

THE 37TH ANNUAL

AUGUSTA
UNIVERSITY



GRADUATE RESEARCH DAY

MARCH 31 - APRIL 1, 2022



Sponsored by



AUGUSTA UNIVERSITY
THE GRADUATE SCHOOL

Schedule of Events

Thursday, March 31, 2022

1:00 PM - 5:00 PM Postdoctoral Fellow Oral Presentations
Health Sciences Building - EC 1210

Friday, April 1, 2022

10:30 AM - 12:30 PM Fisher Scientific/Phi Kappa Phi Poster Session
Student Wellness Center

1:00 PM - 2:30 PM Keynote Address & Lunch
J. Harold Harrison, M.D. Education Commons – GB 1210B

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

Introduction of the Speaker
Rudolf Lucas, Ph.D.
Associate Professor, Medical College of Georgia

Keynote Address - “How Did Our Immune System Evolve?”
Max Dale Cooper, MD
*Georgia Research Alliance Eminent Scholar
Professor of Pathology & Laboratory Medicine
Emory University School of Medicine*



You're Invited!

GRADUATE RESEARCH DAY
AWARDS LUNCHEON

**TUESDAY, APRIL 19, 2022
12:00 PM
AMPHITHEATER | SUMMERVILLE CAMPUS**

*RSVP to Christian Middleton at
chrmmiddleton@augusta.edu
no later than April 8, 2022*



Max Dale Cooper, MD

Graduate Research Day 2022 Keynote Speaker, Max D. Cooper, M.D., is a Georgia Research Alliance Eminent Scholar, Professor of Pathology and Laboratory Medicine and member of the Vaccine Center at the Emory University School of Medicine. Cooper obtained his medical degree and pediatric residency training at Tulane University Medical School. While at the University of Minnesota from 1963-1967 he worked with Robert Good to establish the dual nature of the immune system. With UAB graduate student Paul Kincade, he discovered antibody class switching by B cells. Dale Bockman and Cooper described the lymphoid follicle-associated epithelial "M" cells in the intestine and their transcytotic function. While on sabbatical at University College London in 1974, he worked with Martin Raff and John Owen to define the fetal liver and bone marrow origin of B cells and pre-B cells. His laboratory currently studies the evolution of adaptive immunity and explores the use of lamprey monoclonal antibodies for diagnosis and therapy of infectious diseases and lymphoid malignancies. Cooper is a former president of the American Association of Immunologists, the Clinical Immunology Society and the Kunkel Society. He is a member of the U.S. National Academy of Sciences, National Academy of Medicine, American Academy of Arts and Sciences, a foreign member of the French Academy of Sciences and the Royal Society of London. Honors include the Society for Experimental Biology and Medicine Founder's Award (1966), Sandoz Prize in Immunology (1990), American College of Physicians Science Award (1994), American Association of Immunologists (AAI) Lifetime Achievement Award (2000), AAI-Dana Foundation Award in Human Immunology Research (2006), Avery-Landsteiner Prize (2008), Robert Koch Prize (2010), AAI Excellence in Mentoring Award (2012), Japan Prize (2018), Albert Lasker Basic Medical Research Award (2019), and National Academy of Inventors Fellow (2021).

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 the 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

Excellence in Research Awards

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

Postdoctoral Associate Awards

Excellence in Research – Poster Presentation & Oral Presentation

Graduate Research Day Committee

Bill Andrews, MA
Baban Babak, Ph.D.
Wendy Bollag, Ph.D.
Patricia Cameron, Ph.D.

Rudolf Lucas, Ph.D.
Jennifer Sullivan, Ph.D.
Sabina Widner, Ph.D.
Julie Zadinsky, Ph.D.

JUDGES

Postdoctoral Fellow Oral Presentations

Wendy Bollag, Ph.D.
Ahmed Chadli, Ph.D.
Frank Deak, Ph.D.
Nevin Lambert, Ph.D.

Meghan McGee-Lawrence, Ph.D.
Shruti Sharma, Ph.D.
Alexander Verin, Ph.D.

