



# NewsBEAT

[Membership](#) | [Events](#) | [Awards](#) | [Resources](#)

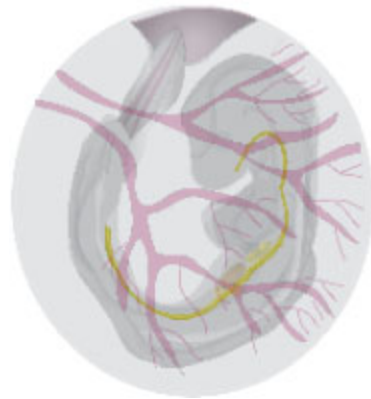


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## Celebrating 20 years!

### Join us in Commemorating 20 Years of Workshops in Developmental Vascular Biology



In celebration of the 20<sup>th</sup> Anniversary of the Developmental Vascular Biology Workshop, the original chairs: **Luisa Iruela-Arispe** (Northwestern University) and **Brant Weinstein** (NICHD/NIH), and NAVBO are thrilled to announce a three-day virtual conference, February 12-14, 2024. This exceptional event will bring together pioneers and rising stars in the field, showcasing the remarkable progress made over the past two decades.

[Visit the web site to see the Preliminary Program.](#)

Invited talks from the pioneers in this field will give lectures that offer an historic prospective. Presentations from submitted abstracts will demonstrate the advancements and current trends in developmental vascular biology.

*Important note to those wishing to submit an abstract - because of the nature of the meeting, abstracts need not be based on unpublished work. It can be based on a published paper or a previous presentation.*

Mark your calendars, [register](#), [submit your abstract](#), and be part of this extraordinary celebration of 20 years of Workshops on Developmental Vascular Biology. Topics will include: evolutionary origins and diversity of the vasculature, lymphatic vascular biology, cell-cell, cell-matrix, and cell-tissue interactions, vascular signaling, vascular morphogenesis, and vessel guidance and formation of vascular networks

**Plan to join us online for this unique event!**

**Abstract submission deadline is January 8.**  
**Early bird registration deadline is January 12.**

## Lessons Learned



### Xiaolei Liu, Ph.D.

Hi NAVBO family, I am Xiaolei Liu, and I am an Assistant Professor in the Lemole Center for Integrated Lymphatics Research at Temple University. I received my Master's degree with Dr. Deling Kong in China in the field of cardiovascular research, and then came to the US in Dr. Hong Chen's lab where I got trained in lymphatic development and built up a strong passion in the field of lymphatic research during my PhD studies. After that, I

received postdoc training with Dr. Guillermo Oliver, a world known developmental biologist and one of the pioneers in the lymphatic field. Looking back, I am beyond grateful for all the incredible support from all my mentors, colleagues, and collaborators. I am still benefiting from all their support. In 2022, I relocated to Temple University and started my independent research group. Although I have been in this position not long, I want to share some experience and challenges I have faced. Hopefully some of the tips could be very much helpful for junior faculties.

[Read More from Dr. Liu here.](#)

## Lab of the Month

### In this issue...

- [DVB Workshop](#)
- [Lessons Learned](#)
- [Lab of the Month](#)
- [Travel Awards to GRC](#)
- [IVBM2024](#)
- [Member News](#)
- [Spotlight on Trainees](#)
- [Member Publications](#)
- [Industry News](#)
- [Summer Program](#)
- [Call for Papers/Proposals](#)
- [Calendar of Events](#)
- [Product Showcase - Worthington](#)
- [Job Postings](#)

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## 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](#))



### Lab of the Month - December 2023

#### The Lab of Dr. Xiaolei Liu

This month we are highlighting the lab of Dr. Xiaolei Liu, Assistant Professor at Temple University. Find out more about her lab by visiting [her page](#) in our Lab of the Month listing.

### NAVBO Travel Awards to the GRCs

NAVBO is once again sponsoring Travel Awards for our trainee members to attend the following Gordon Research Conferences:

- Lymphatic Vascular Diversity in Development, Tissue Homeostasis, Disease and Therapeutic Strategies (March 3 - 8, 2024 in Ventura, California)
- Endothelial Cell Heterogeneity in Vascular Development, Disease and Homeostasis (June 30 - July 5, 2024 in Castelldefels, Spain)

For more information and to submit an award application, go to <https://www.navbo.org/trainee-awards/> and click on the "Travel Awards - Other" tab.

