WEDNESDAY, MAY 10

3:00–7:00 pm  
Registration  
*Atrium Foyer, 4th Floor*

3:00–6:30 pm  
Speaker Resource Room  
*Falmouth, 4th Floor*

7:45 am–8:15 pm  
Childcare  
*Yarmouth, 4th Floor*

6:30–8:00 pm  
Poster Session 1 and Reception  
For a full list poster presentations, please see the Vascular Discovery 2023 Posters on the [programming page](#)  
*Gloucester/Back Bay, 3rd Floor*

THURSDAY, MAY 11

6:00 am–6:00 pm  
Speaker Resource Room  
*Falmouth, 4th Floor*

6:45 am–7:45 pm  
Childcare  
*Yarmouth, 4th Floor*

7:00 am–6:00 pm  
Registration  
*Atrium Foyer, 4th Floor*

7:00–8:00 am  
Continental Breakfast  
*Atrium Foyer, 4th Floor*

7:00 am–4:30 pm  
Exhibits  
*Atrium Foyer, 4th Floor*

7:00–8:00 am  
**Early Career Training Session 1: Academic Roundtable Discussions**  
*Presented by the ATVB Early Career Committee*  
*Grand Ballroom Salons A-D, 4th Floor*

Getting Your Training Grant Funded  
Bishuang Cai, PhD, Ichan School of Medicine at Mount Sinai  
Jennifer Stancill, PhD, Medical College of Wisconsin
Saying No and Difficult Conversations  
Jaume Amengual, PhD, University of Illinois  
Milka Koupnova, PhD, University of Massachusetts Medical School

Setting Up Your New Lab and Hiring  
Mabruka Alfaidi, MD, PhD, LSU Health Sciences Center

The Importance of Mentoring and Being Mentored  
Brian Kim, MD, MPH, Stanford School of Medicine  
Casey Romanoski, PhD, University of Arizona

Work-Life Balance  
Mireille Ouimet, PhD, University of Ottawa Heart Institute  
Gregory Payne, MD, PhD, University of Alabama at Birmingham

Strategies for Project Management  
Cynthia St. Hilaire, PhD, University of Pittsburgh

8:00-8:30 am  
Conference Opening Welcome  
*Grand Ballroom Salons E-F, 4th Floor*

8:00  
American Heart Association Presidential Remarks  
Michelle Albert, MD, MPH, FACC, FAHA, University of California, San Francisco

8:15  
Welcome Remarks  
Katey Rayner, PhD, FHA, Chair, University of Ottawa Heart Institute

8:30-10:00 am  
Plenary Session 1: Gene-Environment Interactions in Cardiovascular Disease  
*Grand Ballroom Salons E-G, 4th Floor*

Moderators:  
Katey Rayner, PhD, FHA, Chair, University of Ottawa Heart Institute  
Philip Tsao, PhD, Stanford University School of Medicine

8:30  
A Roadmap for Sustainable Cardiovascular Health in the Anthropocene Era  
Sanjay Rajagopalan, MD, FACC, FAHA, Case Western Reserve University

9:00  
Gene-Environment Interactions for Coronary Artery Disease  
Hooman Allayee, PhD, University of Southern California Keck School of Medicine

9:30  
Vascular Complications of Obstructive Sleep Apnea  
Sanja Jelic, MD, Columbia University Medical Center

10:00-10:30 am  
Break and Exhibits  
*Atrium Foyer, 4th Floor*
10:30 am-12:15 pm  Concurrent Session 1a: Molecular and Cellular Mechanisms of Atherosclerosis
Grand Ballroom Salon E, 4th Floor

Moderators:
Lars Maegdefessel, MD, PhD, Technical University Munich
Cornelia M. Weyand, MD, PhD, Mayo Clinic

10:30  Innate and Adaptive Immunity in Vascular Inflammation
Cornelia M. Weyand, MD, PhD, Mayo Clinic

Oral Abstract Presentations

11:00  Presentation Number 100
Multi-omics and Single Nucleus Transcriptomics Reveal Aberrant Adaptive Immune Responses in Human Bicuspid Aortic Valves

Mark C Blaser, Brigham and Women’s Hosp, Boston, MA; Daniel Reichart, LMU, Munich; Abhijeet Sonawane, BWH Harvard Med Sch, Boston, MA; Florian Schlotter, Brigham and Women’s Hosp, Leipzig; Arda Halu, Brigham and Women’s Hosp, Leipzig, Brookline, MA; Livia Silva Araújo Passos, Daniel DeLaughter, Ms., Brighton, MA; Wunan Zhou, Natl Insts of Health, Bethesda, MD; Ron Blankstein, BRIGHAM AND WOMENS HOSPITAL, Boston, MA; MARCELO DI CARLI, BRIGHAM AND WOMEN'S HOSPITAL, BOSTON, MA; Maria D Nunes, UFMG, Belo Horizonte, Brazil; Marie Billaud, Ashraf A Sabe, Brigham and Women’s Hosp, Boston, MA; Simon Robson, Beth Israel Deaconess Medical Ctr, Boston, MA; Simon C Body, Boston Univ Sch Med, Boston, MA; Jochen D Muehlschlegel, Brigham and Women’s Hosp, Boston, MA; Jonathan G Seidman, Christine E Seidman, HARVARD MEDICAL SCHOOL, Boston, MA; Masanori Aikawa, Brigham and Women’s Hosp, Boston, MA; Sasha A Singh, HARVARD BWH, Boston, MA; Elena Aikawa, BRIGHAM WOMANS HOSPITAL, Boston, MA

11:15  Presentation Number 101
Crosstalk of Pluripotency and Innate Immunity in Smooth Muscle Cell Phenotypic Transitions

Aatish Mahajan, Junchul Shin, Cleveland Clinic, Cleveland, OH; Svyatoslav Tkachenko, Case Western Reserve Univ, Cleveland, OH; Olga A Cherepanova, Cleveland Clinic, Cleveland, OH

11:30  Presentation Number 102
Hyperlipidemia-induced Hematopoiesis is Repressed by MLKL in Endothelial Cells of the Splenic Niche

Adil Rasheed, Taylor Dennison, Sabrina Robichaud, Ottawa Heart Inst, Ottawa, ON, Canada; Hailey Wyatt, Univ of Ottawa Heart Inst, Ottawa, ON, Canada; My-Anh Nguyen, UOttawa Heart Institute, Ottawa, ON, Canada; Michele Geoffrion, UOttawa Heart Institute, Ottawa, ON, Canada, Ottawa, ON, Canada; Yacine Marouf, Antalya Bilim Univ, Antalya, Turkey; Adir Baxi, Univ of Ottawa Heart Inst, Ottawa, ON, Canada; Richard Lee, Ionis Pharmaceuticals, Carlsbad, CA; Hilal Kazan, Ionis Pharmaceuticals, Carlsbad, CA, Antalya, Turkey; Coen van Solingen, Ionis Pharmaceuticals, Carlsbad, CA, Antalya, Turkey, New York, NY;
11:45  Presentation Number 103

Epigenetic and Phenotypic Modulation of Adventitial Fibroblasts in Atherosclerosis by Coronary Artery Risk Gene TCF21

Wenduo Gu, Stanford Univ, Stanford, CA; Alex Dalal, Trieu Nguyen, Stanford Univ, Stanford, CA; Li Daniel, Disha Sharma, Stanford Univ, Stanford, CA; Raesanen Markus, João P. Monteiro, Stanford Univ, Stanford, CA; Chad S Weldy, Brian Palmisano, Stanford Univ Hosp, Palo Alto, CA; Michael P Fischbein, Stanford University, Stanford, CA; Thomas Quertermous, Stanford Univ, Stanford, CA; Paul Cheng, Stanford University, Stanford, CA

12:00  Presentation Number 104

Gene Regulation by RNA Granule Formation in Atherosclerosis


10:30 am–12:15 pm  Concurrent Session 1b: Inflammation & Immunity in the Vessel Wall

