmarket surveillance to determine the failure rate. Int J Spine Surg. 2025 Jun 12;19(3):273-278.

Mullin JP, Tumialán LM, Raksin PB, Shankar GM, Menger R, Bisson EF, Bydon M, Potts EA, Uribe JS. Response to the AO Spine/Praxis Spinal Cord Institute guidelines for the management of acute spinal cord injury. J Neurosurg Spine. 2025 Jan 24;42(4):530-532.

Shahid AH, Khaleghi M, Suggala S, Butler D, Hummel U, Gacek M, Menger R, Thakur JD. Is naso-axial line a better predictor in endoscopic endonasal resection of the odontoid and pannus removal? Technical nuances of maximizing corridor and maintaining occipital cervical joint stability. J Clin Neurosci. 2025 Feb;132:110995.

Suggala S, Dyess GA, Darbin O, Menger RP. Delayed neurological deficit due to a medially misplaced thoracic pedicle screw during adolescent idiopathic scoliosis correction: a complication 6 years in the making. Spine Deform. 2025 Jan;13(1):311-324.

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

**Abstracts**

Menger R, Kleck CJ, Mullen JP, Ashcraft, K. Use of a novel screw fusion implant for pelvic fixation: results from a prospective multicenter trial. 32nd International Meeting on Advanced Spine Techniques; 2025 Apr 2-5; Glascow, Scotland. p. 101. Abstract no. 98.

**Invited presentations**

Menger R. Invited speaker. Planning ahead: optimizing time in the OR. International Pediatric Orthopedic Symposium 2024; 2024 Dec 4; Orlando, FL.

Menger R. Invited speaker. Advancements in spine and neurosurgery. 2025 University of South Alabama Medical Alumni Association Reunion; 2025 Jun 14; Gulf Shores, AL.

**Professional recognitions**

Writer: *Forbes* Healthcare Opinion Contributor, Specialty Leader Neurosurgery for the United States Navy Reserve, AANS Marketing and Communications Committee, Neurosurgery Society of Alabama, Annual Meeting Course Scientific Chair, Online education review board Congress of Neurological Surgeons, Scoliosis Research Society LEAD Program, Scoliosis Research Society Health Policy Committee, North American Spine Society, Council of State Neurosurgical Societies, Association of Military Surgeons of the United States.

**Pearson, Matthew, MD**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Singh KB, Muthyala K, Pierotti D, Martin B, Morrison E, Pearson M, Alkharabsheh O. Case series and literature review of rare intracranial presentations of classic Hodgkins lymphoma. J Med Imaging Case Rep. 2025 Feb 21;9(1):1-6.

**Invited presentations**

Pearson M. Invited speaker. National neurosurgery awareness month [video]. "Medical Moment" segment, WKRG News 5; 2024 Aug 19; Mobile. AL. Available from: https://www.wkrg.com/health-2/medical-moment-the-importance-of-neurosurgery-with-dr-matthew-pearson/

Pearson M. Invited speaker. Pediatric falls and how to avoid pediatric head injuries [video]. "Medical Minute" segment, Fox 10 News; 2024 Dec 17; Mobile, AL. Available from: https://www.fox10tv.com/2024/12/18/usa-healths-dr-matthew-pearson-discusses-how-avoid-pediatric-head-injuries/

**Romeo, Andrew MD**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Darbin O, Eghbalnia HR, Romeo A, Montgomery EB Jr. Emergence of structures in neuronal network activities. Sci Rep. 2025 Jan 2;15(1):220.

Darbin O, Eghbalnia HR, Romeo A, Montgomery EB Jr. Author correction: emergence of structures in neuronal network activities. Sci Rep. 2025 Mar 26;15(1):10490.

**Jai D. Thakur, MD, FAANS**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

Dyess GA, Ghalib MA, Taylor Z, Sabetta Z, Taylor E, Butler D, Bassett M, Harris L, Bolus H, Shahid A, Thakur JD. Careers in skull base and open cerebrovascular surgery: factors associated with academic job placement. J Neurol Surg B Skull Base. 2024 Aug 20;86(5):591-601.

Khaleghi M, Shahid AH, Suggala S, Dyess G, Hummel UN, Chason DN, Butler D, Thakur JD. Modified graded skull base reconstruction for intraoperative CSF leak repair in endoscopic endonasal surgeries: a single-surgeon experience in initial years of practice and nuances in the early learning curve. Neurosurg Focus. 2025 Feb 1;58(2):E6.

Shahid AH, Khaleghi M, Suggala S, Butler D, Hummel U, Gacek M, Menger R, Thakur JD. Is naso-axial line a better predictor in endoscopic endonasal resection of the odontoid and pannus removal? Technical nuances of maximizing corridor and maintaining occipital cervical joint stability. J Clin Neurosci. 2025 Feb;132:110995.

**Professional recognitions**

Reviewer Journal of Neurosurgery Publishing Group; World Neurosurgery. AANS E2M Committee- JNSPG reviewer 2024 onwards; Inaugural Chair, MCI, Department of Cancer Biology: Selection Committee Member 2024-2025; (Invited Faculty), Congress of Neurological Surgeons October 2024.

**Section III – Research and Innovation Spotlight**

# 2024-2025
# Summary of Scholarly Activities
# Department of Obstetrics & Gynecology

## Section I – Department Overview and Highlights

To better meet the complex gynecological needs of women, physicians, nurse practitioners, and other healthcare providers from across the Southeast gathered April 3-4 for USA Health's 31st annual Obstetrics and Gynecology Education Conference in Biloxi, Mississippi.

"Things in medicine change so quickly that it's a good idea for us to share updates on the latest trends and advances," said Mary (Mimi) B. Munn, M.D., a maternal-fetal medicine physician and professor and chair of obstetrics and gynecology at USA Health. "And with the closure of so many OB-GYN practices in rural areas, it's critical for USA Health to continue to foster collaborations and partnerships in this time of decreasing resources."

Held at the Golden Nugget Biloxi Hotel & Casino, the symposium featured presentations on topics ranging from menopause and menopause hormone therapy to medical management of obesity and the success of an at-home blood pressure monitoring program at Children's & Women's Hospital.

More than a dozen members of the USA Health OB-GYN staff made presentations, along with other guest speakers, including additional faculty members from the Frederick P. Whiddon College of Medicine at the University of South Alabama, and Texas A&M University.

Constance Collins Dabezies, M.D., FACOG, MSCP, a board-certified OB-GYN who sees patients at USA Health's medical offices in Spanish Fort, discussed the health concerns that can come with menopause and the evidence-based guidelines that physicians can follow to help their patients better navigate that stage of life.

An estimated 2 million women reach menopause each year in the United States. The onset is typically described as a point in time 12 months after a woman's last menstrual cycle, according to the National Institute on Aging, noting that the years leading up to that point — when women may have changes in their monthly cycles, hot flashes, or other symptoms — are called the menopausal transition or perimenopause.

For many women, the menopausal transition often begins between ages 45 and 55. It typically lasts seven years but can span 14 years or longer, research indicates.

Dabezies urged those gathered not to be dismissive of a patient's symptoms and to offer individualized and collaborative care, including shared decision making.

When it comes to treatment options for those suffering from symptoms related to menopause, Dabezies said there is "evidence-based data to support the use of menopause hormone therapy." She offered additional resources for attendees, including a 2022 Hormone Therapy Position Statement of the Menopause Society, and answered multiple questions following the presentation.

Dabezies is among a small group of healthcare providers in Alabama to hold the NAMS Certified Menopause Practitioner designation from the Menopause Society.

“We hope those who attended will be inspired by the presentations,” Munn said, “and go back to their practices equipped with more tools and strategies to better help their patients deal with the unique and challenging health issues women often face.”





OB-GYN Conference

**Section II – Faculty Scholarly Activity and Professional Recognition**

**Baker, Susan, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Boggess K, Leach J, Dugoff L, Sibai B, Hughes BL, Bell J, Aagaard K, Edwards R, Gibson K, Haas DM, Plante L, Metz T, Casey B, Longo S, Hoffman MK, Saade GR, Hoppe KK, Foroutan J, Owens M, Simhan HN, Frey H, Rosen T, Palatnik A, Baker S, Kinzler W, Su E, Krishna I, Norton ME, Skupski D, El-Sayed YY, Librizzi R, Pereira L, Habli M, Williams S, Pridijan G, McKenna DS, Chang E, Osmundson S, Galis Z, Harper L, Ambalavanan N, Szychowski J, Tita A. Relationship between third-trimester low maternal blood pressure and small-for-gestational-age birth weight in pregnant individuals with mild chronic hypertension. Obstet Gynecol. 2025 Jul 10;146(3):405-412.

Martin SL, Kuo HC, Boggess K, Dugoff L, Sibai B, Lawrence K, Hughes BL, Bell J, Aagaard K, Gibson KS, Haas DM, Plante L, Metz TD, Casey BM, Esplin S, Longo S, Hoffman M, Saade GR, Foroutan J, Tuuli MG, Owens MY, Simhan HN, Frey HA, Rosen T, Palatnik A, Baker S, August P, Reddy UM, Kinzler W, Su EJ, Krishna I, Nguyen N, Norton ME, Skupski D, El-Sayed YY, Ogunyemi D, Galis ZS, Ambalavanan N, Oparil S, Librizzi R, Pereira L, Magann EF, Habli M, Williams S, Mari G, Pridjian G, McKenna DS, Parrish M, Chang E, Osmundson S, Quinones J, Werner E, Szychowski JM, Tita ATN; CHAP Consortium. Effects of antihypertensive therapy during pregnancy on postpartum blood pressure control. Obstet Gynecol. 2024 Oct 1;144(4):536-542.

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

Mari G, Pridjian G, McKenna DS, Parrish M, Chang E, Quiñones J, Galis ZS, Ambalavanan N, Sinkey RG, Szychowski JM, Tita ATN. Optimal timing of delivery for pregnant individuals with mild chronic hypertension. Obstet Gynecol. 2024 Sep 1;144(3):386-393.

Palatnik A, Leach J, Harper L, Sibai B, Longo S, Dugoff L, Lawrence K, Hughes BL, Bell J, Edwards RK, Gibson KS, Rouse C, Plante L, Hoppe KK, Foroutan J, Tuuli M, Simhan HN, Frey H, Rosen T, Metz TD, Baker S, Kinzler W, Su EJ, Krishna I, Norton ME, Skupski D, El-Sayed YY, Pereira L, Magann EF, Habli M, Geller NL, Williams S, McKenna DS, Chang E, Quiñones J, Szychowski JM, Tita ATN. Antihypertensive therapy and unplanned maternal postpartum healthcare utilization in patients with mild chronic hypertension. Am J Obstet Gynecol MFM. 2024 Dec 6(12):101525.

**Dabezies, C., M.D.**
**Invited presentations**

Dabezies, C. Invited speaker. Let's talk menopause…and menopause hormone therapy. USA Health 31st Annual Obstetrics & Gynecology Conference; 2025 Apr 3; Biloxi, MS.

**Holliday, Candice, M.D.**
**Invited presentations**

Holliday CP. Invited speaker. Confronting the maternal health crisis: access, equity and reform. Loyola University Chicago School of Law; 2025 Oct 24; Chicago, IL.

Holliday CP. Invited speaker. The doctor is in…court: lessons from malpractice cases. USA Health 31st Annual Obstetrics & Gynecology Conference; 2025 Apr 3; Biloxi, MS.

Roth T, Holliday CP, Holliday NP. Invited speakers. Teamwork and action: unleashing collaborative surgical skills in Simulation Olympics. Council on Resident Education in Obstetrics and Gynecology & Association of Professors of Gynecology & Obstetrics Annual Meeting; 2025 Feb 28; Philadelphia, PA.

**Holliday, Nicolette, M.D.**
**Invited presentations**

Roth T, Holliday CP, Holliday NP. Invited speakers. Teamwork and action: unleashing collaborative surgical skills in Simulation Olympics. Council on Resident Education in Obstetrics and Gynecology & Association of Professors of Gynecology & Obstetrics Annual Meeting; 2025 Feb 28; Philadelphia, PA.

**Munn, M., M.D.**
**Invited presentations**

Munn, M. Invited speaker. Placenta accreta spectrum. USA Health 31st Annual Obstetrics & Gynecology Conference; 2025 Apr 4; Biloxi, MS.

**Perez, W., M.D.**
**Invited presentations**

Perez, WM. Invited speaker. Paradigm shifts in contemporary labor management: the low hanging fruit. USA Health 31st Annual Obstetrics & Gynecology Conference; 2025 Apr 4; Biloxi, MS.

**Roth, T., M.D.**
**Invited presentations**

Roth T, Holliday CP, Holliday NP. Invited speakers. Teamwork and action: unleashing collaborative surgical skills in Simulation Olympics. Council on Resident Education in Obstetrics and Gynecology & Association of Professors of Gynecology & Obstetrics Annual Meeting; 2025 Feb 28; Philadelphia, PA.

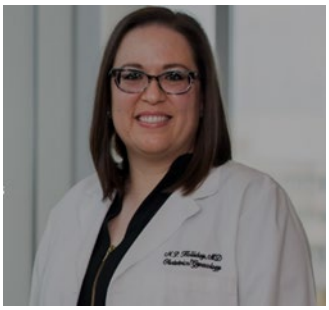
**Varner, SF, M.D.**
**Invited presentations**

Varner SF. Invited speaker. Persistent genital arousal disorder. USA Health 31st Annual Obstetrics & Gynecology Conference; 2025 Apr 3; Biloxi, MS.

**Section III – Research and Innovation Spotlight**

Artificial Intelligence – Nicolette Holliday, MD and Bhushan Lohar, MD

Dr. Holliday, the Clerkship Director of OBGYN, aimed to enhance medical students' preparation for sensitive patient conversations they often face during residency. Recognizing the challenge of involving students in real clinical discussions on delicate topics, she connected with Dr. Lohar, an assistant professor of systems engineering. Together, with support from the National Science Foundation's Innovation Corps, they explored using AI-driven simulations to create realistic learning experiences. After conducting interviews with students and faculty to identify key needs, Dr. Lohar's team developed a system architecture using modeling languages and AI technology. OBGYN continues to enrich the AI avatars with specialized knowledge, enabling them to provide accurate responses and cues, ultimately improving student readiness for clinical practice.


Dr. Nicolette Holliday, MD

# 2024-2025
# Summary of Scholarly Activities
# Department of Orthopaedic Surgery

## Section I – Department Overview and Highlights

Due to successful recruitment and driven leadership, we are happy to introduce two new faculty to our department, Dr. Charles Rodriguez-Feo and Dr. Sessums.

Dr. Charles Rodriguez-Feo joined the department in January 2025, developing the new Hand Surgery Service utilizing the highest level of hand surgery certification, CAQ. In his role as an Assistant Professor, he enjoys teaching residents the intricacies of hand surgery.

Dr. Price Sessums joined the department in April 2025, helping expand our orthopaedic and sports medicine practices, as an Assistant Professor and surgeon with a focus on sports medicine.

## Section II – Faculty Scholarly Activity and Professional Recognition

**Cutchen, William, M.D.**
**Publications:**
**Abstracts**

Boyd T, Perkins A, Cutchen W, Dunaway C. Secondary distal femoral fracture following Salter-Harris II fixation: a case report and review. Alabama and Mississippi Orthopaedic Societies' 2025 Regional Meeting; 2025 May 15–17; Destin, FL.

Boyd E, Shively K, Dunaway B, Cutchen W. Pediatric Monteggia fracture variant: a case report. Alabama and Mississippi Orthopaedic Societies' 2025 Regional Meeting; 2025 May 15-17; Destin, FL.

Maina S, Cutchen W, McDonald T. Treatment of bilateral severe equinocavovalgus deformities secondary to neurosarcoidosis in a pediatric patient: a case report. Alabama and Mississippi Orthopaedic Societies' 2025 Regional Meeting; 2025 May 15-17; Destin, FL.

**Clay, Terry, M.D.**
**Publications:**
**Abstracts**

Clay T. UCL repair. Alabama and Mississippi Orthopaedic Societies' 2025 Regional Meeting; 2025 May 15-17; Destin, FL.

Clay T. UCL reconstruction. Alabama and Mississippi Orthopaedic Societies' 2025 Regional Meeting; 2025 May 15-17; Destin, FL.

Clay T. UCL repair vs reconstruction. Alabama and Mississippi Orthopaedic Societies' 2025 Regional Meeting; 2025 May 15-17; Destin, FL.

**McDonald, Tyler, M.D., FAAOS**
**Invited presentations**

McDonald T. Invited speaker. Pediatric scoliosis with Dr. Tyler McDonald [podcast]. Alabama Pediatrician: Conversations and Information for Your Practice; 2024 Oct 24. Available from: https://podcastaddict.com/episode/https%3A%2F%2Fwww.buzzsprout.com%2F2176486%2Fepisodes%2F15988093-pediatric-scoliosis-with-dr-tyler-mcdonald.mp3&podcastId=6176177

**Mullens, Jess, M.D.**
**Professional recognitions**

Dr. Mullens was awarded Faculty of the Year in the Orthopaedic Surgery Department.

**Rippey, Peter, M.D., CAQSM**
**Publications:**
**Abstracts**

Rippey P. Fumble on the field: case report on perilunate dislocation. 2025 American Medical Society for Sports Medicine Annual Meeting; 2025 Apr 22-27; Kansas City, MO.

Rippey P. Not your average scraped knee: conservative management of a pediatric tibial eminence fracture. 2025 American Medical Society for Sports Medicine Annual Meeting; 2025 Apr 22-27; Kansas City, MO.

**Invited presentations**

Rippey P. Invited speaker. Too much warm up? Exercising in an era of climate change. University of Calgary Department of Kinesiology; 2024 Sep 27; Calgary, Alberta, Canada.

Rippey P. Invited speaker. Too much warm up? Exercising in an era of climate change. University of Alberta, Edmonton Department of Physical Medicine & Rehabilitation; 2024 Oct 4; Edmonton, Alberta, Canada.

Rippey P. Invited speaker. Introduction to MSK ultrasound. 2nd Annual Yellowhammer Fellows Conclave; 2025 Jul 12; Birmingham, AL.

Rippey P. Invited speaker. Starting peripheral IVs in the training room. 2nd Annual Yellowhammer Fellows Conclave; 2025 Jul 12; Birmingham, AL.

**Professional recognitions**

Dr. Rippey was a panelist in Top 10 Sports Medicine Articles of 2024.

**Section III – Research and Innovation Spotlight**

The Department of Orthopaedic Surgery officially created its Research Division, led by Dr. Tyler McDonald, in May 2025. The team is spearheaded by Research Coordinators McKenzie Eubanks and Wells Keaton. The division plays a key role in protocol development, data management, and academic dissemination for the faculty and residents.

# 2024-2025
# Summary of Scholarly Activities
# Department of Pathology

## Section I – Department Overview and Highlights

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

Four residents completed the residency program this year. Dr. Muhammad Tahir is attending his fellowship at the University of Washington specializing in Bone and Soft Tissue. Dr. Ryan Walde is attending his fellowship at Vanderbilt University specializing in Surgical Pathology. Dr. Lingling Xian is attending her fellowship at Yale University specializing in Clinical Pathology. Dr. Mohamed Zedan is attending the University of Alabama at Birmingham.

Once again, the department had a successful recruiting year with four new residents. Delaney Yu, D.O., from the Edward Via College of Osteopathic Medicine - Louisiana Campus. Dr. Jing Zhou, M.D., from the Tongji Medical College of Huazhong University of Science & Technology. Dr. Katrina Jiang, M.D., from the University of Queensland School of Medicine. Dr. Marianne Yassa, M.D., from the Cairo University Faculty of Medicine.

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

The Department of Pathology keeps growing and flourishing every year. We have added two new Pathologists to our faculty. Dr. Bahaaeldin Youssef is board-certified in Surgical, Gynecologic, and Cytopathology. Dr. Ateeqa Mujeeb Ullah is board-certified in Surgical and Gastrointestinal Pathology. We also have added to our staff an Accounting Data Specialist Angela Davis and a Research Department Assistant Myla Wilkes-Smith.

As the department continues to grow, we have also had a key faculty member to retire, Dr. Jacek Polski, who has been with the department for over 25 years. The department will truly miss him and wish him the best in his new chapter.

The department's recognition has grown regionally, nationally, and internationally, with several faculty members participating in professional meetings outside of the university and publishing in international journals. 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.

## Section II – Faculty Scholarly Activity and Professional Recognition

**Barouqa, Mohammad, M.D.**
**Publications:**

**Journal Articles, Book Chapters, and Patents**

Alkhasawneh A, Attia H, Agaronov M, Barouqa M, Idrees A, Wu Y, Gopinath A, Allan R, Aysola A, Baskovich B. Interactive online clinicopathologic case simulations in coagulation disorders for pathology residency programs: a multi-institutional study. Acad Pathol. 2025 Jun 9;12(3):100183.

Barouqa M, Dela Cruz N. Integrating *RHD* genotyping for more accurate Rh(D) antigen phenotyping: a retrospective study. Medicina (Kaunas). 2025 Apr 5;61(4):670.

Barouqa M, Kilic H, Dela Cruz N. Biphasic behavior of anti-M antibody and hemolytic disease of the fetus and newborn (HDFN). Cureus. 2024 Nov 15;16(11):e73756.

Barouqa M, Reyes Gil M. Age-adjusted D-dimer cut offs to rule out PE/VTE 162. Laboratory techniques in fibrinolysis testing. In: Shaz BH, Hillyer CD, Schwartz J, Reyes Gil M, editors. Transfusion medicine and hemostasis: clinical and laboratory aspects. 4th ed. Cambridge, MA: Elsevier; 2025. Chapter 161, p.733-735.

Barouqa M, Reyes Gil M. COVID-19 coagulopathy. In: Shaz BH, Hillyer CD, Schwartz J, Reyes Gil M, editors. Transfusion medicine and hemostasis: clinical and laboratory aspects. 4th ed. Cambridge, MA: Elsevier; 2025. Chapter 134, p.633-635.

Barouqa M, Reyes Gil M. D-dimer testing in COVID coagulopathy. In: Shaz BH, Hillyer CD, Schwartz J, Reyes Gil M, editors. Transfusion medicine and hemostasis: clinical and laboratory aspects. 4th ed. Cambridge, MA: Elsevier; 2025. Chapter 180, p. 789-790.

Barouqa M, Wolgast L, Reyes Gil M. Antiphospholipid syndrome. In: Shaz BH, Hillyer CD, Schwartz J, Reyes Gil M, editors. Transfusion medicine and hemostasis. 4th ed. Cambridge, MA: Elsevier; 2025. Chapter 116, p. 553-560.

Barouqa M, Wolgast LR, Reyes Gil M. Laboratory diagnosis of lupus anticoagulant and anti-phospholipid antibodies. In: Shaz BH, Hillyer CD, Schwartz J, Reyes Gil M, editors. Transfusion medicine and hemostasis: clinical and laboratory aspects. 4th ed. Cambridge, MA: Elsevier; 2025. Chapter 182, p. 783-788.

Hartsell E, Thomas C, Beck B, Patel S, Barouqa M. Genotyping for weak and partial D Rh status to optimize usage of limited blood supplies. Am J Clin Pathol. 2024 Oct 15;162(Suppl 1):S184-S185.

**Professional recognitions**

May 2025-Red Sash Award-University of South Alabama

**Chakroborty, Debanjan, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Basu B, Chakroborty D, Sarkar C. Editorial: obesity and cancer: the possible molecular links. Front Cell Dev Biol. 2025 Feb 11;13:1542429.

Kola B, Kakkat S, Suman P, Crouch E, Chakroborty D, Sarkar C. Lymphangiogenesis in breast cancer: from molecular mechanisms to clinical implications. FASEB J. 2025 May 15;39(9):e70590.

Tang-Holmes R, Bond J, Annamdevula N, Verde M, Chakroborty D, Schuler M, Rich TC, Gong N, Sarkar C, Leavesley SJ. A naturally brighter approach to colorectal cancer detection. Proc SPIE Int Soc Opt Eng. 2025 Jan;13323:1332309.

**Professional recognitions**

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.

**Dela Cruz, Nestor, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Barouqa M, Dela Cruz N. Integrating *RHD* genotyping for more accurate Rh(D) antigen phenotyping: a retrospective study. Medicina (Kaunas). 2025 Apr 5;61(4):670.

Barouqa M, Kilic H, Dela Cruz N. Biphasic behavior of anti-M antibody and hemolytic disease of the fetus and newborn (HDFN). Cureus. 2024 Nov 15;16(11):e73756.

**Herrera, Guillermo, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Herrera GA, Truong LD, Dhingra S, Turbat-Herrera EA. Features that characterize monoclonal light chain ("myeloma") cast nephropathy with immunofluorescence challenges and emphasis on electron microscopy. Ultrastruct Pathol. 2024 Sep 2;48(5):422-437.

Herrera GA, Teng J, Zeng C, Del Pozo-Yauner L, Liu B, Turbat-Herrera EA. Identifying gene expression and cellular pathways involved in glomerular AL-amyloidosis and correlation with experimental data: seeking novel therapeutic interventions. Ultrastruct Pathol. 2025 Mar 4;49(2):216-234.

Shackelford RE, Martin A, Shastri C, Tahir M, Herrera GA, Keel CE, Madelaire C. A primary renal neuroendocrine tumor presenting in a fifty-five-year-old woman: a report of a rare entity. Ultrastruct Pathol. 2025 Jun;49(4):384–390.

**Invited presentations**

Herrera G. Invited speaker. Slide seminar: case 4. International Academy of Pathology Congress; 2024 Oct 28; Cancun, Mexico.

Herrera G. Invited speaker. The crucial value of electron microscopy in the assessment of renal pathology in monoclonal gammopathies. International Academy of Pathology Congress; 2024 Oct 28; Cancun, Mexico.

Herrera G. Invited speaker. Monoclonal gammopathies and kidney pathology. Pathogenesis / therapeutic implication and opportunities for new therapeutic interventions. International Academy of Pathology Congress; 2024 Oct 28; Cancun, Mexico.

Herrera G. Invited speaker. Proximal tubulopathies: Reality and controversy. International Academy of Pathology Congress; 2024 Oct 28; Cancun, Mexico.

Herrera G. Invited speaker. Identifying cellular pathways and gene activation in light chain-associated amyloidosis and light chain deposition disease (monoclonal immunoglobulin deposition disease) in the kidney: seeking therapeutic targets. United States and Canadian Academy of Pathology; 2025 Mar 24; Boston, MA.

Herrera G. Invited speaker. Glomerulopatias Asociadas a Gammapatias Monoclonales: del Laboratorio al Paciente [virtual presentation]. Enfermedades Glomerulares 2025: Del Diagnóstico al Manejo de Casos Frecuentes, RedEMC Nefrologia; 29 Apr 2025; Montevideo, Uruguay.

**Professional**

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.

**Sarkar, Chandrani, M.S., MACPR, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Basu B, Chakroborty D, Sarkar C. Editorial: obesity and cancer: the possible molecular links. Front Cell Dev Biol. 2025 Feb 11;13:1542429.

Kola B, Kakkat S, Suman P, Crouch E, Chakroborty D, Sarkar C. Lymphangiogenesis in breast cancer: from molecular mechanisms to clinical implications. FASEB J. 2025 May 15;39(9):e70590.

Tang-Holmes R, Bond J, Annamdevula N, Verde M, Chakroborty D, Schuler M, Rich TC, Gong N, Sarkar C, Leavesley SJ. A naturally brighter approach to colorectal cancer detection. Proc SPIE Int Soc Opt Eng. 2025 Jan;13323:1332309.

**Invited presentations**

Sarkar C. Invited speaker. Neuropeptides in cancer: emerging targets for therapeutic intervention. International Symposium on Integrative Oncology and Systems Medicine: Emerging Trends and Therapeutic Potential; 2025 Feb 21; Rishikesh, India.

**Professional**

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*.

**Xin, Wei, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Xian L, Zhang X, Xin W. Unusual presentation: chronic gastritis caused by sarcina ventriculi identified via helicobacter pylori immunohistochemistry. Cureus. 2024 Dec 21;16(12):e76151.

Xian L, Xin W. Metastatic prostate ductal adenocarcinoma presenting as a solitary rectal mucosal polyp: a case report. Cureus. 2025 Jun 13;17(6):e85962.

**Abstracts**

Xian L, Xin W, Navia K. Discrepancy between immunohistochemistry of mmr proteins and msi molecular testing in colorectal cancers. Lab Invest. 2025 Mar;105(3 Suppl):102950. p. 142-143. Abstract no. 719.

**Invited presentations**

Xin W. Invited speaker. Chronic colitis: not all about inflammatory bowel disease. Alliance of North American Chinese Physicians Conference; 2024 Sep 7; Chicago, IL.

Xin W. Invited speaker. Old test, new purpose: reinterpreting MMR/MSI in the age of checkpoint inhibitors. The Society of Chinese American Physicians and Entrepreneurs; 2025 Jun 29; Orlando, FL.

Xin W. Invited speaker. Approach for pancreatic core biopsy: common pitfalls. College of American Pathologists Meeting; 2025 Sept 14; Orlando, FL.

**Professional**

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.

**Section III – Research and Innovation Spotlight**

Dr. Santanu Dasgupta, Director of Research in Pathology and head of the Mitochondrial Research Laboratory, received the 2024 Mayer Mitchell Award for Excellence in Cancer Research from the Mitchell Cancer Institute. This honor recognizes his outstanding contributions to cancer biology, particularly efforts toward early detection and treatment strategies for aggressive cancers.

His laboratory's work has yielded innovative insights into mitochondrial DNA biomarkers for early cancer detection and identified TOMM22 as a potential biomarker and therapeutic target in pancreatic cancer. This study is among the first to demonstrate key roles for mitochondrial import proteins in cancer progression.

Additionally, the department filed a patent application for a mitochondrial DNA-based blood test kit aimed at early detection and monitoring of triple-negative breast cancer, reflecting translational research moving toward clinical application. of its impact or significance.

# 2024-2025
# Summary of Scholarly Activities
# Department of Pediatrics

## Section I – Department Overview and Highlights

The 2024–2025 academic year was a period of remarkable progress for the Department of Pediatrics at USA Health, marked by significant achievements in clinical care, research, education, and advocacy. Building on its commitment to excellence, the department expanded services, strengthened community partnerships, and advanced scholarly contributions that have had a lasting impact on child health across the Gulf Coast. This year also marked an important leadership transition with the departure of Dr. Gul Dadlani, who served as Chair from January 2024 through June 2025, leaving a legacy of growth and innovation.

Clinical care saw transformative growth during this period. The department enhanced hospital-based services, with expanded coverage models in the PICU and NICU, and introduced an Epilepsy Monitoring Unit equipped with dedicated EEG technicians. Recruitment efforts brought one new PICU physician, two hospitalists, and a NICU specialist, ensuring comprehensive critical care. Outpatient services advanced with the opening of a new clinic in Semmes and expanded general pediatrics at Spanish Fort, while plans for a Providence clinic were finalized for late 2025. Pediatric subspecialty care broadened with the addition of pulmonology, gastroenterology, and adolescent medicine specialists, alongside new developmental and neurology clinics. These initiatives reflect a strategic commitment to meeting the growing needs of children and families in the region.

Advocacy and community engagement remained central to the department's mission. The Pediatric Residency Advocacy Group led initiatives promoting child safety and wellness, including programs in Spanish Fort and collaborations with the Autism Network and the American Heart Association. Four summer camps provided opportunities for healthy living education, while monthly media segments and events such as the NICU reunion strengthened ties with families and raised public awareness about pediatric health issues.

Research and scholarship flourished throughout the year. Faculty and trainees contributed numerous peer-reviewed publications and book chapters, addressing critical topics such as neonatal opioid withdrawal, congenital heart disease, and infectious diseases. Presentations at national meetings, including PAS and AAP, showcased the department's leadership in advancing pediatric science. Notably, NICU translational research earned recognition through a prestigious award, underscoring the department's commitment to innovation and improving outcomes for the most vulnerable patients.

Education continued to evolve with the launch of the USA Simulation Center, providing state-of-the-art training for residents and students. A redesigned residency curriculum enhanced learning experiences, while increased participation in pediatric interest groups and a successful 2025 residency match reflected the department's dedication to preparing future pediatric leaders. Both the pediatrics and medicine-pediatrics residency programs achieved a full match, and among graduating students from the Frederick P. Whiddon College of Medicine, 10% chose pediatrics

and 4% medicine-pediatrics as their career path. These milestones highlight the department's influence in shaping the next generation of pediatric physicians.

Through these accomplishments, the Department of Pediatrics demonstrated its unwavering commitment to excellence in patient care, research, education, and advocacy. The progress achieved during this academic year not only strengthened the department's role as a regional leader in child health but also laid the foundation for continued innovation and impact in the years ahead.

**Section II – Faculty Scholarly Activity and Professional Recognition**

**Abdelmoneim, Mona, M.D.**
**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics.

**Ahmed, Ibrahim, M.D.**
**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics.

**Al-Nufal, Mohammed, M.D.**
**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics.

**Altun, Osman, M.D.**
**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, American Medical Association; NASPGHAN IBD Committee; PREP gastroenterology; DDW pediatric.

**Anbalagan, Saminathan, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Anbalagan S, Anderson V, Favara MT, Stark D, Carola D, Solarin K, Adeniyi-Jones S, Kraft WK, Aghai ZH. Buprenorphine vs. morphine: impact on neonatal opioid withdrawal syndrome (NOWS) outcomes in a single center retrospective study. J Perinatol. 2025 Apr;45(4):473-479.

Anderson VA, Anbalagan S, Favara MT, Stark D, Carola D, Solarin KO, Adeniyi-Jones S, Aghai ZH. Sex-related differences in the severity of neonatal opioid withdrawal syndrome: a single-center, retrospective cohort study. Am J Perinatol. 2025 Feb;42(3):363-368.

Sujakhu E, Agarwal A, Anbalagan S. Bubble CPAP in infants. In: StatPearls [Internet]. Treasure Island FL: StatPearls Publishing; 2025. Available from: https://www.ncbi.nlm.nih.gov/books/NBK613282/

**Abstracts**

Anbalagan S, Dolma K, deWeever A, Cockrell B, Ayers L, Nelson A, Bauman A, Ramani M, Stevens T. Does acute histological chorioamnionitis affect cord blood total Tau protein level. Pediatric Academic Societies Meeting: 2025 Apr 24-28; Honolulu, HI. Abstract no. 083. Available from: https://2025.pas-meeting.org/fsPopup.asp?efp=TUFUWVZVSVQyMTgyMQ&PosterID=714957&rnd=0.1636237&mode=posterInfo

Deweever A, Anbalagan S, Stevens, RP, Lee J, Stevens T, Ramani M, and Dolma K. DEHP-induced glucose consumption and lactic acidosis in pulmonary endothelial cells: insights for neonatal health in NICU settings. Am J Respir Crit Care Med. 2025;211:A2170. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A2170?role=tab

Gunn A, Thompson C, Kasniya G, Anbalagan S. Kratom exposure in pregnancy results in neonatal abstinence syndrome. Am J Med Sci. 2025 Feb 1;369(S1):S37-S38. Abstract no. 54. Available from: https://www.amjmedsci.org/action/showPdf?pii=S0002-9629%2825%2900063-1

Hernandez JC, Shrestha D, Kasniya G, Obiaka U, Anbalagan S, Eyal F. Is serum BNP level predictive of hemodynamically significant PDA in extremely preterm neonates? Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 199. Available from: https://2025.pas-meeting.org/fsPopup.asp?efp=TUFUWVZVSVQyMTgyMQ&PosterID=714022&rnd=0.5914423&mode=posterInfo

Kennady G, Yazdi J, Bigley D, Archer E, Anbalagan S, Mattioli M, DeSantis E, Carola D, Aghai Z. Are very low birth weight infants iron deficient at birth. Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 675. Available from: https://2025.pas-meeting.org/fsPopup.asp?efp=TUFUWVZVSVQyMTgyMQ&PosterID=719302&rnd=0.377545&mode=posterInfo

**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics.

**Anderson, Stephanie, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Haladwala K, Boyer E, Llivina G, Anderson S, Gajendran I, Shank S. Developmental screening and assessment in congenital heart disease. Prog Pediatr Cardiol. 2025 Mar;76:101772. Available

from:
https://www.sciencedirect.com/science/article/pii/S1058981324000705/pdfft?md5=30616fd8b2e2b64b5b91edaa5574caac&pid=1-s2.0-S1058981324000705-main.pdf

**Professional recognitions**

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, Society for Developmental and Behavioral Pediatrics, Education Committee.

**Batra, Mansi, M.D.**
**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics.

**Batten, Lynn, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Merritt B, Nix K, Smith L, Lund H, Jones M, Sprague R, Batten L. Pediatric palliative care in patients with cardiovascular disease: the basics of why, when, where, who and how. Prog Pediatr Cardiol. 2025 June;77:101810. Available from: https://www.sciencedirect.com/science/article/pii/S1058981325000025/pdfft?md5=a2b71a84abd5edf297de921ceacafd1a&pid=1-s2.0-S1058981325000025-main.pdf

**Abstracts**

Hernandez JC, Silar A, Batten L. Fetal diagnosis of a left ventricular aneurysm with pericardial effusion. Cardiology 2025, 28th Annual Update on Pediatric and Congenital Cardiovascular Disease; 2025 Feb 19-23; Lake Buena Vista, FL. Abstract no 182.

**Professional recognitions**

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.

**Bradham, Kari, D.O.**
**Professional recognitions**

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.)

**Cole, Jennifer, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Tolleson T, Hernandez J, Caroll K, McVay A, Cole J, Mack-Williams M, Delgado M, Weidow N, Messemer J. Heart murmurs in pediatric practice. Prog Pediatr Cardiol. 2025 June;77:101813. Available from: https://www.sciencedirect.com/science/article/pii/S1058981325000050/pdfft?md5=eb109e3be811a2ea8d0441b56cb60a7c&pid=1-s2.0-S1058981325000050-main.pdf

**Professional recognitions**

Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, Medical Association of the State of Alabama.

**Crews, LaDonna, M.D.**
**Professional recognitions**

Member, Academy of Breastfeeding Medicine; Member, Academic Pediatric Association; Fellow, American Academy of Pediatrics; Member, Executive Board, Alabama Chapter American Academy of Pediatrics; Member, American Medical Association; Member, Medical Association of the State of Alabama; Member, Regional Perinatal Advisory Committee; Member, Society for Adolescent Medicine; Member, Children with Medical Complexity Collaborative Improvement and Innovation Network (CMC CoIIN).

**Custodio, Haidee, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Evans AS, Singh S, Joshi C, Filkins L, Akkoyun E, Custodio H, Daniels EA, Kao CM, Richardson K, Carrillo-Marquez M, Borré CI, Oliveira CR, Espinosa C, Mandelia Y, Mazade M, Kimberlin DW. Examining clinical features and severe neurologic disease of parechovirus infection in young infants: a multistate cohort study. Clin Infect Dis. 2024 Dec 17;79(6):1479-1486.

**Abstracts**

Davis N, Smith R, Holt A, Custodio H. Co-infection association with severity of infection in hospitalized RSV positive pediatric patients. Crit Care Med. 2025 Jan;53(1 Suppl). Abstract no. 335. Available from: https://journals.lww.com/ccmjournal/pages/results.aspx?txtKeywords=Co-infection+association+with+severity+of+infection+in+hospitalized+RSV+positive+pediatric+patients

**Professional recognitions**

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

**Dadlani, Gul, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Bender KS, Ford R, Godang N, Posey C, Smith C, Dadlani G. Indications for cardiac anesthesia in children. Prog Pediatr Cardiol. 2025 Mar;76:101764. Available from: https://www.sciencedirect.com/science/article/pii/S1058981324000626/pdfft?md5=35f224d20efc12da8e97da67f52b5f03&pid=1-s2.0-S1058981324000626-main.pdf

Dadlani G. Preface: special section on recognition and treatment of cardiovascular disease in pediatric subspecialties. Prog Pediatr Cardiol. 2025 Jun;76:101811. Available from: https://www.sciencedirect.com/science/article/pii/S1058981325000037/pdfft?md5=5f0b9c9c9379dbbb511b3c1f9abf000f&pid=1-s2.0-S1058981325000037-main.pdf

Shrestha B, Thomas A, Patel H, Sujakhu E, Rueda de Leon E, Ribeiro E, Dadlani GH. Cardiovascular causes of pediatric chest pain: case-based review. Prog Pediatr Cardiol. 2025 June;77:101805. Available from: https://www.sciencedirect.com/science/article/pii/S1058981324001048/pdfft?md5=909f7cf93fc1c411d9205acc4a74b1ec&pid=1-s2.0-S1058981324001048-main.pdf

**Invited presentations**

Dadlani G. Invited speaker. Facts about epilepsy [video]. "Medical Moment" segment WKRG News 5; 2024 Nov 5; Mobile, AL. Available from: https://www.wkrg.com/health-2/medical-moment-facts-about-epilepsy-with-dr-gul-dadlani/

Dadlani G. Invited speaker. Preventing respiratory illnesses [video]. "Medical Moment" segment WKRG News 5; 2024 Dec 23; Mobile, AL. Available from: https://www.wkrg.com/health-2/preventing-respiratory-illnesses/

Dadlani G. Invited speaker. Congenital heart disease [video]. “Medical Moment” segment WKRG News 5; 2025 Feb 17; Mobile, AL. Available from: https://www.wkrg.com/video/medical-moment-217/10466593/

Dadlani G. Invited speaker. Cardiovascular screening for the primary care physician. 2025 Spring Meeting & Pediatric Update; 2025 May 4; Gulf Shores, AL.

**Professional recognitions**

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

**Davis, Nita, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Kinchler CM, Lightfoot KL, Olliff NS, Powell EK, Ribeiro ER, Saulino D, Stewart B, Tengsupakul S, Villanueva OS, Davis N. Pediatric myocarditis: current concepts review. Prog Pediatr Cardiol. 2025 June;77:101815. Available from: https://www.sciencedirect.com/science/article/pii/S1058981325000074/pdfft?md5=91eba5845cd062e8516d49f6dfa21b9a&pid=1-s2.0-S1058981325000074-main.pdf

**Abstracts**

Davis N, Smith R, Holt A, Custodio H. Co-infection association with severity of infection in hospitalized RSV positive pediatric patients. Crit Care Med. 2025 Jan;53(1 Suppl). Abstract no. 335. Available from: https://journals.lww.com/ccmjournal/pages/results.aspx?txtKeywords=Co-infection+association+with+severity+of+infection+in+hospitalized+RSV+positive+pediatric+patients

**Professional recognitions**

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

**Delgado, Myrtle, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Tolleson T, Hernandez J, Caroll K, McVay A, Cole J, Mack-Williams M, Delgado M, Weidow N, Messemer J. Heart murmurs in pediatric practice. Prog Pediatr Cardiol. 2025 June;77:101813.

Available from: https://www.sciencedirect.com/science/article/pii/S1058981325000050/pdfft?md5=eb109e3be811a2ea8d0441b56cb60a7c&pid=1-s2.0-S1058981325000050-main.pdf

**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics.

**Dolma, Kalsang, M.D.**
**Publications:**
**Abstracts**

Anbalagan S, Dolma K, deWeever A, Cockrell B, Ayers L, Nelson A, Bauman A, Ramani M, Stevens T. Does acute histological chorioamnionitis affect cord blood total Tau protein level. Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 083. Available from: https://2025.pas-meeting.org/fsPopup.asp?efp=TUFUWVZVSVQyMTgyMQ&PosterID=714957&rnd=0.1636237&mode=posterInfo

Cooper J, Tengsupakul S, Dolma K. Primary cutaneous aspergillosis in extremely premature neonates: a case series. Am J Med Sci. 2025 Feb 1;369(S1):S480. Abstract no. 714. Available from: https://www.amjmedsci.org/action/showPdf?pii=S0002-9629%2825%2900720-7

Deweever A, Anbalagan S, Stevens, RP, Lee J, Stevens T, Ramani M, and Dolma K. DEHP-induced glucose consumption and lactic acidosis in pulmonary endothelial cells: insights for neonatal health in NICU settings. Am J Respir Crit Care Med. 2025;211:A2170. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A2170?role=tab

Shrestha D, Ikeri K, Williams K, Edwards T, Curtis VC, Vamesu BM, Dolma K, Zayek M. Improving the quality of newborn screening dry blood spot specimens in the nursery. Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 506. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=714197&Query=Newborn+Screening+Dry+Blood+&mode=posterInfo

**Professional recognitions**

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.

**Estrada, Benjamin, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Sharma K, Silver F, Tengsupakul S, Hartin C, Wong K, Estrada B. Mediastinitis, empyema, and chest wall infiltration from the retropharyngeal abscess: a rare event. Crit Care Med. 2025 Jan;53(1 Suppl). Abstract no. 617. Available from: https://journals.lww.com/ccmjournal/fulltext/2025/01001/617__mediastinitis,_empyema,_and_chest_wall.570.aspx

**Abstracts**

Buttar N, Estrada B, Roca Garcia MR. Pulmonary histoplasmosis in a child with unrecognized chronic kidney disease: the importance of early diagnosis and management. Am J Med Sci. 2025 Feb 1;369(S1):S497. Abstract no. 739. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00744-X/pdf

Johnson C, Khan S, Parsell K, Estrada B. PCR vs. clinical judgement: is my tool accurate? Am J Med Sci. 2025 Feb 1;369(S1):S42-S43. Abstract no. 63. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00072-2/pdf

**Invited presentations**

Estrada B. Invited speaker. Discussing the rise of respiratory syncytial virus cases in Mobile [video]. "Red Couch Interviews" segment WKRG News 5; 2024 Oct 15; Mobile, AL. Available from: https://www.wkrg.com/red-couch-interviews/discussing-the-rise-of-respiratory-syncytial-virus-cases-in-mobile/

**Professional recognitions**

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

**Eyal, Fabien, M.D.**
**Publications:**
**Abstracts:**

Hernandez JC, Shrestha D, Kasniya G, Obiaka U, Anbalagan S, Eyal F. Is serum BNP level predictive of hemodynamically significant PDA in extremely preterm neonates? Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 199. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=714022&Query=Is+serum+BNP+level+predictive+of+hemodynamically+significant+PDA+in&mode=posterInfo

**Professional recognitions**

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.

**Falkos, Sheryl, M.D.**
**Professional recognitions**

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

**Fernandez, Jenelle, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Masten S, Crowley M, Khalaf R, Fernandez J. Reactive autoimmune-like enteropathy in the setting of a chlamydia infection: a case report. JPGN Rep. 2025; Jul 30;6(4):430-433.

Fernandez J, Rizvi A. The question: types of research questions and how to develop them. In: Eltorai A, Liu T, Mehta D, Horvath K, editors. Translational Gastroenterology. Cambridge MA: Academic Press; 2025. Chapter 17, p. 91-94.

**Professional recognitions**

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

**Gajendran, Induja, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Arriola-Montenegro L, Vera Sanchez M, Chen G, Brown C, Rasmussen M, Salter C, Gajendran I, Estrada B. Cardiovascular disease associated with congenital infections. Prog Pediatr Cardiol. 2025 Mar;76:101780. Available from: https://www.sciencedirect.com/science/article/pii/S105898132400078X/pdfft?md5=34b11be148e7d412bb9a7c80dbe127b4&pid=1-s2.0-S105898132400078X-main.pdf

Cabrera PR, Dinelli I, Baker N, Bates A, Torrance A, Gajendran I, Hamayun I. Cardiomyopathy in childhood cancer survivors: etiology, pathophysiology, diagnosis, treatment, and screening. Prog Pediatr Cardiol. 2024 Dec;75:101766. Available from:

https://www.sciencedirect.com/science/article/pii/S105898132400064X/pdfft?md5=1c08800de7f4d33c636f2531da4a0096&pid=1-s2.0-S105898132400064X-main.pdf

Haladwala K, Boyer E, Llivina G, Anderson S, Gajendran I, Shank S. Developmental screening and assessment in congenital heart disease. Prog Pediatr Cardiol. 2025 Mar;76:101772. Available from: https://www.sciencedirect.com/science/article/pii/S1058981324000705/pdfft?md5=30616fd8b2e2b64b5b91edaa5574caac&pid=1-s2.0-S1058981324000705-main.pdf

Cooper JPP, Budhwani A, Kunneth LS, Patel IA, Omohundro A, Sholola OB, Gajendran I, Zayek M, Shrestha D. Persistent pulmonary hypertension of the newborn. Prog Pediatr Cardiol. 2025 Mar;76:101777. Available from: https://www.sciencedirect.com/science/article/pii/S1058981324000754/pdfft?md5=55faba8e984cc4ca6d740f05a9dd71f0&pid=1-s2.0-S1058981324000754-main.pdf

**Abstracts**

Jha SK, Obiaka U, Gajendran I. Diagnostic and management challenges of intracardiac tumor in an adolescent female. Am J Med Sci. 2025 Feb 1;369(S1):S98. Abstract no. 154. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00163-6/pdf

**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics.

**Garlapati, Srikanth, M.D.**
**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics.

**Gavrilita, Cristina, M.D.**
**Publications:**
**Abstracts**

Augustine M, Gavrilita C, Tengsupakul S. A silent invader: a case study of brain abscess from oral flora. Am J Med Sci. 2025 Feb 1;369(S1):S49-S50. Abstract no. 74. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00083-7/pdf

Cooper JPP, Gavrilita C, Zayek M, Maertens P, Vamesu BM. Biometric measurements of corpus callosum in preterm and term infants. Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 339. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=714054&Query=Corpus+Callosum+in+Preterm+and+Term+Infants&mode=posterInfo

Raygoza T, Gavrilita C. Severe hyperkalemia in a patient with diabetic ketoacidosis. Am J Med Sci. 2025 Feb 1;369(S1):S125. Abstract no. 193. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00201-0/pdf

**Professional recognitions**

Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, Society of Critical Care Medicine.

**Goslings, Sophia, M.D.**
**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics, AAP Section on Hospital Medicine; Member, Association of Pediatric Program Directors; 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.

**Gremse, David, M.D.**
**Publications:**
**Abstracts**

Sandadi S, Lim W, Pham TH, Gremse D, Williams KL. The triple threat – an uncommon presentation of celiac disease, Crohn's disease and follicular thyroid carcinoma in a 13-year-old female. Am J Med Sci. 2025 Feb 1;369(S1):S503-S504. Abstract no. 748. Available from: https://www.amjmedsci.org/action/showPdf?pii=S0002-9629%2825%2900753-0

Wing M, Gremse D, William KL. Autoimmune hepatitis and acute liver injury secondary to drug induced liver injury in an adolescent with ADHD. Am J Med Sci. 2025 Feb 1;369(S1):S282-S283. Abstract no. 447. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00453-7/pdf

**Professional recognitions**

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

**Hassouneh, Linda, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Mangalamoorthy J, Taylor M, Bucio D, Nguyen I, Ubico EM, Sekaya G, Riberiro ER, Hassouneh L. Cardiac manifestations of pediatric COVID-19 and multisystem inflammatory syndrome in children. Prog Pediatr Cardiol. 2025 Mar;76:101784. Available from: https://www.sciencedirect.com/science/article/pii/S1058981324000833/pdfft?md5=da2df1d1e10450ffb77dbf454bd7b97a&pid=1-s2.0-S1058981324000833-main.pdf

**Professional recognitions**

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.

**Ikeri, Kelechi, M.D.**
**Publications:**
**Abstracts**

Shrestha D, Ikeri K, Williams K, Edwards T, Curtis VC, Vamesu BM, Dolma K, Zayek M. Improving the quality of newborn screening dry blood spot specimens in the nursery. Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 506. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=714197&Query=the+Quality+of+Newborn+Screening+Dry+Blood+&mode=posterInfo

Vamesu BM, Ibrahim N, Ikeri K, Jackson K, Ramani M, Zayek M. Quality improvement initiative to increase patient attendance in the high-risk neonatal follow-up clinic. Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 077. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=716277&Query=Quality+Improvement+Initiative+to+Increase+Patient+Attendance+in+the+High%2DRisk+Neonatal+&mode=posterInfo

**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics.

**Imran, Hamayun, M.D.**
**Publications:**
**Abstracts**

Vera-Sanchez M, Sujakhu, Kassels M, Imran H, Marri P. Non-classic presentation of homocytinuria: a case report of a rare genetic profile. Am J Med Sci. 2025

Feb 1;369(S1):S184-S185. Abstract no. 284. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00291-5/pdf

**Invited presentations**

Imran H. Invited speaker. Treatment of sickle cell disease in children [video]. "Medical Moment" segment WKRG News 5; 2024 Oct 1; Mobile, AL. Available from: https://www.wkrg.com/health-2/medical-moment-treatment-of-sickle-cell-disease-in-children-with-hamayun-imran-m-d/

**Professional recognitions**

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.

**Kasniya, Gangajal, M.D.**
**Publications:**
**Abstracts**

Gunn A, Thompson C, Kasniya G, Anbalagan S. Kratom exposure in pregnancy results in neonatal abstinence syndrome. Am J Med Sci. 2025 Feb 1;369(S1):S37-S38. Abstract no. 54. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00063-1/pdf

Hernandez JC, Shrestha D, Kasniya G, Obiaka U, Anbalagan S, Eyal F. Is serum BNP level predictive of hemodynamically significant PDA in extremely preterm neonates? Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 199. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=714022&Query=Is+serum+BNP+level+predictive+of+hemodynamically+significant+PDA+in&mode=posterInfo

**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics.

**Kaulfers, Anne-Marie, M.D.**
**Professional recognitions**

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.

**Lim, Whei Ying, M.D.**
**Publications:**
**Abstracts**

Morales Ubico EE, Lim W. A case series of 2 pediatric patients with precocious puberty due to familial male limited testotoxicosis. Am J Med Sci. 2025 Feb 1;369(S1):S121-S122. Abstract no. 186. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00194-6/pdf

Ndubuoke C, Perez Garcia EM, Lim W. DICER 1 gene: a key driver in pediatric multinodular goiter. Am J Med Sci. 2025 Feb 1;369(S1):S122-S23. Abstract no. 188. Available from: https://www.amjmedsci.org/action/showPdf?pii=S0002-9629%2825%2900196-X

Sandadi S, Lim W, Pham TH, Gremse D, Williams KL. The triple threat – an uncommon presentation of celiac disease, Crohn's disease and follicular thyroid carcinoma in a 13-year-old female. Am J Med Sci. 2025 Feb 1;369(S1):S503-S504. Abstract no. 748. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00753-0/pdf

**Professional recognitions**

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

**Mack-Williams, Myria, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Tolleson T, Hernandez J, Caroll K, McVay A, Cole J, Mack-Williams M, Delgado M, Weidow N, Messemer J. Heart murmurs in pediatric practice. Prog Pediatr Cardiol. 2025 June;77:101813. Available from: https://www.sciencedirect.com/science/article/pii/S1058981325000050/pdfft?md5=eb109e3be811a2ea8d0441b56cb60a7c&pid=1-s2.0-S1058981325000050-main.pdf

**Abstracts**

Sholola OB, Udoete I, Mack-Williams M. A case report of a giant juvenile fibroadenoma in a 12-year-old patient. Am J Med Sci. 2025 Feb 1;369(S1):S278. Abstract no. 439. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00445-8/pdf

**Professional recognitions**

Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, Association of Pediatric Program Directors.

