

# 2018 Kern Lipid Conference

## *“Metabolic Regulation of Immunity, Cardiometabolic Diseases and Cancer: New Therapeutic Approaches”*

Monday, August 13, 2018 to Wednesday, August 15, 2018 - Vail, Colorado

Organizers: Nada A Abumrad, PhD, Washington University, Susan Kaech, PhD, Salk Institute  
and Roger Newton, PhD, Esperion Therapeutics

### Conference Registration

Monday, August 13, 2018

7:30-8:15am

**Conference Check-In and Breakfast**  
*Grand Ballroom Foyer and Registration Desk*

### Session 1: Metabolic Reprogramming in Homeostasis and Disease

Session Chair: Nada Abumrad, PhD

8:30am

**Introduction and Presentation of the Kern Lectureship Award**  
Moshe Levi, MD, University of Colorado Denver, Aurora, Colorado

9:00am

**Kern Lecture: “Nutrient regulation of mTOR Signaling in Metabolism, and Disease”**  
David Sabatini MD, PhD, MIT Biology and Whitehead Institute

9:45am

**“Cellular Metabolism and Signaling in Cancer”**  
Reuben Shaw PhD, Molecular and Cell Biology Laboratory, Salk Institute

10:30am

**Break**

10:45am

**“Targeting the Warburg Effect through GAPDH”**  
Jason Locasale, PhD, Pharmacology and Cancer Biology, Duke University

11:30am

**“Mapping Human Metabolic Diversity and its Role in Disease Using Untargeted Metabolomics”**  
Mohit Jain MD, PhD, Medicine, University of California, San Diego

12:15pm

**Lunch**

1:30pm

**Introduction to David L. Williams Lecture and Award**  
Mary Sorci-Thomas, PhD, Medical College of Wisconsin  
**David L. Williams Lecture: TBD**

2:15pm

**“ATP Citrate Lyase Control of the Glucose to Acetate Metabolic and Epigenetic Switch”**  
Kathryn Wellen PhD, Cancer Biology, University of Pennsylvania

3:00pm

**Break**

3:15pm

**”Lipids Reprogram Metabolism Providing a Major Source for Histone Acetylation”**  
Matthew Hirschey PhD, Medicine, Endocrinology, Metabolism, and Nutrition, Duke University

4:00pm

**“Nutrient Regulation of Muscle Insulin Sensitivity”**  
Zoltan Pierre Arany, MD, PhD, Medicine, Perelman School of Medicine

4:45pm

**“Fatty Acid Sensitive Regulation of the Insulin Receptor and AMPK Pathways”**  
Dmitri Samovski, PhD, Medicine, Nutritional Sciences, Washington University

5:30 pm | **15 min Talks from abstracts. TBD**

6:00pm | **Poster Session and Reception**  
*Grand Ballroom, Salons F-J*

Tuesday, August 14, 2018

8:15am | **Breakfast Buffet**  
*Grand Ballroom Foyer*

## Session 2: Metabolism of Endothelial and Immune Cells in Health and Disease

Session Chair: Susan Kaech, PhD

9:00am | **“Endothelial Cell Metabolism: Principles and Therapeutic Opportunities”**  
Peter Carmeliet, MD, PhD, Center for Cancer Biology, University of Leuven

9:45am | **“Molecular Regulation of Endothelial Permeability and Lipid Transport by VEGF Signaling”**  
Anne Eichmann PhD, Medicine, and Cellular and Molecular Physiology, Yale University

10:30am | **Break**

10:45am | **“Characterization of Trans-Endothelial Insulin Efflux in Skeletal Muscle Capillaries”**  
David Wasserman PhD, Molecular Physiology and Biophysics, Vanderbilt University

11:30am | **“Metabolic Dysregulation of Cellular Innate Immunity in Inflammatory Vasculitis”**  
Sonia Sharma, PhD, La Jolla Institute for Allergy and Immunology