Grand Ballroom Salon F, 4th Floor

Moderators:
Esther Lutgens, MD, PhD, Mayo Clinic
Holger Winkels, PhD, University of Cologne

10:30  Recent Insights into Immune Mechanisms of Atherosclerosis by Single Cell Technologies

Holger Winkels, PhD, University of Cologne

Oral Abstract Presentations

11:00  Presentation Number 105

Lipid Regulation of Senescent Effector CD8 T Cells in Type 2 Diabetes

11:15 Presentation Number 106
Single Cell High Dimensional Analysis of Human Peripheral Blood Mononuclear Cells Reveals Unique Intermediate Monocyte Subsets Associated with Sex Differences in Coronary Heart Disease

Ravi K Komaravolu, Nandini Chatterjee, Ahmad Alimadadi, Immunology Ctr Of Georgia, Augusta, GA; Coleen A McNamara, Carter Immunology Ctr, Div of Cardiology, and Ctr for Public Health Genomics, University of Virginia, Charlottesville, VA 22908, VA; Angela M Taylor, Div of Cardiology, and Ctr for Public Health Genomics, University of Virginia, Charlottesville, VA 22908, VA; Ani Manichaikul, Div of Cardiology, and Ctr for Public Health Genomics, University of Virginia, Charlottesville, VA 22908, VA, Charlottesville, VA; Yuri I Miller, Dept of Med, University of California, San Diego, La Jolla, CA, CA; Klaus Ley, Immunology Ctr Of Georgia, Augusta University, GA; Catherine C Hedrick, Immunology Ctr Of Georgia, Augusta, GA

11:30 Presentation Number 107
CaMK4 is a Novel Regulator of Myeloid Phenotype and Function in Atherosclerosis

Azuah L Gonzalez, Cristina Youwakim, Matthew Mayes Dungan, Kristin Fuller, Vanderbilt Univ, Nashville, TN; Danielle L Michell, VANDERBILT UNIVERSITY MEDICAL CTR, Nashville, TN; Ashley Cavnar, Jamshed Rahman, Vanderbilt Univ, Nashville, TN; Kasey C Vickers, VANDERBILT UNIV MEDICAL CENTER, Nashville, TN; Jonathan D Brown, Amanda C Doran, VUMC, Nashville, TN

11:45 Presentation Number 108
IL-1β Inhibition Promotes Fibrous Cap Thickening and Accumulation of Fibroblast Like Cells in Atheromas in Clonal Hematopoiesis

Trevor P Fidler, Columbia Univ, New York, NY; Eunyoung Kim, Columbia Univ Medical Ctr, Fort Lee, NJ; Brian Hardaway, Chenji Xue, Columbia Univ, New York, NY; Sandra Abramowicz, Tong Xiao, Columbia Univ Medical Ctr, New York, NY; Lars Maegdefessel, Technical Univ Munich, Munich; Nan Wang, Columbia Univ Medical Ctr, New York, NY; Alan Tall, Columbia Univ, New York, NY

12:00 Presentation Number 109
A Spatial Transcriptomic Approach to Understanding Coronary Atherosclerotic Plaque Stability

Maria Gabriela Gabriela G Gastanadui, Silvio Litovsky, Camilla Margaroli, Robert Richter, Dezhi Wang, Dongqi Xing, James Wells, Amit Gaggar, Vivek Nanda, Rakesh P Patel, Gregory A Payne, Univ of Alabama at Birmingham, Birmingham, AL
10:30 am-12:15 pm  Concurrent Session 1c: Translational Science in Vascular Disease: New Insights into Abdominal Aortic Aneurysms
Organized in cooperation with the Council on Peripheral Vascular Disease
Grand Ballroom Salon G, 4th Floor

Moderators:
Derek Klarin, MD, Stanford University
Jean M. Ruddy, MD, Medical University of South Carolina

10:30  Modern Epidemiology of AAA, with a Focus on Women
Rebecka Hultgren, MD, PhD, Professor, Karolinska Institute

10:45  AAA Genetics and Integration of Human Genetics and Mouse Data
Philip Tsao, PhD, Stanford University School of Medicine

11:00  Insights into the Pathogenesis of Abdominal Aortic Aneurysms: Human Tissues and Animal Models
Frank M. Davis, MD, University of Michigan

Oral Abstract Presentations

11:15  Presentation Number 111
Allogeneic Mesenchymal Stromal Cells Significantly Increase Type 1 Regulatory T-cells, Decrease Effector Th17 Cells, And Decrease Aneurysm Volume In A Dose Dependent Fashion In Patients With Small Abdominal Aortic Aneurysms - Results Of The Phase I Aneurysm Repression With Mesenchymal Stromal Cells (the Arrest Trial)
Humraaz Samra, Indiana Univ, Indianapolis, IN; Michael Ingram, Indianapolis, IN; Katherin Leckie, INDIANA UNIVERSITY, Indianapolis, IN; Leni Moldovan, Kristen Wanczyk, IUPUI AND VAMC, Indianapolis, IN; Lava Timsina, Mithun Sinha, Imran Khan Mohammed, Indiana Univ, Indianapolis, IN; Ravi Mylvaganam, MGH, Boston, MA; Anush Motaganahalli, Paul Territo, Indiana Univ, Indianapolis, IN; Ashley GUTWEIN, Raghunandan Motaganahalli, Indiana Univ, Indianapolis, IN; Michael P Murphy, Indiana Univ, Indianapolis, IN

11:30  Presentation Number 112
Pcsk6 Ablation in Vascular Smooth Muscle Cells Promotes Abdominal Aortic Aneurysm Development and Rupture
Hong Jin, Karolinska Inst, Stockholm, Sweden; Moritz Lindquist Liljeqvist, Karolinska Institutet, Stockholm, Sweden; Zhiyuan Wu, Technical Univ of Munich, Munich, Germany; Linda Micali, Bianca E Suur, Karolinska Inst, Stockholm, Sweden; Mariette Lengquist, Karolinska Institutet, Stockholm, Sweden; Xiang Zhang, Malin Kronqvist, Karolinska Inst, Stockholm, Sweden; Jessica Pauli, Molecular Vascular Med, Munich; Ulf Hedlin, Karolinska Institutet, Stockholm, Sweden; Joy Roy, Karolinska University Hospital Inst, Stockholm, Sweden; Ljubica Matic, Karolinska Inst, Solna, Stockholm, Sweden
11:45  Presentation Number 113
Transcriptomic Profile of Macrophage-mediated Energy Metabolism in Sporadic Aortic Aneurysms and Acute Dissections

Samantha Xu, Yanming Li, Baylor Coll of Med, Houston, TX; Chen Zhang, Baylor college of medicine, Houston, TX; Hernan Vasquez, Baylor college of medicine, Houston, TX, Houston, TX; Kimberly Rebello, Joseph S Coselli, Baylor Coll of Med, Houston, TX; Dianna M Milewicz, Univ of Texas Health Science, Houston, TX; Alan Daugherty, University of Kentucky, Lexington, KY; Scott A Lemaire, Ying H Shen, Baylor College of Medicine, Houston, TX

12:00  Presentation Number 110
The Histone Methyltransferase Setdb2 Modulates Macrophage TIMP-MMP Activity During Abdominal Aortic Aneurysm Development

Frank Davis, William Melvin, Kevin Mangum, Amrita Joshi, Rachael Wasikowski, Xianying Xing, Liam Tsoi, Johann Gudjonsson, Katherine A Gallagher, The Univ of Michigan, Ann Arbor, MI

12:15-2:00 pm  Mentor of Women Award Luncheon (ticket required)
Lunch will be provided.
Grand Ballroom Salons A-D, 4th Floor

Presentation of the 2023 Outstanding Mentorship of Women Award
Hong Wang, MD, PhD, EMBA, FAHA, Temple University Lewis Katz School of Medicine

