

2024 ATLANTIS Symposium Program

Sponsored by the *National Institute of Diabetes, Digestive and Kidney Diseases* via
TL1DK136047 and U2CDK129501



Thursday, March 14, 2024

9:00AM - 4:00PM

Health Sciences Research Building I (HSRB)
1760 Haygood Dr NE, Atlanta, GA 30322



ATLANTIS

Atlanta Network For Training In KUH Scientific Research



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2024 ATLANTIS SYMPOSIUM

2024 ATLANTIS Inaugural Symposium AGENDA

March 14, 2024 | HSRB 1 | 9:00am – 4:00pm

9:00 – 10:00am	Networking Power Hour
10:00 – 10:20am	Welcome & Introduction
	Nael A. McCarty, PhD <i>ATLANTIS Director, Training Core</i> Marcus Professor of Cystic Fibrosis PACS Division, Department of Pediatrics Director of Emory's Children's Cystic Fibrosis Center of Excellence Emory University
10:20 – 10:55am	Undergraduate & Predoctoral Research Presentations
10:20 – 10:30am	Ferris Abu-Ghosh Undergraduate Student, Georgia State University Presentation Title: CD154:CD11b Blockade Increases Activation and Survival of CD8+ T Cells During Viral Infection
10:30 – 10:40am	Audrey Wang <i>Predoectoral ATLANTIS Trainee</i> PhD Candidate, Georgia Institute of Technology Presentation Title: A Low-Cost, "Physics-Based" Point-of-Care Platelet Counter for Thrombocytopenic Patients
10:40 – 10:50am	Jennifer Okalova <i>Predoectoral ATLANTIS Trainee</i> PhD Candidate, Emory University Research Title: Optimization of ADC-Based Non-Genotoxic Conditioning Strategies for the Transplantation of Engineered Hematopoietic Stem Cells for Hemophilia A and Sickle Cell Disease

10:55 – 11:15am	BREAK
11:15 – 11:45am	Postdoctoral & Early Career Faculty Research Presentations
11:15 – 11:25am	<p>Robert Van Sciver, PhD Postdoctoral Fellow, Emory University Presentation Title: Ciliary Exclusion of ARL13B or Loss of its GEF Activity for ARL3 Suppress Polycystic Kidney Disease In Mice</p>
11:25 – 11:35am	<p>Jeann Sabino-Carvalho, PhD Postdoctoral Fellow, Emory University Presentation Title: Spontaneous Sympathetic Baroreflex Sensitivity is Impaired in Patients with Chronic Kidney Disease</p>
11:35 – 11:45am	<p>Loretta Reyes, MD Assistant Professor, Emory University Presentation Title: Uremic Milieu Induces Cellular Reprogramming in Aortic Cells in a Mouse Model of Chronic Kidney Disease</p>
11:45am – 12:30pm	Poster Session
12:30 – 2:00pm	Lunch Break
2:00 – 3:10pm	Keynote Presentation
	<p>Jeff M. Sands, MD Chief Medical Officer, NephroDI Therapeutics Juha P. Kokko Professor Emeritus of Medicine, Emory University Presentation Title: Developing a Therapy for Nephrogenic Diabetes Insipidus</p>
3:10 – 4:00pm	Networking Happy Hour
3:30pm	Award Winners Announcement & Closing Remarks

Keynote Speaker

Jeff M. Sands, MD

Chief Medical Officer, NephroDI Therapeutics

Juha P. Kokko Professor Emeritus of Medicine, Emory University

Developing a Therapy for Nephrogenic Diabetes Insipidus

Dr. Sands is a graduate of Harvard College and Boston University School of Medicine. He trained in Medicine at the University of Chicago and the NIH's National Heart, Lung, and Blood Institute (NHLBI). Following research fellowship training in the Laboratory of Kidney and Electrolyte Metabolism, NHLBI, NIH, he proceeded to a clinical nephrology fellowship at Emory. Dr. Sands is a Founder and Chief Medical Officer of NephroDI Therapeutics. NephroDI Therapeutics is developing a small molecule therapeutic for congenital nephrogenic diabetes insipidus, which is a pediatric orphan disease. Dr. Sands is considered a key opinion leader in nephrogenic diabetes insipidus.



