VASCULAR RESEARCH INITIATIVES CONFERENCE
VASCULAR REGENERATION

WEDNESDAY, MAY 3, 2017

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
Ronald M. Faiman, MD – President, Society for Vascular Surgery
Alan Dardik, MD, PhD – Chair, SVS Research Council

ABSTRACT SESSION I: VASCULAR ENDOTHELIUM AND THROMBOSIS

8:15 am  IL-17 Amplifies Thrombosis in a Mouse Model of DVT
  *Benjamin N. Jacobs, Yogen Kanthi, Danica Petrovic-Djergovic, Hui Liao, David J. Pinsky
  Univ of Michigan, Ann Arbor, MI

8:27 am  Loss of Notch1 Signaling in Endothelial Cells Suppresses Progression of Atherosclerosis
  Zhao-Jun Liu, Yan Li, Leiming Zhang, Manuela M. Regueiro, Yuntao Wei, Omaida C. Velazquez
  Univ of Miami, Miami, FL

8:39 am  TGFβ-Activated Kinase 1 Is Required for Arteriovenous Fistula Maturation
  Haidi Hu, Takuya Hashimoto, Hualong Bai, Jianming Guo, Toshihiko Isaji, Bogdan Yatsula, Jeans M. Santana, Tambudzai Kudze, Alan Dardik
  Yale Univ Sch of Med, New Haven, CT

8:51 am  Colchicine Attenuates Vein Wall Scarring in Murine Venous Thrombosis: Implications for Limiting the Post-thrombotic Syndrome
  Guanming Qi1, Chase W. Kessinger1, Adam Mauskapf1, Harkamal S. Jhajj2, Peter Henke2, Farouc A. Jaffer3
  1Massachusetts General Hosp, Boston, MA; 2Univ of Michigan, Ann Arbor, MI
9:03 am  **An Increased Response to Injury by Smooth Muscle Cells of Human Veins at Valve Sites**
Richard D. Kenagy\(^2\), Shinsuke Kikuchi\(^2\), Lihua Chen\(^2\), Kevin Xiong\(^2\), Yukihiro Saito\(^1\), Nobuyoshi Azuma\(^1\), Gale Tang\(^2\), Michael Sobel\(^2\), Thomas Wight\(^3\)
\(^1\)Asahikawa Medical Univ, Asahikawa, Japan; \(^2\)Univ of Washington, Seattle, WA; \(^3\)Benaroya Res Inst, Seattle, WA

9:15 am  **Novel Gene Therapy Facilitates Critical Limb Ischemia Reperfusion in Mouse Hindlimb Gangrene Model**
Punam P. Parikh, Roberta Lassance-Soares, Manuela Regueiro, Hongwei Shao, Yan Li, Zhao-Jun Liu, Omaida C. Velazquez
Univ of Miami, Miami, FL

SPECIAL SESSION: ALEXANDER W. CLOWES DISTINGUISHED LECTURE

9:30 am  Moderator: Alan Dardik, MD, PhD
Speaker: William Sessa, PhD: "New Insights into Arteriogenesis and Blood Flow Control"

10:10 AM  COFFEE BREAK

ABSTRACT SESSION II: AORTIC AND ARTERIAL PATHOLOGY

Moderator: Shipra Arya, MD
Moderator: Philip S. Tsao, PhD

10:30 am  **Genetic Evidence for Overlap in The Pathogenesis of Peripheral Artery Disease and Coronary Artery Disease**
Derek Klarin\(^1\), Aeron Small\(^2\), Jie Huang\(^3\), Julie Lynch \(^4\), Shipra Arya\(^5\), Themistocles L. Assimes\(^6\), Pradeep Natarajan\(^1\), Danish Saleheen\(^2\), Sekar Kathiresan\(^1\), Daniel J. Rader\(^2\), John Concato \(^7\), J. Michael Gaziano\(^3\), Kelly Cho\(^3\), Yan Sun\(^3\), Peter W Wilson\(^3\), Kyong-Mi Chang\(^2\), Christopher J. O'Donnell\(^5\), Philip S. Tsao\(^6\), Scott M. Damrauer\(^7\)
\(^1\)Massachusetts General Hosp, Boston, MA; \(^2\)Univ of Pennsylvania Medical Ctr, Philadelphia, PA; \(^3\)VA Boston Healthcare System, Boston, MA; \(^4\)VA Salt Lake City Healthcare System, Salt Lake City, UT; \(^5\)Emory Univ Sch of Med, Atlanta, GA; \(^6\)Stanford Univ Sch of Med, Stanford, CA; \(^7\)Yale Univ Sch of Med, New Haven, CT