Recognition of the 2023 finalists for the Emerging Scientist Award for Women
Finalists will present their abstracts during Poster Session 2
Meenakshi Banerjee, PhD, presentation # 395
Caitlin Bell, MD, presentation # 396
Irina Portier, PhD, presentation # 397
Sheila Sharma, BS, ScM, presentation # 398
Mikala Zelows, BS, presentation # 399

Featured Roundtable Discussion
The Role of Women in Shaping the Grant Review Process
Panelists:
Jue Chen, MB, PhD, Program director, Atherothrombosis and Coronary Artery Disease Branch, Division of Cardiovascular Sciences, NHLBI
Zorina Galis, PhD, Chief, Vascular Biology and Hypertension Division of Cardiovascular Sciences, NHLBI
Iris Jaffe, MD, PhD, Elisa Kent Mendelsohn Professor of Molecular Cardiology, Tufts University School of Medicine
Natalia Komissarova, PhD, Scientific Review Officer of the AVI Study Section, Center for Scientific Review, NIH
Lawrence Pinkus, PhD, Former Scientific Review Officer, Integrative Vascular Biology ad Hematology IRG, Center for Scientific Review, NIH
Gisette Reyes-Soffer, MD, FAHA, Assistant Professor, Columbia University Medical Center
12:45-2:00 pm  Single Cell and Single Nucleus RNA Sequencing: A Practical Guide to Design and Analysis
Omics Bootcamp 1: Wet Lab Practical Considerations
Ticket required. Lunch on your own.
Organized in cooperation with the Council on Genomics and Precision Medicine.
Grand Ballroom Salons H-K, 4th Floor

In this Bootcamp, participants will learn about best practices in tissue handling, single cell and nuclei isolation methods, and sequencing platforms for your single cell and single nuclear RNA-seq experiment.

Moderators:
Matt Nayor MD, MPH, Boston University Medical Center
Lisa Wilsbacher, MD, PHD, FAHA, Feinberg School of Medicine

Bootcamp Facilitator/Discussion Leader: Amelia Hall, PhD, Broad Institute of MIT and Harvard

12:15-2:15 pm  Or lunch on your own

2:15-3:45 pm  Plenary Session 2: Highlights from the ATVB Journal
Grand Ballroom Salons E-G, 4th Floor

Moderators:
Elena Aikawa, MD, PhD, FAHA, Brigham and Women’s Hospital
Daniel Tyrrell, PhD, The University of Alabama at Birmingham

2:15  ATVB Journal Report
Ann Marie Schmidt, MD, NYU School of Medicine

Presentations by the 2023 ATVB Journal Early Career Investigator Award Recipients

2:30  Daniel Steinberg Early Career Investigator Award in Atherosclerosis/Lipoproteins
Plaque Evaluation by Ultrasound and Transcriptomics Reveals BCLAF1 as a Regulator of Smooth Muscle Cell Lipid Transdifferentiation in Atherosclerosis
Ljubica Matic, PhD, Karolinska Institute

2:45  Karl Link Early Career Investigator Award in Thrombosis
Identification of a Distinct Platelet Phenotype in the Elderly: ADP Hypersensitivity co-exists with Thrombin Resistance
Sonali R. Gnanenthiran, MBBS, PhD, The George Institute for Global Health

3:00  Werner Risau Early Career Investigator Award in Vascular Biology
Expression of CD70 Modulates Nitric Oxide and Redox Status in Endothelial Cells
Arvind K. Pandey, MD, Brigham and Women’s Hospital

3:15  Medical Engineering and Science – Advancing Therapeutic Opportunities for Vascular Diseases
Elazer R. Edelman, MD, PhD, Massachusetts Institute of Technology
3:45-4:15 pm  Break and Exhibits  
Atrium Foyer, 4th Floor

4:15-6:00 pm  Concurrent Session 2a: Apolipoproteins, Lipoproteins and Lipid Metabolism  
Grand Ballroom Salon E, 4th Floor

Moderators:  
Edward Fisher, MD, MPH, PhD, NYU Langone Health  
Gissette Reyes-Soffer, MD, FAHA, Columbia University Medical Center

4:15  FITM2: A New Factor for the Lipidation of VLDL and the Atherogenicity of apoB-lipoproteins  
Edward Fisher, MD, MPH, PhD, NYU Langone Health

Oral Abstract Presentations

4:45  Presentation Number 114  
Glycosylation of PCSK9 Impairs its Interaction with LDLR But Assures its Stability  
Silvia Cecilia Pacheco-Velazquez, OHSU, Portland, OR; Joshua Hay, Oregon Health and Science University, Portland, OR; Sara Rosario, OHSU, Portland, OR; Paul A Mueller, Oregon Health and Science University, Portland, OR; Nathalie Pamir, OHSU, Portland, OR

5:00  Presentation Number 115  
Angptl3 Deficiency Impairs Triglyceride-rich Lipoprotein Production and Produces Adaptive Changes in Hepatic Lipid Metabolism  
Kendall Helene Burks, Washington Univ in St. Louis, Saint Louis, MO; Yan Xie, Michael Gildea, Thomas Neufeld, St. Louis, MO; Arturo Alisio, Edward Fisher, Washington Univ Sch of Med, Saint Louis, MO; Nicholas Davidson, St. Louis, MO; Nathan O Stitzel, Washington University, Saint Louis, MO

5:15  Presentation Number 116  
Variation In Lipoprotein (a) Level Reduction with Potent Lipid Lowering: An Analysis of The Cholesterol Reduction and Residual Risk in Diabetes Study  
Adedoyin Akinlolu, New York Univ Grossman Sch of Med, New York, NY; Michael Boffa, The Univ of Western Ontario, London, ON, Canada; Chen Lyu, New York Univ Langone Health, New York, NY; Hua Zhong, NYU Langone Health, NYC, NY; Manila Jindal, NYU Langone Medical Ctr, Franklin Square, NY; Cindy Bredefeld, NYU Langone Hosp–Long Island, Mineola, NY; Jonathan D Newman, Edward Fisher, New York University Medical Center, New York, NY; Marlys L Koschinsky, Western Univ, London, ON, Canada; Ira J Goldberg, Jeffrey Berger, New York University, New York, NY

5:30  Presentation Number 117  
Structure Function Analysis of Guinea Pig and Human Apolipoprotein E to Obtain Insight into Their Role in Cardiovascular Disease  
George Celis, Jasmine Nguyen, Vasanthy Narayanaswami, Cal State University Long Beach, Long Beach, CA
5:45 Presentation Number 118
Positive Adipose Liver Crosstalk Protects Adipose MTP Knockout Mice from Hepatic Steatosis on an Obesogenic Diet
Sujith Rajan, NYU Long Island Sch of Med, Mineola, NY; Michael Verano, NYU Sch of Med, New York, NY; Jose O Aleman, NYU Langone Medical Ctr, New York, NY; M Mahmood Hussain, NYU Winthrop, Mineola, NY

4:15-6:00 pm Concurrent Session 2b: Thrombosis: Signaling, Mechanisms & Function
Grand Ballroom Salon F, 4th Floor

Moderators:
Milka Koupenova, PhD, FAHA, University of Massachusetts Medical School
A. Valance Washington, PhD, Oakland University

4:15 Novel Insights into Platelet Functionalization of Fibrinogen
A. Valance Washington, PhD, Oakland University

Oral Abstract Presentations

4:45 Presentation Number 119
Aging-related Activation of Platelet Mtor Promotes Platelet Hyperreactivity and Thrombosis
Irina Portier, Bhanu Kanth Manne, Yasushiros Kosaka, Univ of Utah, Salt Lake City, UT; Frederik Denomme, Univ of Utah, Salt Lake City, UT; Ozgun Babur, Univ of Massachusetts Boston, Boston, MA; Phillip A. Wilmarth, Joseph E Aslan, Oregon Health and Science Univ, Portland, OR; Matthew T Rondina, Univ of Utah, Salt Lake City, UT; Robert Campbell, Univ of Utah, Salt Lake City, UT