Dr. Sands joined the Emory faculty as an Assistant Professor in 1989, was promoted to Associate Professor in 1993, and to Professor in 1998. He served as the Juha P. Kokko Professor of Medicine and Renal Division Director at Emory from 2002-2024. He served as Executive Vice-Chair of Medicine from 2009-2015 and as Associate Dean for Clinical and Translational Research from 2006-2010. He is currently the Juha P. Kokko Professor Emeritus of Medicine at Emory.

Dr. Sands served as Editor-in-Chief of the American Journal of Physiology – Renal from 2001-2007, chair of the 2004 American Society of Nephrology Program Committee, chair of the American Heart Association Kidney Council from 2008-2010, a member of the NIDDK Board of Scientific Councilors from 2008-2013, and the 91st President of the American Physiological Society from 2018-2019. He is a member of the American Association of Physicians, the American Society for Clinical Investigation, and the American Clinical and Climatological Association. Dr. Sands has served on study sections for the NIH, AHA, and NKF.

Dr. Sands has received several honors, including: the Distinguished Alumnus Award from Boston University School of Medicine in 2006; the Carl Gottschalk Distinguished Lecturer for the APS Renal Section in 2013; the Distinguished Achievement Award from the American Heart Association in 2014; the Barry M. Brenner Endowed Lecturer for the American Society of Nephrology in 2015; and the Homer W. Smith Award from the American Society of Nephrology in 2022. He was awarded the Doctor Medicinae Honoris Causa (dr.med.h.c.) from Aarhus University in Denmark in 2018.

Dr. Sands' research focuses on the molecular physiology of urea transporters, aquaporins, and the urine concentrating mechanism, and the translation of these basic research findings into novel therapies for nephrogenic diabetes insipidus. He has authored 180 peer-reviewed manuscripts, 105 invited reviews or book chapters, and has co-edited a book. Dr. Sands has given 40 invited talks at national or international scientific meetings and over 110 invited lectures at other U.S. or international universities.

Research Presenters

Ferris Abu-Ghosh

Undergraduate Student, Georgia State University

CD154:CD11b Blockade Increases Activation and Survival of CD8+ T Cells During Viral Infection



Research Summary: CD154 pathway blockade has been shown to increase long-term graft survival without the toxic effects of immunosuppression. However, translation of anti-CD154 mAbs into the clinic has been unsuccessful due to complications with thromboembolism. As a result, CD40 blockade was developed as an alternative, but conferred inferior survival compared to anti-CD154. We studied an alternate receptor of CD154 known as CD11b, specifically the impact of a CD154:CD11b blockade on antimicrobial immunity. A peptide inhibitor of the CD154:CD11b interaction, cM7, was used to treat naïve B6 mice infected with a murine homolog of Epstein-Barr virus, and antigen-specific CD8+ T cells were examined using RNA sequencing. Our results showed that the blockade improved the CD8+ T cell response to infection by increasing intracellular signaling pathways associated with activation and survival.

Audrey Wang

Predoctoral ATLANTIS Trainee
PhD Candidate, Georgia Institute of Technology

A Low-Cost, "Physics-Based" Point-of-Care Platelet Counter



Research Summary: Under the mentorship of Dr. Wilbur Lam, Audrey Wang is a PhD student at Georgia Tech in the Department of Biomedical Engineering and an ATLANTIS predoctoral trainee who is focused on addressing the clinical challenge of thrombocytopenia. Thrombocytopenia, characterized by abnormally low platelet counts, poses a significant risk of major bleeding in affected patients. Current methods for assessing platelet count, such as complete blood count (CBC), are costly, require complex instrumentation, and necessitate trained personnel, limiting accessibility to patients. To address this unmet clinical need, Audrey proposes the development of an inexpensive, paper-based point-of-care (POC) device for at-home platelet count estimation. The device utilizes a unique biophysics-based approach, measuring clot contraction force as a biomarker for platelet count. This approach leverages Audrey's expertise in hematology engineering, drawing on previous research demonstrating the correlation between clot contraction and platelet count. Successful development of this novel device has the potential to empower patients to continuously monitor their bleeding risk, ultimately reducing the likelihood of severe clinical outcomes.

