AUGUSTA UNIVERSITY
THE GRADUATE SCHOOL

40th ANNUAL GRADUATE RESEARCH DAY

March 13 - March 14, 2025

Schedule of Events

Thursday, March 13, 2025

1:00 PM - 5:00 PM — **Postdoctoral Fellow Oral Presentations**
Interdisciplinary Research Center - CA 2109

Friday, March 14, 2025

10:30 AM - 12:30 PM — **Fisher Scientific/Phi Kappa Phi Poster Session**
Greenblatt Library

1:00 PM - 2:30 PM — **Keynote Address & Lunch**
J. Harold Harrison, MD Education Commons - GB 1220A

Opening Remarks
Jennifer Sullivan, Ph.D.
Dean, The Graduate School

Introduction of the Speaker
Teresa Waters, Ph.D.
Dean, School of Public Health

Keynote Address - "Genetics and Hypertension: An Epidemiological Perspective on Public Health Challenges and Leadership Lessons"
Donna Arnett, PhD
Executive Vice President for Academic Affairs and Provost
University of South Carolina


You're Invited!
GRADUATE RESEARCH DAY
AWARDS LUNCHEON
Tuesday, April 22, 2025
11:30 AM
Amphitheater | Summerville Campus
Rain Location: JSAC Ballroom
RSVP to Mailys Trochez (mtrochez@augusta.edu) by April 16th

Donna K. Arnett, PhD

Graduate Research Day Keynote Speaker

Donna K. Arnett is the executive vice president for academic affairs and provost at the University of South Carolina, and an internationally recognized genetic epidemiologist specializing in the genomics and pharmacogenomics of cardiovascular disease. As EVP for academic affairs and provost, Dr. Arnett is the chief academic officer at South Carolina and oversees the schools and colleges on the Columbia research campus.

Dr. Arnett received her Ph.D. in epidemiology from the University of North Carolina at Chapel Hill after receiving her Master of Public Health and bachelor's degree in nursing from the University of South Florida. After completing her postdoctoral training at UNC, she joined the University of Minnesota, rose to the rank of professor and was named the Mayo professor of public health, an endowed chair in the Division of Epidemiology and Community Health. In 2004, Dr. Arnett became chair of the Department of Epidemiology at the University of Alabama at Birmingham and served as associate dean for academics and strategic programs in the UAB School of Public Health from 2014-2015. From 2016-2022, Dr. Arnett led the University of Kentucky College of Public Health as dean, before joining the University of South Carolina's leadership team as EVP for academic affairs and provost.

Dr. Arnett was named one of the top female scientists in 2022 by Research.com and as a World Expert in hypertension, body mass index and genetic polymorphisms by Expertscape, a recognition earned by being in the top 0.1 percent of scholars writing about these topics over the previous ten years. She also served as the national president of the American Heart Association, where she became the first epidemiologist to serve in that role.

Awards & Sponsors

Fisher Scientific-Phi Kappa Phi Award for Excellence in Biomedical Research

Ji Cheng Memorial Award for Excellence in Research by a Biomedical Science student in early years of training

Lowell M. Greenbaum Award for Research in Pharmacology

R. August Roesel Memorial Award for Research Excellence in Biochemistry

Virendra B. Mahesh Award for Research Excellence in Endocrinology

Georgia Cancer Center Award for Excellence in Graduate Student Research in Cancer

James and Jean Culver Vision Discovery Institute Award for Research Excellence in Vision

Tapan Chatterjee Award for Research Excellence in Vascular Biology

Excellence in Research Awards

Allied Health Sciences
Biomolecular Science
Biostatistics
Cellular Biology & Anatomy
Clinical Laboratory Sciences
Education
Genomic Medicine
Medical Illustration
Molecular Medicine
Neuroscience
Nursing
Oral Biology
Physiology
Public Administration
Public Health
The Graduate School (6)
UGA Clinical & Experimental Therapeutics
Vascular Biology

