April 7, 2022

NAVBO NewsBEAT

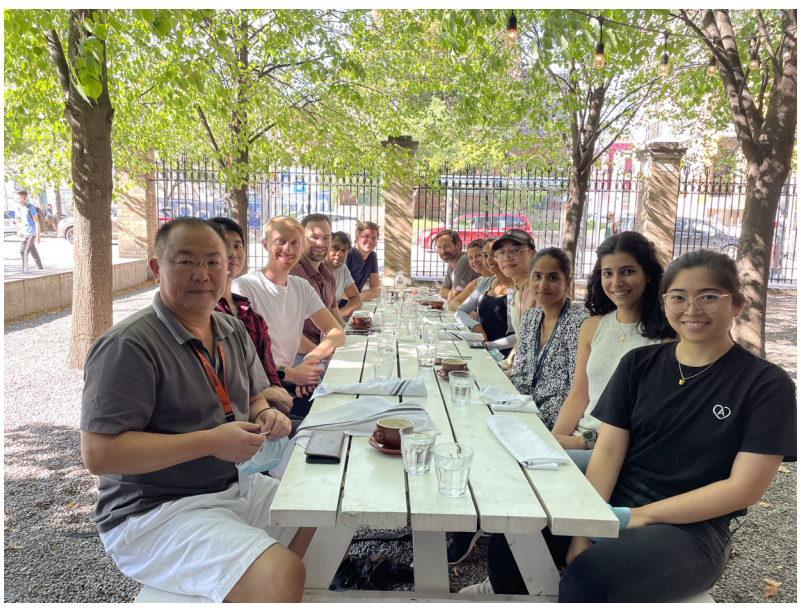
2022 IVBM - Registration Now Open!

Current NAVBO members and postdocs receive a discount - pay only $495 through August 31. NAVBO students pay $365 through August 31. *Members of participating societies also receive discounts.* See the list on the registration page. **To register for the meeting, go to *https://www.ivbm2022.org/registration/***

The meeting will begin with a keynote lecture by **Aviv Regev, Ph.D., Genentech Research and Early Development** followed by the Earl P. Benditt Award Lecture by **Joyce Bischoff, Ph.D.**, Boston Children's Hospital on Thursday, evening October 13. On Friday, we are honored to hold our second keynote lecture by **Jeffrey Bluestone, Ph.D., University of California, San Francisco**. The Judah Folkman Award Lecture by **Stefania Nicoli, Ph.D., Yale School of Medicine**, will be held on Saturday afternoon. The meeting will end on Monday with our final Keynote Lecture by **Christer Betscholtz, Ph.D., Uppsala University** and presentations of the Stephen Schwartz Award and the new Florence Sabin Award, and a general session on **New Signaling Mechanisms**.

See the full program

Lab of the Month



Lab of the Month - April 2022

The Lab of Drs. Kathryn Howe and Jason Fish

This month we are highlighting the lab of Dr. Kathryn Howe, who is an Assistant Professor at the University of Toronto and Dr. Jason Fish, Senior Scientist at the University Health Network - Toronto. Find out more about their lab by visiting their page in our Lab of the Month listing.

Member News

Welcome to our New Members:

Joshua Butcher, Oklahoma State University
Myriam Grunewald, The Hebrew University
Brikena Gusek, Midwestern University
Marcy Martin, Stanford University

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

Spotlight on Trainees

Workshop opportunity for trainees interested in a teaching-oriented career path

The American Physiological Society (APS) is recruiting applicants for the Preparing Effective Physiology Educators (PrEP-E) program for graduate students, postdoctoral fellows, and early-career professionals who are interested in enhancing their teaching skills through the development of a teaching portfolio supported by cohort and individual mentoring. Preference will be given to applicants who teach or plan on teaching at a community college. Thanks to grant funding, successful applicants will be

In this issue...

Meetings/Events

NAVBO ONLINE

Webinars - 1st Thursday
InFocus Sessions - 2nd and 4th Thursdays
Journal Clubs - 3rd Thursdays
Special Sessions on Tuesdays
(check schedule)

Did you know?

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.***

Available on the App Store

Get it on Google play

awarded $1,800 to attend the 2022 APS Institute on Teaching and Learning in Madison, WI, June 21-24. The deadline for applications is April 15, 2022.

