

Arteriosclerosis, Thrombosis and Vascular Biology | Peripheral Vascular Disease

Scientific Sessions 2017

Final Program

May 4-6, 2017 | Hyatt Regency Minneapolis | Minneapolis, Minnesota

Abstracts are available on http://professional.heart.org/atvbpvd_sessions

This is an annual scientific meeting of the American Heart Association, sponsored by the Council on Arteriosclerosis, Thrombosis and Vascular Biology and Council on Peripheral Vascular Disease, in collaboration with the Council on Functional Genomics and Translational Biology and the Society of Vascular Surgery's Vascular Research Initiatives Conference.

Program at a Glance

	Wednesday May 3, 2017	Thursday May 4, 2017		Friday May 5, 2017		Saturday May 6, 2017		
7:00 AM	Separate registration may be required for the meetings listed below. 8:00–6:00 Vascular Research Initiative Conference 2017	Registration, Continental Breakfast, Exhibits	Early Career Training Session	Registration, Continental Breakfast, Exhibits	Early Career Training Session	Registration		
7:30 AM		8:00–10:00 Conference Opening and Plenary Session I Functional Genomics: Scientific, Clinical and Ethical Implications of Genome Editing in 2017			8:00–9:30 Plenary Session III Highlights from the <i>ATVB Journal</i>		8:30–10:30 Poster Session and Continental Breakfast	
8:00 AM								
8:30 AM		10:00–10:30 Refreshment Break/Exhibits			9:30–10:00 Refreshment Break/Exhibits			10:30–NOON Plenary Session V Invited Lecture Series Hoeg Award Lecture Keynote Lecture Distinguished Lecture
9:00 AM								
9:30 AM								
10:00 AM		10:30–12:15 Concurrent Session I A – Mechanisms of Atherosclerosis B – Molecular, Developmental and Cellular Biology of the Vessel Wall C – Translational Science of Vascular Medicine: Vascular Dysfunction			10:00–11:45 Concurrent Session III A – Lipoprotein Metabolism and Therapeutic Targets B – Blood Coagulation and Antithrombotic Therapy C – Translational Science in Venous Thromboembolic Disease (VTE)		NOON Closing Remarks/Adjourn	
10:30 AM								
11:00 AM								
11:30 AM	11:45–1:45 High Functioning in High Pressure: Using MBTI to Enhance Your Performance <i>(ticket required; seating is limited)</i> Next-Generation Technology Bootcamps: CRISPR-Cas9 Genome Editing (basic and advanced) <i>(ticket required; seating is limited)</i> Or lunch on your own			11:45–1:45 High Functioning in High Pressure: Using MBTI to Enhance Your Performance <i>(ticket required; seating is limited)</i> Next-Generation Technology Bootcamps: CRISPR-Cas9 Genome Editing (basic and advanced) <i>(ticket required; seating is limited)</i> Or lunch on your own		HDL Structure–Function Workshop Saturday/Sunday Concludes Sunday, May 7, Noon <i>Separate registration required</i>		
NOON							NOON–6:00 KinMet	
12:30 PM								
1:00 PM	1:00–5:00 CAAC Symposium		2:15–3:45 Plenary Session II Origins, Fates, and Dynamics of Hematopoietic and Vascular Cells		1:45–3:45 Plenary Session IV Young Investigator Award Competition Brinkhous Prize and Page Award			
1:30 PM								
2:00 PM								
2:30 PM								
3:00 PM	3:00–7:00 ATVB PVD Registration		3:45–4:15 Refreshment Break/Exhibits		3:45–4:15 Refreshment Break/Exhibits			
3:30 PM								
4:00 PM			4:15–6:00 Concurrent Session II A – Apolipoproteins and Lipid Metabolism B – Immunity and Inflammation in Vascular Biology and Thrombosis C – Translational Science of Vascular Medicine: Device Development in Biological Interfaces		4:15–6:00 Concurrent Session IV A – Diabetes, Obesity and Metabolic Disorders B – Platelet Production, Signaling and Function C – Genomics, Epigenomics and Stem Cells in Vascular Disease			
4:30 PM								
5:00 PM								
5:30 PM								
6:00 PM	5:30–10:00 CAAC Reception and Dinner		6:00–8:00 Poster Session and Reception		6:00–8:00 Poster Session and Reception			
6:30 PM								
7:00 PM			6:30–7:30 Moderated PVD Poster Session		8:00–10:00 ATVB PVD Council Dinnerr <i>(ticket required)</i>			
7:30 PM								
8:00 PM								

Legend:	Plenary Session	Poster Session	Meals/Breaks
	Concurrent Session	Presentation Skills Training	Other Meetings of Interest

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Save the Date!

ATVB 2018 Scientific Sessions

May 10–12, 2018 | Hilton San Francisco | San Francisco, California

Next year's conference: May 10–12, 2019 ... visit professional.heart.org for more information.

Questions and Information

Questions

If you have questions after reading this program, contact the American Heart Association National Center, Dallas, Texas:

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- Select the conference you are interested in attending for more details, such as Registration & Housing, Programming, and Abstracts & Awards.
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Dear Colleague,

On behalf of the American Heart Association, the Council on Arteriosclerosis, Thrombosis and Vascular Biology, the Council on Peripheral Vascular Disease and the Council on Functional Genomics and Translational Biology, we welcome you to the ATVB/PVD 2017 Scientific Sessions in beautiful Minneapolis, Minnesota. Bisected by the Mississippi River, Minneapolis is known for its parks and lakes and is home to many cultural landmarks like the Walker Art Center, a contemporary art museum, and its adjacent Minneapolis Sculpture Garden, famed for Claes Oldenburg's "Spoonbridge and Cherry" sculpture. The city's other notable art museums include the Minneapolis Institute of Art and the ultramodern University of Minnesota's Weisman Art Museum. In downtown, the Mill City Museum recalls Minneapolis' industrial history on the grounds of a former mill, while the historic Guthrie Theater presents Shakespeare plays and contemporary productions. A scenic bike path winds past the city's main lakes, dubbed the Chain of Lakes.

ATVB/PVD 2017 provides unique opportunities to meet with colleagues from around the world with wide-ranging research interests and expertise within the research communities of arteriosclerosis, thrombosis and vascular biology. The primary goal of this conference is to provide a forum for the timely exchange of information about new and emerging scientific research in lipids and lipoproteins, arteriosclerosis, thrombosis, vascular biology, genomics and peripheral vascular disease.

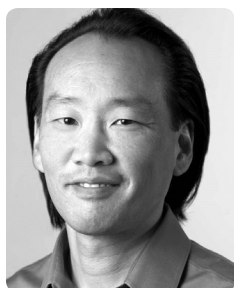
In addition to invited plenary lectures and concurrent sessions, we will have oral presentations of selected abstracts and three lively poster sessions. On Thursday, integrated translational sessions in vascular medicine developed collaboratively by the PVD and ATVB councils will address the intersection of basic and clinical sciences and provide opportunities for collaboration at the translational interface in PVD- and ATVB-related science. We'll also have concurrent sessions and a moderated poster session centered on peripheral vascular disease themed abstracts, and a special NHLBI session on translation and product development challenges for scientists. On Friday morning, the PVD Council and the American Venous Forum have joined together to present a session on venous thromboembolic disease.

Back by popular demand, in collaboration with the Council on Functional Genomics and Translational Biology, we have four hands-on Next-Generation Technology Boot Camps. The boot camps on Thursday will address UCSC Genome Browser (basic) and ChIP-seq/Ingenuity (advanced). On Friday, we'll have basic and advanced instruction on genome editing using CRISPR/Cas9. Pre-registration is required to attend the boot camps.

One of the areas of emphasis for this conference is to encourage interactions between young scientists and more senior scientists in their research area to foster dialogue and facilitate the exchange of ideas. The format of the conference, with many invited presentations as well as a dedicated focus on poster presentations, is intended to maximize a thought-provoking flow of information and discourse among scientists. The ATVB Early Career Committee has planned some exciting sessions this year, including a special session on High Functioning in High Pressure: Using MBTI to Enhance your Performance. A ticket is required to attend this event. Be sure to check with the registration desk to see if tickets are available.

We hope you will find the ATVB/PVD 2017 Scientific Sessions an excellent educational and academic experience and a great opportunity to network with scientists from around the world who are dedicated to building healthier lives, free of cardiovascular diseases and stroke.

Sincerely,



Philip S. Tsao, PhD
Chair, ATVB/PVD 2017
Scientific Sessions



Nancy R. Webb, PhD, FAHA
Vice Chair, ATVB/PVD 2017
Scientific Sessions

***The American Heart Association is a national voluntary health agency whose mission is
“Building healthier lives, free of cardiovascular diseases and stroke.”***

The American Heart Association gratefully acknowledges unrestricted educational grant from Pfizer.

Additionally, we thank the following for their support of this meeting:

***ATVB Journal, NIH/NHLBI, Hyatt Regency Hotel, Council on Arteriosclerosis, Thrombosis and Vascular Biology,
Council on Functional Genomics, and Translational Biology, and Council on Peripheral Vascular Disease***

The American Heart Association is grateful to the members of the Program Committee for their dedication and leadership in planning the program.

Program Committee

Philip S. Tsao, PhD, Conference Chair, Stanford University School of Medicine and VA Palo Alto Health Care System, Stanford, California

Nancy R. Webb, PhD, FAHA, Conference Vice Chair, University of Kentucky, Lexington, Kentucky

Joshua A. Beckman, MD, MS, FAHA, FACC, Vanderbilt University Medical Center, Nashville, Tennessee

Michael S. Conte, MD, FAHA, FACS, University of California, San Francisco, San Francisco, California

Edward Conway, MD, PhD, MBA, University of British Columbia, Vancouver, British Columbia, Canada

Alan Daugherty, PhD, DSc, FAHA, University of Kentucky, Lexington, Kentucky

W. Sean Davidson, PhD, FAHA, University of Cincinnati, Cincinnati, Ohio

Xiaoping Du, MD, PhD, University of Illinois at Chicago, Chicago, Illinois

David G. Harrison, MD, FAHA, Vanderbilt University School of Medicine, Nashville, Tennessee

Catherine C. Hedrick, PhD, FAHA, La Jolla Institute for Allergy and Immunology, La Jolla, California

Peter Henke, MD, University of Michigan, Ann Arbor, Michigan

Joseph Italiano, PhD, Brigham and Women's Hospital, Boston, Massachusetts

Nicholas Leeper, MD, Stanford University, Stanford, California

Steven R. Lentz, MD, PhD, FAHA, University of Iowa, Iowa City, Iowa

Lars Maegdefessel, MD, PhD, Karolinska Institute, Stockholm, Sweden

Ziad Mallat, MD, PhD, University of Cambridge, Cambridge, United Kingdom

Jordan D. Miller, PhD, Mayo Clinic, Rochester, Minnesota

Sanjay Misra, MD, Mayo Clinic, Rochester, Minnesota

Kiran Musunuru, MD, PhD, MPH, FAHA, University of Pennsylvania, Philadelphia, Pennsylvania

Vasanthi Narayanaswami, PhD, California State University-Long Beach, Long Beach, California

J. Geoffrey Pickering, MD, PhD, FRCPC, FAHA, Robarts Research Institute, London, Ontario, Canada

Aruna Pradhan, MD, MPH, Brigham and Women's Hospital, Boston, Massachusetts

Muredach P. Reilly, MB, FAHA, Columbia University, New York, New York

Kerry Anne Rye, PhD, FAHA, University of New South Wales, Kensington, NSW, Australia

Frank M. Sacks, MD, FAHA, Harvard Medical School, Boston, Massachusetts

Jonathan D. Smith, PhD, FAHA, Cleveland Clinic, Cleveland, Ohio

Mary Sorci-Thomas, PhD, FAHA, Medical College of Wisconsin, Milwaukee, Wisconsin

Edith Tzeng, MD, University of Pittsburgh, Pittsburgh, Pennsylvania

Hong Wang, MD, PhD, EMBA, FAHA, Temple University School of Medicine, Philadelphia, Pennsylvania

Alisa Wolberg, PhD, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina

Invited Presenters

Sudha Biddinger, MD, PhD, Children's Hospital Boston, Boston, Massachusetts

John C. Burnett, Jr., MD, Mayo Clinic, Rochester, Minnesota

Emily B. Button, University of British Columbia, Vancouver, British Columbia

Magdalena Chrzanowska-Wodnicka, PhD, Blood Center of Wisconsin, Milwaukee, Wisconsin

Mete Civelek, PhD, University of Virginia, Charlottesville, Virginia

Alan Daugherty, PhD, DSc, FAHA, University of Kentucky, Lexington, Kentucky

Jane E. Freedman, MD, FAHA, University of Massachusetts Medical Center, Worcester, Massachusetts

Frederic Geissmann, MD, PhD, Memorial Sloan Kettering Cancer Center, New York, New York

Daniel Greif, MD, Yale School of Medicine, New Haven, Connecticut

Naomi M. Hamburg, MD, FAHA, Boston University School of Medicine, Boston, Massachusetts

