April 21, 2022

NAVBO NewsBEAT

Register for Vasculata 2022!

Registration and abstract submission for Vasculata 2022 is now OPEN!

Vasculata 2022
July 18-21, 2022
In-Person at Duke University Medical Center

For the preliminary program, registration and abstract submission information: https://navbo.org/vasculata

Hands-on workshops, scholarships, affordable housing, keynote lecture, networking, posters sessions and more! **Join us this summer!**

Download and post our flyer!

IVBM - Abstract Submission Open!

Over 100 abstracts will be chosen for short talks to be included in the IVBM program, including the sessions sponsored by the participating societies. Submit your abstract and indicate the theme and topics best aligned with your research. We also expect to have 500 posters over three days - submit your abstract for inclusion in our program!

The abstract deadline is August 1, 2022

Submit Your Abstract

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/***

See the Preliminary Program

NAVBO Sponsored Travel Awards

Travel Awards Available to the Gordon Research Conference

NAVBO is once again offering trainee travel awards to the upcoming GRC on "Endothelial Cell Phenotypes in Health and Disease." Applications are due May 31, 2022 and you and your PI must be NAVBO members. Go to https://www.navbo.org/trainee-awards/

Travel Awards to the 22nd IVBM

Several organizations will be offering trainee travel awards to this year's IVBM. You must submit an abstract in order to be eligible (details are included within the submission site). At the time of this announcement the organizations include:

Japanese Vascular Biology and Medicine Organization
ACS Pharmacology and Translational Science
North American Vascular Biology Organization

Go to https://www.ivbm2022.org/trainee-opportunities/ for details and to see the growing list of societies.
Deadline to apply is August 1 (same as abstract deadline).

Lab of the Month

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

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:

Christopher Dustin, University of Pittsburgh
Tara Haas, York University
David Jourd'heuil, Albany Medical College
Santosh Karnewar, University of Virginia
Kyung Hee Kim, Emory University
Li Lai, Houston Methodist Research Institute
Amanda LeBlanc, University of Louisville
Chunying Li, Georgia State University
Sanjay Misra, Mayo Clinic
Ke Shan, Duke 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 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.

Originally published in our April 7 issue

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

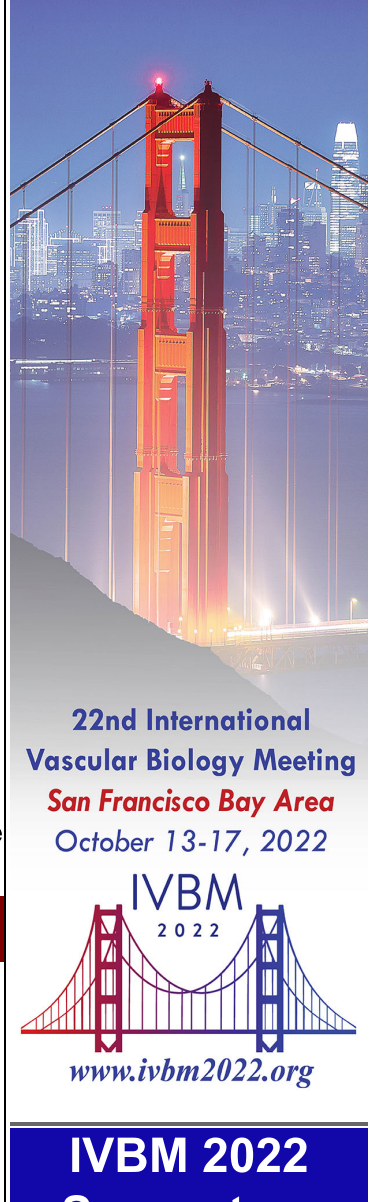
Recent Member Publications

Endothelial OCT4 is atheroprotective by preventing metabolic and phenotypic dysfunction

Cardiovascular Research

Aims: Until recently, the pluripotency factor OCT4 was believed to be dispensable in adult somatic cells. However, our recent studies provided clear evidence that OCT4 has a critical atheroprotective role in smooth muscle cells (SMC). Here, we asked if OCT4 might play a functional role in regulating endothelial cell (EC) phenotypic modulations in atherosclerosis. Read more

Non–beta blocker enantiomers of propranolol and atenolol inhibit vasculogenesis in infantile hemangioma



IVBM 2022 Supporters

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

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JCI The Journal of Clinical Investigation

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ASIP
American Society for Investigative Pathology

EVB
EUROPEAN VASCULAR BIOLOGY ORGANISATION

The Japanese Vascular Biology and Medicine Organization

Journal of Clinical Investigation

Propranolol and atenolol, current therapies for problematic infantile hemangioma (IH), are composed of R(+) and S(–) enantiomers: the R(+) enantiomer is largely devoid of beta blocker activity. We investigated the effect of R(+) enantiomers of propranolol and atenolol on the formation of IH-like blood vessels from hemangioma stem cells (HemSCs) in a murine xenograft model. Read more

Wnt Site Signaling Inhibitor Secreted Frizzled-Related Protein 3 Protects Mitral Valve Endothelium From Myocardial Infarction–Induced Endothelial-to-Mesenchymal Transition

Journal of the American Heart Association

The onset and mechanisms of endothelial-to-mesenchymal transition (EndMT) in mitral valve (MV) leaflets following myocardial infarction (MI) are unknown, yet these events are closely linked to stiffening of leaflets and development of ischemic mitral regurgitation. Read more