**Maertens, Paul, M.D.**
**Publications:**
**Abstracts**

Cooper JPP, Gavrilita C, Zayek M, Maertens P, Vamesu BM. Biometric measurements of corpus callosum in preterm and term infants. Pediatric Academic Societies Meeting; 2025 Apr 24-28;

Honolulu, HI. Abstract no. 339. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=714054&Query=Corpus+Callosum+in+Preterm+and+Term+Infants&mode=posterInfo

Ibrahim N, Maertens P, Sharma KP. Syringomyelia presenting as intermittent facial palsy in a child, first case in literature. Am J Med Sci. 2025 Feb 1;369(S1):S244-S245. Abstract no. 384. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00390-8/pdf

**Marri, Preethi, M.D.**
**Publications:**
**Abstracts**

Bader A, Mohammad D, Marri P. A case report of high-grade papillary urothelial cell carcinoma in an adolescent. Am J Med Sci. 2025 Feb 1;369(S1):S255. Abstract no. 401. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00407-0/pdf

Vera-Sanchez M, Sujakhu E, Kassels M, Imran H, Marri P. Non-classic presentation of homocytinuria: a case report of a rare genetic profile. Am J Med Sci. 2025 Feb 1;369(S1):S184-S185. Abstract no. 284. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00291-5/pdf

**Invited Presentations**

Marri P. Invited speaker. Sickle cell disease and summer safety [video]. "The Doctor Is In" segment WKRG News 5; 2025 Jun 6; Mobile, AL. Available from: https://www.wkrg.com/the-doctor-is-in/dr-preethi-marri-discusses-sickle-cell-disease-and-summer-safety/

**Professional recognitions**

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.

**McDade Hancock, Carey Lavon, M.D.**
**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics.

**Merritt, Brandy, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Merritt B, Nix K, Smith L, Lund H, Jones M, Sprague R, Batten LA. Pediatric palliative care in patients with cardiovascular disease: the basics of why, when, where, who and how. Prog Pediatr Cardiol. 2025 June;77:101810. Available from:

https://www.sciencedirect.com/science/article/pii/S1058981325000025/pdfft?md5=a2b71a84abd5edf297de921ceacafd1a&pid=1-s2.0-S1058981325000025-main.pdf

**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; Member, Society of Critical Care Medicine.

**Messemer, Jane, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Tolleson T, Hernandez J, Caroll K, McVay A, Cole J, Mack-Williams M, Delgado M, Weidow N, Messemer J. Heart murmurs in pediatric practice. Prog Pediatr Cardiol. 2025 June;77:101813. Available from: https://www.sciencedirect.com/science/article/pii/S1058981325000050/pdfft?md5=eb109e3be811a2ea8d0441b56cb60a7c&pid=1-s2.0-S1058981325000050-main.pdf

**Abstracts**

Udoete IO, Messemer J. Advancing health equity by improving access to oral health care and fluoride varnish treatment among low-income patients in Mobile, Alabama. Am J Med Sci. 2025 Feb 1;369(S1):S157-S158. Abstract no. 239. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00247-2/pdf

**Professional recognitions**

American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics.

**Millette II, Theodore, M.D.**
**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics.

**Mohammad, Dunya, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Bedi S, Raygoza T, Jalkh J, Adelabu J, Hartley T, Lusk R, Wong K, Obiaka U, Mohammad D. Pediatric hypertension: definitions, evaluation, and treatment. Prog Pediatr Cardiol. 2025 Mar;76:101778. Available from: https://www.sciencedirect.com/science/article/pii/S1058981324000766/pdfft?md5=7daa2f315d1e992eedb087c7e6fc1bb1&pid=1-s2.0-S1058981324000766-main.pdf

**Abstracts**

Bader A, Mohammad D, Marri P. A case report of high-grade papillary urothelial cell carcinoma in an adolescent. Am J Med Sci. 2025 Feb 1;369(S1):S255. Abstract no. 401. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00407-0/pdf

Flores AP, Sharma KP, Mohammad D. Pyonephrosis: a rare etiology of hypertensive urgency in children. Am J Med Sci. 2025 Feb 1;369(S1):S322-S323. Abstract no. 493. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00499-9/pdf

**Professional recognitions**

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

**Obiaka, Uzoma Chidinma, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Bedi S, Raygoza T, Jalkh J, Adelabu J, Hartley T, Lusk R, Wong K, Obiaka U, Mohammad D. Pediatric hypertension: definitions, evaluation, and treatment. Prog Pediatr Cardiol. 2025 Mar;76:101778. Available from: https://www.sciencedirect.com/science/article/pii/S1058981324000766/pdfft?md5=7daa2f315d1e992eedb087c7e6fc1bb1&pid=1-s2.0-S1058981324000766-main.pdf

Flores A, Ubico EM, Blacksher K, Cleveland E, Inman L, Singer I, Bond C, Obiaka U, Perez-Garcia EM. Glycemic and nonglycemic effects of pediatric diabetes in cardiovascular health. Prog Pediatr Cardiol. 2025 Mar;76:101781. Available from: https://www.sciencedirect.com/science/article/pii/S1058981324000791/pdfft?md5=1e783be8640cfa3921da616a095d1957&pid=1-s2.0-S1058981324000791-main.pdf

Williams KL, Augustine M, Sujakhu E, Magadia J, Crawford L, Knott A, Hamilton S, Obiaka U. Lipoprotein(a) in atherosclerotic cardiovascular disease, type 2 diabetes, and liver disease. Prog Pediatr Cardiol. 2025 Mar:76:101775. Available from: https://www.sciencedirect.com/science/article/pii/S1058981324000730/pdfft?md5=b3b9b71f0b191ac6b82d10d965fb0ded&pid=1-s2.0-S1058981324000730-main.pdf

**Abstracts**

Hernandez JC, Jha SK, Obiaka U. A rare case of kingella kingae infective endocarditis in a patient with tetralogy of fallot after surgical repair with a contegra right ventricle-pulmonary artery conduit. Am J Med Sci. 2025 Feb 1;369(S1):S97-S98. Abstract no. 153. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00162-4/pdf

Hernandez JC, Shrestha D, Kasniya G, Obiaka U, Anbalagan S, Eyal F. Is serum BNP level predictive of hemodynamically significant PDA in extremely preterm

neonates? Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 199. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=714022&Query=Is+serum+BNP+level+predictive+of+hemodynamically+significant+PDA+in&mode=posterInfo

Jha SK, Obiaka U, Gajendran I. Diagnostic and management challenges of intracardiac tumor in an adolescent female. Am J Med Sci. 2025 Feb 1;369(S1):S98. Abstract no. 154. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00163-6/pdf

**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics; Member, American Heart Association; Member, American Academy of Pediatrics; Member, American College of Cardiology; Member.

**Parsell, Karen, M.D.**
**Publications:**
**Abstracts**

Johnson C, Khan S, Parsell K, Estrada B. PCR vs. clinical judgement: is my tool accurate? Am J Med Sci. 2025 Feb 1;369(S1):S42-S43. Abstract no. 63. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00072-2/pdf

Joseph S, Parsell KJ. An unusual culprit of scalded skin syndrome. Am J Med Sci. 2025 Feb 1;369(S1):S223. Abstract no. 347. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00353-2/pdf

**Professional recognitions**

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; Section Member, Hospital Medical and LGBTQ+ Health for American Academy of Pediatrics.

**Perez-Garcia, Eliana, M.D.**
**Publications:**
**Abstracts**

Mangalamoorthy J, Perez Garcia EM. A 15-year-old male diagnosed with 46 XX karyotype. Am J Med Sci. 2025 Feb 1;369(S1):S51-S52. Abstract no. 77. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00086-2/pdf

Ndubuoke C, Perez Garcia EM, Lim W. DICER 1 gene: a key driver in pediatric multinodular goiter. Am J Med Sci. 2025 Feb 1;369(S1):S122-S23. Abstract no. 188. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00196-X/pdf

Shrestha BK, Perez Garcia EM. Familial short stature secondary to ACAN pathogenic variant. Am J Med Sci. 2025 Feb;369(S1):S126. Abstract no. 194. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00202-2/pdf

**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics Member, American Academy of Pediatrics; Member, Endocrine Society; Member, Pediatric Endocrine Society.

**Petty, Melody, M.D.**
**Professional recognitions**

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.

**Ponnambalam, Ananthasekar, M.D.**
**Professional recognitions**

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, North American Society for Pediatric Gastroenterology Hepatology and Nutrition (NASPGHAN); Member, Professional Educational Committee, North American Society for Pediatric Gastroenterology Hepatology and Nutrition (NASPGHAN); Abstract Reviewer, American College of Gastroenterology.

**Rager, Kristin, M.D.**
**Publications:**
**Invited Presentations**

Rager K. Invited speaker. Myths about eating disorders [video]. “Medical Moment” segment WKRG News 5; 2024 Nov 26; Mobile, AL. Available from: https://www.wkrg.com/health-2/medical-moment-myths-about-eating-disorders-with-dr-kristin-rager/

Rager K. Invited speaker. Medical management of anxiety and depression. 2025 Spring Meeting & Pediatric Update; 2025 May 2; Gulf Shores, AL.

Rager K. Invited speaker. Contraceptive management for the primary care pediatrician. 2025 Spring Meeting & Pediatric Update; 2025 May 4; Gulf Shores, AL.

**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; National Faculty, Adolescent Reproductive Health and Sexuality Education Project;

Sexually Transmitted Disease Special Interest Group Leader, Society for Adolescent Health and Medicine.

**Ramani, Manimaran, M.D.**
**Publications:**
**Abstracts**

Anbalagan S, Dolma K, deWeever A, Cockrell B, Ayers L, Nelson A, Bauman A, Ramani M, Stevens T. Does acute histological chorioamnionitis affect cord blood total Tau protein level. Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 083. Available from: https://2025.pas-meeting.org/fsPopup.asp?efp=TUFUWVZVSVQyMTgyMQ&PosterID=714957&rnd=0.1636237&mode=posterInfo

Deweever A, Anbalagan S, Stevens, RP, Lee J, Stevens T, Ramani M, and Dolma K. DEHP-induced glucose consumption and lactic acidosis in pulmonary endothelial cells: insights for neonatal health in NICU settings. Am J Respir Crit Care Med. 2025; 211:A2170. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A2170?role=tab

Ramani M, McClure E, Hemingway-Foday, JJ, Williams RB, Trotta, M, Rasco C. Randomized controlled trial of intrapartum Azithromycin in Asia and Africa: regional differences in the neurodevelopmental follow-up study of the A-PLUS trial. Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 747. Available from: https://2025.pas-meeting.org/ajaxcalls/PosterInfo.asp?PosterID=713843

Vamesu BM, Ibrahim N, Ikeri K, Jackson K, Ramani M, Zayek M. Quality improvement initiative to increase patient attendance in the high-risk neonatal follow-up clinic. Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 077. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=716277&Query=Quality+Improvement+Initiative+to+Increase+Patient+Attendance+in+the+High%2DRisk+Neonatal+&mode=posterInfo

**Professional recognitions**

Member of AAMC. Member of Chief Medical Officer Group. 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, Southern Pediatric Research Society; Member, Society for Neuroscience; Global Network Member.

**Revuri, Vamshi Raman, M.D.**
**Publications:**
**Abstracts**

Alapati N, Kinchler C, Revuri V. Spinal cord injury after bilateral hip osteotomy in a child with mucopolysaccharidosis VI. Am J Med Sci. 2025 Feb 1;369(S1):S94. Abstract no. 149. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00158-2/pdf

**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics.

**Roberson-Trammell, Katrina, M.D.**
**Professional recognitions**

Fellow, American Academy of Pediatrics; Board, Gulf Regional Early Childhood Services (GRECS); Member, Alabama Chapter American Academy of Pediatrics; Member, Children with Medical Complexity Collaborative Improvement and Innovation Network (CMC CoIIN), Member, Medicaid Quality Assurance Committee; Member, Medical Association of State of Alabama; Member, Mobile Bay Area Medical Association; Member, Mobile Medical Society; Member, Pediatric and Adult Workgroup, Regional Care Organization-Region E; School Health Champion, Alabama Chapter American Academy of Pediatrics.

**Roca Garcia, Maria, M.D.**
**Publications:**
**Abstracts**

Buttar N, Estrada B, Roca Garcia MR. Pulmonary histoplasmosis in a child with unrecognized chronic kidney disease: the importance of early diagnosis and management. Am J Med Sci. 2025 Feb 1;369(S1):S497. Abstract no. 739. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00744-X/pdf

**Professional recognitions**

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.

**Rowell Jr, Frederick, M.D.**
**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics.

**Sabobeh, Mohammad, M.D.**
**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics.

**Sanchez Villanueva, Omar, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Kinchler C, Lightfoot K, Olliff N, Powell E, Ribeiro E, Saulino D, Stewart B, Tengsupakul S, Sanchez Villanueva O, Davis N. Pediatric myocarditis: current concepts review. Prog Pediatr Cardiol. 2025 June;77:101815. Available from: https://www.sciencedirect.com/science/article/pii/S1058981325000074/pdfft?pid=1-s2.0-S1058981325000074-main.pdf

**Professional recognitions**

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

**Sehgal, Mukul, M.D.**
**Professional recognitions**

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.

**Sharma, Kamal, M.D.**
**Publications:**
**Abstracts**

Alapati N, Lund H, Sharma K. Diffuse pulmonary hemorrhage leading to acute progressive respiratory failure in a young girl. Am J Med Sci. 2025 Feb 1;369(S1):S588. Abstract no. 823. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00828-6/pdf

Flores AP, Sharma KP, Mohammad D. Pyonephrosis: a rare etiology of hypertensive urgency in children. Am J Med Sci. 2025 Feb 1;369(S1):S322-S323. Abstract no. 493. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00499-9/pdf

Ibrahim N, Maertens P, Sharma KP. Syringomyelia presenting as intermittent facial palsy in a child, first case in literature. Am J Med Sci. 2025 Feb 1;369(S1):S244-S245. Abstract no. 384. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00390-8/pdf

Sharma K, Silver F, Tengsupakul S, Hartin C, Wong K, Estrada B. Mediastinitis, empyema, and chest wall infiltration from the retropharyngeal abscess: a rare event. Crit Care Med. 2025 Jan;53(1). Abstract no. 617. Available from: https://journals.lww.com/ccmjournal/fulltext/2025/01001/617__mediastinitis,_empyema,_and_chest_wall.570.aspx

**Professional recognitions**

Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, American Thoracic Society; Member, Society of Critical Care Medicine; Permanent Member, Nepal Medical Association.

**Shrestha, Diksha, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Priya Cooper J, Budhwani A, Kunneth L, Patel I, Omohundro A, Sholola O, Gajendran I, Zayek M, Shrestha D. Persistent pulmonary hypertension of the newborn. Prog Pediatr Cardiol. 2025 Mar;76:101777. Available from: https://www.sciencedirect.com/science/article/pii/S1058981324000754/pdfft?pid=1-s2.0-S1058981324000754-main.pdf

**Abstracts**

Aryal L, Williams KL, Himes RW, Shrestha D. Alagille syndrome mimicking biliary atresia in a neonate. Am J Med Sci. 2025 Feb 1;369(S1):S135-S136. Abstract no. 208. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00216-2/pdf

Hernandez JC, Shrestha D, Kasniya G, Obiaka U, Anbalagan S, Eyal F. Is serum BNP level predictive of hemodynamically significant PDA in extremely preterm neonates? Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 199. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=714022&Query=Is+serum+BNP+level+predictive+of+hemodynamically+significant+PDA+in&mode=posterInfo

Shrestha D, Ikeri K, Williams K, Edwards T, Curtis VC, Vamesu BM, Dolma K, Zayek M. Improving the quality of newborn screening dry blood spot specimens in the nursery. Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 506. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=714197&Query=Newborn+Screening+Dry+Blood+&mode=posterInfo

**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics.

**Stewart, Penny, D.O.**
**Professional recognitions**

Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics.

**Strickland, Michael, M.D.**
**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics.

**Tengsupakul, Supatida, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Kinchler CM, Lightfoot KL, Olliff NS, Powell EK, Ribeiro ER, Saulino D, Stewart B, Tengsupakul S, Villanueva OS, Davis N. Pediatric myocarditis: current concepts review. Prog Pediatr Cardiol. 2025 June;77:101815. Available from: https://www.sciencedirect.com/science/article/pii/S1058981325000074/pdfft?md5=91eba5845cd062e8516d49f6dfa21b9a&pid=1-s2.0-S1058981325000074-main.pdf

Sharma K, Silver F, Tengsupakul S, Hartin C, Wong K, Estrada B. Mediastinitis, empyema, and chest wall infiltration from the retropharyngeal abscess: a rare event. Crit Care Med. 2025 Jan;53(1). Abstract no. 617. Available from: https://journals.lww.com/ccmjournal/fulltext/2025/01001/617__mediastinitis,_empyema,_and_chest_wall.570.aspx

**Abstracts**

Acevedo Echevarria JM, Tengsupakul S. A 5-month-old with hemophilus influenzae type B meningitis, ventriculitis and bilateral subdural empyema. Am J Med Sci. 2025 Feb 1;369(S1):S218-S219. Abstract no. 340. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00346-5/pdf

Augustine M, Gavrilita C, Tengsupakul S. A silent invader: a case study of brain abscess from oral flora. Am J Med Sci. 2025 Feb 1;369(S1):S49-S50. Abstract no. 74. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00083-7/pdf

Cooper J, Tengsupakul S, Dolma K. Primary cutaneous aspergillosis in extremely premature neonates: a case series. Am J Med Sci. 2025 Feb 1;369(S1):S480. Abstract no. 714. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00720-7/pdf

Sujakhu E, Vera-Sanchez M, Tengsupakul S. Nicolau syndrome as a complication of benzathine penicillin injection. Am J Med Sci. 2025 Feb 1;369(S1):S226-S227. Abstract no. 353. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00359-3/pdf

**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics; 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®).

**Tenorio Velasquez, Daniela, M.D.**
**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics; Member, American Academy of Pediatrics.

**Vamesu, Bianca, M.D.**
**Publications:**
**Abstracts**

Cooper JPP, Gavrilita C, Zayek M, Maertens P, Vamesu BM. Biometric measurements of corpus callosum in preterm and perm infants. Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 339. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=714054&Query=Corpus+Callosum+in+Preterm+and+Term+Infants&mode=posterInfo

Shrestha D, Ikeri K, Williams K, Edwards T, Curtis VC, Vamesu BM, Dolma K, Zayek M. Improving the quality of newborn screening dry blood spot specimens in the nursery. Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 506. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=714197&Query=Newborn+Screening+Dry+Blood+&mode=posterInfo

Vamesu BM, Ibrahim N, Ikeri K, Jackson K, Ramani M, Zayek M. Quality improvement initiative to increase patient attendance in the high-risk neonatal follow-up clinic. Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 077. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=716277&Query=Quality+Improvement+Initiative+to+Increase+Patient+Attendance+in+the+High%2DRisk+Neonatal+&mode=posterInfo

**Professional recognitions**

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

**Wei, Ting, M.D.**
**Professional recognitions**

Member, Alabama Chapter American Academy of Pediatrics.

**Weidow, Nicole, D.O.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Tolleson T, Hernandez J, Caroll K, McVay A, Cole J, Mack-Williams M, Delgado M, Weidow N, Messemer J. Heart murmurs in pediatric practice. Prog Pediatr Cardiol. 2025 June;77:101813. Available from: https://www.sciencedirect.com/science/article/pii/S1058981325000050/pdfft?md5=eb109e3be811a2ea8d0441b56cb60a7c&pid=1-s2.0-S1058981325000050-main.pdf

**Professional recognitions**

Gold Humanism Honor Society.

**Williams, Kathryn, D.O.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Williams KL, Augustine M, Sujakhu E, Magadia J, Crawford L, Knott A, Hamilton S, Obiaka U. Lipoprotein(a) in atherosclerotic cardiovascular disease, type 2 diabetes, and liver disease. Prog Pediatr Cardiol. 2025 Mar:76:101775. Available from: https://www.sciencedirect.com/science/article/pii/S1058981324000730/pdfft?md5=b3b9b71f0b191ac6b82d10d965fb0ded&pid=1-s2.0-S1058981324000730-main.pdf

**Abstracts**

Aryal L, Williams KL, Himes RW, Shrestha D. Alagille syndrome mimicking biliary atresia in a neonate. Am J Med Sci. 2025 Feb 1;369(S1):S135-S136. Abstract no. 208. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00216-2/pdf

Patel S, Williams KL. The stiff upper lip – an atypical presentation of Crohn's disease. Am J Med Sci. 2025 Feb 1;369(S1):S502. Abstract no. 745. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00750-5/pdf

Sandadi S, Lim W, Pham TH, Gremse D, Williams KL. The triple threat – an uncommon presentation of celiac disease, Crohn's disease and follicular thyroid carcinoma in a 13-year-old female. Am J Med Sci. 2025 Feb 1;369(S1):S503-S504. Abstract no. 748. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00753-0/pdf

Wing M, Gremse D, William KL. Autoimmune hepatitis and acute liver injury secondary to drug induced liver injury in an adolescent with ADHD. Am J Med Sci. 2025 Feb 1;369(S1):S282-S283. Abstract no. 447. Available from: https://www.amjmedsci.org/article/S0002-9629(25)00453-7/pdf

**Professional recognitions**

Fellow, American Academy of Pediatrics; Member, Alabama Chapter American Academy of Pediatrics; Member, Ohio Chapter American Academy of Pediatrics; Member, Southern Society for Clinical Investigation.

**Wilson, Felicia, M.D.**
**Professional recognitions**

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; President, Aubreigh's Army Foundation 328 Board of Directors; Speaker's Bureau, Novartis Pharmaceuticals Corporation.

**Zayek, Michael, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Cooper JPP, Budhwani A, Kunneth LS, Patel IA, Omohundro A, Sholola OB, Gajendran I, Zayek M, Shrestha D. Persistent pulmonary hypertension of the newborn. Prog Pediatr Cardiol. 2025 Mar;76:101777. Available from: https://www.sciencedirect.com/science/article/pii/S1058981324000754/pdfft?md5=55faba8e984cc4ca6d740f05a9dd71f0&pid=1-s2.0-S1058981324000754-main.pdf

**Abstracts**

Cooper JPP, Gavrilita C, Zayek M, Maertens P, Vamesu BM. Biometric measurements of corpus callosum in preterm and term infants. Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 339. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=714054&Query=Corpus+Callosum+in+Preterm+and+Term+Infants&mode=posterInfo

Shrestha D, Ikeri K, Williams K, Edwards T, Curtis VC, Vamesu BM, Dolma K, Zayek M. Improving the quality of newborn screening dry blood spot specimens in the nursery. Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 506. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=714197&Query=Newborn+Screening+Dry+Blood+&mode=posterInfo

Vamesu BM, Ibrahim N, Ikeri K, Jackson K, Ramani M, Zayek M. Quality improvement initiative to increase patient attendance in the high-risk neonatal follow-up clinic. Pediatric Academic Societies Meeting; 2025 Apr 24-28; Honolulu, HI. Abstract no. 077. Available from: https://2025.pas-meeting.org/fsPopup.asp?PosterID=716277&Query=Quality+Improvement+Initiative+to+Increase+Patient+Attendance+in+the+High%2DRisk+Neonatal+&mode=posterInfo

**Professional recognitions**

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, Southern Society for Pediatric Research (SSPR).

**Section III – Research and Innovation Spotlight**

**A Novel Role of Tau in Neonatal Lung Injury and Development**

**Collaborators:** Kalsang Dolma, Saminathan Anbalagan, Linn Ayers, Althea deWeever, Brian Fouty, Jonathan P. Audia, Chung-Sik Choi, Mike Lin, Manimaran Ramani, Troy Stevens

**Summary:**
Our research is the first to show that tau—a protein traditionally associated with neurodegenerative disease—plays a significant role in the developing human lung. We found that tau levels are highest in early life and decline as infants mature, highlighting its importance in immature lungs. In preterm infants requiring mechanical ventilation, tau was not biologically inert; it demonstrated cytopathic activity capable of inducing neuronal aggregation. This effect was even stronger in infants exposed to prenatal inflammation, such as maternal chorioamnionitis, suggesting that both prenatal and postnatal inflammatory stress amplify tau-mediated injury.
These findings uncover a previously unrecognized mechanism in neonatal lung injury and development. They point to tau as a potential therapeutic target for strategies aimed at protecting the lungs of vulnerable preterm infants.

# 2024-2025
# Summary of Scholarly Activities
# Department of Pharmacology

## Section I – Department Overview and Highlights

The Department of Pharmacology continues to advance its core missions of education, research and service with strong faculty engagement and productivity. All members of the Pharmacology faculty contribute to the educational mission of the college, teaching in both the medical curriculum and the Basic Medical Sciences (BMS) graduate program. Faculty leadership is also prominently represented across key educational programs.

Within the medical school, Dr. Al-Mehdi serves as Assistant Dean for Assessment and Evaluation and holds several important instructional leadership roles, including module director for PFM-120, course director for PHM-480, and director of the USMLE Test Preparation course. He also contributes nationally as a member of the USMLE Test Material Development Committee. Dr. Natalie Bauer serves as Assistant Dean for Admissions, where she plays a central role in shaping the future physician workforce.

Pharmacology faculty also provide leadership in the BMS graduate program. Dr. Ray Langley directs IDL-580 - one of the two flagship courses in the first-year curriculum - as well as IDL-590. Dr. Tom Rich directs IDL-640 and IDL-641, while Dr. Borchert serves as course director for IDL-590. Through these roles, Pharmacology faculty help guide foundational graduate training in biomedical science.

Research remains a defining strength of the department. Pharmacology faculty, together with their graduate students and postdoctoral trainees, continue to advance biomedical knowledge and pursue discoveries with the potential to influence clinical practice. During the 2024–2025 academic year, department faculty produced 25 peer-reviewed publications, including nine in which a Pharmacology faculty member served as first or senior author.

The department's research enterprise is supported by a strong portfolio of extramural funding. Faculty successfully secured support from the National Institutes of Health (NIH), the National Science Foundation (NSF), and other sponsors, with a total of 26 active awards during the year, including several major federal grants. These awards sustain the department's research programs and provide critical training opportunities for the next generation of scientists.

Looking ahead to 2025–2026, the planned move to the new Whiddon College of Medicine building represents an important milestone and a significant opportunity for continued growth. Key priorities for the coming year include the recruitment of a new Department Chair and the addition of new faculty to further strengthen the department's missions.

## Section II – Faculty Scholarly Activity and Professional Recognition

**Al-Mehdi, Abu-Bakr, Ph.D.**
**Professional recognitions**

Member: Test Material Development Committee, Pharmaceutical Ads, Step 3, and NBME/USMLE Foundational Science Task Force. Reviewer: USMLE Pharmacology Subject Exam.

**Bauer, Natalie, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Forbes LM, Bauer N, Bhadra A, Bogaard HJ, Choudhary G, Goss KN, Gräf S, Heresi GA, Hopper RK, Jose A, Kim Y, Klouda T, Lahm T, Lawrie A, Leary PJ, Leopold JA, Oliveira SD, Prisco SZ, Rafikov R, Rhodes CJ, Stewart DJ, Vanderpool RR, Yuan K, Zimmer A, Hemnes AR, de Jesus Perez VA, Wilkins MR. Precision medicine for pulmonary vascular disease: the future is now (2023 Grover Conference Series). Pulm Circ. 2025 Jan 2;15(1):e70027.

**Abstracts**

Bhadra A., Patel M., Zhou C., Lee J., Bauer N. cAMP-enriched extracellular vesicle signaling selectivity for the pulmonary endothelium. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

**Invited presentations**

Bauer N. Invited speaker. Extracellular vesicles: damage and repair in pulmonary hypertension. Johns Hopkins Pulmonary and Critical Care Medicine Lung Research Conference; 2024 Sep 26; Baltimore, MD.

Bauer N. Invited speaker. Extracellular vesicles: damage and repair in pulmonary hypertension. University of Pittsburgh, Vascular Medicine Institute; 2025 May 5; Pittsburgh, PA.

Bauer N. Invited speaker. Signaling symphony: extracellular vesicles and the molecular ballet of pulmonary hypertension. American Thoracic Society International Conference; 2025 May 19; San Francisco, CA.

**Professional recognitions**

Standing member: Respiratory Integrative Biology and Translational Research (RIBT); Industrialization and Translation of Extracellular Vesicles used in Regenerative Medicine (ITERM); Special Emphasis Panel; Program Project Grant Review. Journal reviewer: *The Journal of Extracellular Vesicles*, *Pulmonary Circulation*, *American Journal of Physiology: Lung Cellular and Molecular Physiology*, *Physiological Reviews*. Chair: American Thoracic Society Pulmonary Circulation Assembly Planning Committee; Grover Conference Proposal Selection Committee. Member: APS Respiration section.

**Borchert, Glen, Ph.D.**
**Publications:**

**Journal Articles, Book Chapters, and Patents**

Delcher H, Alsatari E, Haastrup A, Naaz S, Hayes-Guastella L, McDaniel A, Clark O, Katerski D, Prinsloo F, Roberts O, Shaddix M, Sullivan B, Swan I, Hartsell E, DeMeis J, Paudel S, Borchert G. Using ChatGPT as a tool for training nonprogrammers to generate genomic sequence analysis code. Biochem Mol Biol Educ. 2025 Jul-Aug 5;53(4):433-444.

DeMeis JD, Roberts JT, Delcher HA, Godang NL, Coley AB, Brown CL, Shaw MH, Naaz S, Dahal A, Alqudah SY, Nguyen KN, Nguyen AD, Paudel SS, Shell JE, Patil SS, Dang H, O'Neal WK, Knowles MR, Houserova D, Gillespie MN, Borchert GM. Long G4-rich enhancers target promoters via a G4 DNA-based mechanism. Nucleic Acids Res. 2025 Jan 11;53(2):gkae1180.

Gai S, Huang F, Liu X, Benton RG, Borchert GM, Huang J, Leng X. Assessing the feasibility of large language models to identify top research priorities in enhanced external counterpulsation. PLoS One. 2025 Apr 15;20(4):e0305442.

Godang NL, Nguyen AD, DeMeis JD, Paudel SS, Campbell NJ, Barnes KJ, Jeon K, Roussell AS, Gregson KA, Borchert GM. tRNA, yRNA, and rRNA fragment excisions do not involve canonical microRNA biogenesis machinery. MicroPubl Biol. 2024 Nov 19;2024:10.17912/micropub.biology.001332.

**Abstracts**

Bai C, Huang R, Zhao J, Borchert G, Huang J, Wu B. Differential expression of adipocyte transcripts in SAT and VAT between normal weight and obese/overweight individuals. 2024 IEEE International Conference on Bioinformatics and Biomedicine; 2024 Dec 3-6; Libson, Portugal. p. 5597-5603. Available from: https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=10822168

Borchert G, Delcher H. RNA modification profiles dictate extracellular RNA cellular release. RNA Society Annual Meeting 2025; 2025 May 27-Jun 1; San Diego, CA.

Borchert G, Naaz S. sRNA-mediated sigma factor competition regulates the balance between active stress resistance and persister formation in *Salmonella typhimurium*. RNA Society Annual Meeting 2025; 2025 May 27-Jun 1; San Diego, CA. Abstract no. S187.

Chen S, Wei C, Li D, Borchert G, Yu Z, Lin J, Huang J. Artificial intelligence assisted recognition and diagnosis of magnetically controlled capsule gastroscopy. 2024 IEEE International Conference on Bioinformatics and Biomedicine; 2024 Dec 3-6; Libson, Portugal. p. 5604-5609. Available from: https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=10822068

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 (sdRNA) biogenesis in malignancy. RNA Society Annual Meeting 2025; 2025 May 27-Jun 1; San Diego, CA. Abstract no. R338.

Zhao J, Guan Y, Zuo F, Nian X, Li D, Borchert G, Huang J, Wu B. Relationship of body adipose tissue distribution with vitamin D and bone metabolism indices in patients with type 2 diabetes mellitus. 2024 IEEE International Conference on Bioinformatics and Biomedicine; 2024 Dec 3-6; Libson, Portugal. p. 5670-5674. Available from: https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=10822500

Zhou K, Li D, Lin J, Wu B, Borchert G, Huang J. Machine learning modeling and performance evaluation for gestational diabetes mellitus datasets. 2024 IEEE International Conference on Bioinformatics and Biomedicine; 2024 Dec 3-6; Libson, Portugal. Abstract no. P247.

**Professional recognitions**

Study sections for grant review: NSF Genetic Mechanisms; NSF EDGE. Editor-in-Chief: *Journal of Gene Regulation*. Associate Editor: *Frontiers in RNA Research*. Editorial Board: *PEER J*. Journal reviewer: *Cancer Research*, *microPublication Biology*, *NPJ Biofilms*, *Scientific Reports*, *RNA*. Poster judge: RNA Meeting. Member: RNA Highlight Committee.

**Gillespie, Mark, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

DeMeis JD, Roberts JT, Delcher HA, Godang NL, Coley AB, Brown CL, Shaw MH, Naaz S, Dahal A, Alqudah SY, Nguyen KN, Nguyen AD, Paudel SS, Shell JE, Patil SS, Dang H, O'Neal WK, Knowles MR, Houserova D, Gillespie MN, Borchert GM. Long G4-rich enhancers target promoters via a G4 DNA-based mechanism. Nucleic Acids Res. 2025 Jan 11;53(2):gkae1180.

Dubey S, Yu Z, Stephens EM, Lazrak A, Ahmad I, Aggarwal S, Andrabi S, Hossain MI, Jilling T, Fernandez S, Bartels J, Lapi SE, Mobley JA, Pastukh VM, Gillespie MN, Matalon S. Oxidative damage to lung mitochondrial DNA is a key contributor to the development of chemical lung injury. Redox Biol. 2025 May;82:103624.

**Abstracts**

Haastrup AI, Roberts JT, Tuckey AN, Daly GT, Pastukh VM, Bowen LE, Gillespie MN, Stevens T, Audia JP, Migaud ME, Langley RJ. Transcriptomic regulation of aox3 in murine lungs during *Pseudomonas aeruginosa* infection: insights into NAD+ metabolism and antioxidant response. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

Haastrup AI, Roberts JT, Tuckey AN, Daly GT, Pastukh VM, Gillespie MN, Stevens T, Migaud ME, Audia JP, Langley RJ. Transcript isoform switching provides novel insights on mitochondrial bioenergetics, NAD+ metabolism and antioxidant response in murine lungs during *Pseudomonas aeruginosa* infection. RNA Society Annual Meeting; 2025 May 27-June 1; San Diego, CA.

Langley RJ, Russ A, Haastrup AI, Roberts JT, Gillespie MN, Stevens T, Rich TC. Spatial transcriptomics analysis of the lung in a pneumonia-like infection model reveals antioxidant and

blood vessel morphogenesis in airway epithelial cells and endothelial cells. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

Roberts JT, Pastukh VM, Haastrup AI, Daly GT, Hartsell EM, Langley RJ, Gillespie MN. Analysis of alternative splicing uncovers a vastly expanded transcriptomic response to hypoxia in human vascular endothelial cells. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

**Professional recognitions**

Study sections for grant review: CCTS grant program, UCSD intramural review program. Journal reviewer: *Nucleic Acids Research*, *American Journal of Physiology: Lung Cell and Molecular Physiology*.

**Langley, Raymond, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Baillie JK, Angus D, Burnham K, Calandra T, Calfee C, Gutteridge A, Hacohen N, Khatri P, Langley R, Ma'ayan A, Marshall J, Maslove D, Prescott HC, Rowan K, Scicluna BP, Seymour C, Shankar-Hari M, Shapiro N, Joost Wiersinga W, Singer M, Randolph AG. Causal inference can lead us to modifiable mechanisms and informative archetypes in sepsis. Intensive Care Med. 2024 Dec;50(12):2031-2042.

**Abstracts**

Haastrup AI, Roberts JT, Tuckey AN, Daly GT, Pastukh VM, Bowen LE, Gillespie MN, Stevens T, Audia JP, Migaud ME, Langley RJ. Transcriptomic regulation of aox3 in murine lungs during *Pseudomonas aeruginosa* infection: insights into $NAD^+$ metabolism and antioxidant response. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

Haastrup AI, Roberts JT, Tuckey AN, Daly GT, Pastukh VM, Gillespie MN, Stevens T, Migaud ME, Audia JP, Langley RJ. Transcript isoform switching provides novel insights on mitochondrial bioenergetics, $NAD^+$ metabolism and antioxidant response in murine lungs during *Pseudomonas aeruginosa* infection. RNA Society Annual Meeting; 2025 May 27-June 1; San Diego, CA.

Langley RJ, Russ A, Haastrup AI, Roberts JT, Gillespie MN, Stevens T, Rich TC. Spatial transcriptomics analysis of the lung in a pneumonia-like infection model reveals antioxidant and blood vessel morphogenesis in airway epithelial cells and endothelial cells. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

Roberts JT, Pastukh VM, Haastrup AI, Daly GT, Hartsell EM, Langley RJ, Gillespie MN. Analysis of alternative splicing uncovers a vastly expanded transcriptomic response to hypoxia in human vascular endothelial cells. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Fairhope, AL.

**Professional recognitions**

Study sections for grant review: MRDC-BAA Review Panel; DOD ad hoc reviewer. Journal reviewer: *Critical Care Medicine*, *Immunity Inflammation and Disease*, *Nature Communications*, *Scientific Reports*.

**Migaud, Marie, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Cortez J, Migaud M. Chemical versus enzymatic nucleic acid modifications and genomic stability. DNA. 2025 Apr 8;5(2):19.

Dhuguru J, English B, Dellinger RW, Migaud ME. Deprotection of nucleosides by lysine-assisted methanolysis of esters and amides. Synth Commun. 2025 Feb 2; 55(5):381–393.

Høyland LE, VanLinden MR, Niere M, Strømland Ø, Sharma S, Dietze J, Tolås I, Lucena E, Bifulco E, Sverkeli LJ, Cimadamore-Werthein C, Ashrafi H, Haukanes KF, van der Hoeven B, Dölle C, Davidsen C, Pettersen IKN, Tronstad KJ, Mjøs SA, Hayat F, Makarov MV, Migaud ME, Heiland I, Ziegler M. Subcellular $NAD^+$ pools are interconnected and buffered by mitochondrial NAD. Nat Metab. 2024 Dec;6(12):2319-2337.

Lee KJ, Chokshi S, Joshi T, Cummings M, Lyons CE, Singleton MH, Catranis E, Madiera da Silva L, Hayat F, Migaud M, Scalici J. NAD+ boosting through NRH supplementation enhances treatment efficacy in EOC in vitro. Int J Mol Sci. 2025 Feb 18;26(4):1719.

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

Saville KM, Al-Rahahleh RQ, Siddiqui AH, Andrews ME, Roos WP, Koczor CA, Andrews JF, Hayat F, Migaud ME, Sobol RW. Oncometabolite 2-hydroxyglutarate suppresses basal protein levels of DNA polymerase beta that enhances alkylating agent and PARG inhibition induced cytotoxicity. DNA Repair (Amst). 2024 Aug;140:103700.

Valderrábano RJ, Wipper B, Pencina KM, Migaud M, Shang YV, Latham NK, Montano M, Cunningham JM, Wilson L, Peng L, Memish-Beleva Y, Bhargava A, Swain PM, Lehman P, Lavu S, Livingston DJ, Bhasin S. Dysregulated nicotinamide adenine dinucleotide metabolome in patients hospitalized with COVID-19. Aging Cell. 2024 Dec;23(12):e14326.

Yaku K, Palikhe S, Iqbal T, Hayat F, Watanabe Y, Fujisaka S, Izumi H, Yoshida T, Karim M, Uchida H, Nawaz A, Tobe K, Mori H, Migaud ME, Nakagawa T. Nicotinamide riboside and nicotinamide mononucleotide facilitate $NAD^+$ synthesis via enterohepatic circulation. Sci Adv. 2025 Mar 21;11(12):eadr1538.

**Abstracts**

Haastrup AI, Roberts JT, Tuckey AN, Daly GT, Pastukh VM, Bowen LE, Gillespie MN, Stevens T, Audia JP, Migaud ME, Langley RJ. Transcriptomic regulation of aox3 in murine lungs during *Pseudomonas aeruginosa* infection: insights into $NAD^+$ metabolism and antioxidant response. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

Haastrup AI, Roberts JT, Tuckey AN, Daly GT, Pastukh VM, Gillespie MN, Stevens T, Migaud ME, Audia JP, Langley RJ. Transcript isoform switching provides novel insights on mitochondrial bioenergetics, $NAD^+$ metabolism and antioxidant response in murine lungs during pseudomonas aeruginosa infection. RNA Society Annual Meeting; 2025 May 27-June 1; San Diego, CA.

**Invited presentations**

Migaud M. Invited speaker. Analyses of nicotinamide metabolites from biospecimens obtained in low-income countries. Seattle Conveners Meeting, Gates Foundation; 2024 Dec 1; Seattle, WA.

Migaud M. Invited speaker. Controlling NAD(P) hyper-oxidation to regulate repair and maintenance processes in humans in space. TRISH-BRASH Talk, Baylor College of Medicine; 2025 May 1; Houston, TX.

Migaud M. Invited speaker. NAD Metabolism. 2024 FASEB Scientific Research Conference on NAD Metabolism and Signaling; 2024 Aug 4; Lisbon, Portugal.

Migaud M. Invited speaker. NAD(P) over-oxidation. Human Research Program Investigators' Workshop; 2025 Jan 28; Galveston, TX.

Migaud M. Invited speaker. Vitamin B3 chemical biology. The University of Western Australia Perth School of Molecular Sciences; 2025 Apr 1; Perth, Australia.

Migaud M. Invited speaker. Vitamin B3 metabolism. Seattle Conveners Meeting, Gates Foundation; 2024 Dec 1; Seattle, WA.

**Professional recognitions**

Study sections for grant review: NIH, ad hoc. Senior section editor: *Medicina Pharmacology*. Journal reviewer: *Science*, *Nature*, *Nature Metabolism*, *Cell*, *Nature Communication*, *RSC Journals*, *ACS Journals*. Member and local section officer: ACS.

**Pastukh, Viktor, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Dubey S, Yu Z, Stephens EM, Lazrak A, Ahmad I, Aggarwal S, Andrabi S, Hossain MI, Jilling T, Fernandez SR, Bartels JL, Lapi SE, Mobley JA, Pastukh VM, Gillespie MN, Matalon S. Oxidative

damage to lung mitochondrial DNA is a key contributor to the development of chemical lung injury. Redox Biol. 2025 May;82:103624.

Yuzefovych LV, Noh HL, Suk S, Schuler AM, Mulekar MS, Pastukh VM, Kim JK, Rachek LI. Mitochondria-targeted DNA repair glycosylase hOGG1 protects against HFD-induced liver oxidative mitochondrial DNA damage and insulin resistance in OGG1-deficient mice. Int J Mol Sci. 2024 Nov 13;25(22):12168.

**Abstracts**

Haastrup AI, Roberts JT, Tuckey AN, Daly GT, Pastukh VM, Bowen LE, Gillespie MN, Stevens T, Audia JP, Migaud ME, Langley RJ. Transcriptomic regulation of aox3 in murine lungs during *Pseudomonas aeruginosa* infection: insights into $NAD^+$ metabolism and antioxidant response. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

Haastrup AI, Roberts JT, Tuckey AN, Daly GT, Pastukh VM, Gillespie MN, Stevens T, Migaud ME, Audia JP, Langley RJ. Transcript isoform switching provides novel insights on mitochondrial bioenergetics, $NAD^+$ metabolism and antioxidant response in murine lungs during *Pseudomonas aeruginosa* infection. RNA Society Annual Meeting; 2025 May 27-June 1; San Diego, CA.

Roberts JT, Pastukh VM, Haastrup AI, Daly GT, Hartsell EM, Langley RJ, Gillespie MN. Analysis of alternative splicing uncovers a vastly expanded transcriptomic response to hypoxia in human vascular endothelial cells. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

**Rich, Thomas, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Annamdevula N, Tang-Holmes R, LeDoux R, Jackson T, Baker P, Britain AL, Rich TC, Leavesley SJ. Design of multiplexed, live cell imaging experiments using excitation scan-based hyperspectral imaging microscopy. Proc SPIE Int Soc Opt Eng. 2025 Jan;13323:133230A.

Tang-Holmes R, Bond J, Annamdevula N, Verde M, Chakroborty D, Schuler M, Rich TC, Gong N, Sarkar C, Leavesley SJ. A naturally brighter approach to colorectal cancer detection. Proc SPIE Int Soc Opt Eng. 2025 Jan;13323:1332309.

**Abstracts**

Pritchett T, Deweever A, Cage M, Bowen L, Dobyns B, Rabideau B, Davis J, Reichert M, West K, Rich TC, Stevens T. New generation ionic liquid CO2 scrubbing agents provide a safer lung injury profile when compared to the gold standard, monoethanolamine. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

Pritchett T, Deweever A, Cage M, Bowen L, Dobyns B, Rabideau B, Davis J, Reichert M, West K, Rich TC, Stevens T. Repeated airway exposure to the CO2 scrubbing agent monoethanolamine causes lung injury. Am J Respir Crit Care Med; 2025;211:A5409.

**Professional recognitions**

Study sections for grant review: NIH ZRG1 CB-N (30); AHA Innovative Project Award Cardiac Basic Science; AHA Fellowship Engineering and Technology; NSF MRI; NSF GRFP.

**Roberts, Justin, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

DeMeis JD, Roberts JT, Delcher HA, Godang NL, Coley AB, Brown CL, Shaw MH, Naaz S, Dahal A, Alqudah SY, Nguyen KN, Nguyen AD, Paudel SS, Shell JE, Patil SS, Dang H, O'Neal WK, Knowles MR, Houserova D, Gillespie MN, Borchert GM. Long G4-rich enhancers target promoters via a G4 DNA-based mechanism. Nucleic Acids Res. 2025 Jan 11;53(2):gkae1180.

**Abstracts**

Haastrup AI, Roberts JT, Tuckey AN, Daly GT, Pastukh VM, Bowen LE, Gillespie MN, Stevens T, Audia JP, Migaud ME, Langley RJ. Transcriptomic regulation of aox3 in murine lungs during *Pseudomonas aeruginosa* infection: insights into $NAD^+$ metabolism and antioxidant response. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

Haastrup AI, Roberts JT, Tuckey AN, Daly GT, Pastukh VM, Gillespie MN, Stevens T, Migaud ME, Audia JP, Langley RJ. Transcript isoform switching provides novel insights on mitochondrial bioenergetics, $NAD^+$ metabolism and antioxidant response in murine lungs during *Pseudomonas aeruginosa* infection. RNA Society Annual Meeting; 2025 May 27-June 1; San Diego, CA.

Langley RJ, Russ A, Haastrup AI, Roberts JT, Gillespie MN, Stevens T, Rich TC. Spatial transcriptomics analysis of the lung in a pneumonia-like infection model reveals antioxidant and blood vessel morphogenesis in airway epithelial cells and endothelial cells. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

Roberts JT, Pastukh VM, Haastrup AI, Daly GT, Hartsell EM, Langley RJ, Gillespie MN. Analysis of alternative splicing uncovers a vastly expanded transcriptomic response to hypoxia in human vascular endothelial cells. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

**Solodushko, Viktor, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Ashfaq MA, Malik HZ, Fahmawi Y, Barnett T, Hacker P, Jones J, McGough M, Tuckey A, Solodushko V, Audia J, Fouty B. Vibrio vulnificus bacteremia with compartment syndrome: a case report and characterization of the isolate. Cureus. 2024 Oct 23;16(10):e72217.

Solodushko V, Kim JH, Fouty B. A capless hairpin-protected mRNA vaccine encoding the full-length Influenza A hemagglutinin protects mice against a lethal Influenza A infection. Gene Ther. 2025 Jul;32(4):349-358.

**Abstracts**

Solodushko V, Kim JH, Fouty B. A capless hairpin-protected mRNA vaccine encoding the full-length Influenza A hemagglutinin protects mice against a lethal Influenza A infection. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

**Professional recognitions**

Journal ad hoc reviewer: *BMC Research Notes*, *Nucleic Acids Research*, *MBC Microbiology*, *Molecular Pharmaceutics*.

**Section III – Research and Innovation Spotlight**



A new study from Glen Borchert, Ph.D., and colleagues at the Frederick P. Whiddon College of Medicine presents groundbreaking evidence that challenges long-held assumptions about how genes are regulated. Published in Nucleic Acids Research, the work reveals that DNA itself, not just proteins, can play a direct, active role in gene regulation.

The Borchert lab focused on unusual DNA structures known as long G4 stretches (LG4s), first described by the team in 2020. Unlike typical double-helix DNA, these regions form intricate G4-kissing structures, which had been largely uncharacterized. The new study demonstrates that LG4 structures can physically bind and connect genes with their enhancers, the regulatory sequences that control gene activity, without requiring proteins to mediate the interaction.

This finding overturns the traditional model in which proteins are considered essential for genomic looping, enhancer–promoter communication, and the activation or silencing of gene expression. As Borchert notes in the article, the team's work shows that "DNA is an active participant in gene expression," connecting regulatory elements independently through direct DNA–DNA binding.

The implications of this discovery are far-reaching. By revealing a previously unrecognized mechanism for enhancer activity, the study opens new avenues for understanding gene regulation in health and disease. DNA-based interactions like those described could help explain patterns of gene expression tied to human disorders, offering potential pathways for future therapeutic targeting.

Supported by the National Science Foundation, the Borchert lab plans to continue investigating LG4 structures and their regulatory roles. Their ongoing work aims to determine how these unusual DNA configurations may contribute to normal gene expression, genetic variation, and pathological processes.

**2024-2025**
**Summary of Scholarly Activities**
**Department of Physiology & Cell Biology**

## Section I – Department Overview and Highlights

*Focus and Recruitments:* The department of Physiology & Cell Biology contributes to the education, research and service missions of the Whiddon College of Medicine. In this capacity, faculty are deeply invested in teaching to medical and doctoral students, residents, and fellows. Faculty are leaders in their respective fields of science, including disciplines spanning respiratory physiology, cardiovascular sciences, neuroscience, and bioenergetics. Faculty labs are broadly supported by national agencies, including but not limited to, the National Institutes of Health, the National Science Foundation, the Department of Defense, and the Office of Naval Research. The department offers a vibrant research and training environment, heavily engaged in state-of-the-art scientific discovery.

In the past 18-months, the department has hired three new faculty members, including Drs. Thiago Bruder (July 1, 2024), Jamie Meegan (August 1, 2024), and Mohammed Islam (November 1, 2025). Whereas Dr. Bruder was highlighted in the preceding annual report, here we introduce Drs. Meegan and Islam to the Whiddon COM community.

Dr. Meegan was recruited into an assistant professor position on the investigator track. She received postdoctoral training under the direction of Drs. Julie Bastarache and Lorraine Ware at Vanderbilt University. During her time as a fellow, she received the coveted K99 award from the National Institutes of Health, which provides two years of postdoctoral fellowship support followed by three years of independent research lab support. Her lab focuses on mechanisms of lung vascular injury during sepsis. Cell-free hemoglobin is elevated in septic patients, which serves as a trigger for endothelial hyperpermeability. However, mechanisms responsible for hemoglobin-mediated lung injury are poorly understood. Dr. Meegan has identified the LOX-1 receptor as a putative target, important for this vasculopathy. Her work complements the work of several investigators in the college's Center for Lung Biology. She adds significantly to the department- and college-wide interests in mechanisms of acute lung injury. We are excited to welcome Dr. Meegan to our faculty.

Dr. Islam was recruited into an assistant professor position on the investigator track. He received academic training from under the direction of Dr. Jahar Bhattacharya at Columbia University, before establishing his independent research career. His research focuses on mitochondrial mechanisms regulating acute lung injury. He utilizes highly specialized multiphoton and confocal microscopy to image cellular events in single alveolar units and the associated microcirculation within living lungs. Dr. Islam complements much of the ongoing work in the college's Center for Lung Biology. He adds expertise in subcellular signaling events impacting function of alveolar epithelium, while also adding strength to the ongoing lung vascular biology program. He adds significantly to the department- and college-wide expertise in mitochondrial signaling and bioenergetics. We are excited to welcome Dr. Islam to our faculty.

In addition, the department added two new secondary/joint appointees this year, including Drs. Ting Wei and Matthew Confer. Upon her fellowship matriculation from the University of Alabama-Birmingham, Dr. Wei joined the Department of Pediatrics as an assistant professor, where she serves the neonatal intensive care unit. She has an active research program, dedicated to study of bronchopulmonary dysplasia, which is a leading cause of morbidity and mortality in the NICU. Dr. Wei's research focuses on the 'vascular hypothesis' of bronchopulmonary dysplasia. She is studying the impact of hyperoxia, as is relevant to ventilation of prematurely born infants who are hypoxemic, on injury to the general capillary and aerocyte endothelial cell populations in lung capillaries. This hyperoxia-induced vascular injury may underlie the capillary hypoplasia, interstitial remodeling, and alveolar simplification that is a part of the bronchopulmonary dysplasia phenotype. Dr. Wei contributes significantly to our departmental and Center for Lung Biology interests in lung development and lung vascular pathology. We are excited to welcome Dr. Wei to our faculty.

Dr. Confer joined the Department of Chemical & Biomolecular Engineering as an assistant professor, upon completion of his postdoctoral fellowship at the University of Illinois. Dr. Confer's research utilizes vibrational spectroscopy to exam amyloid structures. His prior studies have revealed that vibrational spectroscopy offers a label-free approach to resolve misfolded proteins with β-sheet topography, yet adds unique insight into the molecular basis of the amyloid. For example, visualization of amyloid plaques in the brain assessed using standard staining approaches were not uniformly consistent with images obtained using vibrational microscopy, illustrating the latter approach offers novel insight into the molecular heterogeneity within the plaque. This expertise nicely complements those in the department and the Center for Lung Biology, as multiple investigators are assessing the impact of infection on generation of cytopathic amyloids and tau within the lung and brain. We are excited to welcome Dr. Confer to our faculty.

*Faculty Recognition:* Faculty actively submit and receive grants at a nationally competitive level. Dr. Naeem Islam received a new NIH R01. This work examines whether bone marrow-derived mesenchymal stromal cells protect the lung during acute lung injury by transferring mitochondria to microvascular endothelial cells. Dr. Troy Stevens received a new NIH R01, which focuses on pulmonary hypertension. This work is being done in collaboration with long-standing collaborator(s) at Brown University.

Dr. Mikhail Alexeyev has been recognized for his journal article in Nature Genetics that challenges a 2023 study on mitochondrial DNA inheritance.

Dr. Thiago Bruder has received the Harry Goldblatt Award for New Investigators from the American Heart Association. This prestigious award recognizes an early-career independent investigator who has significantly contributed to the understanding of the causes of hypertension and related cardiovascular disease.

Dr. Troy Stevens was honored at the 3rd Annual Research and Technology Showcase sponsored by the Office of Research and Economic Development. Dr. Stevens team's work has revealed a previously unknown host response to lower airway infection, where viruses and bacteria elicit generation of cytopathic amyloid and tau variants within the lung that can injure multiple organs.

Two graduate students matriculated this year. Sage Garriss, mentored by Dr. David Weber, and Pallavi Sen, mentored by Dr. Mark Taylor. Tyler Beling, a graduate student in Dr. Bruder's lab, received an AHA travel award to present research on hypertension at the 2025 AHA Scientific Sessions Conference. Also, graduate student Evan Butlig, mentored by Dr. Amy Nelson, was awarded first place at the USA 2024 Three Minute Thesis (3MT) Competition.

*Contribution to Medical Education:* The department faculty contribute to medical education across several disciplines. 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, Muscloskeletal, Neuroscience and Behaviors modules for M2 students. Dr. Stevens and Dr. Brian Fouty received the Best Pre-Clerkship Module award for the Respiratory Module.

Contribution to Graduate Education: Faculty are actively involved in teaching within the Basic Medical Sciences Graduate Program. Dr. Michael Francis was graduate course director for IDL 640 Biostatics and Informatics, Dr. Sarah Sayner was director of the Cardiovascular and Lung Biology track, while Drs. Mike Lin and Kayla Pavlick serve as directors of the Neuroscience track.