Cynthia Hong, PhD, Pfizer, Cambridge, Massachusetts

Priscilla Hsue, MD, University of California-San Francisco, San Francisco, California

Farouc Jaffer, MD, PhD, FACC, FAHA, FSCAI, Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts

William Lagor, PhD, Baylor College of Medicine, Houston, Texas

Maureen Lazar, University of Pittsburgh, Pittsburgh, Pennsylvania

Nicholas Leeper, MD, Stanford University, Stanford, California

Klaus Ley, MD, La Jolla Institute for Allergy & Immunology, La Jolla, CA

John T. Matsui, PhD, University of California Berkeley, Berkeley, CA

Joseph Miano, PhD, University of Rochester, Rochester, New York

Kiran Musunuru, MD, PhD, MPH, FAHA, University of Pennsylvania, Philadelphia, Pennsylvania

Gary Owens, PhD, University of Virginia, Charlottesville, Virginia

Gregory Piazza, MD, Brigham and Women's Hospital, Boston, Massachusetts

Daniel J. Rader, MD, FAHA, University of Pennsylvania Perelman School of Medicine, Philadelphia, Pennsylvania

Shahin S. Rafii, MD, Weill Cornell Medical College, New York, New York

Thomas Renné, MD, PhD, Karolinska Institutet, Stockholm, Sweden

Jonathan D. Smith, PhD, FAHA, Cleveland Clinic, Cleveland, Ohio

Filip Swirski, PhD, Massachusetts General Hospital, Boston, Massachusetts

Sidney Whiteheart, PhD, University of Kentucky, Lexington, Kentucky

Weifei Zhu, PhD, Cleveland Clinic, Lerner Research Institute, Cleveland, Ohio



Invited Moderators

Sudha Biddinger, MD, PhD, Children's Hospital Boston, Boston, Massachusetts

Chantal M. Boulenger, PharmD, PhD, INSERM UMR-970, Paris, France

Magdalena Chrzanowska-Wodnicka, PhD, Blood Center of Wisconsin, Milwaukee, Wisconsin

Mete Civelek, PhD, University of Virginia, Charlottesville, Virginia

W. Sean Davidson, PhD, FAHA, University of Cincinnati, Cincinnati, Ohio

Xiaoping Du, MD, PhD, University of Illinois at Chicago, Chicago, Illinois

Daniel Greif, MD, Yale School of Medicine, New Haven, Connecticut

Peter Henke, MD, University of Michigan, Ann Arbor, Michigan

Priscilla Hsue, MD, University of California-San Francisco, San Francisco, California

Farouc Jaffer, MD, PhD, FACC, FAHA, FSCAI, Massachusetts General Hospital, Boston, Massachusetts

Nicholas Leeper, MD, Stanford University, Stanford, California

Steven R. Lentz, MD, PhD, FAHA, University of Iowa, Iowa City, Iowa

Lars Maegdefessel, MD, PHD, Karolinska Institute, Stockholm, Sweden

Ziad Mallat, MD, PhD, University of Cambridge, Cambridge, United Kingdom

Jordan D. Miller, PhD, Mayo Clinic, Rochester, Minnesota

Peter Newman, PhD, FAHA, BloodCenter of Wisconsin, Milwaukee, Wisconsin

A. Phillip Owens, III, PhD, University of Cincinnati, Cincinnati, Ohio

Aruna Pradhan, MD, MPH, Brigham and Women's Hospital, Boston, Massachusetts

Katey Rayner, PhD, University of Ottawa Heart Institute, Ottawa, Ontario, Canada

Muredach P. Reilly, MB, FAHA, Columbia University, New York, New York

Thomas Renné, MD, PhD, Karolinska Institutet, Stockholm, Sweden

Nazish Sayed, MD, Stanford University, Stanford, California

Jonathan D. Smith, PhD, FAHA, Cleveland Clinic, Cleveland, Ohio

Mary Sorci-Thomas, PhD, FAHA, Medical College of Wisconsin, Milwaukee, Wisconsin

Philip S. Tsao, PhD, Stanford University School of Medicine and VA Palo Alto Health Care System, Stanford, California

Hong Wang, MD, PhD, EMBA, FAHA, Temple University School of Medicine, Philadelphia, Pennsylvania

Sidney Whiteheart, PhD, University of Kentucky, Lexington, Kentucky

Alisa Wolberg, PhD, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina

Weifei Zhu, PhD, Cleveland Clinic, Lerner Research Institute, Cleveland, Ohio

Abstract Reviewers

The conference organizers gratefully acknowledge the following individuals for their assistance with the abstract grading process:

Jun-ichi Abe	Ekaterina Koltsova	Thomas Réne
Michael Autieri	Jean-Pyo Lee	Annabelle Rodriguez-Oquendo
Hugh Barrett	Nicholas Leeper	Anand Rohatgi
Matthias Barton	Stephanie Lehoux	Kerry-Anne Rye
Scott A. Berceli	Steven R. Lentz	Frank Sacks
Sudha Biddinger	Klaus Ley	Daisy Sahoo
Ralf Brandes	Zhenyu Li	Tamer Sallam
Dennis Bruemmer	Hong Lu	Nazish Sayed
Anil K. Chauhan	Nigel Mackman	Ann Marie Schmidt
Ed Conway	Lars Maegdefessel	Amy Shah
Marina Cuchel	Amy S. Major	John P. Sheehan
Alan Dardik	Ziad Mallat	Preetha Shridas
Alan Daugherty	Joe Miano	Mary Sorci-Thomas
Sean Davidson	Dianna M. Milewicz	Filip K. Swirski
Mark Davies	Jordan Miller	Lisa Tannock
Xiaoping Du	Sanjay Misra	Elizabeth J. Tarling
Parham Eshtehardi	Kiran Musunuru	Ryan Temel
William P. Fay	Rama Natarajan	Dwight Towler
Sergio Fazio	Marvin Nieman	Bernado L. Trigatti
Maria Febbraio	Wayne Orr	Thomas Vallim
Aloke V. Finn	Phil Owens	Eric P. van der Veer
Gabrielle Fredman	John S. Parks	Hong Wang
Ming C. Gong	Greg Piazza	Nancy R. Webb
Zhenheng Guo	Geoffrey J. Pickering	Jeffrey Weitz
Milton Hamblin	Aruna Pradhan	Geoff Werstuck
Robert Hegele	Dan Rader	Baohui Xu
Peter K. Henke	Katey Rayner	Wei Zhou
Murray W. Huff	Catherine Reardon	Weifei Zhu
Ion S. Jovin	Muredach P. Reilly	
Victoria L. King	Alan T. Remaley	

Room Locator

Wednesday, May 3	
CAAC Symposium (ticket required)	Nicollet Ballroom ABC Main Level
CAAC China Night Reception and Dinner (ticket required)	Great Lakes Ballroom C Fourth Level
CSATVB Poster Session and Reception	Lakeshore Ballroom ABC Main Level
KinMet 2017	Northstar Ballroom A Second Level
Exhibits	Nicollet Ballroom D Main Level
Registration	Nicollet Ballroom D Main Level
Speaker Resource Room	Loring Room Main Level
Vascular Research Initiatives Conference (VRIC) 2017 (separate registration required)	Greenway Ballroom DEFG Second Level
Thursday, May 4	
Continental Breakfast	Nicollet Ballroom D Main Level
Concurrent Session A	Nicollet Ballroom AB Main Level
Concurrent Session B	Greenway Ballroom BCHI Second Level
Concurrent Session C	Greenway Ballroom DEFG Second Level
Early Career Training	Greenway Ballroom BCHI Second Level
Exhibits	Nicollet Ballroom D Main Level
Mentor of Women Award Luncheon (ticket required)	Great Lakes Ballroom C Fourth Level
Moderated PVD Poster Session	Hyatt Exhibit Hall Main Level
Next Generation Technology Bootcamp (ticket required)	Northstar Ballroom A Second Level
Plenary Sessions	Nicollet Ballroom ABC Main Level
Poster Session and Reception	Hyatt Exhibit Hall Main Level
PVD Annual Business Meeting and Luncheon (ticket required)	Great Lakes Ballroom A2-3 Fourth Level
Refreshment Breaks	Nicollet Ballroom D Main Level
Registration	Nicollet Ballroom D Main Level
Speaker Resource Room	Loring Room Main Level

Friday, May 5	
Continental Breakfast	Nicollet Ballroom D Main Level
Young Investigator Award Competition	Nicollet Ballroom ABC Main Level
Concurrent Session A	Nicollet Ballroom AB Main Level
Concurrent Session B	Greenway Ballroom BCHI Second Level
Concurrent Session C	Greenway Ballroom DEFG Second Level
Early Career Training	Nicollet Promenade Main Level
Exhibits	Nicollet Ballroom D Main Level
High Functioning in High Pressure: Using MBTI to Enhance Your Performance (ticket required)	Great Lakes Ballroom C Fourth Level
Next Generation Technology Bootcamp (ticket required)	Northstar Ballroom A Second Level
Plenary Sessions	Nicollet Ballroom ABC Main Level
Poster Session and Reception	Hyatt Exhibit Hall Main Level
Refreshment Breaks	Nicollet Ballroom D Main Level
Registration	Nicollet Ballroom D Main Level
Speaker Resource Room	Loring Room Main Level
ATVB/PVD Joint Council Dinner (ticket required)	Great Lakes Ballroom BC Fourth Level
Saturday, May 6	
Continental Breakfast	Hyatt Exhibit Hall Main Level
HDL Workshop 12:30–6:00 PM	Great Lakes Ballroom C Fourth Level
Plenary Sessions	Nicollet Ballroom ABC Main Level
Poster Session	Hyatt Exhibit Hall Main Level
Registration	Nicollet Ballroom D Main Level
Speaker Resource Room	Loring Room Main Level
Sunday, May 7	
HDL Workshop 8:00 AM–12:00 PM	Great Lakes Ballroom C Fourth Level

General Information

This 2½-day meeting is sponsored by the Council on Arteriosclerosis, Thrombosis and Vascular Biology and the Peripheral Vascular Disease Council, in cooperation with the Council on Functional Genomics and Translational Biology and the Society for Vascular Surgery. The meeting includes diverse disciplines within the arteriosclerosis, thrombosis, vascular biology, functional genomics, peripheral vascular disease and vascular surgery research communities that allow investigators to explore areas of cross-disciplinary interests. Special lectures, discussions and oral and poster presentations are planned. The meeting provides opportunities for intense interaction among participants during sessions and breaks. We expect a broad representation from many disciplines and encourage young scientists to attend.

Conference Registration

Registration will be in Nicollet Ballroom D on the Main Level of the Hyatt Regency Hotel. Registration will be open during the following hours:

Wednesday, May 3	3:00–6:00 PM
Thursday, May 4	7:00 AM–6:00 PM
Friday, May 5	7:00 AM–6:00 PM
Saturday, May 6	7:30 AM–Noon

Exhibits

Beginning Wednesday afternoon, visit the exhibits in Nicollet Ballroom D. Exhibits will be open during registration hours, breaks and lunch. This year we welcome:

- ATVB Journal
- AHA Membership
- Biocytogen, LLC
- Cell Biologies, Inc.
- Diapharma
- Exemplar Genetics
- Fujifilm, Visual Sonics, Inc.
- PromoCell GmbH

Learning Objectives

At the conclusion of the conference, participants will be able to:

1. Review recent advances in knowledge regarding the role of LDL-C and non-HDL-C in atherosclerosis, newly approved medications, and the clinical implications to improving cardiovascular outcomes.
2. Describe recent findings regarding the role and mechanism of action of TGRL in cardiovascular disease, approaches to assess TGRL proteins, the results of large genetic studies implicating TGRL in atherosclerosis, and the clinical relevance of this research.
3. Identify current controversies in the contribution of HDL-C to atherosclerosis and their clinical implications.
4. Evaluate recent research related to HDL-C mechanisms in CVD, including HDL function assessment and implications for the prevention and treatment of atherosclerosis.
5. Review recent findings identifying HDL particle subpopulations with distinct protein and lipid composition that likely exert distinct physiological functions.
6. Review the latest research on the signaling and genetic pathways involved in vascular dysfunction and potential opportunities for new therapeutic options and management.
7. Describe current efforts to reverse vascular damage through medical therapy and vascular regeneration.
8. Identify novel genomic and circulating biomarkers that could be used to assess CVD risk and discuss the strengths and weaknesses of each.
9. Describe the biology of cardio-metabolic pathways and risk factors as they relate to the development and progression of cardiovascular disease and diabetes, and potential options for management.
10. Review novel mechanisms and emerging antithrombotics that reduce atherothrombosis without increasing the bleeding risk.

General Information (continued)

Joint Accreditation Statements

In support of improving patient care, the American Heart Association is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

AMA Credit Designation Statement – Physicians

The American Heart Association designates this live activity for a maximum of 22.25 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

AAPA Credit Acceptance Statement – Physician Assistants

AAPA accepts certificates of participation for educational activities certified for *AMA PRA Category 1 Credit™* from organizations accredited by ACCME or a recognized state medical society. Physician assistants may receive a maximum of 22.25 hours of Category 1 credit for completing this program.