**2-5 July 2024, Amsterdam, the Netherlands**

[www.lvbm2024.com](http://www.lvbm2024.com)

**KEYNOTES:** Kari Alitalo, Kristy Red-Horse, Hans Clevers, Stefanie Dimmeler, Nikolaus Rajewsky, Anne Eichmann, Didier Stainier, Stefania Nicoli

**IVBM 2024**

### Member News

#### Welcome to our New Members:

Ana Davel, University of Campinas - UNICAMP  
 Ricardo DeMoya, University of South Florida  
 Sean DeWolf, University of California San Diego  
 Kunzhe Dong, Augusta University  
 Parker Esswein, Duke University  
 Tatia Goldberg, Tulane University  
 Martyna Griciunaite, University of South Florida  
 Marie Hoareau, Yale School of Medicine  
 Shayan Mohammadmoradi, University of Kentucky  
 Alanna Pyke, Stanford University School of Medicine  
 Bikram Sharma, Ball State University  
 Mohammad Siddiqui, Northwestern University  
 Justin Van Beusecum, Medical University of South Carolina

If you have news to share with your colleagues, send it to [membership@navbo.org](mailto:membership@navbo.org)

### Spotlight on Trainees

#### AAMC Virtual Communities seek to connect peers with shared concerns

The Association of American Medical Colleges offers a suite of online communities that aim to connect colleagues in academic medicine with peers wrestling with common challenges. The AAMC Virtual Communities Network platform allows members to post queries or comment on goings-on in their institution or health system. Recent discussions have focused on adapting to the shifting sands of social media platforms, philanthropy, staying current in academic medicine, and tips on effective networking practices – all subjects relevant to trainees and experienced scientists alike. Information on joining an AAMC Virtual Community may be found [here](#).

### Recent Member Publications

#### Ubiquitin Ligase CHFR Mediated Degradation of VE-cadherin through Ubiquitylation Disrupts Endothelial Adherens Junctions

Nature Communications

**NAVBO**  
2024

October 20-24, 2024  
 Monterey, CA

**Topics in Vascular Biology:**

- Development & Genetics
- Inflammation
- Matrix Biology & Bioengineering
- Signaling
- Microcirculation
- Mechanotransduction
- Vascular Malformations

Preliminary Program available on the web site:

<https://navbo.org/vb2024>



### VB2023 Supporters

#### ADDITIONAL VENTURES



**THE WALL CENTER**  
 PULMONARY VASCULAR DISEASE  
 @STANFORD



The Center for Cardiovascular Immunology Research at the Peter Munk Cardiac Centre



Vascular endothelial cadherin (VE-cadherin) expressed at endothelial adherens junctions (AJs) is vital for vascular integrity and endothelial homeostasis. Here we identify the requirement of the ubiquitin E3-ligase CHFR as a key mechanism of ubiquitylation-dependent degradation of VE-cadherin. [Read more](#)

### **Sex and Racial Disparities in Peripheral Artery Disease Arteriosclerosis, Thrombosis, and Vascular Biology**

Several studies have shown that women and racial and ethnic minority patients are at increased risk of developing lower extremity peripheral artery disease and suffering adverse outcomes from it, but a knowledge gap remains regarding the underlying causes of these increased risks. [Read more](#)

### **Effects of activity levels on aortic calcification in hyperlipidemic mice as measured by microPETmicroCT Atherosclerosis**

Background and aims: Cardiovascular disease risk is associated with coronary artery calcification and is mitigated by regular exercise. Paradoxically, elite endurance athletes, who have low risk, are likely to have more coronary calcification, raising questions about the optimal level of activity. [Read more](#)

### **Female sex protects against renal edema, but not lung edema, in mice with partial deletion of the endothelial barrier regulator Tie2 compared to male sex PLoS One**

The endothelial angiopoietin/Tie2 system is an important regulator of endothelial permeability and targeting Tie2 reduces hemorrhagic shock-induced organ edema in males. However, sexual dimorphism of the endothelium has not been taken into account. This study investigated whether there are sex-related differences in the endothelial angiopoietin/Tie2 system and edema formation. [Read more](#)