5:00 Presentation Number 120
Eosinophils And Eosinophil Extracellular Traps (eets) In Arterial Thrombosis in Lnk(sh2b3) Deficiency
Huijuan Dou, Ranran Wang, Columbia University Medical Ctr, New York, NY; Mojdeh Tavallaie, Alan Tall, Columbia Univ Medical Ctr, New York, NY; Nan Wang, Columbia University Medical Ctr, New York, NY

5:15 Presentation Number 121
TMEM16E and TMEM16F Are Required for the Formation of Prothrombotic Extracellular Vesicles from Endothelial Cells
Papa Frewah A Anderson, Beth Israel Deaconess Medical Ctr, Boston, MA; Alec A Schmaier, BIDMC, Boston, MA

5:30 Presentation Number 122
The Eicosanoid Analogue Cs585 Represents a First-in-class In Prevention of Platelet Activation and Thrombosis Through Direct Activation of the Prostacyclin Receptor
Adriana Yamaguchi, Univ of Michigan, Ann Arbor, MI; Sylviane Lambert, University of Michigan, Ann Arbor, MI; Livia Stanger, Pooja Yalavarthi, Andrew Rickenberg, Andrew White, Univ of Michigan, Ann Arbor, MI; Bjorn
Dahlof, Cereno Scientific, Gothenburg, Sweden; Michael A Holinstat, University of Michigan Medical, Ann Arbor, MI

5:45 Presentation Number 123
Protein Kinase C Theta (PKCθ) Signaling Associated with The Generation of Procoagulant Platelets Revealed By Phosphoproteomics And Systems Analysis
Yiheng Zheng, Oregon Health & Science Univ, Portland, OR; Stephanie Reitsma, UNC at Chapel hill, Chapel Hill, NC; Ozgun Babur, Univ of Massachusetts, Boston, MA; Alexander Melrose, Oregon Health & Science Univ, Portland, OR; Jiaqing Pang, Oregon Health & Science University, Portland, OR; Stefanie Hodapp, Univ of California, San Diego, La Jolla, CA; Alexandra Newton, Univ of California, San Diego, San Diego, CA; Phillip Wilmarth, Ashok Reddy, OHSU, Portland, OR; Owen J McCarty, Oregon Health & Science Univ, Portland, OR; Joseph E Aslan, Oregon Health & Science Univ, Portland, OR

4:15-6:00 pm Concurrent Session 2c: Hot Off the Bench Oral Abstract Presentations
Grand Ballroom Salon G, 4th Floor

Moderators:
Hong Chen, PhD, FAHA, Harvard Medical School
Jason Fish, PhD, University of Toronto

Oral Abstract Presentations

4:15 Presentation Number 161
Ablation of Intracellular Lipolytic Inhibitor G0S2 Promotes Vascular Lipolysis and Alleviates Diet-induced Atherosclerosis
Yongbin Chen, Scott M. Johnson, Stephanie D. Burr, Davide Povero, Cailin E. McMahon, Jun Liu, Mayo Clinic, Rochester, MN

4:30 Presentation Number 162
Multiancestropy GWAS and Functional Genomics Analysis of HNF1A Locus to Define Novel Pathogenic Mechanism for Ischemic Stroke
Harsh Hiwase, Yunshan Yue, Eric K Hoffman, Pittsburgh Heart, Lung, Blood, and Vascular Med Inst, Pittsburgh, PA; Haodi Wu, University of Pittsburgh, Pittsburgh, PA; Robert J Barndt, Pittsburgh Heart, Lung, Blood, and Vascular Med Inst, Pittsburgh, PA; Stephen Y Chan, University of Pittsburgh, Pittsburgh, PA; Hyacinth I. Hyacinth, Univ of Cincinnati, Cincinnati, OH; Wei Sun, UPMC, Pittsburgh, PA

4:45 Presentation Number 163
Thrombocytopenia Independently Leads to Monocyte Immune Dysfunction
Chen Li, Sara Ture, Preeti Maurya, Univ of Rochester, Rochester, NY; Alison Livada, Rochester, NY; Craig Morrell, University of Rochester, Rochester, NY
5:00  Presentation Number 164
      From Telomere Shortening to Atherosclerosis-associated Endothelial Senescence
      Gang Li, Univ of Pittsburgh, Pittsburgh, PA

5:15  Presentation Number 165
      Large Extracellular Vesicles-derived MicroRNA-150-5p Is Upregulated in Patients with Aortic Valve Stenosis and Regulates Valvular Endothelial Cell Function
      Neda Mohammadi, Staffan Hildebrand, Inst of Pharmacology and Toxicology, Univ Hosp Bonn, Bonn, Germany; Philip Goody, Denise Nehl, Felix Jansen, M. Rabiu Hosen, Dept of Internal Med-II, Heart Ctr Bonn, Univ Hosp Bonn, Bonn, Germany; Alexander Pfeifer, Inst of Pharmacology and Toxicology, Univ Hosp Bonn, Bonn, Germany

5:30  Presentation Number 166
      Memory Cd8 T Cells Contribute to Atherosclerosis in Aged Mice
      Daniel J Tyrrell, Univ of Alabama at Birmingham, Birmingham, AL; Daniel R Goldstein, Univ of Michigan Med, Ann Arbor, MI

5:45  Presentation Number 167
      Immunomodulatory Properties of HDL are Associated with Lipidomic and Proteomic Composition and are Modifiable by Diet
      Fangji Zhai, Lindsey Huang, Chelsea Garcia, Rachael Woodruff, Hyungryun Jang, Olivia Corvino, Hayoun Hoo, Christopher N. Blesso, Univ of Connecticut, Storrs, CT; Ji-Young Lee, UCONN, Storrs Mansfield, CT; Christa Palancia Esposito, Fairfield Univ, Fairfield, CT; Ruijie Zhang, Catherine J Andersen, Univ of Connecticut, Storrs, CT

6:00-7:30 pm  Poster Session 2 and Reception
      Sponsored by the ATVB Journal
      For a full list poster presentations, please see the Vascular Discovery 2023 Posters on the programming page
      Gloucester/Back Bay, 3rd Floor
6:00 am–6:00 pm  Speaker Resource Room  
_Falmouth, 4th Floor_

6:45 am–10:15 pm  Childcare  
_Yarmouth, 4th Floor_

7:00 am–8:00 pm  Registration  
_Atrium Foyer, 4th Floor_

7:00–8:00 am  Continental Breakfast  
_Atrium Foyer, 4th Floor_

7:00 am–4:30 pm  Exhibits  
_Atrium Foyer, 4th Floor_

7:00–8:00 am  Early Career Training Session 2: Industry Round Table Discussions  
_Presented by the ATVB Early Career Committee_
_Grand Ballroom Salons A-D, 4th Floor_

Alexandra Chadwick, PhD, Verve Pharmaceuticals  
Xixi Sun, JD, PhD, Cooley LLP  
Rachel Roth-Flach, PhD, Pfizer  
Victoria Llado, PhD, Laminar Pharma  
Gerry Waters, PhD, Novartis

8:00–9:30 am  Plenary Session 3: Vascular Disease in the Post-Genomic Era  
_Grand Ballroom Salons E-G, 4th Floor_

_Moderators:_  
Kathleen Martin, PhD, Yale University  
Kiran Musunuru, MD, PhD, University of Pennsylvania

8:00  Multi-Omics in Cardiometabolic Diseases  
Robert E. Gerszten, MD, FACC, FAHA, Beth Israel Deaconess Medical Center, Harvard Medical School, Broad Institute

8:30  Identifying Effects of Common Genetic Variation in Human Endothelial Cells  
Casey Romanoski, PhD, University of Arizona

9:00  Therapeutic Gene Editing  
David R. Liu, PhD, Broad Institute, Harvard University

9:30–10:00 am  Break and Exhibits  
_Atrium Foyer, 4th Floor_
Concurrent Session 3a: Therapeutic Targets in Atherosclerosis
Grand Ballroom Salon E, 4th Floor

Moderators:
Mete Civelek, PhD, University of Virginia
Yun Fang, PhD, University of Chicago