Research Presenters

Jennifer Okalova

Predoctoral ATLANTIS Trainee
PhD Candidate, Emory University

Optimization of ADC-Based Non-Genotoxic Conditioning Strategies for the Transplantation of Engineered Hematopoietic Stem Cells for Hemophilia A and Sickle Cell Disease



Research Summary: Under the mentorship of Dr. H. Trent Spencer, Jennifer, a third-year Molecular & Systems Pharmacology PhD Candidate at Emory University and an ATLANTIS pre-doctoral trainee, conducts research in the Cell and Gene Therapy Lab at the AFLAC Cancer & Blood Disorders Center. Her focus lies in studying hematopoietic stem cell gene therapy for Hemophilia A and Sickle Cell Disease, with a specific interest in developing non-genotoxic conditioning regimens for bone marrow transplants. Jennifer's overarching goal is to facilitate the translation of laboratory discoveries into clinical applications, aiming to bring potential cures from experimental settings to the bedside of patients.

Robert Van Sciver, PhD

Postdoctoral Fellow, Emory University

Ciliary Exclusion of ARL13B or Loss of its GEF Activity for ARL3 Suppress Polycystic Kidney Disease In Mice



Research Summary: Polycystic kidney disease (PKD) is the leading monogenic cause of renal failure, affecting an estimated 1:500 to 1:1000 people. There is currently no cure for PKD, and the only FDA-approved treatment modestly slows disease progression. A major challenge in developing effective therapies for PKD is that the driver of the disease is unknown. Our research uses mouse models of PKD to show that (1) the GTPase ARL13B is a driver of PKD from within primary cilia, and (2) ARL13B's enzymatic GEF activity plays a critical role in driving cystogenesis. As we uncover components of this pro-cystic pathway, we are revealing potential therapeutic targets for treating PKD at its source – the primary cilium.

Research Presenters

Jeann Sabino-Carvalho, PhD

Postdoctoral Fellow, Emory University

Spontaneous Sympathetic Baroreflex Sensitivity is Impaired in Patients with Chronic Kidney Disease



Research Summary: Dr. Jeann Sabino-Carvalho's research is centered on understanding the neural control of blood pressure in both healthy individuals and diseased conditions. Specifically, he is investigating the potential involvement of baroreflex system dysfunction on the cardiovascular disease burden within the chronic kidney disease (CKD) population. A primary focus of his work involves leading a project to unravel how interventions, such as exercise training, can modulate the neural control of blood pressure and ameliorate the exercise intolerance experienced by most patients with CKD. In the pursuit of unraveling critical kidney-nerve-heart interactions, particularly in kidney failure, Dr. Sabino-Carvalho received direct mentorship from Dr. Jeanie Park. As a leading expert in the neural control of circulation, Dr. Park has taught him cutting-edge techniques that allowed him to conduct the work he is presenting at the 2024 ATLANTIS Symposium.

Loretta Reyes, MD

Assistant Professor, Emory University

Uremic Milieu Induces Cellular Reprogramming in Aortic Cells in a Mouse Model of Chronic Kidney Disease



Research Summary: Dr. Loretta Reyes is a distinguished pediatric nephrologist renowned for her groundbreaking research in the field of chronic kidney disease (CKD) and uremic vasculopathy. With a focus on understanding the molecular mechanisms underlying these conditions, Dr. Reyes's work has shed light on the dysregulation of arginine metabolism, a pivotal factor in endothelial function, particularly in pediatric patients with varying stages of CKD. Utilizing advanced multi-OMICs approaches, her research delves into transcriptional and metabolomic changes associated with uremic vasculopathy, aiming to uncover targeted therapeutic interventions. Dr. Reyes's contributions are invaluable in advancing our understanding and treatment of CKD-related complications, paving the way for improved patient outcomes.

