The Microcirculatory Society Poster Discussion at Experimental Biology 2015

Oxygen and Blood Flow

Discussion Leader:
Jonathan W. Song, Ohio State University

5:45 1. Image-based Characterization of Functional and Structural Heterogeneity of Tumor Xenografts using Blood Flow modeling, Oxygenation Modeling and Multivariate Analysis
Spyros K. Stamatelos, John's Hopkins University

5:50 2. Experimental Neurovascular Uncoupling Promotes Cognitive Impairment in Mice: Implications for Brain and Cerebromicrovascular Aging
**Stefano Tarantini, University of Oklahoma HSC*

5:55 3. Ca2+ Dynamics and Contraction of Junctional Pericytes in the Retinal Vasculature
Albert L. Gonzales, University of Vermont

6:00 4. Microvascular Hemodynamics in the Chick Chorioallantoic Membrane (CAM)
***Amy F. Smith, University of Arizona*

6:05 5. Flux Flow split in Microchannels with Varying Bifurcation Angles at Low Re
Samira Darvishi, Stony Brook University

6:10 6. The Development and Functional Validation of Engineered Microvessels Using Microfluidic Devices
**Sulei Xu, Penn State University College of Medicine*

6:15 7. Effect of Macronutrient Ingestion on Flow-Mediated Dilation: A Meta-Regression Analysis
Amy Early, Wheaton College

6:20 8. Associations between Plasma Antioxidant Capacity and Skeletal Muscle Antioxidant Gene Expression
Jonathan Warren, University of Alabama at Birmingham

6:25 9. Global Intracoronary Allogeneic Cardiosphere-Derived Cells Promote Functional Repair Without Affecting Myocardial Perfusion in a Porcine Model of Acute Myocardial Infarction
Brian R. Weil, University of Buffalo

6:30 10. Thermally Induced Erythrocyte Aggregation in Mammals
**Harrison Seidner, Stony Brook University*

Inflammation and Angiogenesis

Discussion Leader:
Fong Lam, Baylor College of Medicine

11. Anti-inflammatory Effects of Dipeptidyl Peptidase IV (DPPIV) Inhibition in Heart Failure
Thiago Salles, University of Sao Paulo

12. Increased Aggregated Circulating Microparticles in STZ-induced Diabetic Rats Propagate Inflammation
***Qilong Feng, Penn State University College of Medicine*

13. Pretreatment of human polymorphonuclear leukocytes (PMN) with a new carbon monoxide (CO)-releasing molecule (CORM401) inhibits
Ken Inoue, Lawson Health Research Institute Victoria Research Laboratories

14. A Bioinspired Microfluidic Assay for Investigation of the Role of Protein Kinase C-delta on Leukocyte-endothelial interactions in Sepsis
Fariborz Soroush, Temple University

15. Lysophosphatidic Acid Stimulation Does Not Induce a Lymphatic Identity along Blood Vessels in Intact Microvascular Networks Ex Vivo
**Richard Sweat, Tulane University*

16. Soluble Junctional Adhesion Molecule-B Inhibits Angiogenesis In Vitro
Morgan O. Carey, Albion College

17. miR-126 at the dawn of angiogenic defect seen in PAH right ventricular failure
Francois Potus, Université Laval

18. Vascularization of Porous PolyHEMA Scaffolds
Lin Liao, Duke University

19. Experimental and computational studies of CCR5 cell-surface receptor heterogeneity and angiogenesis in triple-negative breast cancer — a step towards understanding lung metastasis
***Kerri-Ann Norton, Johns Hopkins University*

20. Tracking Human Adipose-Derived Stem Cells (hASCs) in an Ex Vivo Microvascular Network Model
**Mohammad S. Azimi, Tulane University*

* Zweifach Student Award Recipient
** Pappenheimer Postdoctoral Award Recipient

March 29, 2015 - 5:30-7:00pm, Room 205A, Boston Convention Center

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Signaling and Channels

Discussion Leader:
Anjelica Gonzalez, Yale University

5:45 21. 3-Methylcholanthrene/Aryl-Hydrocarbon Receptor-Mediated Inactivation of eNOS through a RhoA/Akt-dependent mechanism
Chih-Cheng Chang, Taipei Medical University

5:50 22. Advanced Age Increases the Amplitude of ATP-sensitive K+ Channel Currents in Murine Resistance Artery Smooth Muscle Cells
Sebastien Hayoz, Michigan State University

5:55 23. Endothelial Cell Hbα Can Regulate Blood Pressure
Joshua T. Butcher, University of Virginia

6:00 24. Interaction of ROS and RNS with GSH and GSH/GPX Systems
Sheetal Joshi, Wayne State University

6:05 25. Hydrogen peroxide-induced redox homeostasis regulation in endothelial cells
***Hemang Patel, Wayne State University*

6:10 26. The Cardioprotective Effects of a NOX1 Inhibitor, ML171, on Myocardial Ischemia/Reperfusion (I/R) injury
Devon Stutzman, Philadelphia College of Osteopathic Medicine

6:15 27. Integrated Capillary Responses to Multiple Vasodilators: Implications for Redundancy in Active Hyperaemia
Iain R. Lamb, University of Guelph

6:20 28. Recruitment of RGS5 Protein to Mechanically Activated AT1R in Arteriolar VSMC
**Kwangseok Hong, University of Missouri*

6:25 29. Sphingosine-1-phosphate (S1P)-induced activation of RhoA and enhancement of endothelial barrier integrity
**Xun Zhang, University of South Florida*

6:30 30. Enhanced $p47^{phox}$ NADPH sub-unit expression impairs conductance and resistance vascular function in obese mice
***Karima Ait-Aissa, EVMS*

6:35

Hypertension, Diabetes, Obesity and Aging

Discussion Leader:
W. Lee Murfee, Tulane University

31. Endothelial Glycocalyx and Apoptosis in Atherosclerosis
Limary Cancel, The City College of New York

32. Loss of CD47 Attenuates Angiotensin II Mediated Hypertension
**Stephanie Mutchler, Vascular Medicine Institute*

33. Metabolic Syndrome and Chronic Stress: Convergent Pathologies Lead to Severe Vascular Impairment
Steven D. Brooks, West Virginia University

34. EET-dependent Potentiation of Pulmonary Arterial Pressure: A Role of Sex Differences
Sharath Kandhi, New York Medical College

35. Doxycycline Prevents Right Ventricular Dysfunction Induced by Pulmonary Embolism
***Evandro Neto Neves, Indiana University*

36. Endothelial FoxO Proteins Regulate Obesity Associated Skeletal Muscle Capillary Rarefaction
**Emmanual Nwadozi, York University*

37. A Role for Hydrogen Sulfide in Obesity-dependent Microvascular Remodeling
Joseph Candela, Rosalind Franklin University of Medicine and Science

38. Caveolin-1 is a Negative Regulator of Adam17 in Adipose Tissue Vascular Endothelium
**Huijuan Dou, Georgia Regents University*

39. Type 2 Diabetes Alters Nitric Oxide Signaling in the Rat Aorta
T. Dylan Olver, University of Missouri

40. Tissue-Specific Isolated Murine Arterial Responses to Aging
Christopher Nicholson, Boston University

41. Least Significant Change of Body Composition and Bone Mineral Density Measured by Dual Energy X-Ray Absorptiometry
Nadia Najm, Clemson University

* Zweifach Student Award Recipient
** Pappenheimer Postdoctoral Award Recipient

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