10:00  Precision Nanomedicine and Endothelial Mechanotransduction in Vascular Diseases and Therapeutics
       Yun Fang, PhD, University of Chicago

Oral Abstract Presentations

10:30  Presentation Number 124
Synthetic High-density Lipoprotein Attenuates Abdominal Aortic Aneurysm Formation Via Restoring Vascular Smooth Muscle Cell Mitochondrial Function
       Yaozhong Liu, Univ of Michigan, Ann Arbor, MI; Kristen W Hong, Pharmaceutical Sciences, Univ of Michigan, Ann Arbor, MI; Ying Zhao, Univ of Michigan, Ann Arbor, MI; Minzhi Yu, Pharmaceutical Sciences, Univ of Michigan, Ann Arbor, MI; Y. Eugene Chen, Univ of Michigan, Ann Arbor, MI; Anna Schwendeman, Pharmaceutical Sciences, Univ of Michigan, Ann Arbor, MI; Yanhong Guo, University of Michigan, Ann Arbor, MI

10:45  Presentation Number 125
Sex-dependent Effects of Sortilin Antisense Oligonucleotide on Vascular Calcification
       Adrien Lupieri, Brigham and Women's Hosp, Boston, MA; Dakota Becker-Greene, Thanh-Dat Le, Marina M Roschel, Brigham and Women's Hosp, Boston, MA; Prabhash Jha, Brigham and Women's Hospital, Boston, MA; Abhijeet Sonawane, BWH Harvard Med Sch, Boston, MA; Sotirios Tsimikas, Univ California San Diego, La Jolla, CA; Shiori Kuraoka, Brigham and Women's Hosp, Boston, MA; Sasha A Singh, Harvard BWH, Boston, MA; Masanori Aikawa, Brigham and Women's Hosp, Boston, MA; Elena Aikawa, Brigham and Women's Hospital, Boston, MA

11:00  Presentation Number 126
Effect of Icosapent Ethyl on In Vivo Atheroma Progression and Inflammatory Protease Activity
       Mohamad B. Kassab, Massachusetts General Hosp, Boston, MA; Du-Ri Song, Arlington, MA; Samuel C R Sherratt, Univ of New Hampshire, Durham, NH; Andrew Thrapp, Univ of New Hampshire, Durham, NH, Jamaica Plain, MA; Aatira Vijay, Guillaume Goudot, Massachusetts General Hosp, Boston, MA; Graham Spicer, Cambridge; Yoichiro Kawamura, Massachusetts General Hosp, Arlton; Julian Bhowmik, BWH, Boston, MA; Mazen Albaghdadi, BWH, Boston, MA, Naples, CA; Adam Mauskapf, BWH, Boston, MA, Naples, CA, Stoughton, MA; Peter Libby, BRIGHAM AND WOMENS HOSPITAL, Boston, MA; Deepak L. Bhatt, Icahn Sch of Med at Mount Sinai Health System, New York City, NY; R. Preston Mason, Brigham and Womens Hosp, Beverly, MA; Guillermo J Tearney, Massachusetts General Hosp, Boston, MA; Farouc A Jaffer, MASSACHUSETTS GENERAL HOSPITAL, Boston, MA
11:15  Presentation Number 127  
A Targeted Nanofiber Loaded with Liver X Receptor Agonist Reduces Atherosclerotic Plaque and Prevents Hepatotoxicity

Vina Y Chhaya, Sophia Maragos, Univ of Virginia, Charlottesville, VA; Ruomeng Qiu, Simon A. Egner, Northwestern Univ, Evanston, IL; Mark R. Karver, Samuel I. Stupp, Northwestern Univ, Chicago, IL; Nick D Tsiahsis, Melina R Kibbe, Univ of Virginia, Charlottesville, VA

11:30  Presentation Number 128  
Safety and Efficacy of Pro-efferocytic Nanoparticles To Treat Atherosclerosis in a Porcine Model

Sharika Bamezai, Stanford Univ Sch of Med, Palo Alto, CA; Tom Alsagih, UC San Diego Sch of Med, San Diego, CA; Mozhgan Lofti, Stanford Univ Sch of Med, Palo Alto, CA; Yapei Zhang, Michigan State Univ, East Lansing, MI; Gayatri S Kumar, Fudi Wang, Stanford Univ Sch of Med, Palo Alto, CA; Jianqin Ye, Stanford, Vascular Surgery, Stanford, CA; Lingfeng Luo, Stanford Univ, Redwood City, CA; Lars Maegdefessel, Technical Univ Munich, Munich; Yoko Kojima, Stanford Univ, Stanford, CA; Manisha Kumari, Michigan State Univ, East Lansing, MI; Caitlin Bell, STANFORD, Stanford, CA; Shaunak Adkar, STANFORD, Stanford, CA, Palo Alto, CA; Bryan R Smith, Michigan State Univ, East Lansing, MI; Nick J Leeper, STANFORD UNIVERSITY, Palo Alto, CA

10:00-11:45 am  Concurrent Session 3b: Blood Coagulation in Health & Disease  
Grand Ballroom Salon F, 4th Floor

Moderators:
Katerina Akassoglou, PhD, University of California, San Francisco
Hanrui Zhang, MB, PhD, Columbia University Medical Center

10:00  Fibrinogen in Neurological Diseases: Mechanisms, Imaging, Therapeutics
Katerina Akassoglou, PhD, University of California, San Francisco

Oral Abstract Presentations

10:30  Presentation Number 129  
Bleeding Diathesis in Ehlers-danlos Syndrome Patients Is Caused by Impaired Platelet Inside-out Signaling and Integrin αIIbβ3 Activation

Mariia Kumskaova, Gagan D. Flora, Manasa Nayak, Madankumar Ghatge, Univ of Iowa, Iowa City, IA; Rakeshkumar Patel, Univ of Iowa, IOWA city, IA; Aditi Jain, Janice Staber, Steven R Lentz, Anil K Chauhan, Univ of Iowa, Iowa City, IA

10:45  Presentation Number 130  
The Integrin β₃ Subunit Directly Inhibits the Gα₁₃ -p115RhoGEF Interaction to Regulate G Protein Signaling and Platelet Exocytosis

Yaping Zhang, Univ of Illinois at Chicago, Chicago, IL
11:00  Presentation Number 131
Identification of a Molecule to Modulate a Platelet Olfactory Receptor and
Limit Thrombosis

Anu Aggarwal, Cleveland Clinic Fndn, Cleveland, OH; Nancy Wang,
Josyula V Prasad, Cleveland Clinic, Cleveland, OH; Courtney Jennings,
Matthew Godwin, Cleveland Clinic Fndn, Cleveland, OH; Rohan Bhandari,
Washington Univ in St. Louis, St. Louis, MO; Mariya Ali, Cleveland Clinic
Fndn, Cleveland, OH; Shaun Stauffer, Scott J Cameron, Cleveland Clinic,
Cleveland, OH

11:15  Presentation Number 132
Mechanism by Which Coagulation Factor XI Regulates Endothelial Cell
Permeability and Barrier Function In Vitro and In Vivo

Cristina Puy, Oregon Health & Science University, Portland, OR; Christina U
Lorentz, Aronora Inc, Portland, OR; Erik Tucker, Aronora, Portland, OR;
Florea Lupu, Oklahoma Medical Research FND, Oklahoma City, OK; David
Gailani, Vanderbilt Univ Medical Center, Nashville, TN; Owen J McCarty,
Oregon Health & Science University, Portland, OR

11:30  Presentation Number 133
Engineering Plasminogen Activator Inhibitor-1 Variants with Novel Protease
Inhibitor Activity

Laura M Haynes, Matthew L Holding, Univ of Michigan, Ann Arbor, MI; Elise
Trost, Michigan State Univ, East Lansing, MI; Hannah DiGiovanni, David
Siemieniak, David Ginsburg, Univ of Michigan, Ann Arbor, MI