Acknowledgements

Thank you to the Symposium Speakers for generously sharing their knowledge and expertise.

Jeff M. Sands, MD
Loretta Reyes, MD
Jeann Sabino-Carvalho, PhD
Robert Van Sciver, PhD

Ferris Abu-Ghosh
Jennifer Okalova
Audrey Wang

Thank you to the Symposium Planning Committee for their successful efforts.

Carter Brzezinski
Jason Cobb, MD
Douglas C. Eaton, PhD
Melanie Elder
Justin Ferretti, MPH
Stacy S. Heilman, PhD
Nael McCarty, PhD
Melissa McGranahan, PhD
Susan M. Wall, MD

Volunteers: Maryam Ehteshami, Mary Anne Geryak, Gillian Glauber, Debra Hamilton, Sarah Marie Huban, Kymry Jones, Mimi Le, Kevin Loop-Tapp, Clovis Sarmiento

Thank you to our sponsor for their support.



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Thank you to our institutional partners.



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Now ACCEPTING Applications!

Call for Applications for Pre and Postdoctoral Training Slots

Call for Applications for Pre and Postdoctoral Training Slots

ATLANTIS is a U2C/TL1 training program that provides funds for trainee costs plus access to valuable professional development programming and active networking opportunities. Join a vibrant group of scientists tackling research problems related and relevant to the disciplines of kidney, urology, or hematology.

How to Apply

Apply via the application portal: bit.ly/ATLANTISApplication

*Please Note: Applications will be reviewed on a rolling basis, subject to the availability of positions. In order for applicants to be considered for our next review cycle, applications must be submitted on or before Wednesday, May 1, 2024.

Learn More

Visit our website to learn more about the ATLANTIS program: bit.ly/ATLANTISProgram

Questions? Contact us at:

Melanie Elder, Program Administrator, mvelder@emory.edu

Nael A. McCarty, PhD, Director Training Core, namccar@emory.edu

Vivien Sheehan, M.D., Ph.D., Associate Director Training Core, vivien.sheehan@emory.edu

Connect With Us



https://linktr.ee/atlantis_KUH

How did we do? Click [here](#) or visit the QR Code to take the Evaluation Survey



Meet our ATLANTIS Core Directors & Leadership

ATLANTIS Administrative Core

The Administrative Core provides oversight for overall core resource use and sets the overall direction for the ATLANTIS Program. It is responsible for prioritization of Program resources (both federal and institutional), undertaking internal and external review of Program and trainee progress, and organizing enrichment activities. A major function of the Administrative Core is to increase the engagement of trainees at all levels at Emory, MSM, and GaTech in KUH research.

Susan M. Wall, MD, ATLANTIS PI, Director, Administrative Core

Susan M. Wall, MD, is Professor of Medicine as well as the Research Director of the Emory Renal Division and MPI of the NIDDK-funded Renal T32 Program. Her laboratory, which has made major discoveries in the regulation of blood pressure by renal intercalated cells, has had uninterrupted NIDDK-KUH funding for 27 years. She is the recipient of several research awards. Most recently, she was the American Heart Association's 2020 Donald Seldin Lecturer. Dr. Wall has mentored 6 postdoctoral fellows, many of whom have gone on to receive their own independent funding.



ATLANTIS Training Core

The TL1 Core builds on the considerable strengths and outstanding resources amongst the partner institutions to provide focused, mentored research training supplemented with rigorous didactic training. KUH trainees will be selected by U2C TL1 leadership. The TL1 Core will have the capacity to fund 7 post-doctoral and 5 pre-doctoral trainees and will provide 2-3 years of research training and support for postdocs and 2 years for predocs.