AANP Credit Acceptance Statement – Nurse Practitioners

American Academy of Nurse Practitioners (AANP) accepts *AMA PRA Category 1 Credit™* from organizations accredited by the ACCME.

***AMA credit must be claimed within six months of attendance. Credit will no longer be available to claim after Nov. 6, 2017.*

Disclosure Policy

All persons who develop and/or control educational content in CME/CE activities provided by the American Heart Association will disclose to the audience all financial relationships with any commercial supporters of this activity as well as with other commercial interests whose lines of business are related to the CME/CE-certified content of this activity. In addition, presenters will disclose unlabeled/unapproved uses of drugs or devices discussed in their presentations. Such disclosures will be made in writing in course presentation materials.



Information for Presenters

The Speaker Resource Room is located in the Loring Room on the Main Level, just outside the registration area. Speakers are asked to deliver their presentations on CD-ROM, DVD-ROM or a USB storage device to the Speaker Resource Room at least three hours before the beginning of the session in which they will speak. Presenters who speak on Thursday, May 4, may check in beginning at 3:00 PM Wednesday, May 3, but we request that you check in before 6:00 PM. This will allow you time to prepare, rehearse and finalize your presentation before you submit it. ***It is imperative that you review your presentation in the Speaker Resource Room if it contains video files or was created on a Mac.*** Speakers will be directed to a preloading station where a technician will load the presentations. Speakers may also use this room to review and practice their presentations on PCs and Mac computers. The Speaker Resource Room will be open during the following hours:

Wednesday, May 3 3:00–6:00 PM	Thursday, May 4 7:00 AM–6:00 PM	Friday, May 5 7:00 AM–6:00 PM	Saturday, May 6 7:30–10:30 AM
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Abstract Presentations

Abstracts presented at ATVB/PVD 2017 will be published after the conference in the online ATVB journal. Abstracts are available on the ATVB/PVD 2017 conference website: professional.heart.org/atbvpvdsessions.

Abstracts 1–59 will be presented orally.

Abstracts 90–643 will be presented as posters as follows:

Poster Session 1: Thursday, May 4, 6:00–8:00 PM (attended), abstracts 90–265.

Poster Session 2: Friday, May 5, 6:00–8:00 PM (attended), abstracts 299–468.

Poster Session 3: Saturday, May 6, 8:30–10:30 AM (attended), abstracts 473–643.

Abstract poster presenters are asked to comply with the set-up and tear-down schedule below:

Poster Session Date	Location	Presentation Time	Attendance Time	Set-up Time	Tear-Down Time
Session 1 Thursday, May 4	Hyatt Exhibit Hall	6:00–8:00 PM	6:00–8:00 PM	11:00 AM–5:30 PM	8:00–9:00 PM
Moderated PVD Posters Thursday, May 4	Hyatt Exhibit Hall	6:30–7:30 PM	6:30–7:30 PM	3:30–6:30 PM	6:30–9:00 PM
Session 2 Friday, May 5	Hyatt Exhibit Hall	6:00–8:00 PM	6:00–8:00 PM	11:00 AM–5:30 PM	8:00–10:00 PM
Session 3 Saturday, May 6	Hyatt Exhibit Hall	8:30–10:30 AM	8:30–10:30 AM	10:00 PM Friday– 8:00 AM Saturday	10:30 AM–12:30 PM Saturday

ePosters

In addition to the traditional poster format, abstract presenters were invited to upload their posters electronically. During the meeting, each abstract will have a QR code displayed on their poster board, which will enable attendees with smartphones to view the ePosters and, if applicable, the author's narration of the poster. ePosters are available only to attendees and may be viewed from the Communication Center in the registration area. Posters will be accessible to the general public after May 31.

Conference Highlights – Early Career Activities and Ticketed Events

Early Career Activities

Join us on Thursday and Friday for these Early Career sessions. The training sessions are open to all attendees, but are targeted to early career participants. *No advance registration is required, but seating is limited.*

Thursday, May 4, 7:00–8:00 AM

Early Career Training Session

Succeeding at Every Stage: Insights from the Early Career Committee

Greenway BCHI

This session focuses on how to achieve success in your post-doctoral fellowship, how to successfully acquire transition grants and keys to successfully negotiating your first independent position as a scientist or physician-scientist. Each topic is led by ECC members who have been highly successful in the subject area.

Getting Your First Grant: Insights from Study Section

Adam C. Straub, PhD, University of Pittsburgh, Pittsburgh, Pennsylvania

Thomas Vallim, PhD, UCLA, Los Angeles, California

Building a Successful International Research Program: Perspectives from Asia

Miao Wang, PhD, Fuwai Hospital and Chinese Academy of Medical Sciences, Beijing, China

Building a Successful International Research Program: Perspectives from Europe

Lars Maegdefessel, MD, PhD, Karolinska Institute, Stockholm, Sweden

Uwe Raaz, MD, University Medical Center Göttingen, Göttingen, Germany

Clinical Practice and Research Lab Management: A Balancing Act

Nick Leeper MD, Stanford University, Palo Alto, California

Marcel Liberman, MD, PhD, Hospital Israelita Brasileira Albert Einstein, Sao Paulo, Brazil

Keys to the Kingdom: Setting Up and Managing Your Own Lab

Katey Rayner, PhD, University of Ottawa Heart Institute, Ottawa, Ontario, Canada

The Importance of Mentoring and Being Mentored

Catherine Martel, PhD, Montreal Heart Institute, Montreal, Quebec, Canada

Robert C. Bauer, PhD, Columbia University Medical Center, New York, New York

Women in Science

TBD

Know your KangaR00: Preparing a Successful K99/R00 Application

Alicia N. Lyle, PhD, Emory University, Atlanta Georgia

Cynthia St. Hilaire, PhD, University of Pittsburgh, Vascular Medicine Institute, Pittsburgh, Pennsylvania

Friday, May 5, 7:00–8:00 AM

Early Career Training Session

Speed Networking: Coffee, Careers and Communication

Nicollet Promenade

Come and network with senior leadership from ATVB and PVD, including a chance to visit with Steve Lentz, Josh Beckman, Alan Daugherty, Muredach Reilly, Phil Tsao, Nancy Webb and others. Take this opportunity to meet leaders in the field, talk about your latest research, try your elevator pitch and get valuable career advice. The format will be informal and allow for interaction between many participants.

Conference Highlights – Early Career Activities and Ticketed Events

Thursday and Friday, May 5–6

Translational Science of Vascular Medicine Sessions

On Thursday and Friday, join us for these integrated concurrent sessions that address the intersection of basic and clinical sciences, and provide opportunities for basic and clinical scientists to collaborate at the translational interface in vascular medicine. The Thursday morning session emphasizes vascular dysfunction. On Friday morning, the PVD Council and the American Venous Forum will conduct a session on Translational Science in Venous Thromboembolic Disease. These sessions include invited talks as well as oral abstract presentations.

At 6:30 PM Thursday, in the Hyatt Exhibit Hall, a moderated and innovative electronic poster session will feature PVD-related abstracts. The session is open to all conference registrants.

We're also offering four **Next Generation Technology Bootcamps** in Northstar Ballroom A. Lunch will not be provided; however, boxed lunches will be available for purchase in the Greenway Promenade.

1. Thursday, 12:15–1:15 PM, UCSC Genome Browser (basic)
2. Thursday, 1:15–2:15 PM, ChIP-seq (advanced)
3. Friday, 11:45 AM–12:45 PM, CRISPR-Cas9 Genome Editing (basic)
4. Friday, 12:45–1:45 PM, CRISPR-Cas9 Genome Editing (advanced)

A separate ticket is required to attend. These sessions may be full; check with the ATVB|PVD registration desk to see if any tickets are available.

Ticketed Events

The following events are open to all attendees. A separate nonrefundable fee is required to attend these events. Tickets will be sold at the registration desk. Please check with staff at the registration desk for availability.

Please join us in Great Lakes Ballroom C on the Fourth Level at 12:15 PM Thursday for the **Mentor of Women Award Luncheon**, hosted by the ATVB Women's Leadership Committee. The featured luncheon speaker is John T. Matsui, PhD, assistant dean of biological sciences and director of the Biology Scholars Program at the University of California, Berkeley. Dr. Matsui will present on **Diversifying Biomedical Research – Fixing our Institutions, not our Students**. During the luncheon, finalists for the Junior Investigator Award for Women will be announced and the ATVB Women's Leadership Committee Mentoring Award will be presented. The luncheon is open to all attendees; however, a ticket is required. *A separate, nonrefundable \$50 fee for AHA members/\$65 fee for non-members is required to attend this event.*

The **PVD Council Annual Business Meeting and Networking Luncheon** will be held in Great Lakes Ballroom A2 on the Fourth Level at 12:15 PM Thursday. Please join the PVD Council to acknowledge the 2017 recipients of the Hobson Award, the Mid-Career Investigator Award, the Young Investigator Travel Awards, recognize new FAHAs and network with colleagues. The luncheon is open to all attendees; however, a ticket is required. *A separate, nonrefundable \$35 fee for AHA members/\$50 fee for non-members is required to attend this event.*

At 12:15 PM Friday, join us for a special session: **High Functioning in High Pressure: Using MBTI to Enhance Your Performance**. Presented by Maureen Lazar, University of Pittsburgh, this session will showcase the Myers-Briggs Type Indicator (MBTI), an introspective self-reporting questionnaire designed to indicate psychological preferences in how people perceive the world and make decisions. This session is limited to 70 participants who registered in advance and completed the required questionnaire. Lunch will not be provided; however, boxed lunches are available for purchase in the Greenway Promenade.

Also on Friday, join your colleagues for food, drinks and entertainment at the **Joint Council Dinner** in Great Lakes Ballroom BC. Tickets, if available, may be purchased at registration (\$60/member; \$75/non-member; \$30/member and \$45/non-member for early career/student/trainee attendees).

Conference Highlights – Lectures and Awards

On Saturday morning, attend the **Invited Lecture Series** featuring the Jeffrey M. Hoeg Arteriosclerosis, Thrombosis and Vascular Biology Award for Basic Science and Clinical Research Lecture, the Distinguished Lecture and the Keynote Lecture..



At 10:30 AM, **Filip K. Swirski, PhD** will present this year's **Jeffrey M. Hoeg Award Lecture**. This lecture was established in 1999 to honor Jeffrey M. Hoeg, MD, for his contribution to furthering the understanding of the pathophysiology of atherosclerosis and the development of treatment strategies for its prevention through basic science and clinical research efforts.

Dr. Swirski is the Scott and Patricia Eston MGH Research Scholar, Principal Investigator at the Massachusetts General Hospital's Center for Systems Biology, Faculty Member of the Harvard Immunology PhD Program, and Associate Professor at Harvard Medical School. Dr. Swirski obtained his PhD in Immunology at McMaster University in 2004 and completed his postdoctoral studies in Peter Libby's lab at Brigham and Women's Hospital before joining the MGH faculty in 2007. Dr. Swirski studies innate immunity and leukocyte communication.

The title of Dr. Swirski's presentation is **Inflammatory Networks in Cardiovascular Disease**.



The **Keynote Lecture** will be presented at 11:00 AM. by **Jane E. Freedman, MD, FAHA**. Dr. Freedman is professor of medicine at the University of Massachusetts Medical School, attends in the Division of Cardiology, and is Director of Translational Research for the UMass Memorial Heart & Vascular Center. She directs the High-Throughput Gene Expression Core.

Dr. Freedman graduated from Yale University, Tufts University School of Medicine, and completed residency and cardiology fellowship at the Massachusetts General Hospital and Brigham and Women's Hospital, respectively. She has received young investigator awards from both the AHA and the ACC, was been elected to the A.S.C.I. and the A.U.C., and is an Associate Editor for Circulation.

The major research initiatives in Dr. Freedman's laboratory involve investigating the role of gene expression in a wide number of diseases, as well as longstanding studies examining pathways contributing to platelet function, immunity and atherothrombosis. Dr. Freedman is on the Steering Committee for the Framingham Heart Studies SABRe biomarker project and the Principal Investigator for two (UH2/UH3 and U01) NIH Common Fund Studies investigating the role of extracellular RNAs in human populations and disease.

Dr. Freedman will lecture on **The Role of Circulating Non-coding RNAs in Atherothrombotic Disease**



At 11:30 AM, **Klaus Ley, MD**, will present the **Distinguished Lecture** on **Exploiting Protective Autoimmunity to Develop a Vaccine Against Atherosclerosis**. Dr. Ley is professor and head of the Division of Inflammation Biology at the La Jolla Institute for Allergy and Immunology and adjunct professor of Bioengineering at the University of California, San Diego.

Dr. Ley received his medical degree from Julius-Maximilians-Universität in Würzburg, Germany. He has a post-doctoral degree in physiology from Freie Universität in Berlin, Germany and a post-doctoral degree in bioengineering from the University of California, San Diego.

Dr. Ley's research is focused on myeloid cells, specifically neutrophil and monocyte recruitment. Since 1980, he has published more than 200 original papers in peer-reviewed journals including Nature and Science.

