Final Agenda
Last Updated March 26, 2019

SOCIETY FOR VASCULAR SURGERY
VASCULAR RESEARCH INITIATIVES CONFERENCE
HARD SCIENCE: CALCIFICATION AND VASCULAR SOLUTIONS

MONDAY, MAY 13, 2019 8:00AM – 7:00PM

7:00 AM  REGISTRATION AND CONTINENTAL BREAKFAST

8:00 AM  INTRODUCTORY REMARKS
Luke Brewster, MD, Chair, Research and Education Committee
Michel S. Makaroun, MD, President, Society for Vascular Surgery
Edith Tzeng, MD, Chair, SVS Research Council

ABSTRACT SESSION I: VASCULAR REMODELING, THROMBOSIS, AND DISCOVERY SCIENCE FOR VENOUS DISEASE

Moderator: Areck Ucuzian, MD
Moderator: Gregory Piazza, MD

8:15 am  Periprocedural Hydrogen Sulfide Therapy Impairs Vascular Remodeling and Improves Vein Graft Patency
Peter Kip*,1, Ming Tao1, Kaspar M Trocha1, Michael R MacArthur2, Sarah J Mitchell2, Suzannah Patterson1, Jonathan Jung2, Paul H. Quax3, Margreet R de Vries3, James R Mitchell2, C. Keith Ozaki1
1Brigham and Women’s Hospital, Boston, MA; 2Harvard T.H. Chan School of Public Health, Boston, MA; 3Leiden University Medical Center, Leiden, Netherlands

8:27 am  Microbial Colonization Restores Neointimal Hyperplasia Development after Arterial Injury in Germ-Free Mice
Edmund B Chen*,1, Katherine E Shapiro1, Thomas Kuntz2, Betty Theriault2, Michael J. Nooromid1, Kelly H Wun1, Vanessa Leone2, Katharine Harris2, Qun Jiang1, Melanie Spedale2, Liqun Xiong1, Owen M Eskandari1, Eugene B. Chang2, Karen J. Ho1
1Northwestern Univ, Feinberg School of Med, Chicago, IL, 2Univ of Chicago, Chicago, IL

8:39 am  Deletion Of Nr4a1 Is Associated With Increased Vein Wall Injury After Venous Thrombosis
Andrew Kimball, Andrea Obi, Cathy Luke, Qing Cai, Abigail Dowling, Farouc Jaffer, Katherine Gallagher, Peter Henke
University of Michigan, Ann Arbor, MI

8:51 am  A Novel Design for Shear Rate Optimization of the Venous-End Anastomosis of an Arteriovenous Graft
Dillon Williams, Mohamed Zayed, Guy Genin, Eric Leuthardt
Washington University School of Medicine, Saint Louis, MO
9:03 am  Genetic Analysis Implicates LDL Cholesterol Reduction and Plasminogen Activator-inhibitor 1 Antagonism As Therapeutic Interventions For Venous Thromboembolism  
Derek Klairin1, Emma Busenkel1, Renae Judy2, Julie Lynch3, Krishna Aragam4, Mark Chaffin4, Mary Haas4, Themisfocles L Assimes5, Jie Huang6, Kyung Min Lee7, Qing Shao7, Jennifer E Huffman8, Yunfeng Huang8, Yan V Sun8, Marijuana Vujkovic2, Danish Saleheen2, Donald R Miller7, Peter Reaven9, Scott DuVall10, William Boden10, Sajjad Pyarajan1, J. Michael Gaziano11, John Concato12, Daniel J Rader2, Kelly Cho6, Kyong-Mi Chang5, Peter W Wilson6, Nicholas L Smith13, Christopher J O’Donnell6, Philip S Tsao5, Sekar Kathiresan1, Pradeep Natarajan1, Scott M Damrauer9  
1Massachusetts General Hospital, Boston, MA; 2Univ of Pennsylvania School of Medicine, Philadelphia, PA; 3Salt Lake City Health Care System, Salt Lake City, UT; 4Broad Institute of Harvard and MIT, Cambridge, MA; 5Stanford University School of Medicine, Stanford, CA; 6Massachusetts Veterans Epidemiology Research and Information Center, Boston, MA; 7Edith Nourse Rogers Memorial VA Hospital, Bedford, MA; 8Emory University Rollins School of Public Health, Atlanta, GA; 9Phoenix Veterans Affairs Health Care System, Phoenix, AZ; 10State University of New York at Buffalo Schools of Medicine and Public Health, Buffalo, NY; 11Boston VA Healthcare System, Boston, MA; 12VA Connecticut Healthcare System, New Haven, CT; 13School of Public Health, University of Washington, Seattle, WA