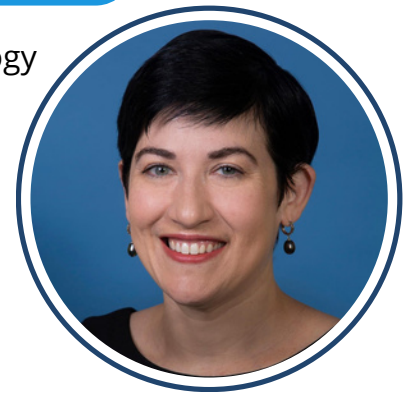
Nael A. McCarty, PhD, ATLANTIS PI, Director, Training Core

Nael A. McCarty, PhD, is Professor of Pediatrics and Director of the Emory+Children's Cystic Fibrosis Center of Excellence. He is co-Director of the innovative CF Scholars Program that ties pre-doctoral and post-doctoral trainees from both PhD and MD tracks. He is former Director of the GDBBS, and former Director of the Atlanta Broadening Experiences in Scientific Training (BEST) Program at Emory and GaTech, funded by an NIH DP7 award, which included both pre- and post-doctoral trainees. For 9 years he directed the Molecules-to-Mankind (M2M) doctoral pathway within the LGS, which sought to train students at the intersection of laboratory and population-based sciences. He is a co-founder of the Atlanta Society of Mentors, which provides mentorship training to faculty. Dr. McCarty's research focuses on epithelial ion channels.



Vivien Sheehan, MD, PhD, ATLANTIS Associate Director, Training Core

Vivien Sheehan, PhD, MD, is an Associate Professor of Hematology & Oncology in the Department of Pediatrics at Emory University. She is Director of Translational Sickle Cell Research at Emory. The Sheehan lab uses genomics to unravel the mechanisms of globin switching and the pharmacogenomics of hydroxyurea in SCD, in order to develop new fetal hemoglobin inducing agents to treat people with sickle cell disease. Dr. Sheehan was Director of the Kaward Workshop at Baylor College of Medicine for four years before moving to Atlanta in 2020.



ATLANTIS Professional Development Core

The overarching goals of the Professional Development Core are to help KUH TL1 trainees whether there are from Emory, Morehouse, or Ga Tech refine their career plans, identify the technical and professional skills they need to learn, and prepare for success in their individualized career plans. Through the opportunities provided by routine meetings with career counselors, career workshops, and executive training, trainees will learn the leadership and management skills necessary to plan, develop, and navigate their careers through a constantly changing research landscape.

Lou Ann Brown, PhD, ATLANTIS Director, Professional Development Core

Lou Ann S. Brown, Ph.D., is an Emory Professor of Pediatrics in the Neonatal-Perinatal Medicine Division and School of Medicine Assistant Dean and Director of the Office of Postdoctoral and Mentored Trainee Education. She is an elected member of the Association of American Medical Colleges (AAMC) Graduate Research and Teaching (GREAT) Group Steering Committee and the 2019-2020 Chair of the Postdoctorate Leaders Section. Through GREAT, she interacts with graduate and postdoctoral programs across the nation. In 2018, Dr. Brown became PI of the NIGMS funded Emory FIRST grant, the oldest IRACDA K12 grant in the nation with continued funding since 2000. Recently renewed for years 21 - 25, In FIRST, postdoctoral fellows have mentored research and mentored teaching experiences at an Atlanta Minority Serving Institution. She is also a member of the Research Education Executive Committee of the Georgia Clinical and Translational Science Alliance (Ga CTSA). She and Dr. David Guidot, a former K08 mentee, have been MPIs on an NHLBI T32 Acute Lung Injury Training Grant since 2013. Dr. Brown has mentored or co-mentored 11 high school students, 24 undergraduates, 17 medical students, 6 graduate students, 21 postdoctoral trainees (Ph.D. and M.D.), and 15 junior faculty members (Ph.D. and M.D.) where 87% were women and/or from underrepresented groups with many now funded tenured faculty.



Douglas C. Eaton, PhD, ATLANTIS Associate Director, Professional Development and Training Cores



Douglas C. Eaton, PhD, is an Emory Professor Emeritus of Medicine and former Chair of Physiology who has served as co-PI of the Emory Nephrology T32 from its inception (1990 –2021) and co-PI of the R25 SUPERR program. He also directed the NIGMS funded IRACDA K12Program (2005-2018) and has been crucial in the program’s sustained success. Drs. Brown and Eaton have collaborated for 20+ years and will work closely with ATLANTIS leadership to build a robust model that promotes the professional development of all trainees and compliments the rigorous TL1 KUHresearch training. He will continue offering career guidance and research support to TL1 trainees as he has done through the renal T32, NIDDK R25, and IRACDA K12.