In 1991, Dr. Ley discovered that L-selectin was involved in leukocyte rolling in vivo. In 2007, his lab discovered a fundamental new signaling mechanism in neutrophils that appears to be important in neutrophil recruitment. For his work on neutrophils and monocytes, Dr. Ley received the 2008 Bonazinga Award, the highest award of the Society for Leukocyte Biology, and the 2010 Malpighi Award, the highest award of the European Society for Microcirculation and Vascular Biology.

Dr. Ley's research in atherosclerosis started in 1997, when his lab discovered that P-selectin mediated rolling not only in venules, but also in inflamed arteries. His work is focused on the role of monocyte-derived cells in atherosclerosis. In 2001, his lab discovered CCL5 and CXCL1 as monocyte arrest chemokines relevant to atherosclerosis (Apoe^{-/-} mouse model). Next, the lab investigated the role of platelets in promoting monocyte interactions with the vessel wall, which resulted in a publication in Nature Medicine in 2003. In 2006, the lab developed and published a method to measure the leukocyte content of the aortic wall by flow cytometry, a method that is now used by many labs around the world.

Conference Highlights – Lectures and Awards (continued)



Kerry Anne Rye, PhD, FAHA, is the 2017 recipient of the **Mentor of Women Award**, which will be presented at the Mentor of Women Luncheon on Thursday. The award is presented annually to a member of the ATVB Council who has shown exceptional support of the careers of women in the fields of arteriosclerosis, thrombosis and vascular biology on an individual and global basis through mentoring and advocacy. The award is sponsored by the ATVB Women's Leadership Committee.

Professor Rye obtained her PhD from The Flinders University of South Australia in 1986 and gained her postdoctoral training at The University of Illinois at Urbana Champaign. She is a research professor and director of the Lipid Research Group, University of New South Wales. She is an associate editor of the *Journal of Lipid Research*, and an editorial board member of three American Heart Association journals: *Arteriosclerosis, Thrombosis and Vascular Biology*; *The Journal of the American Heart Association* and *Circulation Research*. Professor Rye is the immediate-past chair of the American Heart Association ATVB Council Women's Leadership Committee, a member of the ATVB Leadership and International Mentoring Committees, chair of the Program Committee (ATVB Council nominee) for American Heart Association Scientific Sessions and runs a mentoring program for early career members of the ATVB Council.

The **2017 ATVB Journal Young Investigator Awards** will be presented during Plenary Session III at 8:00-9:30 AM Friday. These investigators will also present their award-winning research during the Poster Session on Thursday evening.



Daniel Steinberg Early Career Investigator Award in Atherosclerosis/Lipoproteins

Marit Westerterp, PhD, University of Groningen, Groningen, Netherlands, for her paper:

Deficiency of ATP-Binding Cassette Transporters A1 and G1 in Endothelial Cells Accelerates Atherosclerosis in Mice



Karl Link Early Career Investigator Award in Thrombosis

Thomas Gremmel, MD, Medical University of Vienna, Vienna, Austria, for his paper:

Synergistic Inhibition of Both P2Y₁ and P2Y₁₂ Adenosine Diphosphate Receptors as Novel Approach to Rapidly Attenuate Platelet-Mediated Thrombosis



Werner Risau Early Career Investigator Award in Vascular Biology

Sarah De Val, PhD, Oxford University, Oxford, United Kingdom, for her paper:

An Intronic Flk1 Enhancer Directs Arterial-Specific Expression via RBPJ-Mediated Venous Repression



We are honored to present the **Martin Hofker Memorial Award** to **Marjo MPC Donners, PhD**, for her abstract titled *Endothelial Murine Atherosclerosis Development*, which will be presented during Poster Session 1 on Thursday evening.

This award is in recognition of Marten Hofker, PhD, who passed away in September 2016. Dr. Hofker was renowned for his work on the molecular and genetic mechanisms underlying cardiovascular and metabolic diseases.

Conference Highlights – Lectures and Awards (continued)

At 1:45 PM Friday, finalists for the **Kenneth M. Brinkhous Young Investigator Prize in Thrombosis** and the **Irvine H. Page Young Investigator Research Award** will present their abstracts. The Brinkhous Prize recognizes outstanding endeavors by new investigators in fundamental and applied research in thrombosis. The Page Award encourages investigators to continue careers in arteriosclerosis and vascular biology and recognizes talented investigators at an early or beginning point in their careers. The winners of these competitions will be announced during the Joint Council Dinner.

ATVB Kenneth M. Brinkhous Young Investigator Prize in Thrombosis Finalists

Name	Presentation Number
Kellie Machlus, PhD	37
Prabhakara Nagareddy, PhD	38
Lalitha Nayak, MD	39
Maurizio Tomaiuolo, PhD	40

ATVB Irvine H. Page Young Investigator Research Award Finalists

Name	Presentation Number
Casey E. Romanoski, PhD	41
Tamer Sallam, MD, PhD	42
Marit Westerterp, PhD	43
Dennis Wolf, MD	44

The **Junior Investigator Award for Women** is sponsored by the ATVB Women's Leadership Committee and helps recruit and retain women in the field of arteriosclerosis, thrombosis and vascular biology by recognizing excellent research being conducted by women. The finalists will present their abstracts during the Thursday poster session, and the winner will be announced during the Joint Council Dinner.

ATVB Junior Investigator Award Winner for Women Finalists

Name	Presentation Number
Megan L. Brophy, MA	94
Suzanne M. Eken, MD	95
Sai Ma, MS	96
Xiao Wang, PhD	97
Carrie B. Wiese, BS	98

Conference Highlights – Lectures and Awards (continued)

The **ATVB Travel Awards for Young Investigators** encourage and support the efforts of early career investigators in cardiovascular research and encourage participation in ATVB and AHA activities by providing travel funds to attend the ATVB/PVD Scientific Sessions, present research in oral or poster format and engage in discussion with senior investigators.

ATVB Travel Awards for Young Investigators Winners

Name	Presentation Number
Alexandra C. Chadwick, PhD	55
Trent D. Evans, MS	165
Michael Garshick, MD	5
Allison Herman, MS	47
Yuhuang Li, MD, PhD	311
Bhanu Kanth Manne, PhD	22
Masamichi Nogi, MD	313
Lale Ozcan, MD	203
Cayla N. Rodia, PhD	17
Filippo Romanelli, BS, MBA	426
Yue (Steve) Shen, MD, PhD	487
Larry D. Spears, PhD	539
Prasad Srikakulapu, PhD	221
Jesse W. Williams, PhD	2
Mikyung Yu, PhD	467

The American Heart Association Council on Peripheral Vascular Disease is pleased to announce the winner of the following council-sponsored awards. The awardees will be recognized during the PVD Council Luncheon and presented with the awards during the Joint Council Dinner on Friday.

Robert W. Hobson II, MD, Early Career Investigator Award. This award recognizes an outstanding early career investigator in the field of vascular and endovascular medicine, vascular surgery or vascular biology. Dr. Hobson is a founding member of the PVD Council and an established, well-respected clinician-investigator in vascular diseases.

PVD Robert W. Hobson II, MD, Early Career Investigator Award Winner

Areck Ucuzian, MD, PhD	108
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PVD Mid-Career Investigator Award recognizes investigators who are at the mid-level of their careers and are actively involved in research related to peripheral vascular disease.

PVD Mid-Career Investigator Award Winner

Qing (Robert) Miao, PhD	327
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By providing travel support to early career investigators who wish to attend the Annual ATVB/PVD Scientific Sessions, the **PVD Travel Award for Young Investigators** honors outstanding new researchers, facilitates active participation in the annual meeting and highlights the benefits of ongoing membership in the AHA at the early career level.

PVD Travel Award for Young Investigators Winners

Sreenivasulu Kialri, PhD	635
Bandana Shrestha, PhD	517
Kaspar Trocha, MD	303

Web Resources

HealthJobsPLUS for Professionals

The American Heart Association, in partnership with Lippincott Williams & Wilkins (a Wolters Kluwer business), is proud to offer *HealthJobsPlus.com*. *HealthJobsPlus.com* provides a first-rate source for those seeking and posting jobs by connecting qualified healthcare professionals with top-notch employers.

Professional.heart.org

Professional Heart Daily is the American Heart Association/American Stroke Association's powerful Internet resource for healthcare professionals devoted to the fight against cardiovascular disease and stroke. Depending on the level of membership selected, AHA/ASA Professional Members may have access to all 12 AHA scientific journals, biweekly clinical updates, core clinical textbooks, a continually updated drug database and much more. Links to the ATVB/PVD 2017 Scientific Sessions website, science news and the AHA's Professional Online Network are also available on the site.

learn.heart.org

Healthcare professionals can complete the conference evaluation and claim CME/CE credits after the meeting on this website. Podcasts, online courses, satellite broadcasts and webcasts are also available on **learn.heart.org**.

Twitter

Use Twitter to tweet your questions/comments during the meeting or just talk about what is happening at ATVB/PVD 2016. Use hashtag: **#atvbvpvd17**.

Start planning now for ATVB/PVD 2018 Scientific Sessions in San Francisco, California, May 10-12!

Submit Abstracts and Award Applications

Submission Opens Wednesday, Oct. 11, 2017

Submission Closes Wednesday, Jan. 10, 2018

Presenting your science at ATVB/PVD offers you many benefits, including:

- **Networking with Leaders:** Attend ATVB/PVD and discuss your findings with research scientists and physicians within the arteriosclerosis, thrombosis, vascular biology, functional genomics, peripheral vascular disease and vascular surgery research communities.
- **Connecting with your peers.** *"The ATVB/PVD meeting highlights the latest science related to atherosclerosis, thrombosis, vascular biology and vascular medicine and at the same time provides an unprecedented opportunity to network with senior and emerging basic, translational, and clinical investigators in cardiovascular science."* - Phil Tsao, PhD, Conference Vice Chair
- **Accepted abstracts are published** in *Arteriosclerosis, Thrombosis, and Vascular Biology* (ATVB), an American Heart Association journal. ATVB is top-ranked for total citations, 5-Year Impact Factor, *Article Influence*® Score, and *Eigenfactor*® Score among all journals in the Peripheral Vascular Disease and Hematology Categories, according to the 2016 *Journal Citation Reports*® Science Edition (Thomson Reuters, 2016): 5.969 Impact Factor, 0.05719 *Eigenfactor*® Score

Policy Information

Disclaimer

The Arteriosclerosis, Thrombosis and Vascular Biology/Peripheral Vascular Disease 2017 Scientific Sessions is a scientific and educational conference for exchanging and discussing research results and scientific developments in the field of cerebrovascular disease. Accordingly, the American Heart Association cannot and does not offer any assurance or warranty of the accuracy, truthfulness or originality of the information presented at the conference.

Embargo Guidelines

Abstracts, lectures and presentations in ATVB/PVD 2017 are embargoed for release at the time of presentation. Information may not be released before the scheduled presentation time

Photography/Recording Policy

No person may record any portion of the AHA Scientific Sessions, scientific conferences and the AHA/ASA International Stroke Conference, whether by video; still or digital photography; audio; or any other recording or reproduction mechanism. This includes recording of presentations and supporting A/V materials and of poster presentations and supporting poster materials.

Science information shared by investigators during a meeting is confidential and often unpublished data. Taking photos of or recording the content of meeting room slides is also prohibited and is considered intellectual piracy and unethical. Attendees who ignore this policy will be asked to leave the educational session and are at risk of losing their badge credentials.

The AHA will take photographs and video during its conferences and may display, reproduce and/or distribute them in AHA educational, news or promotional material, whether in print, electronic or other media, including the AHA website. Your registration for an AHA conference is your grant to the AHA the right to use your name, image and biography for such purposes as well as any other purpose. All photographs and/or videos become the property of the AHA.

No Smoking Policy

AHA policy prohibits smoking in conference meeting rooms and exhibits/registration areas. Thank you for your cooperation.

Seating/Badge Requirement

Seating is on a first-come, first-served basis. According to fire code, a session must be closed if the room fills to capacity. You must wear your name badge at all times during the symposium. Nonregistered guests may not be permitted into the sessions or food and beverage events. Be sure to remove your badge when you leave the conference or your hotel room.

The American Heart Association reserves the right to revoke or deny attendance to any registered participant, speaker, exhibitor, news media reporter or photographer of presentations or activities at AHA/ASA scientific conferences and meetings.



Americans with Disabilities Act (ADA)

We encourage participation by all individuals. If you have a disability, advance notification of any special needs will help us to serve you better. Please indicate what your needs are at the time of registration. We cannot ensure the availability of appropriate accommodations without prior notification.

Please Note: The American Heart Association shall not be liable for cancellation of the ATVB/PVD 2017 Scientific Sessions caused by labor strikes, civil disorders, fires, weather conditions, or other acts of God for any damages or losses resulting from such cancellations.

Other Meetings of Interest

The following conferences/symposia are not part of the educational activities of ATVB/PVD 2017.

Vascular Research Initiatives Conference

May 3, 2017, Hyatt Regency Minneapolis

8:00 AM–7:00 PM

A separate registration fee is required to attend.

