



Membership

**Events** 

**Awards** 

Resources

# If You Missed the IVBM . . .



# **NAVBO Online Events to Feature IVBM**

## **Presentations**

If you were unable to attend the IVBM - or attended, but missed some speakers that you would have liked to have heard - keep an eye on the NAVBO Calendar of Events for webinars, symposia and InFocus Sessions featuring speakers and presenters from the IVBM.

We start with "InFocus - Endothelial Aging" on November 10 at 1:00pmET and a symposium on Pulmonary Vascular Diseases featuring Akiko Hata, University of California, San Francisco, Hasina Outtz Reed, Weil Cornell Medicine, and Marlene Rabinovitch, Stanford University School of Medicine on November 15, 2022, and will continue to offer IVBM related sessions through September 2023.

Be sure to check the **NAVBO Calendar of Events** frequently.

These sessions will be free of charge to all IVBM attendees and members of the IVBM participating societies, and of course, all NAVBO members.

# .essons Learned



#### William Polacheck, Ph.D.

Hello from Chapel Hill! My name is Bill Polacheck, and I am an Assistant Professor in the Joint Department of Biomedical Engineering at UNC Chapel Hill and NC State University. In 2018, my wife and I moved from Boston, where we had spent the past decade, to North Carolina, so I could start my research lab at UNC. I had completed my PhD in Mechanical Engineering at MIT then crossed the river for

a postdoc in a joint appointment between Harvard and BU. The move south marked the biggest transition of my life, as it does for so many junior faculty, and initially I spent too much time focusing on what I had left: New England, where I had grown up and completed my training; a city, where it seems like everyone is a scientist; large well-funded and engineering-focused labs, where I completed my PhD and postdoc; and quite honestly jobs where I understood what was required for success and how to structure my|in, but you will not receive time efficiently. Leaving all of this behind to begin a job in which the the member pricing. Renew complexity and demands on time seemed to grow each day was daunting, and it became immediately apparent, as it does for so many people, that a postdoc is at best inadequate training for setting up an independent laboratory and training graduate students and postdocs. However, with help from colleagues at UNC, an incredibly patient spouse, and the infinite optimism of a golden retriever puppy, I learned what this new job entailed, recruited some fantastic people, and came to realize that the gains exponentially outweighed the costs of this strange and complicated transition. Here are a few specific things I learned with the acknowledgement that in beginning my 5th year, I'm still learning how to run a lab and manage trainees.

Read more from Dr. Polacheck here.

#### Lab of the Month

In this issue...

- **IVBM 2022**
- **Lessons Learned**
- Lab of the Month
- Committee Volunteers
  - **Member News**
- Spotlight on Trainees
- Member Publications CSR Early Career
- Reviewers Needed
- **Industry News**
- Summer Programs
- Call for Papers/Proposals
- Calendar of Events
- Job Postings
- Did You Know?

#### Meetings/Events



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

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

#### Webinar Series



# Did you know?

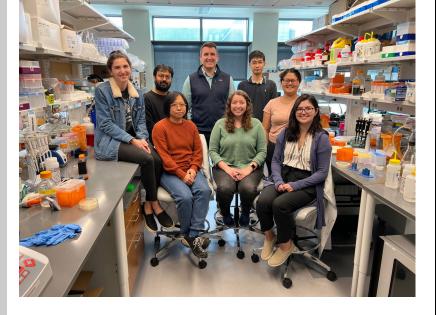
# We've Improved the Career Center!

Simply log in using your NAVBO login (same one you use to access the Member Portal) and the job board will recognize you as an active member and automatically give you the correct member pricing. If your membership expired, you'll be able to log and save money on your job postings! Post an open position today!

30-day postings are free for NAVBO members (a savings of \$200)

# The Member Portal Makes it Easy for **NAVBO Members to:**

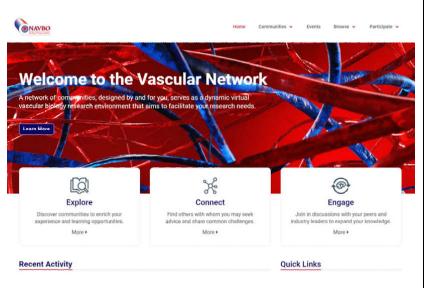
- Register for an online event or upcoming conferences auickly
- Easily see events for which you have registered
- Access your data and update your profile
- Renew your membership, check your current status, print invoices or receipts
- Search the Directory for other NAVBO members
- Use Research Categories to find those with like interests



#### Lab of the Month - November 2022 The Lab of Dr. William Polacheck

This month we are highlighting the lab of Dr. William Polacheck, Assistant Professor at UNC Chapel Hill and NC State University. Find out more about his lab by visiting his page in our Lab of the Month listing.