*In the News:* Dr. David Weber, assistant dean for medical education and professor of Physiology & Cell Biology, appeared on National Public Radio (NPR) in March to discuss the culinary course offered to the fourth-year medical students at the teaching kitchen in University Commons. The course, IDY-471 Application of Health and Wellness Strategies, focuses on learning 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.

**Section II – Faculty Scholarly Activity and Professional Recognition**

**Alexeyev, Mikhail, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Alexeyev M, Bai Y. An alternative model for maternal mtDNA inheritance. Nat Genet. 2025 Mar 57(5):1103-1104.

Kozhukhar N, Alexeyev MF. Efficient elimination of mtDNA from mammalian cells with 2'3'-dideoxycytidine. DNA (Basel) 2025 Sep;4(3):201-211.

**Abstracts**

Choi CS, Alexeyev M, Zhou C, Wagener BM, Chaney SD, Stone M, Bauman AJ, Stevens RP, Sayner S, Balczon R, Nelson AR, Stevens T, Lin MT. Targeting lung endothelium-derived tau to mitigate pneumonia-induced cognitive deficits and tau pathology. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. p. 18. Abstract no. 40.

Lin MT, Alexeyev M, Zhou C, Chaney S, Choi CS, Stone M, Bauman AJ, Ayers L, Stevens RP, Lee JY, Sayner S, Balczon R, Nelson AR, Stevens T. Lung capillary endothelial tau expression promotes alveolar-capillary barrier integrity following *Pseudomonas aeruginosa* pneumonia. Physiology. 2025 May 12;40(S1):0390. Abstract no. 0390. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.0390

Stevens RP, Koloteva A, Kozhukhar N, Alexeyev MF, Stone M, Sayner SL, Graham BB, Stenmark KR, Stevens T, Lee J. PFKFB3 kinase inhibits fructose-mediated cholesterol synthesis in PMVECs and increases lung injury during *Pseudomonas aeruginosa* pneumonia. Am J Respir Crit Care Med. 2025 May;211:A3015. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A3015?role=tab

**Professional recognitions**

Reviewer, *Clinical Science*, *PLoS One*, *Biochimica et Biophysica Acta, International Journal of Molecular Sciences*, *International Journal of Biochemistry and Cell Biology*, *Genes, Metabolism, Signal Transduction and Targeted Therapy.* Editorial Board Member, *DNA*. Grant Reviewer, American Federation for Aging Research, Hevolution Foundation, NIH Special Emphasis Panels 2025/05 ZCA1 SRB-K (M1) P-PPG.

**Bruder, Thiago, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Bruder A, Bruder-Nascimento T. Adipose tissue and vascular homeostasis: insights and implications. Compr Physiol. 2025 Jun;15(3):e70018.

Costa RM, Bruder-Nascimento A, Alves JV, Awata WMC, Singh S, Rodrigues D, Bruder-Nascimento T, Tostes RC. Beclin-1 dependent autophagy protects perivascular adipose tissue function from hyperaldosteronism effects. Am J Physiol Heart Circ Physiol. 2025 Jun 1;328(6):H1253-H1266.

Kress TC, Barris CT, Kovacs L, Khakina BN, Jordan CR, Bruder-Nascimento T, Stepp DW, MacArthur R, Patel VS, Chen J, Pacholczyk R, Kennard S, Belin de Chantemele EJ. $CD4^+$ T cells expressing viral proteins induce HIV-associated endothelial dysfunction and hypertension via interleukin 1α-mediated increases in endothelial NADPH oxidase 1. Circulation. 2025 Apr 22;151(16):1187-1203.

Lima AFR, Rodrigues D, Machado MR, Oliveira-Neto JT, Bressan AFM, Pedersoli CA, Alves JV, Silva-Neto JA, Barros PR, Dias TB, Garcia LV, Bruder-Nascimento A, Bruder-Nascimento T, Carneiro FS, Leiria LOS, Tostes RC, Costa RM. Endothelin-1 down-regulates nuclear factor erythroid 2-related factor-2 and contributes to perivascular adipose tissue dysfunction in obesity. Clin Sci (Lond). 2024 Sep 4;138(17):1071-1087.

**Abstracts**

Beling T, Costa R, Pimenta GF, Bruder A, Bruder T. Aberrant endothelial progranulin secretion modulates endothelial AMPK to protect the vasculature in hypertension. Hypertension. 2025 Oct:82(S1):002. Available from: https://www.ahajournals.org/doi/10.1161/hyp.82.suppl_1.002

Bruder T. Progranulin functions as a key regulator of pulmonary endothelial fatty acid oxidation and inflammation. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. p.15. Abstract no. 3.

Chada S, Alqudah L, Pimenta GF, Beling T, Bruder A, Bruder T. Artesunate, an anti-malarial drug, improves vascular function and reduces vasculitis in a mouse model of Kawasaki disease. Hypertension. 2025 Oct 16;82(S1):TAC233. Available from: https://www.ahajournals.org/doi/10.1161/hyp.82.suppl_1.TAC233

Costa RM, Bruder-Nascimento A, Richert AC, Goetzman E, Bruder T. Progranulin sustains the anti-contractile properties of PVAT by preserving the mitochondrial respiration and browning phenotype in a PPARγ-dependent manner. Physiology. 2025 May 12;40(S1):1237. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.1237

Luvizotto RAM, Nascimento AF, Costa RM, Bruder A, St. Hilaire C, Bruder-Nascimento T. Progranulin functions as an anti-vascular aging protein by regulating mitochondrial reactive oxygen species. Physiology. 2025 May 12;40(S1):1281. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.1281

Nascimento A, Luvizotto R, Costa RM, Bruder A, Bruder-Nascimento T. High-salt diet intake-induced endothelial dysfunction is associated with vascular senescence. Physiology. 2025 May 12;40(S1):1282. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.1282

Pimenta GF, Bruder A, Tirapelli C, Bruder T. CCL5/CCR5 signaling promotes a pro-inflammatory macrophage phenotype and perivascular adipose tissue dysfunction in hypertension. Hypertension. 2025 Oct 16;82(S1):TAC297. Available from: https://www.ahajournals.org/doi/10.1161/hyp.82.suppl_1.TAC297

**Invited presentations**

Bruder T. Invited speaker. Exploring chemokine receptors in the genesis of aldosterone and mineralocorticoid receptor-induced cardiovascular injury. 1st International Conference on Steroid Hormones and Receptors; 2024 Oct 16; Albuquerque, NM.

Bruder T. Invited speaker. Progranulin and blood pressure control. Clinical Pharmacology Grand Rounds, Vanderbilt University Medical Center; 2024 Nov 5; Nashville, TN.

Bruder T. Invited speaker. A novel endothelial autocrine mechanism in the regulation of vascular tone and blood pressure. Department of Physiology, Tulane University; 2025 Mar 27; New Orleans, LA.

**Professional recognitions**

New Investigator Award, American Physiological Society Cardiovascular Section, Harry Goldblatt Award for New Investigators, Council on Hypertension, American Heart Association. Journal editor: *Life Science*. Editorial board member: *Comprehensive Physiology*, *American Journal of Physiology*, *Heart and Circulatory Physiology*. Reviewer: *Circulation Research*, *Hypertension*, *Journal of American Heart Association*. Grant reviewer: NHLBI Atherosclerosis and Vascular Inflammation (AVI) Study Section, AHA Transformational Project Award Basic Science Committee. Member: American Heart Association and American Physiological Society.

**Cohen, Michael, M.D.**
**Publications:**
**Abstracts**

Kar J, Cohen M, Revere C, McQuiston S, Malozzi C. A comparison between global longitudinal strain (GLS) derived with CMR feature-tracking (CMR-FT) and 2D speckle-tracking echocardiography (2D-STE) to monitor cancer therapy-related cardiac dysfunction (CTRCD). Circulation. 2024 Nov 12;150(S1):A4145207. Abstract no. 4145207. Available from: https://www.ahajournals.org/doi/10.1161/circ.150.suppl_1.4145207

**Professional recognitions**

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

**Francis, Christopher Michael, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Aziz T, Yuzefovych L, Rachek L, Taylor MS, Francis CM. OGG1 preserves endothelial-dependent vasodilation and regulates the frequency and spatial area of endothelial calcium signals. Biomolecules. 2025 May 29;15(6):790.

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

Taylor MS, Francis M, Choi CS. Flow-dependent modulation of endothelial $Ca^{2+}$ dynamics by small conductance $Ca^{2+}$-activated $K^{+}$ channels in mouse carotid arteries. Biomedicines. 2024 Dec 20;12(12):2900.

**Abstracts**

Meegan JE, Francis CM, Stevens T, Ware L, Bastarache J. Oxidation of LDL by hemoglobin alters heme- and lipid-processing, cytoskeletal, adhesion, and chemotactic pathways in human pulmonary microvascular endothelial cells. Physiology. 2025 May 12;40(S1):0417. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.0417

Meegan JE, Francis CM, Stevens T, Ware LB, Bastarache JA. Oxidation of LDL by hemoglobin alters heme- and lipid-processing, cytoskeletal, adhesion, and chemotactic pathways in human pulmonary microvascular endothelial cells. Research Symposium on Pulmonary Injury and Repair of the Endothelium. 2025 Feb 11-14; Point Clear, AL. p. 17. Abstract no. 29.

**Professional recognitions**

Member, American Physiological Society, American Thoracic Society. Reviewer, *Journal of Visualized Experiments*.

**Lee, Ji Young, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

Hough RF, Alvira CM, Bastarache JA, Erzurum SC, Kuebler WM, Schmidt EP, Shimoda LA, Abman SH, Alvarez DF, Belvitch P, Bhattacharya J, Birukov KG, Chan SY, Cornfield DN, Dudek SM, Garcia JGN, Harrington EO, Hsia CCW, Islam MN, Jonigk DD, Kalinichenko VV, Kolb TM, Lee JY, Mammoto A, Mehta D, Rounds S, Schupp JC, Shaver CM, Suresh K, Tambe DT, Ventetuolo CE, Yoder MC, Stevens T, Damarla M. Studying the pulmonary endothelium in health and disease: an official American Thoracic Society Workshop report. Am J Respir Cell Mol Biol. 2024 Oct;71(4):388-406.

Kumar S, Akta H, Weidow D, Clukies M, Lee JY. Lung entrapment secondary to loculated rheumatoid effusions treated with alteplase and dornase. Cureus. 2024 Aug 11;16(8):e66635.

**Abstracts**

deWeever A, Anbalagan S, Stevens RP, Lee J, Stevens T, Ramani M, Dolma K. DEHP-induced glucose consumption and lactic acidosis in pulmonary endothelial cells: Insights for neonatal health in NICU settings. Am J Respir Crit Care Med. 2025 May;211:A2170. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A2170?role=tab

Jackson L, Choi CS, Stone M, Stevens RP, Clark J, Frank DW, Sayner S, Lee JY, Balczon R, Lin MT, Migaud ME, Stevens T. Filamentous-actin as a determinant of ExoY-induced purine and pyrimidine cyclic nucleotide monophosphate signaling in pulmonary microvascular endothelium. Physiology. 2025 May 12; 40(S1);0289. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.0289

Kumar S, Yendrapalli U, Tobin G, Stevens RP, Kondaveeti R, Ayers L, Strickland J, Wiggins L, Bryant H, Johnson J, Schuler M, Yuliya A, Seluanov A, Gorbunova V, Boyd A, Tambe DT, Audia J, Fouty BW, Stevens T, Lee J. Erythrocytes from animals and humans subjected to frequent hypoxia exposures undergo fructolysis and transfer fructose to pulmonary endothelium. Am J Respir Crit Care Med. 2025 May;211:A6446. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A6446?role=tab

Lin MT, Alexeyev M, Zhou C, Chaney S, Choi CS, Stone M, Bauman AJ, Ayers L, Stevens RP, Lee JY, Sayner S, Balczon R, Nelson AR, Stevens T. Lung capillary endothelial tau expression promotes alveolar-capillary barrier integrity following *Pseudomonas aeruginosa* pneumonia. Physiology. 2025 May 12;40;S1:0390. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.0390

Stevens RP, Lee JY. PPM1B forms biomolecular condensates and inhibits NF-kB signaling during hypercapnia: evidence and support for direct carbon dioxide sensing? Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. p. 16. Abstract no. 15.

Stevens RP, Andrews J, Solodushko V, Pastukh V, Stevens T, Honkanen R, Swingle M, Lee J. In vitro phase separation of PPM1B during hypercapnia. Am J Respir Crit Care Med. 2025;211:A2182. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A2182?role=tab

Stevens RP, Holston J, Maatouk K, Kumar S, Pastukh VV, Gwin MS, Stone M, Sayner SL, Stevens T, Lee J. Carbonic anhydrase IX worsens mortality and lung permeability but does not affect the immune response during bacterial pneumonia. Am J Respir Crit Care Med. 2025 May;211:A3574. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A3574?role=tab

Stevens RP, Koloteva A, Kozhukhar N, Alexeyev MF, Stone M, Sayner SL, Graham BB, Stenmark KR, Stevens T, Lee J. PFKFB3 kinase inhibits fructose-mediated cholesterol synthesis in PMVECs and increases lung injury during *Pseudomonas aeruginosa* pneumonia. Am J Respir Crit Care Med. 2025 May;211:A3015. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A3015?role=tab

**Invited presentations**

Lee JY. Invited speaker. Fructose metabolism in the pulmonary endothelium. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL.

**Professional recognitions**

Member, American Thoracic Society. Grant Reviewer, American Heart Association Fellowship. Ad hoc reviewer for 2025 NIH PVP Study Section. Reviewer, BMC *Pulmonary Medicine, Respiratory Research, Apoptosis, European Journal of Medical Research.*

**Lin, Mike, Ph.D.**
**Publications:**
**Abstracts**

Chaney SD, McAdams LH, Gwin MS, Stevens TT, Lin M, Nelson AR. Tau is required for pneumonia induced cerebrovascular dysfunction. Alzheimer's Dement. 2024 Dec;20(Suppl 1):e091920. Available from: https://alz-journals.onlinelibrary.wiley.com/doi/epdf/10.1002/alz.091920

Choi CS, Alexeyev M, Zhou C, Wagener BM, Chaney SD, Stone M, Bauman AJ, Stevens RP, Sayner S, Balczon R, Nelson AR, Stevens T, Lin MT. Targeting lung endothelium-derived tau to mitigate pneumonia-induced cognitive deficits and tau pathology. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. p. 18. Abstract no. 40.

Choi CS, Kim JH, Tuckey AN, Voth S, Gwin MS, Audia, JP, Sayner SL, Renema P, Wagener BM, Pittet JF, Balczon R, Stevens T, Lin MT. *Pseudomonas aeruginosa* bacterial infection induces cleavage of the amyloid precursor protein in lung endothelium. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. p.15. Abstract no. 5.

**Invited presentations**

Lin MT. Invited speaker. Pathological tau released from lung endothelia impairs brain plasticity. Department of Integrated Biology, Loma Linda University; 2025 Apr 3; Loma Linda, CA.

**Professional recognitions**

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

**Meegan, Jamie E., Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Beard RS Jr, Hoettels BA, McAllister JM, Meegan JE, Wertz TS, Self DA, Hrkach DE, Greiner D, Chapman K, Villalba N, Yang X, Cha BJ, Jorcyk CL, Oxford JT, Wu MH, Yuan SY. Progression of experimental autoimmune encephalomyelitis in mice and neutrophil-mediated blood-brain barrier dysfunction requires non-muscle myosin light chain kinase. J Cereb Blood Flow Metab. 2025 Jun;45(6):1203-1220.

Meegan JE, Riedmann KJ, Gonski S, Douglas JS, Bogart AM, Ware LB, Bastarache JA. Oxidation of low-density lipoprotein by hemoglobin causes pulmonary microvascular endothelial barrier dysfunction through lectin-like oxidized LDL receptor 1. Am J Physiol Lung Cell Mol Physiol. 2025 May 1;328(5):L748-L755.

Meegan JE, Rizzo AN, Schmidt EP, Bastarache JA. Cellular mechanisms of lung injury: current perspectives. Clin Chest Med. 2024 Dec;45(4):821-833.

Riedmann KJ, Meegan JE, Afzal A, Cervantes-Cruz Y, Obeidalla S, Bogart AM, Ware LB, Shaver CM, Bastarache JA. Oxidized cell-free hemoglobin induces mitochondrial dysfunction by activation of the mitochondrial permeability transition pore in the pulmonary microvasculature. Microcirculation. 2025 May;32(4):e70012.

**Abstracts**

Eberly VJ, Meegan JE. Oxidized hemoglobin-mediated kinase phosphorylation in human pulmonary microvascular endothelial cells. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. p. 16. Abstract no. 21.

Meegan J, Francis CM, Stevens T, Ware L, Bastarache J. Oxidation of LDL by hemoglobin alters heme- and lipid-processing, cytoskeletal, adhesion, and chemotactic pathways in human pulmonary microvascular endothelial cells. Physiology. 2025 May 12;40(S1):0417. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.0417

Meegan JE, Francis CM, Stevens T, Ware LB, Bastarache JA. Oxidation of LDL by hemoglobin alters heme- and lipid-processing, cytoskeletal, adhesion, and chemotactic pathways in human pulmonary microvascular endothelial cells. Research Symposium on Pulmonary Injury and Repair of the Endothelium; Point Clear, AL. 2025. Abstract no. 29.

Meegan JE, Obeidalla SN, Douglas JS, Gonski S, Bogart AM, Bastarache JA, Ware LB. Higher levels of oxidized LDL and soluble LOX-1 are associated with vascular dysfunction and changes in inflammatory markers in sepsis. Am J Respir Crit Care Med. 2025 May;211:A4344. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A4344?role=tab

**Invited presentations**

Meegan JE. Invited speaker. Manuscript peer review unveiled: a behind-the-scenes look (virtual presentation). Microvascular Exchange Webinar, The Microcirculatory Society, Inc.; 2025 Jan 9; Louisville, KY.

Meegan JE. Invited speaker. Career development panel. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 12; Point Clear, AL.

Meegan JE. Invited speaker. Oxidation of LDL by hemoglobin disrupts pulmonary microvascular endothelial barrier function. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 12; Point Clear, AL.

Meegan JE. Invited speaker. Oxidation of LDL by hemoglobin disrupts human pulmonary microvascular endothelial barrier function. Microcirculatory Society Pre-Meeting at the American Physiology Summit; 2025 Apr 24; Baltimore, MD.

Meegan JE. Invited speaker. I got lost on the way to orientation and other tales of starting a lab. American Thoracic Society 2025 International Conference; 2025 May 19; San Francisco, CA.

Meegan JE. Invited speaker. Cell-free hemoglobin and vascular dysfunction. International Society on Thrombosis and Haemostasis 2025 Congress; 2025 Jun 22; Washington, DC.

**Professional recognitions**

Member, American Physiological Society Steering Committee/Newsletter Co-Editor, American Thoracic Society Pulmonary Circulation Planning Committee/Apprentice, Microcirculation Society Trainee Committee/Co-Leader. Reviewer, *Microcirculation, Physiological Reports, Scientific Reports, Infection and Immunity, American Journal of Physiology Lung.*

**Nelson, Amy R., Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

**Abstracts**

Choi CS, Alexeyev M, Zhou C, Wagener BM, Chaney SD, Stone M, Bauman AJ, Stevens RP, Sayner S, Balczon R, Nelson AR, Stevens T, Lin MT. Targeting lung endothelium-derived tau to mitigate pneumonia-induced cognitive deficits and tau pathology. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. p. 18. Abstract no. 40.

Lin MT, Alexeyev M, Zhou C, Chaney S, Choi CS, Stone M, Bauman AJ, Ayers L, Stevens RP, Lee JY, Sayner S, Balczon R, Nelson AR, Stevens T. Lung capillary endothelial tau expression promotes alveolar-capillary barrier integrity following Pseudomonas aeruginosa pneumonia. Physiology. 2025 May 12;40(S1):0390. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.0390

**Professional recognitions**

Member, Alabama Alzheimer’s Disease Task Force (nominated by Lt. Gov. Will Ainsworth), Chair, Research and Innovation, Alabama Alzheimer’s Disease Task Force, Associate Editor,

*Frontiers in Cellular and Molecular Mechanisms of Dementia*, Review Editor, *Frontiers in Alzheimer's Disease and Related Dementias, Frontiers in Aging Neuroscience Archive, Frontiers in Neurodegeneration*. Founding Director, Gulf Coast Alzheimer's Disease Research Center.

**Sayner, Sarah L., Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

**Abstracts**

Choi CS, Alexeyev M, Zhou C, Wagener BM, Chaney SD, Stone M, Bauman AJ, Stevens RP, Sayner S, Balczon R, Nelson AR, Stevens T, Lin MT. Targeting lung endothelium-derived tau to mitigate pneumonia-induced cognitive deficits and tau pathology. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. p. 18. Abstract no. 40.

Choi CS, Kim JH, Tuckey AN, Voth S, Gwin MS, Audia, JP, Sayner SL, Renema P, Wagener BM, Pittet JF, Balczon R, Stevens T, Lin MT. Pseudomonas aeruginosa bacterial infection induces cleavage of the amyloid precursor protein in lung endothelium. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. p. 15. Abstract no. 5.

Jackson L, Choi CS, Stone M, Stevens RP, Clark J, Frank DW, Sayner S, Lee JY, Balczon R, Lin MT, Migaud ME, Stevens T. Filamentous-actin as a determinant of ExoY-induced purine and pyrimidine cyclic nucleotide monophosphate signaling in pulmonary microvascular endothelium. Physiology. 2025 May 12;40(S1):0289. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.0289

Lin MT, Alexeyev M, Zhou C, Chaney S, Choi CS, Stone M, Bauman AJ, Ayers L, Stevens RP, Lee JY, Sayner S, Balczon R, Nelson AR, Stevens T. Lung capillary endothelial tau expression promotes alveolar-capillary barrier integrity following *Pseudomonas aeruginosa* pneumonia. Physiology. 2025 May 12;40(S1):0390. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.0390

Sayner S. Soluble AC10 (aka sAC) in an acute mouse model of *P. aeruginosa*-induced lung injury. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. p. 16. Abstract no. 20.

Stevens RP, Holston J, Maatouk K, Kumar S, Pastukh VV, Gwin MS, Stone M, Sayner SL, Stevens T, Lee J. Carbonic anhydrase IX worsens mortality and lung permeability but does not affect the immune response during bacterial pneumonia. Am J Respir Crit Care Med. 2025

May;211:A3574. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A3574?role=tab

Stevens RP, Koloteva A, Kozhukhar N, Alexeyev MF, Stone M, Sayner SL, Graham BB, Stenmark KR, Stevens T, Lee J. PFKFB3 kinase inhibits fructose-mediated cholesterol synthesis in PMVECs and increases lung injury during *Pseudomonas aeruginosa* pneumonia. Am J Respir Crit Care Med. 2025 May;211:A3015. Abstract no. A3015. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A3015?role=tab

Stone M, Brewer K, Choi CS, Barrington R, Sayner S. Soluble adenylyl cyclase isoform 10 (AC10 aka sAC) is an edema factor that increases morality in an acute mouse model of *P. aeruginosa*-induced lung injury. Physiology. 2025 May 12;40(S1):0521. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.0521

**Professional recognitions**

Member, American Physiological Society Respiration Section Program Committee, American Thoracic Society. Reviewer, American Heart Assoc. Transformative Project Awards Peer Review, Dean's Predoctoral Fellowship Review Panel. Ad hoc reviewer, American Journal of Physiology Lung.

**Stevens, Troy, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

Hough RF, Alvira CM, Bastarache JA, Erzurum SC, Kuebler WM, Schmidt EP, Shimoda LA, Abman SH, Alvarez DF, Belvitch P, Bhattacharya J, Birukov KG, Chan SY, Cornfield DN, Dudek SM, Garcia JGN, Harrington EO, Hsia CCW, Islam MN, Jonigk DD, Kalinichenko VV, Kolb TM, Lee JY, Mammoto A, Mehta D, Rounds S, Schupp JC, Shaver CM, Suresh K, Tambe DT, Ventetuolo CE, Yoder MC, Stevens T, Damarla M. Studying the pulmonary endothelium in health and disease: an official American Thoracic Society Workshop report. Am J Respir Cell Mol Biol. 2024 Oct;71(4):388-406.

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

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

**Abstracts**

Choi CS, Alexeyev M, Zhou C, Wagener BM, Chaney SD, Stone M, Bauman AJ, Stevens RP, Sayner S, Balczon R, Nelson AR, Stevens T, Lin MT. Targeting lung endothelium-derived tau to mitigate pneumonia-induced cognitive deficits and tau pathology. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. p. 18. Abstract no. 40.

Choi CS, Kim JH, Tuckey AN, Voth S, Gwin MS, Audia, JP, Sayner SL, Renema P, Wagener BM, Pittet JF, Balczon R, Stevens T, Lin MT. *Pseudomonas aeruginosa* bacterial infection induces cleavage of the amyloid precursor protein in lung endothelium. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. p. 15. Abstract no. 5.

deWeever A, Anbalagan S, Stevens RP, Lee J, Stevens T, Ramani M, Dolma K. DEHP-induced glucose consumption and lactic acidosis in pulmonary endothelial cells: Insights for neonatal health in NICU settings. Am J Respir Crit Care Med. 2025 May;211:A2170. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A2170?role=tab

Holdbrooks, D, Stevens T. Infection and replication of the WSN strain of H1N1 influenza A virus in pulmonary microvascular endothelial cells. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. p. 15. Abstract no. 10.

Jackson L, Stevens T. Filamentous-actin depolymerization promotes ExoY-induced pyrimidine cyclic nucleotide monophosphate signaling in pulmonary microvascular endothelium. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. p. 17. Abstract no. 27.

Jackson L, Choi CS, Stone M, Stevens RP, Clark J, Frank DW, Sayner S, Lee JY, Balczon R, Lin MT, Migaud ME, Stevens T. Filamentous-actin as a determinant of ExoY-induced purine and pyrimidine cyclic nucleotide monophosphate signaling in pulmonary microvascular endothelium. Am J Physiol Lung Cell Mol Physiol. 2025 May 12;40(S1):0289. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.0289

Kumar S, Yendrapalli U, Tobin G, Stevens RP, Kondaveeti R, Ayers L, Strickland J, Wiggins L, Bryant H, Johnson J, Schuler M, Yuliya A, Seluanov A, Gorbunova V, Boyd A, Tambe DT, Audia J, Fouty BW, Stevens T, Lee J. Erythrocytes from animals and humans subjected to frequent hypoxia exposures undergo fructolysis and transfer fructose to pulmonary endothelium. Am J Respir Crit Care Med. 2025 May;211:A6446. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A6446?role=tab

Lin MT, Alexeyev M, Zhou C, Chaney S, Choi CS, Stone M, Bauman AJ, Ayers L, Stevens RP, Lee JY, Sayner S, Balczon R, Nelson AR, Stevens T. Lung capillary endothelial tau expression promotes alveolar-capillary barrier integrity following *Pseudomonas aeruginosa* pneumonia. Am

J Physiol Lung Cell Mol Physiol. 2025 May 12;40(S1):0390. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.0390

Meegan JE, Francis CM, Stevens T, Ware LB, Bastarache JA. Oxidation of LDL by hemoglobin alters heme- and lipid-processing, cytoskeletal, adhesion, and chemotactic pathways in human pulmonary microvascular endothelial cells. Am J Physiol Lung Cell Mol Physiol. 2025 May 12;40(S1):0417.

Meegan JE, Francis CM, Stevens T, Ware LB, Bastarache JA. Oxidation of LDL by hemoglobin alters heme- and lipid-processing, cytoskeletal, adhesion, and chemotactic pathways in human pulmonary microvascular endothelial cells. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. p. 17. Abstract no. 29.

Pritchett T, deWeever A, Cage M, Bowen L, Dobyns B, Rabideau B, Davis J, Reichert M, West K, Rich TC, Stevens T. Repeated airway exposure to the CO2 scrubbing agent Monoethanolamine causes lung injury. Am J Respir Crit Care Med. 2025;211:A5409. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A5409?role=tab

Stevens RP, Andrews J, Solodushko V, Pastukh V, Stevens T, Honkanen R, Swingle M, Lee J. In vitro phase separation of PPM1B during hypercapnia. Am J Respir Crit Care Med. 2025;211:A2182. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A2182?role=tab

Stevens RP, Holston J, Maatouk K, Kumar S, Pastukh VV, Gwin MS, Stone M, Sayner SL, Stevens T, Lee J. Carbonic anhydrase IX worsens mortality and lung permeability but does not affect the immune response during bacterial pneumonia. Am J Respir Crit Care Med. 2025 May;211:A3574. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A3574?role=tab

Stevens RP, Koloteva A, Kozhukhar N, Alexeyev MF, Stone M, Sayner SL, Graham BB, Stenmark KR, Stevens T, Lee J. PFKFB3 kinase inhibits fructose-mediated cholesterol synthesis in PMVECs and increases lung injury during *Pseudomonas aeruginosa* pneumonia. Am J Respir Crit Care Med. 2025 May;211:A3015. Available from: https://www.atsjournals.org/doi/epdf/10.1164/ajrccm.2025.211.Abstracts.A3015?role=tab

Stevens T. Lung capillary endothelial tau expression promotes alveolar-capillary barrier integrity following *Pseudomonas aeruginosa* pneumonia. Research Symposium on Pulmonary Injury and Repair of the Endothelium; 2025 Feb 11-14; Point Clear, AL. p. 18. Abstract no. 39.

**Professional recognitions**

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.

**Taylor, Mark S., Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Aziz T, Yuzefovych L, Rachek L, Taylor MS, Francis CM. OGG1 preserves endothelial-dependent vasodilation and regulates the frequency and spatial area of endothelial calcium signals. Biomolecules. 2025 May 29;15(6):790.

Taylor MS, Francis M, Choi CS. Flow-dependent modulation of endothelial $Ca^{2+}$ dynamics by small conductance $Ca^{2+}$-activated $K^{+}$ channels in mouse carotid arteries. Biomedicines. 2024 Dec 20;12(12):2900.

**Abstracts**

Taylor MS, Garriss S, Weber D. Endothelial calcium dynamics and RNA expression following partial carotid artery ligation in mice. Physiology. 2025 May 12;40(S1):1385. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.1385

**Invited presentations**

Taylor MT. Invited speaker. Preservation of homeostatic $Ca^{2+}$ signaling along the endothelial network. FASEB Science Research Conference, Vasoregulation: Signaling and Multicellular Inputs. 2024 Aug 6; Tucson, AZ.

Taylor MT. Imaging and analysis applications for decoding complex biological signaling profiles. 11$^{th}$ International Conference on Biomedical Engineering and Systems. 2024 Aug 19; Barcelona, Spain.

**Professional recognitions**

Member, American Heart Association, American Physiological Society. Reviewer, *Circulation Research*, *Heliyon*, *Quantitative Imaging in Medicine and Research*, *Journal of Personalized Medicine*, *Journal of Clinical Medicine*. Study Section Reviewer, National Institutes of Health, SEP Fellowships in Vascular and Hematological Systems, Surgical Sciences, Biomedical Imaging and Bioengineering.

**Weber, David S., Ph.D.**
**Publications:**
**Abstracts**

Taylor MS, Garriss S, Weber D. Endothelial calcium dynamics and RNA expression following partial carotid artery ligation in mice. Physiology. 2025 May 12;40(S1):1385. Available from: https://journals.physiology.org/doi/abs/10.1152/physiol.2025.40.S1.1385

**Professional recognitions**

Reviewer, *Journal of Molecular and Cellular Cardiology, Journal of Cardiovascular Pharmacology, Scientific Reports, Biomolecules, Antioxidants, Circulation Research, Arteriosclerosis, Thrombosis and Vascular Biology, Cellular Signaling, Nutrients, International Journal of Molecular Sciences, FASEB Journal.* Editorial Board Member, *International Journal of Molecular Sciences*. Study Section Reviewer, NIH-CSR SEP Fellowships: Cancer Immunology and Immunotherapy (F0C9), Whiddon COM Intramural Grants.

**Section III – Research and Innovation Spotlights**

There were several faculty spotlights in the past year; here we highlight three.

First, Dr. Thiago Bruder received the Harry Goldblatt Award for New Investigators from the American Heart Association. This is a highly competitive, prestigious award given to an early-stage investigator whose work has contributed to identifying causes of hypertension and related cardiovascular disease. The award is named for Dr. Harry Goldblatt, who was a pathologist known for developing the first experimental model of hypertension in 1934. Dr. Bruder was nominated for this award by Drs. Belin de Chantemele (Augusta University), Touyz (McGill University), and Stevens (USA). Congratulations to Dr. Bruder for this international visibility.

Second, Dr. Mikhail Alexeyev published a high-profile paper in *Nature Genetics* (Impact Factor 29), in which he called into question the mechanism responsible for the maternal inheritance of mitochondrial DNA in humans. He proposed an alternative conceptual framework in which paternal mtDNA is eliminated during sperm maturation through progressive turnover that results from the absence of essential mtDNA replication machinery, including POLG and POLRMT. Under this model, mtDNA loss occurs gradually as replication capacity declines, rather than through an acute degradation mechanism linked to mitochondrial transcription factor redistribution. This perspective reframes how paternal mtDNA elimination may occur during gametogenesis and emphasizes the importance of mtDNA replication dynamics in determining mitochondrial inheritance. By introducing a mechanistically distinct explanation that is consistent with existing observations, the study highlights the need for further experimental work to resolve the cellular processes governing mtDNA inheritance.

Third, work by Dr. David Weber and colleagues were highlighted by NPR for their innovative efforts to train medical students in nutrition education. The University of South Alabama Whiddon College of Medicine has instigated efforts to integrate nutrition education into medical training through hands-on learning in a teaching kitchen. In the class, physiology professor Dr. David Weber engages medical students in discussions about the health impacts of diet, using striking statistics and practical examples to help them better understand what their future patients eat and how those choices influence diseases such as diabetes. By encouraging students to think critically about nutrition and equipping them with the knowledge needed to have meaningful conversations about food and health, Dr. Weber plays an important role in preparing the next generation of physicians to view nutrition as a fundamental component of medical care. His work reflects a growing recognition within medicine that effective disease prevention and treatment often begin with informed guidance about diet and lifestyle.

# 2024-2025
# Summary of Scholarly Activities
# Department of Psychiatry

## Section I – Department Overview and Highlights

The department continues to pride itself on the quality of educational experiences for both medical students and resident physicians. The medical students' satisfaction with the second-year neuroscience and psychiatry module continues to receive overwhelmingly positive feedback, with students in particular noting that they enjoyed an active learning session involving Drs. Tillman and Chavers, simulating interviews with patients with several different psychiatric diagnoses. The third year Psychiatry clerkship continues to perform well, with students continuing to average at the 70th percentile nationally on the end of rotation NBME examination. Step 2 CK gains made in previous years have persisted, with additional gains having been made in content areas of psychotic disorders and neuroscience compared to last year's Step 2 CK report.

Medical student feedback on the psychiatry clerkship remains overwhelmingly positive. Feedback at the clerkship's annual evaluation session demonstrated strong student satisfaction with the outpatient psychiatry component that has been added to the rotation, as well as increased satisfaction with streamlining the court experience and providing new opportunities in outpatient child psychiatry as well as the Behavioral Health Crisis Center. Students also report high levels of satisfaction with the incorporation of a town hall meeting at the end of the 4-week clerkship to provide feedback and implement real-time improvements into the clerkship. We had two students successfully match into psychiatry last year, and the class of 2027 has three students currently reporting an interest in psychiatry. Student feedback on the psychiatry clerkship at the end of the year has been resoundingly positive, with all domains of feedback averaging a score of greater than 4.3/5 in student satisfaction. Students report that they feel that the psychiatry clerkship experience provided at EastPointe and our outpatient clinics is well-structured, and they feel that the education that they receive through lectures and through increased face-to-face time with patients and attending physicians gives them a great appreciation for the field of psychiatry. Medical students consistently report that they enjoy their time in psychiatry, and feel that the clerkship helps to develop their interviewing and documentation skills better than many other clerkships. They also express gratitude in being able to attend mental health court during the clerkship, as it is currently their only exposure to the interface between medicine and law in their medical school curriculum.

Changes made last year to the fourth year ambulatory curriculum have remained positive, with medical students again reporting satisfaction at getting weeklong exposure to adult outpatient psychiatry, child outpatient psychiatry, consult and liaison work, and emergency psychiatry through the BHCC. They continue to state that they feel that this approach helps them to appreciate the different types of careers that exist in psychiatry, and helps them to begin to plan for their careers after residency. Dr. Putinta has worked to get the medical students participating in TMS mapping sessions in order to expose them to interventional psychiatry, and Dr. Chavers plans on working to establish an ECT service that students and residents will one day be able to experience.

As medical student clerkship director and co-director, Drs. Putinta and Todd have continued to fine-tune the clerkship, continuing to streamline lecture content and order to make the didactics afternoon more consistent. Drs. Putinta and Todd revamped the grading structure of the clerkship in order to standardize grading along with all other clerkships in the College of Medicine, and also worked to change the structure of team-based learning exercises to better reflect the way these activities are performed in other clerkships. All medical students in the past academic year have successfully passed the NBME miniboard in psychiatry, with only two students needing to remediate the examination, passing comfortably on their second attempt.

**Section II – Faculty Scholarly Activity and Professional Recognition**

**Boone, Lucas, M.D.**
**Invited presentations**

Boone L. Invited speaker. Integrated care [video] "The Doctor is In" segment, WKRG News 5; 2024 Nov 8; Mobile, AL. Available from: https://www.wkrg.com/the-doctor-is-in/integrated-care-with-dr-lucas-boone/

**Brooks, Bradley, D.O.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Brooks BM, Brooks BM, Brown MI, Clinton V, Cordero FJ, Butterworth ML. Social pain and opioid misuse: a synergistic epidemic (syndemic). In: Magnusson P, LeQuang JA, Pergolizzi JV Jr, editors. Current approaches to postoperative pain management. London: IntechOpen; 2025. Chapter 5. p. 73-96. (IntecOpen Series, Pharmaceutical Science; Vol. 14).

Brooks BM, Nettles AM, Brooks BM. Diabetes psychiatry: the missing piece of the puzzle to prevent complications of the diabetes pandemic. Psychoactives. 2025 May 13;4(2):13. Available from: https://www.mdpi.com/2813-1851/4/2/13

Brooks LM, Brooks BM, Arp AS, Dove CR, Rogers LC, Michel R, Clinton V, Labovitz J, Brooks BM, Armstrong DG. Diabetes-related extremity amputation depression and distress (DREADD): a multimethod study. Semin Vasc Surg. 2025 Mar;38(1):94-100.

Brooks BM, Cordero FJ, Alchermes SL, Brooks BM. Social pain: a systematic review on interventions. F1000Res. 2025 Jan 10;14:58.

**Abstracts**

Crowell M, Davis A, Hossain S, Brooks B. False positive oxycodone results in patients receiving opioid antagonists. Alabama Psychiatric Physicians Association 2024 Fall Conference; 2024 Oct 11-12; Mobile, AL. Abstract no. 24-2-13. Available from: https://growthzonecmsprodeastus.azureedge.net/sites/2421/2025/06/Abstracts-Merged_APPA-2024_web.pdf

**Buckley, J. Christopher, MD, FAPA**
**Publications:**
**Abstracts**

Hossain S, Buckley JC. Admitting guilt in adult outpatient settings: navigating ethical dilemmas. Alabama Psychiatric Physicians: Association Spring Conference; 2025 Apr 25-27; Gulf Shores, AL. Abstract no. 25-1-14. Available from: https://growthzonecmsprodeastus.azureedge.net/sites/2421/2025/06/APPA-2025-Spring-Meeting-Compiled.pdf

**Invited presentations**

Buckley JC. Invited speaker. Principles of impactful physician expert witness testimony. Tulane University School of Medicine, Forensic Psychiatry Fellowship Physician Didactics; 2024 Aug 16; New Orleans, LA.

Buckley JC. Invited speaker. Modern developments in insanity defense case law. Tulane University School of Medicine, Forensic Psychiatry Fellowship Physician Didactics; 2024 Sep 13; New Orleans, LA.

Buckley JC. Invited speaker. Effective cross-examination testimony as a physician expert witness. Tulane University School of Medicine, Forensic Psychiatry Fellowship Physician Didactics; 2024 Oct 4; New Orleans, LA.

Buckley JC. Invited speaker. Modern developments in insanity defense case law. Tulane University School of Medicine, Forensic Psychiatry Fellowship Physician Didactics; 2024 Nov 22; New Orleans, LA.

Buckley JC. Invited speaker. Modern developments in expert witness case law. Tulane University School of Medicine, Forensic Psychiatry Fellowship Physician Didactics; 2025 Jan 24; New Orleans, LA.

Buckley JC. Invited speaker. Modern developments in expert witness case law. Tulane University School of Medicine, Forensic Psychiatry Fellowship Physician Didactics; 2025 Jan 31; New Orleans, LA.

Buckley JC. Invited speaker. Beyond Tarasoff: modern expansion of third-party duties in medicine and psychiatry. Tulane University School of Medicine, Forensic Psychiatry Fellowship Physician Didactics; 2025 Feb 14; New Orleans, LA.

Buckley JC. Invited speaker. Forensic psychiatry: introductory concepts and basic law for physicians. Tulane University School of Medicine, Forensic Psychiatry Fellowship Physician Didactics; 2025 Jul 1; New Orleans, LA.

Buckley JC. Invited speaker. Impactful report writing as a physician expert witness. Tulane University School of Medicine, Forensic Psychiatry Fellowship Physician Didactics; 2025 Jul 18; New Orleans, LA.

**Professional recognitions**

Dr. Christopher J. Buckley is a psychiatrist, educator, and physician-leader with a strong commitment to academic training, professional service, and community engagement. In recognition of this leadership, Dr. Buckley was elected by members of the Louisiana Psychiatric Association to serve as President of the Louisiana Psychiatric Medical Association, the state (District Branch) of the American Psychiatric Association, for a two-year term from May 2025 through May 2027. In this role, Dr. Buckley provides strategic leadership for the organization and advocates on behalf of psychiatrists and patients across the state.

In July 2025, Dr. Buckley joined the University of Central Florida College of Medicine/HCA Psychiatry Residency Program as an Adjunct Faculty member, contributing to the growth of a newly established psychiatry training program based in Pensacola, Florida. Dr. Buckley's academic work is further anchored at Tulane University School of Medicine, Department of Psychiatry and Behavioral Sciences, where Dr. Buckley serves as Director of the Forensic Psychiatry Fellowship. In this capacity, Dr. Buckley oversees the supervision and professional development of forensic psychiatry fellows, delivers more than 20 didactic lectures annually on core forensic psychiatry topics, and provides close mentorship to each fellow, including guiding the co-authorship of a scholarly publication for the Legal Digest section of the Journal of the American Academy of Psychiatry and the Law.

Beyond academic medicine, Dr. Buckley is deeply engaged in community service. Since January 2025, Dr. Buckley has served as an Advisor to the Board of Directors for Camp COOL (Children Overcoming Obstacles through Love) in Jasper, Alabama, a 501(c)(3) organization founded in 2013 to provide an authentic summer camp experience for children ages 6 to 21 with cerebral palsy or spina bifida. In this advisory role, Dr. Buckley works collaboratively with the Board to support strategic planning, budgeting, operational development, fundraising efforts, and volunteer recruitment, helping to ensure sustainability and mission-driven growth of the organization.

**Engeriser, J. Luke, MD, DFAPA, DFASAM**
**Invited presentations**

Engeriser JL. Invited speaker. Gas station pharmacology. Prescribing and Pharmacology of Controlled Drugs; 2024 Aug 3; Destin, FL.

Engeriser JL. Invited speaker. Buprenorphine: managing opioid use disorder. Prescribing and Pharmacology of Controlled Drugs; 2024; Aug 3; Destin, FL.

Engeriser JL. Invited speaker. AltaPointe opens new detox unit for substance abuse recovery: for those trying to recover from alcohol and fentanyl overdoses [interview, video]. FOX10 News; 2024 Sep 18; Mobile, AL. Available from: https://www.fox10tv.com/2024/09/18/altapointe-opens-new-detox-unit-substance-abuse-recovery/

Engeriser JL. Invited speaker. AltaPointe Health expands services at Behavioral Health Crisis Center [interview]. Shelby County Reporter; 2024 Sept 18; Columbiana, AL.

Engeriser JL. Invited speaker. Veterans' mental health [interview]. WKRG-TV News 5; 2024 Nov 8; Mobile, AL.

Engeriser JL. Invited speaker. Gas station drugs causing concern for Alabama health professionals [video]. CBS42; 2024 Nov 22; Birmingham, AL. Available from: https://www.cbs42.com/news/local/gas-station-drugs-causing-concern-for-alabama-health-professionals/

Engeriser JL. Invited speaker. Buprenorphine: managing opioid use disorder. Prescribing and Pharmacology of Controlled Drugs; 2024 Nov 23; Birmingham, AL.

Engeriser JL. Invited speaker. Alabama physicians gather to combat substance abuse and address delta-8 risks [interview]. WSFA12News [Internet]; 2024 Nov 27; Montgomery, AL. Available from: https://headtopics.com/us/alabama-physicians-gather-to-combat-substance-abuse-and-62610359

Engeriser JL. Invited speaker. Dying to stay awake: Adderall, other stimulants, could be the next drug epidemic [interview]. 1819 News [Internet]; 2024 Nov 30; Birmingham, AL. Available from: https://1819news.com/news/item/dying-to-stay-awake-adderall-other-stimulants-could-be-the-next-drug-epidemic

Engeriser JL. Invited speaker. Alabama doctors warning on gas station weed and other dangerous products [video]. ABC3340 News; 2024 Dec 2; Birmingham, AL. Available from; https://abc3340.com/news/local/alabama-doctors-warn-parents-about-gas-station-weed-and-other-dangerous-products#

Engeriser JL. Invited speaker. Gas station pharmacology [virtual presentation]. Tulane University Department of Psychiatry Grand Rounds; 2025 Jan 10; New Orleans, LA.

Engeriser JL. Invited speaker. AltaPointe Health's Crisis Center saves Mobile Community over $50 million. Selma Times [internet]; 2025 Jan 30; Selma, AL.

Engeriser JL. Invited speaker. Character, mind, and brain: the winding road of psychiatric diagnosis. "And there's the humor of it": Shakespeare and the four humors, NLM Traveling Exhibit, Charles M. Baugh Biomedical Library; 2025 Feb 11; Mobile, AL.

Engeriser JL. Invited speaker. Buprenorphine: managing opioid use disorder. Prescribing and Pharmacology of Controlled Drugs; 2025 Mar 1; Auburn, AL.

Engeriser JL. Invited speaker. Gas station pharmacology. Medical Association of the State of Alabama, 2025 Spring Conference Annual Session; 2025 Apr 11; Orange Beach, AL.

Engeriser JL. Invited speaker. Gas station pharmacology. Alabama Psychiatric Physicians Association Spring Conference; 2025 Apr 26; Gulf Shores, AL.

Engeriser JL. Invited speaker. Drugs of abuse and fentanyl test strips (FTS) [virtual presentation]. Center for Opioid Research and Outreach (COACH) Annual Conference: Disparities in Opioid Harm Reduction in Older Adults; 2025 May 1; Auburn. AL.

Engeriser JL. Invited speaker. AltaPointe Health: addiction treatment & recovery. "Studio 10" segment, FOX10 News; 2025 May 30; Mobile, AL. Available from: https://www.fox10tv.com/2025/05/30/altapointe-health-addiction-treatment-recovery/

Engeriser JL. Invited speaker. 'It is an opioid': Alabama officials weigh in on 'gas station heroin' concerns [interview]. WHNT News 19; 2025 Jun 18; Huntsville, AL. Available from: https://whnt.com/news/huntsville/it-is-an-opioid-alabama-officials-weigh-in-on-gas-station-heroin-concerns/

Engeriser JL. Invited speaker. Gas station pharmacology. East Alabama Medical Center Grand Rounds; 2025 Jul 17; Opelika, AL.

Engeriser JL. Invited speaker. Gas station pharmacology. The Louisiana Association of Substance Abuse Counselors and Trainers Annual Meeting; 2025 Jul 29; Baton Rouge, LA.

**Professional recognitions**

In 2025, Dr. Engeriser was named Faculty Teacher of the Year by the University of South Alabama Department of Psychiatry, recognizing excellence in medical education, faculty mentorship, and leadership in resident training. He also serves as co-Chair of the Prescribers and Dispensers Committee for the Alabama Opioid Overdose and Addiction Council (January 2025–Present), where he provides clinical and policy leadership on statewide prescribing standards, regulatory guidance, and overdose prevention strategies. Dr. Engeriser serves as a Member of the Alabama Medicaid Agency Drug Utilization Review Board (January 2025–Present), contributing psychiatric and addiction-medicine expertise to evidence-based formulary management, utilization oversight, and population-level prescribing policy.

**Gipson, Cynthia PhD.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Gipson C. Break the silence with co-response iPads [video]. Mobile Police Department and Mobile Fire-Rescue Department, producers. Mobile, AL: Youtube; 2024 Sep 10. Available from: https://www.youtube.com/watch?v=f_CytXr9yqQ

**Invited presentations**

Gipson C. Invited speaker. AltaPointe opens new detox unit for substance abuse recovery: for those trying to recover from alcohol and fentanyl overdoses [interview, video]. FOX10 News;

2024 Sept 18; Mobile, AL. Available from: https://www.fox10tv.com/2024/09/18/altapointe-opens-new-detox-unit-substance-abuse-recovery/

Gipson C. Invited speaker. MPD uses virtual reality training to prepare for mental health situations [interview, video]. FOX10 News; 2024 Nov 18; Mobile, AL. Available from: https://www.fox10tv.com/2024/11/19/mpd-uses-virtual-reality-training-prepare-mental-health-situations/

Gipson C. Invited speaker. MPD officers use new virtual reality to train for mental health crisis response [interview, video]. NBC 15 News; 2024 Nov 18; Mobile, AL. Available from: https://mynbc15.com/news/local/mobile-pd-officers-use-new-virtual-reality-to-train-for-mental-health-crises-response

Gibson C. Invited speaker. Fairhope approves memorandum to improve police response to mental health crises [interview]. Gulf Coast Media; 2025 Mar 18; Fairhope, AL. Available from:https://gulfcoastmedia.com/stories/fairhope-approves-memorandum-to-improve-police-response-to-mental-health-crises,255834

Gibson C. Invited speaker. MPD and AltaPointe co-response leads to treatment instead of arrest [interview]. FOX10 News; 2025 Apr 30; Mobile, AL. Available from: https://www.fox10tv.com/2025/04/30/mpd-altapointe-co-response-leads-treatment-instead-arrest/

Gibson C. Invited speaker. How daylight-saving time can affect health. WEAR TV; 2025 Apr 30; Pensacola, FL.

Gibson C, McCarty N. Invited speakers. AltaPointe Health: Mental Health Awareness Month & partnership with the Mobile Police Department [video]. Studio 10 segment, FOX10 News; 2025 May 22; Mobile, AL. Available from: https://www.fox10tv.com/2025/05/22/altapointe-health-mental-health-awareness-month-partnership-with-mobile-police-department/

Gibson C, Miles R. Invited speakers. High Gulf Coast temperatures could fuel a rise in crime. WKRG News 5; 2025 Jul 30; Mobile, AL. Available from: https://www.wkrg.com/mobile-county/extremely-hot-temperatures-could-fuel-a-rise-in-crime/

Jones M, Hollingsworth J, Gibson C. Invited speakers. Mobile law enforcement officers participate in Crisis Response Training [interview, video]. NBC 15 News, 2025 Jun 16; Mobile, AL. Available from: https://mynbc15.com/news/local/mobile-law-enforcement-officers-participate-in-crisis-response-intervention-training

**Professional recognitions**

Cindy Gibson PhD, LPC-S, AltaPointe's Director of Crisis and Justice-Involved Services received the Director's Award for her work with NAMI (National Alliance on Mental Illness).

Dr. Cindy Gipson has a Ph.D. in psychology from the University of Texas at Austin and a 33-year career in mental health. Dr. Gipson has worked in the Alabama State Psychiatric Hospital system at Searcy Hospital and as a first responder in Central Texas doing mobile crisis outreach. Dr. Gipson is an associate professor in the psychiatry department at the University of South Alabama Medical School and has been with AltaPointe Health for the past 12 years, developing crisis and criminal justice diversion services to address the growing disparity in treatment for people living with mental illness and co-occurring disorders. Dr. Gipson is the mental health liaison for the Mobile Field Office of the FBI and co-founder of the Gulf Coast Threat Assessment and Threat Management Team. Dr. Gipson is a certified Crisis Intervention Team (CIT) Coordinator, providing 40-hour training to law enforcement officers. Dr. Gipson believes it is crucial to have relationships with law enforcement to improve responses to and safety during mental health calls, eventually creating a system where police are no longer the primary first responders, and jail is not the primary treating facility.

**Moore, JC, D.O.**
**Invited presentations**

Moore JC. Invited speaker. Child psychiatry expert gives insights on back-to-school anxiety. FOX10 News; 2024 Aug 15; Mobile, AL. Available from: https://www.fox10tv.com/2024/08/15/child-psychiatry-expert-gives-insights-back-to-school-anxiety/

**Parker, Sandra, M.D.**
**Invited presentations**

Parker S. Invited speaker. National Women's Health Week with AltaPointe. "Studio 10" segment, FOX10 News; 2025 May 25, Mobile, AL. Available from: https://www.fox10tv.com/2025/05/15/national-womens-health-week-with-altapointe/

**Professional recognitions**

Dr. Sandra Parker was elected President of the Alabama Region of the American Academy of Child and Adolescent Psychiatry in 2025 to present.

**Saitz, Marianne, D.O**
**Publications:**
**Abstracts**

Malone J, Crowell M, Saitz M. Treatment of ADHD with concurrent cannabis use disorder. Alabama Psychiatric Physicians Association 2025 Spring Conference; 2025 Apr 25-27; Gulf Shores, AL. Abstract no. 25-1-15. Available from: https://growthzonecmsprodeastus.azureedge.net/sites/2421/2025/06/APPA-2025-Spring-Meeting-Compiled.pdf

Llivina G, Chavers E, Saitz M. Seeing the difference: comparing HPPD and psychotic hallucinations. Alabama Psychiatric Physicians Association 2025 Spring Conference; 2025 Apr

25-27; Gulf Shores, AL. Abstract no. 25-1-16. Available from: https://growthzonecmsprodeastus.azureedge.net/sites/2421/2025/06/APPA-2025-Spring-Meeting-Compiled.pdf

**Smith, Phillip N., Ph.D.**
**Publications**
**Journal Articles, Book Chapters, and Patents**

Love HA, Morgan P, Smith PN. Participation in a daily diary study about suicide ideation yields no iatrogenic effects: a mixed method analysis. Suicide Life Threat Behav. 2025 Feb;55(1):e13125.

Smith PN, Cordell C, Stevens LT, West K, Morgan ST, Vallas J, Mehari KR. Project GRIP: an illustration of participatory action research with communities of people who own and use firearms. Psychol Rep. 2025 Feb;128(1):211-239.

**Abstracts**

Ikonomou VC, Hernandez KA, Gomien K, Aita SL, Borgogna N, Musso M, Smith PN, Hill BD. Big 5 personality profiles of police training academy cadets. Society for Police and Criminal Psychology Conference; 2024 Sep 25-28, Louisville, KY. p. 7.

Mehari KR, Coleman JN, Smith PN, Stevens LT, Morgan ST. Socialecological predictors involvement in firearm violence in a nationally representative sample of adults. National Research Conference for the Prevention of Firearm-Related Harms; 2024 Dec 9-11; Seattle, WA.