Endothelial cells promote smooth muscle cell resilience to H 2 O 2 -induced cell death in mouse cerebral arteries

Acta Physiologica

Aim: Brain injury produces reactive oxygen species (ROS). However, little is known of how acute oxidative stress affects cell survival in the cerebral vascular supply. We hypothesized that endothelial cells (ECs) are more resilient to H2 O2 and protect vascular smooth muscle cells (SMCs) during acute oxidative stress. Read more

Molecular Signature of Tumor-Associated High Endothelial Venules That Can Predict Breast Cancer Survival

Cancer Immunology Research

High endothelial venules (HEV) are specialized post-capillary venules that recruit naïve lymphocytes to lymph nodes. HEVs are essential for the development of adaptive immunity. HEVs can also develop in tumors where they are thought to be important for recruiting naïve T cells and B cells into the tumors and locally enhancing antitumor immunity by supporting the formation of tertiary lymphoid structures. Read more

Nanoparticle targeting of de novo profibrotic macrophages mitigates lung fibrosis

PNAS

Significance Current therapies for pulmonary fibrosis (PF) focus on slowing disease progression and reducing functional decline in patients by dampening the activation of fibroblasts and other implicated cells. There is a need for strategies that target the essential cells and signaling pathways involved in disease pathogenesis. Read more

Albumin Nanoparticle Endocytosing Subset of Neutrophils for Precision Therapeutic Targeting of Inflammatory Tissue Injury

ACS nano

The complex involvement of neutrophils in inflammatory diseases makes them intriguing but challenging targets for therapeutic intervention. Here, we tested the hypothesis that varying endocytosis capacities would delineate functionally distinct neutrophil subpopulations that could be specifically targeted for therapeutic purposes. 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.

Originally published in our April 7 issue

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)
- Research in Implementation Science for Equity (UC San Francisco)

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.***

frontiers in Cell and Developmental Biology

Lymphatic System: Organ Specific Functions in Health and Disease

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

Read more here.

There is a new Research Topic titled ***Brain Arteriovenous Malformations: Cerebrovasculature Behaving Badly***, in the

Exhibitors

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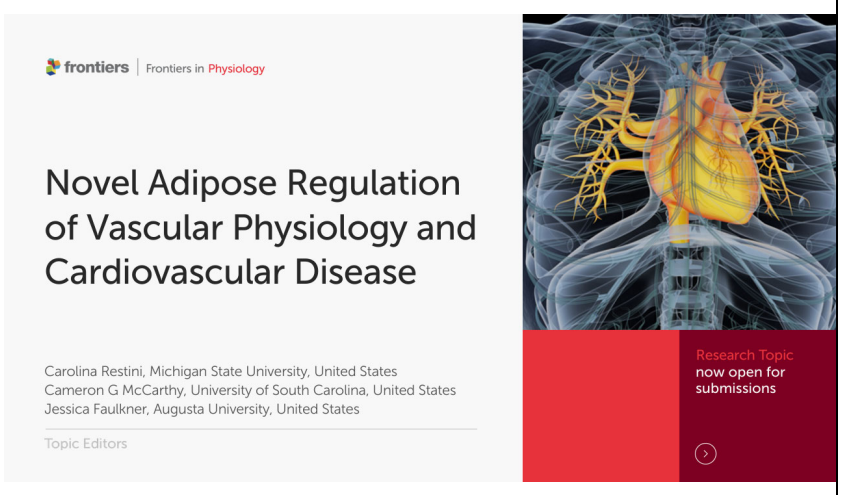
journal Frontiers in Human Neuroscience, organized by **Richard Daneman**, Marcus Stoodley and **Lori Shoemaker**.

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



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: May 1, 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 26, 2022	Symposium: Genetic and Epigenetic control of VSMC phenotype
April 28, 2022	InFocus - Focusing on Trafficking in Vascular Cells
May 5, 2022	Webinar Featuring Zhiyu Dai
May 9 -11, 2022	EMBO Workshop on Building Networks: Engineering in Vascular Biology
May 12, 2022	InFocus - Mechanosensing in Endothelial Cells
May 17, 2022	Career Development Forum Part III
May 26, 2022	InFocus - Vascular Remodeling and Hypertension
June 13-15, 2022	EVBO/ESM online Vascular Biology Summer School
July 9 - 13, 2022	ISTH Congress
September 17-20, 2022	12th International Kloster Seeon Meeting “Angiogenesis”: Molecular Mechanisms and Functional Interactions
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

Cardiovascular Pathology

frontiers in Cardiovascular Medicine
Impact Factor 6.050

Postdoctoral fellow/Staff Scientist/Research Technician	Oklahoma Medical Research Foundation	Oklahoma City, OK
Postdoctoral fellow	University of Washington	Seattle, WA
Post-doctoral Fellow / Assistant Staff Scientist - Cardiovascular Disease	Oklahoma Medical Research Foundation	Oklahoma City, OK
UTSW Postdoctoral Posting	The University of Texas Southwestern Medical Center	Dallas, TX
Postdoctoral Fellow	Oklahoma Medical Research Foundation	Oklahoma City, OK

North American Vascular Biology Organization
18501 Kingshill Road | Germantown, MD 20874
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