10:00-11:45 am  Concurrent Session 3c: Translational Science in Vascular Disease: Updates from the
AHA Strategically Focused Vascular Disease Research Network
Organized in cooperation with the Council on Peripheral Vascular Disease
Grand Ballroom Salon G, 4th Floor

Moderators:
Leili Behroz, MD, MPH, Boston University School of Medicine
Scott J. Cameron, MD, Cleveland Clinic

10:00  Understanding the Pathobiology and Predictors of Critical Limb Ischemia
to Improve Outcomes in Peripheral Artery Disease and Diabetes
Mark A. Creager, MD, FAHA, Dartmouth Hitchcock Medical Center

10:10  Interactions of LRP1 and Angiotensinogen in Aortopathies
Alan Daugherty PhD, DSc, FAHA, University of Kentucky

10:20  The Impact of Microvascular Disease in PAD
Joshua A. Beckman, MD, FAHA, UT Southwestern Medical Center

10:30  Skeletal Muscle Damage in Peripheral Artery Disease
Mary McGrae McDermott, MD, FAHA, Feinberg School of Medicine,
Northwestern University

10:40  Panel Discussion
Rapid Fire Oral Abstract Presentations

10:55  Presentation Number 134
A Single-cell Atlas of Human Skeletal Muscle Tissue in Chronic Limb-threatening Ischemia

Derek T Peters, Yueyuan Xu, James Otto, Qunsheng Dai, Kaileen Fei, Christopher D Kontos, Kevin Southerland, Yarui Diao, Duke Univ, Durham, NC

11:03  Presentation Number 135
The Aim2 Inflammasome Deters Myogenic Potential of Muscle Satellite Cells Affected by Peripheral Artery Disease (pad) and is a Therapeutic Target to Attenuate Myopathy

Bowen Xie, Edwyn Assaf, Ricardo Ferrari, Rohan Kulkarni, Ryan McEnaney, Ulka Sachdev, UPMC, Pittsburgh, PA

11:11  Presentation Number 136
Chronic Kidney Disease Aggravates Ischemic Leg Myopathy in Patients with Peripheral Artery Disease

Kyoungrae Kim, Trace Thome, Univ of Florida, Gainesville, FL; Zachary Salyers, Univ of Florida, Gainesville, FL; Qingping Yang, Lauren Stone, Nicholas Vugman, Univ of Florida, Gainesville, FL; Erik Anderson, Brian Fazzone, Emilie Schmidt, Kerri O’Malley, Scott A Berceli, Salvatore T Scali, Terence E Ryan, Univ of Florida, Gainesville, FL

11:19  Presentation Number 137
Identification of Human Gut Microbial Markers in Patients with Peripheral Artery Disease Using Different Sample Preservation Methods

Sarjeet Niraula, Spencer L. Stirewalt, Jonathan Jung, Jae W. Jang, Erik Wu, Ayman Elmasri, Northwestern Univ, Chicago, IL; James Du, Liqun Xiong, Stefan Green, Rush Univ, Chicago, IL; Patrick Seed, Northwestern Univ, Chicago, IL; Karen Ho, Northwestern Univ, Chicago, IL

11:27  Presentation Number 138
Delivery of Allogeneic Mitochondria Accelerates Revascularization in a Murine Model of Peripheral Arterial Disease and Reverses Metabolic Signatures of Endothelial Senescence

Colwyn Headley, Stanford.edu, Palo Alto, CA; Caroline Hu, PAVIR, Palo Alto, CA; Gladys Chiang, Veterans Affairs Palo Alto Heath Care System, Palo Alto, CA; Beu Orobeza, Stanford Univ, Mountain View, CA; Philip S Tsao, VAPAHCS - Stanford Univ, Palo Alto, CA; Ngan F Huang, Stanford University, Stanford, CA

11:35  Presentation Number 139
Semi-automated Classification of Peripheral Artery Disease Lesion Composition from Multi-Contrast Magnetic Resonance Histology at 9.4 Tesla with A 2 Dimensional Convolutional Neural Network Variational AutoEncoder Algorithm

Judit Csore, DeBakey Heart and Vascular Ctr, Houston Methodist Hosp, Houston, TX; Christof Karmonik, Translational Imaging Ctr, Houston Methodist Res Inst, Houston, TX; Alan B. Lumsden, Trisha L. Roy, DeBakey Heart and Vascular Ctr, Houston Methodist Hosp, Houston, TX
12:15-1:30 pm  Single Cell and Single Nucleus RNA Sequencing: A Practical Guide to Design and Analysis
Omics Bootcamp 2: Practical Coding Considerations
Organized in cooperation with the Council on Genomics and Precision Medicine.
Ticket required, lunch on your own
Grand Ballroom Salons H-K, 4th Floor

During this Bootcamp, participants will walk through a public code notebook with Dr. Hall to learn how to process and analyze your single cell and single nuclear RNA-seq data.

Moderators:
Matthew Nayor MD, MPH, Boston University Medical Center
Lisa Wilsbacher, MD, PHD, FAHA, Feinberg School of Medicine

Bootcamp Facilitator/Discussion Leader: Amelia Hall, PhD

11:45-1:45 pm  PVD Annual Business Meeting and Networking Luncheon (ticket required)
Lunch will be provided.
Grand Ballroom Salons C-D, 4th Floor

Networking & Introductions
Peter Henke, MD, FAHA

Vascular Health Advisory Committee Overview & Updates
Josh Beckman, MD, MS, FAHA

Peripheral Artery Disease Collaborative Overview & Updates
Amy Pollak, MD, MS, FAHA

11:45 pm–12:45 pm  Career Development Session: Building Inclusive Mentoring Relationships
Sponsored by the ATVB Diversity Committee
Lunch will be on your own
Simmons, 3rd Floor

Panelists/Facilitators:
- Jaume Amengual, PhD, University of Illinois
- Ngan F. Huang, PhD, FAHA, Stanford University
- Sashi Kant, PhD, Harvard Medical School, Brigham and Women’s Hospital
- Adil Rasheed, PhD, Ottawa Heart Institute
- Francine K. Welty, MD, PhD, Harvard Medical School

Inclusive mentoring/panel discussion on the following topics:
- Best practices to mentor diverse mentees
- Different research habits
- Different mentoring styles/habits
- How to develop an Inclusive lab culture
- Inclusive communication methods
- A list of research grants available
11:45 am – 1:45 pm
Or lunch on your own

1:45-3:45 pm
Plenary Session 4: Early Career Investigator Award Competition
Grand Ballroom Salons E-G, 4th Floor

Kenneth M. Brinkhous Early Career Investigator Prize in Thrombosis Competition

Moderators:
Milka Koupenova, PhD, FAHA, University of Massachusetts Medical School
Kellie Machlus, PhD, Harvard Medical School

Finalists

1:45
Presentation Number 140
A Common, Racially Diverse Protease Activated Receptor 4 Functional Variant Impacts Ischemic Stroke Outcomes: Evidence for a Pharmacogenetic Effect

Frederik Denorne, Univ of Utah, Salt Lake Cty, UT; Nicole Davis Armstrong, Univ of Alabama at Birmingham, Birmingham, AL; Michelle Stoller, Irina Portier, Univ of Utah, Salt Lake City, UT; Emilia Tugolukova, Salt Lake City, UT; Rikki M Tanner, UNIVERSITY ALABAMA AT BIRMINGHAM, Birmingham, AL; Seema Bhatlekar, Program in Molecular Med, Salt Lake Cty, UT; Mark Cody, Program in Molecular Med, Salt Lake Cty, UT, Draper, UT; John Rustad, Program in Molecular Med, Salt Lake Cty, UT, Draper, UT, Salt Lake City, UT; Marvin T Nieman, Case Western Reserve University, Cleveland, OH; Steven E McKenzie, Thomas Jefferson Univ, Philadelphia, PA; Christian Yost, Thomas Jefferson Univ, Philadelphia, PA, Salt Lake City, UT; Leslie Lange, Univ of Colorado, Aurora, CO; Mary Cushman, University Vermont, Colchester, VT; Marguerite M Irvin, University of Alabama Birmingham, Birmingham, AL; Paul F Bray, University of Utah, Salt Lake City, UT; Robert Campbell, University of Utah, Salt Lake City, UT