Mehari KR, Smith P, Walsh C, Stevens LT, Coleman J. Carrying practices and motivations for carrying and not carrying: a mixed methods analysis of adults and youth. Carrying in context motivations and access to information as predictors of firearm behavior. 33rd Annual Meeting of the Society for Prevention Research; 2025 May 27-30; Seattle, WA. Abstract no. 143. Available from: https://spr.confex.com/spr/spr2025/meetingapp.cgi/Paper/34858

Stevens LT, Morgan ST, Smith PN, Mehari KR. Risk factors for firearm-related intimate partner violence in a national sample of adults. National Research Conference for the Prevention of Firearm-Related Harms; 2024 Dec 9-11; Seattle, WA.

Walsh CS, Dunn CB, Smith P, Mehari KR. Relations between subgroups of sources of firearm information and youth firearm carriage. 33rd Annual Meeting of the Society for Prevention Research, 2025 May 27-30; Seattle, WA.

**Section III – Research and Innovation Spotlight**

A team led by Dr. Engeriser and including PGY4 resident Evan Chavers have had a paper accepted for publication in Addiction Science and Clinical Medicine. The paper describes an innovative quality improvement protocol at AltaPointe Health's Behavioral Health Crisis Center to address difficulties transitioning patients from fentanyl to buprenorphine. The protocol used a low, sub-

dissociative dose of intramuscular ketamine prior to a high-dose buprenorphine initiation. In this observational study, sub-dissociative dose intramuscular ketamine was a well-tolerated and inexpensive premedication for a high-dose buprenorphine initiation strategy. Most patients had rapid reduction in signs of fentanyl withdrawal after ketamine and half had nearly complete resolution following buprenorphine. The paper concludes that ketamine may be a useful adjunct to increase buprenorphine uptake and reduce overdose deaths and that prospective research is warranted.

# 2024-2025
# Summary of Scholarly Activities
# Department of Radiology

## Section I – Department Overview and Highlights

Dr. Gregg Delgado, a fellowship-trained neuroradiologist and musculoskeletal radiologist, continues to be an essential contributor to the department's clinical mission, providing high-volume subspecialty interpretations in both neuroradiology and musculoskeletal imaging to support the steadily increasing demand for advanced imaging studies. Dr. Delgado provides significant educational value to the residency program through monthly lectures, recurring case-based conferences, and senior-level board review sessions. Dr. Delgado also maintains a strong leadership presence within departmental quality initiatives, serving as Vice Chair of Quality Assurance and Performance Improvement, leading the monthly Peer Learning Conference, and acting as the departmental representative for peer review activities.

Beyond these roles, he serves as a faculty advisor to a medical student and continues to excel in his innovative remote faculty position, which allows him to deliver both clinical service and educational engagement from North Alabama.

Dr. Michael Francavilla, an Associate Professor and fellowship-trained pediatric radiologist, continues to be an exceptional asset to the pediatric radiology division and the department as a whole. In addition to his clinical responsibilities, he serves as the Chief Medical Information Officer for Radiology, where he has become indispensable to USA Health through his leadership in imaging-related IT initiatives. His educational contributions remain robust and multifaceted, including weekly multidisciplinary rounds with pediatric residents and the pediatric orthopedic service, along with delivering grand rounds on pediatric arthritis and a lecture to USA's MBA program on healthcare transformation. He also represents radiology in the pediatric tumor board.

Dr. Francavilla has demonstrated strong scholarly productivity, with seven peer-reviewed publications in the past year, multiple collaborative research efforts, and national academic engagement through the SPR Informatics & Public Policy Committee, invited presentations—including his SPR talk on "Teaching AI Literacy to Trainees While Maintaining Traditional Skills"—and his work as a journal editor and reviewer for Applied Radiology, JIIM, Pediatric Radiology, and JACR. He also co-leads a multi-institutional pilot grant to advance ultrasound integration for midgut volvulus using an implementation-science framework.

Clinically, Dr. Francavilla has expanded pediatric imaging capabilities by implementing new MRI protocols for liver evaluation and appendicitis, establishing ultrasound evaluation protocols for midgut volvulus, deploying Softek Illuminate for pulmonary nodule follow-up, and advancing pediatric ultrasound applications, including bowel, lung, and contrast-enhanced techniques. His administrative involvement includes serving on the Template Task Force, contributing to radiology operations, and improving workflow through reporting standardization and workstation/PACS enhancements.

Dr. Shikha Gupta, Professor and Division Chief of Nuclear Medicine, continues to be an exceptionally valuable member of the department, providing highly specialized clinical services in advanced oncologic and molecular imaging. Her expertise includes high-quality PET/CT interpretation and cross-sectional imaging of liver, prostate, and colorectal cancers. Over the past year, Dr. Gupta expanded nuclear medicine capabilities across USA Health by initiating F-18 Pylarify PET/CT for prostate cancer staging and management, and introducing Cu-64 Dotatate PET at the Mitchell Cancer Institute for neuroendocrine tumor imaging, significantly enhancing diagnostic precision and treatment planning for complex oncology patients.

Dr. Gupta continues to excel as a dedicated educator. She developed a CVR module for M1 medical students, provides direct instruction in the Ray 480/481 UME curriculum, and leads a nuclear medicine conference approved for category I CME. She contributes to multiple multidisciplinary conferences, including serving as the imaging lead for the biweekly colorectal tumor board, providing backup for the Gyn Oncology tumor board, and supporting a growing Urology Case Conference, further strengthening communication and collaboration across clinical teams.

Dr. Gupta's administrative and service contributions are equally impactful. She serves as Chair of the USA Health Radiation Safety Committee, is a long-standing member of the Medical School Admissions Committee and provides essential leadership as Section Chief of Nuclear Medicine. Nationally, she maintains significant professional visibility as an ACR reviewer for Nuclear Medicine accreditation and a member of the ACR National Committee on Nuclear Medicine Accreditation, and she delivered an invited lecture at the Alabama Chapter of the American College of Surgery on the role of MRI in rectal cancer restaging.

Dr. C.J. Gaston, an Assistant Professor of Interventional Radiology who joined the department on June 1, 2024, after completing diagnostic radiology residency with Early Specialization in Interventional Radiology at the University of Tennessee Medical Center and a vascular and interventional radiology fellowship at the University of Florida, has quickly established himself as a core member of the IR service. As a fellowship-trained interventional radiologist, he provides a broad range of complex therapies—spanning oncologic interventions, life-saving procedures for hepatic failure, and high-acuity vascular embolizations for trauma—while contributing materially to service development and quality. He has been a key driver in the growth of the VTE Center of Excellence and USA PERT (Pulmonary Embolism Response Team) and in expanding the Y-90 TARE program to a national top-20 volume. Dr. Gaston is deeply engaged in education, delivering regular IR didactics, leading the ESIR pathway (where residents have dubbed him the "ESIR Godfather"), and mentoring ESIR residents. He also directs resident and APP journal club, develops student skills labs, and offers CEU lectures for ancillary staff.

Dr. Marshall Hutchison, an Assistant Professor in the Division of Interventional Radiology, continues to play an integral role in providing high-quality interventional services and supporting the rapidly expanding IR program across USA Health. Since joining the faculty, he has provided a broad range of complex image-guided therapeutic procedures, including oncologic interventions, life-saving treatments for patients with hepatic failure, and high-acuity vascular embolization for trauma patients. Dr. Hutchison additionally contributes significantly to resident and medical student education, delivering regular monthly IR lectures, assisting in leading the clinical skills

lab, and serving as advisor to five students. He is a key faculty member supporting the Early Specialization in Interventional Radiology (ESIR) pathway.

Dr. Rosemary Klecker, Professor of Diagnostic Radiology and Division Chief of Musculoskeletal Radiology, continues to provide exemplary leadership of the MSK section while delivering outstanding subspecialty interpretations across an expanding volume of advanced MSK imaging. As a fellowship-trained MSK radiologist, Dr. Klecker contributes significantly to multidisciplinary education, delivering lectures and grand rounds for radiology and orthopedic surgery, and offering advanced instruction in MSK imaging, procedures, and anatomy. Her educational efforts include developing structured MSK curricula, integrating OCAD national lecture series content, expanding teaching materials such as anatomical models, and maintaining a robust teaching file of curated MSK cases.

Dr. Klecker serves as Associate Program Director for the diagnostic radiology residency with great success, advising five residents and fellows, guiding SAIL plans, and supporting both didactic and clinical learning. She has also contributed important scholarship, including poster presentations for the Southern Radiological Society and a completed patient-education project producing an arthrogram informational pamphlet that is now available through USA Health. Her MSK clinical innovation includes expanding MSK ultrasound procedures, providing hands-on US training with the Sports Medicine Clinic, and refining MRI protocols to improve image quality while reducing exam times. She continues to support interdisciplinary collaboration through sports medicine, orthopedic surgery, and rheumatology clinical activities.

Her service and leadership are extensive, including roles on the Program Evaluation Committee, Clinical Competency Committee, Residency Selection Committee, Template Taskforce, CME Committee, and serving as Vice President of the Faculty Senate Executive Committee.

Dr. Brett Martin, Associate Professor and Section Chief of Neuroradiology, continues to be an exceptionally engaged and influential faculty member whose contributions span clinical service, education, scholarship, and leadership. As Program Director for the Diagnostic Radiology Residency, he oversees curriculum development, resident assessment, and program quality, and his leadership is reflected in a 100% first-time Core Exam pass rate among residents this year. Clinically, Dr. Martin remains one of the department's top producers and he provides high-level subspecialty interpretations across neuroradiology, including advanced protocols he has developed and implemented. He also leads several weekly multidisciplinary conferences, including the combined Neuroradiology–Neurology–Neurosurgery–Neurointerventional conference and a neuroanatomical correlation conference, further strengthening interdisciplinary education and clinical decision-making.

In scholarship, Dr. Martin has published in the *Journal of Medical Imaging Case Reports* and serves as co-investigator on two multimillion-dollar funded clinical research studies, including an NIH-funded grant totaling approximately $1.3 million between 2023 and 2026. His longstanding participation in the neuro-oncology tumor board and seven years of interdisciplinary neuroradiology conference service further highlight his contributions to academic and clinical scholarship. Administratively, he holds multiple critical departmental and health system positions, including Chair of the Program Evaluation Committee, Clinical Competency Committee,

Residency Selection Committee, and MRI Safety Committee, and he serves on the Trauma Peer Review Committee and Stroke Steering Committee for USA Health. Nationally, he chairs the Association of Program Directors in Radiology Development Committee, demonstrating leadership beyond the institution.

Dr. Samuel McQuiston, Professor of Radiology and Section Chief of Chest Radiology, continues to provide exceptional leadership, education, and clinical service to the department and the College of Medicine. He remains one of the department's most influential educators, contributing extensively across multiple UME courses, including the radiology selective rotations, and developing innovative instructional materials such as RAY-465 Applied Clinical Radiology, designed to give non-radiologists a practical understanding of imaging application in clinical practice. His educational impact is reflected in his repeated receipt of the Red Sash Award, his status as faculty advisor to 31 Radiology Interest Group students, mentorship of three residents, and research advising for five medical students, along with consistently outstanding resident and student evaluations.

Dr. McQuiston has demonstrated strong ongoing scholarly activity, including a peer-reviewed publication, an AHA national scientific session abstract, and a case report accepted for publication. He is one of only two radiology faculty members providing cardiac MRI interpretation, supported by extensive additional CME training in pediatric cardiovascular MRI and advanced imaging. In addition to his clinical responsibilities, Dr. McQuiston plays a critical leadership role as Vice Chair for Quality Improvement and Education, having chaired QAPI committees for both University Hospital and Children's & Women's Hospital. He maintains an active presence on numerous departmental, hospital, and College of Medicine committees, including the Clinical Competency Committee, Performance Improvement Council, and Ethics Committee, and he also serves nationally on the American Board of Radiology Angoff Committee.

Dr. Margaret Mowry, a body-fellowship trained radiologist, provides vital clinical services and continues to deliver high-quality subspecialty expertise in breast imaging, body imaging, prostate MRI, and oncology/PET-CT, including maintaining the additional FDA-mandated credentialing required for mammography. She is also additionally certified in reading whole breast ultrasounds. She is actively involved in interdisciplinary cancer care as the radiology representative for the Oncology Tumor Board, a member of the MCI Commission on Cancer Committee, and a participant in the UH Multidisciplinary Peer Review Committee, contributing radiologic expertise to complex oncologic case management.

Her scholarly work this year includes a published *ACR Case in Point* article on optic nerve meningioma and two additional poster presentations, along with two manuscripts under submission involving breast imaging and fibroadenoma case presentations.

Dr. Elizabeth Park, a fellowship-trained breast imager and Section Chief of Breast Imaging, continues to play a vital leadership role in the development and expansion of the Women's Imaging Center. She provides consistently excellent clinical service across all aspects of breast imaging, including mammography, ultrasound, MRI, and whole-breast ultrasound, where she remains one of only two certified readers in the department. Dr. Park is a key member of the multidisciplinary breast cancer care team, working closely with USA Health surgeons and oncologists, and

contributes to broader institutional cancer initiatives through her service on the Committee on Cancer and the NAPBC accreditation committee. She provides monthly mammography lectures for residents, hands-on ultrasound workshops, and maintains a strong mentoring presence as a career mentor for four medical students. Dr. Park also contributes significantly to residency program governance through her roles on the Program Evaluation Committee and the Clinical Competency Committee, ensuring high standards in breast imaging education and trainee assessment.

Dr. Park has also provided important guidance in the adoption and implementation of new whole-breast ultrasound technology, contributing to improved diagnostic capabilities and workflow within the women's imaging service line.

Dr. Austin Trupp, an Assistant Professor in the Division of Interventional Radiology who joined the department in September 2024, has quickly become an indispensable member of the IR team, providing outstanding clinical service and education. As a fellowship-trained interventional radiologist, he performs a wide spectrum of advanced image-guided therapeutic procedures, including oncologic interventions, life-saving treatments for patients with hepatic failure, and high-acuity vascular embolization for trauma patients. His clinical practice has expanded rapidly, contributing significantly to high-demand IR service lines, such as PERT activations, microwave and cryoablation, and a growing Y-90 chemoembolization volume, which has helped maintain USA Health's placement among the top 20 centers nationally for Y-90 services. He has also completed training to support the launch of the new histotripsy service line, demonstrating early leadership in bringing novel IR technologies into the system.

His educational contributions include regular IR lectures for residents and medical students, teaching in the simulation lab, participating actively in the Early Specialization in Interventional Radiology (ESIR) program, and serving as a core contributor to the IR Journal Club. He has also helped develop the interventional radiology lecture curriculum for the 2025–2026 academic year, reinforcing his commitment to structured resident education. Additionally, he mentors students in clinical and academic development. This year he also successfully earned IR/DR board certification.

Dr. Kevin Wong, Associate Professor and Head of the Pediatric Interventional Radiology division, has continued to make transformative contributions since joining the department on November 1, 2023. Dr. Wong has now fully established a comprehensive pediatric IR division, including clinic operations, dedicated nursing staff, technical/midlevel personnel, and streamlined referral pathways. He has been deeply involved in fundraising and institutional planning, working closely with USA Health development leadership to advance architectural designs and strategy for a new pediatric IR lab, an initiative that will bring first-in-region capabilities to Children's & Women's Hospital.

Clinically, Dr. Wong has rapidly expanded in-house pediatric interventional procedures that previously required patient transport outside the system. These now include line and tube placements, sclerotherapy, biopsies, and drainages—services that have significantly improved safety, timeliness, and continuity of care. He also participates in adult interventional call at University Hospital and contributes to diagnostic pediatric radiology services.

He serves as a mentor to multiple radiology residents and participates actively in the Pediatric Tumor Board, integrating imaging expertise into multidisciplinary oncologic care.

His scholarly productivity has been exceptional, with seven peer-reviewed publications in the past year, several external abstracts/posters, and active involvement in research collaborations. He currently holds extramural funding through two agencies: a $37,998 UAMS internal grant and a $100,000 Society for Pediatric Radiology award, supporting innovation in pediatric imaging and infection detection.

Dr. Brian Wood, Associate Professor in the Division of Interventional Radiology, continues to serve as a central clinical and leadership figure within the IR service line. He successfully guided the IR division through significant growth, mentored new faculty, and oversaw the expansion of inpatient IR services at Providence Hospital. He has provided a wide range of advanced image-guided therapies, including oncologic interventions, life-saving procedures for patients in hepatic failure, and high-acuity vascular embolizations for trauma patients. His leadership was particularly impactful as he continued to expand key service lines, such as lung cryoablation, histotripsy, and renal denervation, and guided the division in performing 120 Y-90 chemoablations, keeping USA Health ranked among the top 20 centers nationally for this treatment.

In addition to his clinical contributions, Dr. Wood has played a vital transitional leadership role, serving as interim Section Chief of Interventional Radiology following the departure of Dr. Hussain. He continues to provide outstanding resident and medical student education, giving regular IR lectures, leading hands-on ultrasound-guided procedure simulation workshops, and serving as a key faculty member in the Early Specialization in Interventional Radiology (ESIR) program. He also earned the ESIR faculty award this year.

Dr. Wood is also actively engaged in academic mentorship, serving as research advisor to two radiology residents and two medical students, and contributing co-authored abstracts and posters at professional meetings. He also serves on the weekly hepatobiliary tumor board, providing specialized IR input for multidisciplinary cancer management.

**Recruitment:**

- Hired Dr. Todd Standley to begin September as a 0.6 FTE pediatric radiologist.
- Onboarded Dr. Austin Trupp, a fellowship trained interventional radiologist.
- Maintained membership in AAARAD to have access to national RVU and salary benchmark
- Added membership to SCORCH to better track pediatric radiology benchmarks.
- Ongoing recruitment efforts including services provided by The Medicus Firm.

**Resident Education:**

Our senior residents matched in prestigious and highly competitive fellowship programs that include Wake Forest, at Winston Salem, North Carolina, University of Michigan, at Ann Arbor Michigan, MD Anderson, at Houston, Texas, UAB, at Birmingham, Alabama and UNC at Chapel

Hill, North Carolina. We also have had great success in our residency recruitment, with seven new residents who joined us on July 1, 2025.

Our seven new residents are: Dr. Saad Awan, who graduated from University of South Alabama College of Medicine, and completed his transitional year at the Brookwood Baptist Health; Dr. Jeremy Borwn, who graduated from A.T. Still University of Osteopathic Medicine, and completed his transitional year at Kaweah Delta Health Center; Dr. Peter Choi, who graduated from Philadelphia College of Osteopathic Medicine, and completed his transitional year at Northeast Georgia Medical Center; Dr. Nicole Grigoryants, who graduated from Alabama College of Osteopathic Medicine, and completed her transitional year at HCA Florida Healthcare/USF Morsani College of Medicine; Dr. Szymon Matejuk, who graduated from Jagiellonian University Medical College, and completed his transitional year at University of South Alabama Internal Medicine; Dr. Katherine Niel, who graduated from Alabama College of Osteopathic Medicine, and completed her transitional year at Piedmont Macon Medical Center; Dr. Faaiz Saad, who graduated from University of Alabama School of Medicine, and completed his transitional year at Brookwood Baptist Health.

The radiology residency program is excited to introduce Dr. Jessica Cook and Dr. Chase Diard as our Chief Residents for the 2025 – 2026 academic year. Their commitment and leadership will be invaluable to our team.

We are proud to share that several of our Diagnostic Radiology Residents presented posters at a regional conference, the Southern Radiologic Society. This highlights their academic endeavors and dedication to our residency program. In addition, all five senior residents passed the core certifying exam on the first attempt.

The residency program has enjoyed continued success in filling residency slots and obtaining prestigious post-residency fellowship positions. We have also maintained resident diversity with currently 25% females and 30% underrepresented minorities recruited into our program. There were multiple new resident education initiatives, including simulation labs for the ESIR residents and new instruction in pediatric IR procedures. Two of our residents, Dr. Zubair Chaudry and Dr. Anas Souid, graduated from the ESIR (Early Specialization in Interventional Radiology) program.

**Clinical Services:**

- YTD average for faculty wRVU (output) annualized (MGMA) is currently 79%
- Provided whole breast ultrasound at Strada Breast Imaging Center – services began Oct. 2022
- Installed two new CT scanners at UH, one of which is a dual-energy scanner, including faculty training sessions on this new technology
- Installed new 1.5 T Philips Ingenia MRI at CW
- Acquisition of new MRI software, allowing USA CW to perform higher level cardiac imaging, spectroscopy, liver elastography, liver iron and fat quantification
- Fast MRI protocol for pediatric appendicitis evaluation
- Implemented/updated cardiac MRI protocols after the installation of new software
- Strategic upgrade of radiology workstations, PACS, and related clinical applications
- Updated hospital-based services, including Navigo MRI/US Prostate Fusion Biopsy mapping, improving urologist intraoperative guidance for prostate cancer treatment

- Began providing new renal denervation IR procedure to treat hypertension
- Integrated IR services at Providence Campus, including a new base for the IR clinic
- Initiated a PERT team with a multidisciplinary protocol for pulmonary embolism evaluation and treatment algorithm
- Began Myriad genetic testing for high-risk breast cancer patients
- Acquired River-rain, an AI platform for pulmonary lung nodule detection
- Initiated new interdepartmental protocols, including imaging protocols for work up of appendicitis and intussusception
- Initiated new clinical protocols for teaching sonographers ultrasound detection of neonatal necrotizing enterocolitis and appendicitis
- Introduced a new pediatric interventional radiology service line, allowing the inpatient delivery of interventional procedures without transfer to outside hospitals
- Collaborated with the pediatric department to align new services for cardiac imaging, including additional training by two of our radiologists for advanced cardiac imaging interpretation

**Innovative new clinical practices/ protocols in multiple areas**

- Continued Cu 64 Dotatate PET at the Mitchell Cancer Institute to diagnose and stage neuroendocrine tumors
- Continued F-18 Pylarify PET/CT for staging and further management of patients with prostate cancer
- Provided lower extremity vascular ultrasound interpretation by I.R. faculty
- Established the Endovascular AV fistula creation service
- Established peritoneal catheter placement and management in collaboration with Nephrology
- Continued developing and updating radiology reporting templates to standardize and speed up the reporting process.

**Quality Initiatives, Goals, and Metrics:**

- Continue our exemplary QAPI quality program.
- Continue to transition to a new peer-learning model for faculty quality improvement.
- Continue interdepartmental case review conferences with the Urology department
- Continue quality improvement project to verify all elements are present for complete abdominal ultrasounds
- Maintain excellent benchmarks for TAT
- Continue to track Merit-Based Incentive Payment System (MIPS) measures for CMS
- Continue to provide notification of critical results in less than one hour (currently >90% compliance)
- Continue template task force engagement, which has improved reporting templates to standardize and speed up the reporting process.
- Ongoing updates for radiology workstations, PACS and related clinical applications

We were also pleased to again select this year's recipient of the Frank Greiner Award, a substantial USA Foundation endowment, recognizing excellence, self-motivation and a sense of humor to a well deserving radiology support employee. This year's recipient is Tabitha English, Patient Access Clerk for Radiology. She exemplifies the true spirit of the award through her proactive attitude, dedication, and commitment to ensuring patients receive not just care, but an exceptional

experience every day. The award was given with much fanfare as usual on September 19th, “Talk Like a Pirate Day”, as dictated by Dr. Greiner’s wishes and reflecting his awesome sense of humor!

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

**Section II – Faculty Scholarly Activity and Professional Recognition**

**Delgado, Gregg, D.O.**
**Professional recognitions**

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

**Figarola, Maria, M.D.**
**Professional recognitions**

Teacher of the Year Award 2024-2025 voted on by the graduating senior class, Manuscript Reviewer, American Journal of Radiology. Member, Society of Pediatric Radiology. Advisory Role, Society of Pediatric Radiology online forums Q&A. Reviewer Radiology MOC Questions. Selection Committee Member, Alpha Omega Alpha Medical Honor Society. Member, Society of Chairs of Academic Radiology Departments. Children’s Oncology Group Diagnostic Imaging Committee. Member, Society of Chiefs of Radiology at Children's Hospitals, as well as the national discussion platform. Member, Radiology Society of North America. Member, American College of Radiology. Member, American Roentgen Ray Society. Member, Association of American Medical Colleges. Member, Association of University Radiologists. National MQSA (Mammography Quality Standards Act) Certification. Member, American Board of Radiology.

**Francavilla, Michael, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Hayrapetian A, Jeyasingam M, Francavilla M. Pediatric appendicitis US: practical considerations. Appl Radiol. 2024 Nov;53(6):5-11.

Lopez-Rippe J, Reddy M, Velez-Florez MC, Amiruddin R, Lerebo W, Gokli A, Francavilla M, Reid J. RADHawk-an AI-based knowledge recommender to support precision education, improve reporting productivity, and reduce cognitive load. Pediatr Radiol. 2025 Feb;55(2):259-267.

Mayer A, Brandon TG, Aggarwal A, Burgos-Vargas R, Colbert RA, Horneff G, Joos R, Laxer RM, Minden K, Ravelli A, Ruperto N, Smith JA, Stoll ML, Tse SM, Van den Bosch F, Maksymowych WP, Lambert RG, Biko DM, Chauvin NA, Francavilla ML, Jaremko JL, Herregods N, Kasapcopur O, Yildiz M, Srinivasalu H, Faerber JA, Naden R, Hendry AM, Weiss PF. Effect of characteristic inflammatory and structural pelvic magnetic resonance imaging lesions on expert assessment of axial juvenile spondyloarthritis. J Rheumatol. 2025 Feb 1;52(2):165-172.

Weiss PF, Brandon TG, Aggarwal A, Burgos-Vargas R, Colbert RA, Horneff G, Laxer RM, Minden K, Ravelli A, Ruperto N, Smith JA, Stoll ML, Tse SM, Van den Bosch F, Maksymowych WP, Lambert RG, Biko DM, Chauvin NA, Francavilla ML, Jaremko JL, Herregods N, Kasapcopur O, Yildiz M, Srinivasalu H, Hendry AM, Joos R. Do the provisional Paediatric Rheumatology International Trials Organisation enthesitis/spondylitis-related juvenile idiopathic arthritis criteria capture youth with axial spondyloarthritis? Arthritis Care Res (Hoboken). 2025 Jun;77(6):785-791.

**Professional recognitions**

Reviewer, Journal of Digital Imaging. Reviewer, Applied Radiology. Member, Society for Pediatric Radiology and the SPR Informatics and Public Policy Committee. Member, Society for Imaging Informatics in Medicine (SIIM) Education Committee. Board member, Journal of Applied Radiology. Journal peer reviewer, Pediatric Radiology, Journal of Digital Imaging, and Journal of the American College of Radiology. Member, Radiology Society of North America. Member, American College of Radiology. Teacher and Moderator, SPR Annual Meeting, AI Literacy to trainees while maintaining traditional skills.

**Gupta, Shikha, M.D.**
**Professional recognitions**

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

**Hutchison, Marshall, D.O.**
**Professional recognitions**

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

**Klecker, Rosemary, M.D.**
**Publications:**
**Abstracts**

Crossan K, Holmberg R, Klecker R. "A swing and a miss" a case of batter's shoulder. Southern Radiological Conference 67th Annual Meeting; 2025 Jan 24-26; Point Clear, AL.

Friedlander P, Klecker R. Novel oblique technique for intra-articular needle placement in the hip. Southern Radiological Conference 67th Annual Meeting; 2025 Jan 24-26; Point Clear, AL.

**Professional recognitions**

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

**Martin, Brett, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Singh KB, Muthyala K, Pierotti D, Martin B, Morrison E, Pearson M, Alkharabsheh O. Case series and literature review of rare intracranial presentations of classic Hodgkin lymphoma. J Med Imaging Case Rep. 2025 Feb 21;9(1):1-6.

**Professional recognitions**

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

**McQuiston, Samuel, Jr., M.D.**
**Publications:**
**Abstracts**

Kar J, Cohen M, Revere C, McQuiston S, Malozzi C. A comparison between global longitudinal strain (GLS) derived with CMR feature-tracking (CMR-FT) and 2D speckle-tracking echocardiography (2D-STE) to monitor cancer therapy-related cardiac dysfunction (CTRCD). Circulation. 2024 Nov 11; 150 (Suppl 1): 4145207. Available from: https://www.ahajournals.org/doi/10.1161/circ.150.suppl_1.4145207

**Invited presentations**

McQuiston S. Invited speaker. Radiology kryptonite: common errors and pitfalls in cardiothoracic radiology. Southern Radiological Conference 67$^{th}$Annual Meeting; 2025 Jan 23; Point Clear, AL.

**Professional recognitions**

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

**Mowry, Margaret, M.D.**
**Publications:**
**Abstracts**

Mowry M. A rare case of mestastatic RCC to the breast. Southern Radiological Conference 67th Annual Meeting; 2025 Jan 24-26; Point Clear, AL.

**Professional recognitions**

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

**Park, Elizabeth, M.D.**
**Professional recognitions**

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

**Trupp, Austin, M.D.**
**Professional recognitions**

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

**Wong, Kevin, D.O.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Drewke EE, Brand RL, Geels CG, Jensen HK, Wong K, Sanders JD, Rajaram N. Noncontact diffuse reflectance spectroscopy of synovial fluid samples for rapid identification of infections. J Biophotonics. 2024 Nov;17(11):e202400213.

Hicks ED, Hameed M, Shahare H, Jones-Brooks P, Wong K, Filipek J, Richter GT. A multimodal approach to a complex PHACES patient with progressive infantile hemangioma: a case report and review of literature. Cureus. 2025 Mar 8;17(3):e80261.

Hicks ED, Heft ME, Hameed MY, Jackson KE, Kaukis N, Jensen HK, Wong K. Factors for which radiology residents choose fellowship. Curr Probl Diagn Radiol. 2024 Jul-Aug;53(4):499-502.

**Professional recognitions**

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

**Wood, Brian, D.O.**
**Professional recognitions**

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

**Section III – Research and Innovation Spotlight**

Worked with multi-disciplinary team of chairs to procure funding for an innovative new US guided non-invasive technology for cancer treatment, histotripsy, the first in the state of Alabama and actively participated in the acquisition, training, marketing, and billing for this new service line.

- USA Health unveils new noninvasive technology to treat liver tumors - https://www.fox10tv.com/2025/07/16/usa-health-unveils-new-noninvasive-technology-treat-liver-tumors/
- USA Health acquires new system to treat liver tumors with noninvasive technology - http://medschoolwatercooler.blogspot.com/2025/07/usa-health-acquires-new-system-to-treat.html

# 2024-2025
# Summary of Scholarly Activities
# Department of Surgery

## Section I – Department Overview and Highlights

**Medical Student Education**:
Dr. Caleb Butts has made significant changes to the Junior student surgery clerkship. Student evaluations were uniformly positive, including positive comments on taking calls. Dr. Butts has 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. All the Senior students matched in a highly competitive categorical general surgery match. This is a testament to our faculty writing letters on behalf of students and the students are doing extremely well on STEP 2 exams testing for clinical knowledge to achieve a match during match day. The graduating senior medical students awarded the red sash to surgical faculty (Drs. Lee Grimm and Maryann Mbaka) for being the most influential faculty members during medical school.

**Leadership:** Our faculty provided leadership both nationally and regionally. Leadership in the Alabama Chapter of the American College of Surgeons was prominent, with Dr. William O. Richards serving on the Executive Council, Dr. Lynn Dyess and Dr. Paul Rider serving on the Board of Governors to the National American College of Surgeons. Dr. Lee Grimm is past president of the Alabama Chapter of the American College of Surgeons, while Dr. Spencer Liles was the president for the 2024-2025 year.

**General Surgery Residency Training:** During the time that Dr. Grimm has been Program Director of the General Surgery residency training program, we have witnessed advances in academics, ABSITE performance, and educational activities of the Department. The graduating residents continue to match into competitive fellowship programs or successfully transition to private practice in general surgery. In March 2024, we matched six new PGY 1 categorical residents into the residency program to start July 2025. Drs. Maryann Mbaka and Harrison Howard served as Associate Program Directors and added immensely to the education of the general surgery residents. Dr. Howard stepped in as the chair of the Clinical Competency Committee of the General Surgery Residency program and Dr. Maryann Mbaka served as the Associate Program Director.

Tyronda Rogers continues to do an excellent job as the General Surgery Residency Program Coordinator, and the same for Cynthia Dennis as Assistant Program Coordinator for General Surgery and as the Program Coordinator for the Surgical Critical Care Fellowship Program. Both have done outstanding jobs in running these training programs and fostering a culture of excellence, comradery, inclusion, and success.

**Division of Traumatology/Surgical Critical Care/Acute Care Surgery:** During the past year, Dr. Jon D. Simmons has recruited more faculty to the Division, including Drs. Steven Miller and Kevin Slaughter. The division has expanded to a total of 10 faculty members. Dr. Simmons served as vice chair state of the Alabama American College of Surgeons Committee on Trauma and is a

member of the Alabama Statewide Trauma and Health Systems Advisory Council. In addition, Dr. Simmons is a member of the scholarship committee for the American Association Surgery of Trauma. Dr. Butts and Mbaka directed multiple courses of Advanced Trauma Life Support Training. Dr. Chris Kinnard took over the directorship of the surgical critical care fellowship and completely revamped the educational activities and materials of Surgical Critical Care. Dr. Nathan Polite serves now as the Chief Quality Officer at USA Health.

**Burn Surgery:** Dr. Andrew Bright is the director of the Arnold Luterman Regional Burn Center and has done a fantastic job continuing the excellence in clinical care. Dr. Kevin Slaughter has been incorporated into all aspects of burn care. The burn unit continued to grow in number of patients seen and treated, as well as continuing the excellent quality of care as measured by the observed-to-expected mortality (O/E ratio). The burn surgeons are caring for many children in the Children's and Women's hospital.

**Pediatric Surgery:** Drs. Chip Hartin, and Tuan Pham have left USA. Dr Aaron Seims has stepped up to run the Division and started to recruit more faculty.

**Colorectal Surgery:** Dr. Rider is in his tenth year as the Chief of the Division of Colorectal Surgery, continuing the development of the colorectal surgery division. Drs. Grimm, Rider and John Hunter 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 achieved continued recognition in 2025 as an American College of Surgeons Rectal Cancer Center of Excellence.

**General Surgery:** The Charles and Mary Rodning endowment for the Department of Surgery faculty and residents has been instrumental at funding educational opportunities. One of the major changes has been to residency has been the establishment of residents going to Providence Hospital where Daniel Laan, M.D. serves as the site program director. Providence rotation has enabled the surgical residents to increase case numbers of many surgical procedures.

**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 through our communications department to expand awareness of breast cancer treatment available at USA Health.

**Plastic and Reconstructive Surgery:** As faculty members, Ron Brooks, M.D. and Kelsey McKee, M.D. have established themselves as expert plastic and reconstructive surgeons who have been able to collaborate with many of our faculty in the care of trauma, cancer, and infectious wounds. They haves added very valuable expertise in the reconstruction after breast cancer, melanoma, and rectal cancer surgery. They also work with orthopedics and neurosurgery to provide flap coverage

over traumatic wounds or exposed hardware. Active recruitment of another plastic surgeon is ongoing.

**Gastrointestinal and Bariatric surgery:** The Bariatric surgery program has added Drs. Laan and Richard Rieske to the bariatric program and moved the Bariatric Surgery clinic to West Mobile. The Center for Comprehensive Weight Loss was established, creating a multidisciplinary approach to weight loss. Dr. Daniel McMahon and Dr. Rieske have started a clinical trial of Ovitex biologic mesh in the repair of ventral and inguinal hernias. Dr. Richards is the site PI for the clinical trial of Ovitex mesh repair in Paraesophageal hiatal hernia repairs.

**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, M.D. serves as Interim Medical Director of Clinical Trials at the MCI. Dr. Natalie Bath joined the division with a focus on Liver, Pancreatic and GI malignancies. Drs. Rachel Hunter and Lynn Dyess are focused on breast cancer.

**Research:** Academically, the Department has published 16 peer-reviewed papers and 10 videos in medical literature. The faculty of the Department of Surgery presented multiple abstracts (papers, posters) this past year, demonstrating a 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 $735,168 in extramural funding, including five clinical trials and three endowments.

A grant from the University of South Alabama Foundation was used to purchase the Histotripsy machine used for non-invasive, sound wave destruction of liver tumors. This novel new therapy may be one of the most revolutionary advances in surgery. Histotripsy delivers focused ultrasound waves through the human body to destroy malignant liver tumors without any incisions. It destroys only the tumor cells and the cells in the target area while preserving blood vessels and bile ducts. It is very precise and only destroys cells in the target area where the sound waves converge. It does not affect the tissues it passes through to get to the target. Dr. Natalie Bath was the first physician in the State of Alabama to treat a patient with liver cancer. Imagine destruction of liver tumors without incision, and without damaging radiation to the adjacent normal tissue, with minimal pain and immediate return to pretreatment activity after the anesthetic wears off. Science Fiction becomes reality for the Department of Surgery treating liver tumors without incision.

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 have 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, and breast cancer.

## Section II – Faculty Scholarly Activity and Professional Recognition

**Bath, Natalie, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Quinn PL, Nikahd M, Saiyed S, Heifetz A, Bath NM, Hyer JM, Cloyd JM, Jain S, Ejaz A. Surgical second opinion for pancreatic cancer patients. J Am Coll Surg. 2025 Mar 1;240(3):270-278.

**Professional recognitions**

Dr. Bath is a professional member of the Society of Surgical Oncology, reflecting active involvement and commitment to advancing the field of surgical oncology. This affiliation highlights Dr. Bath's dedication to maintaining high standards of practice, staying updated with the latest research, and participating in a professional community focused on improving patient outcomes in cancer surgery. March 2025 Dr. Bath had the pleasure of moderating a poster presentation at the Society of Surgical Oncology Annual Meeting. Dr. Bath in July 2025 was training to perform a new procedure of Histotripsy for liver cancer. The first non-invasive Histotripsy treatment of liver cancer in the State of Alabama was performed by Dr. Bath in August 2025.

**Bright, Andrew C., D.O.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

Fouty A, Haiflich A, Hinson CS, Williams AY, Butts C, Bright AC. Home oxygen therapy in burn patients: a single-center five-year analysis. J Burn Care Res. 2025 Apr 8:iraf044.

Herrin J, Givens L, Jordan C, Mbaka M, Lee YL, Miller S, Capasso T, Kinnard C, Bright A, Williams AY, Polite N, Simmons JD, Butts CC. Permitless carry laws and FIREARM-RELATED Injuries at a Level I trauma center. Am Surg. 2025 Dec;91(12):2179-2181.

Kahn SA, Huff ML, Taylor J, O'Neill K, Hink AB, Mittal R, Bright A, Baliga P. Challenging legacy burn resuscitation paradigms with fluid restriction and early plasma. J Am Coll Surg. 2025 Apr 1;240(4):339-347.

Vira A, Roberts P, Preus R, Posey C, Miller S, Simmons J, Polite N, Bright A, Kinnard C, Williams A, Lee YL, Mbaka M. Management of traumatic duodenal injury: is there a role for early parenteral nutrition? J Surg Res. 2024 Oct; 302:773-777.

**Abstracts**

Bright A. Initial burn care. Tennessee Osteopathic Medical Association Annual Meeting; 2025 May 2-4; Nashville, TN.

**Invited presentations**

Bright A. Invited speaker. ABCs for burn patients. EMS Education Fire and Rescue; 2024 Nov 19; Gulfport, MS.

**Professional recognitions**

Dr. Bright serves as the Director of the Burn unit as well as being on multiple committees, including the Institutional Review Board's Critical Care Committee, Program Evaluation Committee for General Surgery, the Burn Trauma Operational and Peer Review Committee, and serving as Advanced Burn Life Support Instructor and Advanced Trauma Life Support Instructor and Course Director. Clinical contributions include directing the burn unit, making multiple visits to outside hospitals in the regional care of burn patients and nonstop communications throughout many emergency rooms and hospital systems to promote expert burn care and regionalization of care of the critically injured burn patient.

**Butts, Caleb, M.D., F.A.C.S.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

Fouty A, Haiflich A, Hinson C, Williams AY, Butts C, Bright AC. Home oxygen therapy in burn patients: a single-center five-year analysis. J Burn Care Res. 2025 Apr 8:iraf044.

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

Preus R, Zeidan M, Posey C, Vira A, Miller S, Capasso T, Williams A, Butts C, Kinnard C, Simmons J, Lee YL, Mbaka M. Occupational exposures during emergency department thoracotomies. J Surg Res. 2025 Jan;305:145-149.

Robinson TW, Gautreaux CE, Lee YL, Mbaka M, Kinnard CM, Bright AC, Williams AY, Polite NM, Capasso TJ, Simmons JD, Butts CC. Monotherapy antibiotic prophylaxis of lower extremity long bone type III open fractures. Am Surg. 2024 Aug;90(8):2068-2069.

**Abstracts**

Davis N, Hawthorne A, Blackley S, McGowin E, Krebsbach M, Deci R, Butts C, Kinnard C, Simmons J, Lee YL. The critical care team and patient location both influence antibiotic resistance patterns. Crit Care Med. 2025 Jan; 53(1). Abstract no. 644. Available from: https://journals.lww.com/ccmjournal/fulltext/2025/01001/644__the_critical_care_team_and_patient_location.597.aspx

Fouty A, Haiflich A, Hinson CS, Williams AY, Butts C, Bright AC. Home oxygen therapy in burn patients: a single-center five-year analysis. J Burn Care Res. 2025 Apr 8:iraf044.

**Professional recognitions**

Dr. Butts serves as the Vice-chair of the Alabama Committee on Trauma, providing leadership and guidance in shaping trauma care policies and advancing statewide trauma system initiatives. In addition to this central role, Dr. Butts contributes to the EAST Burn Committee, where expertise is applied to burn care protocols and outcomes, and participates in the EAST Manuscript and Literature Review Committee, overseeing the evaluation and dissemination of scholarly research relevant to trauma and emergency surgery. Beyond these responsibilities, Dr. Butts is active in the American Burn Association's Governmental Affairs Committee, advocating for policies that support trauma and burn care at the national level. Further involvement extends to the American Association for the Surgery of Trauma (AAST), where Dr. Butts serves on the AMC Education and Research Committee, focusing on the development of educational initiatives and the promotion of trauma research, the AMC Communication Committee, which oversees information dissemination and engagement, and the AMC Scholarship, Awards, and Development Committee, contributing to the recognition and support of emerging trauma professionals through awards and scholarships. Collectively, these roles reflect a broad commitment to enhancing trauma care standards, supporting professional development, and advancing evidence-based practices both within Alabama and across national trauma organizations. Dr. Butts also serves as the director of the medical student third year clerkship, a critically important role coordinating and directing medical student education in surgery. He serves on the medical student affairs committee, as well as the continuing medical education committee and the student promotions and evaluation committee. Dr. Butts is a major reason for the success in student development particularly in the medical student core clerkship.

**Capasso, Thomas, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

Fouty A, Haiflich A, Hinson CS, Williams AY, Butts C, Bright AC. Home oxygen therapy in burn patients: a single-center five-year analysis. J Burn Care Res. 2025 Apr 8:iraf044.

Ho VP, Kishawi SK, Hill H, O'Brien J, Ratnasekera A, Seng SS, Ton TH, Butts CA, Muller A, Diaz BF Jr, Baltazar GA, Petrone P, Pacheco TBS, Morrissey S, Chung T, Biller J, Jacobson LE, Williams JM, Nebughr CS, Udekwu PO, Tann K, Piehl C, Veatch JM, Capasso TJ, Kuncir EJ, Kodadek LM, Miller SM, Altan D, Mentzer C, Damiano N, Burke R, Earley A, Doris S, Villa E, Wilkinson MC, Dixon JK, Wu E, Moncrief ML, Palmer B, Herzing K, Egodage T, Williams J, Haan J, Lightwine K, Colling KP, Harry ML, Nahmias J, Tay-Lasso E, Cuschieri J, Hinojosa CJ, Claridge JA. Scanning the aged to minimize missed injury: an Eastern Association for the Surgery of Trauma multicenter study. J Trauma Acute Care Surg. 2025 Jan 1;98(1):101-110.

Jackson ML, Thomas SC, Joyner MR, Hu M, Larry Lee YL, Capasso T, Polite NM, Kinnard CM, Mbaka MI, Williams A, Simmons JD, Butts CC. Time to mobility is associated with pulmonary complications in patients with spine fractures. Am Surg. 2024 Aug;90(9):2049-2053.

Preus R, Zeidan M, Posey C, Vira A, Miller S, Capasso T, Williams A, Butts C, Kinnard C, Simmons J, Lee YL, Mbaka M. Occupational exposures during emergency department thoracotomies. J Surg Res. 2025 Jan;305:145-149.

Robinson TW, Gautreaux CE, Lee YL, Mbaka M, Kinnard CM, Bright AC, Williams AY, Polite NM, Capasso TJ, Simmons JD, Butts CC. Monotherapy antibiotic prophylaxis of lower extremity long bone type III open fractures. Am Surg. 2024 Aug:90 (8):2068-2069.

**Professional recognitions**

Dr. Capasso is a member of the University of South Alabama, where he contributes to the academic community through research, teaching, and collaboration with fellow faculty and students. Dr. Capasso is the Director of Comprehensive Wound Care at University Hospital.

**Dyess, Donna Lynn, M.D., F.A.C.S.**
**Professional recognitions**

Dr. Dyess serves in multiple professional and volunteer capacities, demonstrating a strong commitment to medical practice, education, and community service. She is a volunteer physician at Victory Health Partners and participates as a volunteer physician in the Alabama Breast and Cervical Cancer Early Detection Program, providing vital medical care to underserved populations. In addition, she contributes leadership and strategic guidance as Medical Director of the Mobile Fire Department and sits on the boards of Mobile County Emergency Medical Services and the USA Foundation, helping shape local emergency medical and philanthropic initiatives. Her academic and professional expertise extends to surgical education as a member of the ACS Item Writing Committee, where she has authored breast-related questions for the General Surgery Boards, and as an ABS Examiner since 2022, evaluating candidates for board certification. This array of roles underscores Dr. Dyess's dedication to advancing healthcare, supporting community programs, and fostering excellence in medical education.

**Grimm Jr., Leander M., M.D., F.A.C.S., F.A.S.C.R.S.**
**Publications:**

**Journal Articles, Book Chapters, and Patents**

Flesher N, Gautreaux C, Grimm L. Excision and fulguration of anal condyloma. Surgical Council on Resident Education (SCORE). 2025 May. Available from: https://portal.surgicalcore.org/search.aspx?f_category=Anorectal&page=1 [subscription required].

Jasper P, Bruce M, Boullion V, Grimm L. Laparoscopic end colostomy. Surgical Council on Resident Education (SCORE). 2024 Sep. Available from: https://portal.surgicalcore.org/Search.aspx?q=&sort=relevance&f_category=Large+Intestine&pagesize=100&f_type=Videos [subscription required].

Roberts P, Sheppard K, Grimm L. Chemodenervation of the internal anal sphincter for anal fissures. Surgical Council on Resident Education (SCORE). 2024 Sep. Available from: httpswww.surgicalcore.org/Multimedia.aspx?page=3 [subscription required].

Thames M, Shriver M, Khan A, Grimm L. Open extended right hemicolectomy. Surgical Council on Resident Education (SCORE). 2025 Jun. Available from: https://www.surgicalcore.org/Multimedia.aspx?page=10 [subscription required].

Thornton L, Warnky D, Grimm L. Hand assisted laparoscopic sigmoidectomy. Surgical Council on Resident Education (SCORE). 2025 Jun. Available from: https://www.surgicalcore.org/Multimedia.aspx?page=6&sort=alphabetical [subscription required].

**Professional recognitions**

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. Collectively, these memberships and leadership roles underscore his ongoing commitment to advancing surgical education, research, and professional excellence.

**Hogue, Ashley Williams, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

Fouty A, Haiflich A, Hinson CS, Williams AY, Butts CC, Bright AC. Home oxygen therapy in

burn patients: a single-center five-year analysis. J Burn Care Res. 2025 Apr 8:iraf044.

Jackson ML, Thomas SC, Joyner MR, Hu M, Larry Lee YL, Capasso T, Polite NM, Kinnard CM, Mbaka MI, Williams A, Simmons JD, Butts CC. Time to mobility is associated with pulmonary complications in patients with spine fractures. Am Surg. 2024 Aug;90(9): 2049-2053.

Preus R, Zeidan M, Posey C, Vira A, Miller S, Capasso T, Williams A, Butts C, Kinnard C, Simmons J, Lee YL, Mbaka M. Occupational exposures during emergency department thoracotomies. J Surg Res. 2025 Jan;305:145-149.

Robinson TW, Gautreaux CE, Lee YL, Mbaka M, Kinnard CM, Bright AC, Williams AY, Polite NM, Capasso TJ, Simmons JD, Butts CC. Monotherapy antibiotic prophylaxis of lower extremity long bone type III open fractures. Am Surg. 2024 Aug;90(8):2068-2069.

Vira A, Roberts P, Preus R, Posey C, Miller S, Simmons J, Polite N, Bright A, Kinnard C, Williams A, Lee YL, Mbaka M. Management of traumatic duodenal injury: is there a role for early parenteral nutrition? J Surg Res. 2024 Oct;302:773-777.

**Invited presentations**

Williams A. Invited speaker. Trauma-informed care. Trauma Quality Improvement Program Annual Conference; 2024 Nov; Denver, CO.

Williams A. Invited speaker. Joining forces workshop. Health Alliance for Violence Intervention Conference; 2024 Sep;

**Professional recognitions**

Dr. Williams is a prominent figure in trauma care and injury prevention, serving as a Future Trauma Leader with the American College of Surgeons Committee on Trauma (2023–2025) and actively participating in the Committee on Trauma's advocacy and injury prevention pillars. In addition, Williams serves as Co-Chair of the EAST Community Engagement Subcommittee and contributes to the EAST Injury Control and Violence Prevention Committee, demonstrating a strong commitment to public health and community safety. As a co-founder of Project Inspire, an innovative program providing education, exposure, and mentorship to justice-involved youth, Williams extends their leadership beyond clinical and organizational roles to directly impact youth development and injury prevention initiatives. In addition, Dr. Williams was a panelist at the National Medical Association Surgical Section Trauma Symposium. Across these positions, Williams has shown a comprehensive dedication to advancing professional trauma leadership, fostering community engagement, and promoting innovative, evidence-based approaches to prevention of injury.

**Howard, J. Harrison, M.D., F.A.C.S.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Angell CD, Sun SH, Lapurga G, Benner B, Quiroga D, Savardekar H, DiVincenzo MJ, Abood D, Stiff A, Duggan M, Handley D, Nagle E, Howard JH, Shah H, Kendra KL, Carson WE 3rd. A comparison of myeloid-derived suppressor cell populations in patients with ulcerated vs non-ulcerated melanoma receiving immune checkpoint blockade. Melanoma Res. 2025 Apr 1;35(2):102-108.

Huibers A, Leong SP, Kashani-Sabet M, White RL Jr, Vetto J, Schneebaum S, O'Donoghue C, Howard H, Avisar E, Namm JP, Kosiorek H, Faries M, Karakousis G, Zager JS, Olofsson Bagge R; on behalf of the Sentinel Lymph Node Working Group. Identification of predictive factors for the development of in-transit metastasis in patients with melanoma. Ann Surg Oncol. 2025 May;32(5):3203-3211.

Morrison SL, Han G, Elenwa F, Leong SP, Kashani-Sabet M, Pockaj B, Kosiorek HE, White RL Jr, Zager JS, Messina JL, Sondak V, O'Donoghue C, Howard JH, Schneebaum S, Olofsson Bagge R, Namm JP, Garberoglio C, Avisar E, Fowler G, Han D, Vetto J; Sentinel Lymph Node Working Group. Tumor infiltrating lymphocytes in primary melanoma are associated with a better prognosis. Am J Surg. 2025 Aug;246:116243.

Riaz N, Huibers A, Leong SP, Kashani-Sabet M, White RL Jr, Vetto JT, Schneebaum S, O'Donoghue C, Howard H, Avisar E, Namm JP, Kosiorek H, Pockaj B, Faries M, Karakousis G, Zager JS, Olofsson Bagge R. Prognostic value of nevus-associated melanoma in patients with melanoma. Ann Surg Oncol. 2025 May;32(5):3189-3197.

Stassen RC, Maas CCHM, Leong SP, Kashani-Sabet M, White RL, Pockaj BA, Zager JS, Schneebaum S, Vetto JT, Avisar E, Harrison Howard J, O'Donoghue C, Kosiorek H, van Akkooi ACJ, Verhoef C, van Klaveren D, Grünhagen DJ, Olofsson Bagge R. External validation of a model to predict recurrence-free and melanoma-specific survival for patients with melanoma after sentinel node biopsy. Br J Surg. 2025 Mar 28;112(4):znaf037.

Zager JS, Orloff M, Ferrucci PF, Choi J, Eschelman DJ, Glazer ES, Ejaz A, Howard JH, Richtig E, Ochsenreither S, Reddy SA, Lowe MC, Beasley GM, Gesierich A, Bender A, Gschnell M, Dummer R, Rivoire M, Arance A, Fenwick SW, Sacco JJ, Haferkamp S, Weishaupt C, John J, Wheater M, Ottensmeier CH. An open-label, randomized study of melphalan/hepatic delivery system versus best alternative care in patients with unresectable metastatic uveal melanoma. Ann Surg Oncol. 2025 Jul;32(7):4976-4988.

**Abstracts**

Morrison SL, Han G, Elenwa F, Leong SP, Kashani-Sabet M, Pockaj B, Kosiorek HE, White RL Jr, Zager JS, Messina JL, Sondak V, O'Donoghue C, Howard JH, Schneebaum S, Bagge RO, Namm JP, Garberoglio C, Avisar E, Fowler G, Han D, Vetto J. Tumor infiltrating lymphocytes in primary melanoma are associated with a better prognosis. North Pacific Surgical Association 2024 Annual Meeting; 2024 Nov 8-9; Spokane, WA. p. 47. Abstract no. 24.

**Professional recognitions**

Dr. Howard serves as a Committee Member on the Sentinel Lymph Node Working Group Scientific Committee, a role he has held since 2024. In this capacity, he contributes to guiding research efforts, providing scientific oversight, and supporting initiatives aimed at advancing understanding and best practices in sentinel lymph node evaluation. His involvement reflects ongoing engagement with peers in the field to promote collaboration and innovation in clinical and scientific activities.

**Hunter III, John D, M.D., F.A.C.S., F.A.S.C.R.S.**
**Invited presentations**

Hunter J. Invited speaker. Gallbladder disease. Alabama American College of Emergency Physicians; 2025 Jun 2; Destin, FL.

Hunter J. Invited speaker. Bowel obstructions. Alabama American College of Emergency Physicians; 2025 Jun 3; Destin, FL.

Hunter J. Invited speaker. Acute anorectal disease. Alabama American College of Emergency Physicians; 2025 Jun 2; Destin, FL.

Hunter J. Invited speaker. Blocked and bloated [virtual presentation]. American College of Osteopathic Emergency Physicians Scientific Assembly; 2024 Oct 7; Houston TX.

Hunter J. Invited speaker. Rectal misadventures [virtual presentation]. American College of Osteopathic Emergency Physicians Scientific Assembly; 2024 Oct 8; Houston TX.

**Professional recognitions**

Dr. John Hunter serves as an Abstract Reviewer for the journal Diseases of the Colon and Rectum from 2021 to the present. Since 2021, Dr. Hunter has also been a member of the New Technology Committee of the American Society of Colon and Rectal Surgeons. In this capacity, he participates in evaluations and recommendations regarding emerging technologies and innovations in the field, helping guide best practices and professional standards. From 2018 to 2025, Dr. Hunter has acted as the Co-Clerkship Director for the Surgery program at the University of South Alabama College of Medicine. This position involves overseeing and coordinating surgical education for medical students, ensuring comprehensive clinical training, and mentoring students in surgical practices and patient care. Dr. Hunter has served as Faculty Advisor for the USA Medical Student Surgery Interest Group since 2017. In this advisory role, he provides guidance, mentorship, and support for medical students pursuing careers in surgery, fostering professional development and engagement in surgical education and research.