Postdoctoral Associate Awards

Excellence in Research – Poster Presentation & Oral Presentation

Poster Session Judges

Amy Abdulovic-Cui, PhD
Keri Alber, MSMI
Kelly Allen, PhD
Satyanarayana Ande, PhD
Brian Annex, MD
Benjamin Ansa, PhD
Ali Arbab, MD, PhD
Clement Aubert, PhD
Zsolt Bagi, MD, PhD
Andrew Balas, MD, PhD
Manuela Bartoli, PhD
Shannon Barwick, PhD
Amanda Behr, PhD
Eric Belin de Chantemele, PhD
Teal Benevides, PhD
David Blake, PhD
Wendy Bollag, PhD
Molly Braun, PhD
Darren Browning, PhD
James Bryan, PhD
Konstantin Busch, PhD
Patricia Cameron, PhD
Ahmed Chadli, PhD
Jie Chen, PhD
Weiqin Chen, PhD
Raymond Chong, PhD
Michelle Cox-Henley, PhD
Emily Crider, MAcc
Gabor Csanyi, PhD
Mustafa Culha, PhD
Tiana Curry-McCoy, PhD
Hisham Daoud, PhD
Biplab Datta, PhD
Gianluca De Leo, PhD
Elena Dent, PhD
Zheng Dong, PhD
Gokila Dorai, PhD
Alicia Elam, PhD
Ahmed El-Marakby, PhD
Ali Eroglu, PhD
Fan Fan, PhD
Jessica Filosa, PhD
Tohru Fukai, PhD
David Fulton, PhD
Sadanand Fulzele, PhD
Vijay Ganta, PhD
Santu Ghosh, PhD
Graydon Gonsalvez, PhD
Ryan Harris, PhD
Jay Hegde, PhD
Jessica Hoffman, PhD
Bangxing Hong, PhD
Anatolij Horuzsko, PhD
Stephen Hsu,PhD
Huang Huang, PhD
Deborah Jehu, PhD
Michael Jensen, MS
Zubair Karim, PhD
Balveen Kaur, PhD
Chung Sub Kim, PhD
Dariusz Kowalski, PhD
Paul Langridge, PhD
Yun Lei, PhD
Ellen LeMosy, MD, PhD
Klaus Ley, PhD
Hedong Li, PhD
Jie Li, PhD
Yutao Liu, PhD
Bal Lokeshwar, PhD
Vinata Lokeshwar, PhD
Xiaochun Long, PhD
Xinyun Lu, PhD
Rudolf Lucas, PhD
Hoda Maleki, PhD
Mykola Mamenko, PhD
David L. Mattson, PhD
Lynnette McCluskey, PhD
Meghan E. McGee-Lawrence, PhD
Richard McIndoe, PhD
Riyaz Mohamed, PhD
Rhia Moreno, PhD
Shogo Mori, PhD
Brian Muntean, PhD
Barbara A. Mysona, PhD
Priya Narayanan, PhD
Tran Nguyen, PhD
Paul O'Connor, PhD
Benard Ogola, PhD
Marco Orecchioni, PhD
Siva Panda, PhD
Ashwini Pandey, PhD
Brett Rice, PhD
Maritza Romero-Lucas, PhD
Shalini Saggu, PhD
Sharanjot Saini, PhD
Yoon-Ho Seol, PhD
Ashok Sharma, PhD
Somanath Shenoy, PhD
Huidong Shi, PhD
Nagendra Singh, PhD
Brian Stansfield, PhD
Lynsey Steinberg, MSMI
David Stepp, PhD
Jessica Stewart, PhD
Huabo Su, PhD
Sangeetha Sukumari-Ramesh, PhD
Jennifer Sullivan, PhD
Yaoliang Tang, PhD
Richard Topolski, PhD
Dustin Tracy, PhD
Meng-Han (Mina) Tsai, PhD
Masuko Ushio-Fukai, PhD
Guido Verbeck, PhD
Alexander Verin, PhD
Marlo Vernon, PhD
Eric Vitriol, PhD
Gursimran Walia, PhD
Colleen Walters, DNP
Jing Wang, PhD
Qingqing Wei, PhD
Neal Weintraub, PhD
Karen Wiles, PhD
David Wolff, PhD
Guangyu Wu, PhD
Nathan Xu, PhD
Julie Zadinsky, PhD
Duo Zhang, PhD
Ming Zhang, PhD
Gang Zhou, PhD
Jiliang Zhou, PhD
Peipei Zhu, PhD

Postdoctoral Fellows Oral Presentation Judges

Wendy Bollag, PhD
Elena Dent, PhD
Honglin Li PhD
Rudolf Lucas, PhD
Richard McIndoe, PhD
Xingming Shi, PhD
Sangeetha Sukumari-Ramesh, PhD

Postdoctoral Fellows Oral Presentation Ad Hoc Subcommittee

Kate Kosmac, PhD
Alison Kriegel, PhD
Benard Ogola, PhD

Abstracts

Masters Students

Board #

1 Patient Education: Bloodless Medicine and Surgery
Lea Akers, *Medical Illustration*

2 Love Your Heart - Traveling Exhibit
Laura Castro, *Medical Illustration*

3 3D Animation: Muscle Structure and Function, the Force-Velocity Curve, and Exercise Prescription
Adam Hanley, *Medical Illustration*

4 Increasing Confidence and Reducing Infections: PICC Line Care for Youth and Caregivers
Van Pafchek, *Medical Illustration*