Recent Member Publications

Microphysiological model of renal cell carcinoma to inform anti-angiogenic therapy
Biomaterials
Renal cell carcinomas are common genitourinary tumors characterized by high vascularization and strong reliance on glycolysis. Despite the many available therapies for renal cell carcinomas, first-line targeted therapies, such as cabozantinib, and durable reaponses are seen in only a small percentage of patients. Yet, little is known about the mechanisms that drive response (or lack thereof). Read more

miR-155 regulates physiological angiogenesis but an miR-155-rich microenvironment disrupts the process by promoting unproductive endothelial sprouting
Cellular and Molecular Life Sciences
Angiogenesis involves cell specification orchestrated by regulatory interactions between the vascular endothelial growth factor and Notch signaling pathways. However, the role of microRNAs in these regulations remains poorly explored. Here we show that a controlled level of miR-155 is essential for proper angiogenesis. Read more

Targeting mechanosensitive endothelial TXNDC5 to stabilize eNOS and reduce atherosclerosis in vivo
Science Advances
Although atherosclerosis preferentially develops at arterial curvatures and bifurcations where disturbed flow (DF) activates endothelium, therapies targeting flow-dependent mechanosensing pathways in the vasculature are unavailable. Read more

Targeted polyelectrolyte complex micelles treat vascular complications in vivo
PNAS
Vascular disease is a leading cause of morbidity and mortality in the United States and globally. Pathological vascular remodeling, such as atherosclerosis and stenosis, largely develop at arterial sites of curvature, branching, and bifurcation, where disturbed blood flow activates vascular endothelium. 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.*

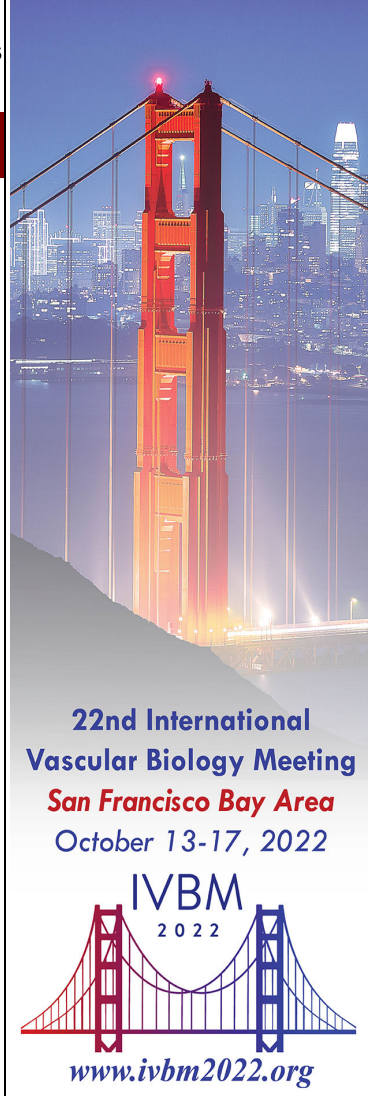
Industry News

Advocacy efforts for women of color in academic medicine
The Women of Color and Intersectionality Initiative is a new collaborative initiative within the Association of American Medical Colleges that aims to address the visibility, awareness, and advocacy of intersectionality and women of color in academic medicine, organized by the Group on Women in Medicine and Science (GWIMS) in partnership with multiple AAMC Affinity Groups. The goal of this initiative is to provide a platform for women of color and their allies to advocate for the advancement of women of color in academic medicine through knowledge sharing, project development, and community-building best practices.

Biden administration amplifies efforts to address burdens of Long COVID
As reported in the Washington Post, President Biden on April 5 issued a White House directive to focus research and develop treatments for “long COVID,” a complex and poorly-understood condition of lingering COVID-19 symptoms that affects millions of Americans. Biden’s memo directs HHS to coordinate a comprehensive action plan to advance measures of prevention, diagnosis, treatment, and provision of services, supports, and interventions for individuals experiencing Long COVID and associated conditions. The Presidential Memorandum also directs HHS to issue a report outlining services and supports across federal agencies to assist people experiencing Long COVID, individuals who are dealing with a COVID-related loss, and people who are experiencing mental health and substance use issues related to the pandemic.

Gapless human genome
A special issue of Science showcases the work of the multi-institutional Telomere-to-Telomere (T2T) Consortium, whose research efforts have produced a comprehensive human reference genome sequence. T2T’s report adds some 200 megabases of genetic information to the known human genome, including previously unsequenceable and unalignable regions. The reference genome provides a detailed description of centromeric satellite repeats, transposable elements, and segmental duplications. Ongoing studies address the potential of the T2T reference genome to enhance detection of medically-relevant variants and the emergence of genomic regions associated with human traits.

