VASCULAR RESEARCH INITIATIVES CONFERENCE:
ROAD TO INNOVATION, INVENTION AND ENTERPRISE

WEDNESDAY, MAY 9, 2018
8:00AM - 5:15PM

*Draft Program Schedule, subject to change

7:00 AM  REGISTRATION AND CONTINENTAL BREAKFAST

8:00 AM  INTRODUCTORY REMARKS
- Edith Tzeng, MD – Chair, Research and Education Committee
- Michel S. Makaroun, MD – President-Elect, Society for Vascular Surgery
- Alan Dardik, MD Chair, SVS Research Council

ABSTRACT SESSION I: STEM CELLS AND REGENERATION

Moderator: Katherine Gallagher, MD

8:15 am  Palmitate Regulates Diabetic Macrophage Inflammation via the Epigenetic Enzyme JMJD3
*Frank M Davis, Andrew Kimball, Amrita Joshi, Anna Boniakowski, Matthew Schaller, Aaron DenDekker, Steven Kunkell, Bethany Moore, Katherine Gallagher
Univ of Michigan, Ann Arbor, MI

8:27 am  Oral Nitrite Supplementation Improves Rates of Wound Healing in Diabetic Mice
*Karim M Salem, Nandan Nath, Ankur Aggarwal, Edith Tzeng
VA Medical Ctr and Univ of Pittsburgh, Pittsburgh, PA

8:39 am  Fatty Acid Binding Protein 4, FABP4, Causes Impaired Wound Healing in Diabetes
Anna Boniakowski, Andrew Kimball, Frank Davis, Amrita Joshi, Matt Schaller, Aaron denDekker, Steve Kunkel, Katherine Gallagher
Univ of Michigan, Ann Arbor, MI

8:51 am  Defining the Mechanisms of Autologous Bone Marrow Cell Therapy in Critical Limb Ischemia
Bianca Kenyon, Ashley Gutwein, S. Keisin Wang, Linden Green, Michael Murphy
Indiana Univ Sch of Med, Indianapolis, IN

9:03 am  Muscle Ischemia Induces Nlrp3 Inflammasome Activation in Platelets via Tlr4, Promoting Platelet Aggregation and Interfering With Perfusion Recovery
Sebastian Vogel, Pranav Murthy, Xiangdong Cui, Bowen Xie, Ulka Sachdev
UPMC, Pittsburgh, PA
9:15 am  **Hyperglycemia Enhances Pro-inflammatory Properties Of Macrophage-derived Exosomes to Drive Hematopoiesis in Apolipoprotein E-deficient Mouse.**
Laura Bouchareychas, Allen Chung, David K Wong, Phat Duong, Robert L Raffai
Div of Vascular and Endovascular Surgery, Dept of Surgery, Univ of California San Francisco & VA Medical Ctr, San Francisco, CA

**SPECIAL SESSION I: ALEXANDER W. CLOWES DISTINGUISHED LECTURE**

9:30 am  **Introduction:** Ronald M. Fairman, MD, Chair, SVS Foundation
Moderator: John Curci, MD

Speaker: Alan Daugherty, PhD, DSc, FAHA
“Angiotensin II and cellular complexity of the aorta: A recipe for a nevrous mal location”

10:10 AM  **COFFEE BREAK**

**ABSTRACT SESSION II: PERIPHERAL ARTERIAL DISEASE**

Moderator: Sherene Shalhub, MD
Moderator: Josh Beckman, ATVB

10:30 am  **Hydrogen Sulfide Limits the Development of Intimal Hyperplasia in a Mouse Model of Femoral Wire Injury and In Human Veins**
Alban Longchamp, Natsumi Yamagushi, Martine Lambelet, Celine Dubuis, Francois Saucy, Jean-Marc Corpataux, Florent Allagnat, Sebastien Déglise
CHUV, Lausanne, Switzerland

10:42 am  **Short-term Oral Supplementation with a Novel Marine Oil Fraction Alters Resolution Phenotype in Healthy Subjects and Patients with Peripheral Arterial Disease**
Melinda S Schaller1, Mian Chen2, Romain A Colas2, Thomas A Somentino2, S Marlene Grenon3, Jesmond Dalli4, Michael S Conte1
1UCSF, San Francisco, CA; 2William Harvey Res Inst, Queen Mary Univ, London, United Kingdom