5 Patient Education Brochure: Maximizing Your Potential with Multiple Sclerosis
Alena Pfeifer, *Medical Illustration*

6 Illustration as Intervention: Developing Engaging Educational Material for Children Undergoing Surgery to Reduce Preoperative Anxiety
Noah Smith, *Medical Illustration*

7 Developing a Patient Education Brochure about Cognitive Behavioral Therapy for Insomnia
Sara Trumbley, *Medical Illustration*

8 Aneurysmal Subarachnoid Hemorrhage: A Visual Journey in Patient Education
Eva Weber, *Medical Illustration*

9 Developing A Cesarean Section Abdominal Wall Suture Simulation Model for MCG Students
Isabel Wright, *Medical Illustration*

10 The Anatomy of Black Ambition: Why Some Succeed Against the Odds
Kamden Cooper and Makayla Leake, *Counselor Education*

11 The Correlation of Inadequate Micronutrient Consumption on Overweight and Obesity Dynamics
Ella Biddy, *Allied Health - Nutrition*

23 Greater Increases in Blood Pressure in Female Dahl Rats on a High-Fat Diet Compared to Males Corresponds to Greater Increases in the NLRP3 Inflammasome
Tiranda Plummer, *Medical Physiology*

24 Hematopoietic-Specific Deficiency of Duffy Antigen Receptor for Chemokines Promotes Insulin Resistance During Diet-Induced Obesity in Mice
Praneet Veerapaneni, *Medical Physiology*

25 Examining the relationship between Adverse Childhood Experiences, Cervical Cancer, and Human Papillomavirus
Emily Cudzilo*, Psychology*

26 Artificial Intelligence (AI) among Public Health Faculty
Emily Lord, *Psychology*

27 Reducing Hospital Mortality Through Appropriate Diagnosis and Treatment of Sepsis: A Review
Sydney Crawford, *Clinical Laboratory Science*

28 Why Clinical Trials Often Fail to Support Innovative Diagnostic Test Development and Implementation in the Clinical Laboratory Setting
Saba Khan, *Clinical Laboratory Science*

29 Fishing for Answers: A Retrospective Case Study of Edwardsiella tarda Infection and the Unique Advancement within Local Fisherman
Sophia P. Sather and Sydney Davidson, *Clinical Laboratory Science*

30 Evaluating Different Vortexing times to Disaggregate Platelet Clumps in EDTA Specimens
Gaige Watkins, *Clinical Laboratory Science*

31 Establishing the Community Health Eye Screenings and Service (CHESS) Initiative to Improve Access to Eye Care in Georgia
Tommy Bui, *Public Health*

32 Trauma-Informed Care in Rural Pediatric Settings: A Mixed-Methods Study
Sadhana Durbha, *Public Health*

33 Diabetes Self-Management Education Disparities among Americans with Diabetes: Analysis of 2023 Behavioral Risk Factor Surveillance System
Hina Fawad, *Public Health*

34 Diabetes Self-Management Education Disparities among Americans with Diabetes: Analysis of 2023 Behavioral Risk Factor Surveillance System
Emma Hazenberg, P*ublic Health*

35 Long COVID and Marijuana Use among U.S. Adults
Steven Huston, *Public Health*

36 Barriers to Accessing Treatment for Opioid Use Disorder
Ophelia Imuze, *Public Health*

37 An Analysis of Opioid-Related Mortality in the United States
Freeinna Jackson, *Public Health*

38 Evaluation of the Impact of ACA on Pregnancy and Postpartum
Jason Lanham, *Public Health*

39 Partnership between Local Health Departments and Schools of Public Health: Analysis from 2016 and 2019 National Profile of Local Health Departments
Katerina (Kat) Massengale, *Public Health*

40 Impact of Medicaid Expansion on Maternal Health Outcomes
Brianna McIndoe, *Public Health*

41 Barriers to Accessing Treatment for Opioid Use Disorder
Dren Munitz, *Public Health*

41B Exploring Emergency Department Visits Among Adults with Intellectual and/or Developmental Disabilities: A Focus on Reason for Visit, Payer Type, and Total Charges
Leanna Ogbuke, *Public Health*

42 Deficit of Pediatric Providers in Rural Georgia
Ronisha Peace, *Public Health*

43 Postpartum Visit Attendance and Social Determinants of Health: Insights from PRAMS Data
Mikalah Exum Phelps, *Public Health*

44 Groundbreaking 21st Century Research Discoveries in Hematology and Oncology: A Data Science Study
Elexis Price, *Public Health*

45 Depression as a Predictor of Poor Outcomes and Increased Mortality in Diabetes Patients with Kidney Disease
Sharad Purohit, *Public Health*

46 Epidemiology of Diabetes Self-Management Practices Among Americans with Diabetes
Ankitha Ruby, *Public Health*

47 Assessing the Risk of Long COVID among Parents of Children with Disability
Anneka Imani Ruffin, *Public Health*

48 Effectiveness of Sex Education Programs on African American Adolescents: A Systematic Review of Comprehensive and Abstinence-Only Approaches
Tyler Shepherd, *Public Health*