### **Organotypic heterogeneity in microvascular endothelial cell responses in sepsis—a molecular treasure trove and pharmacological Gordian knot**

Frontiers in Medicine

In the last decades, it has become evident that endothelial cells (ECs) in the microvasculature play an important role in the pathophysiology of sepsis-associated multiple organ dysfunction syndrome (MODS). [Read more](#)

### **Impaired hemoglobin clearance by sinusoidal endothelium promotes vaso-occlusion and liver injury in sickle cell disease Haematologica**

Sickle cell disease (SCD) is a monogenic disorder that affects 100,000 African Americans and millions of people worldwide. Intra-erythrocytic polymerization of sickle hemoglobin (HbS) promotes erythrocyte sickling, impaired rheology, ischemia and hemolysis, leading to the development of progressive liver injury in SCD. [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](mailto:membership@navbo.org). Please note, only papers authored by current NAVBO members are accepted for inclusion.

## **Industry News**

### **Monica Bertagnolli confirmed as NIH director**

Cancer surgeon and clinical trial expert Monica Bertagnolli has been confirmed by the US Senate as the 17th Director of the NIH. As the second woman to serve in this role, Bertagnolli succeeds longtime director Francis Collins, who stepped down in December 2021. The \$47 billion NIH portfolio faces enormous budgetary and political pressures, and cultivating support among Congress members will be a priority for the Director, in the interest of preserving NIH funding in the still-unsettled FY2024 federal budget.

### **Placental development attuned to maternal microbiome?**

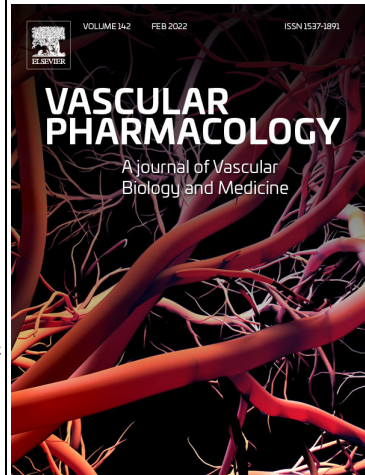
Investigators at UCLA report in [ScienceAdvances](#) a relationship between maternal gut flora and placental vascular development. From the abstract: “Depletion of the maternal gut microbiota restricts placental growth and impairs fetoplacental vascularization... Furthermore, in a model of maternal malnutrition, gestational supplementation with [short-chain fatty acids] prevents placental growth restriction and vascular insufficiency. These findings highlight the importance of host-microbial symbioses during pregnancy and reveal that the maternal gut microbiome promotes placental growth and vascularization in mice.”

### **Genetic basis implicated for vasospasm in Raynaud’s phenomenon**

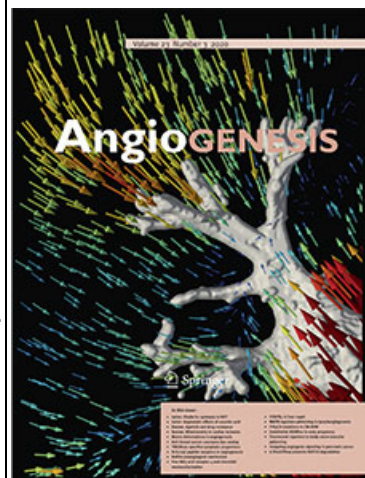
An international team of geneticists, bioinformaticians, and vascular and neurological specialists report in [Nature Communications](#) findings of risk genes for Raynaud’s phenomenon, a common, heritable vasospastic disorder. A genome-wide association study identified three novel regions associated with significant risk of Raynaud’s. Implicated loci include the alpha 2A adrenoceptor ADRA2A, speculated by study authors to convey hypersensitivity to catecholamine-induced vasospasms in Raynaud’s sufferers. The findings offer the first solid evidence for the long-suspected genetic contribution to the disorder.