## Committee Recruitment



#### Seeking Members for our Communities Committee

Our Communities Committee, led by Drs. Henar Cuervo Grajal and Morgan Salmon, engage members in conversation and collaboration.

If you would like to become more active in NAVBO, please consider joining this committee. Members of this committee pose questions and start community-wide conversations to tap into NAVBO's most important resource - its members!

Interested? Contact Dr. Cuervo or Dr. Salmon.

Visit the Vascular Network Community https://community.navbo.org

#### Member News

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

Denise Adams, Children's Hospital of Philadelphia Eric Belin de Chantemele, Medical College of Georgia at Augusta University

Cori Lau, University of Toronto

Andrew Li, University of California, San Francisco Ivana Zlatanova, University of California, San Francisco

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

## Spotlight on Trainees

# How has the COVID pandemic shaped the job-seeking process?

The CareerConnect resource from the American Association of Medical Colleges offers tips on preparing for questions you might be asked—or want to ask—in job interviews in the wake of the COVID-19 pandemic. Irrespective of your career stage or the nature of position you are seeking, the AAMC suggests considering closely the impact of the last two years: How do you communicate and engage with others when working remotely? How did your institution communicate with and manage employees during the pandemic? What do you do differently now than you did pre-pandemic? What makes you excited to get up in the morning?

## Recent Member Publications

# **Endothelial Glycocalyx Degradation in Critical Illness and Injury**

Frontiers in Medicine

The endothelial glycocalyx is a gel-like layer on the luminal side of blood vessels that is composed of glycosaminoglycans and the proteins that tether them to the plasma membrane. Interest in its properties and function has grown, particularly in the last decade,

Connect directly to the Vascular Network and our Career Center



#### There's an app for that!

Download the **MemberPlus** app to register for events, find other NAVBO members and access resources such as the **Career Center** and the **NAVBO Academy** on your phone or tablet. **Go to the App Store or Google Play.** 







# IVBM 2022 Supporters

www.ivbm2022.org

We gratefully acknowledge the support of the following societies, academic centers and corporations.



Corporate Support
Diamond Level



**Gold Level Partner** 

as its importance to endothelial barrier function has come to light. Read more

Neutrophil serine proteases in vitro: How much and why? **Journal of Leukocyte Biology** Read more

# Vascular endothelial cell development and diversity

**Nature Reviews Cardiology** 

Vascular endothelial cells form the inner layer of blood vessels where they have a key role in the development and maintenance of the functional circulatory system and provide paracrine support to surrounding non-vascular cells. Technical advances in the past 5 years in single-cell genomics and in in vivo genetic labelling have facilitated greater insights into endothelial cell development, plasticity and heterogeneity. Read more

#### Ensembles of endothelial and mural cells promote angiogenesis in prenatal human brain

Cell

Interactions between angiogenesis and neurogenesis regulate embryonic brain development. However, a comprehensive understanding of the stages of vascular cell maturation is lacking, especially in the prenatal human brain. Read more

# Fibrillin-1 Regulates Arteriole Integrity in the Retina

**Biomolecules** 

Fibrillin-1 is an extracellular matrix protein that assembles into microfibrils that provide critical functions in large blood vessels and other tissues. Mutations in the fibrillin-1 gene are associated with cardiovascular, ocular, and skeletal abnormalities in Marfan syndrome 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.

# CSR's Early Career Reviewers

The Center for Scientific Review (CSR) at the National Institutes of Health invites early career scientists to join our Early Career Reviewer program. Participants gain first-hand NIH grant review experience which can be helpful in preparing their own grants.

