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### Meet Our New Councilors



### Mingxia Gu, PhD

Dr. Mingxia Gu is an Assistant Professor of Pediatrics at Cincinnati Children's Hospital Medical Center.

Dr. Gu has been actively involved in NAVBO activities since 2015. She was an invited speaker at the NAVBO annual meeting in 2019 and 2023. Dr. Gu recognizes the importance of mentors in supporting and encouraging women in the field, and she actively works to foster an inclusive environment where all

individuals, regardless of their backgrounds, feel valued and respected. With a passion for science and medicine, Dr. Gu is excited to advocate for the NAVBO community and inspire the next generation of vascular biologists.

Read more about Dr. Gu here.

### Scott Johnstone, PhD

Dr. Scott Johnstone has been an Assistant Professor at the Fralin Biomedical Research Institute at Virginia Tech, Centre for Vascular and Heart Research in Roanoke, Virginia since 2020.

Dr. Johnstone has been involved in the vascular biology community for over 15 years and has been a member of NAVBO for three years. He has a strong focus on training the next generation of scientists and believes NAVBO

does an amazing job, putting the spotlight on graduate students, post-doctoral researchers, and early career scientists. He was elected to the NAVBO council this year and is excited to contribute to NAVBOs continued growth and development.

Read more about Dr. Johnstone here.

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Want keep up to date on opportunities in the vascular biology community?

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## Subscribe Here

Tune into NAVBO's Podcast - new episodes monthly.

# VASCULAR CROSSTALK



## BY NAVBO

Meetings/Events



Webinars - 1st Thursday InFocus Sessions - 2nd and 4th Thursdays

Journal Clubs - 3rd Thursdays Special Sessions on Tuesdays (check schedule)

### Vascular Biology 2023

October 15-19, 2023 Newport, Rhode Island, USA



Visit the web site to view the entire program https://navbo.org/vb2023

Register soon and save \$\$\$\$
Early Bird Registration ends August 31

The application deadline for childcare grants has been extended to September 5

Click here to submit your application

Hotel rooms must be reserved by September 13 to take advantage of the group rate of \$219 per night <a href="https://navbo.org/vb2023-get-a-room">https://navbo.org/vb2023-get-a-room</a>

### Vasculata 2023 in Review



As I reflect on my time this year as a co-organizer of the 2023 Vasculata conference, I realize that it is taking place roughly 12 years after I first became involved with NAVBO. As a young post-doctoral trainee, I first joined NAVBO as an introduction to the study of vascular biology. Since that time, NAVBO has had an indelible impact on my development from trainee to independent investigator, and I have relished opportunities to give back to NAVBO and its work. One aspect of NAVBO's mission that I find especially important is its distinct and powerful focus on supporting and spotlighting students, trainees, and early career scientists.

Every year, NAVBO hosts the Vasculata conference, which is explicitly centered on graduate students and post-docs regardless of their background in vascular biology. The primary mission of the Vasculata conference is to provide attendees with foundational knowledge on major vascular biology concepts alongside a survey of cutting-edge research. Vasculata also serves as a supportive "safe space" for trainees to meet and network with senior vascular biology researchers who are invited to lecture on their lab's latest findings while contextualizing it within the larger field of vascular biology.

Among the most influential aspects of Vasculata is the conference's interactive workshop and panel discussion program, which invites conference attendees to shift from concept to practice. Only rarely are early career scientists invited into another research group's lab to learn a novel technique — let alone from the scientists who first developed them! — with the goal of empowering trainees to bring the approach back to their home lab. These interactive opportunities are a defining feature of Vasculata, and they make the conference truly special. Thus, it was with great excitement that I took on organizing the interactive portion of this year's Vasculata conference.

For nearly a year, I worked with my conference co-organizers — Dr. Amitabh Pandey (Tulane University) and Dr. Christopher Gillard (Xavier University) — to plan the 2023 Vasculata meeting. Since my task was to build the afternoon program of wet lab demos and panel discussions, it was important to me that attendees be exposed to the many exciting and novel vascular biology models that are in active use in the New Orleans research community. For the workshops and panel discussions, I felt it important that trainees be able to answer questions related to pursuing a career in science.

When we finally held the conference earlier this summer at Tulane University's downtown campus in New Orleans, LA, our nearly 100 conference attendees were invited to learn how to work with ex vivo blood vessels and novel organ-on-a-chip technologies. They were able to learn how to measure cell monolayer resistance using ECIS, and they observed methods for modeling the complex 3D processes of vasculogenesis and angiogenesis in cell culture. Trainees also had a chance to learn about grant funding and workshop their specific aims, meet with an expert in bioinformatics to learn about single-cell RNA sequencing and spatial transcriptomics, and to attend panel discussions on pursuing a scientific career.