49 Success and Failure of Peer-Review in Recognizing Quality Defects of Manuscripts
Aashka Sheth, *Public Health*

50 Disparities in Hypertension, Healthcare Access, Diagnosis, and Management among American Adults
Kayla Vaughner, *Public Health*

51 Association between Family History of Cancer and Long COVID
Hannah Wilkey, *Public Health*

52 Assessing the Impact of the Affordable Care Act on Maternal and Infant Health Outcomes: A Comparative Analysis of Teen and Adult Mothers
Sadia Yousaf, *Public Health*

Doctoral Students

53 Instructional Leaders' Technology Integration in a K-12 School District: A Mixed Methods Case Study
Alexandra L. Beldin and Ijeoma Johnson, *Educational Innovation*

54 Female Band Directors' Curricular and Pedagogical Choices Regarding Student Leadership
Samantha Chase, *Educational Innovation*

55 Evolution of Targets and Treatments in the Management of Menopause
Paula Amado Riveros, *Applied Health Sciences*

56 Barriers to Participant Recruitment and Retention: Researcher's Perspective
Tiffany Coleman, *Applied Health Sciences*

57 Examining the Influence of Food Environment and Socioeconomic Factors on Diabetic Gastroparesis Disease Severity
Audrey Eubanks, Applied Health Sciences

58 Highlighting the Importance of Defining Fall-related Psychological Harm
Albert Okrah, *Applied Health Sciences*

59 Exploring the Antimetastatic and Cytotoxic Properties of Hypericum Kiboense Extracts against Both Human Normal and Cancer Cell Lines
Jespher Onyango, *Applied Health Sciences*

60 The impact of Genetics and Nutrition on Maternal-Fetal Health: Understanding the link to Obesity and Gestational Diabetes Mellitus.
Juan Villa-Londono, *Applied Health Sciences*

61 HYAL4 Splice Variant Induces Treatment-Resistance in Advanced Bladder Cancer
Karina Aguilar, *Biochemistry and Cancer Biology*

62 FL1, a UFM1 E3 Ligase, is Essential for iNKT Cell Development and Function
Francis Anazodo, *Biochemistry and Cancer Biology*

63 Olfactory Receptor 2-expressing Myeloid Cells Enhance T Cell Recruitment and Activation in the Tumor Microenvironment
Layne Benson, *Biochemistry and Cancer Biology*

64 Lipid Nanoparticle-delivered IFNa2 Activates Cxcl9 to Increase T Cell Tumor Recruitment to Suppress Lung Metastasis
Kendra Fick, *Biochemistry and Cancer Biology*

65 Activation of Stat5 Signaling Drives Oncogenic Translation via the Polyamine-Hypusine Axis in Leukemia
Mercy Kehinde-Ige, *Biochemistry and Cancer Biology*

66 Role of RAD51AP1 in Cancer Progression and Immune Cell Regulation
Jabunnesa Khanom, *Biochemistry and Cancer Biology*

67 Low Level Mosaic LHX1 Gene Deletion Contributes to Mayer-Rokitansky-Küster-Hauser (MRKH) Syndrome
Dina Kira, *Biochemistry and Cancer Biology*

68 The HSP90 Co-chaperone UNC45A is Essential for Prostate Cancer Cell Proliferation *in vitro* and Tumor Growth *in vivo*
Taoufik Llbiyi, *Biochemistry and Cancer Biology*

69 Spatial Analysis of NETotic Neutrophil Crosstalk with Monocytes/Mϕ in Oral Squamous Cell Carcinoma
Austin Lowery, *Biochemistry and Cancer Biology*

70 An Elevated dNTP Pool Impairs DNA Repair and Promotes Apoptosis in Therapy-resistant Glioblastoma
Dominique Monroe, *Biochemistry and Cancer Biology*

71 Endothelial Specific Deletion of HDAC6 Attenuates Diabetic Retinal Microangiopathy
Sheila Ngumbi, *Biochemistry and Cancer Biology*

72 Targeting UNC45A for Tumor Growth Inhibition in Triple-Negative Breast Cancer Cells
Chidera Ogbu, *Biochemistry and Cancer Biology*

73 PD1- Independent CD8 T Cell Exhaustion
Aravind Rathakrishnan, *Biochemistry and Cancer Biology*

74 IRF8 Regulates TIL-B cells to Mediate T Cell Differentiation and Anti-tumor Effector Function
Zainab Tiamiyu, *Biochemistry and Cancer Biology*

75 Overcoming Hypoxia-Driven Therapy Resistance in Glioblastoma via dNTP Modulation: Enhancing DNA Damage Induction and Therapeutic Efficacy
Edidiong Usoro, *Biochemistry and Cancer Biology*

