Sunday, September 21

12:00-14:00  Registration
14:00-14:30  Welcome

14:30-14:45  Opening Remarks
Matthias Tschöp, Research Director, Helmholtz Zentrum München
Randy Levinson, Senior Editor, Nature Medicine

14:45-16:00  Session 1: Lipid Signaling
Chair: Susanna Hofmann, Helmholtz Zentrum München

Daniele Piomelli, University of California at Irvine
A feeling of fat: How lipid signals control fat intake

Daniela Cota, INSERM Neurocentre Magendie, Bordeaux
New insights on the role of the endocannabinoid system in the regulation of energy balance

Wenxian Fu, University of California at San Diego
Immune regulation of the chronic inflammation in type 1 diabetes

16:00-16:30  Break

16:30-17:45  Session 2: Circadian Rhythm
Chair: Mathias Treier, Max Delbrück Center for Molecular Medicine, Berlin

Mitchell Lazar, University of Pennsylvania
Circadian transcriptional regulation of metabolism

Fredrik Bäckhed, University of Gothenburg
Beneficial effects on glucose metabolism following bariatric surgery requires an intact microbiota

Yazmin Macotela, National University of Mexico
Adipose tissue expansion and insulin resistance in obesity: Role of prolactin

Henriette Uhlenhaut, Helmholtz Zentrum München
The ups and downs of glucocorticoid receptor mediated gene regulation

17:45-18:15  Break

18:15-19:30  Session 3: Neuroscience
Chair: Frank Heppner, Charité University, Berlin

Tamas Horvath, Yale University
Central mitochondrial dynamics in glucose and lipid metabolism

William Mair, Harvard School of Public Health
Communicating longevity: Neuroendocrine regulation of aging and metabolism by CRTC-1
Yong Xu, Baylor College of Medicine
Hypothalamic steroid receptor co-activator-1 and obesity

20:00 Opening Party

Monday, September 22

08:30-09:00 Coffee

09:00-10:15 Session 4: Drug Development
Chair: Hans-Ulrich Häring, Helmholtz Zentrum München

Richard DiMarchi, University of Indiana
The search for a transformational advance in the therapy of insulin-dependent diabetes

Carolin Daniel, Helmholtz Zentrum München
Targeting Foxp3+ regulatory T cells in diabetes

Brian Finan, Helmholtz Zentrum München
Closing the gap between bariatric surgery and medicine with novel combinatorial pharmacology

Nicholas Morton, University of Edinburgh
Genetic selection for extreme low adiposity identifies a healthy leanness gene

10:15-10:45 Break

10:45-12:30 Session 5: Adipose Tissue Biology
Chair: Norbert Leitinger, University of Virginia

Phil Scherer, University of Texas Southwestern
An integrated view of the adipocyte: from feast to famine

C. Ronald Kahn, Joslin Diabetes Center
Effects of adipose tissue microRNAs on adipocyte function and systemic metabolism

Barbara Kahn, Beth Israel Deaconess Medical Center
Beneficial systemic effects of lipogenesis in adipose tissue

Rana Gupta, University of Texas Southwestern
Transcriptional control of preadipocyte determination and adipocyte hyperplasia in obesity

12:30-14:30 Lunch/Break

13:00-14:00 Scientific Round Table

14:30-15:30 Session 6: Clinical Insight
Chair: Sabrina Diano, Yale University

Sadaf Farooqi, University of Cambridge
Rare genetic variants in severe obesity - what have we learned?

Randy Seeley, University of Michigan
Adaptive responses of the GI tract to bariatric surgery
15:30-16:00 Break

16:00-17:00 Session 7: Mitochondrial Biology
Chair: Jens Brüning, University of Cologne

Matthew Hirschey, Duke University
Chemical modifications to mitochondrial proteins regulate metabolism

Marcelo Dietrich, Yale University
Organelle dynamics in the control of metabolism

Paul Gadue, University of Pennsylvania

17:00-17:30 Break

17:30-18:45 Session 8: Brown Fat Biology
Chair: Stephan Herzig, DKFZ – University of Heidelberg

Yu Hua Tseng, Joslin Diabetes Center
Deciphering brown adipogenesis from a progenitor and inductive cue perspective

Shingo Kajimura, University of California at San Francisco
Pharmacological approaches to induce brown and beige adipocyte development

Patrick Seale, University of Pennsylvania
Transcriptional control of brown and beige fat cell identity

Qin Yang, University of California at Irvine
A novel methyltransferase that regulates energy expenditure and adiposity

20:00 Speaker’s Dinner (Plenary Speakers, HeIDi nominees, HeIDi Award Committee and invited guests)

Munich city tours (optional event for conference attendees)

Tuesday, September 23

08:30-09:00 Coffee

09:00-10:00 Session 9: Molecular Insights into Beta Cell Biology
Chair: Heiko Lickert, Helmholtz Zentrum München

Markus Stoffel, Swiss Federal Institute of Technology Zurich
Regulation of pancreatic b-cell function, proliferation and apoptosis by miRNA networks

Doris Stoffers, University of Pennsylvania
Mining the Pdx1 cistrome for new pathways in the beta cell

10:00-10:30 Break

10:30-11:30 Session 10: Cellular Insights into Beta Cell Biology
Chair: Kathrin Mädler, University of Bremen

Vishva Dixit, Genentech
The E3 ligase COP1 regulates ETV transcription levels in beta-cells and plays a prominent role in insulin secretion and diabetes
**Susan Bonner-Weir, Joslin Diabetes Center**
Can an endogenous source be used for beta cell replacement therapy?

11:30-13:00 Lunch/Break

13:00-14:30 **Session 11: Type 1 Diabetes**
Chair: Anette-Gabriele Ziegler, Helmholtz Zentrum München

**Diane Mathis, Harvard University**
Regulation of the progression of T1D

**Emil Unanue, Washington University**
Cells and genes in the initiation of autoimmune diabetes

**Matthias von Herrath, La Jolla Institute of Allergy and Immunology and NovoNordisk T1D R&D Center**
Is autoreactivity primary or secondary in ‘autoimmune’ diabetes?

14:30-15:00 Break

15:00-16:15 **The Helmholtz Diabetes Lecture**
Introduction by Dr. Günther Wess, CEO and President of Helmholtz Zentrum München

**Jeffrey Friedman, The Rockefeller University**
To eat or not to eat: Studies of a complex motivational behavior

16:15-16:45 **HelDi Award Presentation**
Matthias Tschöp, Research Director, Helmholtz Zentrum München
Randy Levinson, Senior Editor, *Nature Medicine*

16:45-17:00 **Closing Remarks**
Matthias Tschöp, Research Director, Helmholtz Zentrum München
Randy Levinson, Senior Editor, *Nature Medicine*

18:00-22:00 Oktoberfest Party (for invited guests only)