Poster Presentations

Justine Abais-Battad, Ph.D.
Amy Abdulovic-Cui, Ph.D.
Ahmed Aleroud, Ph.D.
Ali Arbab, MD, Ph.D.
Clement Aubert, Ph.D.
Andrew Balas, MD, Ph.D.
Amanda Behr, MA
Eric Belin de Chantemele, Ph.D.
Lori Bolgia, Ph.D.
Wendy Bollag, Ph.D.
Darren Browning, Ph.D.
James Bryan, DHS
Patricia Cameron, Ph.D.
Jian-Kang Chen, Ph.D.
Jie Chen, Ph.D.
Steven Coughlin, Ph.D.
Emily Crider, MAcc
Gabor Csanyi, Ph.D.
Tiana Curry-McCoy, Ph.D.
Waaqo Daddacha, Ph.D.
John Henry Dasinger, Ph.D.
Jennifer Davis, MLIS

Gianluca De Leo, Ph.D.
Ahmed El-Marakby, Ph.D.
Jessica Faulkner, Ph.D.
David Fulton, Ph.D.
Santu Ghosh, Ph.D.
Mark Hamrick, Ph.D.
Vahe Heboyan, Ph.D.
John Johnson, Ph.D.
Keri Jones, MSMI
Seungwoo Kang, Ph.D.
Hasan Korkaya, DVM, Ph.D.
Dariusz Kowalski, Ph.D.
Kenneth Kwon, Ph.D.
Hedong Li, Ph.D.
Kebin Liu, Ph.D.
Pamela Martin, Ph.D.
David Mattson, Ph.D.
Lynnette McCluskey, Ph.D.
Meghan McGee-Lawrence, Ph.D.
Regina Messer, Ph.D.
Riyaz Mohamed, Ph.D.

Tran Nguyen, DPH
Michael Nowatowski, Ph.D.
Tadd Patton, Ph.D.
Folami Powell, Ph.D.
Sharad Purohit, Ph.D.
Brett Rice, MHS
Sharanjot Saini, Ph.D.
Yoon Ho Seol, Ph.D.
Somanath Shenoy, Ph.D.
Huidong Shi, Ph.D.
Jeane Silva, Ph.D.
Lynsey Steinberg, MSMI
Sangeetha Sukumari-Ramesh, Ph.D.
Jennifer Sullivan, Ph.D.
Maiko Suzuki, DDS, Ph.D.
Richard Topolski, Ph.D.
Juan Walker, Ph.D.
Guangyu Wu, Ph.D.
Lufei Young, Ph.D.
Julie Zadinsky, Ph.D.
Ming Zhang, Ph.D.

Abstracts

Masters

Board

- 1** Central Line Care for Kids
Caeley Blechschmid, Medical Illustration
- 2** Patient Education Brochure: Managing Your Sleep Apnea with At-Home Testing
Peter Naktin, Medical Illustration
- 3** Designing a Digital Rectal Exam Patient Education Brochure
Ronald Pettit, Medical Illustration
- 4** Patient Education Brochure, Vascular Access for Hemodialysis
Julia Smithing, Medical Illustration
- 5** Explaining Corneal Wound Healing and the Role of Inflammation Using 3D Animation
Sarah H. Sutton, Medical Illustration
- 6** Twist1 Evokes Matrix Metalloproteinase 9 and Collagen IV Secretion in Activated Pancreatic Stellate Cells
Emma Geister, Biomolecular Science
- 7** The Inhibition of NOX1/PDI Recovers GADD34, which Facilitates Bim-Induced Cell Death Via Accumulation of Unfolded Proteins in Pancreatic Cancer
Henry Knox, Biomolecular Science
- 8** Cancer Cells Reduce Macrophage CXCL10/CXCR3 Axis Expression Through Canonical NF- κ B Signaling
Ahmet K. Korkaya, Biomolecular Science
- 9** Development of Potential Drug Candidates Against SARS-CoV-2 Using Molecular Hybridization Approach
Kailey Wyman, Biomolecular Science
- 10** Patellofemoral Pain and Osteoarthritis: A Pilot Study for the Identification of "At-Risk" Females
Bryaunna Barrera & Jasmine Crockett, Clinical Laboratory Science