76 Medicare Provider Characteristics Associated with Telehealth Provision in 2019-2022
Md Mahmud Hasan, *Biostatistics*

77 A Bayesian Approach to Detect Multiple Change Points using an Infinite Hidden Markov Model
Obed Koomson, *Biostatistics*

78 Estrogen protects against the negative effects of kynurenine in bone
Dima Alhamad, *Cellular Biology and Anatomy*

79 Analyzing the Trimeric Complex of the Dynein Motor Using Drosophila Oogenesis as an In Vivo Model
Phylicia Allen, *Cellular Biology and Anatomy*

80 The Impact of Aging on Muscle Function and Inflammation: Insights into the IDO1-Kyn Pathway
Diana M. Asante, *Cellular Biology and Anatomy*

81 Hypersensitivity to Cisplatin in Diabetic Kidneys
Azeeza Byers, *Cellular Biology and Anatomy*

82 Deletion of AhR in Bone is Beneficial for Skeletal Muscle Function in Female Mice
Jennifer Dorn, *Cellular Biology and Anatomy*

83 Estrogen Treatments Reverse TGFβ2-induced Transcriptional Changes on TM Cells
Ola Elsayed, *Cellular Biology and Anatomy*

84 Identifying and Validating miR-182 Target Genes in Human Trabecular Meshwork Cells
Mofazzal Hossain, *Cellular Biology and Anatomy*

85 Sigma 1 Receptor Activation Preserves Visual Function in an Experimental Model of Choroid Neovascularization
Miskatul Mustafa Mishu, *Cellular Biology and Anatomy*

86 The Role of BICD2 in Ciliogenesis
Jessica Pride, *Cellular Biology and Anatomy*

87 Aryl Hydrocarbon Receptor Signaling in Musculoskeletal Frailty in HIV and Antiretroviral Therapy
Shabiha Sultana, *Cellular Biology and Anatomy*

88 Conditional Deletion of the Mineralocorticoid Receptor (MR) is Protective against Bone Loss with Aging
Lucas Yearwood, *Cellular Biology and Anatomy*

89 Impact of Diabetes on Acute Lung Injury: Unravelling Mechanisms to Improve Outcomes
Abdulaziz H Alanazi, *Clinical and Experimental Therapeutics*

90 Role of SMOX Signaling in the Regulation of Neuroinflammation in Diabetic Retinopathy
Bayan Matani, *Clinical and Experimental Therapeutics*

103 A Comparative Assessment of DIA and DDA Mass Spectrometry Approaches for Tear Fluid Proteomics
Saleh Ahmed, *Genomic Medicine*

104 Hypoxia-Induced VEGF Regulation in Müller Glial Cells and Retinal Endothelial Cells: Impact of IL-6 Signaling on Retinal Angiogenesis
Stepan Budkin, *Genomic Medicine*

105 Detailed Characterization of Spontaneous Keratoconus SKC Mouse Strain
Rachel Hadvina, *Genomic Medicine*

106 A Novel Therapy Mitigates BAC-induced Ocular Surface Damage in a Murine Model of Dry Eye Disease
Richard Kontoh-Twumasi, *Genomic Medicine*

107 Developing Companion Dogs as a Model of Human Frailty
Kelsey Patterson, *Genomic Medicine*

108 Advancing a Network-Based Approach for Personalized Drug Synergy Prediction in Cancer: Integrating AI for Future Optimization
Trudie Ritter, *Genomic Medicine*

109 Gene Expression Profiling in Immune Cells of Patients with Coronary Artery Disease (CAD)
Aderonke Fakayode, *Molecular Oncology and Immunology*

110 Single-cell eQTL Mapping in PBMCs Reveals Genes that Modulate the Immune Response in Atherosclerosis
Megh Mehta, *Molecular Oncology and Immunology*

111 Influence of Motor Learning on Neuromodulation in Dorsal iMSN
Casey Cryan, *Neuroscience*

112 The Effect of HDAC9 on Neuronal Morphology
Patricia Haro-Lopez, *Neuroscience*

113 Conditional Genetic Deletion of Ace2 in Taste Buds Alters Peripheral Taste Function and Taste Bud Composition in Male Mice
Emma Heisey, *Neuroscience*

114 Deciphering the Role of ACKR1 in Regulating Neuroinflammation in the AD Brain
Sankeerth Kanumuri, *Neuroscience*

115 The Actin-Binding Protein Profilin 1 is Important for Maintaining the Integrity of the Endoplasmic Reticulum
Halli Lindamood, *Neuroscience*

116 Astrocytic DICER Deletion Induces Loss of Motor Function and Degeneration of Motor Neurons in the Spinal Cord
Kris Mayes, *Neuroscience*