In brief, the program is open to those who:

- Have at least 1 year of independent research experience (assistant professors and similar roles; associate professors are not eligible and post-docs are not eligible)
- Have not held an R01 or equivalent
- Have at least one senior-authored publication (first, last, or corresponding) since earning a Ph.D. or M.D. and at least one in the last 2 years
- Have submitted an NIH grant application and received the summary statement

Details and the application can be found here: https://public.csr.nih.gov/ForReviewers/BecomeAReviewer/ECR

Questions are welcome – CSRearlycareerreviewer@mail.nih.gov

#### Industry News

#### Suite of virtual events from NIH and HHS available during 2022-23

The NIH Division of Human Subjects Research and HHS Office of Human Research Protections are offering a Human Subjects Research: Policies, Clinical Trials, & Inclusion event on Dec. 6 and 7, 2022. NIH and HHS experts will share policies, resources, guidance, and case studies. Registration is free and is included in the virtual NIH Grants Conference 2022-2023 season. The Conference events include more than 25 different topics on funding, policies, and processes shared by NIH and HHS personnel. Once registration is complete, just log into the site and save upcoming events to your calendar, gather resources from over 45 NIH Institute, Center, and Office booths in the virtual Exhibit Hall, and come back to visit any time during the conference season.

#### Heart valve investigator among Chan Zuckerberg DEI awardees

Earlier this year, the Chan Zuckerberg Initiative, in partnership with the National Academies of Sciences, Engineering, and Medicine, launched the Science Diversity Leadership program to recognize and further the leadership of excellent biomedical researchers who - through their outreach, mentoring, teaching, and leadership have a record of promoting diversity, equity and inclusion in their scientific fields. Among this year's awardees is Brian Aguado, an Assistant Professor of Bioengineering at UC-San Diego, for his project titled "Addressing Sex and Ancestral Disparities in Aortic Valve Stenosis," which uses biomaterial-based tools to help define precision drug- and device-based treatments for diverse patients.

#### **Documentation of "Long COVID" continues**

As reported in The Washington Post, a Scottish study involving nearly 100,000 participants (confirmed cases and a matched comparison group) has added further evidence that many people do not fully recover months after being infected with SARS-CoV2.



Strategic Partners





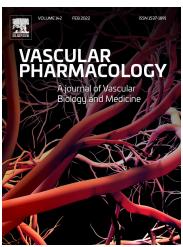


Event Partners



frontiers in Cardiovascular Medicine





**Contributors** 

Pharmacology & Translational Science







**Science** Advances

**Participating Societies Partners** 

Of >31,000 patients with symptomatic infection studied, 6% had not recovered and 42% had recovered only partially after 18 months. A history of symptomatic infection was associated with persistent symptoms that included breathlessness, heart palpitations, and chest pain. Encouragingly, patients with asymptomatic infections were unlikely to suffer long-term effects, and vaccination appeared to offer some protection from persistence of symptoms. Study authors emphasize that "... understanding long-COVID is essential to inform health and social care support."

# Summer Programs



# **PRIDE CVD-CGE**

Cardiovascular Disease Comorbidities, Genetics and Epidemiology July 11-27, 2022 at the University of Washington in St. Louis

The NHLBI-funded "Programs to Increase Diversity Among Individuals Engaged in Health-Related Research" support junior faculty underrepresented in biomedical research.

Space is limited for the mentored program starting summer 2022. **Apply early!** 

Learn more . . .

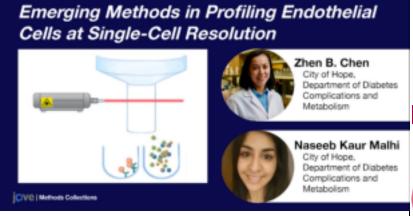
# **More PRIDE Programs:**

- Cardiovascular Health-Related Research (SUNY Downstate Health Sciences University)
- Future Faculty of Cardiovascular Sciences (UC San Diego)

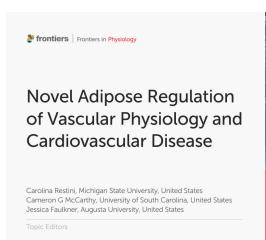
  Passage in Installance Action Science for Facility (UC San

  On The Cardiovascular Science for Facility (UC San
- Research in Implementation Science for Equity (UC San Francisco)

# Call for Papers/Proposals



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 zhenchen@coh.org or *follow this link* 



Novel Adipose Regulation of Vascular Physiology and Cardiovascular Disease hosted by Drs. Carolina Restini (Michigan State University), Cameron G. McCarthy (University of South Carolina School of Medicine) and Jessica L. Faulkner (Medical College of Georgia at Augusta University).