Board #

- 11** Age Relatedness to the Persistent Loss of Smell Due to COVID-19
Brittney Craig, Clinical Laboratory Science
- 12** Evaluation of Complete Blood Count Delta Checks on Auto-Verification Performance
Tanner Davis, Clinical Laboratory Science
- 13** Validity of Hemoglobin Delta Check in a Core Hematology Laboratory- The Underlying Cause for Failed Delta Checks Due to a Change in Hemoglobin was Investigated
Shannon Dutterer, Clinical Laboratory Science
- 14** COVID-19 Variants: Detection and Management
Benjamin Ewing, Clinical Laboratory Science
- 15** The Effects of Major Depressive Disorder on Routine Laboratory Values
Amanda Fields, Clinical Laboratory Science
- 16** A Prevalence Study of Community-Acquired Clostridioides Difficile Infection at a Level One Trauma Hospital
Lauren Giron & Rachel Woodard, Clinical Laboratory Science
- 17** Investigating Biovariability of CBC Parameters
Sam Parrish, Clinical Laboratory Science
- 18** Lessons from COVID-19 Prevention: Accelerating Vaccine Development
Charmi Patel, Clinical Laboratory Science
- 19** Accelerating Development of Companion Diagnostics for Anti-Cancer Drug Therapy
Nauka Patel, Clinical Laboratory Science
- 20** Polycystic Ovarian Syndrome and Caffeine Intake Survey
Princess Stephens, Clinical Laboratory Science
- 21** County-Level Socioeconomic Factors Associated with Elevated Blood Lead Levels in Children: A Study of Georgia Counties
Joseph Aguilar, Public Health
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- 22** The Impact of Primary Care Visits in Regards to Emergency Department Utilization
David Clements, Public Health
- 23** Post-Traumatic Stress Disorder: A Sexually Dimorphic Mental Health Disorder
Rachael Dixon-Melvin, Public Health
- 24** The Impact of Medical and Public Health Schools on the Health of Neighboring Communities
Daniel Horzsko, Public Health
- 25** Influence of the COVID-19 Pandemic on Rates of Seasonal Influenza Vaccination Among People Living with HIV
Amber Ladak, Public Health
- 26** Evaluating the Effectiveness of Mental Health First Aid Training and its Impact at Augusta University
Chelsea Paulding, Public Health
- 27** Serum Levels of Clinical Markers Predicts Recovery from Severe COVID-19 Infection
Katherine P. Richardson, Public Health
- 28** Review of Questionnaire Instruments for the Assessment of Audio-Visual Telemedicine
Raphael Agbali, Public Health
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Doctoral

- 29** Assessing Obesity Related Risk Factors in Burke, Columbia, Richmond (BCR) Adult Population
Giti Bayhaghi, Applied Health Sciences
- 30** Verification and Validation of a Biomarker that Responds to Acute Kidney Injury
Kendra Bufkin, Applied Health Sciences
- 31** Characteristics of Nobel Prize-Winning Collaborations
Wendy J. Burnett, Applied Health Sciences
-

Board #

- 32** Contrasting Lead Migration During Spinal Stimulation Trial Period Against Therapeutic Response: Evaluating Securement Methods During the Trial Period
Stephanie Jones, Applied Health Sciences
- 33** The Influence of Social Determinants of Health on Cancer Related Lymphedema Outcomes and Treatment Adherence
Hari Kashyap, Applied Health Sciences
- 34** TIM3, a Novel Potential Regulator of Inflammation in Retina
Malita Jones, Biochemistry and Cancer Biology
- 35** Single-Cell RNA-Sequencing Analysis of Transcriptional Regulatory Networks and Metabolic Pathways in Genetically Modified Tumor-Specific CD4+ T Cells
Mercy Kehinde-Ige, Biochemistry and Cancer Biology
- 36** Identifying LIM Homeobox 1 (LHX1) Gene Variant as a Possible Candidate for Mayer-Rokitansky-Küster-Hauser Syndrome
Dina O. Kira, Biochemistry and Cancer Biology
- 37** Restoring FAS Expression Via Lipid-Encapsulated FAS DNA Nanoparticle Delivery is Sufficient to Suppress Colon Tumor Growth in Vivo
Alyssa Merting, Biochemistry and Cancer Biology
- 38** Interplay Between Cellular dNTP Pool and DNA Double-Strand Break Repair
Dominique Monroe, Biochemistry and Cancer Biology
- 39** Targeting CD206 M2 Macrophage by Engineered Exosomes is Not Causing Immunological Imbalance
Mahrima Parvin, Biochemistry and Cancer Biology
- 40** RPL26 is the UFMylation Target Responsible for Intestinal Secretory Cell Maintenance
Michaela Quintero, Biochemistry and Cancer Biology
- 41** Overcoming Treatment Resistance in Metastatic Bladder Cancer with a Novel Combination of Autophagy Inducers and Antiproliferative Drugs
Juliette R. Seremak, Biochemistry and Cancer Biology
- 42** HYAL4-V1: A Molecular Marker and Driver of Advanced Bladder Cancer
Anuj K. Sharma, Biochemistry and Cancer Biology
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Board #