2:00
Presentation Number 141
Lung Thrombosis Upregulates Endothelial Pla2g2d to Inhibit Inflammatory Lung Injury

Colin E Evans, Northwestern Univ, Chicago, IL; Narsa Machireddy, Northwestern Feinberg Sch of Med, Aurora, IL; Xianming Zhang, Youyang Zhao, Northwestern Univ, Chicago, IL

2:15
Presentation Number 142
Actin Bundling Protein L-plastin Regulates Platelet Production, Spreading and Thrombosis

Li Amlly Guo, Bloodworks Res Inst, Univ of Washington, Seattle, WA; Shancy Jacob, Bhanu Kanth Manne, Seema Bhatlekar, Program in Molecular Med, Univ of Utah, Salt Lake City, UT

2:30
Presentation Number 143
Differential Suppression of Arterial Versus Venous Thrombosis but Preserved Hemostasis in Mice Expressing Fibrinogen that Cannot Support Fibrin Formation

Woosuk Steve Hur, Tomohiro Kawano, Univ of North Carolina, Chapel Hill, NC; Jean Marie N Mwiza, UNC Chapel Hill, Chapel Hill, NC; David Paul,
Irvine H. Page Junior Faculty Research Award Competition

Moderators:
Marlys Koschinsky, PhD, Robarts Research Institute
Nick J. Leeper, MD, Stanford University

Finalists

2:45  Presentation Number 144
Enhancement of High Density Lipoprotein-associated Elastase Inhibitor Activity Prevents Atherosclerosis Progression
Maura Mobilia, Callie Whitus, Lexington, KY; Alexander Karakashian, Lance Johnson, Univ of Kentucky, Lexington, KY; Gregory A Graf, University of Kentucky, Lexington, KY; Scott M Gordon, Univ of Kentucky, Lexington, KY

3:00  Presentation Number 145
CRISPRi-Perturb-seq In Endothelial Cells Links Atherosclerosis Risk Loci to Novel Klf2/4 Regulatory Genes
Rajat M Gupta, Brigham and Women's Hosp, Boston, MA; Gavin R Schnitzler, Broad Inst, Cambridge, MA; Helen Kang, Broad Inst, Cambridge, MA; Redwood City, CA; Ramcharan Singh Angom, Mayo Clinic, Jacksonville, FL; Shi Fang, Vivian Lee-Kim, Brigham and Women's Hosp, Boston, MA; Tony Zheng, Stanford Univ, Palo Alto, CA; Rosa Ma, Stanford Univ, Palo Alto, CA, Stanford, CA; Aurelie Barry, Brigham and Women's Hosp, Boston, MA; Ronghao Zhou, Stanford Univ, Palo Alto, CA; Debabrata Mukhopadhyay, Mayo Clinic, Jacksonville, FL; Jesse Engreitz, Mayo Clinic, Jacksonville, FL, Stanford, CA

3:15  Presentation Number 146
Foamy Macrophages Rely on Trem2 For Survival During Atherosclerosis
Michael Patterson, Minneapolis, MN; Maria M Firulova, ITMO Univ, Saint Petersburg, Russian Federation; Yingzheng Xu, Alisha Zhu, Patricia Schrank, Christine Ronayne, Ainsley E Kennedy, Hannah Hillman, Tyler Bold, Univ of Minnesota, Minneapolis, MN; Konstantin Zaitsev, ITMO Univ, Saint Petersburg, Russian Federation; Jesse W Williams, Univ of Minnesota, Minneapolis, MN

3:30  Presentation Number 147
Spatially Resolved Metabolites in Stable and Unstable Human Atherosclerotic Plaques Identified by Mass Spectrometry Imaging
Erin Seeley, UT Austin, Austin, TX; Zhipeng Liu, Sanofi, Cambridge, MA; Shuai Yuan, Pittsburgh Univ, Pittsburgh, PA; Chad Stroope, Elizabeth Cockerham, Nabil Rashdan, Luisa Delgadillo, Alexandra Finney, Dhananjay kumar, Sandeep Das, LSUHSC SHREVEPORT, Shreveport, LA; Babak Razani, Pittsburgh Univ, Pittsburgh, PA; Wanqing Liu, Wayne State University
3:45-4:15 pm  

Break and Exhibits  
Atrium Foyer, 4th Floor

4:15-6:00 pm  

Concurrent Session 4a: Metabolic Disorders in Atherosclerosis  
Grand Ballroom Salon E, 4th Floor

Moderators:  
Babak Razani, MD, PhD, University of Pittsburgh and UPMC  
Ze Zheng, MD, PhD, Medical College of Wisconsin

4:15  
The Intertwining Duality of Fibrinolysis and Lipid Metabolism  
Ze Zheng, MD, PhD, Medical College of Wisconsin

Oral Abstract Presentations

4:45  
Presentation Number 148  
Lipoprotein Lipase Deficiency Reprograms Bone Marrow Cellular Metabolic Activity and Inflammatory Responses  
Shuchen Hu, Columbia Univ, New York, NY; Michael Kraakman, CCRI, Vienna, Austria; Branden Wang, Chuchun Liz Chang, Columbia Univ, New York, NY

5:00  
Presentation Number 149  
Manipulating Bile Acid Production Using Genome Editing to Modulate Cardio-metabolic Disease  
Kelsey E Jarrett, Elizabeth J Tarling, Thomas A Vallim, UCLA, Los Angeles, CA

5:15  
Presentation Number 150  
Targeting The Lipogenic Enzyme ATP Citrate Lyase as a Potential Therapy Against Coronary Artery Disease  
Yann Grobs, IUCPQ Univ Laval, Quèbec, QC, Canada; Sarah-Eve S Lemay, CRIU CPCQ, Quebec, QC, Canada; Charlotte Romanet, IUCPQ, Quebec, QC, Canada; Alice Bourgeois, CRIU CPCQ, Quebec, QC, Canada; MABROUKA SALEM, IUCPQ, Quebec, QC, Canada; Sandra Martineau, CRIU CPCQ, Quebec, QC, Canada; Sandra Breuils-Bonnet, IUCPQ Univ Laval, Quebec, QC, Canada; Pierre Voisine, IUCPQ, Quebec, QC, Canada; Francois Potus, IUCPQ, Quebec, QC, Canada; Quebec, QC, Canada; Steeve Provencher, Laval Univ, Quebec, QC, Canada; Olivier Boucherat, IUCPQ RESEARCH CENTRE, Quebec, QC, Canada; Sebastien Bonnet, Quebec Heart and Lung institute, Quebec, QC, Canada
5:30  Presentation Number 151  
Evaluation on the Therapeutic Potential of Targeting the Amino Acid-mtorc1 Pathway in Atherosclerosis  
Xiangyu Zhang, Washington University, Saint Louis, MO; Se-Jin Jeong, Washington Univ, Saint Louis, St Louis, MO; Yu-Sheng Yeh, Washington Univ in St. Louis, Saint Louis, MO; Astrid Rodriguez-Velez, Washington Univ in St. Louis, St. Louis, MO; Babak Razani, Washington Univ Sch Med, Saint Louis, MO

5:45  Presentation Number 152  
Metabolism and Therapeutic Potential of Lipidated Amino Acids in Nonalcoholic Steatohepatitis and Atherosclerosis  
Sumit Kumar Anand, Sandeep Das, LSU Health Shreveport, Shreveport, LA; Alexandra C Finney, LSU Health Shreveport, Shreveport, LA; Sumati Rohilla, M. Peyton McKinney, Oren Rom, LSU Health Shreveport, Shreveport, LA

4:15-6:00 pm  
Concurrent Session 4b: Vascular Cells, Inflammation and Thrombosis  
Grand Ballroom Salon F, 4th Floor

Moderators:  
Marit Westerterp, PhD, University of Groningen, Gronien, Netherlands  
Anirban Sen Gupta, PhD, Case Western Reserve University

