

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Mitochondria, Metabolism and Heart (Z4)

Scientific Organizers: Junichi Sadoshima, Toren Finkel and Åsa B. Gustafsson

Supported by the Directors' Fund

Angiogenesis and Vascular Disease (Z3)

Scientific Organizers: M. Luisa Iruela-Arispe, Timothy T. Hla and Courtney Griffin

May 8-12, 2017 • Eldorado Hotel & Spa • Santa Fe, New Mexico, USA

Sponsored by Janssen R&D: Pharmaceutical Companies of Johnson & Johnson and Journal of Molecular Cell Biology (JMCB)

Abstract & Scholarship Deadline: January 11, 2017 / Abstract Deadline: February 8, 2017 / Discounted Registration Deadline: March 8, 2017

MONDAY, MAY 8

Arrival and Registration

TUESDAY, MAY 9

Welcome and Keynote Address (Z4)

David C. Chan, California Institute of Technology, USA
Mitochondria Dynamics

Welcome and Keynote Address (Z3)

Kari K. Alitalo, University of Helsinki, Finland
Lymphangiogenesis in Health and Disease

Metabolism and Disease (Joint)

Robert E. Gerszten, Massachusetts General Hospital, USA
Metabolic Profiles and the Risk of Cardiometabolic Diseases

Andrew G. Dillin, University of California, Berkeley, USA
Mitochondria Mitokines and Aging

Peter F. Carmeliet, University of Leuven, VIB, Belgium
Endothelial Metabolism

Short Talk(s) Chosen from Abstracts

Mitochondria Quality Control (Z4)

Gerald W. Dorn, II, Washington University School of Medicine, USA
Mitochondria Dynamics in the Adult Heart

Tamas L. Horvath, Yale School of Medicine, USA
Hunger and Mitochondrial Dynamics

Thomas Langer, CECAD Research Center, Germany
Cardiolipin Remodeling and Cardiomyopathy

Short Talk Chosen from Abstracts

Metabolite Signaling in Angiogenesis and Vascular Disease (Z3)

Morris J. Birnbaum, Pfizer Inc., USA
Control of Hepatic Lipid Metabolism

M. Luisa Iruela-Arispe, University of California, Los Angeles, USA
Cross-Talk between Signaling and Metabolism in the Vasculature

Timothy T. Hla, Weill Medical College of Cornell University, USA
Chaperone-Dependent Sphingolipid Signaling

Short Talk Chosen from Abstracts

Poster Session 1

WEDNESDAY, MAY 10

Autophagy and Metabolism (Z4)

Heidi M. McBride, McGill University, Canada
Mitochondrial-Derived Vesicles

Ana Maria Cuervo, Albert Einstein College of Medicine, USA
Control of Metabolism by CMA

Daniel P. Kelly, Sanford Burnham Prebys Medical Discovery Institute, USA

Mitochondrial Biogenesis in the Developing and Diseased Heart

Dale Abel, University of Iowa, Carver College of Medicine, USA
Inulin Resistance and Myocardial Autophagy

Short Talk(s) Chosen from Abstracts

Transcriptional Control of Endothelial Fate (Z3)

Jason E. Fish, University Health Network, Canada
Transcriptional Integration of Angiogenic Signals

Michael Potente, Max Planck Institute for Heart and Lung Research, Germany

FOXO1, a Key Coordinator of Endothelial Homeostasis

Brian L. Black, University of California, San Francisco, USA
Transcriptional Control of Endothelial Specification and Sub-Specification

William C. Sessa, Yale University School of Medicine, USA
New Insights into Endothelial Lipid Metabolism

Short Talk(s) Chosen from Abstracts

Epigenetic Regulation of Metabolism (Z4)

Anthony Rosenzweig, Massachusetts General Hospital, USA
miR-222 Protects the Heart from Adverse Remodeling

Xiang-Dong Fu, University of California, San Diego, USA
A Novel Strategy to Inhibit Angiogenesis in Cancer

Arieh Moussaieff, Hebrew University of Jerusalem, Israel
Metabolic Regulation of ES Cell Differentiation