- 43** Understanding the Role of Hypoxic Cancer Cells dNTP Pool on DNA Damage Response and Resistance to Therapy
Edidiong Usoro, *Biochemistry and Cancer Biology*
- 44** Generalized Multivariate Bernoulli Distributions: Identification and Inference for SNP and SNP-SNP Interaction
Bich Na Choi, *Biostatistics*
- 45** Impact of Affordable Care Act on Prenatal Care Outcomes
Hailey Treadaway, *Biostatistics*
- 46** High-Dimensional Mean Vector Test for One-Sided Hypothesis
Rongrong Wang, *Biostatistics*
- 47** Identifying the Target Genes of PPIP5K2 in Relation to Keratoconus
Theresa Akoto, *Cellular Biology and Anatomy*
- 48** Bicaudal-D Cargoes Differentially Regulate the Association of the Adaptor with Dynein
Frederick Baker, *Cellular Biology and Anatomy*
- 49** Mineralocorticoid Receptor Inhibition Improves Muscle Strength and Physical Activity in Aged Glucocorticoid Receptor Deficient Female Mice
Husam Bensreti, *Cellular Biology and Anatomy*
- 50** Conditional Deletion of AhR in Bone is Beneficial for the Skeleton
Jennifer Dorn, *Cellular Biology and Anatomy*
- 51** IL-1 β Deficiency Attenuates Muscle Disuse Atrophy and Suppresses Senescence Markers in Exosomes From Fibro-Adipogenic Progenitor Cells
Emily Parker, *Cellular Biology and Anatomy*
- 52** Prkd1 is Critical for Repair of Plasma Membrane Disruptions (PMD) in Osteocytes
Anik Tuladhar, *Cellular Biology and Anatomy*
- 53** Effects of Estradiol on Human Trabecular Meshwork Cells Stressed With TGF β 2 and Mechanical Stretch
Hannah Youngblood, *Cellular Biology and Anatomy*
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Board #

- 54** Spermine Oxidase Inhibition Protects Against Neuroinflammation and Oxidative Damage in Retinal Excitotoxicity Model
Moaddey Alfarhan, *Clinical and Experimental Therapeutics*
- 55** Cldn17 Loss Exhibit Systemic Inflammation in Mice
Varun Parvathagiri, *Clinical and Experimental Therapeutics*
- 56** Distinct Mechanisms of Human Retinal Endothelial Barrier Modulation by Mediators of Diabetes and Uveitis
Madhuri Rudraraju, *Clinical and Experimental Therapeutics*
- 57** Evading Transfer Learning-Based Intrusion Detection Systems Using Multi-Sources Poisoning Attacks
Nour Alhussien, *Computer and Cyber Sciences*
- 58** Semantic-Preserving Optimization Algorithm for Automatic Program Parallelization
Neer Rusch, *Computer and Cyber Sciences*
- 59** Leadership Processes During the COVID-19 Pandemic: Implications for Leadership Preparation and Training
Adrienne Bogans, Michell Glover & Joseph Workman, *Educational Innovation*
- 60** Succeeding in Introductory STEM Courses at Community Colleges: STEM Instructors' Perceptions of Essential Skills and Barriers to Success
Daniela Payne, Ashlei Perkins and William Smith, *Educational Innovation*
- 61** COGS: A Gene Signature to Differentiate Chromophobe Renal Cancer and Oncocytoma
Khaled Bin Satter, *Genomic Medicine*
- 62** Blunted Rest-Activity Circadian Rhythm is Associated With Increased Rate of Biological Aging: An Analysis of NHANES 2011-2014
Yanyan Xu, *Genomic Medicine*
- 63** The Role of Complement-Mediated Signaling During Antigen Presentation
Caryn Bird, *Molecular Medicine*
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Board #