117 Effects of Up-regulation of Synaptobrevin-2 on Age-dependent Decline in Learning and Memory
Jacob B. Miller, *Neuroscience*

118 Dynamic Modulation of NeuroD1 Expression Levels by an Innovative Viral Construct in Astrocyte-to-Neuron Reprogramming
Natalie Mseis-Jackson, *Neuroscience*

119 Hippocampal CA1 Neurons Accumulate Lipid Droplets with Aging
Jayvon Nougaisse, *Neuroscience*

120 Role of Rbpms in Retinal Ganglion Cell Development and Function
Ebenezer Quainoo, *Neuroscience*

121 Implementing an Evidence-Based Post-Operative Pain Management Protocol at an Outpatient Urology Surgery Center
Kyle Reeder, *Nursing Practice*

122 Psychometric Properties of Instruments Used to Measure Antiretroviral Medication Adherence in African American Latino Men Living with HIV: A Scoping Review
Darius Rush, *Nursing*

123 Risk Factors of Secondary Traumatic Stress in Healthcare Workers: A Scoping Review
Natalie Tracy, *Nursing*

124 Inhalant CBD Alleviates the Symptoms in Migraine
Bidhan Bhandari, *Oral Biology & Maxillofacial Pathology*

125 The Role of Paraventricular Nucleus of Thalamus in the Sleep Disturbance Induced by Withdrawal from Repeated Ethanol Exposure
Aubrey Bennett, *Pharmacology*

126 Sexually Dimorphic Adaptations to Hyperkalemia in Rats with Chronic Kidney Disease
Sati Alexander, *Physiology*

127 Histamine Elicits Ca2+ Transients in Podocytes of the Rat Glomerulus
Corey Andrews, *Physiology*

128 Toll-like Receptor 4 (TLR4) Promotes Dahl Salt-Sensitive Hypertension and Renal Damage in a Non-Immune Mediated Mechanism
Emily Burns-Ray, *Physiology*

129 Blocking IL-17 Receptor C Attenuates Salt-Sensitive Hypertension and Kidney Disease Progression in Dahl Salt-Sensitive Male Rats
Ann Cormier, *Physiology*

130 Female Dahl SS Rats are More Susceptible to Increases in Blood Pressure on a High-fat, High-salt Diet than Males, is it Estrogen?
Hannah Godley, *Physiology*

131 SGLT2 Inhibition Protects Cognitive Function in Alzheimer's Disease by Enhancing Brain Perfusion, Independent of Glucose Control
Andrew Gregory, *Physiology*

132 Nicotine Disrupts Calcium Regulation and Reduces Viability of Cultured Proximal Tubule Cells
Adam Jones, *Physiology*

133 Leptin Induces Placental Mitochondrial Dysfunction in a Mouse Model of Preeclampsia
Elisabeth Mellott, *Physiology*

134 DAMPs S100a9 and S100a8 are Significantly Increased in Association with Inflammatory Markers in the Benzalkonium Chloride Mouse Model of Dry Eye Disease
Samuel Melnyk, *Physiology*

135 Blood Pressure Variability -induced Changes in Inflammation and Microglia Phenotype in Middle-aged Mice
Rachel Patterson, *Physiology*

136 Intracellular Ca2+ Levels and Mitochondrial Bioenergetics in Proximal Tubule Cells Are Affected by Polyamines
Ryan Schibalski, *Physiology*

137 Is Macropinocytosis a New Therapeutic Target in Abdominal Aortic Aneurysms?
Stephen Asare Addo, *Vascular Biology*

138 Dietary Phytoestrogens Do Not Alter Cardiovascular Function in Lean Intact and Ovariectomized Female Mice
Candee Barris, *Vascular Biology*

139 Improving Skeletal Muscle Health, a Novel Approach for the Treatment of Obesity-induced Cerebrovascular Dysfunction
Cody Bridgewater, *Vascular Biology*

140 Cell Specific Roles of PBK in Pulmonary Arterial Hypertension
Zachary Brown, *Vascular Biology*

141 Olfactory Receptor 2 Signaling Enhances Monocyte Chemotactic Migration in the Atherosclerotic Aorta
Khalia Cummings, *Vascular Biology*

142 HIV-derived Proteins and Duffy Antigen Receptor for Chemokines Deficiency Promotes Endothelial Dysfunction and Hypertension in Male Mice
Beryl Khakina, *Vascular Biology*

143 The Role of Ufmylation in Endothelium
Chang Min Lee, *Vascular Biology*

144 Enhanced Endothelial Mineralocorticoid Receptor Expression Promotes Endothelial Cell Dysfunction and Salt Sensitivity of Blood Pressure in Female Mice
Ishara Menik, *Vascular Biology*