Short Talk Chosen from Abstracts

Epigenetic Regulation of Vascular Growth (Z3)

Stefanie Dimmeler, University of Frankfurt, Germany
Function of Long Non-Coating RNA in the Regulation of the Vasculature

Philip Tagari, Amgen, USA
Probing Cardiac Failure with Human Genetics and Working Cardiomyocytes

Courtney Griffin, Oklahoma Medical Research Foundation, USA
Chromatin Remodeling and Vascular Development

Short Talk Chosen from Abstracts

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Poster Session 2

THURSDAY, MAY 11

Hypoxia Sensing Mechanism and Mitophagy (Joint)

Åsa B. Gustafsson, University of California, San Diego, USA
Mitochondria Degradation by the Endosomal Pathway

Kenneth Walsh, Boston University School of Medicine, USA
At the Interphase between Adipose Tissue and the Vasculature

Vamsi K. Mootha[†], Massachusetts General Hospital, USA
Hypoxia as a Therapy for Mitochondrial Disease

M. Celeste Simon, HHMI/University of Pennsylvania, USA
Hypoxia, Lipids and the Regulation of Metabolism

Short Talk(s) Chosen from Abstracts

Metabolic Regulation of Cell Signaling (Z4)

Guido Kroemer, Institut Gustave Roussy, France
Metabolic Regulation of Autophagy

Michael N. Sack, NHLBI, National Institutes of Health, USA
Nutrient Sensing, Mitochondria and the Inflammasome

Short Talk Chosen from Abstracts

Pinchas Cohen, University of Southern California, USA
Mitochondrial-Derived Peptides and their Role in Vascular Disease

Vascular Stability and Cell-Cell Interactions (Z3)

Harry (Hal) C. Dietz, Johns Hopkins University School of Medicine, USA
Mechanisms that Control the Stability of the Vascular Wall

Chenghua Gu, Harvard Medical School, USA
Neurovascular Development and Maturation

Christer Betsholtz, Uppsala University, Sweden
Pericytes as Regulators of Vascular Stability

Short Talk Chosen from Abstracts

Poster Session 3

FRIDAY, MAY 12

Regulation of mPTP Opening (Z4)

Toren Finkel, NHLBI, National Institutes of Health, USA
Mitochondrial Calcium Uptake through the Calcium Uniporter Complex

Elizabeth A. Jonas, Yale University, USA
F1F0 ATP Synthase and mPTP

Heping Cheng, Peking University, China
Mito-Flash

Jeffery D. Molkentin, Cincinnati Children's Hospital Medical Center, USA

Mito Calcium Regulation, mPTP and Cell Death

Short Talk(s) Chosen from Abstracts

Organ Specific Vasculature (Z3)

Ralf H. Adams, Max Planck Institute for Molecular Biomedicine, Germany

Organ-Specific Specialization of Blood Vessels

Susan Quaggin, Northwestern University, USA

Unique Molecular and Functional Requirements of the Renal Vasculature

Anne C. Eichmann, Yale University School of Medicine, USA
Cross-Talk between Vessels and Nerves

Paul S. Frenette, Albert Einstein College of Medicine, USA
Bone Marrow Vascular Niche

Short Talk(s) Chosen from Abstracts

Metabolism and Heart Failure (Z4)

Richard N. Kitsis, Albert Einstein College of Medicine, USA
Chaperone Mediated Autophagy in the Normal and Failing Heart

Rong Tian, University of Washington, USA
Reductive Stress and Heart Failure

Stephen L. Archer, Queen's University, Canada
Role of Acquired Abnormalities in Mitochondrial Metabolism and Dynamics in Pulmonary Hypertension and Right Ventricular Failure

Lymphangiogenesis (Z3)

Tsutomu Kume, Northwestern University Feinberg School of Medicine, USA
Regulation of Lymphatic Development by Notch

Tatiana V. Petrova, CHUV and University of Lausanne, Switzerland
Biomechanical Regulation of Lymphatic Vasculature

Kathleen M. Caron, University of North Carolina at Chapel Hill, USA
Lymphatics in Myocardial Injury and Repair

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (Z4)

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (Z3)

SATURDAY, MAY 13

Departure