

Keystone Symposia in Banff Functional Neurocircuitry of Feeding and Feeding Disorders

Fairmont Banff Springs | Banff, Alberta, Canada | February 10–14, 2019

Joint with the conference on **Obesity and Adipose Tissue Biology**

Scientific Organizers:

Roger D. Cone, University of Michigan, USA

Lori M. Zeltser, Columbia University, USA

Matthew R. Hayes, University of Pennsylvania, USA

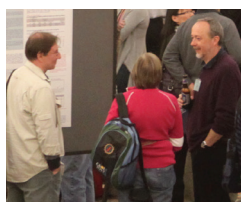
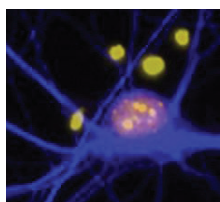
The Keystone Symposia conference on neuronal control of appetite is traditionally the leading gathering for scientific exchange among those studying the central control of energy homeostasis. The monogenetic syndromes of obesity in mouse and man played a fundamental role in the development of this field, and hence the field has heavily emphasized the control of feeding in models of obesity. However, many disorders of feeding and energy storage, including anorexia nervosa, disease cachexia, pediatric failure to thrive, Prader-Willi disease and progeria, are important, untreated medical conditions. The goal of this conference is to gather world leaders in the neural control of feeding and energy homeostasis, along with leaders in the pathophysiology of feeding and energy homeostasis. There is currently no meeting in the field that brings together these disparate groups of scientists. The conference will broaden the field by covering fundamental advances in the neural circuitry underlying feeding, while including entire sessions devoted to anorexia nervosa, disease cachexia and feeding disorders across the lifespan. Additionally, while past Keystone Symposia conferences on the neuronal control of appetite have been heavily focused on the hypothalamic control of homeostatic feeding, this symposium will feature entire sessions devoted to brainstem and telencephalic control of feeding.

Plenary Session Topics:

- Neural Circuitry Underlying Feeding Behavior
- Workshop 1: Research Opportunities in Eating Disorders
- Genetic Disorders of Feeding and Energy Storage
- Anorexia Nervosa
- Neural Circuits Underlying Nausea, Emesis and Aversive Responses
- Telencephalic Control of Feeding Behavior
- Feeding Across the Lifespan
- Disease Cachexia (Joint)
- Workshop 2: Late-Breaking Topics from Abstracts
- Drug Discovery for Eating Disorders

Scholarship/Discounted Abstract Deadline: Oct 23, 2018; Abstract Deadline: Nov 8, 2018; Discounted Registration Deadline: Dec 11, 2018

Visit www.keystonesymposia.org/19J8 for more details.



KEYSTONE SYMPOSIA™
on Molecular and Cellular Biology
Accelerating Life Science Discovery
a 501(c)(3) nonprofit educational organization

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Functional Neurocircuitry of Feeding and Feeding Disorders (J8)

Scientific Organizers: Roger D. Cone, Lori M. Zeltser and Matthew R. Hayes

Sponsored by Novo Nordisk A/S

Obesity and Adipose Tissue Biology (J7)

Scientific Organizers: Matthias Blüher, Philipp E. Scherer and Anne Bouloumié

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SUNDAY, FEBRUARY 10

Arrival and Registration

MONDAY, FEBRUARY 11

Welcome and Keynote Address (J8)

Richard D. Palmiter, HHMI/University of Washington, USA
Neural Circuitry Underlying Feeding Behavior

Welcome and Keynote Address (J7)

Stanley Ulijaszek, Institute of Social and Cultural Anthropology,
University of Oxford, UK
Framing Obesity as a Problem

Neural Circuitry Underlying Feeding Behavior (J8)

Linda Rinaman, Florida State University, USA
Neural Circuits Linking Stress and Feeding

J. Nicholas Betley, University of Pennsylvania, USA
Circuits Regulating Nutritive Control of Feeding

Matthew R. Hayes, University of Pennsylvania, USA
Role of GLP-1 Signaling

Short Talk(s) Chosen from Abstracts

Drug Discovery/Development in Obesity (J7)

Matthias H. Tschöp, Helmholtz Zentrum München and Technische
Universität München, Germany
Chemical Biotechnology Applied to Metabolic Diseases

Nana Gletsu-Miller, Purdue University, USA
Treatment or Cure of Obesity by Surgery?

