



3rd International Symposium of the CRC 1052 „Obesity Mechanisms“

September 2-4, 2024
Felix-Klein lecture hall
at Leipzig University

Image: Matthias Blüher

Symposium Speakers:

Keynote: C. Ronald Kahn, Joslin Diabetes Center, Harvard Medical School

Anja Bosy-Westphal	Stephan Herzig	Søren Nielsen	Philipp Scherer	Matthias Tschöp
Andreas Birkenfeld	Tamas Horvath	Assaf Rudich	Iris Shai	Siegfried Ussar
Tobias Fromme	Peter Kühnen	Mikael Ryden	Arya Sharma	Christian Wolfrum
Julia Goedecke	Manfred Müller	Camilla Scheele	Raffaele Teperino	

Scientific Sessions:

1. Obesity mechanisms
2. Brain - Periphery crosstalk
3. Targeting obesity mechanisms
4. Adipokines - signals from adipose tissue
5. Consequences of obesity
6. Genetics and epigenetics of obesity
7. Obesity research future directions
8. Adipose tissue dysfunction

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Monday, September 2nd, 2024

10:00–11:30 Arrival and Registration

11:30–13:00 Lunch Time Snack

13:00–13:30 **Welcome:**
Prof. Jens-Karl Eilers, Prorector of Leipzig University
Prof. Ingo Bechmann, Dean of Medical Faculty
Prof. Matthias Blüher, Spokesperson of the CRC 1052

13:30–15:30 **Session 1: Obesity mechanisms**
Chairs: Michael Stumvoll & Matthias Blüher

13:30–14:10 **Prof. Christian Wolfrum**, Department of Health Sciences and Technology, ETH Zürich, Switzerland
Substrate mediated regulation of adipose tissue and liver lipid metabolism

14:10–14:50 **Prof. Annette Beck-Sickinger**, Institute of Biochemistry, Faculty of Life Sciences, Leipzig University, Germany
Peptides in Obesity- From Structure to Application

14:50–15:30 **Prof. Manfred Müller**, Institute of Human Nutrition and Food Science, Christian-Albrechts-Universität zu Kiel, Germany
Changes in body composition and homeostatic control of resting energy expenditure during dietary weight loss

15:30–16:00 Coffee Break

16:00–18:00 **Session 2: Brain – Periphery Crosstalk**
Chairs: Siegfried Ussar & Iris Shai

16:00–16:40 **Prof. Tamas Horvath**, Department of Comparative Medicine, Yale University School of Medicine, USA
Hunger Drives Life

16:40–17:20 **PD Dr. Veronica Witte**, Cognitive Neurology, University Leipzig Medical Center & Max Planck Institute for Human Cognitive and Brain Science, Leipzig, Germany
Targeting the gut microbiome to improve brain functions

18:00–... Poster Session & Snacks





Tuesday, September 3rd, 2024

9:00–10:30	Session 3: Targeting obesity mechanisms Chairs: Peter Kovacs & Antje Körner
9:00–9:30	Prof. Iris Shai , Ben Gurion University, Israel; Harvard University, USA and Leipzig University, Germany Can We Identify Signs of Anti-Aging Through Lifestyle Interventions?
9:30–10:00	Prof. Mikael Ryden , Karolinska Institutet and the Karolinska University Hospital, Stockholm, Sweden The central role of adipocytes in governing adipose tissue function and metabolic health
10:00–10:30	Prof. Arya Sharma , Professor Emeritus, Department of Medicine, University Alberta, Edmonton, Canada What can Obesity Medicine Learn From Diabetes?
10:30–11:00	Coffee Break
11:00–12:30	Session 4: Adipokines – signals from adipose tissue Chairs: Kathrin Landgraf & John Heiker
11:00–11:30	Prof. Julia Goedecke , Biomedical Research and Innovation Platform, South African Medical Research Council, Cape Town, South Africa Obesity mechanisms: perspectives from Africa
11:30–12:00	Prof. Andreas Birkenfeld , Klinik für Diabetologie, Endokrinologie und Nephrologie, Universitätsklinikum Tübingen, Germany Prediabetes Remission, Weight Loss and Visceral Adipose Tissue
12:00–12:30	PD Dr. Tobias Fromme , Molecular Nutritional Medicine, Technical University of Munich, Germany Paracrine fibroblast growth factors shape preadipocyte subpopulation and fate
12:30–13:00	Poster Award Ceremony
13:00–14:00	Lunch
14:00–14:45	Keynote Lecture Chairs: Matthias Blüher
	Prof. C. Ronald Kahn , Joslin Diabetes Center, Harvard Medical School, USA Insulin Action, Insulin Resistance and Adipose Tissue Secreted Exosomal miRNAs