**Hunter, Rachel, M.D.**
**Invited presentations**

Hunter R. Invited speaker. Identifying and managing high risk patients. 31st Annual Obstetrics & Gynecology Conference; 2025 Apr 4; Biloxi, MS.

**Professional recognitions**

Dr. Rachel Hunter has maintained a robust commitment to professional organizations and committees throughout her career, serving as a member of the Southeastern Surgical Congress since January 2021, the Association of Women Surgeons since December 2020, the American Society of Breast Surgeons since July 2019, the Society of Surgical Oncology from July 2019 to 2022, the Medical Society of Mobile County since July 2016, the American College of Surgeons since July 2015, and both the American Medical Association and the American College of Physicians since August 2010, in addition to the Arthur C. Scott Surgical Society since May 2010 and as a student member of the Texas Medical Association from August 2010 to 2014, while actively contributing to committees including the SESC Women in Surgery Committee since February 2022, the Continuous Quality Improvement Committee and the Program Evaluation Committee since August 2021, and the Breast Program Leadership Committee since December 2020, reflecting a sustained dedication to advancing surgical practice, promoting professional development, and fostering leadership within her specialties.

**Kinnard, Christopher M., M.D., F.A.C.S.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

Jackson ML, Thomas SC, Joyner MR, Hu M, Larry Lee YL, Capasso T, Polite NM, Kinnard CM, Mbaka MI, Williams A, Simmons JD, Butts CC. Time to mobility is associated with pulmonary complications in patients with spine fractures. Am Surg. 2024 Aug;90(9):2049-2053.

Preus R, Zeidan M, Posey C, Vira A, Miller S, Capasso T, Williams A, Butts C, Kinnard C, Simmons J, Lee YL, Mbaka M. Occupational exposures during emergency department thoracotomies. J Surg Res. 2025 Jan;305:145-149.

Robinson TW, Gautreaux CE, Lee YL, Mbaka M, Kinnard CM, Bright AC, Williams AY, Polite NM, Capasso TJ, Simmons JD, Butts CC. Monotherapy antibiotic prophylaxis of lower extremity long bone type III open fractures. Am Surg. 2024 Aug;90(8):2068-2069.

Vira A, Roberts P, Preus R, Posey C, Miller S, Simmons J, Polite N, Bright A, Kinnard C, Williams A, Lee YL, Mbaka M. Management of traumatic duodenal injury: is there a role for early parenteral nutrition? J Surg Res. 2024 Oct;302:773-777.

**Abstracts**

Davis N, Hawthorne A, Blackley S, McGowin E, Krebsbach M, Deci R, Butts C, Kinnard C, Simmons J, Lee YL. The critical care team and patient location both influence antibiotic resistance patterns. Crit Care Med. 2025 Jan;53(1). Abstract no. 644. Available from.

https://journals.lww.com/ccmjournal/fulltext/2025/01001/644__the_critical_care_team_and_patient_location.597.aspx

**Professional recognitions**

Dr. Kinnard serves as an instructor for the ASSET (Advanced Surgical Skills for Exposure in Trauma) program where he provides surgical trainees with advanced practical skills necessary for managing complex trauma and hemorrhage emergencies. Additionally, he holds the position of Director for ATLS Stop the Bleed, overseeing program implementation, curriculum development, and instructional quality. Through these roles, he contributes significantly to the training, mentorship, and skill development of healthcare professionals, ensuring participants gain the competence and confidence required to perform effectively in high-pressure clinical and emergency situations.

**Lee, Yann-Leei Larry, M.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

Jackson ML, Thomas SC, Joyner MR, Hu M, Larry Lee YL, Capasso T, Polite NM, Kinnard CM, Mbaka MI, Williams A, Simmons JD, Butts CC. Time to mobility is associated with pulmonary complications in patients with spine fractures. Am Surg. 2024 Aug;90(9):2049-2053.

Preus R, Zeidan M, Posey C, Vira A, Miller S, Capasso T, Williams A, Butts C, Kinnard C, Simmons J, Lee YL, Mbaka M. Occupational exposures during emergency department thoracotomies. J Surg Res. 2025 Jan; 305:145-149.

Robinson TW, Gautreaux CE, Lee YL, Mbaka M, Kinnard CM, Bright AC, Williams AY, Polite NM, Capasso TJ, Simmons JD, Butts CC. Monotherapy antibiotic prophylaxis of lower extremity long bone type III open fractures. Am Surg. 2024 Aug; 90(8):2068-2069.

Vira A, Roberts P, Preus R, Posey C, Miller S, Simmons J, Polite N, Bright A, Kinnard C, Williams A, Lee YL, Mbaka M. Management of traumatic duodenal injury: is there a role for early parenteral nutrition? J Surg Res. 2024 Oct;302:773-777.

**Abstracts**

Davis N, Hawthorne A, Blackley S, McGowin E, Krebsbach M, Deci R, Butts C, Kinnard C, Simmons J, Lee YL. The critical care team and patient location both influence antibiotic resistance patterns. Crit Care Med. 2025 Jan;53(1). Abstract no. 644. Available from: https://journals.lww.com/ccmjournal/fulltext/2025/01001/644__the_critical_care_team_and_patient_location.597.aspx

**Invited presentations**

Lee L. Invited speaker. Mannitol vs hypertonic saline use in EMS. 14th Annual Gulf Coast Trauma Symposium; 2025 Mar 27; Biloxi, MS.

**Professional recognitions**

Dr. Larry Lee is a dedicated healthcare professional with active membership in the Southeastern Surgical Congress and The Association for Academic Surgery and performed peer review for the respective journals American Surgeon and Journal of Surgical Research.

**Liles, Spencer, M.D., F.A.C.S.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Lockett E, Alford H, Liles S. Laparoscopic left adrenalectomy. Surgical Council on Resident Education (SCORE). 2025 Apr. Available from: https://portal.surgicalcore.org/Search.aspx?q=Laparoscopic%20left%20adrenalectomy%20 [subscription required].

Bruce M, Roberts P, Liles S. Parathyroidectomy. Surgical Council on Resident Education (SCORE). 2025 Jun. Available from: https://portal.surgicalcore.org/modules.aspx?pagesize=50&f_competency=Patient+Care&f_moduletype=Operation%2FProcedure&f_category=Parathyroid [subscription required].

**Professional recognitions**

Dr. Liles served as the President of the Alabama Chapter of the American College of Surgeons (July 2024-July 2025), a leadership position that reflects his state. In this role, Liles S. provides guidance and oversight to the chapter's initiatives, fosters collaboration among medical professionals, and represents the organization in promoting high-quality surgical care throughout Alabama.

**Mbaka, Maryann, M.D., F.A.C.S.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

Jackson ML, Thomas SC, Joyner MR, Hu M, Larry Lee YL, Capasso T, Polite NM, Kinnard CM, Mbaka MI, Williams A, Simmons JD, Butts CC. Time to mobility is associated with pulmonary complications in patients with spine fractures. Am Surg. 2024 Aug;90(9):2049-2053.

Preus R, Zeidan M, Posey C, Vira A, Miller S, Capasso T, Williams A, Butts C, Kinnard C, Simmons J, Lee YL, Mbaka M. Occupational exposures during emergency department thoracotomies. J Surg Res. 2025 Jan;305:145-149.

Robinson TW, Gautreaux CE, Lee YL, Mbaka M, Kinnard CM, Bright AC, Williams AY, Polite NM, Capasso TJ, Simmons JD, Butts CC. Monotherapy antibiotic prophylaxis of lower extremity long bone type III open fractures. Am Surg. 2024 Aug;90(8):2068-2069.

Vira A, Roberts P, Preus R, Posey C, Miller S, Simmons J, Polite N, Bright A, Kinnard C, Williams A, Lee YL, Mbaka M. Management of traumatic duodenal injury: is there a role for early parenteral nutrition? J Surg Res. 2024 Oct;302:773-777.

**Professional recognitions**

Dr. Mbaka is a distinguished surgeon and academic, recognized as a Fellow of the American College of Surgeons. She is an active member of several professional and honor societies, including Delta Sigma Theta Sorority, the Eastern Association for the Surgery of Trauma, and the Gold Humanism Honor Society, reflecting her commitment to leadership, compassion, and excellence in medicine. Her affiliations extend to the Society of Critical Care Medicine, the Southeastern Surgical Congress, the Society of Black Academic Surgeons, and the Association for Academic Surgery, demonstrating her dedication to both critical care and the advancement of surgical education. Dr. Mbaka also contributes to broader medical and surgical communities through membership in the Southern Medical Association, the Texas Medical Association, the American Burn Association, and as an Associate Member of the American Association for the Surgery of Trauma, illustrating his wide-ranging engagement in professional, academic, and specialty-specific organizations.

**McMahon, Daniel, M.D., F.A.C.S.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

McCaul M, Olson C, McMahon D. Laparoscopic cholecystectomy with intraoperative cholangiogram. Surgical Council on Resident Education (SCORE). 2025 Mar 4. Available from: https://www.surgicalcore.org/Multimedia.aspx?page=8&sort=alphabetical [subscription required].

**Professional recognitions**

Dr. McMahon has been an active member of the Society of Robotic Surgery since 2024 and also joined the Space Surgery Association in the same year, reflecting his dedication to advancing expertise in specialized surgical fields. Additionally, he has been a Fellow of the American College of Surgeons since 2012, underscoring a long-standing commitment to professional excellence and engagement within the broader surgical community.

**Miller, Steven, M.D.**
**Publications:**

**Journal Articles, Book Chapters, and Patents**

Vira A, Roberts P, Preus R, Posey C, Miller S, Simmons J, Polite N, Bright A, Kinnard C, Williams A, Lee YL, Mbaka M. Management of traumatic duodenal injury: is there a role for early parenteral nutrition? J Surg Res. 2024 Oct;302:773-777.

**Professional recognitions**

Dr. Steven G. Miller is a highly accomplished general and critical care surgeon, educator, and researcher, with notable contributions in trauma surgery, surgical critical care, and medical education. Dr. Miller is board-certified in general surgery and actively practices surgical critical care, contributing to patient outcomes in high-acuity settings. He is a member of the Alpha Omega Alpha Honor Medical Society and Phi Beta Kappa Society.

**Polite, Nathan, D.O., F.A.C.S., F.A.C.O.S.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

Jackson ML, Thomas SC, Joyner MR, Hu M, Larry Lee YL, Capasso T, Polite NM, Kinnard CM, Mbaka MI, Williams A, Simmons JD, Butts CC. Time to mobility is associated with pulmonary complications in patients with spine fractures. Am Surg. 2024 Aug;90(9):2049-2053.

Preus R, Zeidan M, Posey C, Vira A, Miller S, Capasso T, Williams A, Butts C, Kinnard C, Simmons J, Lee YL, Mbaka M. Occupational exposures during emergency department thoracotomies. J Surg Res. 2025 Jan;305:145-149.

Robinson TW, Gautreaux CE, Lee YL, Mbaka M, Kinnard CM, Bright AC, Williams AY, Polite NM, Capasso TJ, Simmons JD, Butts CC. Monotherapy antibiotic prophylaxis of lower extremity long bone type III open fractures. Am Surg. 2024 Aug;90(8):2068-2069.

Vira A, Roberts P, Preus R, Posey C, Miller S, Simmons J, Polite N, Bright A, Kinnard C, Williams A, Lee YL, Mbaka M. Management of traumatic duodenal injury: is there a role for early parenteral nutrition? J Surg Res. 2024 Oct;302:773-777.

McNally A, Glas J, Polite N. Lower extremity fasciotomy. Surgical Council on Resident Education (SCORE). Available from: https://www.surgicalcore.org/Multimedia.aspx?page=9&sort=alphabetical [subscription required].

**Professional recognitions**

Dr. Polite has demonstrated a strong commitment to advancing medical practice and public health through his extensive service on numerous committees and professional organizations. He served on the EAST Injury Control and Violence Prevention Committee in 2019, participated in the Wellstar Health System Trauma Steering Committee in 2018, and contributed to the Pediatric Trauma Society/EAST committee on Pediatric Transfers in 2018. His wide-ranging involvement underscores his dedication to improving healthcare quality, patient safety and collaborative medical initiatives.

**Richards, William O., M.D., F.A.C.S.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

McCaul M, Shriver M, Richards W. Robotic Hiatal hernia repair with mesh and dorfundoplication. Surgical Council on Resident Education (SCORE). Available from: https://www.surgicalcore.org/Multimedia.aspx?page=12&sort=alphabetical [subscription required].

**Abstracts**

Loing K, Bell R, Antonetti M, Yenchar J, Englehardt R, Janu P, Louie B, Lipham J, Richards WO, Levy J, Speicher J, Hodgens B, Kothari S, Perry K, Bildzukewicz N, Veldhuis P, Tomaszewski J. Magnetic sphincter augmentation for gastroesophageal reflux disease: implications of sizing technique and device selection on safety outcomes using the LINX Reflux Management System. Foregut. 2024 Sep;4(3)342-343. Abstract no. 60. Available from: https://journals.sagepub.com/doi/epub/10.1177/26345161241282149

**Professional recognitions**

Dr. Richards has held numerous leadership and professional roles in the field of surgery and surgical education. He served as Past President and member of the Executive Council of the Southeastern Surgical Congress, the largest general surgery society in the United States, and as a member of the Executive Council of the Alabama Chapter of the American College of Surgeons. He actively contributed to surgical education as part of the American College of Surgeons Video Based Education Executive Committee, Subcommittee on “ICONS” in Surgery, and moderated multiple sessions, including ICONS in Surgery Video Sessions I and II at the American College of Surgeons Clinical Congress in Chicago (October 20-21, 2025). Recognition for his outstanding contributions to surgical resident education was awarded at the USA Department of Surgery graduation ceremony held in June 2025. Dr. Richards was recognized as the USA College of Medicine Teacher of the Year Award, presented in recognition of his outstanding contribution to resident education for the 2024 to 2025 year. He moderated the Plenary Session 6 at the Southeastern Surgical Congress Annual meeting and was a member of the Expert panel during the Rough Night on Call Session at the same conference. He also served as a Judge for the SESC SHARKS Research Competition Southeastern Surgical Congress.

**Rider, Paul, M.D., F.A.C.S., F.A.S.C.R.S.**
**Professional recognitions**

Dr. Rider has played a significant role in advancing professional standards and education within multiple surgical and medical organizations. He has served as a journal peer reviewer for the Journal of Digestive Diseases and Disorder, the International Journal of STD & AIDS, and the Ochsner Journal since 2018, critically evaluating submissions to maintain scientific rigor and quality publication standards. Beyond peer review, Dr. Rider has contributed to professional education as an invited member of the ASCRS Self-Assessment Committee for CME Self-Assessment Exams since 2018, and as an invited member of the ACS Video-Based Education Committee since 2017, supporting innovative educational programs for surgical professionals. His leadership and service extend to organizational governance, notably as the Governor of the Alabama Chapter of the American College of Surgeons since 2020, and as a member of the ASCRS Video-Based Education and CARSEP committees since 2019, promoting effective learning and knowledge dissemination. Collectively, this other information contextualizes Dr. Rider's extensive contributions, highlighting his commitment to peer review, professional development, and leadership in multiple prestigious organizations that shape surgical practice, education, and standards of care.

**Seims, Aaron, D., M.D., FACS, FAAP**
**Publications:**
**Abstracts**

Bruce M, Zeidan M, Bowman A, Seims A. Gut check: does a subjective trigger for child abuse screening result in discrimination? American Pediatric Surgical Association Annual Meeting; 2025 May 7-10; Montreal, Canada. p. 201. Abstract no. Q6.

**Professional recognitions**

Dr. Aaron D. Seims is a distinguished pediatric surgeon who is recognized as a Fellow of the American College of Surgeons and a Fellow of the American Academy of Pediatrics. He is also an active member of the American Pediatric Surgical Association and the International Pediatric Endosurgical Group, reflecting his commitment to advancing pediatric surgical care and minimally invasive techniques. These professional affiliations underscore Dr. Seims's dedication to excellence, ongoing research contributions, and his engagement with leading surgical communities both nationally and internationally.

**Simmons, Jon D., M.D., F.A.C.S.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

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

Jackson ML, Thomas SC, Joyner MR, Hu M, Larry Lee YL, Capasso T, Polite NM, Kinnard CM, Mbaka MI, Williams A, Simmons JD, Butts CC. Time to mobility is associated with pulmonary

complications in patients with spine fractures. Am Surg. 2024 Aug;90(9):2049-2053.

Preus R, Zeidan M, Posey C, Vira A, Miller S, Capasso T, Williams A, Butts C, Kinnard C, Simmons J, Lee YL, Mbaka M. Occupational exposures during emergency department thoracotomies. J Surg Res. 2025 Jan;305:145-149.

Robinson TW, Gautreaux CE, Lee YL, Mbaka M, Kinnard CM, Bright AC, Williams AY, Polite NM, Capasso TJ, Simmons JD, Butts CC. Monotherapy antibiotic prophylaxis of lower extremity long bone type III open fractures. Am Surg. 2024 Aug;90(8):2068-2069.

Vira A, Roberts P, Preus R, Posey C, Miller S, Simmons J, Polite N, Bright A, Kinnard C, Williams A, Lee YL, Mbaka M. Management of traumatic duodenal injury: is there a role for early parenteral nutrition? J Surg Res. 2024 Oct;302:773-777.

**Abstracts**

Davis N, Hawthorne A, Blackley S, McGowin E, Krebsbach M, Deci R, Butts C, Kinnard C, Simmons J, Lee YL. The critical care team and patient location both influence antibiotic resistance patterns. Crit Care Med. 2025 Jan; 53(1). Abstract no. 644. Available from: https://journals.lww.com/ccmjournal/fulltext/2025/01001/644__the_critical_care_team_and_patient_location.597.aspx

**Professional recognitions**

Dr. Simmons has held multiple leadership and advisory roles in Alabama's medical and legislative spheres. He serves as Chair of the Alabama Legislative Funding Committee since 2019, providing guidance on legislative and funding matters. He has also been Vice Chair of the Committee on Trauma (COT) for the State of Alabama since 2016, contributing to the development and oversight of trauma care initiatives. In addition, he has participated as a member of the Alabama Statewide Trauma & Health Systems Advisory Council (STAC) since 2018 and served on the Alabama State Emergency Medical Control Committee (SMECC) from 2015 to 2022. Beyond these roles, Dr. Simmons is a Councilor of the AOA Medical Honor Society, a position he has held since 2016, reflecting his ongoing commitment to professional excellence and service in the medical community. Dr. Simmons was a panelist at the 14th Annual Gulf Coast Trauma Symposium.

**Slaughter, Kevin, M.D.**
**Professional recognitions**

Dr. Slaughter shared insights as a panelist on strategies and best practices for launching prehospital care initiatives, bringing expertise and practical experience to the discussion. Dr. Slaughter, also served as a panelist at the 14th Annual Gulf Coast Trauma Symposium speaking on "Starting a Prehospital Blood Program". He brings a wealth of knowledge in emergency medical response and prehospital care systems. Drawing from years of hands-on experience, Dr. Slaughter explores practical approaches to establishing effective prehospital programs, addressing challenges such as resource allocation, team coordination, and patient outcomes.

**Section III – Research and Innovation Spotlight**

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 Principal Investigator, to produce a series of training videos that are essential for surgical residents to learn. During the first year, the Department faculty and residents produced 18 teaching videos for publication on the SCORE portal. Drs. John Hunter, Nathan Polite, Harrison Howard, William Richards and Marianne Mbaka comprise the other members of the SCORE video board of directors at USA. More than 30 educational videos of surgical techniques have been published on the SCORE video portal. The Executive Committee of The Surgical Council on Resident Education was exceedingly pleased with the quality and educational value of the USA Department of Surgery-produced videos that they not only renewed the program funding but asked for additional years of video production. The significance of these videos is that the USA Department of Surgery is the director of training videos for all surgical residents in North America and we have renewed the significant grant support for this educational project, which will influence the training and education of thousands of surgical residents in Canada and the United States.

# 2024-2025
# Summary of Scholarly Activities
# Department of Urology

## Section I – Department Overview and Highlights

### Program Growth and Strategic Development

The USA Department of Urology continues to advance its mission of excellence in education, clinical care, and innovation. January 2023 marked a major milestone with the ACGME accreditation of our Urology Residency Program. Now in its third year, the program is thriving and steadily expanding educational and clinical opportunities for trainees.

This year, we were also approved to establish a Fellowship in Robotics and Endourology. This new fellowship, once accredited, will further enhance our capabilities in advanced surgical care and serve as a key component of our long-term strategy to strengthen subspecialty training and position our department as a regional hub for urologic education, innovation, and referral care.

### Research, Scholarship, and National Engagement

Our department is actively broadening its research contributions and scholarly activity. Faculty members continue to represent our institution at local, regional, and national levels.

### Leadership Highlights

- **Dr. Christopher Keel**, Department Chair, serves on the Board of Directors for the Society of Academic Urologists (SAU).
- He co-led a national webinar series with Jay Raman, MD (Penn State), bringing together key thought leaders to address challenges and develop innovative solutions for building and maintaining a strong urology workforce.
- Dr. Keel was honored as a **2025 Young Urologist of the Year** by the American Urological Association—one of only nine recipients nationwide.
- **Dr. Lorie Fleck**, Residency Program Director, completed her term as the **first female President of the Southeastern Section of the American Urological Association (SESAUA)**—a notable achievement both for the department and the specialty.
- Dr. Fleck has been instrumental in the development of the **Alabama Urological Network (AUN)**, leading the planning of its annual conference and statewide continuing education initiatives over the past several years.
- Dr. Fleck has also been appointed an American Board of Urology Trustee.

### Clinical & Research Advancements

- **Dr. Jatinder Kumar**, the only reconstructive urologist along the Gulf Coast, has established comprehensive urethroplasty services within our health system, providing a level of care not previously available in the region.
- Dr. Kumar has played a vital role in elevating departmental research output and mentoring residents through numerous presentations and scholarly engagements.

### Looking Ahead

The accomplishments of this year reflect the dedication and innovation of our faculty, residents, and staff. With continued program expansion, new fellowship training, growing research impact, and strong regional and national leadership, the Department of Urology is well positioned for sustained growth and continued advancement in the years ahead.

**Section II – Faculty Scholarly Activity and Professional Recognition**

**Blanchard-Burch, Kristie MD, FACS, FPMRS**
**Publications:**
**Abstracts**

Fleck L, Blanchard-Burch K, Omohundro A, Fleck R, Moreland H, Parham K. Does the finding of eosinophilia on biopsy of a Hunner lesion portend a poor long-term prognosis? Society of Urodynamics, Female Pelvic Medicine & Urogenital Reconstruction 2025 Winter Meeting; 2025 Feb 26-Mar 1; Rancho Mirage, CA. p. 258. Abstract no. OM11.

**Fleck, Lorie MD, FACS, FPMRS**
**Publications:**
**Abstracts**

Beck B, Fleck L, Moreland H, Manganti C. Xanthogranulomatous inflammation of a urethral diverticulum: a case report. Alabama Urology Network 2024 Meeting; 2024 Oct 4-6; Orange Beach, AL. Abstract no. 24-08.

Fleck L, Blanchard-Burch K, Omohundro A, Fleck R, Moreland H, Parham K. Does the finding of eosinophilia on biopsy of a Hunner lesion portend a poor long-term prognosis? Society of Urodynamics, Female Pelvic Medicine & Urogenital Reconstruction 2025 Winter Meeting; 2025 Feb 26-Mar 1; Rancho Mirage, CA. p. 258. Abstract no. OM11.

Omohundro A, Manganti C, Fleck L. Understanding eosinophilic cystitis: a debilitating, rare urologic condition. Alabama Urology Network 2024 Meeting; 2024 Oct 4-6; Orange Beach, AL. Abstract no. 24-03.

**Professional recognitions**

Dr. Fleck served as a panelist at the 89th Annual Meeting of the Southeastern Section of the American Urological Association, held March 14, 2025, in Nashville, Tennessee. She participated in the Young Urologist Session, *"What I Wish I Knew,"* alongside Arora HC, Terry RS Jr, Domino P, Keel CE, and Selph P. In addition, Dr. Fleck was a panelist for the session *"The Promise and Peril of the Internet in Urology,"* presented with Loeb S, Patel VR, and Talwar R. Beyond these academic contributions, Dr. Fleck holds several prominent leadership roles, including Trustee of the American Board of Urology, President of the Southeastern Section of the American Urological Association, member of the Admissions Committee at the Frederick P. Whiddon College of Medicine at the University of South Alabama, Secretary/Treasurer of the American Association of Clinical Urologists, and Health Policy Representative and Meeting Coordinator for the Alabama Urology Network.

**Keel, Christopher E., DO, FACS**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Shackelford RE, Martin A, Shastri C, Tahir M, Herrera GA, Keel CE, Medelaire C. A primary renal neuroendocrine tumor presenting in a fifty-five-year-old woman: a report of a rare entity. Ultrastruct Pathol. 2025 Jul 4;49(4):384-390.

**Abstracts**

McNair C, Lowman J, Starks S, Silbernagel E, McGowen C, Diaz B, Parham KJ, Cadden JA, Jaye A, Wright N, Keel C, Pierce J. Meet them where they are: clinical outcomes from a mobile clinic with the Lower Alabama prostate outreach program. J Urol. 2025 May;213(5S):e259. Abstract no. MP09-15.

**Professional recognitions**

Dr. Keel served as a panelist during the Young Urologist Session, *"What I Wish I Knew,"* at the 89th Annual Meeting of the Southeastern Section of the American Urological Association, held on March 14, 2025, in Nashville, Tennessee, alongside Arora HC, Terry RS Jr, Domino P, Fleck LG, and Selph P. In recognition of his contributions to the field, Dr. Keel was named a 2025 Young Urologist of the Year by the American Urological Association. He also serves as a Member at Large on the Society of Academic Urologists Match Committee. Additionally, Dr. Keel was an Invited Moderator for the Renal Cancer Podium Session at the same meeting.

**Kumar, Jatinder MD**
**Publications:**
**Abstracts**

Que N, Parham KJ, Manganti C, Kumar J, Campbell R, Shastri C. Scrotal granular cell tumor with recurrent scrotal sebaceous cysts. Alabama Urology Network 2024 Meeting; 2024 Oct 4-6; Orange Beach, AL. Abstract 24-09.

Sheth H, Manganti C, Kumar J. The impact of the SmartBx™ system on prostate cancer detection. Focal Therapy Society & Society of Urologic Robotic Surgeons; Washington DC, 2024 Sept 13-14; Abstract no. FTS2-3.

Sheth H, Manganti C, Kumar J, Shastri C, Madelaire C. The impact of the SmartBx™ system on prostate cancer detection. Alabama Urology Network 2024 Meeting; 2024 Oct 4-6; Orange Beach, AL. Abstract 24-02.

**Section III – Research and Innovation Spotlight**

*Bringing Precision Oncology to Alabama: Advancing Prostate Cancer Risk Stratification Through Molecular Discovery*
Christopher E. Keel, DO, FACS – Department of Urology
Ankita Singh, PhD – Translational Cancer Research
University of South Alabama Mitchell Cancer Institute Research Team

Our research team discovered that a gene known as MYB behaves differently in prostate cancer across racial groups and is strongly linked to cancer recurrence after treatment. This finding helps explain why prostate cancer outcomes can differ between populations and opens the door for more personalized and equitable cancer care. By identifying patients at higher risk for recurrence earlier, physicians can tailor surveillance and treatment more precisely—potentially improving survival while avoiding unnecessary treatment in lower-risk patients. This work places the University of South Alabama at the forefront of precision prostate cancer research and directly supports better outcomes for patients across our region.

# 2024-2025
# Summary of Activities
# Center for Lung Biology

## Section I – Mission Alignment

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 Whiddon 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 Whiddon College of Medicine. Our administrative offices are located in the Medical Sciences Building in Room 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.

## Section II – Key Accomplishments

Research Activities

The CLB was well represented at national and international scientific meetings with several faculty, postdoctoral fellows, and graduate students presenting their work at multiple forums, including the: American Heart Association, XXIX Congress of the International Society for Advancement of Cytometry, American Physiological Society Summit, Southern Biomedical Engineering Conference, Gordon Conference, and the International American Thoracic Society.

Our Critical Care Conference series, in conjunction with the Pulmonary Division, hosted six speakers. This conference focuses on translational research and acute lung injury and is held monthly on Fridays at 2:00 pm. CLB faculty members and invited guests presented this year's series.

Dr. Reece Stevens, Postdoctoral Fellow, Department of Physiology and Cell Biology presented *$CO_2$ sensing through phase separation*; Dr. Sarah Sayner, Professor, Department of Physiology and Cell Biology presented *Endothelial permeability, inflammation and soluble AC10 in bacterial pneumonia*; Dr. Troy Stevens, Professor and Chair, Department of Physiology and Cell Biology, presented *Lung endothelium*; Samantha Chaney, Graduate Student, Department of

Physiology and Cell Biology presented *The impact of pneumonia on the brain - could tau be involved?*; Dr. Kalsang Dolma, Associate Professor, Department of Pediatrics, Neonatology Division, presented *Lifelong lung health: Challenges and insights on preterm birth and bronchopulmonary dysplasia*; Dr. Jamie Meegan, Assistant Professor, Department of Physiology and Cell Biology, presented *Oxidation of LDL by cell-free hemoglobin contributes to lung microvascular hyperpermeability during sepsis.*

Extramural Funding

In the past year, CLB principal investigators submitted 68 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 $3.5 million in new revenue over the next five years.

Dr. Jamie Meegan, Assistant Professor, Department of Physiology and Cell Biology received the following PBF grant entitled *Oxidation of LDL by CFH and lung microvascular hyperpermeability during sepsis;* Dr. Abigail Boyd, Postdoctoral Fellow (Mentor Dr. Wito Richter) received the following Cystic Fibrosis Foundation grant entitled *Selective Inactivation of PDE4 Isoforms as a Therapeutic Approach for Cystic Fibrosis*; Rebecca Tang-Holmes, Graduate Student, Departments of Chemical and Biomolecular Engineering and Pharmacology received an CTSA NIH T32 Predoctoral Fellowship entitled *The Canary in the Colo-mine: Uncovering a Cancer-related Spectral Signature;* Adeyeye Haastrup, Graduate Student, Department of Pharmacology received the following two awards COM Dean's Predoctoral Fellowship entitled *Targeting Mitochondrial Bioenergetic Dysregulation in Sepsis: Nicotinamide Riboside and Pseudomonas aeruginosa Induced Transcript Isoform Switching* and AlidaBio travel award entitled *Epitranscriptomic Profiling of m6A and Inosine RNA Modifications in Sepsis and Acute Respiratory Failure;* Dr. Troy Stevens, Professor and Chair, Department of Physiology and Cell Biology received the following NIH R01 subcontract with Rhode Island Hospital (RIH) Dr. Corey Ventetuolo entitled *Pulmonary Artery Endothelial Cell Endotypes and the Role of Anoikis Resistance in Pulmonary Hypertension*; Dr. Mark Gillespie, Professor, Department of Pharmacology received the following NIH R01 grant, entitled *A novel mechanism regulating genome-wide mRNA expression in hypoxic lung disease*; Three faculty received COM IGP awards, including Dr. Kalsang Dolma, Associate Professor, Department of Pediatrics, Neonatology Division, entitled *Role of Cytopathic Tau Variants in the development of Bronchopulmonary Dysplasia;* Dr. Robert Barrington, Associate Professor, Department of Microbiology and Immunology entitled *Trained Immunity as a therapeutic approach for Hyper-IgE Syndrome;* Dr. Sarah Sayner, Professor, Department of Physiology and Cell Biology entitled *Pulmonary endothelial soluble AC10 in acute lung injury;* and Dr. Althea deWeever, Research Associate, Department of Pediatrics, Neonatology Division, received an American Association of University Women (AAUW) entitled *Implications of Plasticizer Exposure in the NICU: Cellular Mechanisms of Toxicity Affecting Lung and Brain Development in Neonates.*

Our Murray Bander Faculty Development Award recipients for 2024 are Dr. Natalie Bauer, Associate Professor, Department of Pharmacology entitled *"Develop a robust model to investigate the sex dimorphism of inflammation in pulmonary hypertension"*, Dr. Saminathan Anbalagan, Assistant Professor, Department of Pediatrics-Neonatology entitled *"Role of*

*Amyloid Precursor Protein (APP) in Lung Development and Bronchopulmonary Dysplasia (BPD) of Prematurity"*, Dr. Raymond Langley, Associate Professor, Department of Pharmacology entitled *"To create a humanized mice model to assess nicotinamide riboside mitigation of sepsis-induced bioenergetic crisis"* and Dr. Thiago Bruder do Nascimento, Assistant Professor, Department of Physiology and Cell Biology entitled *Exploring the Role of Endothelial Progranulin in the Genesis of Pulmonary Hypertension.*

**Previous recipients of the Murry Bander award:**
2024 Dr. Sami Anbalagan, Dr. Natalie Bauer, Dr. Thiago Bruder, and Dr. Raymond Langley
2023 Dr. Robert Barrington, Dr. Kalsang Dolma, and Dr. Raymond Langley
2022 Dr. Natalie Bauer, Dr. Amy R. Nelson, and Dr. Sarah Sayner
2021 Dr. Jin Kim, Dr. Jon Audia, Dr. Michael Francis, and Dr. Lyudmila Rachek
2020 Dr. Natalie Gassman and Dr. Sarah Sayner
2019 Dr. Silas Leavesley and Dr. Thomas Rich

Research Symposium on Pulmonary Injury and Repair of the Endothelium

The first biennial Research Symposium on Pulmonary Injury and Repair of the Endothelium (ReSPIRE) was held February 11-14, 2025, at the Grand Hotel Golf Resort and Spa in Fairhope, AL. The conference hosted 70 attendees, featuring a mix of international and domestic researchers, representing all career stages. This conference is dedicated to the study of the pulmonary circulation in health and disease, with an emphasis on endothelium. The ReSPIRE Conference was supported by the Center for Lung Biology (CLB), Dr. Mahendra Damarla, the American Physiological Society (APS), the Microcirculatory Society (MCS), and Nikon. The conference summary was published in the American Journal of Physiology-Lung Cellular and Molecular Physiology.

The American Journal of Physiology-Lung Cellular and Molecular Physiology, in partnership with the American Physiological Society (APS) and the Microcirculatory Society (MCS), made generous contributions to support early-stage investigators to attend the conference. In total, 10 early-stage investigators were selected from submitted abstracts to receive travel awards and give oral presentations at the meeting.

**APS-sponsored awardees for the ReSPIRE Outstanding Abstract Awards:**
Nunzia Caporarello, PhD (Loyola University Chicago)
Benjamin Crawford, MD (Vanderbilt University Medical Center)
Ceren Kocana (Charité–Universitätsmedizin Berlin)
Justin Roberts, PhD (University of South Alabama)
Romy Rodriguez Ortega, MD (Johns Hopkins University)
Navneet Singh, MD (Brown University)
Sourabh Soni, PhD (The Ohio State University)
Reece Stevens, PhD (University of South Alabama)

**MCS-sponsored awardees for ReSPIRE Outstanding Abstract Awards:**
Michael Croglio, MD (Johns Hopkins University)
Jamie Meegan, PhD (University of South Alabama)

**AJP-Lung Associate Editors:**
Cristina Alvira, MD (University of California, San Francisco)
Wolfgang Kübler, Prof Dr med, MD (Charité–Universitätsmedizin Berlin)
Eric Schmidt, MD (Massachusetts General Hospital)
Larissa Shimoda, PhD (Johns Hopkins University)

Images below provided by Bill Starling, University of South Alabama.





**Pictured left to right:**
Wolfgang Kübler, Prof. Dr. med., MD, Charité–Universitätsmedizin Berlin, AJP-Lung Associate Editor; Larissa Shimoda, PhD, Johns Hopkins University, AJP-Lung Associate Editor; Next are the **APS-sponsored awardees for the ReSPIRE Outstanding Abstract Awards:** Navneet Singh, MD, Brown University; Ceren Kocana, Charité–Universitätsmedizin Berlin; Reece Stevens, PhD, University of South Alabama; Nunzia Caporarello, PhD, Loyola University Chicago; Justin Roberts, PhD, University of South Alabama; Romy Rodriguez Ortega, MD, Johns Hopkins University; Sourabh Soni, PhD, The Ohio State University; Benjamin Crawford, MD, Vanderbilt University Medical Center; Cristina Alvira, MD, University of California, San Francisco, AJP-Lung Associate Editor; Back Right: Eric Schmidt, MD, Massachusetts General Hospital, AJP-Lung Associate Editor.

**Section III – Impact Metrics**

Recruitment Activities

An objective of the CLB is to enhance clinical, translational, and basic research in the pulmonary sciences. As part of this initiative, the Center, along with both basic and clinical science departments, is recruiting research scientists at all academic ranks and across disciplines. Five new faculty members have accepted positions this past year and affiliated with the CLB. Drs. Jamie Meegan, Thiago Bruder, and Mohammad (Naeem) Islam have joined the Department of Physiology and Cell Biology. Dr. Meegan was recruited from Vanderbilt University, Dr. Bruder came from the University of Pittsburgh, and Dr. Islam was from Columbia University. Dr. Meegan brings her expertise in microvascular research. Dr. Bruder brings his expertise in cardiovascular disease (CVD), arterial hypertension, and Kawasaki's disease. Dr. Islam brings his expertise in applying real-time imaging in understanding molecular mechanisms underlying acute lung injury (ALI) and ARDS. Dr. Ting Wei joined the Department of Pediatrics. Dr. Wei was recruited from the University of Alabama-Birmingham. Her research expertise pertains to vascular causes of bronchopulmonary dysplasia. Dr. Matthew Confer joined the Department of Chemical and Biomolecular Engineering in the College of Engineering. Dr. Confer was recruited from the University of Illinois. His research expertise is in the area of vibrational spectroscopy and imaging of amyloids in biological tissues. The CLB is excited to welcome these new faculty to the WCOM and the USA.

Education

During this academic year, 28 predoctoral fellows trained in the laboratories of CLB faculty and others affiliated with the Cardiovascular and Pulmonary Biology track in the Basic Medical Sciences Doctoral Program. Three Cardiovascular and Pulmonary Biology trainees completed the requirements for the Ph.D. within this academic year (Aritra Bhadra, Sage Garriss, and Pallavi Sen). Aritra Bhadra is a Postdoctoral Fellow at the University of South Alabama in the Department of Pharmacology, working with Dr. Natalie Bauer. Pallavi Sen is a Postdoctoral Fellow at the University of South Alabama in the Department of Physiology and Cell Biology, working with Dr. Mark Taylor.

Two trainees are supported by individual predoctoral fellowships and travel awards (Rebecca Tang-Holmes and Adeyeye Haastrup). Rebecca Tang-Holmes received a CCTS NIH T32 Fellowship. Rebecca's CCTS T32 project is entitled *The Canary in the Colo-mine: Uncovering a Cancer-related Spectral Signature* and is sponsored by Drs. Silas Leavesley and Thomas Rich. Adeyeye Haastrup received the following two awards: a COM Dean's Fellowship and an AlidaBio travel award. Adeyeye's COM Predoctoral Fellowship project is entitled *Targeting Mitochondrial Bioenergetic Dysregulation in Sepsis: Nicotinamide Riboside and Pseudomonas Aeruginosa-Induced Transcript Isoform Switching* sponsored by Dr. Raymond Langley, and his Travel award project is entitled *Epitranscriptomic Profiling of m6A and Inosine RNA Modifications in Sepsis and Acute Respiratory Failure* sponsored by Dr. Justin Roberts.

**Section IV – Looking Ahead**

After a successful 2025 conference, the CLB is actively preparing for ReSPIRE 2027. This effort is being spearheaded by Dr. Jamie Meegan, with assistance from the ReSPIRE committee, which includes the scientific and administrative efforts of Rebecca Hough (Columbia University), Mahendra Damarla (Johns Hopkins University), Natalie Bauer (the USA), Troy Stevens (the USA), and Jennifer Collins (the USA). A preliminary program has been developed and will be released soon. Approximately 75% of the speakers have been confirmed to date, and the program has been compiled into a R13 (Conference) grant that will be submitted to the NIH in April of 2026. The conference will be supported by the American Physiological Society, who will provide travel awards for trainees and junior faculty, on a competitive basis, and who will support publication of short reviews highlighting each of the conference sessions. In addition, the Microcirculatory Society will provide travel awards. The conference will be advertised through the American Physiological Society, the Microcirculatory Society, the NAVBO, and the American Thoracic Society. The 2027 conference will be held February 23-27 at the Grand Hotel Golf Resort and Spa.

# 2024-2025
# Summary of Activities
# Center for Strategic Health Innovation

## Section I – Mission Alignment

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 applications 3) applied informatics and healthcare analytics services 4) technical assistance for meeting Merit-based Incentive Program (MIPS) requirements. CSHI actively promotes collaboration on projects with other USA colleges, College of Medicine departments, and other Regional Extension Centers (REC's) in the southeast US. We are continuing our partnership with four (4) of Medicaid's Alabama Coordinated Health Networks (ACHN) to serve as their Health Information Management System (HIMS) vendor. The ACHN's provide coordinated consolidated case management services to Medicaid Eligible Individuals (EI) across Alabama.

## Section II – Key Accomplishments

Medical Informatics and Healthcare Technology: RMEDE™, our in house developed Realtime Medical Electronic Data Exchange platform, continues as our platform to develop diverse projects tailored to our client's individual needs. CSHI utilizes innovative health technologies to improve the care, quality, cost and access to healthcare throughout Alabama. RMEDE™ is a secure web-based management system that serves as the HIMS system for the ACHNs. The HIMS system supports EI care coordination for the following: 1) General and Transitional Care 2) Maternity 3) Medically Complex 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 Quicksite (Amazon Web Service). The CSHI department partners with Medicaid and the ACHNs to enable data-driven decisions on patient care improvements.

CSHI continues to enhance and support our RMEDE™ Remote Patient Monitoring (RPM) program. This program is a unique partnership between Medicaid, The Alabama Department of Public Health (ADPH) and USA's CSHI. Patient referrals are received from their primary medical provider (PMP) with the chronic disease diagnoses of hypertension, diabetes, and congestive heart failure for in home monitoring. In addition to these chronic conditions the program has been expanded to cater to gestational diabetes, gestational hypertension and pediatric asthma. Patients are instructed to input their key physiologic parameters either via dial-in or through an app, an ADPH nurse is assigned to monitor the results and submit reports to the patient's provider. Data is 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 many physicians, nurse practitioners, and physician assistants to help them complete their MIPS data submission while scoring above the exceptional performance threshold, which can result in up to 9% in positive payments adjustments.

**Section III – Impact Metrics**

We continue to observe positive outcomes based on patient adherence to our RPM program. As indicated in the charts below, we see lower numbers in in-patient admissions and lowered costs based on the fewer admissions. Concurrently we also see an increase in pharmacy costs due to more patient compliance with their prescribed medications. Both of these outcomes align with the expected goals of the RPM program.

| Enrollment Timeline | # of Patients | % Change | IP Visits | % Change | Total LOS(days) | Average LOS | Average LOS % Change | IP Paid ($) | IP Paid Total % Change |
|---|---|---|---|---|---|---|---|---|---|
| Pre-enrollment (-6 to 0 months) | 43 | N/A | 57 | N/A | 288 | 5.05 | N/A | 335,874.75 | N/A |
| Enrollment (0 to 6 months) | 18 | -58.14% | 24 | -57.89% | 107 | 4.46 | -11.68% | 132,768.43 | -60.47% |
| Post-Enrollment (6 to 12 months) | 9 | -50% | 12 | -50% | 29 | 2.42 | -45.73% | 33,136.91 | -75.04% |
| TOTAL % CHANGE | | -79.07% | | -78.95% | | | -50.08% | | -90.13% |

| Enrollment Timeline | # Rx Patients | % Change | Rx Paid($) | % Change | AVG Rx Paid | % Change |
|---|---|---|---|---|---|---|
| Pre-enrollment (-6 to 0 months) | 224 | N/A | 353,461.29 | N/A | $1,577.95 | N/A |
| Enrollment (0 to 6 months) | 222 | -0.89% | 448,509.81 | 26.89% | $2,020.31 | 28.03% |
| Post-Enrollment (6 to 12 months) | 215 | -3.15% | 463,511.63 | 3.34% | $2,155.87 | 6.71% |
| TOTAL % CHANGE | | -4.02% | | 31.14% | | 36.62% |

**Section IV – Looking Ahead**

Looking forward into the next year, continued enhancement of the programs to better serve the Medicaid patient population in the state continues to be a top priority. With the inclusion of gestational diabetes and gestational hypertension in the RPM program, we hope to see an impact in the states adverse birth outcomes and infant mortality rates.

# 2024-2025
# Summary of Activities
# Center of Disaster Healthcare Preparedness (CDHP)

## Section I – Mission Alignment

The Center of Disaster Healthcare Preparedness (CDHP) supports the mission of the University of South Alabama College of Medicine by advancing service, education support, and applied coordination activities that strengthen healthcare system readiness and resilience across Alabama. Operating as a staff-led support unit, CDHP does not include faculty appointments and focuses on statewide coordination, technical assistance, and fiscal oversight related to healthcare preparedness.

CDHP serves as a subrecipient of the Hospital Preparedness Program (HPP) grant through the Alabama Department of Public Health (ADPH) and functions under a Coordination Grant model. In this role, CDHP provides administrative, operational, and strategic support to Alabama's Healthcare Coalitions (HCCs), while also serving as Fiscal Agent to ensure responsible stewardship of federal preparedness funds. These activities directly align with the College of Medicine's commitment to public service, community engagement, and strengthening health systems that support population health and emergency readiness.

## Section II – Key Accomplishments

During Academic Year 2024–2025, CDHP focused on strengthening coalition governance, planning maturity, and operational consistency across Alabama's Healthcare Coalitions. Key accomplishments include:

- **Statewide Healthcare Coalition Coordination:** Provided continuous coordination support to all Alabama HCCs, facilitating alignment with ASPR and HPP requirements, supporting coalition governance, and advancing readiness planning across jurisdictions.
- **Grant Administration and Fiscal Oversight:** Successfully executed Coordination Grant deliverables while serving as Fiscal Agent, overseeing coalition budgets, monitoring expenditures, supporting allowable cost compliance, and coordinating reimbursement processes in collaboration with ADPH.
- **Plan Development and Review Support:** Assisted coalitions with development, review, and revision of key preparedness plans, including infectious disease response, medical surge, family reunification, and information sharing frameworks, utilizing ASPR TRACIE and CPG 101 Version 3 guidance.
- **Training and Technical Assistance:** Delivered targeted technical assistance, planning workshops, and workgroup facilitation to support coalition readiness, partner engagement, and preparedness capability development.
- **Reporting and Performance Monitoring:** Compiled, analyzed, and submitted monthly coordination reports, ensuring accurate documentation of coalition activities, milestones, and progress toward HPP deliverables.

## Section III – Impact Metrics

CDHP's activities during the reporting period resulted in measurable impacts across coalition coordination and preparedness operations, including:

- Ongoing coordination support provided to **100% of Alabama Healthcare Coalitions** throughout the reporting year.
- Facilitation and support of multiple coalition meetings, planning sessions, and workgroups focused on preparedness planning, governance, and response coordination.
- Completion and submission of all required **monthly Coordination Grant reports**, consolidating coalition activity data and progress metrics for ADPH review.
- Oversight of coalition funding distributions and expenditures, ensuring compliance with federal HPP requirements and strengthening fiscal accountability statewide.
- Improved standardization of planning approaches and documentation across coalitions through consistent use of ASPR TRACIE and CPG 101-aligned templates.

## Section IV – Looking Ahead

In the upcoming academic year, CDHP will continue to advance healthcare system readiness by focusing on the following priorities:

- Enhancing coalition planning maturity through advanced plan reviews, exercises, and after-action improvement support.
- Strengthening fiscal oversight processes and technical assistance related to HPP funding and allowable cost guidance.
- Expanding training and facilitation support to improve coalition partner engagement, governance effectiveness, and operational coordination.
- Supporting integration of healthcare coalitions with broader public health and emergency management partners to improve information sharing and response coordination.

Through these efforts, CDHP will continue to support the College of Medicine's mission by advancing statewide healthcare preparedness, resilience, and service to Alabama's communities.

**2024-2025**
**Summary of Activities**
**USA Johnson Haynes, Jr., MD Comprehensive Sickle Cell Center**



## Section I- Mission Alignment

The mission of the Johnson Haynes Jr., M.D Comprehensive Sickle Cell Center (CSCC) is to improve the lives of persons affected by sickle cell disease (SCD) through comprehensive individualized evidence-based clinical care, transition from pediatric to adult care planning and preparation, basic and clinical research, patient and professional education, proving that there is: Life After Birth with Sickle Cell!

Under the leadership of Ardie Pack-Mabien, Ph.D., FNP-BC, Executive Director and Dr. Antwan Hogue, Medical Director, the CSCC, in alignment with the mission of the College of Medicine (COM), continues to improve the delivery of clinical and educational services to individuals affected by SCD, family members of affected individuals, and health care providers. The CSCC provides consultation for diagnosis, management, and treatment of children and adults with SCD. The CSCC partners with the local Sickle Cell Disease Association of America-Mobile Chapter (SCDAA-Mobile Chapter) community-based organization to assess and address psychosocial issues and/or potential care access barriers.

Historically, the CSCC's faculty, as leading sickle cell experts, 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 SCDAA-Mobile Chapter. Lectures are also provided to Internal and Emergency Medicine department residents and faculty as well as advanced practice providers, registered nurses, and licensed practical nurses. The CSCC has sponsored an annual, clinical-based, regional conference on practical issues involving sickle hemoglobinopathies for the last 18 years. The conference has historically and traditionally focused

on continuing medical education but was opened to nurses, social workers, and allied health professionals as well. For the first time in the conference 18-year history, the 19th *SCD Practical Issues: Nurses, Anchors of Healthcare scheduled for Saturday, October 4, 2025,* focuses on nursing education but has been opened to physicians, social workers, and allied health professionals. The conference has been approved for 6.3 continuing education units by the Alabama Board of Nursing. Topics include pathophysiology, precision medicine, gene therapy, adult, and pediatric nursing management in both the inpatient and outpatient setting. The CSCC is considered an asset to the area, and its doctors and staff are highly regarded as the state and national level as experts in treating SCD in this region of the United States. Their efforts and expertise have been featured on local media and shared at community lectures, events, and meetings for a combined total of 13 educational conferences, lectures, and TV appearances by Drs. Hogue, Imran, Marri, Wilson; and Ardie Pack-Mabien, PhD, FNP-BC.

The CSCC's faculty and staff are active in the community and have partnered with the members of Alpha Phi Alpha Fraternity, Franklin Memorial Primary Health Center, SDAA-Mobile Chapter and the American Red Cross to host an annual Blood Drive during the month of September, National Sickle Cell Awareness month, in honor and on behalf of individuals affected by SCD in the Mobile and surrounding community. The blood drive donation goal has been reached consecutively for years. The 2024-2025 goal was 43 units with the potential to impact or save the lives of 129 individuals in the Mobile and surrounding area.

In alignment with the COM mission to provide education in a culture of excellence, the CSCC's faculty and staff serve as educators of the next generation of physicians, scientists, and educators. To this effort, two signature educational programs have been firmly rooted by the CSCC. The Dr. Cecil L. Parker, Jr., SCD Distinguished Lectureship Endowment established in 2008 and Watson Henderson Higher Achievement Award established in 2012. The endowment is in its 18th year and continues to provide funding to support sickle cell education for physicians, nurses, and allied health professionals in Mobile and surrounding counties, in perpetuity. The Watson Henderson Higher Achievement Award is in its fourth year of providing financial assistance for higher education to young adults with SCD who are participants of the Pediatric to Adult Care Transition (PACT) Program. Each recipient receives $500 to support his or her education at a career development center; 2-year community college, or 4-year university. The award is presented at a ceremony, during which recipients are recognized for their accomplishments. Families and guests are invited to attend this annual ceremony. The CSCC faculty and staff, department of pediatrics, hematology/oncology, along with the director of the SDAA- Mobile Chapter, attends to congratulate recipients on yet another successful transition in life in pursuit of higher education. The total amount of funds disbursed to date is $4,000.00.

The CSCC's ongoing research projects include**:**

1. Alabama Sickle Cell Tracking Access Towards Equality. This contract was originally awarded for three years but has been extended to five years (10/1/2023– 9/29/2028).
2. Education and Mentoring to BRing Access to CarE (EMBRACE) SCD Network. This contract was originally funded for one year but has been extended to four years (9/1/22-8/31/26).
3. An Open Label, Observational, Prospective Registry of Participants With Sickle Cell Disease (SCD) Treated With Oxbryta® (Voxelotor). GBT 440-4R2. 1 Year before and up

to 5 Years after initiation of Oxbryta treatment. Enrollment of study participants n = 7. (Closed 2025 Aug 22).

4. Global Blood Therapeutics/Pfizer, C5351004 (GBT021601-021): A Phase 2/3 Randomized, Multicenter Study of Osivelotor Administered Orally to Participants with Sickle Cell Disease and an Open-Label Pharmacokinetics Study in Pediatric Participants with Sickle Cell Disease. Enrollment is on hold by the FDA.
5. NIH; HEAL Initiative: Understanding Individual Differences in Human Pain Conditions (R01 - Clinical Trial Option). Project Title: "Personalized Prediction of Acute Sickle Cell Pain in Adolescents and Young Adults Study". PREDICT SCPAIN. (Application submitted 2024 October).
6. Peer Support for Adolescents and Emerging Adults with Sickle Cell Pain: Promoting Engagement in Cognitive Behavioral Therapy (PRESENCE). Clinical and Translations Science Awards Program. This project is in the regulatory/start-up phase. (12/10/24 – Present). 5-year study.

The CSCC provides adult and pediatric inpatient and outpatient clinical services. The CSCC is the only comprehensive sickle cell center along the Gulf Coast. The adult sickle cell clinic has operated as a subspecialty clinic for over 20 years. This clinic serves slightly over three hundred clients and continues to grow. The pediatric clinic provides services to over two hundred 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 one physician, Dr. Antwan J., Hogue, three Nurse Practitioners, Ardie Pack-Mabien, Ph.D., FNP-BC, Jessica King, FNP-C, and Santosha Thompson, FNP-C; and one nurse, T'Shemika Perryman, RN. Additional medical and collaborative practice support is provided by hospitalist Dr. Rachel Seamen through the Department of Internal Medicine. The pediatric sickle cell clinic is staffed by three physicians, Drs. Hamayun Imran (chief), Felicia Wilson, and Preethi Marri; three Nurse Practitioners, Ardie Pack-Mabien PhD-FNP-BC, Jennifer Williams, CRNP, and Sybil Poiroux, CRNP, three nurses, Paige Upton, RN, Tristan Hood, RN, and Kate Holifield, RN, and one research coordinator. Family Medicine, Internal Medicine, and Pediatric residents; and Hematology Oncology Fellows rotate monthly through the Pediatric and Adult Sickle Cell Clinics. Both clinics have expanded to four days a week. Like the USS Hope (Outpatient infusion center for pediatrics) located at Children's and Women's hospital and across the nation, there is a growing and ongoing need for an adult sickle cell patient infusion and transfusion center to meet the growing needs of our adult patients and lessen the healthcare cost burden and utilization of the emergency departments.