Summer Programs



IVBM 2022 Supporters

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

Corporate Support

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frontiers in Cardiovascular Medicine — Impact Factor 6.050

JCI The Journal of Clinical Investigation

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ASIP — American Society for Investigative Pathology

EVB — European Vascular Biology Organisation

The Korean Society of Cardiology

Sponsors

Australian Vascular Biology Society

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 through NHLBI:

- Cardiovascular Health-Related Research (SUNY Downstate Health Sciences University)
- Future Faculty of Cardiovascular Sciences (UC San Diego)
- Research in Implementation Science for Equity (UC San Francisco)

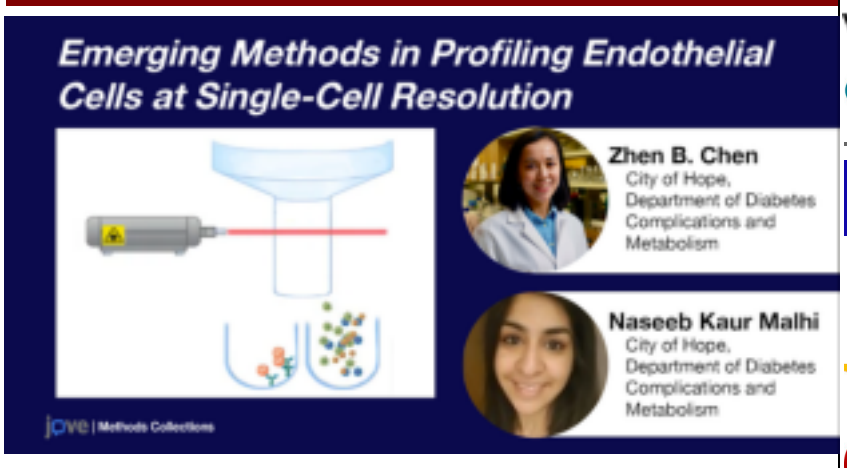
Children’s Hospital of Pittsburgh offers an eight-week paid summer internship program designed for undergraduate students from underrepresented groups from any college or university who wish to learn the rationale, design strategies, methods and other aspects of biomedical research by engaging in studies related to the heart, lung and blood fields under the direct supervision of experienced researchers.

Applications for the 2022 program will be available on-line at www.chp.edu in early January 2022. Selected participants are notified in April. The 2022 program will commence in June and conclude at the end of July. Participants are expected to complete the 8-week program. Housing is provided.

Please download the flyer and post it.

Learn more . . .

Call for Papers



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.***

Chinese American Academy of Cardiology CAAC

International Society for Applied Cardiovascular Biology ISACB

mcs

Guests

Société Française d'Angiogenèse

International Atherosclerosis Society

KVBM Korean Society for Vascular Biology and Medicine

Academic

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Quantifying Cell Behavior

CellBiologics
A Cell Above the Rest

frontiers in Cell and Developmental Biology

Impact Factor 6.684

Lymphatic System: Organ Specific Functions in Health and Disease

Topic Editors: **Tsutomu Kume**, **Young-Kwon Hong**, **Zoltán Jakus** and **Kaska Koltowska**

The journal Frontiers in Cell and Developmental Biology has launched a new Research Topic on “Lymphatic System: Organ Specific Functions in Health and Disease” to feature the cellular and molecular mechanisms that govern the formation and regulation of lymphatic vascular heterogeneity in different organs/tissues. This Research Topic will be edited by Dr. Tsutomu Kume (Northwestern University, USA), Dr. Young-Kwon Hong (University of Southern California, USA), Dr. Zoltán Jakus (Semmelweis University Budapest, Hungary) and Dr. Kaska Koltowska (Uppsala University, Sweden).

The intent of the Research Topic is to enhance understanding of organ-specific lymphatic functions in health and disease. The scope of the Research Topic is to focus on recent and novel advances in lymphatic vascular heterogeneity and organ-specific lymphatic functions with an emphasis on cellular and molecular processes. We welcome original research, reviews, and opinion articles, falling under, but not limited to, the following areas:

• Organ-specific lymphatic cell identity and origin
• Lymphatic vessel morphogenesis in different organs
• Organ-specific lymphatic function
• Impaired organ-specific lymphatic function in pathological processes
• Signaling pathways under physiological and pathological conditions
• Cell-cell communication
• Organotypic chemokines and cytokines
• Organ-specific modulation of immune responses

Deadline for abstract: January 15, 2022
Deadline for manuscript: May 21, 2022

Visit this website for more information.