Alan R. Saltiel, University of California, San Diego, USA
Inflammation at the Crossroads of Obesity and Energy Homeostasis

Short Talk(s) Chosen from Abstracts

Workshop 1: Research Opportunities in Eating Disorders (J8)

Workshop 1: Targeting Brown Adipose Tissue for Obesity Treatment (J7)

Genetic Disorders of Feeding and Energy Storage (J8)

I. Sadaf Farooqi, University of Cambridge, UK
Genetics of Leanness

Herbert Herzog, Garvan Institute, Australia
Prader-Willi Syndrome

Atul Chopra, Case Western Reserve University, USA
Human Genetics Aided Discovery of a New Metabolic Hormone

Short Talk(s) Chosen from Abstracts

Brown/Beige/BRITE Fat Activation and Function (J7)

C. Ronald Kahn, Joslin Diabetes Center and Harvard Medical
School, USA

*Adipose Tissue MicroRNAs as Novel Adipokines in Regulation of
Metabolism*

Camilla Charlotte Schéele, University of Copenhagen, Denmark
The plasticity of human brown adipose tissue

Kirsi A. Virtanen, Turku University Hospital and University of Turku,
Finland

BAT - A Target of Future Weight Loss Strategies

Short Talk(s) Chosen from Abstracts

Poster Session 1

TUESDAY, FEBRUARY 12

Anorexia Nervosa (J8)

Janet Treasure, King's College London, UK
Understanding and treating Anorexia Nervosa

Walter Kaye, UC San Diego Health, USA
Are Eating Disorders Really Disorders of Eating?

Patrick Sullivan†, University of North Carolina, USA
Genetics of Anorexia Nervosa

Lori M. Zeltser, Columbia University, USA
Identifying Novel Therapeutic Targets For Anorexia Nervosa

Short Talk(s) Chosen from Abstracts

Adipose Tissue and Immune Cells (J7)

Anne Bouloumié, INSERM, France
The Adipose Tissue Immune Cells, Beyond Inflammation

Ruth E. Gimeno, Eli Lilly & Company, USA
New Therapeutic Approaches to Weight Loss and Glucose Control

Tim Julius Schulz, German Institute of Human Nutrition, Germany
*Deciphering the Adipocytic Lineage: Stem Cell Biology and
Regeneration*

Short Talk(s) Chosen from Abstracts

Neural Circuits Underlying Nausea, Emesis, and Aversive Responses (J8)

Bart C. De Jonghe, University of Pennsylvania, USA
Neurocircuitry of Nausea in Chemotherapy

Samuel N. Breit, St. Vincents Hospital, Australia
*The Role of the GDF15 in Pathway in Control of Appetite and Energy
Homeostasis*

Zachary Knight, University of California, San Francisco, USA
The Neurobiology of Hunger

Short Talk(s) Chosen from Abstracts

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Adipose Tissue Heterogeneity (J7)

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

Mechanisms of Adipose Tissue Dysfunction in Obesity

David B. Savage, University of Cambridge, UK
A Lipodystrophic Perspective on Insulin Resistance

Ellen E. Blaak, Maastricht University, Netherlands
Sex differences in adipose tissue metabolism and tissue-specific insulin resistance

Mikael Rydén, Karolinska Institutet, Sweden
Adipocyte Function and Development in Subcutaneous and Visceral Fat Depots

Short Talk(s) Chosen from Abstracts

Poster Session 2

WEDNESDAY, FEBRUARY 13

Telencephalic Control of Feeding Behavior (J8)

Benjamin R. Arenkiel, Baylor College of Medicine, USA
Forebrain Circuits Regulating Appetite Suppression

Scott E. Kanoski, University of Southern California, USA
Hippocampal control of feeding behavior