The CSCC collaborates with the SDAA-Mobile Chapter, to provide psychosocial services. To address chronic care coordination and case management needs faced by individuals and their families affected by SCD more efficiently, the CSCC expanded its collaborative efforts beyond the SCDAA-Mobile Chapter to include a partnership with Gulf Coast Total Care Southwest Region. This partnership allows the CSCC to meet not only psychosocial needs but also cognitive and behavioral health needs of our patient population that includes pharmacy support, transportation assistance, coordination of medical appointments, and home visits by a case manager, community health worker, and nursing personnel. The CSCC has been in conversation with the Department of Clinical Psychology to provide a broader scope of behavioral assessment

and counseling services in the outpatient adult SCD provider clinics like the services provided in the pediatric sickle cell outpatient clinics. To establish the center as a medical home for SCD throughout the state of Alabama, conversations and planning are underway to develop and offer telemedicine services monthly in collaboration with Jackson Medical Center, Jackson, Alabama in an effort to provide adult sickle cell services in the Southwest region of the state.

Pack-Mabien, Ph.D., FNP-BC and Ms. Perryman RN support the pediatric outpatient clinical operations and serve as liaisons when transitioning patients from pediatric to adult services. The PACT program is now in its thirteenth year with more than fifty participants. Pediatric patients with SCD are successfully transferred to adult care and scheduled for an adult sickle cell provider appointment within one week of their 19th birthday. The PACT program has a successful transfer to adult care rate of 90%. In the upcoming years, we hope to continue to bridge the gap and make the transition process from pediatric to adult care smoother and more efficient.

## Section II- Key Accomplishments

The CSCC is an associate member of the National Alliance of Sickle Cell Centers. Ardie Pack-Mabien, Ph.D., FNP-BC, Executive Director of the CSCC, upon the Alabama Senator confirmation, is a member of the Alabama Sickle Cell Oversight and Regulatory Commission. Pack-Mabien, Ph.D., FNP-BC was elected Vice President of the Commission on April 1, 2025. Governor Kay Ivy appointed Dr. Felicia Wilson to the Sickle Cell Oversight and Regulatory Commission where she was elected president of the commission and served three terms as president between 2018 and 2024. Dr. Wilson was nominated Exceptional Women in Medicine and Castle Connelly Top Doctors demonstrating leadership, expertise, and dedication in their respective fields in 2024.

The CSCC's newsletter "Sickle Cell Today" is distributed across the State of Alabama to physicians, nurses, government officials to include but not limited to the Governor and legislators, clients, client families, administrators, and community sickle cell foundations twice each year with a circulation of more than 2000 a year.

To increase the public's awareness, knowledge, and understanding of SCD; the CSCC's faculty and staff, in partnership with the SCDAA-Mobile Chapter and the COM Wellness Council and advisors, Drs. Becky Smith, TJ Hundley, and Laventrice Ridgeway, Ed.D continues to participate in the City of Mobile Art Walk  bi-annually during the months of September and April with its TRISICKLE for SCD campaign.






The CSCC successfully led efforts to secure Lighting of the RSA Tower in the city of Mobile and state capital, Montgomery, Alabama, recognizing September as National Sickle Cell Awareness month on Sunday, September 8, 2024.

The CSCC also led efforts to initiate the first Proclamation Signing by the Mayor of Mobile recognizing September as National Sickle Cell Awareness Month, the CSCC, and Department of Pediatric Hematology/Oncology by the City of Mobile took place on September 10, 2024. The CSCC commenced both inaugural events to further increase awareness of and shine the spotlight on SCD and the CSCC along the Gulf coast and surroundings communities annually.



## Section III-Impact Metrics



| Residency, Nurse Practitioner, and Doctoral Student Training | | | |
|---|---|---|---|
| | Internal Medicine and Family Medicine Residents | Nurse Practitioner | Doctoral Students |
| Number in Clinic | 22 | 1 | 1 |

The CSCC in collaboration with University Hospital Department of Staff Development created the first and only SCD Health Stream Educational Learning Module for nursing and other health care professionals with 100% compliance by University Hospital 5th floor and PRN nursing staff and unit educators impacting the quality of nursing care and improved outcomes for those patients hospitalized at University Hospital for the medical management of their SCD.

## Section IV – Publication

**Hogue, Antwan, M.D.**
**Invited presentations**

Hogue A. Invited speaker. Precision medicine in sickle cell disease. American College of Physicians Annual Meeting; 2025 Feb 15; Mobile, AL.

Hogue A. Invited speaker. Sickle Cell 101: the crisis beneath the storm. Spring 2025 Sickle Cell Disease Educator/Counselor Certification Program, Sickle Cell Disease Association of America - Mobile Chapter; 2025 Apr 29; Mobile, AL.

**Imran, H, M.D.**
**Invited presentations**

Imran H. Invited speaker. Sickle cell disease management. Spring 2025 Sickle Cell Disease Educator/Counselor Certification Program, Sickle Cell Disease Association of America – Mobile Chapter; 2025 Apr 28; Mobile, AL.

Imran H. Invited speaker. Sickle cell disease and gene therapy from a patient and provider's perspective [video]. "Healthy Living" segment, Fox Studio 10 News; 2025 June 25; Mobile AL. Available from: https://www.fox10tv.com/2025/06/25/healthy-living-with-usa-health-comprehensive-sickle-cell-center-provides-life-changing-gene-therapy/

**Marri, Preethi, M.D.**
**Invited presentations**

Marri P. Invited speaker. Thalassemia. Introduction to genetics. Spring 2025 Sickle Cell Educator/Counselor Certification Program, Sickle Cell Disease Association of America - Mobile Chapter; 2025 Apr 29; Mobile, AL.

Marri P. Invited speaker. Sickle cell disease and summer safety [video]. “The Doctor Is In” segment, WKRG News 5; 2025 June 5; Mobile, Al. Available from: https://www.wkrg.com/the-doctor-is-in/dr-preethi-marri-discusses-sickle-cell-disease-and-summer-safety/

**Pack-Mabien, Ardie, Ph.D., FNP-BC**
**Invited presentations**

Pack-Mabien A. Invited speaker. Historical overview of sickle cell disease and the University of South Alabama Johnson Haynes Jr., MD Comprehensive Sickle Cell Center [video]. “Healthy Living” segment, Fox 10 News; 2024 Sep 11; Mobile, AL. Available from: https://www.fox10tv.com/2024/09/11/healthy-living-with-usa-health-sickle-cell-center/

Pack-Mabien A. Invited speaker. Sickle cell disease treatment program: quality assurance project: sickle cell disease health stream module for nurses. Embrace Annual Meeting; 2024 Nov 8; Miami, FL.

Pack-Mabien A. Invited speaker. Sickle cell disease and sickle cell trait: nursing management. Spring 2025 Sickle Cell Disease Educator/Counselor Certification Program, Sickle Cell Disease Association of America - Mobile; 2025 Apr 28; Mobile, AL.

Pack-Mabien A. Invited speaker. Sickle cell disease and its management. Jackson Medical Center; 2025 Jun 18; Jackson, AL.

Pack-Mabien A. Invited speaker. Sickle cell disease and its management. Jackson Medical Center; 2025 Jun 25; Jackson, AL.

**Wilson, Felecia, M.D.**
**Invited presentations**

Wilson F. Invited speaker. Sickle cell disease and the challenges patients face [video]. “The Doctor Is In” segment, WKRG News 5; 2024 Sep 20; Mobile, AL. Available from: https://www.wkrg.com/the-doctor-is-in/sickle-cell-disease-with-dr-felicia-wilson/

Wilson F. Invited speaker. Newborn screening. Spring 2025 Sickle Cell Disease Educator/Counselor Certification Program, Sickle Cell Disease Association of America – Mobile Chapter; 2025 Apr 29; Mobile, AL.

## Section V - Looking Ahead

Looking ahead, the CSCC will continue to seek opportunities for additional funding that would bring the CSCC to the level equal to other academic/university institutions of higher learning with a sickle cell center in the state of Alabama as well as nationally. This would provide the much-needed funding to establish the CSCC as a medical home for individuals with SCD along the gulf

coast through telemedicine services and recruitment of an adult hematologist which could be a gateway toward funding at the federal level.

The CSCC also seeks to expand and refine current educational activities for physicians, nurses, and other allied health professionals, patients, and families of individuals with SCD as well as the PACT program to offer additional educational and transition services.

Lastly, the CSCC has to expand the current adult care transfusion and outpatient pain management services with the implementation of precision medicine with the use of individualized care plans and an outpatient infusion center similar to the USS HOPE at USA C&W hospital to reduce recurrent ER visits and/or HS admissions, improve adult patient outcomes, and reduce the economic burden on the health system.

**2024-2025**
**Summary of Activities**
**Division of Medical Education**

## Section I – Mission Alignment

The Division of Medical Education supports the mission of the College of Medicine by being responsible for supporting the development, delivery, and assessment of the educational program leading to the MD degree. The Division contributes to student success through teaching, educational scholarship, and administrative service on many committees vital to the educational mission. In addition, the Division oversees the new Whiddon COM Simulation Center and the Anatomical Gifts Program which both support and strengthen the educational activities of undergraduate and graduate medical education.

## II – Key Accomplishments

The key accomplishments of the Division of Medical Education include activities through its role supporting the educational programs, the Curriculum Committee, the Whiddon COM Simulation Center, and the Anatomical Gifts Program as listed below.

### Division of Medical Education

Continuous Professional Development
The Continuous Professional Development Program is a comprehensive initiative approved by the Curriculum Committee to foster professional growth, lifelong learning, and skills development among medical students. It was fully integrated across the entire educational program in 2024-2025. Students can participate in a variety of activities including community service, research, interest and affinity groups, professional seminars, and leadership roles, all of which are documented and credited. The program continues to prepare students for future medical careers by enhancing both their personal and professional development.

### 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 members on issues such as continuous quality improvement of our educational program, ongoing oversight of the pre-clerkship phase, clerkship phase, and the primary care pathway.

The Committee is charged with oversight of the undergraduate medical education (UME) curriculum in accordance with Liaison Committee on Medical Education (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 2024-2025. The subcommittees and their chairs included:

M1-M2 (David Weber, PhD)
M3 (Nicolette Holliday, MD)
M4 (T.J. Hundley, MD)
Assessment and Evaluation (Anna Foust, MD)
Clinical Skills (Laura Boatright, MD)
Student Subcommittee (Camryn Hall, MS3)

Curriculum Committee Action Plans

The initial actions of the Curriculum Committee during the academic year included the development and approval of action plans for each of the Curriculum Committee subcommittees. Each action plan was subsequently operationalized by each of the subcommittees which provided the Curriculum Committee with updates throughout the academic year. A summary of the activities and action plan outcomes of each of the subcommittees is presented below for academic year 2024-2025.

*M1-M2 Years*

The M1-M2 years subcommittee successfully executed its action plan for the 2024-2025 academic year, focusing on curriculum maintenance, innovation, faculty development, and administrative oversight. Key accomplishments included the development of new self-directed learning (SDL) approaches, review of exam question quality, approval of module sequencing, and incorporation of practice questions to foster learning. Additionally, continued efforts to integrate clinical reasoning within the pre-clerkship curriculum were coordinated with the Clinical Skills team. The subcommittee did an extensive review of the pre-clerkship curriculum to continuously improve content placement, instructional strategies, and assessment methodologies. In collaboration with the Assessment and Evaluation (A&E) subcommittee, the group developed and implemented pre-course reviews to help enhance integration, implementation of course improvements, and achieving optimal course outcomes.

*M3 Year*

The M3 Subcommittee implemented a comprehensive action plan for the 2024-2025 academic year, focusing on curriculum innovation, maintenance, faculty development, and LCME standard review. The clerkship directors held a workshop where they focused on standardization of educational activities, conducted a comprehensive review of the required clinical experiences, improved the use of assessment tools, and enhanced integration of the Primary Care Pathway. All of the clerkships conducted reviews of the licensure exam expectations and its alignment with the content delivered in the courses. Many clerkships continued to innovate with the addition of new curricular content or tools such as individualized learning plans (ILP), new virtual learning tools, or trauma informed care. The latter was part of a larger endeavor for a redesign of the surgery clerkship curriculum in preparation for the following academic year. Finally, the subcommittee collaborated with the M4 subcommittee to conduct a comprehensive review of the clerkship phase curriculum to continuously improve content placement, instructional strategies, and assessment methodologies.

*M4 Year*

The M4 Subcommittee successfully executed its action plan for the 2024-2025 academic years as well. Key accomplishments include developing an ILP for M4 students to facilitate the transition to GME training. The Transitions to Residency Course continued its integration with the University of South Alabama's LevelUP program. The course also enhanced education about telemedicine, communicating with patients about misinformation, and procedural skills. Three new electives were approved for future implementation including Mastering Clinical Neurosciences as a Junior Educator, Global Health and the Dominican Republic, and Advance Clinical and Procedural Skills. In addition, new electives enrolled their first M4 students such as Obstetrics-Gynecology research, Law and Medicine, and Applied Clinical Radiology. Policies for away rotations, visiting students, and international electives were also reviewed and updated.

*Student Subcommittee*

The student subcommittee continued its work around their action plan this past academic year with notable accomplishments. They collaborated with the Division of Medical Education and Dr. Peyton McElroy to review the bioethics and humanities curriculum thread. The group provided valuable feedback which led to improvements in content, sequencing, and instructional strategies. They also worked with the Director of Clinical Skills and the Family Medicine clerkship director to develop an improved evaluation tool for clinical rotations in the community. Most importantly, the subcommittee recognized a need to facilitate more effective transitions from the pre-clerkship phase to the clerkship phase. Their interest and feedback supported the creation of a new optional course for interested students. This course, occurring just before the start of the M3 year, provided education on various learning strategies and clinical skills important on being successful as they start the M3 year. The group also helped course directors improve survey collection strategies and prepare for the LCME visit.

*Assessment and Evaluation*

The A&E Subcommittee continued to standardize processes for reviewing all courses within the curriculum, ensuring a consistent and comprehensive evaluation across the entire educational program. This process began with a detailed assessment of the learning objectives for each course. This allows for a clear understanding of how effectively each course met its educational goals.

In collaboration with course directors, the subcommittee reviewed updates made to courses based on previous evaluations, emphasizing the integration of past feedback. The strengths of each course were identified, showcasing successful elements that contributed positively to student learning. Course directors were also encouraged to outline any planned changes for future iterations, with an analysis of the resources needed to implement these improvements. This collaborative approach ensured that course directors were supported in their efforts to enhance course quality. Student feedback was systematically gathered and analyzed as part of the review process. This feedback was crucial in identifying aspects of the course that worked well and those that could be enhanced to better meet student needs.

After completing the standardized review, the subcommittee generated tailored recommendations for each course. These recommendations were designed to support course directors in making evidence-based improvements. By providing actionable insights and fostering a culture of continuous improvement, the A&E Subcommittee's standardized review process played a vital role in maintaining and enhancing the quality of the medical education provided.

Curriculum Phase Review Process

The Curriculum Committee completed the comprehensive review of the pre-clerkship and clerkship phases. These reviews involved a robust analysis of data related to content and instructional strategies, assessment strategies, and the learning environment. Workgroups were formed around each of these domains. These work groups consisted of course directors relevant to the curricular phase as well as stakeholders from subsequent phases. This included M3 clerkship directors participating in the pre-clerkship phase review, and GME leadership participating in the clerkship phase review. These individuals provided critical feedback on how well learners were prepared as they transitioned through their training.

Each workgroup was charged with identifying areas of strength and opportunities for improvement. All groups then came together to share their findings which allowed for identification and prioritization of actionable improvements. Both phase reviews noted the high student satisfaction with the overall quality of the educational program, the faculty engagement with students, and the excellent quality of the hands-on clinical training.

LCME Standards Review

During the academic year, the Curriculum Committee devoted significant time to review and monitor compliance with LCME standards related to curriculum development, implementation, and monitoring. These reviews were enhanced by feedback received from the Committee on Quality Improvement. To further integrate LCME standards into our educational program, each of the tasks included in the subcommittee action plans was linked to the pertinent LCME standards.

Rx for Success

The Division of Medical Education and the Office of Accreditation and Planning planned and offered the first iteration of our Rx for Success course for M3 medical students entitled, “Rx for Success: Clerkship Edition”. This week-long optional course aimed to review evidence-based learning strategies, time-management, clinical skills, and organization skills critical to the clerkship phase. The course also promoted self-reflection skills by discussing with students how to receive and use feedback provided to them through their clinical evaluations. The course was a huge success in its first offering with almost all M3 medical students participating.

Resilience Curriculum

The Curriculum Committee implemented the "Rx for Resilience” curriculum for medical students which is designed to enhance skills for managing stress, fostering professionalism, and promoting professional identity formation. It is structured around key domains such as relationship management, self-awareness, self-regulation, self-management, and social awareness, each taught through specialized workshops. This holistic approach prepares students for the emotional and ethical challenges they will face in their medical careers. The program expanded by integrating into all clerkships and increasing the number of participating faculty and medical school leadership.

Primary Care Pathway (PCP)

The Primary Care Pathway continues to support the education of students interested in a career in primary care in rural and/or underserved communities. During 2024-2025, the PCP continued to

enhance communication strategies with students and faculty, host professional development sessions for community physicians, and expand the number of participating community clinical sites. The pathway successfully graduated another class of students with many moving on to residency training in the field of Family Medicine, Internal Medicine, and Pediatrics.

Whiddon COM Simulation Center

The Whiddon COM Simulation Center officially opened in 2024 - 2025 focused on improving medical education through experiential learning. The center has grown into a thriving, high-impact program that is now an essential part of clinical training and patient safety preparation. The center features an extensive range of task trainers and procedural models covering trauma, sports injuries, joint dislocations, pelvic and breast exams, paracentesis, thoracentesis, lumbar puncture, and auscultation—many available in both adult and pediatric versions. High-fidelity simulators further enhance the realism of the training, including six adult male simulators, two adult female birthing simulators, a pediatric model, and an infant model. Learners train with advanced diagnostic and procedural tools including ultrasound, cardiac monitoring, airway management, and ventilators. Among the most significant achievements in the first year was earning Provisional Accreditation from the Society for Simulation in Healthcare (SSH). Accreditation by SSH is a nationally recognized benchmark that affirms our center's commitment to safety, effectiveness, operational excellence, and continuous quality improvement. In August 2024, the Simulation Center officially assumed responsibility for Graduate Medical Education (GME) simulation across USA Health. This transition enabled design and implementation of tailored events that align with residency curricula and real-world clinical challenges. With this growth, the Simulation Center was able to grow its team where they participated in national conferences to improve our program as well as extend the recognition of the University.

Anatomical Gifts Program

The Anatomical Gifts Program (AGP) continued to support the College of Medicine, GME, and the region's health professional learners through the generous gifts made by donors and their families. These gifts supported anatomical and clinical education of learners which results in high quality training ultimately benefiting the community they serve. This year the program enhanced its communication tools and strategies to better meet the needs of donors and their families. In addition, the memorial service was transitioned to an annual schedule further enhancing families' opportunities to celebrate their loved ones. During the 2024-2025 period, the AGP supported anatomy educational events with the University's medical and health professions students. The program also expanded its services to the GME educational program by hosting multiple new events supporting four different residency programs affiliated with USA Health.

## Section III – Impact Metrics

As a result of the high-quality education program, students and the Whiddon COM continue to perform at excellent levels on national recognized benchmarks. Our USMLE performance was above the national average in 2024-2025 as noted in the chart below.

| USMLE Licensure Exam | Pass Rate (Nat Avg) | Score (Nat Avg) |
|---|---|---|
| **Step** 1 | 92% (91%) | N/A |
| **Step** 2 | 100% (98%) | 254 (250) |

In addition, the Association of American Medical Colleges (AAMC) collects and disseminates benchmarking data comparing a medical school to the 155 other AAMC-member schools through the Mission Management Tool. This data shows that the Whiddon COM educational program supports the health care needs of the community and the state of Alabama by being near or in the top quartile in multiple domains as noted below.

| 2025 AAMC Mission Management Tool | National Ranking |
|---|---|
| % Practicing in Primary Care | 78$^{th}$ percentile |
| % Practicing in-state | 74$^{th}$ percentile |
| % Practicing in Rural Areas | 78$^{th}$ percentile |
| % Practicing in Underserved Areas | 99$^{th}$ percentile |

The continuous professional development program (CPD) continued to foster student's connections to both lifelong learning and supporting the community. Each credit is worth approximately one hour of time committed to an activity. The Whiddon COM students completed a variety of activities through the program. Students completed community service which included providing clinical care and health screening opportunities for the underserved or those in need, youth programs, mentorship programs, and community outreach services. Examples include health screenings for underserved communities, the Student Run-Free Clinic, tutoring children at youth transitional facilities, coaching youth with disabilities, environmental clean-up, and distributing aid from local food pantries or food banks. The table below includes a snapshot of the program.

| CPD Program Impact |
|---|
| > **6,500** CPD credits earned by M1, M2, and M3 medical students |
| > **3,700** hours of community service or service learning completed |
| > **100** community service sites used |
| > **40** students developing or publishing peer-reviewed publications |
| > **40** students with scientific posters or presentations |

Whiddon COM Simulation Center

The Simulation Center has had a tremendous impact in 2024-2025 on the education of medical students, residents, and faculty through close collaboration and responsive program design. A snapshot can be seen in the table below.

| **Whiddon COM Simulation Center At-a-Glance** |
|---|
| Hosting **66 events** per month by April 2025 (**> 800%** increase from its opening month) |
| **14,000** learner hours across a wide range of clinical and procedural skills development |
| **> 60** simulation events supporting USA Health GME programs |
| **> 130** simulation events for M3 clerkships |
| **> 90** in hospital training events at USA Health |
| **> 1,300** standardized patient encounters |
| **> 1,200** hours of trained facilitator guidance |

**Section IV- Publications**
**Brower, Gregory, D.V.M., Ph.D.**
**Publications:**
**Abstracts**

Brower GL, Kaur G and Lee VH. Navigating the integration of point-of-care ultrasound in undergraduate medical education: fostering clinical diagnostic skills from anatomical and imaging perspectives. Proceedings of the 2024 American Association for Anatomy Regional Meeting; 2024 Nov 16; Birmingham, AL. p.14. Abstract no. T3.

**Hundley, T.J., M.D.**
**Invited presentations**

Hundley TJ. The art of medicine: healing the heart, body and soul. Creative Arts and Storytelling for Health and Wellness Summit, University of South Alabama; 2024 Nov 11; Mobile AL.

**Lee, Vaughan, D.V.M., Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Kaur G, Stroever S, Gore M, Vories B, Lee V, Bishop KN, Schneider BL. Formative assessments predict performance in anatomy course and can be used to identify at-risk students preemptively. Discov Educ. 2025 Jul 1;4:216.

Zeitouni F, Matejka C, Boomer M, Lee VH, Brower GL, Hewetson A, Kim J, Mitchell J, Edwards DS, Kaur G. Integration of point of care ultrasound into undergraduate medical education at Texas Tech University Health Sciences Center school of medicine: a 6 year review. BMC Med Educ. 2024 Dec 18;24(1):1476.

**Pavlick, Kayla, Ph.D.**
**Publications:**
**Journal Articles, Book Chapters, and Patents**

Pavlick K, Boothe C, Notebaert A. Pre-clerkship medical students' perceptions of learning objectives: definitions, uses, and communication. HAPS Educator. 2024 Winter;28(3):13-23.

Pavlick K, Boothe C, Notebaert A. A qualitative study on instructor experiences with learning objectives in the basic sciences. HAPS Educator. 2024 Spring;28(1):22-35.

**Section V – Looking Ahead**

Looking ahead to 2025-2026, the Division of Medical Education is prioritizing the preparation for the upcoming LCME accreditation visit occurring in October 2026. Dr. T.J. Hundley will be serving as the Faculty Accreditation Lead (FAL) for the visit and will be responsible for its overall coordination. This will occur in collaboration with the Office of Accreditation and Planning at the Whiddon COM. As part of this effort, the Division will continue to develop centralized data collection processes and tools to facilitate evidence-based decision making for the education program. The Division will also prioritize further development and integration of emerging topics in medical education. This includes nutrition, artificial intelligence, medical humanities, and health system sciences.

The Simulation Center plans for continued growth and strategic development in alignment with its vision to be a regionally recognized leader in simulation-based medical education. The priorities for the coming year include strengthening our collaboration with the GME community by developing new resident-focused events and expanding our offerings to address specialty-specific needs. We also plan to grow our in-situ simulation program—bringing realistic, team-based training into the clinical environments of USA Health hospitals to reinforce readiness, teamwork, and systems-based practice. Additionally, we aim to increase interprofessional simulation initiatives, launch targeted faculty development opportunities, and advance simulation-based research and quality improvement projects that enhance patient outcomes. The AGP plans to prioritize the organizational structure of its office and processes to further enhance the experience of those interested in the program. This will allow us to conduct more community outreach, better support our donors and their families, and promote education of health professions learners in our region.

# Office of Student Affairs
# Academic Year in Review
# 2024-2025

## Section I – Mission Alignment

The Office of Student Affairs (OSA) serves as the essential infrastructure that supports the academic and personal journey of every student at the University of South Alabama's (USA) Frederick P. Whiddon College of Medicine (Whiddon COM). By alleviating administrative, financial, and logistical burdens, the OSA ensures that students can focus their energy on the College's core mission: educating and training to be the next generation of physicians to provide high-quality, compassionate care while advancing medical knowledge. The OSA creates an environment where this education can thrive. The OSA manages the complex non-curricular elements of medical school, ensuring the Whiddon College of Medicine remains a student-centered institution where excellence in patient care and medical education is the priority.

## Section II – Key Accomplishments

The 2024-2025 academic year brought significant transitions and growth to our leadership team. We honor the legacy of those who have paved the way and welcome new energy to our administrative ranks.

- **A Fond Farewell:** On June 1, 2025, Dr. Kelly P. Roveda retired as Associate Dean of Student Affairs. We celebrate her remarkable 23-year career of dedication to the Whiddon COM and USA Health. Dr. Laventrice S. Ridgeway, Assistant Dean of Student Affairs, has been named as her successor.
- **Celebrating Achievement:** Dr. Frank Lucas achieved a major milestone in May 2025, earning his Doctor of Education in Educational Leadership from USA's College of Education and Professional Studies. Concurrent with this accomplishment, he was promoted to Director of Student Records and Engagement.
- **Welcoming New Talent:** We were also pleased to welcome Gracie Overstreet, who joined the team as Program Coordinator in January 2025, and Sierra Huff-Brown, who stepped into the role of Assistant Registrar in May 2025.

### Scholarly Contributions & Engagement

Student Affairs leadership and staff continue to shape the national and local dialogue on medical education through high-level research and conference presentations:

- **Navigating MSPE Challenges:** At the AAMC Learn Serve Lead conference in Atlanta, a collaborative team including Dr. Laventrice S. Ridgeway explored varied approaches to MSPE guidelines and the complexities of student evaluation.
- **Innovating Assessment:** At the USA's Conference on Teaching and Learning (CoTL), Drs. Boatright, Ridgeway, and Williams presented on navigating transitions through competency-based assessments of professionalism.
- **Holistic Support:** Mrs. Angie O'Neal, Dr. Laventrice Ridgeway, Dr. Becky Smith, and Dr. David Williams facilitated a dedicated session at the same conference, detailing the "wrap-around" approach between Academic Success, Career Advising, and Health and Wellness to supporting the multifaceted needs of medical students.

**Milestone Events**

*Match Day*

For the fourth consecutive year, the roar of the "South and Jag spirit" filled the USA Mitchell Center. On Match Day, the arena floor transformed into a sea of anticipation as 600 guests gathered to witness the Class of 2025 discover their futures. The results reflect the academic excellence and versatility of our graduates. Students secured positions across the continental United States, with a strong balance between local impact and national reach.

- **Primary Care Leaders**: 20 students matched in Internal Medicine, 11 in Family Medicine, and 7 in Pediatrics.
- **Specialty Success**: Students matched into competitive fields including Anesthesiology (1), Neurosurgery (1), Dermatology (1), Obstetrics and Gynecology (7), Orthopaedic Surgery (1), and Otolaryngology (1).
- **Staying Home**: 46% of the class chose to remain in Alabama, with 18 students continuing their journey within USA Health Hospitals.
- **Branching Out**: 54% of students will represent Whiddon COM in out-of-state residency programs.

*Student Honors and Recognition*

As the academic year drew to a close, a series of ceremonies honored the hard work and dedication of our scholars:

- **Honors and Awards**: Exceptional seniors were recognized for their academic and service achievements during an elegant breakfast at the USA Student Center Ballroom.
- **The Academic Hooding**: In a touching ceremony at the Mitchell Center, M.D. and Ph.D. candidates received their hoods. The Class of 2025 was addressed by Dr. TJ Hundley, Jr., M.D., Associate Dean of Student Affairs and Associate Professor of Internal Medicine, and their classmate Naden William Kreitz, while the Hippocratic Oath, led by Whiddon COM Dean and Vice President of Medical Affairs, Dr. John Marymont, M.D., MBA, served as a solemn reminder of their lifelong commitment to medicine.
    - **Military Honors**: The Military Oath of Office was administered by Dr. Andrew C. Bright, D.O., FACS (LCDR, US Navy), honoring those who will serve both their patients and their country.

*White Coat Ceremony*

The Class of 2027 marked their transition from the classroom to the clinic during the annual White Coat Ceremony. This "right of passage" featured the induction of new members into the Arnold P. Gold Humanism Honor Society, emphasizing that empathy is as vital as expertise. In a cherished tradition, the USA Medical Alumni Association provided the class with their first white coats, each containing a personal note of inspiration. Class President Nia Booth offered a stirring response on behalf of her peers as they prepared to enter the clinical wards.

**Student Assembly**

The Student Assembly served as the central hub for student life and interest groups throughout the 2024-2025 academic year. Guided by a mission to address critical student issues, the Student Assembly met monthly on Zoom to shape the medical school experience. Moreover, as the constitution remained unchanged this year, the Student Assembly reiterated its open membership

policy: Status is automatically conferred upon all enrolled M.D. students, ensuring every voice has a place at the table.

2024-2025 Executive Leadership:

- **President**: Olivia Grace Brookins
- **Vice President**: Macy Wright
- **Secretary**: Thomas Robinson
- **Treasurer**: Juliette Lewis
- **SGA Liaison**: Ashleigh Torrance
- **Faculty Advisors**: Dr. Kelly Roveda & Dr. Caleb Butts

*Strategic Funding Initiatives*

This year, the Student Assembly strategically allocated funds to foster social connection and professional development across all four classes:

- **Social Highlights**: The Assembly approved $2,000 for the annual Asclepian Ball at the Mobile Museum of Art and $300 for a Halloween Party at Alchemy Tavern.
- **Humanism in Action**: During Gold Humanism Solidarity Week, $300 was utilized to provide gift cards for hospital nurses and food for resident physicians.
- **Academic Excellence**: To support the M3 Case Report Symposium, approximately $1,500 was approved to cover award plaques, judging gifts, and catering.

*Professional Development and Wellness*

- **SOLD Conference**: Held on September 14, 2024, focusing on leadership development.
- **Wellness Initiatives**: The Wellness Committee hosted monthly forums and special events like "Wellness on Wheels" and "Honest Conversations" to support student mental health.
- **M3 Transitions**: Third-year students attended multiple briefings between October and February to prepare for the rigors of their fourth year.

*Looking Forward: 2025-2026 Student Assembly*

As the year drew to a close, the Student Assembly prepared for a smooth transition of leadership. Following elections in and a transitional meeting on May 14, 2025, a new executive board was established to take the reins in July.

Incoming Officers:

- President & SGA Liaison: Skyler Hamilton
- Vice President: Nia Booth
- Secretary: Josie Jalkh
- Treasurer: Chip Ogles
- Faculty Advisors: Dr. Laventrice Ridgeway & Dr. Caleb Butts

## Section III – Impact Metrics

Visiting Medical Students at USA Whiddon COM

| | 2020-2021 | 2021-2022 | 2022-2023 | 2023-2024 | 2024-2025 |
|---|---|---|---|---|---|
| **Total Visitors** | 0 | 19 | 33 | 28 | 49 |
| **From LCME Schools** | 0 | 5 | 14 | 4 | 16 |
| **From Osteopathic Schools** | 0 | 14 | 19 | 24 | 33 |
| **From Foreign Schools** | 0* | 0* | 0* | 0* | 0* |
| ***Completed Paperwork, but Cancelled Visit*** | | | | | |
| **From LCME Schools** | 0 | 3 | 2 | 2 | 6 |
| **From Osteopathic Schools** | 0 | 8 | 2 | 7 | 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 | 1 | 6 | 7 | 9 |
| **Family Medicine** | 0 | 2 | 0 | 0 | 0 |
| **Internal Medicine** | 0 | 4 | 3 | 3 | 2 |
| **Neurology** | 0 | 0 | 0 | 1 | 0 |
| **Neurological Surgery** | 0 | 0 | 0 | 0 | 0 |
| **Obstetrics/Gynecology** | 0 | 0 | 3 | 5 | 10 |
| **Ophthalmology** | 0 | 0 | 0 | 0 | 0 |
| **Orthopedics** | 0 | 1 | 6 | 0 | 8 |
| **Pathology** | 0 | 0 | 0 | 0 | 0 |
| **Pediatrics** | 0 | 4 | 4 | 6 | 6 |
| **Psychiatry** | 0 | 3 | 2 | 1 | 6 |
| **Radiology** | 0 | 0 | 3 | 3 | 3 |
| **Surgery** | 0 | 4 | 6 | 2 | 4 |
| **Urology** | 0 | 0 | 0 | 0 | 1 |

*We joined the AAMC VSAS in 2014 and no longer rotate foreign students.

**NOTE:** Due to Covid-19, no visiting students rotated in 2020-2021. Per COPA, visiting student rotation was limited in 2021-2022.

Visiting Medical Students Months Electives Taken

| | 2021-2022 | | 2022-2023 | | 2023-2024 | | 2024-2025 | |
|---|---|---|---|---|---|---|---|---|
| | 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 | 2 | 0 | 0 | 0 | 4 | 0 |
| **July** | 1 | 0 | 3 | 0 | 2 | 0 | 8 | 0 |
| **August** | 6 | 0 | 6 | 0 | 3 | 0 | 12 | 0 |
| **September** | 5 | 0 | 7 | 0 | 7 | 0 | 8 | 0 |
| **October** | 3 | 0 | 7 | 0 | 11 | 0 | 9 | 0 |
| **November** | 4 | 0 | 8 | 0 | 5 | 0 | 8 | 0 |
| **December** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**NOTE:** Away rotations limited by COPA 2021-2022

Residency Application Benchmarks

| | **Number of Graduates** | Match Utilized | |
|---|---|---|---|
| | | **NRMP** | **Non-NRMP** |
| **2021** | 69 | 64 | 3 |
| **2022** | 75 | 65 | 4 |
| **2023** | 73 | 67 | 7 |
| **2024** | 74 | 69 | 5 |
| **2025** | 68 | 64 | 3 |

Medical Student Performance Evaluations were written for each of the 68 seniors who graduated on May 10, 2025. Combined, these 68 students applied to over 3,000 residency programs through the AAMC's Electronic Residency Application Service (ERAS).

Seventy-seven (67) students matched residency positions. Sixty-four (64) of the May graduates used the NRMP as their primary means of obtaining residency positions, and three (3) graduates participated in the military match.

University of South Alabama Seniors - Residencies Received by Discipline

| | Class of 2021 | | Class of 2022 | | Class of 2023 | | Class of 2024 | | Class of 2025 | |
|---|---|---|---|---|---|---|---|---|---|---|
| **PRIMARY CARE:** | 22 | 33% | 25 | 35% | 34 | 47% | 33 | 44% | 42 | 63% |
| **Internal Medicine** | 10 | 15% | 14 | 20% | 15 | 21% | 11 | 14% | 20 | 30% |
| **Family Medicine** | 7 | 10% | 4 | 6% | 11 | 15% | 12 | 16% | 11 | 16% |
| **Pediatrics** | 4 | 6% | 3 | 4% | 8 | 11% | 6 | 8% | 7 | 10% |
| **Med/Peds** | 1 | 1% | 2 | 3% | 0 | 0% | 1 | 1% | 3 | 4% |
| **Internal Med Prelim** | 0 | 0% | 2 | 3% | 0 | 0% | 3 | 4% | 1 | 1% |
| **Anesthesiology** | 1 | | 4 | | 6 | | 2 | | 1 | |
| **Dermatology** | 0 | | 0 | | 1 | | 0 | | 1 | |
| **Emergency Medicine** | 4 | | 4 | | 2 | | 5 | | 2 | |
| **Neurology - Child** | 0 | | 0 | | 0 | | 0 | | 0 | |
| **Neurology** | 0 | | 2 | | 2 | | 0 | | 1 | |
| **Neurological Surgery** | 0 | | 0 | | 0 | | 1 | | 1 | |
| **OB/GYN** | 8 | | 8 | | 6 | | 5 | | 7 | |
| **OB/GYN Preliminary** | 1 | | 0 | | 0 | | 1 | | 0 | |
| **Ophthalmology** | 2 | | 1 | | 1 | | 0 | | 0 | |
| **Orthopaedic Surgery** | 5 | | 2 | | 4 | | 0 | | 1 | |
| **Otolaryngology (ENT)** | 2 | | 1 | | 0 | | 2 | | 1 | |
| **Pathology** | 0 | | 0 | | 0 | | 2 | | 1 | |
| **Physical Medicine & Rehab** | 0 | | 0 | | 0 | | 0 | | 1 | |
| **Psychiatry** | 4 | | 6 | | 2 | | 9 | | 2 | |
| **Radiology - Diagnostic** | 5 | | 4 | | 2 | | 3 | | 3 | |
| **Radiology -Interventional** | 0 | | 0 | | 0 | | 0 | | 0 | |
| **Radiation Oncology** | 1 | | 0 | | 1 | | 1 | | 0 | |
| **Surgery – General** | 6 | | 6 | | 6 | | 2 | | 2 | |
| **Surgery – Plastics** | 0 | | 0 | | 0 | | 1 | | 0 | |
| **Surgery – Preliminary** | 2 | | 4 | | 4 | | 4 | | 1 | |
| **Transitional** | 2 | | 1 | | 0 | | 0 | | 0 | |
| **Urology** | 2 | | 3 | | 2 | | 3 | | 0 | |
| **TOTAL Graduating Seniors** | 67 | | 71 | | 73 | | 74 | | 67 | |

University of South Alabama Seniors - Residencies Received by State

| | Alabama | | USA Hospitals (Mobile) | Out-of-State | | Number of Different States |
|---|---|---|---|---|---|---|
| **2021** | 24 | 36% | 17 | 43 | 64% | 19 |
| **2022** | 26 | 37% | 21 | 45 | 63% | 16 |
| **2023** | 22 | 30% | 10 | 51 | 70% | 24 |
| **2024** | 18 | 24% | 12 | 56 | 76% | 21 |
| **2025** | 28 | 42% | 18 | 36 | 54% | 16 |

Grade Distribution (2024-2025 Academic Year)

*Freshman Courses*

| | H | P | F |
|---|---|---|---|
| **Principles of Infection & Immunity** | 8 | 70 | 5 |
| **Principles of Foundational Medicine** | 10 | 71 | 0 |
| **Patients & Human Structure** | 11 | 69 | 1 |
| **Cardiovascular System** | 12 | 68 | 0 |
| **Urinary System** | 10 | 68 | 2 |
| **Clinic I** | 11 | 69 | 0 |
| **Musculoskeletal System** | 12 | 68 | 0 |

*Sophomore Courses*

| | H | P | F |
|---|---|---|---|
| **Digestive System** | 8 | 69 | 0 |
| **Endocrine & Reproductive Systems** | 11 | 66 | 0 |
| **Hematology & Oncology** | 14 | 63 | 0 |
| **Neuroscience & Behavioral Science** | 14 | 63 | 0 |
| **Respiratory System** | 9 | 68 | 1 |
| **Clinic II** | 13 | 64 | 0 |

*Junior Clerkships*

| | H | P | F | ***Out of sequence*** |
|---|---|---|---|---|
| **Family Medicine** | 33 | 42 | 1 | |
| **Internal Medicine** | 5 | 69 | | |
| **Neurology** | 16 | 37 | | 5 |
| **OB/GYN** | 16 | 59 | | |
| **Pediatrics** | 24 | 50 | | |
| **Psychiatry** | 23 | 54 | | |
| **General Surgery** | 14 | 60 | | |

Academic Progress of Medical Students
Source: Part II of LCME Annual Medical School Questionnaire

| | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|
| **Initial Students in Class** | 77 | 77 | 75 | 75 | 75 |
| **Graduates** | 69 | 72 | 74 | 74 | 68 |
| **True Attrition** (will not receive M.D. in any year) | 3 | 2 | 2 | 2 | 3 |

| | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
|---|---|---|---|---|---|
| **Dismissed** | | | | | |
| **Freshmen** | 0 | 0 | 0 | 0 | 0 |
| **Sophomores** | 0 | 0 | 0 | 0 | 0 |
| **Juniors** | 0 | 0 | 1 | 0 | 0 |
| **Seniors** | 0 | 0 | 0 | 0 | 0 |
| **Placed on Leave of Absence (LOA)** | | | | | |
| **Freshmen** | 1 | 1 | 3 | 1 | 0 |
| **Sophomores** | 0 | 1 | 0 | 0 | 0 |
| **Juniors** | 6 | 6 | 15 | 5 | 3 |
| **Transferred to Another Medical School** | 0 | 0 | 0 | 0 | 0 |
| **Withdrew** | 2 | 2 | 3 | 4 | 3 |
| **Admitted with Advanced Standing or Re-entered from Graduate School** | 0 | 0 | 0 | 0 | 0 |
| **Deceased** | 1 | 0 | 0 | 0 | 0 |
| **Repeated All or Part of the Year** | 6 | 7 | 5 | 8 | 7 |
| **Enrolled on a Decelerated Schedule** | 0 | 0 | 0 | 0 | 0 |

| **Minority Students (Black, Native American, Hispanic)** | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
|---|---|---|---|---|---|
| **Total** | 42 | 41 | 40 | 55 | 51 |
| **Freshmen** | 9 | 9 | 10 | 36 | 13 |
| **All Other Classes** | 33 | 32 | 30 | 19 | 38 |

Office of Financial Aid

| | 2020-2021 | 2021-2022 | 2022-2023 | 2022-2023 | 2024-2025 |
|---|---|---|---|---|---|
| **Total Financial Aid** | $11,268,453 | $12,005,884 | $12,936,115 | $13,697,689 | $13,976,870 |
| **Students on Aid** | 253 | 254 | 262 | 267 | 264 |
| **Loans** | | | | | |
| **Direct Unsubsidized** | 7,813,881 | 7,730,029 | 7,961,100 | 8,475,842 | 8,378,638 |
| **Direct Grad Plus** | 1,062,267 | 1,344,904 | 1,629,074 | 1,830,391 | 2,206,544 |
| **Outside Private Loans** | 0 | 0 | 35,000 | 0 | 20,000 |
| **Total Loans** | $8,876,148 | $9,074,933 | $9,625,174 | $10,306,233 | $10,605,182 |
| **Scholarships** | | | | | |
| **University Sponsored** | 1,158,865 | 1,073,188 | 1,231,238 | 1,167,687 | 1,064,667.00 |
| **Outside Sponsored** | 447,983 | 955,495 | 1,329,236 | 1,677,734.88 | 1,829,337.46 |
| **Military – Army** | 221,298 | 229,964 | 104,291 | 73,067 | 38,310 |
| **Military – Navy** | 164,268 | 105,165 | 111,937 | 76,296 | 75,034 |
| **Military - Air Force** | 200,950 | 239,590 | 285,115 | 181,950.50 | 180,979 |
| **Alabama VA Benefits** | 31,476 | 0 | 0 | 0 | 0 |
| **US Federal VA Benefits** | 31,677 | 0 | 0 | 0 | 0 |
| **GI Bill** | 31,860 | 98,298 | 102,592 | 49,432.12 | 11,880.56 |
| **Faculty Staff Reimbursement** | 103,928.50 | 127,005 | 146,532 | 165,288.25 | 171,481.50 |
| **Total Scholarships** | $2,392,305.50 | $2,930,951 | $3,310,941 | $3,391,456 | $3,371,688 |
| **Average Indebtedness of a Graduating Senior** | | | | | |
| | $158,602 | $149,721 | $170,291 | $175,754 | $168,232 |

An Emergency Loan Fund is available to medical students. Loans of up to $1,000 may be obtained by students through a fund administered by the Office of Student Affairs for a period of up to 60 days for the purpose of alleviating an unanticipated financial need. There is no interest charged. During the period August 1, 2024, through July 31, 2025, one emergency loan was approved totaling $1,000 and five (5) loan payments totaling $4,300 were paid back into the loan account.

**Section IV – Looking Ahead**

As the 2025-2026 academic year quickly approached with new leadership at the helm, the OSA's immediate goal was assessment of what worked well and the opportunities for growth or enhancement. Over the academic year, the OSA worked to enhance and expand the services provide around career exploration, specialty advising, and research opportunities across all four years of the curriculum.

# 2024-2025
# Summary of Activities
# Office of Admissions

## Section I – Mission Alignment

***"Our mission is to provide innovative research, education, and clinical care in a culture of excellence, discovery, and scholarship to the next generation of physicians, scientists, and educators to advance patient-centered and equitable healthcare."***

The Office of Admissions supports the Whiddon College of Medicine's mission by using a holistic review process to evaluate each applicant. This review considers academic indicators of success—including GPA, MCAT scores, the rigor and depth of coursework, and grade trends—alongside personal attributes such as communication skills, leadership, teamwork, commitment to community service, research experience, exposure to healthcare environments, and the maturity required to meet the demands of medical education. We also value cultural sensitivity and the interpersonal skills essential for practicing medicine in a multicultural society.

Special consideration is given to applicants from socioeconomically disadvantaged backgrounds and those from Alabama regions with limited access to healthcare, particularly individuals who express a genuine commitment to serving underserved communities.

To maintain alignment with the school's mission, the Admissions Committee conducts an annual review and approval of the attributes used in the evaluation and admissions process.

## Section II – Key Accomplishments

During the 2024-2025 interview season:

1. Admissions received over 1,900 applications. More than 1,100 secondary applications were submitted, and 221 applicants were interviewed for 79 seats.

2. The Director of Admissions attended undergraduate recruiting events at seven (7) different colleges and universities.

3. The members of the Admissions Office advised more than eighty (80) prospective applicants via Zoom and in person.

4. The Admissions Office recruited first- and second-year medical students to serve as Admissions Ambassadors. They participated in interview-day Q&A sessions and led campus tours for accepted students and other prospective applicants.

5. The Assistant Dean for Admissions and the Director of Admissions attended the following meetings:

a. *Learn Serve Lead 2024*, the AAMC's annual meeting, where they explored innovative strategies for addressing complex challenges in admissions and academic medicine through educational sessions, panel discussions, small-group dialogues, and networking opportunities.

b. The *2025 Alabama Health Professions Advisors Meeting*, where they met with pre-health advisors from undergraduate institutions across Alabama to share information about the Whiddon College of Medicine.

6. The following publication was updated and approved by the Admissions Committee: Policies and Procedures Manual. The website was also maintained and updated by the Director of Admissions.

7. The following Admissions subcommittees were active: Interview Selection Subcommittee, Scholarships Subcommittee, Wait List Subcommittee, and the Early Assurance (EAP) Subcommittee.

## Section III – Impact Metrics

Table 1. University of South Alabama College of Medicine Admissions Report

| | **2022** | **2023** | **2024** | **2025** |
|---|---|---|---|---|
| **Total Applicants (Completed Secondary Applications)** | 1802 (1076) | 1586 (966) | 1439 (880) | 1906 (1173) |
| Residence: Alabama | 516 (470) | 485 (433) | 445 (397) | 494 (434) |
| Out-of-State (OOS) | 1231 (562) | 1065 (496) | 994 (437) | 1341 (681) |
| Service Areas (FL & MS) | 55 (44) | 46 (37) | 57 (46) | 70 (58) |
| Rural | 107 (103) | 97 (85) | 83 (76) | 104 (89) |
| Alabama Female | 274 (159) | 259 (229) | 238 (205) | 283 (240) |
| | | | | |
| **Total Applicants Interviewed** | 205 | 197 | 221 | 221 |
| Residence: Alabama | 192 | 187 | 210 | 209 |
| Out-of-State | 5 | 4 | 0 | 1 |
| Service Areas (FL & MS) | 8 | 6 | 11 | 11 |
| Rural | 35 | 36 | 31 | 44 |
| Female | 100 | 99 | 115 | 114 |
| | | | | |
| **Total Applicants Accepted** | 133 | 131 | 151 | 130 |
| Residence: Alabama | 125 | 122 | 142 | 120 |
| Out-of-State | 4 | 4 | 0 | 1 |
| Service Areas (FL & MS) | 4 | 5 | 9 | 9 |
| Rural | 24 | 23 | 22 | 21 |
| Female | 64 | 76 | 87 | 73 |

| | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|
| **Total Matriculants** | 78 | 78 | 79 | 79 |
| Average MCAT | 509 | 507 | 507 | 508 |
| Average GPA | 3.86 | 3.84 | 3.83 | 3.83 |
| Early Decision Program | 15 | 9 | 9 | 10 |
| **Residence:** | | | | |
| Alabama | 73 | 74 | 73 | 74 |
| Out-of-State | 2 | 2 | 0 | 1 |
| Service Areas (FL & MS) | 3 | 2 | 6 | 4 |
| Rural | 14 | 12 | 14 | 16 |
| Female | 35 | 45 | 43 | 42 |

## Section IV – Looking Ahead

1. Create and apply a standardized applicant-review rubric that promotes fairness, consistency, objectivity, and transparency in the medical school admissions process, ensuring alignment with our program's mission and values.

2. Collect data to assess the impact of MCAT and MCAT/GPA metrics on Step 1 performance among rural students.

3. Develop a study examining how formalized student support and mental health and wellness programs influence students' decisions when selecting a medical school.

# 2024-2025
# Summary of Activities
# Office of Research, Education, and Training

## Section I – Mission Alignment

Our mission is grounded in a steadfast commitment to cultivating scientific curiosity, critical thinking, and analytical rigor. We challenge our trainees to think objectively, question assumptions, and approach complex biomedical problems with precision, innovation, and integrity. Through a thoughtfully designed curriculum, immersive laboratory experiences, and dynamic scholarly engagement, we create an environment where students refine their ability to analyze intricate research questions and generate evidence-based solutions that advance the biomedical sciences.

The University of South Alabama Whiddon College of Medicine supports this mission by fostering an inclusive, collaborative, and academically rich learning community. Students benefit from access to cutting-edge research facilities, interdisciplinary partnerships, and mentorship from accomplished faculty leaders. Together, these elements ensure that our trainees develop not only strong technical expertise but also the adaptability, professionalism, and leadership skills essential for success in academia, industry, or healthcare.

## Section II – Key Accomplishments

### Awards and Student Recognition

This year, the Basic Medical Sciences PhD Program proudly recognized the outstanding achievements of several students through competitive travel and academic awards. These honors highlight exceptional dedication to research, academic excellence, and professional development within the biomedical sciences.



**Dr. Valentina Grishko Memorial Travel Award**

**Recipient:** *Adeyeye Haastrup*
Adeyeye Haastrup received the Dr. Valentina Grishko Memorial Travel Award in recognition of his outstanding dedication to scientific research and his commitment to advancing knowledge in the basic medical sciences. This award supports his continued professional development and contributions to the scientific community, enabling him to present and disseminate his research at national scientific meetings.



**Samuel J. Strada Travel & Enhancement Award**

**Recipient:** *Killian Brewer*
Killian Brewer was awarded the Samuel J. Strada Travel & Enhancement Award for exceptional commitment to scientific inquiry and academic excellence. This award provides support for professional development opportunities that further enhance the training and visibility of outstanding emerging scientists.



**Edwin Hughes Memorial Award**

**Recipients:** *Angela Russ and Sicily Hardy*
Angela Russ and Sicily Hardy were honored with the Edwin Hughes Memorial Award, presented annually at the beginning of the fall semester. This award recognizes the students with the highest academic performance in the program's core curriculum and reflects their exceptional mastery of foundational biomedical science coursework in the core curriculum courses (IDL 580 and IDL 581).

## Dean's Predoctoral Fellowship Program

The program awards up to three one-year fellowships to eligible students in the Basic Medical Sciences Graduate Program. Awards include the student's stipend, individual health insurance, and $5,000 to cover travel and expenses for awardees to present their work at a national or international conference, or to attend an extramural course/workshop. The awardees of the fellowship for 2025 were:

- **Oluwagbenro Adesunloro**
  Mentor: Allyson Shea, PhD, Department of Microbiology & Immunology
  "***The Antimicrobial Role of Amyloid-Beta Against Uropathogenic Escherichia coli***"

- **Shovon Lal Sarkar**
  Mentor: Kevin Macaluso, PhD , Department of Microbiology & Immunology
  "***Characterization of Amblyomma maculatum saliva microRNAs and their role in Rickettsia transmission***"

- **Adeyeye Haastrup**
  Mentor: Ray Langley, PhD, Department of Pharmacology
  ***"Targeting Mitochondrial Bioenergetic Dysregulation in Sepsis: Nicotinamide Riboside and Pseudomonas aeruginosa-Induced Transcript Isoform Switching"***

## Research Opportunities Supported by ORET



This year marked an important milestone in expanding undergraduate research engagement within the College of Medicine and strengthening the pathway for future biomedical scientists. A total of 24 undergraduate students conducted research in the College of Medicine or Mitchell Cancer Institute (MCI) labs during the summer months. Six students were supported by ORET, three by MCI, and 15 were enrolled in the Summer Undergraduate Research Fellowship (SURF) program. These undergraduate researchers gained hands-on laboratory and research skills, contributed meaningfully to ongoing projects, participated in professional development activities, and presented their work at a research symposium.

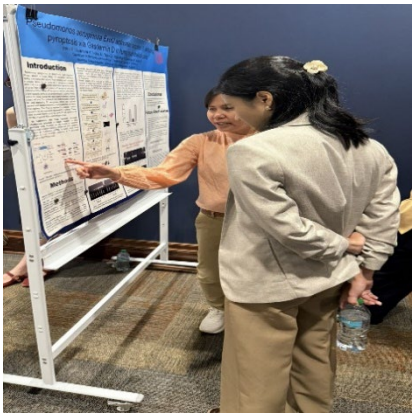
In total, 82 high school, undergraduate, or master's students conducted research in College of Medicine laboratories during the academic year, reflecting sustained growth in research training opportunities across the academic year.

ORET also provided support for postdoctoral training within the College of Medicine. Twelve postdoctoral fellows were supported through ORET led administrative coordination and programmatic initiatives. ORET assisted faculty and departments with the administrative aspects of hiring new postdoctoral fellows and coordinated onboarding processes to ensure a smooth transition for both fellows and departments.

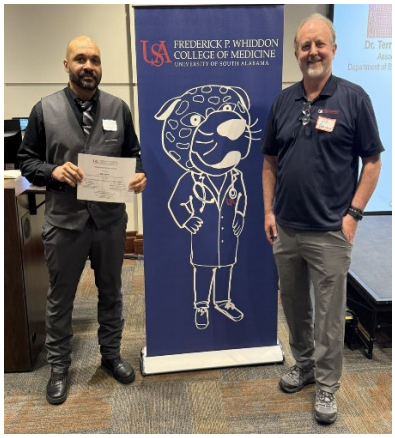
## BMS PhD Research Forum – Spring

The BMS program also celebrated the successful relaunch of the BMS PhD Research Forum, held in the spring. This event provided a platform for doctoral students to present their research through oral and poster presentations, fostering scholarly exchange and highlighting the depth and diversity of scientific inquiry within the program. The strong engagement and positive feedback from participants underscore the importance of this new tradition, which will continue to support scientific communication and professional development for years to come.