Supporter of the 2023 Schwartz Award



Supporter of the 2023 Springer Award



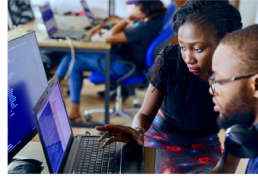
Exhibitors



## 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

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

Contact us: [radiance@wustl.edu](mailto:radiance@wustl.edu)

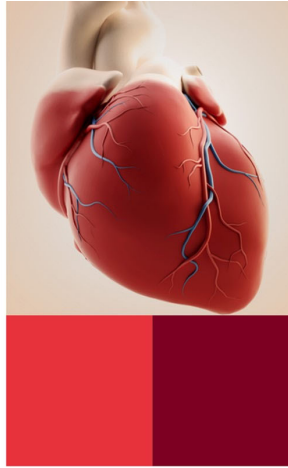
[Click here for more information.](#)

## Call for Papers/Proposals

 **frontiers** | Research Topics  
Frontiers in Cardiovascular Medicine

### New Trends in Vascular Biology 2023

[Open for submissions](#)



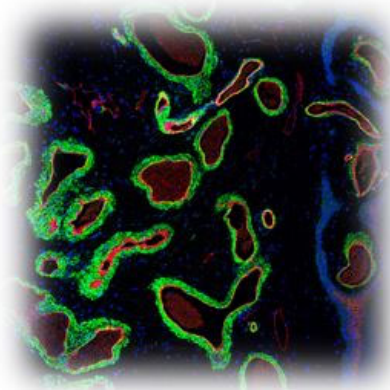
Frontiers in Cardiovascular Medicine launched the new Research Topic “New Trends in Vascular Biology 2023” (co-editors: **Masanori Aikawa, Hong Chen, Margreet R. De Vries, Yung Fang, Gabrielle Fredman, Delphine Gomez, Hiroshi Iwata, Shizuka Uchida, Hiromi Yanagisawa**; and assistant editor: **Sarvesh 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-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](mailto:cardiovascularmedicine.editorial.office@frontiersin.org) or Masanori Aikawa [maikawa@bwh.harvard.edu](mailto:maikawa@bwh.harvard.edu)

We look forward to receiving your manuscripts!

### JOVE Call for Methods Collection:

#### Patient-Derived Methods in Vascular Diseases: 2D, 3D and In Vivo Models



We are looking for articles presenting your cutting-edge protocols and techniques to investigate cellular and molecular mechanisms driving the development and progression of vascular diseases. Methods include isolation of vascular cells from patient tissues, step-by-step protocols for generating three-dimensional vascular organoids and perfused vascular networks, and murine models incorporating patient-derived endothelial cells and vascular tissues. This also includes models based on gene mutations identified in patients.

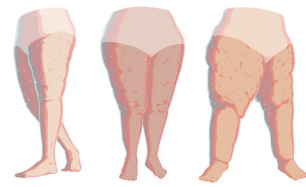
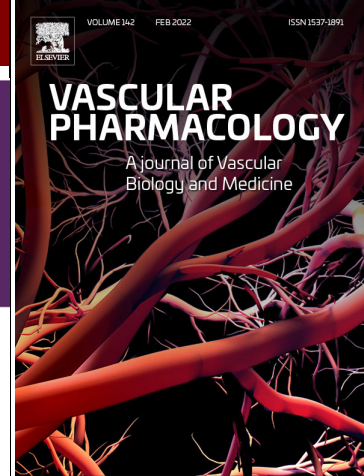
Submit your Abstract here:

<https://app.jove.com/methods-collections/2881>

or contact the Guest Editors:

Elisa Boscolo [elisa.boscolo@cchmc.org](mailto:elisa.boscolo@cchmc.org)

and Sandra Schrenk [Sandra.schrenk@cchmc.org](mailto:Sandra.schrenk@cchmc.org)