4:15  Platelet-inspired Nanomedicine Targeted to Thrombosis and Thromboinflammation  
Anirban Sen Gupta, PhD, Case Western Reserve University

Oral Abstract Presentations

4:45  Presentation Number 153  
Involvement of Peptidylarginine Deiminase 4 In Eosinophil Extracellular Trap Formation and Contribution to Citrullinated Histone Signal in Thrombi  
Kimberly Martinod, Severien Meyers, KU Leuven, Leuven, Belgium; Marilena Crescente, Manchester Metropolitan Univ, Manchester; Stijn Van Bruggen, Mathias Stroobants, KU Leuven, Leuven, Belgium; Patrick M Siegel, Freiburg Heart Ctr, Freiburg, Germany; Katharina Glatz, Thilo Witsch, Basel Univ Hosp, Basel, Switzerland

5:00  Presentation Number 154  
Crossroads of Immunity and Coagulation: Protease Activity of Complement Component C1s Inhibits Protein C Activation in Covid-19  
Alicia S Eustes, Kathy H Nguyen, Univ of Iowa, Iowa City, IA; azaj ahmed, Univ of Iowa, Iowa, IA; Steven R Lentz, UNIVERSITY OF IOWA, Iowa City, IA; Sanjana Dayal, University Iowa Health Care, Iowa City, IA

5:15  Presentation Number 155  
Platelet-derived Transforming Growth Factor-β1 Ameliorates AAA in a Murine Model
**Anthony Spuzzillo**, Univ of Cincinnati, Cincinnati, OH; Bailey Stone, Cincinnati, OH; Tyler W Benson, Seth Brunner, Caris Wadding-Lee, Univ of Cincinnati, Cincinnati, OH; Phillip P Owens III, University of Cincinnati, Cincinnati, OH

5:30  Presentation Number 156  
Role of Platelets in Maintaining Hemostasis and Coagulation Activation in Viral-induced Acute Respiratory Distress Syndrome (ards) in Mice  

**Swati Sharma**, Willie A Williams, Aymen Zaid Elzawam, Blood Res Ctr, Chapel Hill, NC; Silvio Antoniak, UNIVERSITY OF NORTH CAROLINA, Chapel Hill, NC

5:45  Presentation Number 157  
Inkiln is a Novel Long Noncoding RNA Promoting Vascular Smooth Muscle Inflammation Via Scaffolded Mkl1 and Usp10  

**Wei Zhang**, Augusta Univ, Augusta, GA; Nestor Ishimwe, Augusta, GA; Jessica Pauli, Molecular Vascular Med, Munich; Clint L Miller, Univ of Virginia, Charlottesvle, VA; Neal L Weintraub, AUGUSTA UNIVERSITY, Augusta, GA; Lars Maegdefessel, Technical Univ Munich, Munich; Joseph M Miano, Medical Coll of Georgia, Augusta, GA; Andrew H Baker, UNIVERSITY OF EDINBURGH, Edinburgh; Xiaochun Long, Augusta Univ, Augusta, GA

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**Concurrent Session 4c: Genomics and Multi-Omics in Vascular Disease**  
Organized in cooperation with the Council on Genomics and Precision Medicine  
Grand Ballroom Salon G, 4th Floor

**Moderators:**  
Clint Miller, PhD, University of Virginia  
Ying Wang, PhD, University of British Columbia

4:15  Applications of Mendelian Randomization and Polygenic Risk Scores in Abdominal Aortic Aneurysm  
Michael Levin, MD, University of Pennsylvania

4:30  Functional Genomics Screens to Identify Causal Pathways for Vascular Disease  
Rajat M. Gupta, MD, Brigman and Women’s Hospital

4:45  Positional Transcriptomics Defines Regionally Restricted Sex-Specific Differences of the Vessel Wall  
Milagros Romay, PhD, Northwestern University

5:00  Genetic Approaches to Evaluate APOL1 as a Therapeutic Target for Sepsis  
QiPing Feng, PhD, Vanderbilt University Medical Center
Oral Abstract Presentations

5:15  Presentation Number 158
The Histone Demethylase JMJD3 Regulates Smooth Muscle Differentiation and is Associated with Blood Pressure

Kevin Mangum, Amrita Joshi, Sonya Wolf, Emily Barrett, Jodie Moon, Bethany Moore, Univ of Michigan, Ann Arbor, MI; Andrea T Obi, University of Michigan, Ann Arbor, MI; Frank Davis, The Univ of Michigan, Ann Arbor, MI; Katherine A Gallagher, University of Michigan, Ann Arbor, MI

5:30  Presentation Number 159
Palmitic Acid Alters Enhancers and Super Enhancers Near Inflammatory and Efferocytosis-associated Genes In Human Monocytes

Vinay Singh Tanwar, Marpadga A Reddy, Suchismita Dey, Vajir Malek, Linda Lanting, Dept of Diabetes Complications and Metabolism, Arthur Riggs Diabetes & Metabolism Res Inst, Beckman Res Inst of City of Hope, Duarte, CA; Rama Natarajan, Beckman Res Inst of City of Hope, Duarte, CA

5:45  Presentation Number 160
Atherosclerosis Regression at The Single-Cell Level

José Gabriel Barcia Durán, Morgane Gourvest, Coen van Solingen, NYU Grossman Sch of Med, New York, NY; Edward Fisher, NYU Langone Medical Ctr, New York, NY; Kathryn J Moore, NYU Grossman Sch of Med, New York, NY

6:00-7:30 pm  Poster Session 3 and Reception
For a full list poster presentations, please see the Vascular Discovery 2023 Posters on the programming page
Gloucester/Back Bay, 3rd Floor

7:30-10:00 pm  Joint Council Dinner (ticket required)
Grand Ballroom Salons E-G, 4th Floor

SATURDAY, MAY 13

6:45–10:45 am  Childcare
Yarmouth, 4th Floor

6:00–10:30 am  Speaker Resource Room
Falmouth, 4th Floor

7:00–10:30 am  Registration
Atrium Foyer, 4th Floor
7:00-8:00 am  Inside the AHA’s Research Enterprise: Grant Funding and Other Opportunities  
Glenn H. Dillon, PhD, American Heart Association  
Grand Ballroom Salons E-G, 4th Floor

The American Heart Association is the largest non-governmental, non-profit funder of cardiovascular and cerebrovascular research in the US. Those attending this session will learn about grant funding opportunities at AHA, including programs across the career stage; application expectations and timelines; the peer review process; recent program highlights. Attendees will also learn of service and career development opportunities at AHA.

8:00-9:00 am  Continental Breakfast  
Atrium Foyer, 4th Floor

8:00-9:00 am  Meet the Professor Breakfast  
Join us for breakfast and roundtable discussions with experts on various topics. Hosted by faculty, this interactive session will provide opportunities to discuss, share and learn. No ticket required to attend.  
Grand Ballroom Salons A-D, 4th Floor

9:00 am -10:30 am  Plenary Session 5: Invited Lecture Series  
Grand Ballroom Salons E-G, 4th Floor

Moderators:  
Katey Rayner, PhD, FHA, University of Ottawa Heart Institute  
Philip Tsao, PhD, Stanford University School of Medicine

Jeffrey M. Hoeg Arteriosclerosis, Thrombosis and Vascular Biology Award for Basic Science and Clinical Research Lecture  
9:00 Systems Approach to Target Discovery for Macrophage Activation and Vascular Disease  
Masanori Aikawa, MD, PhD, Harvard Medical School, Brigham and Women’s Hospital

Keynote Lecture  
9:30 Regulation of Endothelial Cell Specification in Development and Disease  
Karen K. Hirschi, PhD, University of Virginia

Distinguished Lecture  
10:00 Advances in Omega-3 Fatty Acid Research  
Deepak L. Bhatt, MD, MPH, FACC, FAHA, FESC, MSCAI, Ichan School of Medicine at Mount Sinai

10:30 am  Closing Remarks/Conference Adjourns