10:54 am  **Role of PDE10A in Arterial Calcification**
Yujun Cai, Xue-lin Wang, Tonghui Lin, Raul J Guzman
Beth Israel Deaconess Medical Center, Boston, MA

11:06 am  **Genome Wide Association Study in the Million Veteran Program Identifies a Novel Role for Thrombosis in the Pathogenesis of Peripheral Artery Disease**
Derek Klarin1, Julie Lynch2, Krishna Aragam1, Tim Assimes3, Kyung Lee4, Qing Shao4, Mark Chaffin5, Pradeep Natarajan6, Shipra Arya3, Aeron Small6, Yan V Sun7, Jennifer S Lee3, Donald Miller1, Peter Reaven9, Scott DuVall10, William Boden11, J. Michael Gaziano12, John Concato13, Sekar Kathiresan3, J Rader14, Kelly Cho12,
Near-Infrared Spectroscopy for Diagnosis and Characterization of Peripheral Artery Disease Severity
Matthew Fuglestad, Hernan Hernandez, Molly Schieber, Katya Brunette, Yue Gao, Sara Myers, George Casale, Iraklis Pipinos,
1Univ of NE Medical Ctr, Omaha, NE

Circulating Exosomes from PAD Patients Modulate Vascular Repair and Inflammation
Thomas A Sorrentino1, Phat Duong1, Laura Bouchareychas1, Brian E Sansbury2, Pete Mitchell2, Mian Chen3, Allen Chung3, Melinda S Schaller3, Matthew Spite2, Robert L Raffa1, Michael S Conte1
1Univ of California, San Francisco, San Francisco, CA; 2Brigham and Women's Hosp, Boston, MA

SVS FOUNDATION UPDATE AND AWARDS CEREMONY
Ronald Fairman, MD, SVS Foundation Chair

SVS Foundation VRIC Trainee Travel Scholarship Awards
Thomas A Sorrentino
Alyssa M Flores
Frank M Davis
Karim M Salem

SPECIAL SESSION II

SVS FOUNDATION MENTORED CLINICAL SCIENTIST RESEARCH CAREER DEVELOPMENT AWARD (K08) – 2016 RECIPIENT
Karen Ho, MD
Northwestern University Feinberg School of Medicine
Project Title: The Role of Gut Microbiota in Neointimal Hyperplasia after Vascular Injury
ABSTRACT SESSION II: VASCULAR ENDOTHELIUM AND THROMBOSIS

Moderator: Joseph Raffetto, MD
Moderator: Jane Freedman, MD, ATVB

1:20 PM
PARP-1 Silencing Upregulates FOSL1 Transcription, Enhances Angiogenesis and Accelerates Ischemic-Diabetic Wound Healing
Jaideep Banerjee, Divya Cheedu, Raul Sebastian, Robyn Mascata, Anton Sidawy, Lopa Mishra, Bao Nguyen,
George Washington Univ, Washington, DC

1:32 PM
Clinical and Genetic Determinants of Varicose Veins: A Prospective, Community-Based Study of ~500,000 Individuals
Alyssa M Flores1, Eri Fukaya1, Daniel Lindholm2, Stefan Gustafsson2, Daniela Zanetti1, Erik Ingelsson1, Nicholas J. Leeper1
1Stanford Univ Sch of Med, Stanford, CA; 2Uppsala Univ, Uppsala, Sweden

1:44 PM
Fenofibrate Induces Endothelial Cell Tubule Formation Independent of Phospholipogenesis
*Omar Saffaf, Larisa Belaygorod, Khalid Saffaf, Clay F. Semenkovich, Mohamed Zayed
Washington Univ Sch of Med, St Louis, MO

1:56 PM
Real-time Modulation of Platelet Phenotype and Vein Wall Biology in Patients with Chronic Venous Insufficiency
Doran S Mix, Zane Young, Sandra Toth, Rachel Schmidt, Adam J Doyle, Jennifer L Ellis, Michael C Stoner, Igor Gosev, Sunil Prasad, Peter Knight, Sara Ture, Craig Morrell, Scott J Cameron
Univ of Rochester Medical Ctr, Rochester, NY

2:08 PM
Vascular Injury-Induced ATP release leads to IL-1β Production and Endothelial Dysfunction
Joyce Cheung-Flynn, Weifeng Luo, Christy M Guth, Padmini Komalavilas, Colleen M Brophy
Vanderbilt, Nashville, TN

