

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Diabetes and Metabolic Dysfunction (J6)

Scientific Organizers: Jeffrey E. Pessin, Alan R. Saltiel and Deborah M. Muoio

Supported by the Directors' Fund

Mitochondria, Metabolism and Heart Failure (J5)

Scientific Organizers: Richard N. Kitsis, Gerald W. Dorn II and Rong Tian

January 27-February 1, 2015 • Santa Fe Community Convention Center • Santa Fe, New Mexico, USA

Supported by the Directors' Fund

Abstract & Scholarship Deadline: October 1, 2014 / Abstract Deadline: October 28, 2014 / Discounted Registration Deadline: November 25, 2014

TUESDAY, JANUARY 27

Registration

WEDNESDAY, JANUARY 28

Keynote Address (Joint)

Helen H. Hobbs, University of Texas Southwestern Medical Center, USA
Metabolic Susceptibility to Heart Disease

Regulation of Metabolism (Joint)

C. Ronald Kahn, Joslin Diabetes Center and Harvard Medical School, USA
Adipose Tissue Mitochondrial Activity and Control of Metabolism
E. Dale Abel, University of Iowa, Carver College of Medicine, USA
Insulin Signaling in the Heart
Eric N. Olson, University of Texas Southwestern Medical Center, USA
Global Regulators of Metabolism
Bruce M. Spiegelman, Harvard Medical School, USA
Regulation of Heat Production by Various Shades of Fat

Metabolic Mediators of Insulin Resistance (J6)

Deborah M. Muoio, Duke University Medical Center, USA
Skeletal Muscle Metabolic Flexibility
Gökhan S. Hotamisligil, Harvard University, USA
Inflammation and ER Stress in Dysregulated Metabolism
Gerard Karsenty, Columbia University Medical Center, USA
Osteoblast Function in Glucose Homeostasis
Alan R. Saltiel, University of Michigan, USA
Energy Expenditure Mediated by the Non-Canonical IKB Kinases

Regulation of Mitochondrial Function (J5)

Paolo Bernardi, University of Padova Medical School, Italy
The Mitochondrial Permeability Transition Pore
Peipei Ping, University of California, Los Angeles, USA
Systems Biology Approaches to Mitochondrial Discovery
Christoph Maack, Universitätsklinikum des Saarlandes, Germany
Impact of the Mitochondrial-ER/SR Interaction for Redox Regulation
Short Talk Chosen from Abstracts

Poster Session 1

THURSDAY, JANUARY 29

Mitochondrial Quality Control (Joint)

Richard J. Youle, NINDS, National Institutes of Health, USA
Mitochondrial Dynamics in Normal Biology and Disease
Jennifer A. Lippincott-Schwartz, NICHD, National Institutes of Health, USA
Lipophagy Prolongs Yeast Lifespan Under Calorie Restriction by a Pathway Involving Fused Mitochondria and AMPK
Orian S. Shirihai, Boston University, USA
Mitochondrial Dynamics in the Regulation of Nutrient Utilization and Energy Expenditure
Gerald W. Dorn, II, Washington University School of Medicine, USA
Mitochondrial Dynamics in the Maintenance of the Mitochondrial Genome
Luca Scorrano, University of Padova, Italy
Mitochondrial Dynamics, Anatomic Remodeling and Metabolism

Mechanisms of Dysregulated Glucogenogenesis (J6)

Morris J. Birnbaum, University of Pennsylvania, USA
Insulin and Glucagon Signaling Pathways Regulating Liver Metabolism
Domenico Accili, Columbia University, USA
FOXO Signaling and Hepatic Glucose Production
Marc R. Montminy, The Salk Institute for Biological Studies, USA
The Role of CREB and the CRTC Family of Coactivators in Glucose Homeostasis
Short Talk Chosen from Abstracts

Metabolism Under Stress in Heart Disease and Diabetes (J5)

Rong Tian, University of Washington, USA
Metabolic Remodeling in Heart Failure
E. Douglas Lewandowski, University of Illinois at Chicago College of Medicine, USA
Remodeling of Cardiac Metabolism and Function
Daniel P. Kelly, Sanford-Burnham Medical Research Institute, USA
Deciphering the Metabolic Basis of Heart Failure
Short Talk Chosen from Abstracts

Poster Session 2

FRIDAY, JANUARY 30

Emerging Synergy Between Metabolism and the Gut Microbiome (J6)

Martin J. Blaser, New York University School of Medicine, USA
Long-Term Consequences of Early Life Microbiome Perturbations
Ronald M. Evans†, HHMI/The Salk Institute, USA
Energy Balance and the Gut Microbiome
Speaker to be Announced

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Christopher B. Newgard, Duke University Medical Center, USA
Talk Title to be Announced

Short Talk(s) Chosen from Abstracts

Cardiac Autophagy (J5)

Roberta A. Gottlieb, Cedars-Sinai Medical Center, USA
Autophagy in Cardioprotection, and Impact of Metabolic Syndrome

Åsa B. Gustafsson, University of California, San Diego, USA
Mcl-1 as a Mediator of Cell Death and Respiration

Elizabeth Murphy, NHLBI, National Institutes of Health, USA
Post-Translational Regulation of Mitochondrial Function

Junichi Sadoshima, Rutgers New Jersey Medical School, USA
Novel Autophagy Pathways in the Heart

Short Talk(s) Chosen from Abstracts

Mechanisms of Dysregulated Lipogenesis (J6)

Barbara B. Kahn, BIDMC and Harvard Medical School, USA
ChREBP Regulation of de novo Lipogenesis

Michael P. Czech, University of Massachusetts Medical School, USA
Adipose Lipogenesis in Control of Glucose Tolerance

Catherine Postic, Institut Cochin, France
ChREBP and Liver Steatosis

Short Talk Chosen from Abstracts

Cell Death at the Mitochondria (J5)

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

Bcl-2 Proteins and Mitochondrial-Dependent Necrosis

Kinya Otsu, King's College London, UK
Mitochondria, Cell Death and Inflammation

Richard N. Kitsis, Albert Einstein College of Medicine, USA
Cell Death Decisions at the Mitochondrion

Short Talk Chosen from Abstracts

Poster Session 3

SATURDAY, JANUARY 31

Mitochondria, Metabolism, and Aging (Joint)

David A. Sinclair, Harvard Medical School, USA
Coupling Nuclear and Mitochondrial Transcription

Marcia C. Haigis, Harvard Medical School, USA
Mitochondria and Aging

Douglas C. Wallace, Children's Hospital of Philadelphia, USA
Mitochondrial Mutations and Human Disease

Johan Auwerx, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland

Regulation of Mitochondria Metabolism

Heidi M. McBride, McGill University, Canada
Essential Functions of Mitochondrial ROS

Circadian Rhythms in Metabolic Networks (J6)

Mitchell A. Lazar, University of Pennsylvania School of Medicine, USA
Epigenomic Clock Regulation of Lipid and Glucose Metabolism

Joseph T. Bass, Northwestern University, USA
Circadian Control of Metabolic Signaling

Ueli Schibler, University of Geneva, Switzerland
Body Temperature Rhythms and Metabolism

Short Talk Chosen from Abstracts

Toxins and Protectors of the Myocardium (J5)

Ira J. Goldberg, Columbia University, USA
Sphingolipids and Cardiotoxicity

Kenneth Walsh, Boston University School of Medicine, USA
Cardiokines

Daria Mochly-Rosen, Stanford University, USA
Metabolic Enzyme Control Cell Life/Death Decision through the Mitochondria

Short Talk Chosen from Abstracts

SUNDAY, FEBRUARY 1

Departure