The positive feedback we have received for the conference -- and especially for the demos, workshops, and panel discussions -- only underscores the unique opportunity that this trainee-focused vascular biology meeting represents for students and post-docs. I am delighted to have been able to help make Vasculata happen this year, and look forward to supporting this conference as it continues its work to cultivate the next generation of vascular biology researchers for many years to come.

Jennifer Fang, Ph.D. Assistant Professor Tulane University

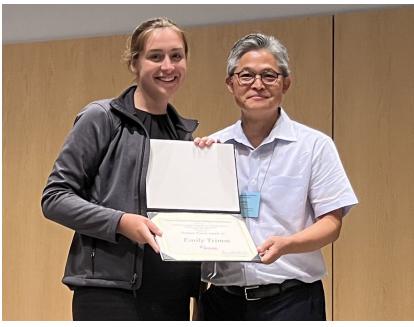




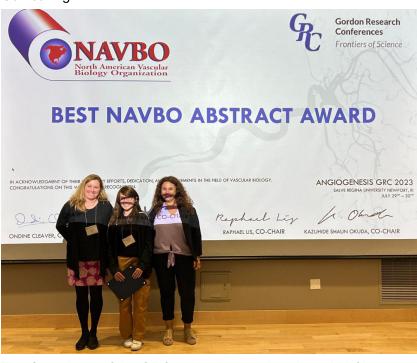


Dr. Fang giving her lecture at Vasculata 2023

## NAVBO Travel Awards to GRC



The Organizers of the GRC on Biomechanics in Vascular Biology and Disease selected Emily Trimm from Stanford University as the NAVBO Travel Award Recipient. She was presented with her award at the Award Ceremony of the GRC Meeting at Mount Holyoke College. Emily's abstract was titled, "Uncovering the Mechanisms of Collateral Coronary Artery Development in the Guinea Pig."



The Organizers of the GRC on Angiogenesis selected Li Chang Jessica Teo of Boston University as the NAVBO Travel Award Recipient. She was presented with her award at the Award Ceremony of the GRC Meeting at Salve Regina University. Jessica's abstract was titled, "The role of Actin-modifying proteins in Endothelial Barrier Function."



Lab of the Month











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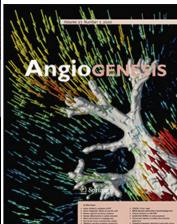
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#### Lab of the Month - August 2023

The Lab of Dr. Shulamit Levenberg

This month we are highlighting the lab of Dr. Shulamit Levenberg, Professor at Technion - Israel Institute of Technology. Find out more about her lab by visiting her page in our Lab of the Month listing.

### Member News

#### **Welcome to our New Members:**

Typhaine Anquetil, Sainte Justine Hospital Research Center Dionne Argyle, University of Virginia, School of Medicine Nour Bacha, Columbia University Medical Center Misuk Bae, Duquesne University Richa Banerjee, University of South Florida Daniel Castranova, NICHD, NIH Jian-Xiong Chen, University of Mississippi Medical Center Cassandra Conway-O'Donnell, University of California, Irvine Vrinda Dambal, Boston University David Frank, Children's Hospital of Philadelphia Selina Garcia, University of New Mexico School of Medicine Ioanna Gianopoulos, McGill University Health Centre Yesenia Gomez, Medical College of Wisconsin Morgane Gourvest, NYU Grossman School of Medicine Stephen Hammond, Medical College of Wisconsin Andy Hon, Cardiovascular Calcification Research Lab -UCLA Cory Johnson, Mount Desert Island Biological Laboratory Elizabeth Jones, Geisel School of Medicine at Dartmouth Christie Kang, University of Illinois at Chicago Raghu Kataru, Memorial Sloan Kettering Cancer Center Samantha King, Albany Medical College Franziska Kohl, Karolinska Institutet Aurora Kraus, NIH/NICHD Esak Lee, Cornell University Ryan Makin, University of Virginia School of Medicine Dibyanti Mukherjee, University of California, San Francisco

Joseph Olivieri III, University of Virginia, School of Medicine Kathleen Paul, Dartmouth College

Amanda Peluzzo, Temple University Lewis Katz School of Medicine

KaReisha Robinson, University of Illinois at Chicago Paula Rodrigues de Barros, University of South Carolina Joshua Rousseau, Arizona State University Komal Sagar, AIIMS, New Delhi Dharti Shantaram, The Ohio State University