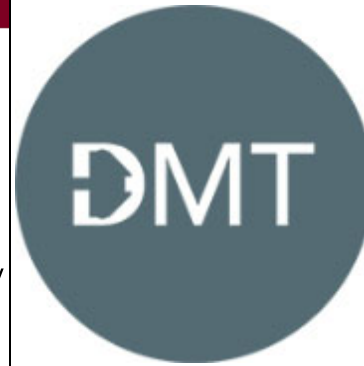


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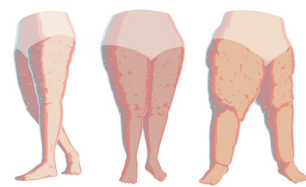
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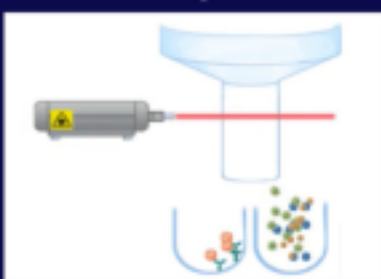
Deputy Editor Dr. Stefano Tarantini and Editor-in-Chief Dr. Zoltan Ungvari, and the editorial team of GeroScience (Official Journal of the American Aging Association, published by Springer) invite submissions of original research articles, opinion papers and review articles related to research focused on understanding the mechanisms involved in vascular aging, the factors promoting accelerated aging in vascular cells and the role of vascular cells in the pathogenesis of age-related diseases. NAVBO Member, **Zoltan Arany**, of the University of Pennsylvania, is an Associate Editor in Cardiovascular Function.

## Cardiovascular Pathology

frontiers Impact Factor 6.050  
in Cardiovascular Medicine

All manuscripts should be submitted online here: <https://www.editorialmanager.com/jaaa/default.aspx>

**Emerging Methods in Profiling Endothelial Cells at Single-Cell Resolution**



**Zhen B. Chen**  
City of Hope,  
Department of Diabetes  
Complications and  
Metabolism

**Naseeb Kaur Malhi**  
City of Hope,  
Department of Diabetes  
Complications and  
Metabolism

JOVE | Methods Collections

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](mailto:zhenchen@coh.org) or [follow this link](#).

## Calendar of Events

|                        |  |
|------------------------|--|
| December 14, 2023      | <a href="#">InFocus - Vascular Development and Regeneration</a>                            |
| December 19, 2023      | <a href="#">Symposium: All About the Lymphatics</a>  |
| January 9, 2024        | <a href="#">DEI Roundtable: Reducing Implicit Bias in Professional Decisions</a>           |
| January 11, 2024       | <a href="#">InFocus - A Vascular View of Tumor Biology</a>                                 |
| January 18, 2024       | <a href="#">Journal Club - January 2023</a>  |
| February 12 - 14, 2024 | <a href="#">Developmental Vascular Biology Workshop - 20th Anniversary</a>                 |
| February 20 - 23, 2024 | <a href="#">EMBO Workshop - The New Cardiobiology</a>                                      |
| March 17 - 19, 2024    | <a href="#">Keystone Symposia - UNRAVELING VASCULAR LAYERS TO UNDERSTAND HUMAN DISEASE</a> |
| April 5 - 8, 2024      | <a href="#">Asia Pacific Vascular Biology Organization Conference 2024</a>                 |

[Visit the NAVBO Calendar of Events for more meetings](#)

## Product Showcase



### Collagenase Sampling Program Now Available Online

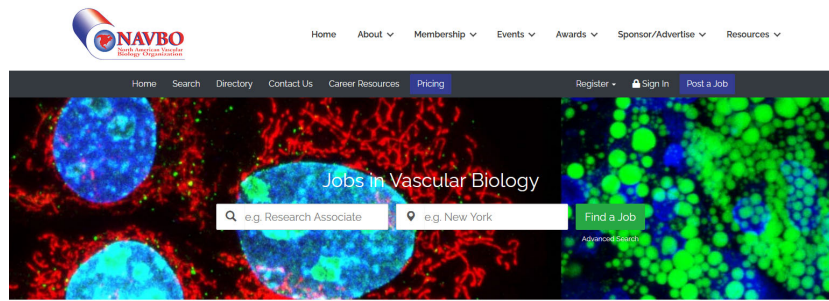
The Worthington Collagenase Sampling Program provides 100 mg samples, up to three different lots of collagenase for evaluation in your cell isolation systems. A period of 60 days is allowed for sample evaluation. A minimum of 3 grams of each lot of collagenase is placed on HOLD in your name. There is no charge for participating in the program. Worthington's Collagenase Lot Selection Tool is at our website or contact: [techservice@Worthington-Biochem.com](mailto:techservice@Worthington-Biochem.com).

## Job Postings

[The Marlene L. Cohen and Jerome H. Fleisch Family Endowed Chair in Vascular Biology](#) UConn Health Farmington, CT

[Postdoctoral Fellow](#) Northeast Ohio Medical University Roostown, OH

[Postdoctoral position at Yale University School of Medicine](#) Yale University School of Medicine New Haven, CT



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