The Japanese Vascular Biology and Medicine Organization



#### Sponsors



AUSTRALIAN VASCULAR BIOLOGY SOCIETY



Applied
Cardiovascular
Biology



Guests



BMVBS
British Microcirculation &







It is well established that adipose tissue has profound influence on organ function via paracrine and endocrine signaling. Specifically, adipose tissue is able to expresses and secrete various bioactive molecules (e.g. adipokines). However, depending on the type of fat (brown or white), the organ, and the embryological origin, adipose tissues may diverge in the production/secretion of specific metabolites and how they subsequently affect organ function. Therefore, how adipose tissue contributes to homeostatic vascular physiology and the pathogenesis of cardiovascular disease is farreaching, as are possible therapeutic targets. In this issue, we aim to bring together a collection of state-of-the-art articles that illustrates this potential and contributes significantly to combating the prevalence and incidence of cardiovascular disease by targeting adipose tissue depots.

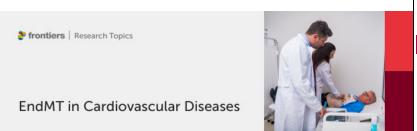
Submit your paper here: https://www.frontiersin.org/research-topics/27566/novel-adipose-regulation-of-vascular-physiology-and-cardiovascular-disease



Molecular Mechanisms Underlying Single Ventricle Defect hosted by Drs. Yifei Miao (Cincinnati Children's Hospital Medical Center), Shuyi Nie (Georgia Institute of Technology), and Mingtao Zhao (Nationwide Children's Hospital).

Single ventricle defects (SVD) are among the most complex congenital heart problems and manifest as the underdevelopment of one heart chamber and associated valvular structures. We have organized a special issue on **Frontier in Pediatrics and Cardiovascular Medicine** to collect the current progress into understanding the molecular contributions to SVD.

For more information or to submit an abstract, please email us or use this link: https://www.frontiersin.org/research-topics/37616/molecular-mechanisms-underlying-single-ventricle-defect



"EndMT in Cardiovascular Diseases" hosted by Drs. Mabruka Alfaidi (LSU Health Shreveport, USA), J. Geoffrey Pickering (Western University London, Canada) and Paul Evans (University of Sheffield, UK).

Endothelial-to-mesenchymal transition (EndMT) is characterized by multiple morphological and physiological changes, including loss of endothelial cell polarity, disruption of intercellular junctions, migration, altered extracellular matrix secretion, and increased proliferation. EndMT is a fundamental process during early development, however, it has been identified in a multitude of cardiovascular disease processes such as progressive atherosclerotic plaques, valvular heart disease, myocardial infarction, pulmonary hypertension, and cardiac fibrosis and remodeling in heart failure. EndMT entails a spectrum of cell phenotypic changes in which endothelial cells (ECs) downregulate their adhesion junction molecules (e.g. CD31, VECAD) and upregulate contractile and invasive markers (e.g. SMA, nCAD, CNN1). During development and in the process of transition, ECs delaminate from an organized cell layer and invade the underlying tissue. However, there is less understanding of these processes in the post-development stages, especially during the pathogenesis of cardiovascular diseases.

Submit your paper here: https://www.frontiersin.org/research-topics/42648/endmt-in-cardiovascular-diseases

Abstract Submission Deadline: 04 October 2022 Manuscript Submission Deadline: 04 December 2022

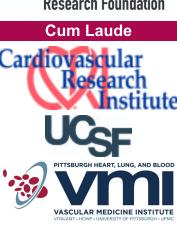
# Academic Summa Cum Laude



BRIGHAM AND WOMEN'S HOSPITAL

CARDIOVASCULAR MEDICINE















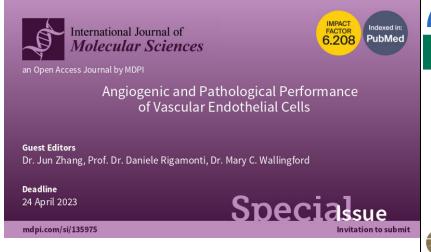






VISUALSONICS



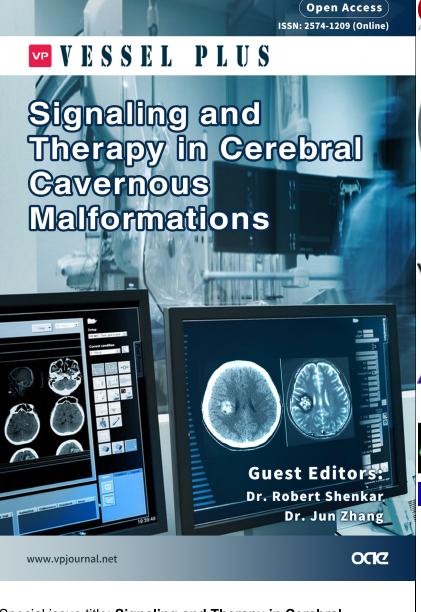


Special Issue "Angiogenic and Pathological Performance of Vascular Endothelial Cells" co-edited by our NAVBO members, Dr. Jun Zhang (TTUHSC) and Dr. Mary C. Wallingford (Tufts).