ATLANTIS Network Core

The ATLANTIS Network Core supports the formation of diverse and vibrant networked learning communities as an overall strategy to enhance the training experience for emerging biomedical researchers in KUH-related disciplines, provide an additional framework to unite the institutions in our city-wide network, and stimulate new collaborations across non-traditional KUH disciplines. The Network Core complements traditional face-to-face meetings and activities with interactions in a digital platform to bring together in new ways a community of established, emerging, and future KUH health researchers.

Stacy S. Heilman, PhD, ATLANTIS Director, Network Core



Stacy Heilman, PhD, is Associate Professor and the Associate Vice Chair for Research in the Emory Department of Pediatrics. As a trained PhD basic scientist, scientific administrator and educator, she brings a track record of connecting trainees and faculty with vital research resources including facilitating fruitful collaborations, creating and overseeing scientific cores, and directing research education programs. She serves as Director of the monthly K-Club career development symposium and also has formal ties to pediatric resident and fellow research through co-direction of a residency research track and a research course for clinical post-docs. Promoting professional and inter-institutional networking is a centerpiece of Dr. Heilman’s role in the organization and thus is easily and naturally transferable to the ATLANTIS framework. She will hold primary responsibility for planning and executing the Network Core face-to-face events and will serve as the key driver for PhD pre and postdoc outreach and recruitment into ATLANTIS programming and training.

Jason Cobb, MD, ATLANTIS Associate Director, Network Core



Jason Cobb, MD, is an Associate Professor in the Emory University Division of Renal Medicine and Associate Director of the Nephrology Fellowship Training Program. Dr. Cobb is a graduate of Morehouse College with a BS in biology. He holds a medical degree from Emory University School of Medicine and completed his internal medicine residency and nephrology fellowship at Emory University. He is board-certified in internal medicine and nephrology. He sees patients in the nephrology clinic at Emory University Hospital Midtown in the Medical Office Tower seeing patients with nephrology complaints such as chronic kidney disease due to diabetes, hypertension, vascular disease, and glomerulonephritis. Also, Dr. Cobb takes care of hemodialysis patients at Emory Dialysis Greenbriar and Emory Dialysis Northside, and home dialysis patients at Emory Dialysis Northside. He also rounds on inpatient services at Emory University Hospital Midtown and Emory University Hospital. Research and teaching interests include quality improvement and nephrology fellow clinic at Grady Memorial Hospital.



Melissa Kemp, PhD

ATLANTIS Site PI, Georgia Institute of Technology

Carol Ann & David D. Flanagan Professor

Wallace H. Coulter Department of Biomedical Engineering

Georgia Institute of Technology & Emory University

Gianluca Tosini, PhD, FARVO

ATLANTIS Site PI, Morehouse School of Medicine

Professor and Chair

Department of Pharmacology and Toxicology

Chief Scientific Research Officer

Morehouse School of Medicine



Justin Ferretti, MPH

ATLANTIS Network Core Manager, Emory University

ATLANTIS Trainees



Meet Our Trainees

**Training the Next Generation of
Kidney, Urology, and Hematology Health Scientists**



Predoctoral Trainees



Dana Battle

Predoctoral ATLANTIS Trainee

PhD Candidate, Morehouse School of Medicine

Research Title:

Lipotoxic Tubular Injury in Diabetic Kidney Disease

Dana's research is geared toward investigating the pathways through which Free Fatty Acids cause renal tubular atrophy, thereby advancing our understanding of Diabetic Kidney Disease.



Carter Brzezinski

Predoctoral ATLANTIS Trainee

PhD Candidate, Emory University

Research Title:

Repurposing of Approved Pharmaceuticals to Discovery Novel Antibacterial Drugs

Carter is actively engaged in antibiotic resistance research, combatting multi-drug-resistant infections, a crucial response to the public health crisis.