9:15 am  Regulation of Vascular Smooth Muscle Cell Responses by IL-2/IL-2R alpha  
Victoria Wong1, David Hui2, John Matsuura1, Lucile Wrenshall1  
1Wright State University, Dayton, OH; 2Univ of Cincinnati, Cincinnati, OH

9:27 am  Inhibition of the Akt1-mTORC1 Axis Alters Venous Remodeling To Improve Arteriovenous Fistula Patency  
Arash Fereydooni1, Xiangjiang Guo2, Toshihiko Isaji3, Jolanta Gorecka3, Shun Ono3, Haidi Hu3, Shirley Liu3, Naierem Nasirii1, Lan Zhang2, Alan Dardik1  
1Yale School of Medicine, New Haven, CT; 2Dept of Vascular Surgery, Renji Hosp, Shanghai Jiaotong University, Shanghai, China; 3Vascular Biology and Therapeutics Program, Yale School of Medicine, New Haven, CT

9:45 am  BREAK

ABSTRACT SESSION II: VASCULAR REGENERATION, STEM CELLS AND WOUND HEALING  
Moderator: Bryan Tillman, MD  
Moderator: Ngan Huang, MD

10:00 am  Inhibition of Xanthine Oxidoreductase Accelerates Diabetic Wound Healing  
Kathy Gonzalez, Karim M Salem, Guiying Hong, Edith Tzeng  
VA Pittsburgh Healthcare System, Univ of Pittsburgh, Pittsburgh, PA

10:12 am  Knockdown of TSP-1 and TSP-2 Decreases Intimal Hyperplasia in Rats after Carotid Balloon Injury  
Furqan Muqri, Mohammed Kassem, Alex Helkin, David Bruch, Kristopher G Maier, Vivian Gahtan  
SUNY Upstate Medical Univ, Syracuse, NY

10:24 am  Aging Impairs Wound Healing By Hematopoietic Stem Cell Autonomous Mechanism  
Jinglian Yan, Guodong Tie, Amanda Tutto, Kate Hayes, Lyne Khair, Louis Messina  
University of Massachusetts Medical School, Worcester, MA
10:36 am  Intracellular Notch1 Signaling Determines Fibroblasts-modulated Angiogenic Response In Diabetic Wounds
Hongwei Shao, Yan Li, Irena Pastar, Rochelle Prokupets, Sophia Liu, Marjana Tomic-Canic, Omaida C Velazquez, Zhao-Jun Liu
University of Miami, Miami, FL

10:48 am  Endothelial-to-Mesenchymal Transition is Regulated by Substrate Stiffness
Maedeh Zamani, Frank Charbonier, Ngan F Huang
Stanford University, Stanford, CA

11:00 am  Caspase-1 Mediates Muscle Fiber Typing And Functionality In Response To Ischemia
Ricardo J Ferrari, Xiangdong Cui, Abish Pius, Amrita Sahu, Sunita N Shinde, Fabrisia Ambrosio, Hong Liao, Melanie J Scott, Ulka Sachdev
University of Pittsburgh Medical Center, Pittsburgh, PA

ABSTRACT SESSION III: AORTOPATHIES AND NOVEL VASCULAR DEVICES
Moderator: Dai Yamanouchi, MD
Moderator: Sean English, MD