10:42 am  **The role of Lymphocyte Specific Protein-1 in the phenotypic switch of Smooth Muscle Cells after arterial injury**
Mirnal A. Chaudhary\(^1\), Go Urabe\(^1\), Alex Hayden\(^1\), Sarah Franco\(^1\), Xudong Shi\(^1\), Lian Wang-Guo\(^1\), K. Craig Kent\(^2\)
\(^1\)Univ of Wisconsin-Madison, Madison, WI; \(^2\)The Ohio State Univ, Columbus, OH
10:54 am  **Increased Peak Wall Stress in Women with Abdominal Aortic Aneurysms**  
Eric Shang1, Grace Wang2, Ronald Fairman2, Benjamin Jackson2  
1Cleveland Clinic Fndn, Cleveland, OH; 2Hosp of the Univ of Pennsylvania, Philadelphia, PA

11:06 am  **Dipeptidylpeptidase-iv Inhibition Using MK626 Attenuates BAPN/AT2 Induced Murine Aneurysm.**  
John S. Byrne, Emily Chen, Mansoor Husain, Maral Ouzounian, Clint Robbins, Thomas Lindsay  
Univ of Toronto, Toronto, ON, Canada

11:18 am  **Deletion of LRPI in SMCs Differentially Alters Susceptibility of Distinct Vascular Beds to BAPN-induced Aneurysm and Dissection Formation**  
Areck A. Ucuzian, Selen C. Catania, Subhradip Mukhopadhyay, Rajabrata Sarkar, Dudley S. Strickland  
Univ of Maryland Sch of Med, Baltimore, MD

11:30 am  **Receptor Interacting Kinase 1 Contributes to Pathogenesis of Abdominal Aortic Aneurysm by Causing Smooth Muscle Cell Necroptosis as Well As Inflammation**  
*Noel M. Phan1, Ting Zhou1, Qiwei Wang1, Kartik Gupta1, Conner Feldman1, K. Craig Kent2, Bo Liu1*  
1Univ of Wisconsin-Madison, Madison, WI; 2Ohio State Univ Coll of Med, Columbus, OH;

**NOON LUNCH**

1:00 PM  **SVS FOUNDATION UPDATE AND AWARDS CEREMONY**  
Bruce Perler, MD, SVS Foundation Chair

**SVS Foundation VRIC Trainee Travel Scholarship Awards**  
Jonathan Cudnik, MD  
Spencer Bamhill, BS  
Benjamin N. Jacobs, MD  
Noel M. Phan, BS
TRANSLATIONAL PANEL:
MATRIX REVOLUTION: VASCULAR REPAIR AND REGENERATION

Co-Sponsored session with ISACB

1:15 pm Moderator: Ronald M. Fairman, MD
Moderator: Robert T. Tranquillo, PhD
- Speaker: Justin Sol Weinbaum: “In Vivo Remodeling of an Adipose Stem Cell Seeded Biodegradable Graft: Considerations for Clinical Translation”
- Speaker: Christopher K. Breuer, MD: “Development of Tissue Engineered Grafts for Use in Congenital Heart Surgery”
- Speaker: Jeffrey Lawson “Human Tissue Engineered Blood Vessels: Clinical Experience in Dialysis Access and Arterial Disease”

ABSTRACT SESSION III: STEM CELLS AND TISSUE ENGINEERING

Moderator: Shirling Tsai, MD
Moderator: Muredach P. Reilly, MD

2:20 PM
Sub-Endothelial Matrix Targeted Liposomal Nanoparticles for Vascular Therapeutics
Jonathan S. Cudnik1, Phillip C. West1, Richard K. Fisher1, Sam Mattem-Schain2, Michael Best2, Stacy S. Kirkpatrick1, Michael B. Freeman1, Oscar H. Grandas1, Deidra J. Mountain1
1UT Graduate Sch of Med, Knoxville, TN; 2Univ of Tennessee Knoxville, Knoxville, TN

2:32 PM
Interaction Between a Macrophage Chemokine Receptor, CCR2, and its Ligand Plays a Crucial Role in Macrophage Recruitment and Regulated Inflammation in Normal Wound Healing
Anna E. Boniakowski, Andrew Kimball, Amrita Joshi, Ron Allen, Matt Schaller, Peter Henke, Beth Moore, Steve Kunkel, Katherine Gallagher
Univ of Michigan, Ann Arbor, MI