12:15pm | **Lunch**

1:30pm | **“Immune Cell Metabolism in Obesity”**  
Lydia Lynch PhD, Biochemistry and Immunology, Harvard University

2:15pm | **“Store-Operated Ca<sup>2+</sup> Entry in T Cell Immunity and (Lipid) Metabolism: Lessons from STIM1 and ORAI1 Deficient Human Patients and Mice”**  
Stefan Feske MD, Pathology, NYU

3:00pm | **Break**

3:15pm | **“Ketone Bodies in Fuel Metabolism, Signaling and Therapeutics”**  
Peter Crawford PhD, Biochemistry, Molecular Biology, and Biophysics, University of Minnesota

4:00pm | **“Adipocyte Precursor Activation During Onset of Obesity”**  
Matthew Rodeheffer, PhD, Comparative Medicine, and Molecular, Cellular and Developmental Biology, Yale University

4:45pm | **Introduction and Presentation of the Roger Davis Lecturer**  
Robert H. Eckel, MD, University of Colorado Denver, Aurora, Colorado

**Roger Davis Lecture: TBD**

5:15pm | **“Differential Regulation of TLR and Macrophages by Saturated and Unsaturated Fatty Acids”**  
Autumn York, PhD, Immunobiology, Yale University

5:30pm | **15 Minute Talks from abstracts: TBD**

6:00pm | **Poster Session**

7:30am **Breakfast Buffet**  
*Grand Ballroom Foyer*

**Session 3: Old and New Therapeutic Approaches in Metabolic Disease and Cancer**  
**Session Chair: Roger Newton, PhD**

8:30am **Franz Simon Poster Award/Introduction – Recipient To be Announced**  
Moshe Levi, MD, President, Kern Lipid Conference University of Colorado, Aurora, Colorado

9:00am **“Liver-specific Inhibition of ATP-Citrate Lyase by Bempedoic Acid Decreases LDL Cholesterol and Atherosclerosis”**  
Stephen L Pinkosky PhD, Esperion Therapeutics

9:45am **“ATP-Citrate Lyase Inhibitor, Bempedoic Acid, Lowers LDL-Cholesterol and Attenuates Atherosclerosis in LDL Receptor Deficient (LDLR +/- and LDLR -/-) Yucatan Miniature Pigs”**  
Murray Huff, PhD, Medicine, University of Western Ontario

10:30am **Break**

10:45am **“Acetyl-CoA Carboxylase Inhibition to Reduce Lipogenesis in Obesity: Preclinical and Clinical Results with ND-630”**  
Rosana Kapeller, MD, PhD, Nimbus Therapeutics

11:30am **“Acetyl-CoA Carboxylase Inhibition Reduces Hepatic Steatosis but Elevates Plasma Triglycerides in Mice and Humans: A Bedside to Bench Investigation”**  
Jay D. Horton, MD, Center for Human Nutrition, Internal Medicine and Molecular Genetics, University of Texas-Southwestern

12:15pm **Lunch**

1:30pm **“Metabolic Sensing by AMPK and its Potential as a Therapeutic Target for Treating Metabolic Disease and Cancer”**  
Gregory Steinberg PhD, Medicine, Endocrinology, McMaster University, Ontario

2:15pm **“Potentiating Anti-Tumor Response of CD8+ T Cells by Modulating Cholesterol Metabolism”**  
Chenqi Xu, PhD, Shanghai Institute of Biological Sciences, Chinese Academy of Sciences

3:00pm **Break**

3:15pm **“Identification and Validation of New Targets Using Precision Phenotyping and Panomics”**  
Szilard Voros MD, Global Genomics Group

4:00pm **“In Silico Mendelian Genetics to Identify and Validate Novel Therapeutic Targets”**  
Brian Ference MD, Medicine, Cardiology, Wayne State University

4:45pm **15 min Talks from Abstracts**

6:30pm **Dinner and Reception**

9:30pm **Adjourn**