



## **CPH BAT 2022 International Conference**

The heterogeneity and plasticity of adipose tissue

May 30 - June 3, 2022

Comwell Copenhagen Portside,  
Copenhagen, Denmark

*Organized by Rigshospitalet and University of Copenhagen*

*Scientific Committee: Camilla Scheele, Søren Nielsen,  
Zachary Gerhart-Hines and Bente Klarlund Pedersen*

## MAY 30 PRE-CONFERENCE - MONDAY

17.30 – 19.00 Arrival drinks, snacks and registration

## MAY 31 DAY 1 - TUESDAY

08.15 – 08.45 REGISTRATION AND COFFEE

08.45 – 09.00 Welcome (Camilla, Søren, Zach and Bente)

KEYNOTE LECTURE *Chair: TBA*

09.00 – 10.00 Development and function of human thermogenic adipose tissue  
Silvia Corvera (USA)

10.00 – 10.30 *Coffee*

SESSION 1 *Chair: TBA*

10.30 – 11.00 Title TBA  
Søren Nielsen (DK)

11.00 – 11.30 Evolving views of thermogenic adipose tissue: inter-cellular and inter-organ communications  
Yu-Hua Tseng (USA)

SHORT TALKS:

11.30 – 11.45 Short Talk TBA  
TBA

11.45 – 12.00 Short Talk TBA  
TBA

12.00 – 13.00 *Lunch*

SESSION 2 *Chair: TBA*

13.00 – 13.30 Mechanisms Underlying the Protective Effects of Brown Fat in Cardiometabolic Disease  
Paul Cohen (USA)

- 13.30 – 14.00      Plasticity and brown adipose tissue  
Barbara Cannon (SWE)
- 14.00 – 14.30      *Coffee*
- SESSION 3            Chair: TBA
- 14.30 – 15.00      Known and Novel Roles of  $\beta$ 3-Adrenergic Receptors in  
Human Physiology, Adipose and Otherwise  
Aaron Cypess (USA)
- 15.00 – 15.30      Novel regulators of human brown adipose tissue activation  
Roland Stimson (UK)
- 15.30 – 16.00      *Fresh air break*
- SESSION 4            Chair: TBA
- 16.00 – 16.30      Leveraging the thermogenic fat-brain axis  
to counteract metabolic disease  
Zach Gerhart-Hines (DK)
- 16.30 – 17.00      Adipocytes of different color regulating energy metabolism  
Christian Wolfrum (CH)
- 17.00 – 18.30      *Poster session and Networking*
- 18.30 –                *Speakers' Dinner*

## JUNE 1                DAY 2 - WEDNESDAY

- SESSION 5            Chair: TBA
- 09.00 – 09.30      UCP1 and brown fat bioenergetics  
Jan Nedergaard (SWE)
- 09.30 – 10.00      Brown adipose tissue in humans:  
from therapeutic target to canary in the coal mine  
Denis Blondin (CAN)
- 10.00 – 10.30      *Coffee*

SESSION 6	<i>Chair: TBA</i>
10.30 – 11.00	How and when UCP1 sparked fire Martin Jastroch (SWE)
11.00 – 11.30	CRISPR-enhanced adipocyte browning as therapeutic strategy Michael Czech (USA)
	SHORT TALKS:
11.30 – 11.45	Short talk TBA TBA
11.45 – 12.00	Short talk TBA TBA
12.00 – 13.00	<i>Lunch</i>
SESSION 7	<i>Chair: TBA</i>
13.00 – 13.30	Role of BAT in lipoprotein metabolism: from mice to humans Patrick Rensen (NL)
13.30 – 14.00	Eating induced changes in hBAT function Kirsi Virtanen (FIN)
14.00 – 14.30	<i>Coffee</i>
SESSION 8	<i>Chair: TBA</i>
14.30 – 15.00	Atypical opsin light sensing pathways and regulation of metabolism Richard Lang (USA)
15.00 – 15.30	Biology of Lipid Droplet-Bound Mitochondria: Cell-Free Reconstitution of Mitochondria-Lipid Droplet Attachment & Detachment Orlan S Shirihai (USA)
15.30 – 16.00	<i>Fresh air break</i>

SESSION 9	<i>Chair: TBA</i>
16.00 – 16.30	Impact of thermogenic adipocytes on diet-induced obesity Martin Klingenspor (DE)
16.30 – 17.00	Mesenchymal progenitor cells and adipocyte development Patrick Seale (US)
17.00 – 18.30	<i>Poster session and Networking</i>
18.30 -	Dinner on own

## JUNE 2 DAY 3 - THURSDAY

SESSION 10	<i>Chair: TBA</i>
09.00 – 09.30	Endocrine Regulation of Energy Expenditure Gregory Steinberg (CAN)
09.30 – 10.00	Mechanisms of beige fat biogenesis Shingo Kajimura (USA)
10.00 – 10.30	<i>Coffee</i>
SESSION 11	<i>Chair: TBA</i>
10.30 – 11.00	Mechanisms of BAT regression in obesity Antonio Vidal-Puig (UK)
11.00 – 11.30	Novel alternatives to beta adrenergic activation of brown fat Alexander Pfeifer (DE)
	SHORT TALKS:
11.30 – 11.45	Short talk TBA TBA
11.45 – 12.00	Short talk TBA TBA
12.00 – 13.00	<i>Lunch</i>