145 Sexual Dimorphism in Arterial Remodeling of Atherosclerotic Mice Model
Delphine Okoye, *Vascular Biology*

146 Mechanistic Insights into the Preservation of Glycemic Metabolism in the AgRP AAV Mouse Model of Obesity
Hunter Sellers, *Vascular Biology*

147 Hematopoietic Cell Galectin-3 as a Driver of Vascular Remodeling in Pulmonary Arterial Hypertension
Mitch Shivers, *Vascular Biology*

148 Prevention of Sarcopenic Obesity Restores Skeletal Muscle Regenerative Capacity in PAD
Andrew Speese, *Vascular Biology*

149 Endothelial Cell-Derived Exosomes Drive Neutrophil Activation and AAA Development
Amritha Sreekumar, *Vascular Biology*

150 RBX1-Cullin RING Ubiquitin Ligases are Indispensable for Perinatal Cardiac Development through Regulating the Hippo-YAP Signaling Pathway
Josue Zambrano-Carrasco, *Vascular Biology*

Postdoctoral Fellows – Poster

151 Loss of Functional Hyperemia and Neural Dynamics
Dalchand Ahirwar, *Physiology*

152 Long-Read Sequencing Applications in Cancer: Evaluating Gene Editing, RNA Modifications and Splicing Alterations
Apeksha Anand, *Immunology Center*

153 Investigating Dscam as a Force-Sensitive Neuronal Guidance Protein Using Synthetic Biology Approaches
Frederick Baker, *Biology*

154 The role of gender on effect of cocoa extract supplementation on 24 hour ambulatory blood pressure in US population
Bayu Bekele, *Georgia Prevention Institute*

155 Skeletal 11β-Hydroxysteroid Dehydrogenase Type 1 Contributes to Bone-Muscle Crosstalk in Mice
Husam Bensreti, *Cellular Biology and Anatomy*

156 Isl1 Controls Axon Pathfinding of Retinal Ganglion Cells in the Binocular Visual Pathway
Shiona Biswas, *Neuroscience and Regenerative Medicine*

157 COP9 Signalosome is required for Brown Adipose Tissue Maintenance and Thermogenic Function
Shayantani Chakraborty, *Physiology*

158 Single-cell Multi-omics Analysis Reveals TEAD Transcription Factors as Novel Regulators Essential for Vascular Smooth Muscle Homeostasis
Xiaohui Guan, *Pharmacology and Toxicology*

159 Sexual Dimorphism and Neuroinflammation in TBI with Reference to Different Phases of Estrous Cycle
Mayuri Gulhane, *Neurosurgery*

160 Elucidating the Role of NNT under the Conditions of HFpEF
Sonu Kumar Gupta, *Vascular Biology Center*

161 Olfr2 Regulates oxLDL Signaling and Processing, Driving a Proinflammatory Foamy Macrophage Phenotype
Adil Ijaz, *Immunology Center*

162 An Indispensable Role of Endothelial CUL3 in the Regulation of Vascular Function
Md Sadikul Islam, *Vascular Biology Center*

163 Elucidating the Role of NNT under the Conditions of HFpEF
Vamsi Krishna Kommalapati, *Biochemistry and Cancer Biology*

164 The Impact of a Comorbidity of Excessive Dietary Salt and Increased Blood Pressure Variability on Cognitive Function
Perenkita J. Mendiola, *Physiology*

165 Aged Female Rats with a History of AKI Exhibit Greater Renal Injury, Fibrosis, and Inflammation than Aged Sham Controls
Desmond Moronge, *Physiology*

166 The Impact of Race on Cardiovascular Health in Men with Prostate Cancer
McKay Mullen, *Georgia Prevention Institute*

167 MITOL as a Key Mitochondria-Lipid Raft Signaling Organizer, Linking ROS to *VEGFR2 Signaling and Angiogenesis*
Sheela Nagarkoti, *Vascular Biology Center*

168 GATA3's Essential Role in Cochlear Hair Cell and Supporting Cell Development: Insights from Atoh1-Cre Mediated Conditional Knockout Models
Sherko Nasseri, *Neuroscience and Regenerative Medicine*

169 In vivo Imaging of Neuro-Vascular-Metabolic Coupling in the Visual Cortex
Olubukola B. Ojo, *Physiology*

170 Selective Restoration of Adipocyte Leptin Signaling Improves Vascular Function via Better Glycemic Control and Brown Adipose Tissue Activity in Male db/db Mice
Yoichi Ono, *Vascular Biology Center*

171 HDAC7 and PP2A: Key Regulators of Endothelial Cell Permeability in Acute Lung Injury
Rahul Shivaji Patil, *Vascular Biology Center*

172 Selective Reduction in Endothelial Glycolysis Impairs Cardiovascular Function and Body Composition in a Sex-Specific Manner
Adam Salon, *Vascular Biology Center*