Kass Sjostrom, Kansas City University

Lily Takeuchi, University of Toronto

Neelima Thottappillil, Johns Hopkins University School of Medicine Yanna Tian, University of North Carolina at Chapel Hill

Megan Tuineau, University of New Mexico School of Medicine

Bowen Wang, University of Virginia

Ting-Yun Wang, Arizona State University

Makenna Wells, Medical College of Wisconsin

Madison Williams, East Carolina University

Carolyn Winston, Dartmouth College

Samantha Xu, Baylor College of Medicine

Yang Yang, University of California, Los Angeles

Heng Zeng, University of Mississippi Medical Center

If you have news to share with your colleagues, send it to membership@navbo.org

### Spotlight on Trainees

#### NIH withdraws objection to unionizing efforts by early-career researchers

Writing in Science Insider, Katie Langin reports that the NIH has withdrawn its objection previously filed with the Federal Labor Relations Authority, the agency that oversees certification of unions by federal employees, which contended that postdocs, graduate students, and postbaccalaureate researchers are not employees and thus lack the standing to form a union. A group of NIH trainees had sought permission from the FLRA to hold vote on the opportunity to unionize. Leaders of the unionization movement maintain that trainees' work activities are indistinguishable for those of permanent NIH staff and further that the work of trainees is essential to fulfillment of NIH's research mission.

### Recent Member Publications

Neointima abating and endothelium preserving - An adventitia-localized nanoformulation to inhibit the epigenetic writer DOT1L

**Biomaterials** 

## Cardiovascular **Pathology**

in Cardiovascular Medicine

Open vascular reconstructions such as bypass are common treatments for cardiovascular disease. Unfortunately, neointimal hyperplasia (IH) follows, leading to treatment failure for which there is no approved therapy. Here we combined the strengths of tailoring nanoplatforms for open vascular reconstructions and targeting new epigenetic mechanisms. Read More

## The Slow Progression of Diabetic Retinopathy Is Associated with Transient Protection of Retinal Vessels from Death

International Journal of Molecular Sciences

The purpose of this study was to investigate the reason that diabetic retinopathy (DR) is delayed from the onset of diabetes (DM) in diabetic mice. To this end, we tested the hypothesis that the deleterious effects of DM are initially tolerated because endogenous antioxidative defense is elevated and thereby confers resistance to oxidative stress-induced death. Read More

#### **Activin A Limits VEGF-Induced Permeability via VE-PTP**

**International Journal of Molecular Sciences** 

The clinical success of neutralizing vascular endothelial growth factor (VEGF) has unequivocally identified VEGF as a driver of retinal edema that underlies a variety of blinding conditions. VEGF is not the only input that is received and integrated by the endothelium. Read More

## **VEGF Induces Expression of Genes That Either Promote or Limit Relaxation of the Retinal Endothelial Barrier**

**International Journal of Molecular Sciences** 

The purpose of this study was to identify genes that mediate VEGF-induced permeability. We performed RNA-Seq analysis on primary human retinal endothelial cells (HRECs) cultured in normal (5 mM) and high glucose (30 mM) conditions that were treated with vehicle, VEGF, or VEGF then anti-VEGF. Read More

If you have a recent paper that you would like to share with NAVBO NewsBEAT subscribers, send the title and link to membership@navbo.org. Please note, only papers authored by current NAVBO members are accepted for inclusion.

### Industry News

## NASEM grapples with the double-edged sword of Al in heathcare

The recent surge of technical capability and accompanying public awareness of artificial intelligence lends renewed relevance to the 2019 National Academies publication titled "Artificial Intelligence in Health Care: The Hope, the Hype, the Promise, the Peril." This volume, which features contributions from health care provides, economists, ethicists and machine learning experts, explores the delicate balance between opportunities to improve patient outcomes and population health on the one hand and exacerbation of existing health and social inequities on the other. As a follow-up, the NASEM organized a series of workshops earlier this year focused on Artificial Intelligence in Health Professions Education.

## Entries sought for Michelson Philanthropies & Science Prize for Immunology

Applications describing transformative research in human immunology with trans-disease applications toward therapeutic discovery are invited from young investigators representing a range of disciplines, including computer science, artificial intelligence/machine learning, protein engineering, nanotechnology, genomics, parasitology and tropical medicine, neurodegenerative diseases, and gene editing. The prize is awarded annually to one young scientist (no older than 35 years of age) based on work done in the past 3 years. The prize winner receives a cash award and publication of their winning essay in Science. Application deadline is October 1, 2023.