## Outstanding Abstract Award for the Research Forum




**Sage Gariss**




**Adeyeye Haastrup**



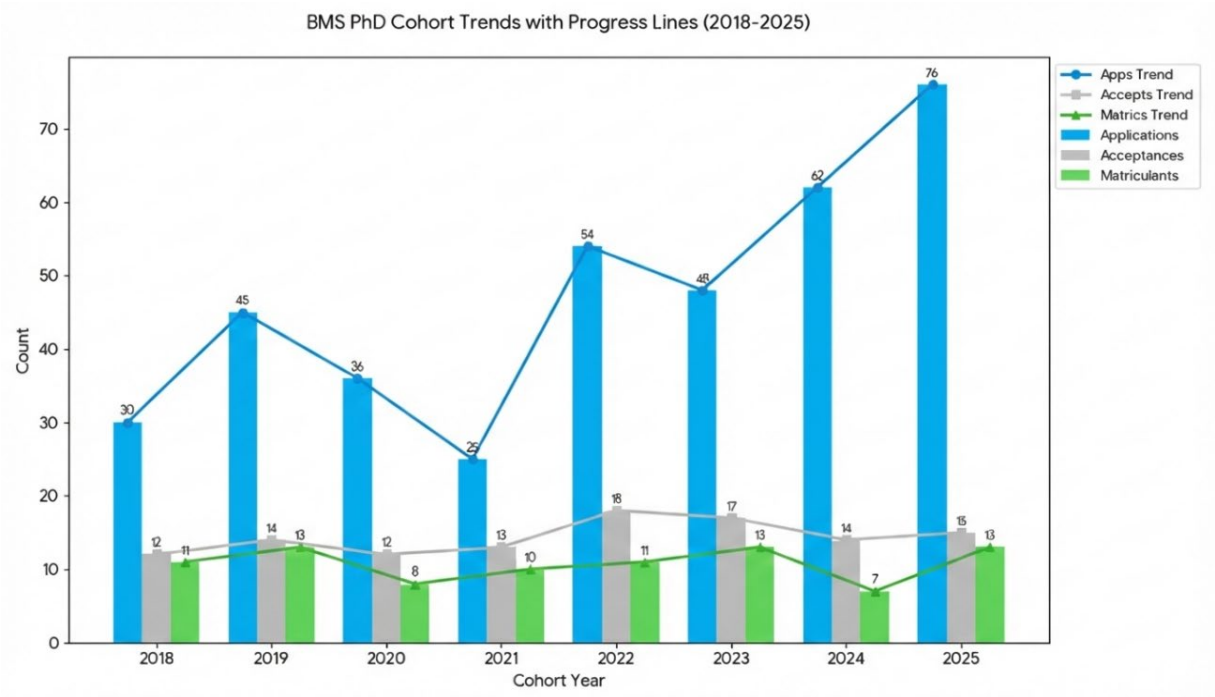
**Manley Hicks**



**Haley Kominek**

## Section III – Admissions Data

| 2024-2025 | Total | US/Perm. Resident | International |
|---|---|---|---|
| **Applications** | 76 | 21 | 55 |
| **Acceptances** | 15 | 9 | 6 |
| **Matriculants** | 13 | 9 | 4 |




Key Takeaways

- **Significant Application Growth:** Total applications have reached a record high of 76 in 2025, representing a 153% increase since 2018 (30 apps).

- **Increasing Selectivity:** As applications have climbed, the program has become significantly more selective. The offer rate dropped from 40% in 2018 to roughly 19.7% of applicants in 2025.
- **International Interest:** International applications have spiked in recent years, particularly since 2022. In 2025, international applicants made up over 72% of the total applicant pool.
- **Matriculation Rate:** In 2025, 86.6% of accepted students (13 out of 15) elected to join the program.

## Graduates

Five students competed all requirements and were awarded PhD during the academic year, August 1, 2024-July 31, 2025.

**Aritra Bhadra**
Dissertation Title: ***"Cyclic Adenosine Monophosphate Enriched Extracellular Vesicle Improve Hypoxic Pulmonary Hypertension"***
Major Professor: Natalie Bauer, Ph.D.

**Sage Garriss**
Dissertation Title: ***"Flow Induced Changes in Endothelial Calcium Handling Protein Expression and Calcium Dynamics in A Modified Partial Ligation Model"***
Major Professor: David Weber, Ph.D.

**Chenchen Li**
Dissertation Title: ***"Etiology and molecular mechanisms of PPP2R5D-related developmental disorders"***
Major Professor: Richard Honkanen, Ph.D.

**Pallavi Sen**
Dissertation Title: ***"Quantification of inherent endothelial Ca2+ dynamics and the distinct contribution of TRPV4 channels in mouse lung microvasculature"***
Major Professor: Mark S. Taylor, Ph.D.

**Marlo Thompson**
Dissertation Title: ***"Unveiling neil1's role in base excision repair: exploring protein interactions, subcellular dynamics, and innovative tool development"***
Major Professor: Aishwarya Prakash, Ph.D.

## Section IV – Looking Ahead

### Goals for the 2025-2026 Academic Year – Basic Medical Sciences PhD Program

The Basic Medical Sciences PhD Program is committed to continuous improvement and advancing student success. In the upcoming academic year, the program will implement a more comprehensive system for gathering student feedback and strengthening academic and professional training.

**1. Strengthen Student Feedback and Program Evaluation**
The program will introduce structured one-on-one interviews with students after they pass their qualifying exam and again at graduation to assess their experiences and identify areas for improvement. First-year students will also be surveyed at the end of both the fall and spring semesters to evaluate program effectiveness during the critical early phases of training.

**2. Enhance the Academic Curriculum**
The recently established Curriculum Committee will continue its work to review, update, and refine the curriculum to ensure alignment with current trends in biomedical research and best practices in graduate education.

**3. Expand Professional Development Opportunities**
A new professional development series grounded in the NACE Core Competencies will soon launch, with structured series of workshops and seminars offering training in communication, professionalism, career development, and other essential skills. Alumni speakers will be incorporated throughout the year to provide career insights, mentorship, and real-world perspectives.

**4. Promote Student Research and Program Visibility**
The program will continue to host the annual Research Forum, providing students with opportunities to present their work, engage in scientific dialogue, and showcase the accomplishments of the program to the broader community.

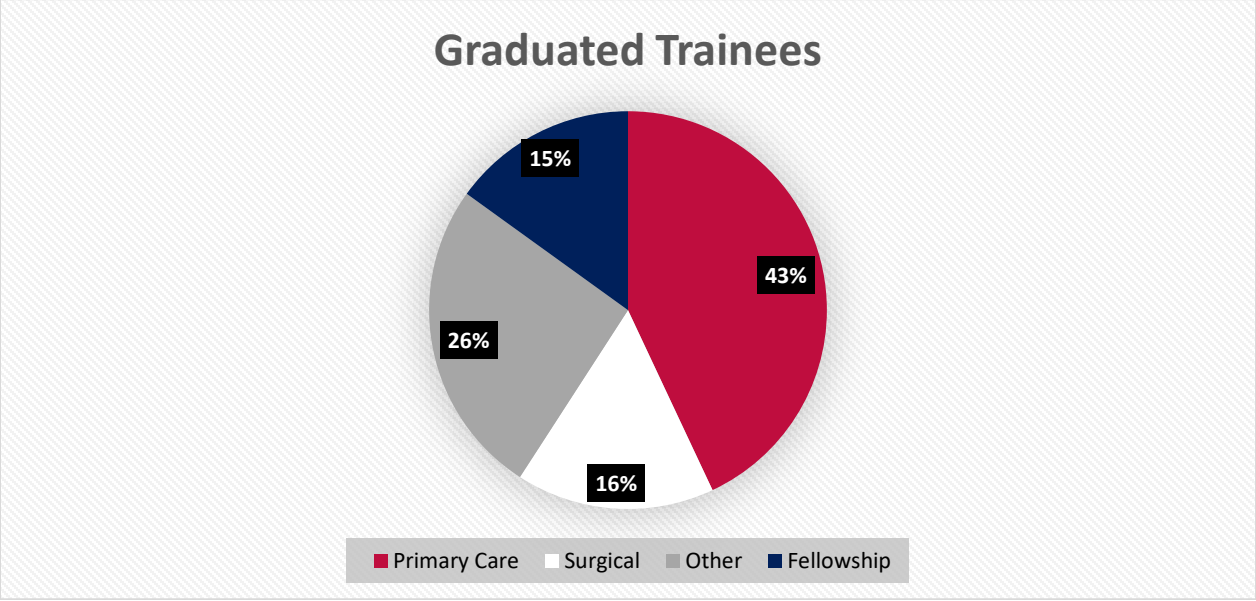
**5. Explore New Degree Pathways**
The program will begin preliminary planning to assess the feasibility of establishing a Master's degree option in Basic Medical Sciences, thus expanding educational pathways for future students.

# 2024-2025
# Summary of Activities
# Graduate Medical Education

**Section I – Mission Alignment**
Graduate Medical Education (GME) supports the Frederick P. Whiddon College of Medicine's mission by ensuring high-quality graduate medical education through accreditation oversight and resident/fellow learning support. GME faculty and trainees play an important role in the education of students in the Frederick P. Whiddon College of Medicine, especially during the clinical years. GME devotes significant time and attention to developing and promoting a positive, professional clinical learning environment which also benefits the medical students. Additionally, the GME programs provide opportunities for many graduates of the Frederick P. Whiddon College of Medicine to continue their medical education after graduation from medical school. Trainees contribute to our missions of patient care and scholarly work at multiple levels.

**Section II – Key Accomplishments**
Management of the Program Coordinators was transferred to the GME Office to provide stronger oversight, better feedback, career development, and employee retention efforts. Residents were provided with daily meal cards to meet nutritional needs while on duty. Internal Faculty Development opportunities were increased. Simulation was provided through the new College of Medicine simulation center which improved both access and sophistication of simulation offered to trainees. The educational budgeting process for programs was updated to increase accountability and ensure educational needs of trainees were met. Received ACGME approval for new fellowship programs in Infectious Disease and Interventional Cardiology.

**Section III – Impact**
Graduate Medical Education graduated 93 trainees across a broad range of specialties. This cohort included 40 trainees in a primary care specialty, 15 in a surgical specialty, 14 in a fellowship and 24 in other specialty areas.



As part of its commitment to maintaining high standards of graduate medical education, the Sponsoring Institution continues to monitor accreditation outcomes across all residency and fellowship programs. During the 2024–2025 academic year, programs demonstrated strong overall performance, with the majority maintaining continued accreditation status and several achieving notable milestones. Two new programs, Infectious Disease and Interventional Cardiology, successfully secured Initial Accreditation. Additionally, established programs such as Urology and Gynecologic Oncology remain in good standing under Continued Accreditation without Outcomes, consistent with expectations for newer programs that have not yet graduated trainees. The institution also sustained Continued Accreditation without Citations for all other programs, underscoring adherence to ACGME standards and effective oversight practices. One program, Emergency Medicine, currently holds Continued Accreditation with Warning, and the GME Office is actively supporting ongoing remediation efforts to ensure timely progress and quality improvement. The table below summarizes the accreditation status of all programs for the reporting period.

| Accreditation Status | Programs |
|---|---|
| **Initial Accreditation** | **Infectious Disease, Interventional Cardiology** |
| **Continued Accreditation without Outcomes *** ***(Newer programs with no graduates)*** | **Urology, Gynecologic Oncology** |
| **Continued Accreditation without citations** | **USA Health as Sponsoring Institution, all other programs** |
| **Continued Accreditation with Warning** | **Emergency Medicine** |

**Section IV – Looking Ahead**

For the upcoming academic year, GME will focus on enhancing faculty development through a four-part clinician educator series in collaboration with Internal Medicine and Dr. Wilson's office. We will fully implement the Transitions of Care project across multiple programs to improve handoff processes and monitor outcomes. New program development will include consideration of a Neurosurgical Residency and fellowship opportunities aligned with institutional needs. Additional priorities include strengthening the working and learning environment, supporting professionalism and communication initiatives, continuing integration efforts at Providence Hospital, and preparing for the Sponsoring Institution's re-accreditation process through comprehensive assessment and corrective actions.

# 2024-2025
# Summary of Activities
# University of South Alabama Office of CME

**Section I – Mission Alignment**
The USA Office of Continuing Medical Education supports the College of Medicine's mission in providing innovative education to advance patient-centered and equitable healthcare. As a jointly accredited provider for Interprofessional Education, the Office of CME offers continuing education credits to physicians, nurses, pharmacists, pharmacy technicians, dieticians, athletic trainers, mental health professionals, and other healthcare providers. These credits are awarded individually or collectively through the Accreditation Council for Continuing Medical Education, the American Nurses Credentialing Center, the Accreditation Council for Pharmacy Education, and other national accrediting bodies.

**Section II – Key Accomplishments**
During 2024–2025, the Office of CME delivered a wide range of educational activities designed to address evolving practice gaps across the healthcare team. The Office coordinated CME activities provided by clinical and academic departments within the University, as well as external agencies.

In total, the Office supported:

- 49 Regularly Scheduled Series (RSS) / grand rounds programs
- 133 Live Events
- 14 Enduring Materials

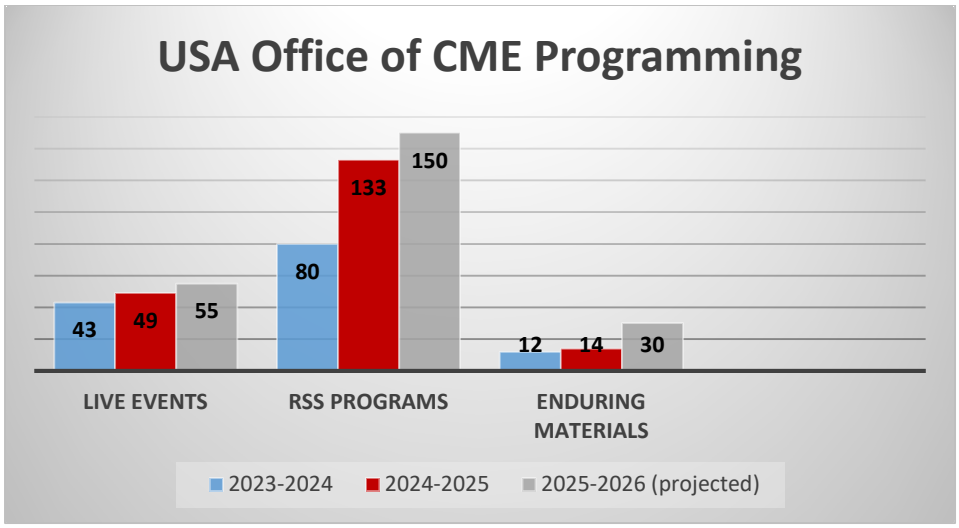
Together, these offerings accounted for 74,486 CME hours of instruction across 4,384 events and sessions. A total of 51,693 physicians and 48,745 additional healthcare professionals were awarded continuing education credits, representing 100,438 total attendees for the year.

Activities were jointly provided through collaborations with HomeTown Health, Singing River Hospital System, Springhill Medical Center, USA College of Business, Mississippi Trauma Care Systems, Auburn University, Alabama Public Health Association, Veterans Administration, and other regional organizations.

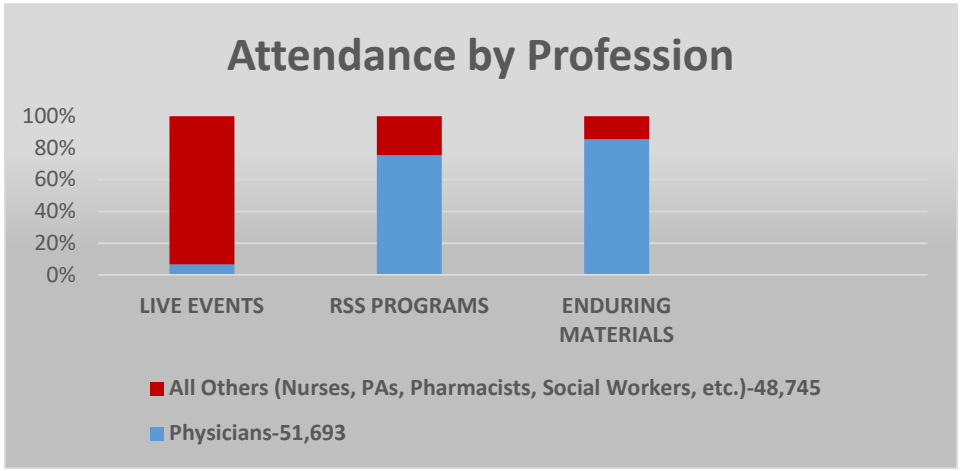
**Section III – Impact Metrics**
Key performance indicators compare programming from the previous year, the current year, and projections for the next academic cycle. The Office of CME continues to see upward trends across Live Events, Enduring Materials, and RSS programming.

Attendance patterns reflect differences by profession:

- RSS programming—including grand rounds, tumor boards, and morbidity and mortality conferences—shows the highest rate of participation.




• Live Events attract more attendees from other healthcare professions, including nurses, physician assistants, pharmacists, pharmacy technicians, and social workers.




**Section IV – Looking Ahead**

As we prepare for reaccreditation in 2026, we will implement the following initiatives:

• Implement an automated system to allow learners to claim CME credit more efficiently.
• Enhance services provided to our educational partners.
• Revise the CME Policy and Procedures Manual, including a full review of all forms and documentation.
• Build our self-study for reaccreditation.
• Automate internal office procedures to improve efficiency in documentation and CME activity file management.

We are pleased to see continued growth in programming, particularly in jointly provided activities with partners outside USA. This expansion has increased both the number of programs and the volume of credits offered, with the greatest impact observed among pharmacists, public health initiatives, and rural healthcare efforts throughout the Gulf Coast Region.

# 2024-2025
# Summary of Activities
# COM Office of Faculty Development

## Section I – Mission Alignment

During the 2024–2025 academic year, our unit advanced the College of Medicine's mission in education, research, and service by providing high-quality faculty development programming, mentorship, and evidence-based training opportunities. Our initiatives strengthened instructional effectiveness, supported scholarly productivity, and enhanced the professional growth of faculty and staff across clinical, basic science, and administrative roles. Through workshops, coaching, and collaborative educational programming, we contributed to a culture of continuous learning and excellence in medical education.

## Section II – Key Accomplishments

• EDGE for Success: Empowering Development, Growth, and Excellence Program

– Amanda Arnold served as a Program Mentor, providing guidance and professional development support to faculty participants.

• Conference on Teaching & Learning (COTL)

– Delivered the SciComm Bootcamp presentation, equipping educators with strategies for effective scientific communication.

• Southeast Decision Sciences Institute 2025 Conference (Jan 29–31, 2025)

– Presented "Now You See Me": Tracking Medical Faculty and Resident Wellness in Tableau. Authors: Binata Mukherjee and Amanda Arnold.

• Publications by Dr. Binata Mukherjee, Associate Dean Faculty & Professional Development

Mukherjee B, LaCross L, Khalsa G. "A lifelong journey:" a phenomenological exploration of faculty perceptions about coach training at an academic medical center. BMC Med Educ. 2024 Oct 3;24(1):1085. doi: 10.1186/s12909-024-06038-1. PMID: 39363299; PMCID: PMC11451153.

Mukherjee, B., Smith, R. & Khalsa, G. An Experiential Approach to Training Medical Faculty to Coach: "The Total Experience was Much More Than the Sum of Its Parts". *J Clin Psychol Med Settings* 31, 769–780 (2024). https://doi.org/10.1007/s10880-024-10038-0

Expanded faculty development initiatives across a wide range of topics, including educational strategies, communication, coaching, and research skill development.





## Section III – Impact Metrics

Programming Offered (9 Series Total):

1. Faculty Development Grand Rounds – 12 sessions, with topics included: My Leadership Journey Catalyzed by Faculty; Turning Disagreements into Dialogue; Teaching with AI, Why Healing Needs Humanities;
2. Nuts and Bolts: Grant Development Series – 10 sessions, topics included: Advancing Clinical and Transitional Research; Budgeting R01 Applications; How to Secure NSF Funding; Research Compliance: Navigating IRB/IACUC/IBC; AI in Research
3. Tools for Teaching Sessions – 6 sessions, topics included: Backwards Course Design; Small Group and Teaching at the Bedside; Writing Test Questions, Assessment Design and Feedback.
4. Crucial Conversations Training – 3 Sessions, Learning effective and essential communication in professional environments.
5. SciComm Bootcamp – 3 sessions, Hands on experience in developing and using improv techniques; formal science communication training.
6. AI-mazing Roundtable – 6 sessions, a casual series of discussions examining the strategic integration of artificial intelligence into college medical teaching with attention to maintaining academic rigor and ethical standards.
7. Academic Medicine Coach Training - 9 sessions, topics included: Master Adaptive Learner; Foundations for Coaching; Trust; The Art of Questioning; Self Awareness.
8. Continued Coach Training
9. Additional targeted workshops and educational offerings

Participation & Engagement:

• **Over 300 faculty and staff** participated in development programming this academic year.
• Approximately **100 hours of dedicated faculty development** were delivered.

These activities meaningfully expanded access to high-quality professional learning and supported faculty in strengthening teaching, leadership, and scholarly skills.

## Section IV – Looking Ahead

For the 2025–2026 academic year, the unit plans to expand its educational research training opportunities and launch new cohort-based programming:

• Reintroduction of the AAMC Medical Education Research Certificate (MERC) Program
– Designed to build foundational understanding of medical education research, enhance faculty capacity to collaborate on scholarly projects, and strengthen research literacy across the College of Medicine.
– Intended for clinicians and educators who are newer to educational research but actively engaged in teaching and curriculum development.

• Development and Launch of *The Educator's Compass – Teaching Track*
– A cohort-based faculty development initiative to strengthen classroom and clinical teaching skills.
– Will incorporate interactive workshops, peer learning, and practical application.
– Designed for faculty who demonstrate strong interest in teaching and potential as future educational leaders.

These initiatives will further solidify our commitment to elevating teaching excellence and fostering research-informed educational practice across the College of Medicine.

**2024-2025**
**Summary of Scholarly Activities**
**Office of Accreditation and Planning**

## Section I - Mission Alignment

The Office of Accreditation and Planning advances organizational and academic excellence across the Whiddon College of Medicine by integrating accreditation leadership, continuous quality improvement, strategic monitoring, and structured academic support to strengthen student achievement and institutional performance. This work centers on aligning institutional systems that support medical students throughout the undergraduate medical education continuum.

The Office strengthens academic advising, learning support, and wellness-oriented initiatives that promote performance, progression, and professional development across all phases of training. Through structured advising models, individualized learning planning, peer academic leadership development, and collaboration with student affairs and academic leadership, student support remains coordinated, data-informed, and responsive to evolving needs.

These student-facing efforts operate in close alignment with institutional monitoring and continuous improvement processes. Performance trends, progression data, and program-level outcomes inform advising and learning support strategies, while themes emerging from student engagement contribute to broader quality improvement discussions. This reciprocal relationship ensures that student achievement is supported both at the individual level and within the larger framework of organizational effectiveness.

As part of its quality improvement efforts, the Office also identifies institutional gaps and emerging opportunities and works collaboratively with departments to design or enhance programs, initiatives, and professional development offerings that address those areas. Through targeted staff development activities and consultative support, the Office strengthens internal capacity and reinforces a culture of shared accountability for excellence.

In parallel, the Office maintains comprehensive oversight of accreditation readiness and continuous quality improvement processes. By embedding systematic monitoring, documentation integrity, and measurable outcome tracking into governance structures, the Office supports sustained compliance with LCME standards and reinforces a culture of accountability and continuous enhancement.

As the College prepares for its upcoming LCME survey visit and transitions to new leadership, the Office remains focused on ensuring stability, transparency, and operational readiness, positioning the Whiddon College of Medicine for continued excellence and strategic growth.

## Section II - Key Accomplishments

During the reporting year, the office achieved several significant milestones. Accreditation and quality improvement efforts included coordination of an LCME consultant-led gap analysis, establishment and operationalization of the LCME Executive Committee, redesign of CQI

committee processes, and continued leadership of the LCME Data Collection Instrument (DCI) development and site visit preparation. Strategic planning efforts advanced through midpoint adjustments and improved metric tracking systems.

Academic Success initiatives expanded substantially. Required Step 1 Individual Learning Plan (ILP) meetings were implemented for all M2 students, including development of a structured learning plan tied to CBSE performance and coordination of advising meetings. The Peer Academic Leader (PAL) program was strengthened through revised application processes, clearer performance expectations, and formalized policies. Office hours at Mastin and targeted support for clinical students continued, and interdisciplinary collaboration increased across academic support, assessment, and wellness programming.

The Office continued implementation and expansion of Rx for Success: Achieving Academic Excellence in Medical School, a pre-orientation academic preparation course designed to support incoming medical students as they transition into the rigor and expectations of medical school. This structured initiative focuses on evidence-based learning strategies, time management, metacognitive skill development, and academic performance planning to proactively position students for success from the outset of their medical education. The program achieved a 92% participation rate, an increase from 60% academic year 2023-2024, among incoming students, demonstrating strong engagement and institutional commitment to early academic preparation.

Building upon this foundation, the Office launched Rx for Success: Clerkship Edition, a two-day program focused on the essential skills and strategies required for success during third-year clerkships. Born directly from the original Rx for Success framework, the Clerkship Edition addresses clinical learning strategies, professional performance expectations, shelf examination preparation, and structured approaches to navigating the clinical environment. This expansion reflects a deliberate effort to provide longitudinal academic support across the continuum of undergraduate medical education, reinforcing skill development at critical transition points.

Together, these initiatives strengthen continuity in academic support programming and align with the Office's broader goals of proactive intervention, performance optimization, and structured learner development.

Faculty and staff in the office demonstrated regional and national leadership and institutional distinction through invited presentations, conference facilitation, competitive appointments, and professional recognition at the regional and national levels. Notably, Dr. Melisa Pierce was elected Chair of the National Accreditation Preparation and Quality Improvement (APQI) Steering Committee, reflecting the institution's growing visibility and influence in accreditation and continuous quality improvement. In addition, Dr. David S. Williams served as the Regional Member-at-Large for the AAMC Southern Region for the Association of Medical Education Learning Specialists (AMELS), further extending the College's leadership presence at the national level in academic support and learning strategy development. His appointment reinforces the institution's visibility in advancing best practices in medical student learning support and underscores the Office's growing influence within national professional networks dedicated to medical education. Office staff and faculty also received multiple honors recognizing excellence in service, scholarship, and leadership, including a Staff Excellence Award, national presentation

awards, faculty recognition for educational impact, and appointments to professional steering and planning committees. Collectively, these achievements reinforce the office's role as a driver of institutional credibility, leadership, and excellence in undergraduate medical education. These national appointments and recognitions serve as external validation of the office's expertise, directly strengthening institutional risk mitigation, accreditation confidence, and the College's capacity to anticipate and respond to evolving LCME expectations. The launch of the EDGE for Success professional development program further extended the office's impact beyond students to institutional staff development.

**Section III - Impact Metrics and Scholarly Works**

Key outcomes from the 2024–2025 year include implementation of required Step 1 ILP advising for the entire M2 cohort; expanded utilization of PAL-led academic support services; completion of an LCME gap analysis with an actionable follow-up plan; improved CQI workflows supporting clearer documentation and accountability; and successful delivery of a six-week professional development program with pre- and post-assessment data demonstrating participant growth. The office also supported numerous national and regional presentations, posters, and workshops, reflecting both scholarly productivity and institutional Visibility.

Office faculty and staff contributed extensively to national and regional conferences through invited presentations, workshops, posters, and leadership roles. Topics included accreditation readiness, CQI, academic success programming, learning science, assessment, wellness, and data visualization. Leadership roles in APQI, MELS, and other professional organizations further positioned the Whiddon College of Medicine as a contributor to best practices in undergraduate medical education.

**Section IV - Publications**

**Cantrell, Russell, MSCIS, MBA**
**Publications:**
**Abstracts**

Cantrell R, Campbell A, Campbell M. Surveying vulnerabilities: tech-driven insights into U.S. healthcare disinformation. 54th Annual Meeting of the Southeast Decision Sciences Institute; 2025 Jan 29–31; Greenville, SC. p. 549. Available from: https://www.sedsi.org/_files/ugd/f590f6_7e25cd2a3bce437d90461b2ac1549665.pdf

Cantrell R, Campbell A, Loftis B, Plash W, Arnold A, Mukherjee B. "Now you see me": tracking medical faculty and resident wellness in Tableau. 54th Annual Meeting of the Southeast Decision Sciences Institute; 2025 Jan 29–31; Greenville, SC. p. 243. Available from: https://www.sedsi.org/_files/ugd/f590f6_7e25cd2a3bce437d90461b2ac1549665.pdf

**Invited presentations**

Cantrell R. Invited speaker. Melody in metrics: crafting charts that hit the right notes [virtual presentation]. 2nd Annual Accreditation Preparation & Quality Improvement Research Conference; 2025 May 21; Detroit, MI.

**Professional recognitions**

Most Engaging and Inspiring Presentation Award, Accreditation Preparation & Quality Improvement Research Conference, "Melody in metrics: crafting charts that hit the right notes."

**O'Neal, Angie, M.Ed.**
**Publications:**
**Abstracts**

Estis J, Clements-Jewery H, Williams S, O'Neal A, Williams D. Empowering academic success in medical education: a TBL module to teach evidence-based study strategies. Team-Based Learning Collaborative 24th Annual Conference; 2025 Nov 5-7; Orange, CA. Available from: https://julnet.swoogo.com/tblc25/oralabstracts

**Invited presentations**

O'Neal A, Smith B. Invited speakers. Building and growing a community of wellness and help-seeking through peer support programs. Association of American Medical Colleges Learn Serve Lead; 2024 Nov 9; Atlanta, GA.

O'Neal A. Invited speaker. Individual learning plans and their place in undergraduate medical education. Medical Education Learning Specialists Annual Meeting 2024; 2024 Nov 7; Atlanta, GA.

O'Neal A, Ridgeway L, Smith B, Williams, D. Invited speakers. The facets of a medical student: a wrap-around approach to medical student support. 2025 Southern Group on Educational Affairs, Southern Group on Student Affairs, Southern Organization of Student Representatives Joint Regional Conference; 2025 Apr 29; Miami, FL.

Williams DS, O'Neal A, Barefoot RC, Hogans M, Mathus AK. Invited speakers. Peer-powered learning: fostering collaborative growth and achievement through a peer academic leadership program. Medical Education Learning Specialists Annual Meeting 2024; 2024 Nov 7; Atlanta, GA. Available from: https://virtual.oxfordabstracts.com/event/24675/program?date=%222024-11-7%22

**Pierce, Melisa H, Ed.D, MPA**
**Invited presentations**

Pierce M. Invited speaker. Empowering accreditation: exploring innovative strategies and dynamic tools for continuous improvement. Assessment Institute; 2024 Oct 29; Indianapolis, IN.

Pierce M. Invited speaker. Maximizing the impact of continuous quality improvement committees: driving innovation and excellence in medical education. Association of American Medical Colleges Conference Learn Serve Lead; 2024 Nov 9; Atlanta, GA.

Pierce M. Invited speaker. Empowering accreditation: exploring innovative strategies and dynamic tools for continuous improvement [virtual presentation]. Embry-Riddle Aeronautical University Continuous Improvement Summit; 2025 Feb 27; Daytona Beach, FL.

Pierce M. Invited speaker. Best practices in CQI [virtual presentation]. Accreditation Preparation & Quality Improvement Annual Conference; 2025 May 21; Detroit, MI.

Pierce M, Williams D. Invited speakers. Best practices in managing the DCI for LCME accreditation through continuous quality improvement. 2025 Southern Group on Educational Affairs, Southern Group on Student Affairs, Southern Organization of Student Representatives Joint Regional Conference; 2025 Apr 29; Miami, FL.

Pierce M, Williams D. Invited speakers. The DCI overture: setting the stage for accreditation readiness (Part 1) [virtual presentation]. Accreditation Preparation & Quality Improvement Annual Conference; 2025 May 21; Detroit, MI.

Pierce M, Williams, D. Invited speakers. The DCI encore: elevating CQI through collaboration (Part 2) [virtual presentation]. Accreditation Preparation & Quality Improvement Annual Conference; 2025 May 21; Detroit, MI.

**Professional recognitions**

Chair of the National Accreditation Preparation and Quality Improvement (APQI) Steering Committee.

**Williams, David S, PhD., MPA**
**Publications:**
**Abstracts**

Barefoot RC, Williams DS. Boosting student self-efficacy: a peer-led approach to promoting evidence-based learning strategies. Medical Education Learning Specialists Annual Meeting 2024; 2024 Nov 7-8; Atlanta, GA. Abstract no. 64.

Estis J, Clements-Jewery H, Williams S, O'Neal A, Williams D. Empowering academic success in medical education: a TBL module to teach evidence-based study strategies. Team-Based Learning Collaborative 24th Annual Conference; 2025 Nov 5-7; Orange, CA. Available from: https://julnet.swoogo.com/tblc25/oralabstracts

Hogans M, Mathus A, Williams DS. From concept to practice: crafting an innovative peer-to-peer case-based learning program for pre-clerkship medical education. Medical Education Learning Specialists Annual Meeting 2024; 2024 Nov 7-8; Atlanta, GA. Abstract no. 76.

Kreitz N, Williams DS. Opioid education and prevention from a medical student perspective. Association of American Medical Colleges Conference Learn Serve Lead; 2024 Nov 8-12; Atlanta, GA.

**Invited presentations**

Estis J, Martin C, Williams D. Invited speakers. Lost in learning assessment lingo? Let's talk strategies for promoting learning improvement through shared understanding. Assessment Institute; 2024 Oct 29; Indianapolis, IN.

Estis J, Williams D. Invited speakers. LevelUP student learning and success with ePortfolios: making the most of what you have. Assessment Institute; 2024 Oct 28; Indianapolis, IN.

O'Neal A, Ridgeway L, Smith B, Williams D. Invited speakers. The facets of a medical student: a wrap-around approach to medical student support. 2025 Southern Group on Educational Affairs, Southern Group on Student Affairs, Southern Organization of Student Representatives Joint Regional Conference; 2025 Apr 29; Miami, FL.

Pierce M, Williams D. Invited speakers. The DCI overture: setting the stage for accreditation readiness (Part 1) [virtual presentation]. Accreditation Preparation & Quality Improvement Annual Conference; 2025 May 21; Detroit, MI.

Pierce M, Williams, D. Invited speakers. The DCI encore: elevating CQI through collaboration (Part 2) [virtual presentation]. Accreditation Preparation & Quality Improvement Annual Conference; 2025 May 21; Detroit, MI.

Williams D. Invited speaker. Let's talk assessment: learning improvement to close the loop. Association of American Medical Colleges Conference Learn Serve Lead; 2024 Nov 9; Atlanta, GA.

Williams DS, O'Neal A, Barefoot RC, Hogans M, Mathus AK. Invited speakers. Peer-powered learning: fostering collaborative growth and achievement through a peer academic leadership program. Medical Education Learning Specialists Annual Meeting 2024; 2024 Nov 7; Atlanta, GA. Available from: https://virtual.oxfordabstracts.com/event/24675/program?date=%222024-11-7%22

**Professional recognitions**

Regional Member-at-Large for the Association of American Medical Colleges Conference (AAMC) Southern Region for the Association of Medical Education Learning Specialists (AMELS).

**Section V - Looking Ahead**

Priorities for the upcoming academic year include continued advancement of LCME accreditation readiness, further refinement of CQI and strategic planning processes, and expanded use of data

visualization and reporting tools. Academic Success goals include enhanced assessment of student support programming, improved tracking of PAL and office hour utilization, implementation of Navigate South for scheduling and reporting, and streamlined Step 2 CK and clinical skills ILP programming. The office will also focus on strengthening collaboration with clinical education leadership and expanding professional development and scholarly dissemination.

# 2024-2025
# Summary of Activities
# Office of Health Advancement

## Section I – Mission Alignment

The Office of Health Advancement (OHA) directly supports the College of Medicine's (COM) core mission: "to provide innovative research, education, and clinical care in a culture of excellence, discovery, and scholarship to the next generation of physicians, scientists, and educators to advance patient-centered and equitable healthcare."
Specifically, the OHA promotes education and fosters a supportive environment within the College of Medicine and health system to address healthcare disparities, thus fulfilling the commitment to equitable healthcare. OHA's work is structured around three core pillars- advancing health education, fostering a supportive environment, and promoting pathways into medicine that address health disparities, which collectively solidify the COM's commitment to training future medical leaders.
In support of the Education mission, we advance health education by integrating crucial content into formal curricula and professional development. This ensures all learners, faculty, and staff possess the knowledge and skills necessary for patient-centered, equitable care. This directly maps to LCME Element 7.6 (Cultural Competence & Health Care Disparities) and COM Educational Objectives (MK6, PC6, ICS1). Furthermore, we contribute to the Research mission by leading and collaborating on studies that identify and analyze disparities in medical education and healthcare access, such as exploring pre-medical advising variance and assessing professional identity formation of medical students. This scholarship informs best practices and contributes to the broader academic field and the culture of discovery. Finally, in service to the Clinical Care/Service mission, we provide dedicated student support, advocacy, and robust pathway programs (MedPath, PRE-Path) to create a varied and resilient workforce that serves the community. By fostering an inclusive, supportive environment, we directly support student success, well-being (ACGME VI), and the mission of service to the diverse populations of the region.

## Section II – Key Accomplishments and Impact Metrics

The Office of Health Advancement (OHA) achieved significant milestones during the 2024–2025 academic year, substantially strengthening the College of Medicine's capacity to promote awareness of healthcare disparities and support its diverse community. The following outlines the major accomplishments and the measurable impact across our three strategic pillars.

*Advancing Health Education*
A core achievement was the widespread integration of health equity content across the medical education continuum. The OHA successfully delivered a high volume of targeted professional development sessions aimed at providing participants with skills for addressing implicit biases in healthcare interactions, participating in crucial conversations, and improving team dynamics, ensuring the workforce possesses the essential skills for patient-centered care. Furthermore, we provided substantial instructional support, totaling over 40 hours of direct instruction or co-instruction in formal curricula, including the M2 Ethics sessions and Excellence in Leadership in

Medicine (ELM). This direct involvement guarantees that medical knowledge is intentionally paired with training in structural competence and bias mitigation, aligning with the "equitable healthcare" goal of the COM mission. On the scholarly front, the office initiated a significant study on *Pre-Medical Advising Disparities in Alabama*, reinforcing our commitment to data-driven educational research and discovery. Supporting the holistic development of learners, OHA was heavily involved in the dissemination of the Rx for Success programming for entering M1 students as well as the Rx for Resiliency programming for M3 students in clerkship. OHA also led the creation of the college's inaugural, multi-departmental professional identity formation (PIF) working group aimed at establishing curricular and extracurricular PIF programming.

**Impact Metrics: Education and Training Outcomes**

- **Training Volume**: 23 unique professional development and training sessions delivered to faculty, staff, residents, and students
- **Training Development**: Participation in over 13 sessions of Crucial Conversations internal training
- **Curriculum Benchmarking**: 1 comprehensive internal analysis of AAMC GQ data completed, leading to the identification of 3 critical areas for targeted well-being and learning environment intervention
- **Curriculum/Programming Development**
    - Over 120 person-hours of ELM planning and development
    - Over 132 person-hours of Professional Identity Formation (PIF) development through Whiddon College of Medicine PIF Working Group
- **Curriculum Contact**: 40+ hours (see below) of direct instructional contact/co-instruction in formal curricula (e.g., M2 Ethics, Rx for Resiliency, ELM modules).

| | | |
|---|---|---|
| Excellence in Leadership in Medicine (ELM) | M1 Students | 14 hours |
| ELM Pediatric Clerkship Lecture (Health Equity) | M3 Students | 8 hours |
| Rx for Success (OHA Co-Instruction) | M1 Students | 1 hour |
| Rx for Resiliency (OHA Co-Instruction) | M3 Students | 9 hours |
| Resilience in Medicine | Pre-Medical Students, PhD Students | 4 hours |
| ELM Primary Care Pathways | Multi-year | 2 hours |

| | | |
|---|---|---|
| Ethics/Medical Humanities (OHA Co-Instruction) | M1 and M2 Students | 5 hours |
| | | **43 hours** |

*Fostering a Supportive Environment*
The OHA recognizes that a supportive environment is foundational to student success, retention, and professional identity formation. To this end, the office maintained a safe, welcoming physical space that served as a resource hub for students seeking guidance, mentorship, and support for personal and academic challenges. A component of this support was our involvement as partner and resource for nine distinct student affinity groups and one honor society, fostering community and peer mentorship for a significant portion of the student body. The OHA served as an essential advocate for students in sensitive areas, including the adjudication of formal grievances or alleged mistreatment investigations during the reporting period, ensuring a fair and respectful learning environment. Institutionally, we contributed to broader wellness initiatives by actively participating in the JED (mental health) Task Force, reinforcing our commitment to a positive learning environment as required by LCME Element 3.6.

*Student Affinity Group Partners & Honor Societies*
- Aequitas Health Honor Society
- American Medical Women's Association (AMWA)
- Asian Pacific American Medical Student Association (APAMSA)
- Black Men in White Coats
- Culinary & Lifestyle Medicine (CALM) Interest Group
- Student National Medical Association (SNMA)
- Med-Able
- MedPride & Allies
- Muslims in Medicine (MIM)
- Medical Spanish Interest Group (MSIG)

*Promoting Pathways into Medicine*
The OHA made considerable strides in diversifying the physician and biomedical science workforce through targeted pathway development, directly contributing to the COM's goal of advancing patient-entered healthcare. The office co-directed the PRE-Path Program and successfully concluded two pilot years of the MedPath Program, which is on schedule for its official launch in 2026. These programs represent a strategic investment in supporting individuals from health disparity populations in their pursuit of medical careers. To broaden the applicant pool, OHA established and maintained coordinated outreach with four distinct external colleges/universities (including Bishop State and Alabama State University) and actively collaborated with three major community organizations like the Mobile Metropolitan Medical Society. These strategic coordination efforts strengthen the pathway to medicine, and ensure the College is proactively addressing the physician diversity gap.

**Impact Metrics: Pipeline and Outreach**

- **Pathway Program Enrollment**: Provided dedicated advising and support to 9 PRE-Path students during the intensive summer and subsequent academic year.
- **MedPath Status**: Completed 2 pilot years of the MedPath Program in preparation for its official launch in the next academic cycle.
- **Outreach Coordination**: Established and maintained coordinated pipeline outreach with 4 external colleges/universities and 3 major community organizations.
- **Scholarship Impact**: OHA served as Principal Investigator on 1 ongoing research study focused on identifying and addressing disparities in pre-medical advising in Alabama.

**Section III – Looking Ahead**

The Office of Health Advancement (OHA) is committed to building upon its foundational work and expanding its strategic impact in the coming years. Our key initiatives for the next academic cycle will focus on solidifying our educational infrastructure, fostering professional identity, and strengthening our community outreach to widen pathways to medicine, ensuring the College remains a leader in equitable healthcare training.

One of our educational priorities will be the formal creation and development of the Professional Identity Formation (PIF) curriculum. The OHA will lead this initiative, providing a structured framework for students to explore personal, learner, and professional values crucial for physician development. Simultaneously, we plan to expand the Excellence in Leadership in Medicine (ELM) curriculum to meet the evolving needs of the College of Medicine. This curricular development will be coupled with rigorous scholarship, as we will pursue subsequent research related to PIF and ELM to measure impact and contribute to the broader field of medical education.

Concurrently, OHA will deepen its commitment to promoting diverse paths into medicine by officially launching and strengthening the MedPath program. We will enhance our collaborations with the Biomedical Sciences graduate program and the PRE-Path program to create a more seamless and robust support system for students from varied backgrounds transitioning into medical and biomedical research careers. Finally, the office will actively build upon existing relationships and forge new ones with local and state-wide community organizations. By strengthening our outreach efforts, we aim to increase awareness of healthcare career opportunities and actively engage with communities to address their unique health needs and challenges, thereby extending the COM's service mission.

# 2024-2025
# Summary of Activities
# Office of Medical Alumni Relations

**Section I – Mission Alignment**

The University of South Alabama Medical Alumni Association's (MAA) purpose is to create and maintain a beneficial, lifelong relationship between its alumni physicians, researchers, and the Frederick P. Whiddon College of Medicine. We advance the College's mission through targeted support in three key areas:

- **Direct Student Support**: Enhancing the educational journey by awarding more than $50,000 in annual scholarships and providing financial backing for milestone events, including purchasing student white coats and sponsoring the White Coat Ceremony, Match Day, and Commencement.

- **Mentorship & Lifelong Learning**: Connecting past and future physicians through the MAA Student Career Exploration Mixer, while offering Continuing Medical Education (CME) programming for our graduates.

- **Alumni Engagement**: Cultivating a strong, supportive network of physicians and researchers by hosting regional alumni gatherings, MAA Reunion Weekend programming, and the Medical Alumni & Leadership Awards Ceremony.

This work is carried out by a volunteer board of directors, composed of medical alumni and medical student directors.

**2024-2025 USA Medical Alumni Association Board of Directors**

- Dr. Russell Goode, '10, *President*
- Dr. Mark Mitchell, '81, *Vice President*
- Dr. Lynn Crawford, '99, *Secretary/Treasurer*
- Dr. Romsel Ang, '01, *Chair, Alumni and Student Services Committee*
- Dr. Edward Panacek, '81, *Immediate Past President*

- 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
- Lindsay Crawford, Student Director
- Kate Lightfoot, Student Director

**Section II – Key Accomplishments**

MAA Scholarship & Award Recipients for the 2024-2025 Academic Year

| Student Name | Scholarship Received | Award Amount |
|---|---|---|
| Hannah Kelley | 2024 Medical Alumni Association Scholar | $15,000 |
| Landon Rawlins | 2024 Medical Alumni Association Scholar | $15,000 |
| Brittney Xu | 2024 Medical Alumni Association Scholar | $15,000 |
| Lindsay Crawford | 2024 Medical Alumni Legacy Scholar | $2,683 |
| Jack Jones | 2024 Medical Alumni Legacy Scholar | $2,683 |
| Madeline Wing Turnipseed | 2024 Medical Alumni Legacy Scholar | $2,683 |
| Jerry Andrews II | 2025 Medical Alumni Leadership Award | $500 |
| | **Total of 2024-2025 MAA Student Awards** | **$53,549** |

2025 Medical Alumni Reunion Weekend



The 2025 USA MAA Reunion Weekend was held from June 13 - 15 at The Lodge at Gulf State Park. More than 100 medical alumni and friends attended the weekend festivities. All Whiddon College of Medicine alumni were invited to attend, while honoring the medical classes of 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015 and 2020. The weekend provided ample opportunities for class camaraderie and networking, and featured a State of the College address by the dean, John V. Marymont, M.D., M.B.A. Alumni attendees also enjoyed the following CME lectures:

- "Advancements in Spine and Neurosurgery" with Dr. Richard Menger
- "Grief 101 for the Physician" with Dr. Anthony Galanos,'86
- "Problems in Pain Management in Alabama" with Dr. Steve Furr,'81

One of the highlights of this year's reunion was the annual Medical Alumni and Leadership Awards at the MAA Awards Dinner on Friday, June 13th. The USA Medical Alumni Association was proud to present the following recipients with their respective awards:

- Lynn E. Yonge, M.D., FAAFP, FAWM, '86, 2025 Medical Alumni Humanitarian Award
- Mark S. Williams, M.D., M.B.A, J.D., CPE, '80, 2025 Distinguished Medical Alumni Award
- Bassam A. Bassam, M.D., FAAN, 2025 Distinguished Service Award
- Jack A. Di Palma, M.D., FACP, FASGE, MACG, 2025 Distinguished Service Award
- Also presented at this ceremony was the de Juan, Chambers, Oppenheimer Healthcare Award to Robert W. Israel, M.D., FACP



2025 MAA Student Career Exploration Mixer

The USA Medical Alumni Association hosted more than 40 Whiddon College of Medicine students and 32 physicians, representing 23 unique student-requested specialties, at the MAA Student Career Exploration Mixer. The event took place Tuesday, February 4, 2025, at the Strada Patient Care Center. The mixer provided a valuable opportunity for Whiddon College of Medicine alumni to engage with current South medical students, as they explored different career paths in medicine, and built meaningful connections. The evening featured speed-interview-style rotations as medical students visited physician tables representing a variety of medical specialties, as requested by the students.




**Section III – Impact Metrics and Scholarly Works**

2024-2025 USA Medical Alumni Association Fundraising Results

The USA MAA is grateful for the funds raised through alumni support:

MAA Annual Fund contributions: $30,890.04
MAA Membership contributions: $26,825.00

These contributions supported a variety of medical student and alumni events and awards, including the following:

- Over $50,000 in student scholarships and sponsored white coats
- Financial support for student milestones (Match Day, Commencement, White Coat Ceremony)
- Student engagement activities, including Career Exploration Mixers and campus pop-ups
- Alumni networking events, including Reunion Weekend and regional gatherings
- Alumni professional development and recognition (CME programming and Leadership Awards)

**Section IV – Looking Ahead**

Save the Date for the 2026 Medical Alumni Reunion, June 12 – 13 on the USA campus.

All medical alumni classes are welcome to attend this reunion weekend, which will honor the classes ending in 6 and 1: 1976, 1981, 1986, 1991, 1996, 2001, 2006, 2011, 2016, and 2021. This reunion weekend also marks the 50$^{th}$ anniversary of the founding class of the Whiddon College of Medicine.

FREDERICK P. WHIDDON COLLEGE OF MEDICINE
UNIVERSITY OF SOUTH ALABAMA

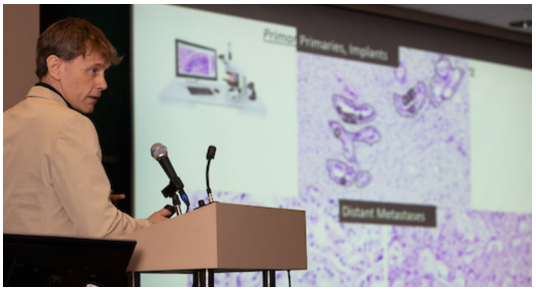
MEDICAL STUDENTS SUMMER RESEARCH

**Summer 2025**
**Summary of Activities**
**Medical Student Summer Research Program**



The 52nd Annual Medical Student Research Day was held on Friday, July 25, 2025 hosting over 100 attendees in the Medical Sciences Building for both oral and poster presentations. Fifty-four 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.

**Oliver McDonald, M.D., Ph.D.,** Associate Professor; Director, Gastrointestinal Pathology Research Program; Director, Pathology Physician-Scientist Program; Department of Pathology and Laboratory Medicine; University of Miami Miller School of Medicine, was the keynote speaker. Dr. McDonald's seminar was entitled: ***"Navigating the Path to Physician Scientist"***.






Culmination of the summer's work was the presentation of 8 oral and 63 poster presentations at the Annual Medical Student Research Day. Student presentations and their faculty sponsors were as follows:

## ORAL PRESENTATIONS

Targeting cAMP-phosphodiesterase 4 (PDE4) as a novel pharmacologic approach for Therapeutic Hypothermia. **Bea Richardson**. Second Year Medical Student. Sponsored by Wito Richter, Ph.D., Department of Biochemistry and Molecular Biology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

ASSESSING THE DISASTER PREPAREDNESS OF CLINICAL STAFF AT AN ACADEMIC HOSPITAL SYSTEM: AN INITIAL NEEDS ASSESSMENT. **Nicole Anthony**. Rising Sophomore. Sponsored by Lisa Moreno-Walton, M.D. Department of Emergency Medicine. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

STAT3 SUPPRESSION LEADS TO MACROPHAGE DYSFUNCTION IN JOB SYNDROME. **Seth McClendon**, M.S. Rising Sophomore. Sponsored by Robert Barrington, Ph.D, Department of Microbiology & Immunology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL..

THE IMPACT OF IMPLEMENTING A GERIATRIC TRAUMA PROTOCOL. **Isabella Elortegui**. Rising Sophomore. Sponsored by Maryann Mbaka MD, MBA, FACS. Department of Trauma Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL..

URINARY PYRIDONE METABOLITES AND PATIENT RISK FACTORS IN RECURRENT UTI. **Chris Novellino**. Rising Second Year Medical Student. Sponsored by Lorie Fleck, MD. Department of Urology. Co-mentored by Allyson Shea, Ph.D. Department of Microbiology and Immunology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

THE PREDICTIVE VALUE OF MRSA NASAL PCR ON NON-PULMONARY MRSA INFECTION. **Azriel Boles**. Rising Sophomore. Sponsored by Yann-Leei Larry Lee, MD. Department of Trauma Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

COMPARISON OF HER2 SCORING BY DIRECT MICROSCOPY VS. DIGITAL IMAGE-ASSISTED INTERPRETATION USING AN FDA-APPROVED APERIO SYSTEM: COST-BENEFIT ANALYSIS. **Maddison Hill**. Rising Sophomore. Sponsored by Nestor Dela Cruz, Maha Babker, Huseyin Kilic, H. Chavarria Bernal. Department of Pathology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

COMPARISON OF ANTERIOR VERSUS POSTERIOR SURGICAL APPROACHES FOR MAINTAINING CORONAL BALANCE IN BAO TYPE A, B, AND C SPINAL DEFORMITIES. **Hunter Moore**. Rising Sophomore. Sponsored by Dr. Richard Menger, M.D., MPA. Director of the USA Health Spine Institute and Chief of Complex Spine Surgery at USA Health. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

## POSTER PRESENTATIONS

EXPANDING THE RECONSTRUCTIVE FOOTPRINT: LESSONS FROM THE FIRST 18 MONTHS OF A RURAL URETHROPLASTY PROGRAM. **Dylan Peterson**. Incoming Freshman. Sponsored by Jatinder Kumar, M.D., Department of Urology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

ARTS FOR JUSTICE: UPLIFTING VOICES OF YOUTH IMPACTED BY GUN VIOLENCE. **Isabelle (Belle) Morris**. Rising Sophomore. Sponsored by Ashley Williams Hogue, MD, FACS, Department of Surgery, USA Health Center for Healthy Communities, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

EVALUATING THE CLINICAL RELEVANCE OF PHOSPHODIESTERASE 10 IN COLORECTAL CANCER. **Brooks Pruitt**. Incoming Freshman. Sponsored by Veronica Ramirez-Alcantara, Ph.D., Mitchell Cancer Institute, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

CONCERN ABOUT GUN VIOLENCE & SAFETY TRANSCENDS RATES AND PROXIMITY. **Abigail Remick**. Rising Freshman. Dr. Ashley Williams MD FACS. Department of Surgery, Division of Trauma, Acute Care Surgery & Burns. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

INVESTIGATING THE ROLE OF AMYLOID-β IN URINARY TRACT INFECTION. **Avery Jones**. Rising Sophomore. Sponsored by Allyson Shea, Ph.D. Department of Microbiology & Immunology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

SLEEVE GASTRECTOMY OUTCOMES ARE IMPROVED WITH CHANGE IN STAPLING TECHNIQUE. **Margaret Lloyd**. Second Year Medical Student. Sponsored by William Richards, M.D., Department of Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

IDENTIFYING BARRIERS TO HYPERTENSION CONTROL AT FRANKLIN SOUTH BALDWIN FAMILY HEALTH CENTER: FOUNDATIONS FOR A QUALITY IMPROVEMENT PROJECT. **Kaitlyn Riggins**. Rising Second-Year Medical Student. **Shannon McAuliffe**. Rising Second-Year Medical Student. Sponsored by Dr. Casey L. Daniel, Ph.D., M.P.H., Derek Werthmann, Ph.D., M.P.H., Department of Family Medicine, Primary Care Pathway Program, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

THE EFFECT OF TRAUMA IMAGING ON PANCREATIC CANCER DIAGNOSIS. **Trinity Upshaw** B.A. Incoming Freshman. Sponsored by Maryann Mbaka M.D., MBA, F.A.C.S., Department of Surgery, Division of Trauma, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

IMPORTANCE OF THR498 AND THR500 OF PBP2 IN NEISSERIA GONORRHOEAE CEPHALOSPORIN-RESISTANT STRAIN H041. **Juanita Monteiro-Pai**. Incoming Freshman. Sponsored by Dr. Christopher Davies, Ph.D., Department of Biochemistry, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

THE EFFECTS OF METFORMIN AND GLP-1 RECEPTOR AGONISTS ON β-CELL HEALTH VIA mTORC1 AS A MODULATOR. **Shriya Patel**. Incoming M1. Sponsored by Lucia Plant, PhD., Department of Biochemistry and Molecular Biology, University of South Alabama, Fredrick P. Whiddon College of Medicine, Mobile, AL.