We are soliciting contributions from experts from NAVBO community in the vascular endothelial cell (EC) research field. This issue will focus on the angiogenic and pathological performance of vascular/microvascular ECs, covering activation, proliferation, migration, invasion, tube formation, the clonal expansion of ECs and cell junctions, maintenance and the malformations of vasculatures and the blood-brain barrier (BBB). Papers will be published in IJMS (International Journal of Molecular Sciences, impact factor, 6.208) are welcome in order to include results at both the cellular and molecular level.

For detailed Manuscript Submission Information, please go to website:

https://www.mdpi.com/journal/ijms/special\_issues/48C0H1HFX7



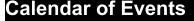
#### Special issue title: Signaling and Therapy in Cerebral **Cavernous Malformations**

Introduction: Cerebral cavernous malformations (CCMs) are ectatic capillary-venous malformations that develop in approximately 0.5% of the population. These malformations, which can vary in size from 2 millimeters to several centimeters in diameter, may be hereditary but most often occur on their own. As opposed to other kinds of hemangiomas, CCM vessels, which have the appearance of a small mulberry, develop and create problems in the brain or spinal cord. Patients with CCMs may develop headaches, focal neurologic deficits, seizures, and hemorrhages. In this special issue, we aim to report latest advances of CCMs.

Submit your paper here:

https://vpjournal.net/journal/special\_detail/1090

Submission Deadline: 31 March 2023



The 2022 Gordon Research Conference on Oct. 30 - Nov. 4, 2022

November 8, 2022 DEI Seminar with Dr. Curt Rice: "How Quotas

Improve Quality" November 15, 2022

Symposium: Pulmonary Vascular Diseases

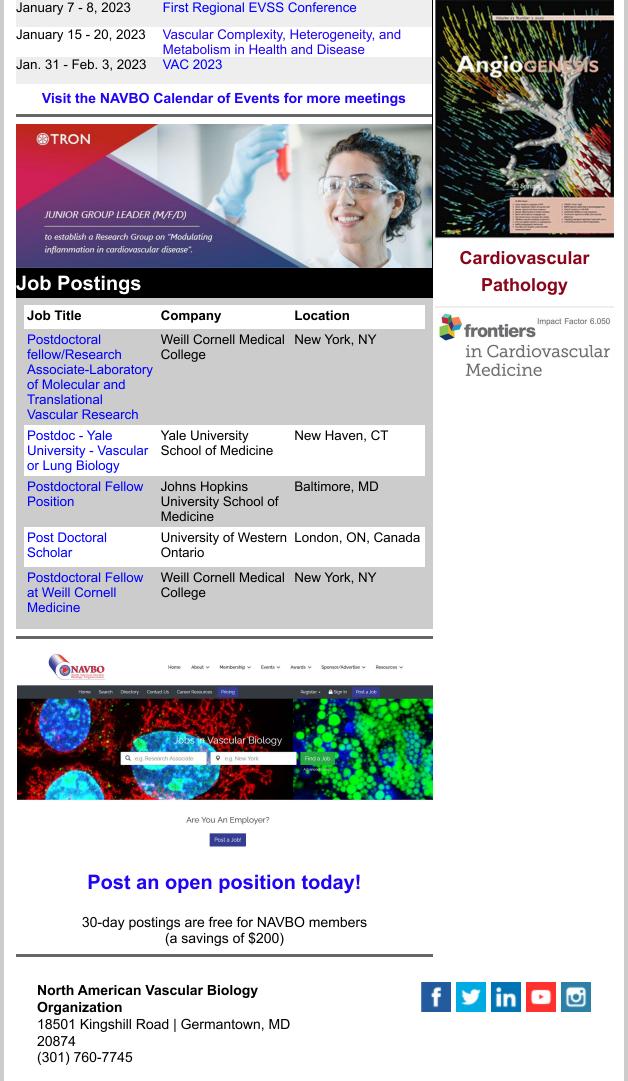












Mailing Preferences / Unsubscribe

## North American Vascular Biology Organization

18501 Kingshill Road | Germantown, MD 20874 (301) 760-7745 Unsubscribe