The 31st annual Vascular Research Initiatives Conference (VRIC), presented by the Society for Vascular Surgery® (SVS), is a one-day session preceding the main ATVB/PVD meeting, uniquely designed to foster interaction among top scientists of diverse disciplines who are investigating peripheral vascular disease and its treatments. The conference is also dedicated to stimulating and encouraging interest in research among trainees who are aspiring academic vascular surgeons.

Chinese American Academy of Cardiology-Chinese Society for Vascular Medicine (CAAC-CSVM)

Symposium and China Night

May 3, 2017, Hyatt Regency Minneapolis

Symposium: 1:00–6:00 PM

China Night Dinner: 7:00–10:00 PM

This event is hosted by the Chinese American Academy of Cardiology and the Chinese Society for Vascular Medicine. Join us to promote cardiovascular research excellence and collaboration. *There is no cost to attend the symposium; however, a separate registration and fee is required to attend the China Night reception and dinner.*

Kinetics-Metabolism 2017

May 3, 2017, Hyatt Regency Minneapolis

Noon–6:00 PM

Scientists interested in lipoprotein and cellular metabolism and kinetic modeling are invited to attend KinMet 2017. This informal meeting will provide a forum for all researchers, including postgraduate students, to present preliminary data, a complete research study, or to discuss issues related to experimental design and analysis. *There is no additional cost to attend the meeting, and all registrants are invited.*

7th Annual HDL Workshop

May 6–7, 2017, Hyatt Regency Minneapolis

1:30 PM on May 6–Noon on May 7

Held immediately following the ATVB Spring Meeting, the HDL Workshop provides an opportunity for researchers in the HDL community to discuss the latest developments in the field. In addition to a panel discussion by leaders in the field, this highly interactive international forum features short talks and stimulating discussions among the attendees and speakers. *Separate registration required.*

Program Agenda

THURSDAY, MAY 4

7:00 AM

Nicollet Ballroom D

**Registration, Continental Breakfast
and Exhibits**

7:00–8:00 AM

Greenway Ballroom BCHI

**Early Career Training
Succeeding at Every Stage:
Insights from the Early Career Committee**

Organized in cooperation with the

ATVB Early Career Committee

**Getting Your First Grant: Insights from Study
Section**

Adam C. Straub, PhD, University of Pittsburgh,
Pittsburgh, Pennsylvania

Thomas Vallim, PhD, UCLA, Los Angeles, California

Randal Westrick, PhD, University of Michigan,

Ann Arbor, Michigan

**Building a Successful International Research
Program: Perspectives from Asia**

Miao Wang, PhD, Fuwai Hospital and Chinese
Academy of Medical Sciences, Beijing, China

**Building a Successful International Research
Program: Perspectives from Europe**

Lars Maegdefessel, MD, PhD, Karolinska Institute,
Stockholm, Sweden

Uwe Raaz, MD, University Medical Center Göttingen,
Göttingen, Germany

**Clinical Practice and Research Lab Management:
A Balancing Act**

Nick Leeper MD, Stanford University,
Palo Alto, California

Marcel Liberman, MD, PhD, Hospital Israelita
Brasileira Albert Einstein, Sao Paulo, Brazil

**Keys to the Kingdom: Setting Up and Managing
Your Own Lab**

Katey Rayner, PhD, University of Ottawa Heart
Institute, Ottawa, Ontario, Canada

The Importance of Mentoring and Being Mentored

Catherine Martel, PhD, Montreal Heart Institute,
Montreal, Quebec, Canada

Robert C. Bauer, PhD, Columbia University Medical
Center, New York, New York

Women in Science

TBD

**Know your KangaR00: Preparing a Successful
K99/R00 Application**

Cynthia St. Hilaire, PhD, University of Pittsburgh,
Vascular Medicine Institute, Pittsburgh, Pennsylvania

Alicia N. Lyle, PhD, Emory University, Atlanta, Georgia

8:00–8:30 AM

Nicollet Ballroom ABC

Opening Session

8:00 **Welcome Address**

Steven R. Houser, PhD, FAHA, Temple University
School of Medicine, Philadelphia, Pennsylvania
President, American Heart Association

8:00. **Conference Opening Welcome**

Philip S. Tsao, PhD, Stanford University School of
Medicine and VA Palo Alto Health Care System,
Stanford, California

Joshua A. Beckman, MD, MS, FACC, FAHA, Vanderbilt
University Medical Center, Nashville, Tennessee

8:30–10:00 AM

Nicollet Ballroom ABC

Plenary Session I

**Functional Genomics: Scientific, Clinical and
Ethical Implications of Genome Editing in 2017**

Organized in cooperation with the Council on

Functional Genomics and Translational Biology

Moderators:

Muredach P. Reilly, MB, FAHA, Columbia University,
New York, New York

Philip S. Tsao, PhD, Stanford University School of
Medicine and VA Palo Alto Health Care System,
Stanford, California

8:30 **CRISPRizing the Mouse for Cardiovascular Study**

Joseph Miano, PhD, University of Rochester,
Rochester, New York

8:50 **Genome Editing with AAV Vectors: A Novel
Approach for Lipid Disorders**

William Lagor, PhD, Baylor College of Medicine,
Houston, Texas

9:10 **Therapeutic Genome Editing: Somatic Versus
Germline**

Kiran Musunuru, MD, PhD, MPH, FAHA, University of
Pennsylvania, Philadelphia, Pennsylvania

9:30 **Interactive Discussion/Q&A**

10:00–10:30 AM

Nicollet Ballroom D

**Refreshment Break
and Exhibits**

THURSDAY

Program Agenda (continued)

THURSDAY

10:30 AM–12:15 PM

Nicollet Ballroom A

Concurrent Session I A

Mechanisms of Atherosclerosis

Moderators:

Nicholas Leeper, MD, Stanford University,
Stanford California

Ziad Mallat, MD, PhD, University of Cambridge,
Cambridge, United Kingdom

10:30 **Pro-efferocytic Therapies in the Treatment of Atherosclerosis**

Nicholas Leeper, MD, Stanford University,
Stanford California

Oral Abstract Presentations

11:00 **Human Monocyte Diversity in Cardiovascular Disease Revealed by Mass Cytometry**

Anouk A. Hamers, Graham D. Thomas, Cheryl Kim, La Jolla Inst for Allergy and Immunology, San Diego, CA; Anh T Nguyen, Chantel McSkimming, Angela M Taylor, Coleen A. McNamara, Univ of Virginia, Charlottesville, VA; Catherine C. Hedrick, La Jolla Inst for Allergy and Immunology, San Diego, CA

11:15 **Aorta Intima-Resident Macrophages Contribute to Atherosclerotic Lesion Initiation**

Jesse W. Williams, Brian T. Saunders, Ki-Wook Kim, Washington Univ in St. Louis, Saint Louis, MO; Slava Epelman, Univ of Toronto, Toronto, ON, Canada; Kory Lavine, Bernd H. Zinselmeyer, Gwendalyn J. Randolph, Washington Univ in St. Louis, Saint Louis, MO

11:30 **Cellular Contributions of the Circadian Clock in Atherogenesis**

Xueling Li, Ling Ruan, Austin Bentley, Stephen Haigh, Yuqing Huo, Bhupesh Singla, Gabor Csanyi, David Stepp, David Fulton, R. Daniel Rudic, Medical Coll of Georgia of Augusta Univ, Augusta, GA

11:45 **Deletion of Macrophage Low-density Lipoprotein Receptor-related Protein 1 (LRP1) Accelerates Atherosclerosis Regression by Increasing CCR7-dependent Egress of Plaque Macrophages**

Paul Mueller, Oregon Health and Science Univ, Portland, OR; Lin Zhu, Vanderbilt Univ Medical Ctr, Nashville, TN; Illaria Giunzioni, Hagai Tavori, Oregon Health and Science Univ, Portland, OR; John M. Stafford, MacRae Linton, Vanderbilt Univ Medical Ctr, Nashville, TN; Sergio Fazio, Oregon Health and Science Univ, Portland, OR

12:00 **The Contribution of Microbiome Alterations to Atherosclerotic Plaque Regression in Mice**
Michael Garshick, Tessa Barrett, Felix Zhou, Martin Blaser, Edward Fisher, New York Univ Medical Ctr, New York City, NY

10:30 AM–12:15 PM

Greenway Ballroom BCHI

Concurrent Session I B

Molecular, Developmental and Cellular Biology of the Vessel Wall

Moderators:

Daniel Greif, MD, Yale School of Medicine,
Stanford, Connecticut

Nazish Sayed, MD, Stanford University,
Stanford, California

10:30 **Morphogenesis and Pathogenesis of the Blood Vessel Wall**

Daniel Greif, MD, Yale School of Medicine,
Stanford, Connecticut

Oral Abstract Presentations

1

11:00 **A Novel *in vivo* Endothelial Hierarchy from Progenitor to Mature Endothelial Cells Reveals Key SoxF-Dependent Differentiation Process**
Jatin Patel, Elke J. Seppanen, Mathieu Rodero, Ho Yi Wong, Prudence Donovan, Nicholas M. Fisk, Mathias Francois, Kiarash Khosrotehrani, The Univ of Queensland, Brisbane, Australia

6

2

11:15 ***In vivo* Transcriptional Profiling of Endothelial Cells Identifies Vascular Bed-Specific Changes upon LPS-Induced Endotoxemia**
Audrey Cleuren, Martijn van der Ent, Kristina Hunker, Hui Jiang, Andrew Yee, David Siemieniak, Santhi Ganesh, David Ginsburg, Univ of Michigan, Ann Arbor, MI

7

3

11:30 **Endothelial TFEB Regulates Postischemic Angiogenesis via AMPKalpha Activation**
Yanbo Fan, Haocheng Lu, Wenyang Liang, Yanhong Guo, Ji Zhang, Tianqing Zhu, Yibai Hao, Univ of Michigan, Ann Arbor, MI; Minerva T. Garcia-Barrio, Cardiovascular Res Inst, Morehouse Sch of Med, Atlanta, GA; Jifeng Zhang, Y. Eugene Chen, Univ of Michigan, Ann Arbor, MI

8

4

11:45 **Smooth Muscle Cell Tgfr2 Deletion in Mice Causes Aortic Hypercontractility and Impaired Endothelium-Dependent Relaxation**
Jay Zhu, Univ of Washington, Seattle, WA; Fatos I. Alp Yildirim, Istanbul Univ, Istanbul, Turkey; Stoyan N. Angelov, Hao Wei, David Dichek, Univ of Washington, Seattle, WA

9

12:00 **Endothelial FGF Protects Against Pulmonary Hypertension**
Kel Vin Woo, Carla Weinheimer, Attila Kovacs, David Ornitz, Washington Univ, Saint Louis, MO

10

5

10:30 AM–12:15 PM

Greenway Ballroom DEFG

Concurrent Session I C

Translational Science of Vascular Medicine: Vascular Dysfunction

Organized in cooperation with the Council on Peripheral Vascular Disease

Moderators:

Priscilla Hsue, MD, University of California-San Francisco, San Francisco, California
Aruna Pradhan, MD, MPH, Brigham and Women's Hospital, Boston, Massachusetts

10:30 HIV, Inflammation, and Cardiovascular Disease

Priscilla Hsue, MD, University of California-San Francisco, San Francisco, California

11:00 TBD

Naomi M. Hamburg, MD, FAHA, Boston University School of Medicine, Boston, Massachusetts

Oral Abstract Presentations

11:30 Effects of Canakinumab in Patients with Peripheral Artery Disease

Kerry S. Russell, Denise Yates, Andrea Feller, Tianke Wang, Ping Chen, Timothy Clough, Laurence Colin, Novartis Insts for BioMedical Res, Cambridge, MA; Lucy LaPerna, Remington Davis, Columbus, OH; Mustafa M. Shennak, Triumpha, Amman, Jordan; Holger Lawall, Akademie fuer Gefaesskrankheiten, Hamburg, Germany; Sigrid Nikol, Asklepios Klinik St Georg, Hamburg, Germany; William Smith, NOCCR, Knoxville, TN; Thomas Forst, Profil Mainz, Mainz, Germany; Oliver J. Mueller, Univ of Heidelberg, Heidelberg, Germany; John Hoekstra, Natl Clinical Res, Richmond, VA; Marek Piatek, Aspire Clinical Res, Glendale, AZ; Elizabeth V. Ratchford, Johns Hopkins Univ, Baltimore, MD; Christopher M. Kramer, Univ of Virginia Health System, Charlottesville, VA; Craig T. Basson, Novartis Insts for BioMedical Res, Cambridge, MA

11:45 Volume of Calcium in the Descending Thoracic Aorta Predicts All Cause Mortality Beyond Coronary Artery Calcium: The Multi-Ethnic Study of Atherosclerosis

Isac C. Thomas, Matthew A. Allison, Nketi I. Forbang, Univ of California, San Diego, La Jolla, CA; Erin D. Michos, Johns Hopkins Univ, Baltimore, MD; WT Longstreth Jr., Univ of Washington, Seattle, WA; Nathan Wong, Univ of California, Irvine, CA; Wendy Post, Johns Hopkins Univ, Baltimore, MD; Michael H. Criqui, Univ of California, San Diego, La Jolla, CA

12:00 Inhibition of Nudt6 Stabilizes Advanced Atherosclerotic Plaques

13

Hong Jin, Yuhuang Li, Ekaterina Chernogubova, Alexandra Bäcklund, Stina Sellberg, Changyan Sun, karolinska Inst, Stockholm, Sweden, Sweden; Albert Busch, Technical Univ Munich, Munich, Germany, Germany; Suzanne M Eken, Ljubica Perisic, Ulf Hedin, karolinska Inst, Stockholm, Sweden, Sweden; Pavlos Tsantilas, Hans-Henning Eckstein, Jaroslav Pelisek, Technical Univ Munich, Munich, Germany, Germany; Lars Maegdefessel, karolinska Inst, Stockholm, Sweden, Sweden

12:15–2:15 PM

Great Lakes C

The Mentor of Women Award Luncheon (ticket required)

Lunch will be provided.