- 64** TCR-T Cells Engineered to Overexpress c-Jun Have Better Functionality With Improved Tumor Infiltration and Persistence for Treatment of Hepatocellular Carcinoma
Mohamed S. Hussein, *Molecular Medicine*
- 65** In Vivo Imaging Analysis of Neuronal Reprogramming in the Mouse Cortex
Kristopher Mayes, *Neuroscience*
- 66** Modulating NeuroD1 Expression Levels in Astrocytes by Using MicroRNA124b to Provide Diverse Neuronal Subtypes After Reprogramming
Natalie Mseis, *Neuroscience*
- 67** Methodology and Challenges of an Ethnographic Study Describing Stroke Survivors' Beliefs and Behaviors Returning Home During the COVID-19 Pandemic
Amanda Howard, *Nursing*
- 68** Neonatal Palliative Care Education for New Nurses in a Level-IV Surgical Neonatal Intensive Care Unit
Steven Waldrop, *Nursing*
- 69** EPS8 Regulates SOX2, Contributing to HNSCC Stemness
Harshit Singhania, *Oral Biology & Maxillofacial Pathology*
- 70** Genetic Depletion of 18-kDa Translocator Protein (TSPO) Augments Acute Brain Damage After Intracerebral Hemorrhage in Mice
Frederick Bonsack, *Pharmacology*
- 71** Neuroinflammation is a Susceptibility Factor in Developing a PTSD-like Phenotype
Khadijah Shanazz (Alexander), *Pharmacology*
- 72** Is Histone Deacetylase 3 a Key Regulator of Intracerebral Hemorrhage-Induced Neuroinflammation?
Noah Watson, *Pharmacology*
- 73** Endothelial Cell-Selective Adhesion Molecule Deficiency Leads to the Development of Vascular Endothelial and Left Ventricle Diastolic Dysfunction
Vadym Buncha, *Physiology*
-

Board #

- 74** CD14 Deletion Amplifies Dahl Salt-Sensitive Hypertension and Renal Damage Through a NOX2-Dependent Mechanism
Emily Burns, Physiology
- 75** The Role of CD44v6 in Vascular Rarefaction and Left Ventricular Diastolic Dysfunction in HFpEF
Katie Anne Fopiano, Physiology
- 76** Eplerenone Increases Pup Survival in Leptin-Infused Pregnant Mice Without Increasing Urinary Excretion
Elisabeth Mellott, Physiology
- 77** Histone Deacetylases Regulate the Glycerol Transporter, Aquaporin-3, in Human Corneal Epithelial Cells
Samuel Melnyk, Physiology
- 78** Endothelial Cell Mineralocorticoid Receptor (ECMR) Deletion Improves Fetal Growth and Vascular Function in the RUPP Mouse Model of Preeclampsia
Desmond Moronge, Physiology
- 79** T cells Contribute to High Fat Diet-Induced Increases in Adiposity in Female and Male Dahl Rats
Lindsey Ramirez, Physiology
- 80** Phospholipase D2 Loss Impairs Low Salt-Induced Increases in Steroidogenic Gene Expression with No Effect on Serum Aldosterone Levels
Shinjini C. Spaulding, Physiology
- 81** Reduced Microvascular Expression of ADAM17 Contributes to Cognitive Impairment in Alzheimer's Disease Model, APP/PS1 Mice
Yanna Tian, Physiology
- 82** Corn Bedding Mediates Protection from the Dahl Salt-Sensitive Hypertensive and Renal Damage Phenotype
Samuel D. Walton, Physiology
- 83** Copper Transporter ATP7A Promotes Myogenesis and Skeletal Muscle Regeneration in Response to Injury
Kareem Abdelsaid, Vascular Biology
-

Board #

- 84** Stimulation of Macropinocytosis by SARS-CoV-2 Spike Proteins
WonMo Ahn, *Vascular Biology*
- 85** Hexosamine Biosynthesis Pathway and its Therapeutic Potential in Patients with Peripheral Arterial Disease
Suhib Alhusban, *Vascular Biology*
- 86** Ovariectomy Does Not Further Elevate Blood Pressure in Obese Female Mice but Preserves the Contribution of Leptin to Hypertension
Candee T. Barris, *Vascular Biology*
- 87** PBK Drives Pulmonary Artery Smooth Muscle Proliferation and Vascular Remodeling in Pulmonary Arterial Hypertension
Zsuzsanna Bordan, *Vascular Biology*
- 88** Role of Histone Deacetylase 9 in the Development of Adipose Tissue Senescence and Mitochondrial Dysfunction in Aging
Brandee Goo, *Vascular Biology*
- 89** GAL3 Excretion in SMC Survival and Proliferation in PAH
Stephen Haigh, *Vascular Biology*
- 90** Identification of Human-Specific Novel Long Non-Coding RNA in Neointima Formation
David S. Kim, *Vascular Biology*
- 91** HIV-Associated Hypertension is Immune Dependent in Male Mice
Taylor C. Kress, *Vascular Biology*
- 92** Galectin-3 Regulates Microvascular NADPH Oxidase I-Derived Oxidative Stress in Obesity
Caleb Padgett, *Vascular Biology*
- 93** An Adeno Associated Model of Murine Pre-Diabetic Obesity
Hunter Sellers, *Vascular Biology*
- 94** Deletion of Myostatin Resolves Myosteatosis and Improves Angiogenesis in Obese Mice
Andrew Speese, *Vascular Biology*
-

