MONDAY, FEBRUARY 1

Welcome Remarks and Keynote Address (Joint) (8am Denver/Mountain Time Start)

*Kevin L. Grove*, Novo Nordisk, USA
Session Chair

*Lori Sussel*, University of Colorado Anschutz Medical Campus, USA
Session Chair

*Morris F. White*, Boston Children’s Hospital, Harvard Medical School, USA

Peripheral and Central Faces of Hepatic Insulin Resistance

Gut Instincts: Influence of the Intestine on Glucose Homeostasis (Joint) (8:40am Denver/Mountain Time Start)

*Kevin L. Grove*, Novo Nordisk, USA
Session Chair

*Mary-Elizabeth Patti*, Joslin Diabetes Center, USA

Hypoglycemia After Bariatric Surgery: Lessons Learned About Intestinal Control of Glucose Metabolism

Max Nieuwdorp, University of Amsterdam, Netherlands

Does the Disease Start with the Gut Microbiome?

Roy Taylor, Newcastle University, UK

T2DM: Simple Etiology but Heterogenous Individuals

Aneta Stefanidis, Monash University, Australia

Short Talk: The Importance of Brown Fat in Mediating Changes in Glucose Regulation following Vertical Sleeve Gastrectomy

Chisayo Kozuka, RIKEN Center for Integrative Medical Sciences, Japan

Short Talk: Bromodomain-Containing Proteins Regulate Glucose Metabolism via Gut-Liver FGF15/19 Pathway

Career Roundtable (Joint) (12:30pm Denver/Mountain Time Start)

Diego V. Bohórquez, Duke University, USA

Murielle M. Véniant-Ellison, Amgen Inc., USA

Kristen Jane Nadeau, University of Colorado Denver, USA

Poster Session 1 (Joint) (1:30pm Denver/Mountain Time Start)

Central Adaptations to Body Weight Change (3pm Denver/Mountain Time Start) (EK17)

*Thomas H. Meek*, Novo Nordisk, USA
Session Chair

Hans Rudolf Berthoud, Pennington Biomedical Research Center, USA

Central Effects of Bariatric Surgery

*M. Stephanie E. Fulton*, University of Montreal, Canada

Curbing Hedonia: Neurometabolic Adaptations to High-Fat Diet and Obesity

Dana M. Small, Yale University School of Medicine, USA

Striatal – Prefrontal Circuit Sensitivity to Insulin Determines Working Memory Ability in Youth with Obesity

Murielle M. Véniant-Ellison, Amgen Inc., USA

GIPR Antagonist Antibodies Conjugated to GLP-1 Peptides Decrease Weight in Obese Preclinical Models

Elinor L. Sullivan, Oregon National Primate Research Center, USA

[NOT AVAILABLE ON DEMAND] The Influence of Maternal Nutrition and Metabolic State on Offspring Risk for Psychiatric Disorders

Chen Liu, University of Texas Southwestern Medical Center, USA

Short Talk: Atypical Antipsychotics Target Hypothalamic Melanocortin 4 Receptors to Cause Weight Gain

Natasha Gaito, Virginia Tech, USA

Short Talk: In silico Analysis of the POMC and NPY Promoters: The Role of Methylation in Environmental Triggers of Obesity

Muscling in on Insulin Resistance (3pm Denver/Mountain Time Start) (EK18)

Juleen R. Zierath, Karolinska Institutet, Sweden

Skeletal Muscle Mediators and Exercise-Induced Adaptations Governing Insulin Sensitivity in Type 2 Diabetes

*Joseph T. Brozinick*, Eli Lilly and Company, USA

Therapeutically Targeting Skeletal Muscle to Treat Type II Diabetes: Could Urocortin 2 be Exercise in a Bottle?

*Bret H. Goodpaster*, Translational Research Institute for Metabolism and Diabetes, USA

Fat Accumulation in Muscle: Implications for Diabetes

Lena Espelage, German Diabetes Center, Germany

Short Talk: Contraction Response in Skeletal Muscle Glucose Uptake Is Regulated by the Two RabGAPs TBC1D1, TBC1D4 and the Key Components of Exercise Signaling, AMPK and Rac1, in a Cooperative Manner

Taiyi Kuo, Columbia University, USA

Short Talk: Systemic Benefits of Gc Inhibition to Preserve Insulin Sensitivity

Dongyin Guan, Baylor College of Medicine, USA

Short Talk: Canonical and Non-Canonical Clock Regulators in Obesity and Diabetes

Adam J. Rose, Monash University, Australia

Short Talk: An Endocrine-Hepato-Muscular Metabolic Cycle Links Skeletal Muscle Atrophy and Hyperglycemia in Type 2 Diabetes

Christoffer Clemmensen, University of Copenhagen, Denmark

Short Talk: GDF15 as a Regulator of Energy Metabolism: Physiology vs. Pharmacology

* Session Chair † Invited but not yet accepted  Program current as of November 12, 2023.