SESSION 12	<i>Chair: TBA</i>
13.00 – 13.30	Adipocyte heterogeneity in human white adipose tissue Kirsty Spalding (SWE)
13.30 – 14.00	The Many Faces of the Adipocyte Philipp Scherer (USA)
14.00 – 14.30	<i>Coffee</i>
SESSION 13	<i>Chair: TBA</i>
14.30 – 15.00	Some novel aspects on white adipose tissue heterogeneity Mikael Rydén (SWE)
15.00 – 15.30	Mechanisms of brown adipose tissue degeneration Jörg Heeren (DE)
15.30 – 15.45	Concluding remarks and introduction to career event
15.45 – 16.00	Stretching legs
	<b>Career event</b>
16.00 – 16.30	Vaida Bankauskaite, MD, PhD LS4 Panel coordinator: Physiology in Health, Disease and Ageing: Important Insights in ERC Funding schemes
16.30 – 18.00	Scientific mingle with: <ul style="list-style-type: none"><li>• Prof. Dr. Jens Brüning, <i>Director and Scientific Member at the Max Planck Institute for Metabolism Research.</i></li><li>• Dr. Isabella Samuelson, <i>Editor at Nature Metabolism</i></li><li>• Dr. Kristan van der Vos, <i>Editor at Cell Reports Medicine</i></li><li>• Dr. George Caputa, <i>Editor at Nature</i></li></ul>
19.00 –	<i>Conference Dinner</i>

JUNE 3

DAY 4 - FRIDAY

DEPARTURE

**Organizing team:**

Søren Nielsen, Camilla Scheele,  
Zach Gerhart-Hines, Bente Klarlund Pedersen,  
Emil Toft, Inge Holm

**Conference Secretary:**

Emil Toft

[cfas-events.rigshospitalet@regionh.dk](mailto:cfas-events.rigshospitalet@regionh.dk)

tel.: 0045 35 45 08 98

## SPEAKERLIST:

### **Aaron Cypess**

NIH, National Institute of Diabetes and Digestive and Kidney Diseases, USA

### **Alexander Pfeifer**

Bonn International Graduate School of Neuroscience, Germany

### **Antonio Vidal-Puig**

University of Cambridge, Wellcome-MRC Institute of Metabolic Science-Metabolic Research Laboratories and Medical Research Council Metabolic Diseases Unit, UK

### **Barbara Cannon**

Department of Molecular Biosciences, The Wenner-Gren Institute, Stockholm University, Sweden

### **Christian Wolfrum**

ETH Zürich, Department of Health Science and Technologies, Switzerland

### **David Nicholls**

Buck Institute for Research on Aging, USA

### **Denis Blondin**

Université de Sherbrooke, Canada

### **George Caputa**

Associate Editor, Nature, Germany

### **Gregory Steinberg**

McMaster University, Canada

### **Isabella Samuelson**

Associate Editor, Nature Metabolism, Nature Research

### **Jan Kornfeldt**

University of Southern Denmark, Denmark

### **Jan Nedergaard**

Department of Molecular Biosciences, The Wenner-Gren Institute, Stockholm University, Sweden

### **Jens Brüning**

Max Planck Institute for Metabolism Research, Cologne, Germany

### **Jörg Heeren**

Department of Biochemistry and Molecular Cell Biology, University Medical Center Hamburg-Eppendorf, Germany

### **Kirsi Virtanen**

University of Turku, Finland



**Kirsty Spalding**

Karolinska Institutet, Department of Cell and Molecular Biology, Sweden

**Kristan van der Vos**

Scientific Editor, Cell Reports Medicine, Netherlands

**Martin Jastroch**

Department of Molecular Biosciences, The Wenner-Gren Institute, Stockholm University, Sweden

**Martin Klingenspor**

School of Life Sciences Weihenstephan, Technical University of Munich, Germany

**Michael Paul Czech**

University of Massachusetts Medical School, USA

**Mikael Rydén**

Karolinska Institutet, Sweden

**Orian S. Shirihai**

Department of Medicine (Endocrinology), David Geffen School of Medicine at UCLA, USA

**Patrick Rensen**

Leiden University Medical Center, Netherlands

**Patrick Seale**

Institute for Diabetes, Obesity and Metabolism, University of Pennsylvania, Canada

**Paul Cohen**

The Rockefeller University, USA

**Philipp E. Scherer**

Touchstone Diabetes Center, University of Texas Southwestern Medical Center, USA

**Richard Lang**

Cincinnati Children's Hospital Medical Center, Division of Pediatric Ophthalmology and Division of Developmental Biology, USA

**Roland Stimson**

University/BHF Centre for Cardiovascular Science, University of Edinburgh, UK

**Shingo Kajimura**

Howard Hughes Medical Institute, Beth Israel Deaconess Medical Center Harvard Medical School, USA

**Silvia Corvera**

Molecular Medicine Program, University of Massachusetts Chan Medical School, USA

**Søren Nielsen**

Trygfondens Centre for Physical Activity Research, Rigshospitalet, Denmark

**Vaida Bankauskaite**

European Research Council Executive Agency, Belgium

**Yu-Hua Tseng**

Joslin Diabetes Center, Harvard Medical School, USA

**Zachary Gerhart Hines**

Novo Nordisk, Center for Basic Metabolic Research, Denmark

**ORGANIZERS:**

**Bente Klarlund Pedersen**

Trygfondens Centre for Physical Activity Research, Rigshospitalet, Denmark

**Camilla Charlotte Scheele**

Trygfondens Centre for Physical Activity Research, Rigshospitalet, Denmark

**Emil Toft**

Trygfondens Centre for Physical Activity Research, Rigshospitalet, Denmark

**Inge Holm**

Trygfondens Centre for Physical Activity Research, Rigshospitalet, Denmark

**Søren Nielsen**

Trygfondens Centre for Physical Activity Research, Rigshospitalet, Denmark

**Zachary Gerhart Hines**

Novo Nordisk, Center for Basic Metabolic Research, Denmark