Ryan Zenhausern

Predoctoral ATLANTIS Trainee

PhD Candidate, Emory University

Research Title:

Identifying Novel Lipid Nanoparticles that Deliver mRNA to Hematopoietic Stem Cells in Vivo

Ryan is advancing mRNA delivery to blood stem cells using lipid nanoparticles (LNPs). Identifying new particles that deliver mRNA specifically to these cells opens the door for delivering gene editing reagents and other nucleic acids to treat genetic blood disorders.

Jennifer Okalova

Predoctoral ATLANTIS Trainee
PhD Candidate, Emory University



Research Title:

Optimization of ADC-Based Non-Genotoxic Conditioning Strategies for the Transplantation of Engineered Hematopoietic Stem Cells for Hemophilia A and Sickle Cell Disease

Jennifer's dissertation research focuses on hematopoietic stem cell gene therapy for Hemophilia A and Sickle Cell Disease, with a specific aim to develop a novel non-genotoxic conditioning regimen to prepare patients for hematopoietic stem cell transplantations.

Audrey Wang

Predoctoral ATLANTIS Trainee
PhD Candidate, Georgia Institute of Technology



Research Title:

A Low-Cost, "Physics-Based" Point-of-Care Platelet Counter for Thrombocytopenic Patients

Audrey's research aims to develop a low-cost POC device to estimate platelet count using blood clot biophysics, enabling accessible and affordable monitoring for patients with low platelet count.

Postdoctoral Trainees



Ryan Allen, PhD

Postdoctoral ATLANTIS Trainee

Postdoctoral Fellow, Georgia Institute of Technology

Research Title:

Detection of Heme Storage and Trafficking Proteins and Pathways Throughout Erythropoiesis

Dr. Allen's research encompasses understanding how the large amount of potentially cytotoxic heme is trafficked and stored in developing erythrocytes.



Matthew Gillen, MD

Postdoctoral ATLANTIS Trainee

Postdoctoral Fellow, Emory University

Research Title:

Post-operative Acute Kidney Injury in Surgical Neonates

Dr. Gillen's research is focused on better understanding risk factors that contribute to post-operative acute kidney injury in surgical neonates, in addition to evaluating the utility of a pre-operative urine biomarker as a predictor of post-operative acute kidney injury.



Jamie AG Hamilton, PhD

Postdoctoral ATLANTIS Trainee

Postdoctoral Fellow, Georgia Institute of Technology

Research Title:

Delineating Vascular Endothelial Dysfunction in Transplant-Associated Thrombotic Microangiopathy Utilizing Transwell Methodology

Dr. Hamilton's research is focused on developing an in vitro model of TA-TMA to determine the key factors promoting vascular endothelial damage and delineate biomarkers for TA-TMA.



Elizabeth Iffrig, MD, PhD

Postdoctoral ATLANTIS Trainee

Postdoctoral Fellow, Emory University

Research Title:

Red Blood Cell Aggregation in Sepsis - Not an Innocent Bystander

Dr. Iffrig's research is focused on how acute critical illnesses like sepsis in adults affect changes in red blood cell biomechanics and microcirculatory fluid dynamics to cause microvascular endothelial cell damage.



Melissa McGranahan, PhD

Postdoctoral ATLANTIS Trainee

Postdoctoral Fellow, Emory University

Research Title:

Impact of Comorbid Post-traumatic Stress Disorder on Sympathetic Activity in Chronic Kidney Disease

Dr. McGranahan's research explores PTSD's effect on SNS activity in CKD patients and aims to enhance cardiovascular outcomes through sleep and exercise intervention.



Tyrome Sweet, PhD

Postdoctoral ATLANTIS Trainee

Postdoctoral Fellow, Emory University

Research Title:

Pilot Study for the Role of Bacteriophages in Viral Infections Among Kidney Transplant Patients

Dr. Sweet's research is aimed towards exploring the impact of bacteriophages on renal transplant patients through machine learning techniques.