For the most up-to-date details, visit https://www.keystonesymposia.org.
TUESDAY, FEBRUARY 2

Adipose Tissue Communication (8am Denver/Mountain Time Start) (EK17)

*Kevin L. Grove, Novo Nordisk, USA
Session Chair

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

Novel Insights into the Endocrine Actions of the Adipocyte
Ana Domingos, University of Oxford, UK

Sympathetic Innervation of Adipose Tissue
Sean M. Hartig, Baylor College of Medicine, USA

Leveraging MicroRNA Targets to Treat Obesity
Camilla Charlotte Schéele, University of Copenhagen, Denmark

Early Differentiation of Human Brown and White Adipocytes at Single Cell Level Reveals Common Subtype with Genetic Association to Body Fat Distribution
Stephanie Wesolowski, University of Colorado, USA

Metabolic Programming in the Fetal Liver- Potentiation of Gluconeogenesis by Hypoxemia
Kai Sun, University of Texas Health Science Center at Houston, USA

Short Talk: Adipose-Derived MMP14 Is a Key Player in Metabolic Health
Aimee L. Edinger, University of California, Irvine, USA

Diabetes – One Name, Many Variations (8am Denver/Mountain Time Start) (EK19)

Laura C. Alonso, Weill Cornell Medicine, USA
Session Chair

Ellen E. Blaak, Maastricht University, Netherlands

Obesity Metabolic Phenotypes Leading to Type 2 Diabetes Mellitus: Implications for Personalized Prevention
Kristen Jane Nadeau, University of Colorado Denver, USA

Emerging Aspects of T2D in Youth
Matthew B. Johnson, University of Exeter Medical School, UK

Genetic Insights into Autoimmune Diabetes
*Carmella Evans-Molina, Indiana University, USA

Type 1 Diabetes: Taking the Long View
Kevan C. Herold, Yale University, USA

Cancer Immunotherapy and T1D
Alka M. Kanaya, University of California, San Francisco, USA

Heterogeneity of Type 2 Diabetes Subtypes by Ethnicity
Debora R. Sobreira, University of Chicago, USA

Short Talk: An Integrative Platform to Uncover the Mechanisms of the Association of TCF7L2 and T2D

Meet the Editors (Joint) (12:30pm Denver/Mountain Time Start)

Katherine Samaras, Frontiers in Endocrinology, Australia

Jeff Holly, Frontiers in Endocrinology, UK

Kristian van der Vos, Cell Press, Netherlands

Allyson Evans, Cell Press, USA

Poster Session 2 (Joint) (1:30pm Denver/Mountain Time Start)

A Gut Feeling: How the Gut Speaks to the Brain (3pm Denver/Mountain Time Start) (EK17)

*Rachel L. Batterham, University College London, UK

[NOT AVAILABLE ON DEMAND] STEP Amylin Trials
Darleen A. Sandoval, University of Colorado, USA

Lessons From Mouse Models of Bariatric Surgery
Diego V. Bohórquez, Duke University, USA

A Gut Choice for Sugars
Gary J. Schwartz, Albert Einstein College of Medicine, USA

Bottom Up Control of Appetite

Alison Nicole McRae, Mayo Clinic, USA

Short Talk: GIP Receptor Deletion in Mice Confers Resistance to Obesity via Alterations in Energy Expenditure and Adipose Tissue Lipid Metabolism
Elizabeth Ann Killion, Amgen, USA

Short Talk: Chronic Glucose-Dependent Insulinoctropic Polypeptide Receptor (GIPR) Agonism Desensitizes Adipocyte GIPR Activity Mimicking Functional GIPR Antagonism
Ki-Suk Kim, University of Colorado Anschutz Medical Campus, USA

Short Talk: The Role of Bile Acid Receptor Expressed in Intestinal Stem Cells on Enteroendocrine Cell Differentiation after Bariatric Surgery

The Failing Beta Cell in T1D and T2D (3pm Denver/Mountain Time Start) (EK18)

Chantal Mathieu, KU Leuven, Belgium

Dialog Between the Immune System and the Beta Cell
Laura C. Alonso, Weill Cornell Medicine, USA

ER Stress: The Good, the Bad and the Ugly
Marc Prentki, Montreal Diabetes Research Center, Canada

Novel Metabolic Enzyme Glycerol 3-P-Phosphatase: From ß-cell Gluco-detoxification to Healthy Aging

* Session Chair † Invited but not yet accepted     Program current as of November 12, 2023.
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**Lori Sussel**, University of Colorado Anschutz Medical Campus, USA
Beta Cell Dysfunction Contributes to T1D

**Feyza Engin**, University of Wisconsin-Madison, USA
Short Talk: Targeting Beta Cell Unfolded Protein Response in T1D

**Sangeeta Dhawan**, City of Hope, USA
Short Talk: DNA Hydroxymethylation and Functional Beta Cell Mass in Health and Diabetes