Mark L. Andermann, Beth Israel Deaconess Medical Center, USA
State-Specific Gating of Motivationally Salient Cues by Midbrain Dopaminergic Inputs to Basal Amygdala

Ivan E. de Araujo, Icahn School of Medicine at Mount Sinai, USA
Vagal Control of Brain Reward Systems

Short Talk(s) Chosen from Abstracts

Environment and Obesity (J7)

J. Andrew Pospisilik, Van Andel Institute, USA
Epigenetic and Obesity

Nathalie Delzenne, Université Catholique de Louvain, Belgium
Dealing with the Gut Microbiota in Obesity

Bruce A. Bunnell, Tulane University School of Medicine, USA
Endocrine Disruptors as a Cause of Obesity?

Kristen E. Boyle, University of Colorado School of Medicine, USA
Maternal Obesity and Offspring Adiposity: Clues from Umbilical Cord Mesenchymal Stem Cells

Short Talk(s) Chosen from Abstracts

Workshop 2: Brown Adipocyte Glucose Metabolism: A Heated Subject (J7)

Feeding Across the Lifespan (J8)

Sebastien G. Bouret, University of Southern California, USA
Regulatory Programs that Direct Development of Hypothalamic Circuits Regulating Food Intake

Kelly L. Klump, Michigan State University, USA

Developmental Differences in Neurobiological Risk Factors for Binge Eating across Adolescence: Evidence from Animal and Human Models

Susan Carnell, Johns Hopkins University, USA
Childhood Eating Behaviors

Short Talk(s) Chosen from Abstracts

How Can We Translate Novel Discoveries into Obesity Treatment? (J7)

Kevin L. Grove, Novo Nordisk, USA

Anti-Obesity Drug Development: The Potential and the Challenges

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

Adipose Tissue Derived Lipokines

Max Nieuwdorp, Academic Medical Center, University of Amsterdam, Netherlands

The Gut Microbiome – Tool or Target for Obesity Treatment?

Short Talk(s) Chosen from Abstracts

Poster Session 3

THURSDAY, FEBRUARY 14

Disease Cachexia (Joint)

Stefan D. Anker, Universitätsmedizin Berlin, Germany
Cardiac Cachexia

Bruce M. Spiegelman, Harvard Medical School, USA
Cachexia and Brown Fat

Daniel L. Marks, Oregon Health & Science University, USA
Neural Circuitry Mediating Cachexia

Roger D. Cone, University of Michigan, USA
Mechanism of the Melanocortin-3 Receptor in the Suppression of Cachexia

Short Talk(s) Chosen from Abstracts

Workshop 2: Late Breaking Topics from Abstracts (J8)

Short Talks Chosen from Abstracts

Clinical Obesity Management – Round Table Discussion (J7)

Matthias H. Tschöp, Helmholtz Zentrum München and Technische Universität München, Germany

Anti Obesity Drug Development

Matthias Blüher, University of Leipzig, Germany
New Emerging Treatment Tools

Short Talks Chosen from Abstracts

Drug Discovery for Eating Disorders (J8)

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Peter Kuehnen, Charité - Universitätsmedizin Berlin, Germany

Treatment of Monogenic Eating Disorders

Shamina M. Rangwala, Janssen, Johnson & Johnson, USA

GFRAL/GDF-15

Xinle Wu, Eli Lilly and Company, China

GFRAL/GDF-15

Short Talk Chosen from Abstracts

Adipose Tissue Microenvironment (J7)

Christoph Buettner, Mount Sinai School of Medicine, USA

Adipose Tissue Adaptive Thermogenesis

Catherine C. Muller, Institut de Pharmacologie et de Biologie

Structurale, France

Adipose Tissue and Cancer: A Dangerous Dynamic Duo

Steven E. Shoelson, Harvard Medical School, Joslin Diabetes

Center, USA

Adipose Tissue Microenvironment as Target of New Emerging

Therapies

Short Talk Chosen from Abstracts

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)
(J8)

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)
(J7)

FRIDAY, FEBRUARY 15

Departure