Postdoctoral Fellows – Poster

Board #

- 95** A Novel Humanized Mouse Model for the Assessment of Human Allogeneic Responses in Solid Organ Transplantation
Ashwin Ajith, *Georgia Cancer Center*
- 96** Understanding the Pro- and Anti-Tumorigenic Microenvironments in Syngeneic Mice
Fulya Alkan, *Georgia Cancer Center*
- 97** Perfluorooctanoic Acid Activates Autophagy and ROS-Mediated MAPK Signaling
Natsumi Fujiwara, *Department of Oral Biology& Diagnostic Sciences*
- 98** The Antitumor Activity and Immumodulatory Effect of a Novel Phosphodiesterase 10 Inhibitor
Md Yeashin Gazi, *Georgia Cancer Center*
- 99** Our Data Suggest that Carmn is Indispensable for Maintaining Gastrointestinal Cont Smooth Muscle-Specific lncRNA Carmn Plays a Potential Role in Aortic Aneurysm
Xiangqin He, *Department of Pharmacology and Toxicology*
- 100** A Novel Breast Cancer Therapeutic Strategy Through Hsp90 Inhibition and Activation of the Immune System.
Vamsi Krishna Kommalapati, *Georgia Cancer Center*
- 101** ATIC-Associated de Novo Purine Biosynthesis is Critically Involved in Proliferative Arterial Disease
Qian Ma, *Vascular Biology Center*
- 102** Hybrid Scheduling in Distributed Transactional Memory
Pavan Poudel, *Computer and Cyber Sciences*
- 103** DPPFit: Developing and Testing a Technology-Based Translation of the Diabetes Prevention Program to Address Prediabetes in a Primary Care Setting
Jessica Lynn Stewart, *Population Health Sciences*
- 104** Adenosine Receptor 2A Promotes Subretinal Fibrosis Formation
Qiuahua Yang, *Vascular Biology Center*
-

Postdoctoral Fellows – Oral

Endothelial Cu Transporter ATP7A Deficiency Promotes Endothelial-to-Mesenchymal Transition via Metabolic Reprogramming: Role in Atherosclerosis

Dipankar Ash, *Vascular Biology Center*

Impairment in Endothelial Bioenergetics Contributes to Diabetes-Induced Vascular Dysfunction

Reem Atawia, *Vascular Biology Center*

NOX2-Derived Reactive Oxygen Species Contribute to Impaired Renal Function and Increased Maternal Mortality Observed in Dahl SS Rat After Multiple Pregnancies

John Henry Dasinger, *Department of Physiology*

Smooth Muscle Cell-Specific lncRNA CARMN is Regulated by SRF/MYOCD Complex

Kunzhe Dong, *Department of Pharmacology and Toxicology*

Bmal1 Regulates the bHLH Transcription Factor Tal1 and VE-Cadherin to Restrict the Endothelial Barrier

Qimei Han, *Department of Pharmacology and Toxicology*

In Vivo Vasculo-Neuronal Coupling in a Mouse Model of High Blood Pressure Variability

Perenkita Mendiola, *Department of Physiology*

Protein Disulfide Isomerase A1 Functions as a Novel Redox Sensor in VEGFR2 Signaling and Angiogenesis

Sheela Nagarkoti, *Vascular Biology Center*

A Novel and Important Role of UFM1-Binding Protein 1 (UFBP1) in the Regulation of ER and Cardiac Homeostasis

Varsha Tandra, *Vascular Biology Center*

Macrophage Dynamin-Related Protein1 (Drp1) is Required for Ischemia-Induced Neovascularization

Shikha Yadav, *Vascular Biology Center*

Does Arginase-2 (A2) Mediate Retinal Ganglion Cell Death by Exacerbating Excitotoxicity-Induced Calcium Signaling and Promoting Mitochondrial Dysfunction?

Syed Adeel Zaidi, *Vascular Biology Center*

THANK YOU

to all who played a part in making our 37th 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. Lucas, Dr. Bollag, members of the GRD committee and judges for all of your time and effort to coordinate such a successful event
 - ❖ The Office of Alumni Affairs for the delicious donuts and your continued support throughout the year
 - ❖ Our generous graduate student volunteers for your help in making GRD run smoothly
 - ❖ Our dedicated Graduate School staff for your continued commitment towards supporting the graduate community and for your significant role in making GRD a reality
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