Diversifying Biomedical Research – Fixing our Institutions, not our Students

John T. Matsui, PhD, University of California Berkeley, Berkeley, California

12:15 - 2:15 pm

Great Lakes Ballroom A 2/3

PVD Annual Business Meeting and Networking Luncheon (ticket required)

Lunch will be provided

12:15–1:15 PM

Northstar Ballroom A

Next-Generation Technology Bootcamp: UCSC Genome Browser (basic) (ticket required)

Lunch on your own. Cash and carry boxed lunches will be available in the Greenway Promenade. Organized in cooperation with the Council on Functional Genomics and Translational Biology.

1:15-2:15 PM

Northstar Ballroom A

Next-Generation Technology Bootcamp: ChIP-seq/Ingenuity (advanced) (ticket required)

Lunch on your own. Cash and carry boxed lunches will be available in the Greenway Promenade. Organized in cooperation with the Council on Functional Genomics and Translational Biology

12:15-2:15 PM

Or lunch on your own

THURSDAY

Program Agenda (continued)

THURSDAY

2:15–3:45 PM

Nicollet Ballroom ABC

Plenary Session II

Origins, Fates, and Dynamics of Hematopoietic and Vascular Cells

Moderators:

Ziad Mallat, MD, PhD, University of Cambridge, Cambridge, United Kingdom
Philip S. Tsao, PhD, Stanford University School of Medicine and VA Palo Alto Health Care System, Stanford, California

2:15 Angiocrine Functions of Tissue-specific Vascular Niche in Stem Cell and Organ Regeneration

Shahin S. Rafii, MD, Weill Cornell Medical College, New York, New York

2:45 Developmental Control of Macrophage Functions in Tissues

Frederic Geissmann, MD, PhD, Memorial Sloan Kettering Cancer Center, New York, New York

3:15 Vascular Smooth Muscle Cells Have Dominant Atheroprotective and Atheropromoting Roles in Atherosclerotic Lesion Pathogenesis

Gary Owens, PhD, University of Virginia, Charlottesville, Virginia

3:45–4:15 pm

Nicollet Ballroom D

Refreshment Break and Exhibits

4:15–6:00 PM

Nicollet Ballroom A

Concurrent Session II A

Apolipoproteins and Lipid Metabolism

Moderators:

W. Sean Davidson, PhD, FAHA, University of Cincinnati, Cincinnati, Ohio
Jonathan D. Smith, PhD, FAHA, Cleveland Clinic, Cleveland, Ohio

4:15 HDL Biogenesis

Jonathan D. Smith, PhD, FAHA, Cleveland Clinic, Cleveland, Ohio

Oral Abstract Presentations

4:45 ATP Binding Cassette A1 (ABCA1) Mediates Microparticle Formation during High-Density Lipoprotein (HDL) Biogenesis 14

Anouar Hafiane, Jacques Genest, McGill Univ, Montreal, QC, Canada

5:00 Serum Amyloid A is Not Just an HDL-Associated Lipoprotein 15

Patricia G. Wilson, Joel C. Thompson, Preetha Shridas, Frederick C. de Beer, Nancy R. Webb, **Lisa R. Tannock**, Univ of Kentucky, Lexington, KY

5:15 Amyloidogenic Modifications of Apolipoprotein A-I Promote a Strong Pro-inflammatory Response in Macrophages, but Formation of Amyloid Fibrils Abrogates the Pro-inflammatory Effect 16

Andrzej Witkowski, Gary K. Chan, Nancy J. Li, UCSF Benioff Children's Hosp Oakland, Oakland, CA; Rui Lu, Shinji Yokoyama, Nutritional Health Science Res Ctr, and Dept of Food and Nutritional Sciences, Chubu Univ, Kasugai, Japan; **Giorgio Cavigiolio**, UCSF Benioff Children's Hosp Oakland, Oakland, CA

5:30 Apolipoprotein C-III Promotes Anti-inflammatory Regulatory T Cell Phenotype through Modulation of Intestinal Dendritic Cell Activation 17

Cayla N. Rodia, Alison B. Kohan, Univ of Connecticut, Storrs, CT

5:45 APOBEC1 Complementation Factor: A Novel Regulator of Triglyceride Metabolism 18

Jennie Lin, Donna Conlon, Xiao Wang, Daniel J. Rader, Kiran Musunuru, Univ of Pennsylvania, Philadelphia, PA

4:15–6:00 PM

Greenway Ballroom BCHI

Concurrent Session II B

Immunity and Inflammation in Vascular Biology and Thrombosis

Moderators:

Lars Maegdefessel, MD, PHD, Karolinska Institute, Stockholm, Sweden
Thomas Renné, MD, PhD, Karolinska Institutet, Stockholm, Sweden

4:15 The Contact System in Inflammation, Coagulation and Innate Immunity

Thomas Renné, MD, PhD, Karolinska Institutet, Stockholm, Sweden

Oral Abstract Presentations

4:45 Selective BET Inhibitors Are Useful for Normalizing Inflammation Leading to Reduced Cardiovascular Disease (CVD) in Humans 19

Ewelina Kulikowski, Laura Tsujikawa, Sarah Atwell, Eric Campeau, Sylwia Wasiak, Christopher Halliday, Jan Johansson, Mike Sweeney, **Norman C. Wong**, Resverlogix Corp., Calgary, AB, Canada

5:00 Resolution Phenotype of Monocytes and Macrophages is Altered in Peripheral Arterial Disease 20

Melinda S. Schaller, Laura Menke, Mian Chen, Warren J. Gasper, S. Marlene Grenon, Michael S. Conte, Univ of California, San Francisco, San Francisco, CA

Program Agenda (continued)

- 5:15 **Endothelial Epsins Promote LPS-Induced Inflammation during Septic Shock** 21
Hong Chen, Harvard Medical Sch, Boston Children's Hosp, Boston, MA
- 5:30 **Crosstalk between Phosphatidylinositol-4,5 bisphosphonate-3 kinase Pathway and Mitogen-activated protein kinase Pathway Regulates Platelet Activation and Protein Synthesis via Phosphoinositide-dependent kinase-1** 22
Bhanu Kanth Manne, Univ of Utah, Salt Lake City, UT; Patrick Münzer, Univ of Tübingen, Tübingen, Germany; Rachit Badolia, Temple Univ, Philadelphia, PA; Andrew S. Weyrich, Univ of Utah, Salt Lake City, UT; Satya P. Kunapuli, Temple Univ, Philadelphia, PA; Oliver Borst, Univ of Tuebingen, Tuebingen, Germany; Matthew Rondina, Univ of Utah, Salt Lake City, UT
- 5:45 **Identification of NCF4 as a Novel Regulator in Arterial Remodeling and Advanced Atherosclerosis** 23
Alexandra Bäcklund, Karl Gertow, Hong Jin, Lina Olsson, Maria Gonzalez-Diez, Maria Sabater-Lleal, Rona J Strawbridge, Bengt Sennblad, John Öhrvik, Karolinska Inst, Stockholm, Sweden; Delilah Zabaneh, Sonia Shah, Fabrizio Veglia, Ctr Cardiologico Monzino, IRCCS, Milan, Italy; Lasse Folkersen, Bruna Gigante, Karin Leander, Max Vikström, Angela Silveira, Karolinska Inst, Stockholm, Sweden; Gualtiero I Colombo, Ctr Cardiologico Monzino, IRCCS, Milan, Italy; Anders Gabrielsen, Ulf Hedin, Anders Franco-Cereceda, Gabrielle Paulsson-Berne, Karolinska Inst, Stockholm, Sweden; Kristiina Nyssönen, Tomi-pekka Tuomainen, Kai Savonen, Rainer Rauramaa, Univ of Eastern Finland, Kuopio, Finland; Andries J Smit, Univ of Groningen, Groningen, Netherlands; Philippe Giral, Assistance Publique - Hopitaux de Paris, Paris, France; Elmo Mannarino, Univ of Perugia, Perugia, Italy; Sander W van der Laan, Gerard Pasterkamp, Univ Medical Ctr, Utrecht, Netherlands; Göran K. Hansson, Per Eriksson, Karolinska Inst, Stockholm, Sweden; Damiano Baldassarre, Elena Tremoli, Ctr Cardiologico Monzino, IRCCS, Milan, Italy; Ulf de Faire, Karolinska Inst, Stockholm, Sweden; Steve E. Humphries, Univ Coll London, London, United Kingdom; Anders Hamsten, Rikard Holmdahl, Lars Maegdefessel, Karolinska Inst, Stockholm, Sweden

4:15–6:00 PM

Greenway Ballroom DEFG

Concurrent Session II C

Translational Science of Vascular Medicine: Device Development and Biological Interfaces

Organized in cooperation with the Council on Peripheral Vascular Disease. This session is not part of the accredited program

Moderators:

Jordan D. Miller, PhD, Mayo Clinic, Rochester, Minnesota

Katey Rayner, PhD, University of Ottawa Heart Institute, Ottawa, Ontario, Canada

Biology, Technology and the Industry-Academia Partnership

Cynthia Hong, Pfizer, Cambridge Massachusetts

New Approaches in Drug-eluting Stents in Large Animal Models

Lars Maegdefessel, Karolinska Institute, Stockholm, Sweden

Vessels by Design: Bioengineering Human Vessels to Accelerate Translation

Emily B. Button, University of British Columbia, Vancouver, BC

Emerging Imaging and Stent Platforms in Humans: Insights into Vascular Response to Injury

Farouc Jaffer, MGH/Harvard Medical School, Boston, Massachusetts

Translating Discoveries into Vascular Biology from Academia to Industry

John C. Burnett, Jr., Mayo Clinic, Rochester, Minnesota

6:00-8:00 PM

Hyatt Exhibit Hall

Poster Session 1 and Reception

Reception sponsored by the ATVB Journal

Abstracts are available on the ATVB/PVD 2017 conference website: professional.heart.org/atvbpvdsessions.

6:30-7:30 PM

Hyatt Exhibit Hall

Moderated PVD Poster Session

Organized in cooperation with the Council on Peripheral Vascular Disease.

Moderator:

Peter Henke, MD, University of Michigan, Ann Arbor, Michigan

THURSDAY

Program Agenda (continued)

FRIDAY, MAY 5

7:00 AM

Nicollet Ballroom D

Registration, Continental Breakfast and Exhibits

7:00–8:00 AM

Nicollet Promenade

**Early Career Training Session
Speed Networking: Coffee, Careers and Communication**

Organized in cooperation with the ATVB Early Career Committee

8:00–9:30 AM

Nicollet Ballroom ABC

**Plenary Session III
Highlights from the ATVB Journal**

Moderators:

Chantal M. Boulanger, PharmD, PhD, INSERM UMR-970, Paris, France

Peter Newman, PhD, FAHA, BloodCenter of Wisconsin, Milwaukee, Wisconsin

8:00 **ATVB Journal Report**

Alan Daugherty, PhD, DSc, FAHA, University of Kentucky, Lexington, KY

Presentations by the 2017 ATVB Journal Early Career Investigator Award Recipients

8:15 *Daniel Steinberg Early Career Investigator Award in Atherosclerosis/Lipoproteins*

Deficiency of ATP-Binding Cassette Transporters A1 and G1 in Endothelial Cells Accelerates Atherosclerosis in Mice

Marit Westerterp, PhD, University of Groningen, Groningen, Netherlands

8:30 *Karl Link Early Career Investigator Award in Thrombosis*

Synergistic Inhibition of Both P2Y₁ and P2Y₁₂ Adenosine Diphosphate Receptors as Novel Approach to Rapidly Attenuate Platelet-Mediated Thrombosis

Thomas Gremmel, MD, Medical University of Vienna, Vienna, Austria

8:45 *Werner Risau Early Career Investigator Award in Vascular Biology*

An Intronic Flk1 Enhancer Directs Arterial-Specific Expression via RBPJ-Mediated Venous Repression
Sarah De Val, PhD, Oxford University, Oxford, United Kingdom

9:00 **TBD**

Daniel J. Rader, MD, FAHA, University of Pennsylvania Perelman School of Medicine, Philadelphia, Pennsylvania