**Joan Mir-Coll**, InSphero AG, Switzerland
Short Talk: Human Islet Microtissues as an in vitro and in vivo Model System for Diabetes

**Blaise Su Jun Low**, National University of Singapore, Singapore
Short Talk: Modeling the Insulin Secretion Defects in MODY3 using Patient hiPSC-derived Beta Cells

**WEDNESDAY, FEBRUARY 3**

**Feeding Behavior: Top Down or Bottom Up? (8am Denver/Mountain Time Start) (EK17)**

**Linda Rinaman**, Florida State University, USA
GLP-1 Neural Signaling in Stress and Metabolism

**Michael Krashes**, NIDDK, National Institutes of Health, USA
High-Fat Food Biases Hypothalamic and Mesolimbic Expression of Consummatory Drives

**Lotte Bjerre Knudsen**, Novo Nordisk A/S, Denmark
GLP-1 in the Treatment of Obesity, Mechanisms that Translate into Durable Weight Loss in Patients

**Manolis Kellis**, Massachusetts Institute of Technology, Broad Institute, USA
Single-Cell Multi-Tissue Dissection of Obesity-Exercise Circuitry in Human and Mouse

**Katherine Blackmore**, George Washington University, USA
Short Talk: An Obligatory Forebrain-Hypothalamic ER Stress Driven Circuit Mediates Hepatic Steatosis during Obesity

**Novel Therapeutic Strategies (8am Denver/Mountain Time Start) (EK18)**

**Juleen R. Zierath**, Karolinska Institutet, Sweden
Session Chair

**Jose C. Florez**, Massachusetts General Hospital, USA
Have GWAS Helped Classify Diabetes?

**Emma Ahlvist**, Lund University, Sweden
Subclassifying Diabetes by Combining GWAS and Clinical Phenotyping

**Paul W. Franks**, Lund University and Novo Nordisk Foundation, Sweden
Precision Medicine in Obesity and Diabetes

**Rory J. McCrimmon**, University of Dundee, UK
Mechanisms of Therapies for T2D and Potential Crossover to T1D

**Carla J. Greenbaum**, Benaroya Research Institute at Virginia Mason, USA
Therapies to Stop T1D...Determining Risk and Conducting Trials

**Alman Ertmann Karlson**, Novo Nordisk, Denmark
Stem Cell Mediated Treatments for Diabetes

**Workshop and Panel: Patient Perspective and Stigmas (11:30am Denver/Mountain Time Start) (EK17)**

**Rachel L. Batterham**, University College London, UK
Session Chair

**Vicki Mooney**, ECPO Executive Director & Patient, Spain

**Francesco Rubino**, King's College London, UK

**Joseph Nadglowski**, Obesity Action Coalition, USA

**Workshop and Panel Discussion: COVID and Diabetes (11:30am Denver/Mountain Time Start) (EK18)**

**Lori Sussel**, University of Colorado Anschutz Medical Campus, USA
Session Chair

**Alpana P. Shukla**, Weill Cornell Medical College, USA
Interaction between T2D and Obesity and COVID Outcomes

**G. Todd Alonso**, University of Colorado, USA
COVID and TID

**Shuibing Chen**, Weill Cornell Medical College, USA
COVID Directly Infects Beta Cells and Affects Beta Cell Function

**Katie C. Coate**, Vanderbilt University Medical Center, USA
ACE2 is Expressed in the Islet Microvasculature and Ducts of Human Pancreas

**Francesco Dotta**, University of Siena, Italy
Human Beta Cells Express ACE2

**Dirk Homann**, Icahn School of Medicine at Mount Sinai, USA
Experimental and Natural SARS-CoV-2 Infection of the Human Pancreas

**Networking Lounge (Joint) (1:30pm Denver/Mountain Time Start)**

**CNS Control of Energy Homeostasis and Blood Glucose (Joint) (3pm Denver/Mountain Time Start)**

**Shane T. Hentges**, Colorado State University, USA
Session Chair

**Jose C. Florez**, Massachusetts General Hospital, USA
POMC Neurons: Distinct Roles in Food Intake, Metabolism and Glucose Regulation

**Michael A. Cowley**, Monash University, Australia
Hypothalamic Control of Glucose Homeostasis

**Martin G. Myers, Jr.**, University of Michigan, USA
Control of Food Intake and Energy Balance via the NTS and DMH
Michael W. Schwartz, University of Washington, USA
Unraveling Diabetes Remission Induced by the Brain

Ian Enrique Gonzalez, University of Michigan, USA
Short Talk: Paraventricular Hypothalamic Calcitonin Receptor Expressing Neurons Regulate Energy Balance

Juliana Bezerra Medeiros de Lima, Wayne State University, USA
Short Talk: ARC GHR Neurons Control System Glucose Sensitivity via Muscle Glucose Uptake

Closing Remarks (5:50pm Denver/Mountain Time Start) (EK17)

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