173 L-Serine Improves Health and Longevity in Drosophila Melanogaster
Shengshuai Shan, *Biology*

174 Cortical Acetylcholine Response to Deep Brain Stimulation of the Basal Forebrain in Mice
Khadijah Shanazz, *Neuroscience and Regenerative Medicine*

175 Role of ANP in the Renal Proximal Tubule Mitochondrial Function in Type 1 DKD
Denisha R. Spires, *Physiology*

176 Ufmylation Suppresses Unfolded Protein Response to Prevent Peripartum Cardiomyopathy
Varsha Tandra, *Vascular Biology Center*

177 Unraveling the Role of CXCR3+ Monocytes in Tumor-Driven Myelopoiesis and Immunity
Gabriel Valentin-Guillama, *Immunology Center*

178 Xanthurenic Acid Promotes Longevity and Improves Overall Health in Aged Mice
Sagar Vyavahare, *Endocrinology, Diabetes and Metabolism*

179 The Class III PI3K Kinase PIK3C3 is Critical for Initiating Gastrointestinal Smooth Muscle Contractility and Motility
Junfei Weng, *Pharmacology and Toxicology*

180 Novel Role of Acyl-CoA: Cholesterol Acyltransferase 1/Sterol O-Acyltransferase 1 (ACAT1/SOAT1) in Diabetic Retinopathy
Mai Yamamoto, *Vascular Biology Center*

181 Identification of Critical Molecular Pathways Induced by HDAC11 Overexpression in Cardiac Mesenchymal Stem Cells
Chongyu "Will" Zhang, *Vascular Biology Center*

182 Integrative Analysis Identifies Novel CAD Risk Genes Regulating Vascular Smooth Muscle Cell Function
Yingbing Zuo, *Pharmacology and Toxicology*

Postdoctoral Fellows – Oral

Role of Local Hypoxia and Acidification on the Regulation of Osmotically Driven Neurovascular Responses in the Supraoptic Nucleus of the Hypothalamus
Sami Agus, *Physiology*

Role of the Vascular Smooth Muscle Cell-Enriched lncRNA PRDM16-DT in Atherosclerosis
Ruibo Cai, *Molecular Oncology and Immunology*

Soluble FMS-like Tyrosine Kinase-1 Induces Vascular Dysfunction and Increases Leptin Production in Both Human Placentas and Mice
Mona Elgazzaz, *Physiology*

Deficiency of the Smooth Muscle-Specific Long Non-Coding RNA CARMN Exacerbates Thoracic Aortic Aneurysms in Marfan Syndrome Caused by FBN1 Mutations
Xiangqin He, *Pharmacology and Toxicology*

Cu Transport Proteins as Novel Therapeutic Targets for Cu-dependent Brain Endothelial Barrier Dysfunction and Cuproptosis linked to Alzheimer's Disease'
Selim Md. Hossain, *Vascular Biology Center*

Exploring Racial Impact on Endometrial Cancer Immune Landscape
Natalia Jaeger, *Immunology Center*

OTUD6B Regulates Ventricular Chamber Maturation and is Required for Mouse Embryonic Development
Yilang Li, *Vascular Biology Center*

The Role of UFSP2 in the Homeostasis of the Heart
Maryam Rezaei-Gazik, *Vascular Biology Center*

Sex Differences in Synaptic and Behavioral Phenotypes of a Late-Onset Alzheimer's Disease Mouse Model
Ankit Seth, *Neuroscience and Regenerative Medicine*

IMPDH Inhibitor AVN944 Suppresses Activity of a Gain-of-function Rac1 Mutant Protein in Melanoma
Samson Eugin Simon, *Biochemistry and Cancer Biology*

Anti-retroviral Therapy Alters DNA Methylation Patterns in Skeletal Muscle of an HIV Mouse Model
Alok Tripathi, *Vascular Biology Center*

Macrophage Cu Transporter CTR1 Promotes Post-Ischemic Revascularization by Suppressing cGAS-STING-Associated Inflammatory Macrophage Polarization
Shikha Yadav, *Vascular Biology Center*

THANK YOU

To all who played a part in making our 40th Annual Graduate Research Day a success!

- *Our supportive faculty for your tireless dedication to the education of our students*
- *Our talented trainees – students, postdocs, residents, scholars – for your hard work and dedication towards amazing research that makes a difference*
- *Dr. Bollag, members of the GRD committees and judges for all their time and effort to coordinate such a successful event*
- *The Office of Alumni Affairs for the great donuts – and their continued support throughout the year*
- *Our generous graduate student volunteers for your help in making GRD run smoothly*
- *Our dedicated Graduate School staff for their continued commitment towards supporting the graduate community and for their significant role in making GRD a reality*