9:30–10:00 AM

Nicollet Ballroom D

Refreshment Break and Exhibits

Sponsored by the ATVB Journal

10:00–11:45 AM

Nicollet Ballroom A

**Concurrent Session III A
Lipoprotein Metabolism and Therapeutic Targets**

Moderators:

Mary Sorci-Thomas, PhD, FAHA, Medical College of Wisconsin, Milwaukee, Wisconsin

Weifei Zhu, PhD, Cleveland Clinic, Lerner Research Institute, Cleveland, Ohio

10:00 **Gut Microbial Choline Metabolite TMAO Enhances Platelet Hyperreactivity and Thrombosis Risk**

Weifei Zhu, PhD, Cleveland Clinic, Lerner Research Institute, Cleveland, Ohio

Oral Abstract Presentations

10:30 **Abca1 Agonist Cs6253 Reverses** 24

Apoe4-driven Alzheimer's Disease with Concomitant Changes in Plasma and Brain Apoe and Apoj

Jan O. Johansson, Artery Therapeutics, San Ramon, CA; Anat Boehm-Cagan, The Sagol Sch of Neuroscience, Tel Aviv, Israel; John K. Bielicki, Lawrence Berkeley Lab, Berkeley, CA; Daniel M Michaelson, The Sagol Sch of Neuroscience, Tel Aviv, Israel

10:45 **Ultrasound Cavitation Mediated Gene** 25

Delivery of ApoAI to the Artery Wall for Modulating Plaque Content

Azzdine Ammi, Devon Christian, Jonathan Lindner, Hagai Tavori, Oregon Health & Science Univ, Portland, OR

11:00 **Identification of a Novel Gene, DENND5B,** 26

Associated with Plasma High Density Lipoprotein Levels and Intestinal Fat Absorption

Scott M. Gordon, Zhihong Yang, Milton Pryor, Michael Mendelson, Daniel Levy, Alan T. Remaley, Natl Insts of Health, Bethesda, MD

11:15 **ApoA-I Improves Lymphatic Function** 27

Through A Platelet-Dependent Mechanism in Atherosclerotic Mice

Andreea Milasan, François Dallaire, Gabriel Jean, Jean-Claude Tardif, Yahye Merhi, Montreal Heart Inst / Inst de Cardiologie de Montreal, Montreal, QC, Canada; Mary Sorci-Thomas, Medical Coll of Wisconsin, Milwaukee, WI; Catherine Martel, Montreal Heart Inst / Inst de Cardiologie de Montreal, Montreal, QC, Canada

Program Agenda (continued)

11:30 **Apolipoprotein A-I Vascular Gene Therapy Provides Durable Protection from Atherosclerosis in Hyperlipidemic Rabbits**
Bradley K. Wacker, Nagadhara Dronadula, Lianxiang Bi, Alexis Stamatikos, David A. Dichek, Univ of Washington, Seattle, WA

10:00–11:45 AM

Greenway Ballroom BCHI

Concurrent Session III B

Blood Coagulation and Antithrombotic Therapy

Moderators:

Magdalena Chrzanowska-Wodnicka, PhD, Blood Center of Wisconsin, Milwaukee, Wisconsin
 A. Phillip Owens, III, PhD, University of Cincinnati, Cincinnati, Ohio

10:00 **Novel Mechanisms of Endothelial Homeostasis**
 Magdalena Chrzanowska-Wodnicka, PhD, Blood Center of Wisconsin, Milwaukee, Wisconsin

Oral Abstract Presentations

10:30 **Chronic Stress Predisposes to Thrombosis by Abnormal Megakaryopoiesis: Protective Effect of Apocynin**
 Leonardo Sandrini M, Ctr Cardiologico Monzino, IRCCS, Milano, Italy; Alessandro Ieraci, Elisa Turra, Univ degli Studi di Milano, Milano, Italy; Patrizia Amadio, Ctr Cardiologico Monzino, IRCCS, Milano, Italy; Maurizio Popoli, Univ degli Studi di Milano, Milano, Italy; Elena Tremoli, **Silvia Stella Barbieri**, Ctr Cardiologico Monzino, IRCCS, Milano, Italy

10:45 **Tissue Factor Pathway Inhibitor α Inhibits Prothrombinase Via a Three-Step Mechanism**
Jeremy P. Wood, Alan E. Mast, Blood Ctr of Wisconsin, Milwaukee, WI

11:00 **Platelet Plasminogen Activator Inhibitor-1 is Regulated by a Major Chromosome 5 eQTL in Inbred Mice**
 Amy E. Siebert, Stephanie C. Verbeek, Alexander J. Johnsen, Marisa A. Brake, Oakland Univ, Rochester, MI; Audrey C. Cleuren, Univ of Michigan, Ann Arbor, MI; Jill M. Johnsen, Univ of Washington, Seattle, WA; Amy Baner-Berceli, Fabia U. Battistuzzi, **Randal J. Westrick**, Oakland Univ, Rochester, MI

11:15 **Ly6C^{Lo} Monocyte/Macrophages are Essential for Thrombus Resolution in a Murine Model of Venous Thrombosis**
Andrew S. Kimball, Cathy Luke, Qing Cai, Andrea Obi, Univ of Michigan, Ann Arbor, MI; Farouc Jaffer, Harvard Univ, Boston, MA; Katherine Gallagher, Peter Henke, Univ of Michigan, Ann Arbor, MI

28 11:30 **Activated Protein C Light Chain Provides an Extended Binding Surface for Anticoagulant Cofactor Protein S**
 Jose A. Fernandez, Xiao Xu, Ranjeet K. Sinha, Laurent O. Mosnier, **John H. Griffin**, The Scripps Res Inst, La Jolla, CA

10:00–11:45 AM

Greenway Ballroom DEFG

Concurrent Session III C

Translational Science in Venous Thromboembolic Disease

Organized in cooperation with the Council on Peripheral Vascular Disease and the American Venous Forum

Moderators:

Peter Henke, MD, University of Michigan, Ann Arbor, Michigan
 Farouc Jaffer, MD, PhD, FACC, FAHA, FSCAI, Massachusetts General Hospital, Boston, Massachusetts

10:00 **Harnessing Molecular Imaging to Advance VTE Diagnostics and Therapeutics**
 Farouc Jaffer, MD, PhD, FACC, FAHA, FSCAI, Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts

10:30 **Does Chronic Inflammation Explain the Recurrent Nature of VTE?**
 Gregory Piazza, MD, Brigham and Women's Hospital, Boston, Massachusetts

Oral Abstract Presentations

11:00 **Methotrexate Inhibits Vein Wall Scarring in Experimental Deep Vein Thrombosis: Implications for the Post-Thrombotic Syndrome**
Lang Wang, Guanming Qi, Chase W. Kessinger, Harkamal S. Jhaji, Wenzhu Li, Cardiovascular Res Ctr, Div of Cardiology at Massachusetts General Hosp, Boston, MA; Peter K. Henke, Dept of Vascular Surgery, Univ of Michigan, Ann Arbor, MI; Farouc A. Jaffer, Cardiovascular Res Ctr, Div of Cardiology at Massachusetts General Hosp, Boston, MA

11:15 **Predictors and Etiologies of 30-Day Readmission Rate in Patients with Pulmonary Embolism: A National Population-Based Cohort Study**
Saman Setareh-Shenas, Alejandro Lemor, Daniel Castaneda Mayorga, Mount Sinai St. Luke's Hosp & Mount Sinai West Hosp, New York, NY; Alonso Alvarado, Univ de San Martin de Porres, Santa Anita, Peru; Eyal Herzog, Mount Sinai St. Luke's Hosp & Mount Sinai West Hosp, New York, NY

FRIDAY

Program Agenda (continued)

FRIDAY

11:30 **Factor XII RNAi-based Therapeutic as a Prophylactic Anti-thrombotic Therapy**
Stacey Melquist, Tao Pei, Holly Hamilton, Qili Chu, Casi Schienebeck, Christine Chapman, Collin Hagen, Megan Walters, Tracie Milarch, Zach Trilling, Aaron Andersen, Gary Christensen, Jeff Casper, Crystal Klas, Julia Hegge, Zhen Li, Steven Kanner, Arrowhead Pharmaceuticals, Madison, WI

11:45 AM–12:45 PM

Northstar Ballroom A

Next-Generation Technology Bootcamp: CRISPR-Cas9 Genome Editing (basic) (ticket required)

Lunch on your own. Cash and carry boxed lunches will be available in the Greenway Promenade. Organized in cooperation with the Council on Functional Genomics and Translational Biology.

12:45–1:45 PM

Northstar Ballroom A

Next-Generation Technology Bootcamp: CRISPR-Cas9 Genome Editing (advanced) (ticket required)

Lunch on your own. Cash and carry boxed lunches will be available in the Greenway Promenade. Organized in cooperation with the Council on Functional Genomics and Translational Biology.

12:15–1:45 PM

Great Lakes Ballroom C

High Functioning in High Pressure: Using MBTI to Enhance Your Performance (ticket required)

Lunch on your own, the session will begin promptly at 12:15 PM. Cash and carry boxed lunches will be available in the Greenway Promenade. Pre-registration is required to attend this session. Organized in cooperation with the ATVB Early Career Committee.

Facilitator:

Maureen Lazar, University of Pittsburgh, Pittsburgh, Pennsylvania

11:45 AM–1:45 PM

Or lunch on your own

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1:45–3:45 PM

Nicollet Ballroom ABC

Plenary Session IV

Young Investigator Award Competition

Moderators:

Jonathan D. Smith, PhD, FAHA, Cleveland Clinic, Cleveland, Ohio

Alisa Wolberg, PhD, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina

Kenneth M. Brinkhous Young Investigator Prize in Thrombosis Competition

- | | | |
|------|---|----|
| 1:45 | Centrosome Destabilization Through the Ubiquitin-Proteasome Pathway Regulates Proplatelet Production
Kellie R. Machlus , Prakrith Vijey, Thomas Soussou, Joseph E Italiano Jr., Harvard Medical Sch, Boston, MA | 37 |
| 2:00 | Neutrophil-Derived S100a8 and S100a9 Promotes Reticulated Thrombocytosis and Atherogenesis in Diabetes
Prabhakara R. Nagareddy , Univ of Alabama at Birmingham, Birmingham, AL; Michael J. Kraakman, Man Kit Sam Lee, Annas Al-Sharea, Dragana Dragoljevic, Baker IDI Heart and Diabetes Inst, Melbourne, Australia; Jeffery Berger, Ira Goldberg, New York Univ, New York, NY; Andrew Murphy, Baker IDI Heart and Diabetes Inst, Melbourne, Australia | 38 |
| 2:15 | Myeloid Klf2 Regulates Arterial and Venous Thrombosis
Lalitha Nayak , Stephanie Lapping, Neelakantan Vasudevan, Alvin H. Schmaier, Case Western Reserve Univ, Cleveland, OH; Nigel Mackman, Univ of North Carolina Sch of Med, Chapel Hill, NC; Mukesh K. Jain, Case Western Reserve Univ, Cleveland, OH | 39 |
| 2:30 | Platelet Fragmentation During the Hemostatic Response and Its Prevention by A P2y12 Antagonist
Maurizio Tomauiuolo , Chelsea N. Matzko, Izmarie Poventud-Fuentes, Leonard Nettey, Brad A. Herbig, John W. Weisel, Scott L. Diamond, Lawrence F Brass, Timothy J. Stalker, Univ of Pennsylvania, Philadelphia, PA | 40 |

Program Agenda (continued)

Irvine H. Page Young Investigator Research Award Competition

- 2:45 **Transcriptional Networks Specifying Homeostatic and Pro-Inflammatory Programs of Gene Expression in Human Aortic Endothelial Cells** 41
Casey E Romanoski, Univ of Arizona, Tucson, AZ; Nicholas T Hogan, Univ of Rochester, Rochester, NY; Michael Whalen, Lindsey K Stolze, Univ of Arizona, Tucson, AZ; Michael T Lam, Univ of California San Diego, La Jolla, CA; James R Springstead, Univ of Western Michigan, Kalamazoo, MI; Christopher K Glass, Univ of California San Diego, La Jolla, CA 3:00
- 3:00 **Control of Macrophage Cholesterol Efflux and Atherogenesis by the Noncoding RNA MeXis** 42
Tamer Sallam, Marius Jones, Brandon J Thomas, Xiaohui Wu, Thomas Gilliland, Kevin Qian, Jaspreet Sandhu, David Salisbury, David Casero, Cynthia Hong, Ayaka Ito, Antonio Castrillo, Stephen Smale, Peter Tontonoz, David Geffen Sch of Med at UCLA, Los Angeles, CA
- 3:15 **Cholesterol Efflux Pathways Suppress Inflammation Activation in Mice and Humans** 43
Marit Westerterp, Univ of Groningen, Groningen, Netherlands; Panagiotis Fotakis, Columbia Univ, New York, NY; Mireille Ouimet, New York Univ, New York, NY; Andrea E. Bochem, Academic Medical Ctr, Amsterdam, Netherlands; Hanrui Zhang, Matthew M. Molusky, Wei Wang, Sandra Abramowicz, Nan Wang, Carrie L. Welch, Muredach P. Reilly, Columbia Univ, New York, NY; Erik S. Stroes, Academic Medical Ctr, Amsterdam, Netherlands; Kathryn J. Moore, New York Univ, New York, NY; Alan R. Tall, Columbia Univ, New York, NY
- 3:30 **Failure of Protective Autoimmunity in Mouse and Human Atherosclerosis** 44
Dennis Wolf, Teresa Gerhardt, La Jolla Inst for Allergy and Immunology, La Jolla, CA; Nathaly Anto Michel, Univ Heart Ctr Freiburg, Freiburg, Germany; Bjarke Hansen, Immundex Corp., Copenhagen, Denmark; Alessandro Sette, La Jolla Inst for Allergy and Immunology, La Jolla, CA; Andreas Zirlik, Univ Heart Ctr Freiburg, Freiburg, Germany; Marc K Jenkins, Univ of Minnesota Medical Sch, Minneapolis, MN; Klaus Ley, La Jolla Inst for Allergy and Immunology, La Jolla, CA