### NIH grant opportunity in Lymphatics in Health and Disease

The NHLBI and partnering institutes at the NIH have released a Notice of Special Interest (NOT-HL-23-099) focused on the Lymphatic System in Health and Disease. This initiative aims to promote research on the normal biology and the pathophysiology of the lymphatic system and to identify factors that account for individual differences in pathobiology and response to treatments. Also of interest are mechanisms of diseases secondary to lymphatic dysfunction, such as heart, lung, blood, and sleep disorders. The first submissions responsive to NOT-HL-23-099 are due October 5, 2023, with subsequent receipt dates expected through September 7, 2026.

### Summer Programs

## Institute for Public Health Summer Research Program

#### **CARDIOVASCULAR DISEASE & HEMATOLOGY**



Students in our *new* SummeR reseArch DIversity ProgrAm iN Cardiovascular Disease & HEmatology (RADIANCE) track learn about the broad scope of heart and blood disorders and their interdisciplinary and multidimensional impact.

Washington University in St.Louis
Institute for Public Health

his program is supported by the National Heart, Lung and Blood Institute (NHLBI)

Contact us: radiance@wustl.edu

Click here for more information.

### Call for Papers/Proposals



## New Trends in Vascular Biology 2023

Open for submissions

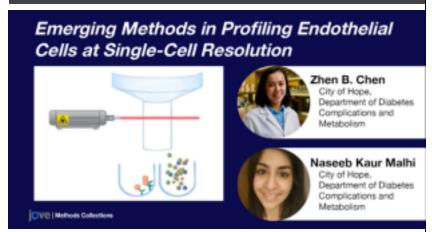


Frontiers in Cardiovascular Medicine launched the new Research Topic "New Trends in Vascular Biology 2023" (co-editors: Masanori Aikawa, Hong Chen, Margreet R. De Vries, Yung Fang, Gabrielle Fredman, Delphine Gomez, Hiroshi lwata, Shizuka Uchida, Hiromi Yanagisawa; and assistant editor: Sarvesh Chelvanambi). IVBM2022, that NAVBO successfully hosted, inspired us to develop this Research Topic. We hope many of you who presented at the meeting would be interested in submitting original reports, review articles, or methodology papers. The Research Topic is open to everyone. We will also welcome submissions from any investigators who did not participate in IVBM2022. The Research Topic will consider manuscripts across all the areas or disciplines in vascular biology. https://www.frontiersin.org/research-topics/47678/new-trends-in-

https://www.frontiersin.org/research-topics/47678/new-trends-in-vascular-biology-2023

The deadline for manuscript submission is March 18, 2024. If you have any questions, please do not hesitate to contact the editorial office at: cardiovascularmedicine.editorial.office@frontiersin.org or Masanori Aikawa maikawa@bwh.harvard.edu

We look forward to receiving your manuscripts!



Are you using leading-edge techniques to profile endothelial cells at single-cell resolution? Consider submitting your work to a new JoVE collection guest-edited by NAVBO members, **Dr Zhen Bouman Chen** (2020 Springer Junior Investigator Award winner) and **Dr. Naseeb Malhi** at City of Hope! For more information or to submit an abstract, please email <a href="mailto:zhenchen@coh.org">zhenchen@coh.org</a> or follow this

### Calendar of Events

August 22, 2023	Symposium: The Role of Vascular Smooth Muscle Cell in Disease
August 24, 2023	InFocus - Signals and Pathways in Vascular Damage
September 5 - 8, 2023	Adhesion and migration in disease: Translational and therapeutic opportunities
September 7, 2023	Webinar with Zhanna V. Nepiyushchikh and Josh Wythe
October 5 - 7, 2023	Lipedema World Congress
October 15 - 19, 2023	Vascular Biology 2023
October 24 - 27, 2023	Critical Issues in Tumor Microenvironment: Angiogenesis, Metastasis and Immunology
April 5 - 8, 2024	Asia Pacific Vascular Biology Organization Conference 2024

Visit the NAVBO Calendar of Events for more meetings

#### Job Postings New Haven, CT Postdoctoral Yale University Research Fellow The University of Dallas, TX Postdoctoral Fellowship in Texas Southwestern Endothelial Cell Medical Center **Biology** Post-doctoral Fellow Oklahoma Medical Oklahoma City, OK - vascular & platelet Research Foundation biology



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