

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Organ Crosstalk in Obesity and NAFLD (J3)

Scientific Organizers: Gary J. Schwartz, Bei B. Zhang and Christoph Buettner

Supported by the Directors' Fund

Bioenergetics and Metabolic Disease (J4)

Scientific Organizers: Patrick Seale, Kendra K. Bence and P. Darrell Neuffer

January 21-25, 2018 • Keystone Resort • Keystone, Colorado, USA

Supported by the Directors' Fund

Abstract & Scholarship Deadline: / Abstract Deadline: / Discounted Registration Deadline:

SUNDAY, JANUARY 21

Arrival and Registration

MONDAY, JANUARY 22

Welcome and Keynote Address (Joint)

Jens C. Brüning, Max Planck Institute for Metabolism Research, Germany

Central Neural Programming of Systemic Metabolism in Obesity

Central Modulation of Metabolism (Joint)

Joel K. Elmquist[†], University of Texas Southwestern Medical Center, USA

Circuits that Control Energy Expenditure

Christoph Buettner, Mount Sinai School of Medicine, USA

Brain Control of Adipose Tissue Functionality as a Determinant of Hypothalamic and Liver Function

Daniel L. Marks[†], Oregon Health & Science University, USA

Central Control of Cachexia

Short Talk(s) Chosen from Abstracts

Workshop 1: Emerging Therapeutic Targets for Metabolic Disease (Joint)

Kendra K. Bence, Pfizer, USA

Novel Approaches to Target NAFLD/NASH

Short Talks Chosen from Abstracts

Sweet Spots in the Brain: Central Glucose Sensing and Peripheral Glucose Homeostasis (J3)

Sarah Stanley[†], Icahn School of Medicine at Mount Sinai, USA

Brian Glucose Sensing and New Radiogenetic Tools to Study It

Gregory James Morton[†], University of Washington, USA

CNS Mechanisms Governing Diabetic Hyperglycemia

Greg S. B. Suh[†], New York University School of Medicine, USA

Brain Sugar Sensing Circuits in Drosophila

Short Talk Chosen from Abstracts

Brown and Beige Fat Thermogenesis (J4)

Patrick Seale, University of Pennsylvania, USA

Molecular Regulation of Brown and Beige Adipogenesis

Sheila Collins, Sanford Burnham Prebys Medical Discovery Institute, USA

Signaling Networks for Activation of Lipolysis and Thermogenesis

Evan D. Rosen, Beth Israel Deaconess Medical Center, Harvard University, USA

Epigenetic and Epigenomic Control of Adipose Metabolism

Short Talk Chosen from Abstracts

Poster Session 1

TUESDAY, JANUARY 23

Keynote Address (Joint)

Bruce M. Spiegelman, Harvard Medical School, USA

Pathways that Control Cellular and Organismal Energy Metabolism

Adipose Plasticity and Metabolism (Joint)

Susan K. Fried[†], Icahn School of Medicine at Mount Sinai, USA

Depot Selective Metabolic Effects

Philipp E. Scherer, University of Texas Southwestern Medical Center, USA

Adipose Fibrosis in Metabolic Regulation

Barbara B. Kahn[†], Beth Israel Deaconess Medical Center, Harvard Medical School, USA

Control of Systemic Metabolism by de novo Lipogenesis in Adipose

Griffin P. Rodgers[†], National Institute of Diabetes, Digestive and Kidney Diseases, USA

Major Existing and New Research Priorities of NIDDK

Short Talk(s) Chosen from Abstracts

Hepatic Metabolism in Obesity (J3)

Rosalind A. Coleman, University of North Carolina at Chapel Hill, USA

Compartmentalization of Hepatic Lipid Metabolism

Morris J. Birnbaum[†], Pfizer Inc., USA

Signaling Pathways Regulating Hepatic and Adipose Tissue Metabolism

Baoliang Song[†], Wuhan University, China

Dissecting the Molecular Pathway of Cholesterol Absorption, Trafficking, and Metabolism

Short Talk Chosen from Abstracts

Mitochondria: Form and Function (J4)

Michael P. Murphy[†], Medical Research Council, UK

ROS-Regulation of Mitochondria

Heidi M. McBride[†], McGill University, Canada

ER/Mitochondrial Dynamics

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

Molecular Control of Fuel Metabolism

Short Talk Chosen from Abstracts

Poster Session 2

WEDNESDAY, JANUARY 24

Hepatic Dysfunction in NASH and NAFLD (J3)