2:44 PM
Acceleration of Diabetic Wound Healing with Adipose Derived Stem Cells, Endothelial Differentiated Stem Cells and Topical Conditioned Medium Therapy in a Swine Model
Robin F. Irons, Kevin W. Cahill, Deviney A. Rattigan, Joseph H. Marcotte, Marc W. Fromer, Shaohua Chang, Ping Zhang, Kathryn C. Behling, Spencer A. Brown, Jeffrey P. Carpenter, Francis J. Caputo
Cooper Univ Hosp, Camden, NJ

2:56 PM
Non-invasive In Vivo Assessment of The Re-Endothelialization Process Using Ultrasound BioMicroscopy In the Rat Carotid Artery Balloon Injury Model
Samuel Röhl, Linnea Eriksson, Robert Saxelin, Mariette Lengquist, Kenneth Caidahl, Ulf Hedin, Anton Razuvaev, Karolinska Instt, Stockholm, Sweden
Oral Administration of Resolvin D1 Attenuates Early Inflammation Following Vascular Injury in a Rat Carotid Angioplasty Model
Giorgio Mottola, Evan Werlin, Bian Wu, Mian Chen, Anuran Chatterjee, Melinda Schaller, Michael S. Conte
UCSF, San Francisco, CA

Vascular Tissue Engineering in Diabetes
Agneta Simionescu, Jhilmil Dhulekar, Zoltan Hajdu, Dan Simionescu
Clemson Univ, Clemson, SC

ABSTRACT SESSION IV: PERIPHERAL ARTERIAL DISEASE
Moderator: Karen J. Ho, MD
Moderator: Nicholas J. Leeper, MD

4:00 PM Interleukin 2 Promotes Proliferation and Migration in Vascular Smooth Muscle Cells
*Spencer Bamhill1, Prakash Arumugam1, John Matsuura1, Scott Berceli2, Katie Carroll1, Lucie Wrenshall1
1Wright State Univ, Dayton, OH; 2Univ of Florida, Gainesville, FL

4:12 PM Protective Effects of Chloroquine on Ischemic and Nutrient Depleted Muscle are Mediated by HMGB1 and Caspase-1
Ulka Sachdev, Xiangdong Cui, Qian Sun, Edith Tzeng, Alex Chen, Melanie Scott
Univ of Pittsburgh Medical Ctr, Pittsburgh, PA

4:24 PM Exploring Sleep Disturbance Among Patients With Symptomatic Peripheral Artery Disease: Results From The Project Voice Pilot Study
Timothy Craven1, Donna Keith1, Justin Hurie1, Gabriela Velazquez-Ramirez1, Randolph Geary1, Matthew Edwards2, Matthew Comerre2
1Wake Forest Sch of Med, Winston-Salem, NC; 2Univ of Michigan, Ann Arbor, MI

4:36 PM Diabetes Influences Circulating FAS in Patients with Carotid Artery Stenosis
Mohamed A. Zayed, Malik Darwish, Uzma Naim, Luis A. Sanchez, Clay F. Semenkovich, Washington Medical Univ School, Saint Louis, MO

4:48 PM Microvascular Response to Ramipril in Peripheral Artery Disease
Constance J. Mietus1, Peter Karvelis1, Timothy Lackner1, Heman Hernandez1, Holly DeSpiegelaere1, Feng Xie1, Thomas Porter2, Iraklis Pipinos1, George P. Casale1
1Univ of Nebraska Medical Ctr, Omaha, NE; 2VA Nebraska-Western Iowa Healthcare System, Omaha, NE

5:00 PM Calf Muscle Oxygen Saturation during Standardized Treadmill Testing in Patients with Intermittent Claudication
Heman Hernandez1, Molly Schieber1, Holly K DeSpiegelaere3, Katarina E Brunette1, Kyung-Soo Kim1, Constance Mietus1, Sarah Baker1, Sara Myers2, George P Casale1, Iraklis Pipinos1
1Univ of Nebraska Medical Ctr, Omaha, NE; 2Univ of Nebraska Omaha, Omaha, NE; 3Veterans Affairs Nebraska-Western Iowa Healthcare Systems, Omaha, NE
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* SVS Foundation Vascular Research Initiatives Trainee Travel Scholarship Awardee *