11:15 am  Alternative Macrophage Activation Limits Experimental Abdominal Aortic Aneurysms
Baohui Xu1, Naoki Fujimura1, Hongping Deng1, Gang Li1, Yankui Li1, Xiaoya Zheng1, Fanru Shen1, Takahiro Shoji1, Jia Guo1, Shai Zhao1, Xiaofeng Chen2, Masaaki Miyata3, Alan Daugherty4, Hong S Lu4, Ronald L Dalman1
1Stanford University School of Medicine, Stanford, CA; 2Taizhou Hospital Wenzhou Medical University, Linhai, China; 3Kagoshima City Hospital, Kagoshima, Japan; 4SAHA Cardiovascular Research Center University of Kentucky, Lexington, KY

11:27 am  A Retrievable Rescue Stent for Thoracic or Abdominal Traumatic Hemorrhage
Catherine Go, Jenna Kuhn, Moataz Elsisy, Youngjae Chun, Bryan Tillman
University of Pittsburgh Medical Center, Pittsburgh, PA

11:39 am  Interleukin-6 Is Necessary But Not Sufficient For Abdominal Aortic Aneurysm Development
Jean Marie Ruddy, Randall T. Grespin, Nicholas Ward, Christine Couch, Rupak Mukherjee, Jeffrey A. Jones
Medical University of South Carolina, Charleston, SC

11:51 am  Changes in Systemic Inflammation are Associated with Frailty Phenotypes and Clinical Outcomes after Open Aortic Repair
Kerri A O’Malley, Jared Rozowsky, Grace Shan, Sarah Barbey, Qiongyao Hu, Thomas Huber, Scott Berceli, Salvatore Scali
University of Florida, Gainesville, FL

12:05 PM LUNCH WITH QUICKSHOT POSTER REVIEW
12:50 PM  |  **SVS FOUNDATION UPDATE AND AWARDS CEREMONY**
           R. Clement Darling, III, MD, Chair, SVS Foundation

**VRIC Trainee Awards**
Edmund Chen, MD
Peter Kip, MD
Constance Mietus, PhD
Thomas Sorrentino, BS

1:00 PM  |  **SPECIAL SESSION I**
Presented by Recipients of the 2017 SVS Foundation Mentored Clinical Scientist Research Career Development Award

Karen Woo, MD
University of California, Los Angeles
*K08 Project: Outcomes of Dialysis Vascular Access in the Elderly*

Mohamed Zayed, MD, PhD
Washington University in Saint Louis
*K08 Project: The Role of Phospholipogenesis In Diabetic Peripheral Arterial Disease*

1:25 PM  |  **RECOGNITION CEREMONY: Honoring the Work of Dr. Frank LoGerfo**

Moderator: Karen Ho, MD
Moderator: Michel S. Makaroun, MD

Frank W. LoGerfo, MD
William V. McDermott Distinguished Professor of Surgery
Beth Israel Deaconess Medical Center
Harvard Medical School

**ABSTRACT SESSION IV: Atherosclerosis, Arterial Injury and Diabetes**

Moderator: Jayer Chung, MD
Moderator: Cynthia St. Hillaire, MD

1:55 PM  |  **Perivascular Gene Targeted Therapy using Biodegradeable CLICK-Gelatin Hydrogels**
Patric Liang¹, Marisa Sewall¹, Navneet Momi¹, David Mooney², Leena Pradhan-Nabzyk¹, Frank LoGerfo¹
¹Beth Israel Deaconess Medical Ctr, Boston, MA; ²Harvard Univ, Boston, MA

2:10 pm  |  **Diet, Nutrition And The PAD Patient: An Evaluation Of Dietary Factors Associated With Incident Peripheral Artery Disease Events Using The Uk Biobank Cohort Study**
Elsie Ross, Atif Rana, Alyssa Flores, Daniela Zanetti, Eri Fukaya, Erik Ingelsson, Nicholas Leeper
Stanford University School of Medicine, Stanford, CA