3:45–4:15 PM

Nicollet Ballroom D

Refreshment Break and Exhibits

Sponsored by the ATVB Journal

4:15–6:00 PM

Nicollet Ballroom A

Concurrent Session IV A

Diabetes, Obesity and Metabolic Disorders

Moderators:

Sudha Biddinger, MD, PhD, Children's Hospital Boston, Boston, Massachusetts
 Hong Wang, MD, PhD, EMBA, FAHA, Temple University School of Medicine, Philadelphia, Pennsylvania

- 4:15 **Novel Mediators of Diabetes Associated Atherosclerosis**
 Sudha Biddinger, MD, PhD, Children's Hospital Boston, Boston, Massachusetts

Oral Abstract Presentations

- 4:45 **Endothelial Aryl Hydrocarbon Receptor Nucleotranslocator (Arnt) is a Novel Regulator of Cardiac Endothelial Barrier Integrity in Diabetes** 45
 Maura Knapp, Mei Zheng, Nikola Sladojevic, Univ of Chicago, Chicago, IL; Qiong Zhao, Inova Heart and Vascular Inst, Falls Church, VA; Konstantin G Birukov, James K. Liao, **Rongxue Wu**, Univ of Chicago, Chicago, IL
- 5:00 **The Effects of Membrane Cholesterol on Vascular Smooth Muscle Cell Stiffness and Adhesion to Fibronectin** 46
Josh Childs, Zhongkui Hong Hong, Univ of South Dakota, Sioux Falls, SD
- 5:15 **FXR1 Regulates Inflammatory MRNA Stability and VSMC Proliferation by Modulation of HuR Activity** 47
Allison Herman, Ross England, Dale Haines, Sheri Kelemen, Mitali Ray, Michael V. Autieri, Lewis Katz Sch of Med, Philadelphia, PA
- 5:30 **Role of Receptor for Advanced Glycation End Products (RAGE) in Regression of Diabetic Atherosclerosis** 48
Laura M. Senatus, Raquel Lopez-Diez, Jianhua Liu, Huilin Li, Gurdip Daffu, Qing Li, Karishma Rahman, Yuliya Vengrenyuk, Tessa Barrett, NYUMC, New York, NY; Richard Friedman, Columbia Univ, New York, NY; Ravichandran Ramasamy, Edward Fisher, AnnMarie Schmidt, NYUMC, New York, NY
- 5:45 **Adipose-Specific Knockout of *Trib1* Reduces Plasma Lipids and Diet-Induced Insulin Resistance, and Increases Circulating Adiponectin** 49
 Mikhaila A. Smith, Univ of Pennsylvania, Philadelphia, PA; Jian Cui, Columbia Univ, New York, NY; Sumeet A Kheterpal, Daniel J. Rader, Univ of Pennsylvania, Philadelphia, PA; **Robert C. Bauer**, Columbia Univ, New York, NY

FRIDAY

Program Agenda (continued)

4:15–6:00 PM

Greenway Ballroom BCHI

Concurrent Session IV B

Platelet Production, Signaling and Function

Moderators:

Xiaoping Du, MD, PhD, University of Illinois
at Chicago, Chicago, Illinois

Sidney Whiteheart, PhD, University of Kentucky,
Lexington, Kentucky

- 4:15 **Platelet Secretion During Thrombosis:
How Does It Occur?**
Sidney Whiteheart, PhD, University of Kentucky,
Lexington, Kentucky

Oral Abstract Presentations

- 4:45 **TLR2 Plays a Key Role in Platelet
Hyperreactivity and Accelerated
Thrombosis Associated with
Hyperlipidemia** 50
Sudipta Biswas, Alejandro Zimman, Detao
Gao, Tatiana Byzova, Eugene Podrez,
Cleveland Clinic Fndn Learner Res Inst,
Cleveland, OH
- 5:00 **A Critical Role For Outside-in Signaling
of Integrin α IIb β 3 in Shear-
dependent Platelet Microvesicle
Formation and Phosphatidylserine
Exposure** 51
Aiming Pang, Yujie Cui, Michael Keegan
Delaney, Aleksandra Stojanovic-Terpo,
Xiaoping Du, Dept of Pharmacology, Univ of
Illinois at Chicago, Chicago, IL
- 5:15 **I κ B Kinase β is a Key Modulator of
Platelet Function, and the Remodeling of
CARMA1-Bcl10-MALT1 Complex Formation** 52
Zubair A. Karim, Univ of Texas at El Paso,
El Paso, TX
- 5:30 **Ablation of Thrombin Signaling in Platelets
But Not in Endothelial Cells Impairs
Hemostasis in a Mouse Model of
Spontaneous Gastrointestinal Bleeding** 53
Stephen J. Wilson, Maria M. Stevens,
Shaun R. Coughlin, Univ of California-
San Francisco, San Francisco, CA
- 5:45 **ML355 in Prevention of Thrombosis In Vivo
with Minimal Effects on Hemostasis** 54
Reheman Adili, Katherine Mast, **Michael
Holinstat**, Univ of Michigan, Ann Arbor, MI

4:15–6:00 PM

Greenway Ballroom DEFG

Concurrent Session IV C

**Genomics, Epigenomics and Stem Cells in
Vascular Disease**

*Organized in cooperation with the Council on
Functional Genomics and Translational Biology*

Moderators:

Mete Civelek, PhD, University of Virginia,
Charlottesville, Virginia

Nicolas Leeper, MD, Stanford University,
Stanford, California

- 4:15 **Systems Genetics to Identify Novel Pathways in
Cardiometabolic Disorders**
Mete Civelek, PhD, University of Virginia,
Charlottesville, Virginia

Oral Abstract Presentations

- 4:45 **Disruption of PCSK9 Using a Targeted
Base Editing Strategy** 55
Alexandra C. Chadwick, Kiran Musunuru,
Univ of Pennsylvania, Philadelphia, PA
- 5:00 **Coronary Artery Disease Risk Alleles at
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Activity in Human Macrophages** 56
Hanrui Zhang, Chenyi Xue, Muredach P.
Reilly, Columbia Univ, New York City, NY
- 5:15 **The Epigenetic Enzyme Kdm6b Controls
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Marten A. Hoeksema, Saskia van der Velden,
Academic Medical Ctr, Amsterdam,
Netherlands; Tina Lucas, Stefanie Dimmeler,
Inst of Cardiovascular Regeneration, Ctr for
Molecular Med, Frankfurt, Germany; Esther
Lutgens, Jan Van den Bossche, Menno P. de
Winther, Academic Medical Ctr, Amsterdam,
Netherlands
- 5:30 **Hypercholesterolemia Accelerates the
Ageing of Hematopoietic Stem Cells by
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Guodong Tie, Jinglian Yan, Lyne Khair,
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Christina Villard, Malin Kronqvist, Per Eriksson,
Joy Roy, Karolinska Instt, Stockholm, Sweden

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Program Agenda (continued)

6:00–8:00 PM

Hyatt Exhibit Hall

Poster Session 2 and Reception

Abstracts are available on the ATVB/PVD 2017 conference website: professional.heart.org/atvbpvdsessions.

8:00–10:00 PM

Great Lakes Ballroom

**Joint Council Dinner
(ticket required)**

Or dinner on your own

SATURDAY, MAY 6

8:00 AM

Nicollet Ballroom D

Registration

8:30–10:30 AM

Hyatt Exhibit Hall

**Poster Session 3 and
Continental Breakfast**

Abstracts are available on the ATVB/PVD 2017 conference website: professional.heart.org/atvbpvdsessions.

10:30 AM–NOON

Nicollet Ballroom AB

Plenary Session V

Invited Lecture Series

Moderators:

Steven R. Lentz, MD, PhD, FAHA, University of Iowa, Iowa City, Iowa

Philip S. Tsao, PhD, Stanford University School of Medicine and VA Palo Alto Health Care System, Stanford, California

Jeffrey M. Hoeg Arteriosclerosis, Thrombosis and Vascular Biology Award for Basic Science and Clinical Research Lecture

10:30 Inflammatory Networks in Cardiovascular Research

Filip K. Swirski, PhD, Massachusetts General Hospital, Boston, Massachusetts

Keynote Lecture

11:00 The Role of Circulating Non-coding RNAs in Atherothrombotic Disease

Jane E. Freedman, MD, FAHA, University of Massachusetts Medical Center, Worcester, Massachusetts

Distinguished Lecture

11:30 Exploiting Protective Autoimmunity to Develop a Vaccine Against Atherosclerosis

Klaus Ley, MD, La Jolla Institute for Allergy & Immunology, La Jolla, California

NOON

Closing Remarks/Conference Adjourns

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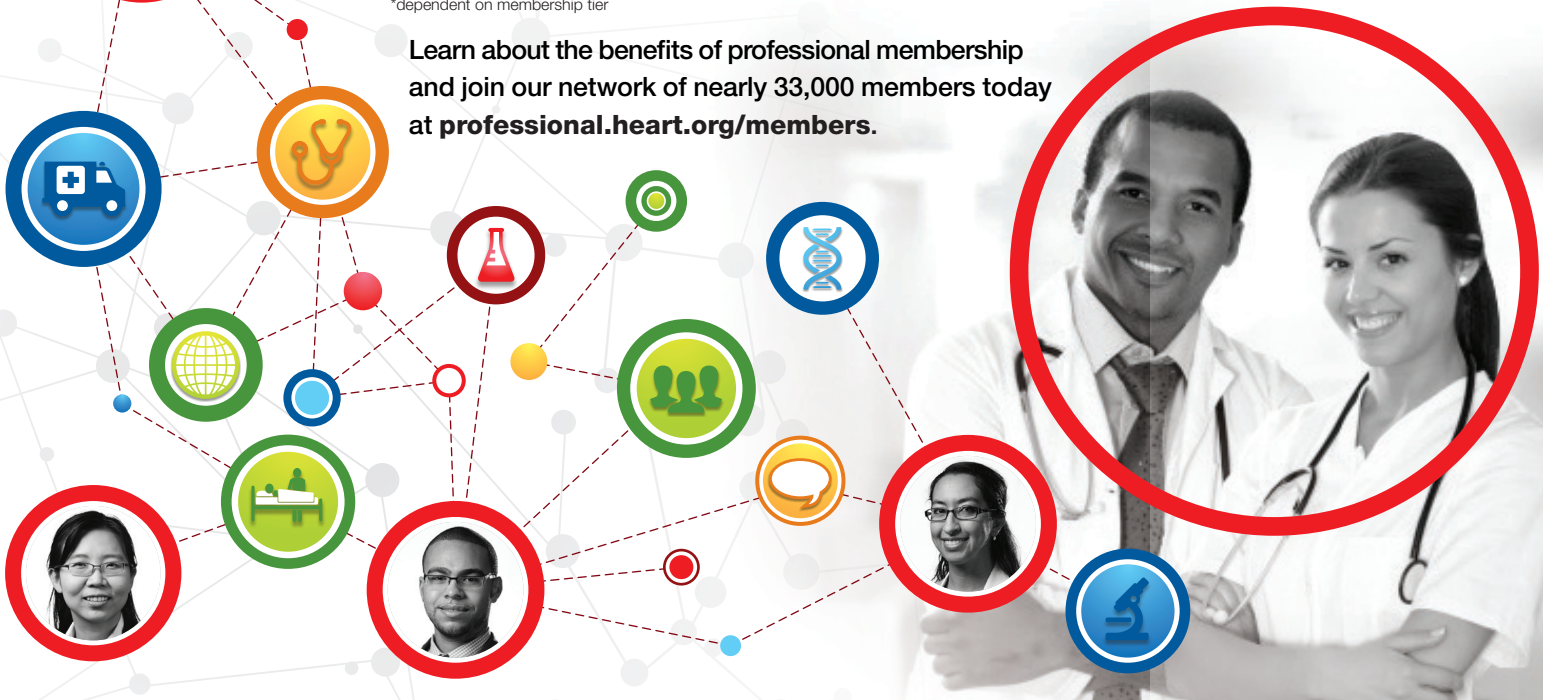
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