2:20 PM
Application of a Cryogel-Coated Prosthetic Vascular Graft Material for Delivery of Targeted Gene Therapies in a Rabbit Model
Cindy Huynh1, Ting Shih2, Mauricio Contreras1, David Mooney2, Leena Pradhan-Nabzdzyk1, Frank LoGerfo1
1Beth Israel Deaconess Medical Ctr, Boston, MA; 2Harvard Univ, Cambridge, MA

TRANSLATIONAL PANEL: ROAD TO ENTREPRENEURSHIP

2:32 pm
Moderator: Michel S. Makaroun, MD
Moderator: Luke Brewster, MD
- Speaker: Colleen M. Brophy, Transmogrifying Scientific Knowledge into Technologic Advancements
- Speaker: Mary Albertson, The Basics of Patenting and Licensing
• Speaker: Geoffrey C. Gurtner, TITLE OF TALK

3:40 PM COFFEE BREAK

ABSTRACT SESSION IV: VASCULAR INFLAMMATION AND INJURY

Moderator: Mohamed Zayed, MD
Moderator: Lars Maegdefessel, MD PhD, ATVB

4:00 PM Efficacy and Mechanisms of Metformin Therapy in Established Experimental Abdominal Aortic Aneurysms
Baohui Xu1, Gang Li2, Fanru Shen1, Trevor Weden1, Anna Cabot1, Hongping Deng2, Xiaofeng Chen2, Ronal L Dalman1
1Stanford University School of Medi, Stanford, CA; 2Whenzhou Medical Univ Taizhou Hosp, Linhai, China

4:12 PM Retrograde Hemorrhage and Ischemic Injury after REBOA in a Porcine Model of Uncontrolled Aortic Injury
* Catherine Go, Partha Thirumala, Jenna Kuhn, Yanfei Chen, Youngjae Chun, Bryan Tillman
Univ of Pittsburgh Med Ctr, Pittsburgh, PA

4:24 PM Cell Mimetic Liposomal Nanocarriers Tailored for Vascular Smooth Muscle Cell Molecular Therapeutics
Samuel I Mattern-Schain1, Richard K Fisher2, Lauren B Grimsley2, Stacy S Kirkpatrick2, Oscar H Grandas2, Michael D Best2, Deidra J Mountain2
1Univ of Tennessee, Knoxville, TN; 2UT Graduate School of Medicine, Knoxville, TN

4:36 PM Increased Plasma Sulfide in Vascular Surgery Patients Correlates with Reduced Post-Operative Mortality
Kaspar Trocha1,2, Alban Longchamp3, Christopher Hine4, Michael MacArthur5, Janine Ganahi5, Peter Kip1, Ming Tao1, Peter Nagy6, C. Keith Ozaki1, James R. Mitchell1
1Brigham & Women’s Hosp, Boston, MA; 2Harvard Sch of Public Health, Boston, MA; 3Dept of Vascular Surgery, Lab of Experimental Med, Ctr Hospier Univiere Vaudois, Lausanne, Switzerland; 4Cleveland Clinic, Cleveland, OH; 5Molecular Immunology and Toxicology, Natl Inst of Oncology, Budapest, Hungary

4:48 PM Parthenolide Inhibits Inflammatory Dysfunction of Human Aortic Endothelial Cells and Proliferation of Smooth Muscle Cells in vitro and Restenosis in a Rat Model
Bowen Wang1, Mengxue Zhang1, Xudong Shi2, Lian-Wang Guo1, Craig Kent2
1The Ohio State Univ, Columbus, OH; 2Univ of Wisconsin-Madison, Madison, WI

5:00 PM Targeted Nanotherapy for the Treatment of Atherosclerosis
Neel A Mansukhani1, Miranda So1, Mazen S Albaghdadi1, Erica B Peters2, Zheng Wang1, Samuel I Stupp1, Melina R Kibbe2
1Northwestern Univ, Chicago, IL; 2Univ of North Carolina at Chapel Hill, Chapel Hill, NC
5:15 PM   RECEPTION AND POSTERS

7:00 PM   VRIC CLOSE

* SVS Foundation Vascular Research Initiatives Trainee Travel Scholarship Awardee