2:21 pm  |  **Circulating Exosomes in PAD Patients: Disease Severity Correlates with Effects on Vascular Cell Migration and miRNA Content**
Thomas A Sorrentino*, Phat Duong², Laura Bouchareychas², Mian Chen¹, Allen Chung², Melinda S Schaller¹, Adam Z Oskowitz¹, Robert L Raffai¹, Michael S Conte¹
2:32 pm  
**Arterial Spin Labeling Quantifies Regional Foot Perfusion During Sustained Toe Flexion**  
Joe Luis Pantoja, Fadil Ali, Jiaxin Shao, Donald Baril, Erik Dutson, John Paul Finn, Peng Hu, Peter F Lawrence  
*University of California, Los Angeles, CA*

2:43 pm  
**Microvascular Pathology Influences Walking Performance in Patients with Peripheral Artery Disease**  
Constance J Mietus*, Matthew A Fuglestad, Timothy J Lackner, Gregory T Willcockson, Peter Karvelis, Herman Hernandez, Yue Gao, Katyarina Brunette, Holly Despiegelaere, Feng Xie, Thomas Porter, Iraklis Pipinos, George Casale  
*University of Nevada Medical Center, Omaha, NE*

2:54 pm  
**The Parathyroid Hormone Receptor Limits Arterial Fibrosis In Diabetic Vascular Disease**  
Abraham Behrmann, Dalian Zhong, Su Li Cheng, Li Li, Megan Mead, Bindu Ramachandaran, Mohammad Goodarzi, Andrew Lemoff, Dwight A Towler  
*University of Texas Southwestern Medical Center, Dallas, TX*

3:05 pm  
**Proteoglycan 4 Is Implicated In Osteo-chondrogenic Smooth Muscle Cell Differentiation During Vascular Remodelling And Intimal Calcification**  
Till Seime¹, Eva Karlöf¹, Asim C Akbulut², Rick H van Gorp², Mariette Lengquist¹, Malin Kronqvist¹, Nuno Dias³, Anton Razuvaev¹, Jacob Odeberg⁴, Jan H Lindeman⁵, Lars Maegdefessel¹, Leon J Schurgers², Ulf Hedin¹, Ljubica Matic¹  
¹Karolinska Inst, Stockholm, Sweden; ²Maastricht Univ, Maastricht, Netherlands; ³Skåne Univ Hosp, Malmö, Sweden; ⁴Royal Inst of Technology, Stockholm, Sweden; ⁵Leiden Univ Medical Ctr, Leiden, Netherlands

3:20 PM  
**BREAK**

3:35 PM  
**SPECIAL SESSION II: ALEXANDER W. CLOWES DISTINGUISHED LECTURE**  
Moderator: Katherine Gallagher MD  
*New Concepts in Regulation and Bioengineered Therapies for Vascular and Valvular Calcification*  
Cecilia Giachelli, PhD  
Professor and Chair  
Hunter and Dorothy Simpson Endowed Chair in Bioengineering  
Department of Bioengineering  
University of Washington
4:05 PM TRANSLATIONAL PANEL
Moderator: Shirling Tsai, MD
Moderator: R. Clement Darling, III, MD

HARD SCIENCE: CALCIFICATION AND VASCULAR SOLUTIONS
Raul Guzman, MD
Associate Professor of Surgery
Harvard Medical School

Elena Aikawa, MD, PhD
Associate Professor of Medicine
Director, Heart Valve Translational Research Program
Harvard Medical School

Dwight Towler, MD, PhD
J.D. and Maggie E. Wilson Distinguished Chair in Biomedical Research
Louis V. Avioli Professorship in Mineral Metabolism Research
Vice Chair, Research - Internal Medicine
UT Southwestern Medical Center

5:15 PM QUICKSHOT POSTER SESSION AND VRIC RECEPTION

7:00 PM ADJOURN

* SVS Foundation Vascular Research Initiatives Trainee Awardee