Bart Staels[†], Institut Pasteur de Lille, Université Lille 2, France

Pathophysiology and Mechanisms of Nonalcoholic Fatty Liver Disease

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Samuel Klein[†], Washington University School of Medicine, USA
Biochemical, Metabolic and Clinical Implications in Obesity and NASH

Hongliang Li[†], Wuhan University, China
Molecular Pathways Linking Infection, Inflammation, Obesity and NAFLD

Bei B. Zhang, Lilly China Research and Development Co., Ltd., China
New Approaches Targeting Improved Metabolic Control

Short Talk(s) Chosen from Abstracts

Energy Expenditure and Body Weight Regulation in Humans (J4)

Herman Pontzer[†], Hunter College, USA
Evolutionary Origins of Obesity

Michael Rosenbaum[†], Columbia University Medical College, USA
Regulation of Energy Expenditure by Weight Reduction

Wouter D. van Marken Lichtenbelt[†], Maastricht University, Netherlands
Contribution of Brown Fat to Human Metabolism

Speaker to be Announced

Short Talk(s) Chosen from Abstracts

The Many Scars of Obesity: Systemic Fibrosis and Hypothalamic Gliosis (J3)

Scott L. Friedman[†], Icahn School of Medicine at Mount Sinai, USA
Fibrosis in NAFLD

Joshua Thaler[†], University of Washington, USA
Hypothalamic Gliosis

Linda Slanec Higgins[†], Gilead Sciences, Inc., USA
Novel Targets in Fibrosis

Short Talk Chosen from Abstracts

Cellular Regulators of Bioenergetics (J4)

P. Darrell Neuffer, East Carolina University, USA
Redox Circuit Flux and Energy Expenditure

Muthu Periasamy[†], Ohio State University, College of Medicine, USA
Skeletal-Muscle-Based Thermogenic Mechanisms

Reuben J. Shaw, The Salk Institute for Biological Studies, USA
AMPK Control of Cellular Energetics

Short Talk Chosen from Abstracts

Poster Session 3

THURSDAY, JANUARY 25

Feel Your Gut: The Gut-Brain-Food Connection (J3)

Fiona M. Gribble[†], Cambridge Institute for Medical Research, University of Cambridge, UK
Gut Hormones in the Regulation of Metabolism

Speaker to be Announced

Daniel J. Drucker, Lunenfeld-Tanenbaum Research Institute, Mount Sinai Hospital, Canada

Gut Peptides Drive Metabolic Organs: Direct vs. Indirect Mechanisms

Speaker to be Announced

Short Talk(s) Chosen from Abstracts

Skeletal Muscle: Use and Disuse (J4)

Deborah M. Muoio[†], Duke University Medical Center, USA
Adaptive Responses to Exercise Controlling Metabolism

Juleen R. Zierath, Karolinska Institutet, Sweden
Epigenetic Regulation by Exercise

David E. James, University of Sydney, Australia
Exercise Regulated Pathways in Skeletal Muscle

David J. Glass[†], Novartis Institutes for Biomedical Research, USA
Muscle Wasting

Short Talk(s) Chosen from Abstracts

Workshop 2: Hot Topics in Obesity and Metabolism (Joint)

Short Talks Chosen from Abstracts

Fat on the Brain: Adipose-Brain Crosstalk (J3)

Gary J. Schwartz, Albert Einstein College of Medicine, USA
Metabolic Sensing in Adipose Tissue

Pierre Léopold[†], Université Nice Sophia Antipolis, France
Humoral Communication between Fat and Brain Insulin Producing Cells

Suneil K. Koliwad[†], University of California, San Francisco, USA
Role of Fatty Acids in Hypothalamic Inflammation

Novel Effectors of Energy Metabolism (J4)

Shingo Kajimura, University of California, San Francisco, USA
BAT-Secreted Adipokines Regulate Energy Expenditure

Jiandie Lin[†], University of Michigan Medical School, USA
Metabolic Tissue Cross-Talk

Ajay Chawla[†], University of California, San Francisco, USA
Innate Immune Control of Thermogenesis

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (J3)

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (J4)

FRIDAY, JANUARY 26

Departure