14:45–16:15 **Session 5: Consequences of obesity**
Chairs: Veronica Witte & Kerstin Krause

14:45–15:15 **Dr. Siegfried Ussar**, Research Unit Adipocytes & Metabolism (ADM), Helmholtz Diabetes Center, Helmholtz Munich, Germany
Insulin and IGF2 action in context of adipose (dys-)function

15:15–15:45 **Prof. Stephan Herzig**, Helmholtz Diabetes Center and Institute for Diabetes and Cancer, Munich, Germany
Liver and Metabolic Complications

15:45–16:15 **Prof. Anja Bosy-Westphal**, Faculty of Agricultural and Nutritional Sciences of Kiel University, Christian-Albrechts-Universität zu Kiel, Germany
Impact of a high protein ultra-processed food on energy balance and energy partitioning

16:15–16:45 **Coffee Break**

16:45–18:15 **Session 6: Genetics and epigenetics of obesity**
Chairs: Diana LeDuc & Torsten Schöneberg

16:45–17:15 **Prof. Camilla Scheele**, NNF Center for Basic Metabolic Research, University of Copenhagen, Denmark
Clinical Phenotypes and Molecular Patterns of Brown Adipose Tissue

17:15–17:45 **Dr. Raffaele Teperino**, Environmental Epigenetics, Institute of Experimental Genetics, Helmholtz Munich, Germany and German Center for Diabetes Research
Paternal influence on offspring health: a touch for life

17:45–18:15 **Prof. Peter Kühnen**, Department of Pediatric Endocrinology, Charité - Universitätsmedizin Berlin, Germany
POMC DNA methylation variability at the metastable epiallele region and the associated risk to develop obesity

19:00-... **CRC Event Dinner – Moritzbastei**





Wednesday, September 4th, 2024

9:00–10:45 **Session 7: Obesity research future directions**
Chairs: Michael Stumvoll & Assaf Rudich

9:00–9:35 **Prof. Matthias Tschöp**, Helmholtz Munich and Technical University of Munich, Germany
Overcoming Obesity—The Discovery of Multi Receptor Drugs

9:35–10:10 **Prof. Philipp Scherer**, Touchstone Diabetes Center, University of Texas Southwestern Medical Center, Dallas, USA
Understanding the Physiology of Adipose Tissue: More Important than Ever Before

10:10–10:45 **Prof. Antje Körner**, Department of Pediatrics, Faculty of Medicine, Leipzig University, Germany & HI-MAG Munich, Germany
Adipogenic Hits on Kids

10:45–11:15 **Coffee Break**

11:15–13:15 **Session 8: Adipose tissue dysfunction**
Chairs: Anke Tönjes & Matthias Blüher

11:15–11:55 **Dr. Søren Nielsen**, Centre for Physical Activity Research, Copenhagen, Denmark
Uncovering Novel Transcripts in Human Brown Adipose Tissue using Long-Read RNA Sequencing technology

11:55–12:35 **Prof. Assaf Rudich**, Department of Clinical Biochemistry and Pharmacology, Ben-Gurion University of the Negev, Beer-Sheva, Israel
Age, and the adipo-neuro inflammatory response to weight loss and cycling

12:35–13:15 **Prof. Martin Gericke**, Institute of Anatomy, Faculty of Medicine, Leipzig University, Germany
The role of macrophages in adipocyte degradation

13:15–14:15 **Lunch & Farewell**