COMPARING COMPLICATIONS AND CANCER DETECTION RATES OF TRANSPERINEAL VS. TRANSRECTAL PROSTATE BIOPSIES: A RETROSPECTIVE ANALYSIS. **Ashlyn Conner**. Sponsored by Jatinder Kumar, MD. Department of Urology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

IMPROVING HYPERTENSION CONTROL AT NORTH BALDWIN FAMILY MEDICAL CENTER, BAY MINETTE, AL. **Mariana Boutwell**. Rising Sophomore. **Brandi Broome**. Rising Sophomore. Evie Wu. Rising Freshman. Sponsored by Casey Daniel, Ph.D., M.P.H., Derek Werthmann, Ph.D., M.P.H. and Allen Perkins, M.D., M.P.H. Primary Care Pathway. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

TARGETING PDE4 AS A NOVEL THERAPEUTIC APPROACH FOR SJÖGREN'S SYNDROME XEROSTOMIA. **Sydney Helton**. Rising M2. Sponsored by Wito Richter, Department of Biochemistry & Molecular Biology, Frederick P. Whiddon College of Medicine, University of South Alabama, Mobile, AL, USA.

CHARACTERIZING UROPATHOGENS AND ANTIMICROBIAL RESISTANCE ACROSS PATIENT POPULATIONS. **Carolene Fouty**. Rising Sophomore. Sponsored by Kristie Blanchard-Burch, M.D. and Allyson Shea, Ph.D., Department of Urology, University of South Alabama Fredrick P. Whiddon College of Medicine, Mobile, AL.

PRESENCE OF INCIDENTAL PROSTATE CANCER AFTER ROBOTIC SIMPLE PROSTATECTOMY FOR BENIGN PROSTATIC ENLARGEMENT: INCIDENCE AND CLINICAL CHARACTERISTICS. **Andrew Slauterbeck**. Rising Sophomore. Sponsored by Dr. Jatinder Kumar, M.B.B.S., M.S., M.Ch., M.D., and Dr. Marjorie Jones, M.D., Department of Urology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

EXAMINING HIGH UTILIZATION OF OBSTETRIC AND GYNECOLOGIC EMERGENCY SERVICES. **Anne Elizabeth Crowell**. Rising Sophomore. Candice P. Holliday J.D, M.D. USA OB/GYN Department. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

EFFECTS OF STRICT ELECTROLYTE PROTOCOL ON RESOLUTION OF SMALL BOWEL OBSTRUCTION. **Landon Rawlins**. Rising M2. Sponsored by Thomas Capasso, M.D., Department of Surgery, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

DENGUE 2 VIRUS INFECTION OF PRIMARY HUMAN DERMAL FIBROBLAST CELLS. **Ayanna Whittaker**. Incoming Freshman. Sponsored by Jonathan O. Rayner, Ph.D., Department of Microbiology and Immunology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

QI: ANALYZING HEALTH LITERACY AND HYPERTENSION CONTROL AT USA FAMILY MEDICINE CLINIC. **McKenzie Parker, Kyle Tracey**, Rising Sophomores. Dr. Casey Daniel, Dr. Derek Werthmann, USA Primary Care Pathway. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

THE VALUE OF SPINAL DEFORMITY SURGERY. **Alexander Stokes**. Rising Sophomore. Sponsored by Dr. Richard Menger, M.D., MPA. Director of the USA Health Spine Institute and Chief of Complex Spine Surgery at USA Health. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

ESTABLISHING BASELINE DATA FOR A HOSPITAL-BASED VIOLENCE INTERVENTION PROGRAM. **Seline M. Renfroe**. Rising Sophomore. Sponsored by Ashley Williams, MD, FACS Department of Surgery, USA Health Center for Healthy Communities, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

PREDICTIVE VALUE OF GLASCOW COMA SCALE ON NEED FOR SYNCHRONOUS GASTROSTOMY WITH TRACHEOSTOMY. **Hannah Kelley**. Rising MS2. Dr. Yann-Leei Lee. Department of Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

WHAT WE HAVE LEARNT FROM QUANTITIVATIVE MEASUREMENTS AND MORPHOMETRIC ANALYSIS of ANTERIOR, POSTERIOR AND COMBINED PETROSECTOMIES: SYSTEMIC REVIEW OF CADAVERIC STUDIES. **Tessa Allen**. Rising M2. Mehdi Khaleghi, MD; Neurosurgery Skull Base Fellow. Sponsored by Jai Deep Thakur, MD. Department of Neurosurgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

SOCIAL DETERMINANTS OF HEALTH FOR CUTANEOUS MELANOMA IN THE DEEP SOUTH: LACK OF INSURANCE ASSOCIATED WITH ADVANCED DISEASE. **Abigail Bensman**. Incoming Sophomore. Sponsored by Dr. J. Harrison Howard, MD, Department of Surgery, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

UTOPIAN VERSUS ACTUAL LENGTH OF STAY IN SPINE PATIENTS: IDENTIFYING BARRIERS TO DISCHARGE AND OPTIMIZING HOSPITAL STAY DURATION **Connor Holm**. Incoming Freshman. Sponsored by Richard Menger, M.D., M.P.A., Department of Neurosurgery, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

BROMELAIN-DEBRIDEMENT IN GREATER THAN 20% TBSA BURNS. **Fion Chang**. Rising Sophomore. Sponsored by Dr. Andrew Bright, D.O., Department of Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

ADOPTING KEYHOLE STRATEGIES IN MICROVASCULAR DECOMPRESSION SURGERY FOR VASCULAR COMPRESSION ETIOLOGIES IN EARLY CAREER ACADEMIC PRACTICE: OUTCOMES, TECHNICAL NUANCES, AND COMPLICATION AVOIDANCE. **Asa Barnett**. Rising Sophomore. Sponsored by Jai Deep Thakur, M.D., Department of Neurosurgery, University of South Alabama, Frederick P. Whiddon College of Medicine, Mobile, AL.

RIG IMPLEMENTATION TO DECREASE COMPLICATIONS AND HEALTHCARE UTILIZATION IN TRAUMA PATIENTS. **T. Nicole Lemon**. Rising Sophomore. Sponsored by Dr. Caleb Butts, M.D., F.A.C.S., Department of Trauma Surgery, USA Health University Hospital, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

ESTIMATION OF THE DISTRIBUTIONS OF AUTOFLUORESCENT MOLECULES WITHIN MOUSE COLON USING EXCITIATION SCAN-BASED HYPERSPECTRAL IMAGING. **Eliott Franklin**. Incoming M1. Sponsored by Drs. Silas J. Leavesley, Chandrani Sarkar, and Thomas C. Rich. Departments of Chemical and Biomolecular Engineering, Pathology, and Pharmacology, and the Center for Lung Biology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

SELECTING IMAGING PARAMETERS TO OPTIMIZE RESOLUTION AND SPEED IN MULTILABEL TIMELAPSE IMAGING EXCITATION-BASED HYPERSPECTRAL IMAGING. **Robert LeDoux**, Rising Sophomore, Sponsored by Drs. Leavesley & Rich, Departments of Chemical and Biomolecular Engineering, Pharmacology and the Center for Lung Biology, University of South Alabama College of Medicine, Mobile AL.

IMPACT OF SOCIAL DETERMINANTS OF HEALTH ON MULTIPLE SCLEROSIS TREATMENT OUTCOMES. **Emma Hendrix**. Rising Sophomore. Sponsored by William Kilgo, MD. Department of Neurology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

BONE QUALITY IN SPINAL SURGERY PATIENTS; COMPARING HOUNSFIELD UNIT CALCULATIONS ACROSS DEXA, REGULAR CT, AND CT MYELOGRAM. **Robert Evans**. Rising Sophomore. Sponsored by Dr. Richard Menger, M.D., MPA. Director of the USA Health Spine Institute and Chief of Complex Spine Surgery at USA Health. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

ATTITUDES AND BEHAVIORS OF MEDICAL STUDENTS TOWARD SOM COMMUNICATION STRATEGIES: A MIXED METHODS STUDY. **Franklin Jackson**. Rising M2. Sponsored by Melisa Pierce, EdD, MPA. Office of Accreditation and Planning, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

DEFINING NOVEL SDRNA CONTRIBUTIONS TO PANCREATIC CANCER. **Trace Naman**. Rising Sophomore. Sponsored by Glen Borchert, Ph.D., Department of Pharmacology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

THE IMPACT OF LACTIDE-BASED COPOLYMER ON DONOR SITE PAIN AND HEALING. **Jonathan Mallard**. Rising Sophomore. Dr. Andrew Bright D.O. Department of Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

INTERFERON STIMULATED GENE EXPRESSION DURING NEUROBORRELIOSIS IS ENRICHED NEAR VENTRICULAR AND VASCULAR STRUCTURES. **London Hinton**. Rising Sophomore. Sponsored by Timothy Casselli, Ph.D., Department of Microbiology and Immunology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

EVALUATING UTILITY OF ROUTINE PERI-OPERATIVE IMAGING IN PATIENTS WITH PENETRATING CARDIAC INJURIES. **J. Tillery French**. Rising Sophomore. Sponsored by Dr. Charles Butts, MD, Department of Surgery, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

A TECHNICAL NOTE ON THE ENDOSCOPIC VISUALIZATION OF BLIND SPOTS IN KEYHOLE AND TRADITIONAL SKULL BASE CRANIOTOMIES, **Garrett A. Dyess**, Rising MS2, Dr. Jai D. Thakur, Department of Neurosurgery, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

SELLAR COLLISION TUMORS: A CASE SERIES OF HISTOLOGICALLY DISTINCT LESIONS IN THE SELLA AND PARASELLAR REGION. **Jacob Holston**, Rising Sophomore. Sponsored by Jai Thakur, M.D., Department of Neurosurgery University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

LONGITUDINAL HOST CUTANEOUS RESPONSE TO TICK BLOODMEAL ACQUISITION. **Paul Doan**. Rising Sophomore . Sponsored by Kevin Macaluso, Ph.D., Department of Microbiology and Immunology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

INSTITUTIONAL VALIDATION OF MODIFIED BRAIN INJURY GUIDELINES (MBIG) AND ROLE OF PRE-INJURY ANTICOAGULATION AND ANTIPLATELET THERAPY IN MBIG SCORING. **Dhruvika Patel**. Rising Sophomore. Dr. Steven Miller, MD. Department of Surgery, Division of Trauma. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

THE PSEUDOMONAS AERUGINOSA TYPE III SECRETION SYSTEM EFFECTOR EXOU SEQUENTIALLY ACTIVATES THE NLRC4 AND NLRP3 INFLAMMASOMES IN BONE MARROW DERIVED MACROPHAGES. **Avery King**. Rising Sophomore. Sponsored by Jonathon P. Audia, PhD., Department of Microbiology and Immunology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

A METHOD FOR ISOLATING PERSISTER CELLS IN S. ENTERICA. **Luke Love**. Rising Sophomore. Sponsored by Glen Borchert, Ph.D., Department of Pharmacology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

IMPROVING HYPERTENSION CONTROL AT FRANKLIN PRIMARY MEDICAL MALL IN MOBILE, ALABAMA. **Peyton Brewer**. Rising Sophomore. Tahj Jones. Rising Sophomore. Sponsored by Casey Daniel, Ph.D., MPH, Department of Epidemiology and Public Health, Allen Perkins, M.D., MPH, Department of Family Medicine, Derek Werthmann, Ph.D., MPH, Department of Family Medicine, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

EVALUATING THE EFFECTS OF TICK SALIVARY PROTEIN IMMUNIZATION ON TICK FEEDING AND Rickettsia parkeri TRANSMISSION IN MICE. **Albert Kim**. Rising Sophomore. Sponsored by Dr. Meghan Hermance & Dr. Eliane Esteves. Laboratory of Infectious Diseases. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

EXAMINING EXPECTATIONS FOR TIMELINESS OF CARE IN EMERGENCY DEPARTMENTS. **Lucian Hodges**. Rising sophomore. Sponsored by Dr. Candice Holliday, M.D. Department of OB/GYN. Dr. Reshvinder Dhillon, M.D. Department of Emergency Medicine. Dr. Christopher Musselwhite, M.D. Department of Emergency Medicine. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

MANAGEMENT OF SMALL BOWEL OBSTRUCTION (SBO): HAVE WE MOVED THE NEEDLE? **Drew McDaniel**. Rising M2. Thomas Capasso, MD. Department of Trauma Surgery. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

PREVALENCE OF SCURVY IN SURGICAL PATIENTS. **Mariam Hashmi**, M2. Sponsored by William Richards, M.D., Department of Surgery, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

INVESTIGATION OF ANTIMICROBIAL RESISTANCE TRENDS IN URINARY TRACT INFECTIONS ACROSS THE USA HEALTHCARE SYSTEM. **Mary Frances Powell**. Rising Sophomore. Sponsored by Allyson E. Shea, Ph.D., Department of Microbiology & Immunology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

RISK OF RECURRENT UTIs IN PATIENTS WITH EOSINOPHILIC CYSTITIS AND ULCERATIVE CYSTITIS. **Ian Hall**. Rising Sophomore. Marjorie Jones, M.D.. Sponsored by Lorie Fleck, M.D., F.A.C.S.. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

BRIDGING THE GAP: IMPROVING THE QUALITY OF HYPERTENSION MANAGEMENT AND PATIENT UNDERSTANDING AT AN FQHC IN SEMMES, AL. **Katelynn Murry and Veronica Sanders**. Rising Sophomores. Dr. Allen Perkins. Primary Care Pathway Program. University of South Alabama, Frederick P. Whiddon College of Medicine, Mobile, AL.

A CASE OF FIBROADENOMA IN THE AXILLA. **Brandon Schonour**. M4. Sponsored by Margaret Mowry, M.D., Department of Radiology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

SYNTHESIS AND ANTIMICROBIAL TESTING OF NOVEL BORONIUM-BASED SALTS AS REPLACEMENTS FOR QUATERNARY AMMONIUM COMPOUNDS IN DISINFECTANTS. **Edgar Escalante**. Rising Undergraduate Junior. Sponsored by James H. Davis, Jr. Ph.D., Department of Chemistry and Terrence J. Ravine, Ph.D., Department of Biomedical Sciences, University of South Alabama, Mobile, Al.

EVALUATING PROTEIN UBIQUITINATION IN PULMONARY MICROVASCULAR ENDOTHELIAL CELLS DURING PSEUDOMONAS AEURUGINOSA EXOENZYME Y INTOXICATION. **Jack Spedale**. Rising Undergraduate Senior. Sponsored by Ronald D. Balczon, Ph.D., Department of Biochemistry and Molecular Biology/Center for Lung Biology and Terrence J. Ravine, Ph.D., Department of Biomedical Sciences, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

PROBING A POTENTIAL LINK BETWEEN MITOCHONDRIAL RIBOSOMAL BIOGENESIS AND MITOCHONDRIAL DNA REPLICATION. **Parichat Papatang**. Rising Junior, Chemical Engineering Undergraduate. Sponsored by Mikhail F. Alexeyev, Ph.D. Department of Physiology & Cell Biology University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

MEASUREMENT OF AGONIST-INDUCED cAMP SIGNALS IN LNCaP CELLS USING EXCITATION SCAN-BASED HYPERSPECTRAL IMAGING APPROACHES. **Anna Kate Driver**. Undergraduate. Sponsored by Thomas C. Rich, Ph.D., Department of Pharmacology, and Silas J. Leavesley, Ph.D., Department of Chemical and Biomolecular Engineering, Center for Lung Biology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

ASSESSING UNDERLYING FACTORS DRIVING BANDAVIRUS ACQUISITION AND DISSEMINATION KINETICS WITHIN HAEMAPHYSALIS LONGICORNIS TICKS. **Maggie Schuler**. Undergraduate Student. Sponsored by Meghan Hermance Ph.D., Department of Microbiology and Immunology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

THE EFFECT OF IPMK INHIBITION ON MTORC1 SIGNALING IN INS-1 PANCREATIC BETA CELLS. **Goodwin Holley**. Rising Junior. Sponsored by Lucia Plant Ph.D., Department of Biochemistry and Molecular Biology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

RAPID EXCITATION-SCAN BASED HYPERSPECTRAL IMAGING FOR REAL-TIME MEASUREMENT OF cAMP SIGNALS IN LNCaP CELLS. **Taylor Jackson**. Incoming Undergraduate Junior. Sponsored by Drs. Thomas Rich and Silas Leavesley, Departments of Chemical and Biomolecular Engineering, Pharmacology and the Center for Lung Biology, University of South Alabama College of Medicine, Mobile AL.

THE ROLE OF THE CHOROID PLEXUS IN EARLY CNS INVASION BY BORRELIA BURGDORFERI. **Jack Stagg**. Senior. Sponsored by Timothy Casselli, Ph. D., Department of Microbiology and Immunology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

ASSESSMENT OF HYPOXIA-INDUCED TRANSCRIPTIONAL CHANGES IN HUMAN LUNG ENDOTHELIAL CELLS USING NANOPORE SEQUENCING. **Akshaya Naidu**. Rising Junior. Sponsored by Ade Haastrup, Madison Williams, Emily Ward, Justin T. Roberts, Department of Pharmacology, Center for Lung Biology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

FROM GERMLINE TO AMYLOID: SOMATIC MUTATION-DRIVEN AGGREGATION OF JD-LV 2-14 IN AL AMYLOIDOSIS. **Abigail Hulgin**. Rising Junior. Sponsored by Luis Del Pozo-Yauner, M.D. Ph. D., Department of Pathology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

OBESITY AND TRIPLE-NEGATIVE BREAST CANCER PROGRESSION. **Sarah Atterberry**. Rising Senior. Sponsored by Chandrani Sarkar, Ph.D., Cancer Biology Program, Mitchell Cancer Institute. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

## Clyde G. “Sid” Huggins Medical Student Research Awards

The Clyde G. “Sid” Huggins Medical Student Research Awards were presented to the following: **Seth McClendon**, rising sophomore medical student, for the best oral presentation award. Three medical students were presented awards for best poster presentations: **London Hinton, Paul Doan,** and **Mariam Hashmi**, all rising sophomores. Each winner was presented with a plaque of recognition and cash award. The award honors the memory of Clyde G. "Sid" Huggins, who served as the first dean of students for the USA College of Medicine.



**Seth McClendon**



**London Hinton**



**Paul Doan**



**Mariam Hashmi**

**Oral**

STAT3 SUPPRESSION LEADS TO MACROPHAGE DYSFUNCTION IN JOB SYNDROME. **Seth McClendon**, M.S. Rising Sophomore. Sponsored by Robert Barrington, Ph.D, Department of Microbiology & Immunology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

**Poster**

INTERFERON STIMULATED GENE EXPRESSION DURING NEUROBORRELIOSIS IS ENRICHED NEAR VENTRICULAR AND VASCULAR STRUCTURES. **London Hinton**. Rising Sophomore. Sponsored by Timothy Casselli, Ph.D., Department of Microbiology and Immunology. University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

LONGITUDINAL HOST CUTANEOUS RESPONSE TO TICK BLOODMEAL ACQUISITION. **Paul Doan**. Rising Sophomore. Sponsored by Kevin Macaluso, Ph.D., Department of Microbiology and Immunology, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

PREVALENCE OF SCURVY IN SURGICAL PATIENTS. **Mariam Hashmi**, M2. Sponsored by William Richards, M.D., Department of Surgery, University of South Alabama Frederick P. Whiddon College of Medicine, Mobile, AL.

# Extramural Funding to the Whiddon College of Medicine

| $24.7M<br>Total FY25 Funding | 92<br>Awards |
|---|---|

## Summary

The College of Medicine ended FY25 with 92 extramural awards totaling $24.7 million, a 6.5% increase in funding compared to FY24. The main reason was a 12.2% increase in National Institutes of Health (NIH) funding and a 28.4% increase in subawards from collaborations with other universities.

| | FY24 | FY25 |
|---|---|---|
| Total number of awards | 94 | 92 |
| Funding ($) | | |
| Total | 23,174,414 | 24,674,066 |
| NIH | 7,353,734 | 8,250,654 |
| Non-NIH Federal | 6,438,983 | 6,676,332 |
| State and Local | 4,315,375 | 4,350,357 |
| Foundations | 3,190,332 | 2,747,534 |
| Collaboration Subawards | 1,875,990 | 2,410,011 |

Overall, federal funding accounts for 70% of the FY25 portfolio. NIH support is the majority of this, with $8.3 million in direct awards and an additional $2.0 million via subawards. Other federal support totaled $6.7 million, comprising NSF, HRSA, and DOD funding. State and local funding remained essentially the same in FY25 compared to FY24, primarily comprising support for the Center for Disaster Healthcare Preparedness, maternal health, and newborn screening programs. Foundation support decreased by $442K in FY25.

## Departmental Funding

Most COM departments or centers receive extramural support, with some departments having a particularly strong performance in FY25:

**Biochemistry and Molecular Biology** more than doubled its portfolio, from $1.5M to $3.3M. An American Cancer Society Research Scholar Grant, an NSF award and a new NIH R37 were mostly responsible for the increase.

**Pathology** grew from $557K to $1.9M (up 247%), driven by a new American Cancer Society Research Scholar Grant and a Department of Defense award to faculty working at the Mitchell Cancer Institute.

**Family Medicine** remained the COM's top-funded department at $5.4M, in large part due to major HRSA workforce development and training grants.

| Department/Center | FY24 ($) | FY25 ($) | Change ($) |
|---|---|---|---|
| **Family Medicine** | 4,705,469 | 5,429,964 | +724,495 |
| **Pharmacology** | 3,453,229 | 3,479,629 | +26,400 |
| **Biochemistry & Molecular Biology** | 1,523,112 | 3,330,507 | +1,807,395 |
| **Physiology & Cell Biology** | 4,919,639 | 2,635,281 | −2,284,358 |
| **Microbiology & Immunology** | 1,968,025 | 2,580,527 | +612,502 |
| **Ctr. Disaster Healthcare Prep.** | 3,200,375 | 2,571,357 | −629,018 |
| **Pathology** | 556,564 | 1,930,064 | +1,373,500 |
| **Center for Healthy Communities** | 1,543,149 | 1,706,588 | +163,439 |
| **Internal Medicine** | 95,499 | 455,035 | +359,536 |
| **Pediatrics** | 239,275 | 442,233 | +202,958 |
| **OB/GYN** | 151,499 | 73,456 | −78,043 |
| **Neurology** | 21,810 | 39,425 | +17,615 |

## Overall Perspective

Despite fears over cuts to federal support, the increase in funding for FY25 indicates a very successful year for the College. Prospects for FY26, however, are more uncertain, due to disruption in the review processes at the NIH and fewer Notice of Awards being issued so far.

**Biochemistry**

| Principal Investigator | Co-Investigators | Sponsor | Award Title | Sponsor Award Number | Fiscal Year Funding |
|---|---|---|---|---|---|
| Davies, Christopher | | National Institutes of Health - NIH | Molecular mechanism of cephalosporin resistance of N. gonorrhoeae conferred by mutated PBP2 | 5R01AI164794-04 | $696,185.00 |
| Davies, Christopher | | Virginia Commonwealth University - VCU sub-award | PlzA, cyclic di-GMP receptors and the enzootic cycle of Lyme disease | 5U01AI169840-04 | $129,526.00 |
| Davies, Christopher | | Medical University of South Carolina - MUSC sub-award | Inhibition of hepatic (V)LDL production by a novel antagonist of carboxyl esterase 1 | 1R01DK136328-03 | $114,621.00 |
| Grelet, Simon | Alexeyev, Mikhail Hunter, Rachel Migaud, Marie | National Institutes of Health - NIH | Intercellular Transfer of Mitochondria at the Nerve-Cancer Interface | 1R37CA292711-01A1 | $369,868.00 |
| Plant, Lucia | | National Institutes of Health - NIH | Unconventional regulation of mTORC1 signaling by inositol phosphate: implications for nutrient-induced premature aging | 7R21AG071975-03 | $45,634.00 |
| Plant, Lucia | | National Institutes of Health - NIH | Unconventional regulation of mTORC1 signaling by inositol phosphate: implications for nutrient-induced premature aging | | $197,117.00 |
| Prakash, Aishwarya | | University of Nebraska | Aberrant DNA Repair and Lupus | 34-1905-2279-201 | $25,556.00 |
| Prakash, Aishwarya | Johnsten, Tom Benton, Ryan | National Science Foundation - NSF | Mitochondrial ARtificial Targeting (or MART) to Augment mtDNA Repair | 2450845 | $300,000.00 |

| | | | | | |
|---|---|---|---|---|---|
| Prakash, Aishwarya | Lee, Kevin<br>Roberts, Justin | American Cancer Society - ACS | Mutagenic Inhibition of DNA Repair by Cadmium | RSG-25-1412630-01-DMC | $946,000.00 |
| Richter, Wito | | National Institutes of Health - NIH | Targeting PDE4 in Sjögren's Syndrome Xerostomia | 1R21DE034562-01A1 | $429,000.00 |
| Richter, Wito | | Cystic Fibrosis Foundation - CFF | Selective inactivation of PDE4 isoforms as a Therapeutic Approach for Cystic Fibrosis. | 004903F222 | $77,000.00 |
| | | | | **Total:** | **$3,330,507.00** |

**Center for Disaster Healthcare Preparedness**

| Principal Investigator | Co-Investigators | Sponsor | Award Title | Sponsor Award Number | Fiscal Year Funding |
|---|---|---|---|---|---|
| Guerry, Jenni | | Alabama Department of Public Health - ADPH | Fiscal Agent for Alabama Healthcare Coalitions Program | C30116224C | $892,205.00 |
| Guerry, Jenni | | Alabama Department of Public Health - ADPH | Alabama Healthcare Coalition Coordination Program | C40117150A | $32,130.00 |
| Guerry, Jenni | | Alabama Department of Public Health - ADPH | Fiscal Agent for Alabama Healthcare Coalitions Program | | $877,102.00 |
| Guerry, Jenni | | Alabama Department of Public Health - ADPH | Alabama Healthcare Coalition Coordination Program | | $769,920.01 |
| | | | | **Total:** | **$2,571,357.01** |

**Center for Healthy Communities**

| Principal Investigator | Co-Investigators | Sponsor | Award Title | Sponsor Award Number | Fiscal Year Funding |
|---|---|---|---|---|---|
| Williams, Ashley | Scyphers, Stephen | National Academies of Sciences, Engineering and Medicine - NASEM | STEMM Scholars for Environmental Justice (SSEJ) Program | SCON-10001309 | $431,588.00 |
| Williams, Ashley | Francis-Shearer, Antonette | Alabama Department of Economic and Community Affairs - ADECA | USA Health's Building Safer Communities Collaborative | 2024-SC-ST-471 | $1,000,000.00 |
| Williams, Ashley | | Junior League of Mobile - JLM | USA Health Center for Healthy Communities Community Garden Project | | $10,000.00 |

| | | | | | |
|---|---|---|---|---|---|
| Williams, Ashley | | National Academies of Sciences, Engineering and Medicine - NASEM | Extending and Deepening the Impact of the STEMM Scholars for Environmental Justice Program | SCON-10001626 | $15,000.00 |
| Williams, Ashley | | Mobile County Health Department - MCHD | MOBILE COUNTY COMMUNITY HEALTH WORKER COALITION SUB-AWARD | | $250,000.00 |
| | | | | **Total:** | **$1,706,588.00** |

**Family Medicine**

| Principal Investigator | Co-Investigators | Sponsor | Award Title | Sponsor Award Number | Fiscal Year Funding |
|---|---|---|---|---|---|
| Perkins, R | | Health Resources Services Administration - HRSA | Partnering to Improve Maternal Outcomes | T34HP2151-05-00 | $599,964.00 |
| Perkins, R | | Health Resources Services Administration - HRSA | MSEP - Partnering to Transform Training | T99HP52112-03-00 | $4,000,000.00 |
| Perkins, R | | Alabama Family Practice Rural Health Board - AFPRH | Student Preceptorship FY25 | | $20,000.00 |
| Perkins, R | | Alabama Family Practice Rural Health Board - AFPRH | RHB - Student Preceptorship FY25 | | $60,000.00 |
| Perkins, R | Kirby, Elizabeth | Health Resources Services Administration - HRSA | Lower Alabama Rural Family Medicine Residency Track | P13H55211-01-01 | $750,000.00 |
| | | | | **Total:** | **$5,429,964.00** |

**Internal Medicine**

| Principal Investigator | Co-Investigators | Sponsor | Award Title | Sponsor Award Number | Fiscal Year Funding |
|---|---|---|---|---|---|
| Pack-Mabien, Ardie | Marri, Preethi Perryman, T'Shemika | University of Alabama at Birmingham - UAB | Sickle Cell Disease Treatment Demonstration Program | 000532208-SC013 | $39,767.00 |
| Pack-Mabien, Ardie | Wilson, Felicia | University of Alabama at Birmingham - UAB | Alabama Lifespan Sickle cell Tracking Access | 000540473-SC001 | $37,500.00 |
| Vandewaa, John | | Health Resources Services Administration - HRSA | USA Family Specialty Clinic | H12HA24771-13-00 | $220,367.00 |

| | | | | | |
|---|---|---|---|---|---|
| Vandewaa, John | | Health Resources Services Administration - HRSA | USA Family Specialty Clinic | H12HA24771-13-01 | $157,401.00 |
| | | | | **Total:** | **$455,035.00** |

**Microbiology and Immunology**

| Principal Investigator | Co-Investigators | Sponsor | Award Title | Sponsor Award Number | Fiscal Year Funding |
|---|---|---|---|---|---|
| Audia, Jonathon | Alexeyev, Mikhail | National Institutes of Health - NIH | The Pseudomonas aeruginosa virulence factor ExoU activates pyroptosis | 5R21AI176267-02 | $192,500.00 |
| Casselli, Timothy | | National Institutes of Health - NIH | Mechanisms of central nervous system invasion by the Lyme disease spirochete, Borrelia burgdorferi | R21AI190212-01 | $192,500.00 |
| Elliott, Michael | | American Society of Hematology | Cytotoxic capacity of antibody-mediated phagocytosis | | $150,000.00 |
| Elliott, Michael | | Merge Therapeutics, LLC - MTLLC | MATERIALS TRANSFER RESEARCH COLLABORATION AGREEMENT | | $10,472.00 |
| Elliott, Michael | | National Institutes of Health - NIH | Innate immune regulation of mAb-induced infusion reactions | 1R21AI178594-01A1 | $431,147.00 |
| Hermance, Meghan | | National Institutes of Health - NIH | Intra-tick and intra-host infection dynamics of a tick-borne bunyavirus | 5R01AI171398-04 | $515,742.00 |
| Hermance, Meghan | | University of Florida - UFL | CDC Southeastern Regional Center of Excellence in Vector-Borne Diseases: The Gateway Program | SUB00003859 | $53,900.00 |
| Macaluso, Kevin | | National Institutes of Health - NIH | Emerging flea-borne rickettsial diseases: vector competence and transmission biology | 4R01AI22672-09 | $906,166.00 |

| | | | | | |
|---|---|---|---|---|---|
| Macaluso, Kevin | | University of Florida - UFL | Rickettsial influence on host membrane physiology in arthropod vectors | SUB00003404 | $81,900.00 |
| Shea, Allyson | | University of Alabama at Birmingham - UAB | Addressing UTI health disparities through access to diverse biospecimens | 000539056-SC0025 | $46,200.00 |
| | | | | **Total:** | **$2,580,527.00** |

**Neurology**

| Principal Investigator | Co-Investigators | Sponsor | Award Title | Sponsor Award Number | Fiscal Year Funding |
|---|---|---|---|---|---|
| Dees, Daniel | | University of Alabama at Birmingham - UAB | Post Submission: HDSA Center of Excellence Program 2025 | 1450453 | $19,425.00 |
| Sugg, Rebecca | | University of Alabama at Birmingham - UAB | NIH StrokeNet- Regional Coordinating Stroke Centers for year2023 | 000539634-SC001 | $20,000.00 |
| | | | | **Total:** | **$39,425.00** |

**Obstetrics and Gynecology**

| Principal Investigator | Co-Investigators | Sponsor | Award Title | Sponsor Award Number | Fiscal Year Funding |
|---|---|---|---|---|---|
| Baker, Susan | Perez, William | University of Alabama at Birmingham - UAB | A Window to Future Outcomes of Antihypertensive Therapy and Superimposed Preeclampsia for Mothers iwth Mild Chronic Hypertension (CHAP Maternal Follow-up Study) | 000530812-SC012 | $43,456.00 |
| Baker, Susan | Perez, William | University of Alabama at Birmingham - UAB | Alabama Maternal Health Innovation and Data Capacity Program | 000536895-SC003 | $30,000.00 |
| | | | | **Total:** | **$73,456.00** |

**Pathology**

| Principal Investigator | Co-Investigators | Sponsor | Award Title | Sponsor Award Number | Fiscal Year Funding |
|---|---|---|---|---|---|
| Chakroborty, Debanjan | | Breast Cancer Research Foundation of Alabama - BCRFA | WNK1 and matrix stiffness: Exploring a novel axis in breast cancer progression. | | $50,000.00 |
| Dasgupta, Santanu | Pramanik, Paramahansa | National Institutes of Health - NIH | Mitochondrial DNA in extracellular vesicles for early detection and recurrence prediction in triple negative breast cancer racial disparity | 5R21MD019400-02 | $19,250.00 |
| Dasgupta, Santanu | Pramanik, Paramahansa | National Institutes of Health - NIH | Mitochondrial DNA in extracellular vesicles for early detection and recurrence prediction in triple negative breast cancer racial disparity | 5R21MD019400-02 | $173,250.00 |
| Knowles, Kurt | | Alabama Department of Public Health - ADPH | ADPH - USA MAP | C50118020 | $100,000.00 |
| Sarkar, Chandrani | Chakroborty, Debanjan Honkanen, Richard Pramanik, Paramahansa Herrera, Guillermo | American Cancer Society - ACS | Novel Approaches to Block Metastatic Progression in Colon Cancer | RSG-25-1432788-01-ET | $946,000.00 |
| Sarkar, Chandrani | Chakroborty, Debanjan Pramanik, Paramahansa Herrera, Guillermo | U.S. Department of Defense - DOD | Investigating a novel molecular link between obesity and colorectal cancer progression. | HT94252510464 | $616,000.00 |
| Xin, Wei | | Houston Methodist Research Institute - HMRI | Mechanism of JAG1-driven pancreatic cancer therapy resistance | AGMT00013669AM1 | $25,564.00 |

**Total: $1,930,064.00**

**Pedatrics**

| Principal Investigator | Co-Investigators | Sponsor | Award Title | Sponsor Award Number | Fiscal Year Funding |
|---|---|---|---|---|---|
| Anderson, Stephanie | | Alabama Dept of Mental Hlth/Mental Retardation - AMHMR | Regional Autism Network | | $150,000.00 |
| Estrada, Benjamin | | University of Alabama at Birmingham - UAB | Study of the Natural History of Acute Flaccid Myelitis | 000522211-SC016 | $5,000.00 |
| Estrada, Benjamin | | University of Alabama at Birmingham - UAB | 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. | 000522211-SC016 | $6,000.00 |
| Kasniya, Gangajal | Anbalagan, Saminathan | Chiesi USA, Inc | Quality Improvement Project: Enhancing RDS Management in African American Infants through the Implementation of Standardized Videolaryngoscope-Assisted Less-Invasive Surfactant Administration (LISA) Guidelines | A04D86FE-56CC-43EA-A282-87CEC812786E | $20,400.00 |
| Lim, Whei | | Alabama Department of Public Health - ADPH | Endocrinology clinic newborn screening | C50118025 | $22,000.00 |
| Mack-Williams, Myria | | University of Alabama at Birmingham - UAB | Regional Pediatric Pandemic Network | 000532902-SC001 | $41,833.00 |

| | | | | | |
|---|---|---|---|---|---|
| Ramani, Manimaran | Anbalagan, Saminathan | City of Mobile - COM | A Continuum of Care Approach to Enhance the Well-being of Infants and Mothers Affected by the Opioid Crisis in Mobile County | | $175,000.00 |
| Wilson, Felicia | | Alabama Department of Public Health - ADPH | Comprehensive Sickle cell center for the state Newborn Screening Program | C50118007 | $22,000.00 |
| | | | | **Total:** | **$442,233.00** |

**Pharmacology**

| Principal Investigator | Co-Investigators | Sponsor | Award Title | Sponsor Award Number | Fiscal Year Funding |
|---|---|---|---|---|---|
| Gillespie, Mark | | University of Alabama at Birmingham - UAB | Deep South SARS-CoV-2 Recovery (DSR) Cohort | 000544030-SC002 | $46,200.00 |
| Gillespie, Mark | | University of Alabama at Birmingham - UAB | Deep South SARS-CoV-2 Recovery (DSR) Cohort | 000544030-SC002 | $79,310.00 |
| Gillespie, Mark | Pastukh, Viktor | University of Alabama at Birmingham - UAB | Mitochondrial DNA Injury is a key contributor to the development of Chemical Lung Injury | 000535933-SC001 | $17,689.00 |
| Gillespie, Mark | Pastukh, Viktor | University of Alabama at Birmingham - UAB | Mitochondrial DNA Injury is a key contributor to the development of Chemical Lung Injury | 000535933-SC001 | $198,998.00 |
| Gillespie, Mark<br>Audia, Jon | Langley, Raymond<br>Migaud, Marie<br>Mulekar, Madhuri<br>Pastukh, Viktor | National Institutes of Health - NIH | The mitochondrial genome in lung disease: a signaling hub linking the persistence and severity of inflammation to recovery | 5R01HL169587-02 | $652,078.00 |
| Gillespie, Mark<br>Audia, Jon | Langley, Raymond<br>Migaud, Marie<br>Mulekar, Madhuri<br>Pastukh, Viktor | National Institutes of Health - NIH | The mitochondrial genome in lung disease: a signaling hub linking the persistence and severity of inflammation to recovery | 5R01HL169587-02 | $72,452.00 |

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|---|---|---|---|---|---|
| Gillespie, Mark | White, Stefanie<br>Wilson, Emily<br>Moreno-Walton, Lisa<br>Mulekar, Madhuri<br>Naritoku, Dean<br>Langley, Ray<br>Shea, Allyson (pilot project PI) | University of Alabama at Birmingham - UAB | 1/6 - CTSA UM1 at the University of Alabama at Birmingham | 000539056-SC005 | $369,103.00 |
| Gillespie, Mark | Pastukh, Viktor<br>Roberts, Justin<br>Audia, Jon | National Institutes of Health - NIH | A novel mechanism regulating genome-wide mRNA expression in hypoxic lung disease | 1R01HL177087-01 | $605,678.00 |
| Rich, Thomas | | Howard Hughes Medical Institute | PM2.5 and P. Aeruginosa synergistically triggers increased permeability in the lung | GT16679 | $14,000.00 |
| Rich, Thomas | Leavesley, Silas | National Institutes of Health - NIH | Compartmentalized signaling and crosstalk in airway myocytes | 5R01HL169522-03 | $554,585.00 |
| Roberts, Justin | | AlidaBio | Epitranscriptomic Profiling of m6A and Inosine RNA Modifications in Sepsis and Acute Respiratory Failure | | $8,140.00 |
| Migaud, Marie | | Elysium Health | Design, development and chemical syntheses of tolls and processes to explore the landscape of B-vitamin in health and in disease | | $200,166.00 |
| Borchert, Glen | | National Science Foundation - NSF | Long G4 regions (LG4s) in the human genome constitute functional enhancers that coordinate neighboring gene expressions | 2223547 | $12,600.00 |

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|---|---|---|---|---|---|
| Gillespie, Mark | Pastukh, Viktor | University of Alabama at Birmingham - UAB | Mitochondrial DNA Injury is a key contributor to the development of Chemical Lung Injury | 000535933-SC001 | $22,111.00 |
| Migaud, Marie | | University of Alabama at Birmingham - UAB | Dihydroxyacetone induces metabolic reprogramming | 000534308-SC001 | $57,423.00 |
| Migaud, Marie | | University of Bergen - UOB | Norwegian students for training in medicinal chemistry | | $16,185.00 |
| Migaud, Marie | | University of Pennsylvania | Understanding the Roles of Cardiac NAD Pools and Therapeutic Effects of Precursor Supplements in Heart Failure | 585559 | $71,869.00 |
| Migaud, Marie | | University of Pennsylvania | Understanding the Roles of Cardiac NAD Pools and Therapeutic Effects of Precursor Supplements in Heart Failure | 585559 | $50,994.00 |
| Migaud, Marie | | Baylor College of Medicine | Lessening NAD(P) hyper-oxidation to retain repair and maintenance capacity in space. | P700000049 | $104,182.00 |
| Migaud, Marie | | Univesity of Pennsylvania | Validation of NAD + measurements for human clinical studies: From magnetic resonance of whole organs to compartmentalization in blood cells | 501081 | $155,043.00 |
| Migaud, Marie | | University of Pennsylvania - UP | Targeting NAD Metabolism to Improve Glucose Homeostasis in Obesity and Aging | 502027 | $156,296.00 |
| Migaud, Marie | | University of California, San Diego | Development of Nicotinamide-Riboside plus Pterostilbene as a Disease Modifying Osteoarthritis Therapeutic | 707610 | $14,527.00 |
| | | | | **Total:** | **$3,479,629.00** |

**Physiology and Cell Biology**

| Principal Investigator | Co-Investigators | Sponsor | Award Title | Sponsor Award Number | Fiscal Year Funding |
|---|---|---|---|---|---|
| Leavesley, Silas | Rich, Thomas | University of Alabama at Birmingham - UAB | The Canary in the Colo-mine: Uncovering a Cancer-related Spectral Signature | 000539082-SC005 | $54,303.00 |
| Lee, Ji Young | Stevens, Troy<br>Rich, Thomas<br>Alexeyev, Mikhail | National Institutes of Health - NIH | Acidosis in pulmonary endothelial injury and repair | 5R01HL160988-04 | $385,000.00 |
| Lin, Mike | Balczon, Ron<br>Stevens, Troy | National Institutes of Health - NIH | Nosocomial pneumonias impair cognitive function | 5R01HL140182-08 | $461,490.00 |
| Meegan, Jamie | | National Institutes of Health - NIH | Cell-free hemoglobin-oxidized LDL-LOX-1 axis and microvascular hyperpermeability during sepsis | | $7,702.90 |
| Meegan, Jamie | | National Institutes of Health - NIH | Cell-free hemoglobin-oxidized LDL-LOX-1 axis and microvascular hyperpermeability during sepsis | 5R00HL166865-03 | $249,000.00 |
| Nelson, Amy | Balczon, Ron<br>Stevens, Troy<br>Lin, Mike<br>Alexeyev, Mikhail<br>Elkadi, Osama | National Institutes of Health - NIH | Nosocomial pneumonia impairs the cerebrovasculature | 1R01NS135147-01A1 | $137,560.00 |
| Stevens, Troy | Alexeyev, Mikhail<br>Balczon, Ron<br>Lin, Mike<br>Migaud, Marie<br>Rich, Thomas | National Institutes of Health - NIH | Soluble adenylyl cyclases in lung endothelial tauopathy | 5R01HL167997-03 | $433,597.00 |

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|---|---|---|---|---|---|
| Stevens, Troy | Alexeyev, Mikhail<br>Balczon, Ron<br>Lin, Mike<br>Migaud, Marie<br>Rich, Thomas | National Institutes of Health - NIH | Soluble adenylyl cyclases in lung endothelial tauopathy | 5R01HL167997-03 | $48,177.00 |
| Stevens, Troy | Tambe, Dhananjay | Rhode Island Hospital - RIH | Pulmonary Artery Endothelial Cell Endotypes and the Role of Anoikis Resistance in Pulmonary Hypertension | 7133114 | $121,946.00 |
| Bruder, Thiago | | National Institutes of Health - NIH | Molecular mechanisms of progranulin as a regulator of endothelial biology and blood pressure control | 5R01HL169202-02 | $427,477.00 |
| Bruder, Thiago | | National Institutes of Health - NIH | Molecular mechanisms of progranulin as a regulator of endothelial biology and blood pressure control | 5R01HL169202-02 | $47,498.00 |
| Nelson, Amy | | University of California, Davis - UCD | Diverse VCID: White Matter Lesion Etiology of Dementia in Diverse Populations | A21-1324-S024 | $261,530.00 |
| | | | | **Total:** | **$2,635,280.90** |

***South Alabama Medical Science Foundation***
***Cash Receipts (For Projects Over $2,000)***
***October 1, 2024 - September 30, 2025***

| Department | Project Number | Project Title | Principal Investigator | Source of Funding | 24-25 Receipts |
|---|---|---|---|---|---|
| **Internal Medicine** | | | | | |
| | 63891 | CorEvitas Inflammatory Bowel Disease (IBD) Drug Safety and Effectiveness Registry (Corrona IBD-600 Registry) | Dr Sonnier, W | CorEvitas | 38,890.00 |
| | 63949 | NN7533-4470- ASCENT A Multicentre Trial Evaluating the Efficacy and Safety of Oral Decitabine-Tetrahydrouridine (NDec) in Patients with Sickle Cell Disease (NN7533-4470 - ASCENT) | Dr Hogue, A | Novo Nordisk | 3,000.00 |
| | 63971 | ARTEMIS - Effects of ziltivekimab versus placebo on cardiovascular outcomes in patients with acute myocardial infarction | Dr Malozzi, C | Novo Nordisk | 8,700.00 |
| | 63972 | A randomized, open-label, multi-center, comparative trial, to assess the efficacy and safety of pritelivir for the treatment of acyclovir-resistant mucocutaneous HSV infections in immunocompromised subjects (PRIOH-1) | Dr Fusco, D | AiCuris Anti-Infection Cures AG | 59,565.50 |
| | | | | **Total Internal Medicine** | **110,155.50** |
| **Mitchell Cancer Institute** | | | | | |
| | 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) | Dr Butler, T | Xiamen LP Pharmaceuticals | 17,859.92 |
| | 63953 | A Phase 4, Observational Study Evaluating the Efficacy and Safety of the Bruton Tyrosine Kinase (BTK) Inhibitor Zanubrutinib in Patients With Waldenström Macroglobulinemia (BeiGene - BGB-3111-402) | Dr Alkharabsheh, O | BeiGene, Ltd. | 2,366.00 |

***South Alabama Medical Science Foundation***
***Cash Receipts (For Projects Over $2,000)***
***October 1, 2024 - September 30, 2025***

| Department | Project Number | Project Title | Principal Investigator | Source of Funding | 24-25 Receipts |
|---|---|---|---|---|---|
| | 63960 | A Phase 3, Randomized Study to Compare Nemtabrutinib Versus Comparator (Investigator's Choice of Ibrutinib or Acalabrutinib) in Participants With Untreated Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma (BELLWAVE-011) (MK-1026-011-0014) | Dr Alkharabsheh, O | Merck Sharp & Dohme LLC | 98,392.80 |
| | 63965 | A Phase 3, Multicenter, Randomized, Double-blind, Placebo-controlled Study Comparing the Efficacy and Safety of Golcadomide Plus R-CHOP Chemotherapy vs Placebo Plus R-CHOP Chemotherapy in Participants with Previously Untreated High-risk Large B-cell Lymphoma (GOLSEEK-1) | Dr Alkharabsheh, O | Bristol Myers Celgene Corp | 9,200.00 |
| | 63966 | A Phase III Multi-center, Open-label, Sponsor-blinded, Randomized Study of AZD0901 Monotherapy Compared with Investigator's Choice of Therapy in Second- or Later-Line Adult Participants with Advanced/Metastatic Gastric or Gastroesophageal Junction Adenocarcinoma Expressing Claudin18.2 | Dr Abdalla, A | AstraZeneca Pharmaceuticals LP | 31,978.16 |
| | 63970 | A Phase 3 Randomized, Active-controlled, Open-label, Multicenter Study to Compare the Efficacy and Safety of MK-2870 Monotherapy Versus Treatment of Physician's Choice as Second-line Treatment for Participants with Recurrent or Metastatic Cervical Cancer (TroFuse-020/GOG-3101/ENGOT-cx20) | Dr Pierce, J | Merck Sharp & Dohme LLC | 16,500.00 |
| | 63974 | An Observational Multi-center Study to Evaluate Real-World Treatment Outcomes of Durvalumab-based Regimens in Hepatobiliary Cancers | Dr Abdalla, A | AstraZeneca Pharmaceuticals LP | 9,882.00 |
| | | | | **Total Mitchell Cancer Institute** | **186,178.88** |

***South Alabama Medical Science Foundation***
***Cash Receipts (For Projects Over $2,000)***
***October 1, 2024 - September 30, 2025***

| Department | Project Number | Project Title | Principal Investigator | Source of Funding | 24-25 Receipts |
|---|---|---|---|---|---|
| **Neurology** | | | | | |
| | 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) | Dr Naritoku, D | Xenon Pharaceuticals, Inc. | 5,385.21 |
| | 63898 | Success in Comaneci-assist Coils Embolization Surveillance Study | Dr Sugg, R | Rapid Medical Ltd | 3,000.00 |
| | 63940 | A Randomized, Double-blind, Placebo-Controlled, Multicenter Phase 3 Study to Evaluate the Safety, Tolerability, and Efficacy of XEN1101 as Adjunctive Therapy in Focal-Onset Seizures (Xenon XPF-010-301) | Dr Naritoku, D | Xenon Pharaceuticals, Inc. | 7,857.94 |
| | 63950 | A Multicenter, Open-label, Long-term, Safety, Tolerability, and Efficacy Study of XEN1101 in Adults Diagnosed With Epilepsy | Dr Naritoku, D | Xenon Pharaceuticals, Inc. | 10,700.00 |
| | 63975 | A Randomized, Double-blind, Parallel-group Study to Compare Pharmacokinetics,Pharmacodynamics, Clinical Effects, and Safety between ABP 692 and Ocrevus(Ocrelizumab) in Subjects with Relapsing-remitting Multiple Sclerosis | Dr Kilgo, W | Amgen, Inc | 11,077.00 |
| | | | | **Total Neurology** | **38,020.15** |

***South Alabama Medical Science Foundation***
***Cash Receipts (For Projects Over $2,000)***
***October 1, 2024 - September 30, 2025***

| Department | Project Number | Project Title | Principal Investigator | Source of Funding | 24-25 Receipts |
|---|---|---|---|---|---|
| **Neurosurgery** | | | | | |
| | 63952 | PAULA - Pelvic fixation and fusion during multilevel spinal surgery (SI-BONE - PAULA) | Dr Menger, R | SI-BONE, Inc. | 11,795.00 |
| | | | | **Total Neurosurgery** | **11,795.00** |
| **OB-GYN** | | | | | |
| | 63979 | A PHASE 3 STUDY TO INVESTIGATE THE SAFETY, TOLERABILITY, AND IMMUNOGENICITY OF REVACCINATING PREGNANT PARTICIPANTS DURING SUBSEQUENT PREGNANCIES AND PERSISTENCE OF IMMUNITY OF A SINGLE DOSE OF A BIVALENT RESPIRATORY SYNCYTIAL VIRUS (RSV) VACCINE | Dr Roth, T | Pfizer | 13,150.00 |
| | | | | **Total OB-GYN** | **13,150.00** |
| **Pediatrics** | | | | | |
| | 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) | Dr Marri, P | Global Blood Therapeutics, Inc. | 4,573.60 |
| | 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) | Dr Gremse, D | Takeda Development Ctr Americas, Inc. | 65,534.89 |
| | 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) | Dr Gremse, D | Takeda Development Ctr Americas, Inc. | 44,233.90 |

***South Alabama Medical Science Foundation***
***Cash Receipts (For Projects Over $2,000)***
***October 1, 2024 - September 30, 2025***

| Department | Project Number | Project Title | Principal Investigator | Source of Funding | 24-25 Receipts |
|---|---|---|---|---|---|
| | 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) | Dr Gremse, D | QOL Medical, LLC | 4,782.50 |
| | 63932 | A Randomized, Assessor-Blind, Parallel-Groups, Multicenter Trial Assessing the Safety and Efficacy, Including Pharmacokinetic Assessments, of CLENPIQ in Children Aged 2 Years to Less Than 9 Years (FIPCUS CLENPIQ 000359) | Dr Gremse, D | Ferring Pharmaceuticals | 80,765.77 |
| | 63973 | HIBISCUS 2: A global phase 3, randomised, double-blind and placebo-controlled study evaluating the efficacy and safety of etavopivat in adolescents and adults with sickle cell disease | Dr Imran, H | Novo Nordisk, Inc | 13,700.00 |
| | | | | **Total Pediatrics** | **213,590.66** |
| **Trauma Center** | | | | | |
| | 63976 | A Prospective Multicenter Single-arm Clinical Study Investigating Clinical Outcomes when Cohealyx™ is used for the Management of Full Thickness Wounds Post-surgical Excision (CTP011) | Dr Butts, C | AVITA Medical Americas, LLC | 9,450.00 |
| | | | | **Total Sickle Cell** | **9,450.00** |
| **Sickle Cell** | | | | | |
| | 63945 | GBT 440-4R2 An Open Label, Observational, Prospective Registry of Participants With Sickle Cell Disease (SCD) Treated With Oxbryta® (Voxelotor) (GBT-440-4R2) | Dr Pack-Mabien, A | Global Blood Therapeutics, Inc. | 20,191.90 |
| | | | | **Total Sickle Cell** | **20,191.90** |

***South Alabama Medical Science Foundation***
***Cash Receipts (For Projects Over $2,000)***
***October 1, 2024 - September 30, 2025***

| Department | Project Number | Project Title | Principal Investigator | Source of Funding | 24-25 Receipts |
|---|---|---|---|---|---|
| **Surgery** | | | | | |
| | 63910 | Research to further inform thinking about the role of LINX for Reflux Disease (Torax Rethink Reflux Registry - TRX_2018_01) | Dr Richards, W | Torax Medical/Ethicon Endo-Surgery | 5,515.00 |
| | 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) | Dr Butts, C | CSL Behring LLC | 10,583.00 |
| | 63961 | Randomized Study of the pdSTIM™ System (phrenic nerve to diaphragm STIMulation) in Failure to Wean Mechanically Ventilated Patients (ReInvigorate Study - CIP0002) | Dr Mbaka, M | Stimdia Medical, Inc. | 3,861.00 |
| | | | | **Total Surgery** | **19,959.00** |
| **Urology** | | | | | |
| | 63968 | A Phase 3b, Randomized, Controlled Trial of Nadofaragene Firadenovec vs. Observation in Subjects with Intermediate Risk Non-Muscle Invasive Bladder Cancer (IR NMIBC) | Dr Keel, C | Ferring Pharmaceuticals | 3,500.00 |
| | | | | **Total Urology** | **3,500.00** |
| | | | | **Total All Departments** | **625,991.09** |