There is a new Research Topic titled ***Brain Arteriovenous Malformations: Cerebrovasculature Behaving Badly***, in the journal Frontiers in Human Neuroscience, organized by **Richard Daneman**, Marcus Stoodley and **Lori Shoemaker**.

Our goal is to highlight advances in AVM research from the laboratory to the clinic, and to suggest where gaps remain. We also intend to place AVMs in the context of neurovascular development and the complex interactions of cell types within the vasculature and the brain.

We invite high-level original research articles, novel models or imaging methods, focused reviews, hypotheses/theories, and insight/opinion articles. Please consider contributing an article to this topic – it will be a valuable resource for the field. All the details can be found at: https://www.frontiersin.org/research-topics/30037/brain-arteriovenous-malformations-cerebrovasculature-behaving-badly

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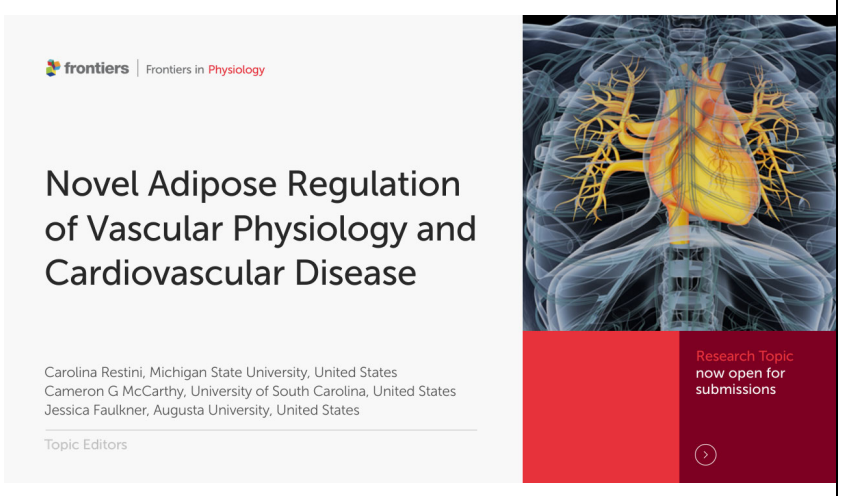
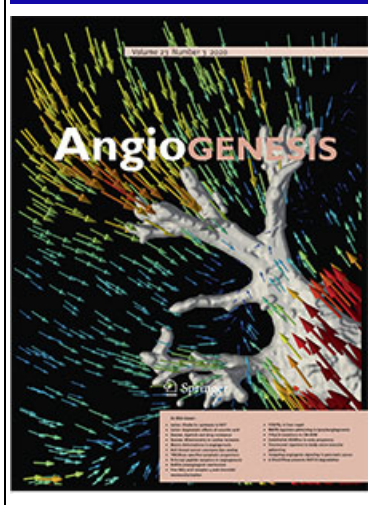


Novel Adipose Regulation of Vascular Physiology and Cardiovascular Disease hosted by Drs. Carolina Restini (Michigan State University), Cameron G. McCarthy (University of South Carolina School of Medicine) and Jessica L. Faulkner (Medical College of Georgia at Augusta University).

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 far-reaching, 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.

Due: 31st March 2022

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

Calendar of Events

April 7, 2022	Webinar Featuring Karen Christman
April 26, 2022	Symposium: Genetic and Epigenetic control of VSMC phenotype
May 5, 2022	Webinar Featuring Zhiyu Dai
May 9 -11, 2022	EMBO Workshop on Building Networks: Engineering in Vascular Biology
October 13-17, 2022	22nd International Vascular Biology Meeting
October 24 - 27, 2022	Critical Issues in Tumor Microenvironment: Angiogenesis, Metastasis and Immunology

Visit the NAVBO Calendar of Events for more meetings

Job Postings

Job Title	Company	Location
Postdoctoral position at Cincinnati Children's Hospital	Cincinnati Children's Hospital	Cincinnati, OH
Postdoctoral Researcher	University of Pennsylvania	Philadelphia, PA
Postdoctoral Fellowship Opportunities in Regenerative Medicine and Stem Cell Biology	University of Illinois College of Medicine	Chicago, IL
Assistant Professor of Pathology, Member UNC McAllister Heart Institute	University of North Carolina	Chapel Hill, NC
Assistant Professor (tenure-track) in Department of Molecular and Cellular Physiology	Albany Medical College	Albany, NY
UTSW Postdoctoral Posting	The University of Texas Southwestern Medical Center	Dallas, TX
Postdoctoral Fellow	University of California, Los Angeles	Los Angeles, CA

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