



The Academy of Cardiovascular Research Excellence

ACRE Symposium at Vascular Discovery 2025

April 22, 2025

Shock Trauma Auditorium, University of Maryland Medical Center
22 S Greene St, Baltimore, MD 21201

Program at a Glance:

8:00-8:50 AM	Registration
8:00-8:50 AM	Career Advancing Forum
8:50-9:00 AM	Opening Remarks
9:00-9:10 AM	Membership Report & Financial Report
9:10-3:55 A/PM	Scientific Presentations
9:10-3:55 A/PM	Keynote Presentations
4:00-4:30 PM	Award Announcement and Closing Remarks

8:00-8:50 AM

Registration

8:00-8:50 am	Registration
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8:00-8:50 AM

Career Advancing Forum

Moderators:	Bowen Wang and Jingyan Han
Panelists:	Eugene Chen, Liwu Li, Ying Shen, John Shyy
8:00-8:50 am	Panel Discussion

8:50-9:10 AM

Opening Remarks & ACRE Reports

8:50-9:00 am	Opening Remarks
	Zhao Wang, President, the ACRE
9:00-9:05 am	Membership Report
	Xiaochun Long, Co-Chair, Membership Committee, the ACRE
9:05-9:10 am	Financial Report
	Jun Yu, General Secretary, the ACRE

9:10-9:35 AM

Session 1

Keynote Presentation 1

Moderator	Eugene Chen
9:10-9:35 am	Kathleen Martin , PhD, Yale University School of Medicine <i>Epigenetic Regulators in Vascular Smooth Muscle - Bench to Bedside</i>
9:35-10:00 am	Coffee Break

10:00-11:00 AM

Session 2 Young Investigator Award Presentations

Moderators:	Yanhong Guo and Lili Zhang
10:00-10:10 am	Shuilin Dong , Augusta university <i>Single cell and spatial multi-Omics show the Regulation and Therapeutic Potential of Venous Smooth Muscle Cell Reprogramming during Arteriovenous Fistula Remodeling</i>
10:10-10:20 am	Xiangqin He , Augusta University <i>Deficiency of the smooth muscle-specific long non-coding RNA CARMN exacerbates thoracic aortic aneurysms induced by FBN1 gene mutations in Marfan syndrome</i>
10:20-10:30 am	Bowen Li , Baylor College of Medicine <i>STING-IRF3/4 Pathway Mediates Epigenetic Regulation of Macrophage Phenotypic Polarization in Acute Thoracic Aortic Aneurysm and Dissection</i>
10:30-10:40 am	Jae Min Cho , University of California, Los Angeles <i>Habitual Exercise Modulates Neuro-Immune Interaction to Mitigate Aortic Stiffness</i>
10:40-10:50 am	Yaozhong Liu , University of Michigan <i>Restoring Vascular Smooth Muscle Cell Mitochondrial Function Attenuates Abdominal Aortic Aneurysm in Mice</i>
10:50-11:00 am	Qianqian Ding , UT Southwestern Medical Center <i>Genomic Editing of a Pathogenic Mutation in the Alpha Actin Isotype 2 Gene Rescues a Severe Vascular Disease</i>

11:00 -11:30 AM

Session 3 YIA Rapid Fire Competition Presentations

Moderators:	Yanhong Guo and Lili Zhang
11:00-11:05 am	Ruiyan Xu , University of Michigan <i>BMAL1 Deficiency in Perivascular Adipose Tissue Exacerbates Atherosclerosis</i>
11:05-11:10 am	Xiaohui Guan , Augusta University <i>Single-cell multi-omics analysis identified TEAD transcription factors as novel regulators essential for vascular smooth muscle homeostasis</i>
11:10-11:15 am	Fang Li , Columbia University <i>Smooth muscle cell-specific overexpression of Lipa exacerbates atherosclerosis in mice</i>
11:15-11:20 am	Ting-An Lin , University of California, Riverside <i>Microplastic exposure elicits sex-specific atherosclerosis development in low-density lipoprotein receptor-deficient mice</i>
11:20-11:25 am	Bo Zhu , Boston Children's Hospital and Harvard Medical School

11:25-11:30 am **Targeting Liver Epsins Ameliorates Dyslipidemia in Atherosclerosis**
Yifan Yuan University of Maryland
VEGF-D, unlike VEGF-A, improves vascular integrity in the lung and exerts a protective effect during acute lung injury

11:30 am-12:30 pm

Lunch

11:30 am-12:30 pm

12:30-1:00 PM

Session 4

Keynote Presentation 2

Moderator:

Changcheng Zhou

12:30-12:55 pm

Lakshmi Santhanam, PhD, Johns Hopkins University School of Medicine
Mechanisms of Arterial Matrix Remodeling During Aging

1:00-2:30 PM

Session 5

Featured Presentations:

Moderators:

Mingtao Zhao and Shiyu Chen

1:00-1:15 pm

Jie Li, MD, PhD, Medical College of Georgia

Unveiling the Mystery of Ufm1ylation in Cardiovascular Homeostasis

1:15-1:30 pm

Jinjun Shi, PhD, Brigham and Women's Hospital

RNA Nanomedicine for Atherosclerosis

1:30-1:45 pm

Guizhen Zhao, PhD, University of Houston College of Pharmacy

Epigenetic Regulation of Endothelial Dysfunction in Abdominal Aortic Aneurysm

1:45-2:00 pm

Qing Lin, D, PhD, Johns Hopkins University School of Medicine

Regulation of HMGB1 Signaling in Vascular Remodeling

2:00-2:15 pm

Xiao Wang, PhD, Broad Institute of MIT and Harvard

Base-Editing and Prime-Editing Therapies for Inborn Errors of Metabolism.

2:15-2:30 pm

Coffee Break

2:30-3:30 PM

Session 6

Distinguished Presentations:

Moderators:

Liwu Li and Joe Miano

2:30-2:50 pm

Zhe Han, PhD, University of Maryland School of Medicine

Precision Disease Modeling for Cardiovascular and Renal Disease in Drosophila

2:50-3:10 pm

Jiandong Liu, PhD, University of North Carolina School of Medicine

Functional Genomics in Cardiac Regeneration and Maturation: Insights from Model Organisms

3:10-3:30 pm

John Shyy, PhD, University of California at San Diego

3:30-3:55 PM

Session 7

Keynote Presentation 3

Moderator:

Hong Wang

3:30-3:55 pm

Kathryn J. Moore, PhD, New York University

Inflammatory Memory in Cardiovascular Disease and Cancer

4:00-4:30 PM, 30 min

Award Announcement and Closing Remarks

4:00-4:20 pm

Award Announcement

4:20-4:30 pm

Closing Remarks

Changcheng Zhou

Vascular Council Chair, the ACRE

2025 ACRE Vascular Discovery Symposium Organizing Committee

Co-Chairs: Hong Chen, Changcheng Zhou, Zhao Wang

Organizing Committee: Jingyan Han, Xiaochun Long, Hong Lu, Li Qian, Ying Shen, Kevin Xiang, Jun Yu, Hanrui Zhang, Jiliang Zhou

Abstract Reviewers: Bowen Wang, Ge Tao, Hong Lu, Jiliang Zhou, Li Qian, Weijia Luo, Xiao Li, Xiaochun Long, Xiaolei Liu

YIA Judges: Zhiyu Dai, Liwu Li, Zhiyong Lin, Qin Miao, Jinjiang Pang, Bowen Wang, Xiaofeng Yang, Mingtao Zhao

Sponsors: