



Neuroscience
Academy Denmark



Danish Diabetes and
Endocrine Academy

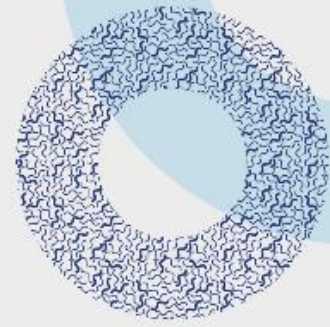
Neuroendocrine Control of Energy Metabolism

Symphony of Signals:
Body-Brain Interactions in
Stereo

30-31 May 2024

University of Copenhagen
Haderup and Jerne auditoriums
Blegdamsvej 3B
DK-2200 Copenhagen N

Session overview



Day 1

Thursday 30 May (Haderup Auditorium)

Session I

Obesity Pathogenesis & Solutions – Will Obesity Still be a Problem in 10 Years?

Poster Session

Poster Pitches & Presentations: PP 1-32

Session IB

Neuroendocrine Control of Body Weight and Beyond

Session II

Type 2 Diabetes & Obesity – Is There a Role for the Brain?

Day 2

Friday 31 May (Jerne Auditorium)

Session III

Central Control of Peripheral Metabolism & Energy Homeostasis

Session IV

Short Talks Selected from Submitted Abstracts

Session V

Endocrine Control of Energy Homeostasis

Thursday 30 May

Haderup Auditorium

08:30-09:30 Registration, light breakfast & mounting of posters

09:30-09:50 Welcome and introduction

Education and Networking Coordinator **Pernille Bruun Nielsen**, Danish Diabetes and Endocrine Academy (DK) & Executive Director **Nicolas Caesar Petersen**, Neuroscience Academy Denmark (DK),

Professor **Jan-Wilhelm Kornfeld**, University of Southern Denmark (DK), Associate Professor **Christoffer Clemmensen**, University of Copenhagen (DK) & Professor **Tune Pers**, University of Copenhagen (DK)

09:50-10:00 Meet & greet

Session I **Obesity Pathogenesis & Solutions – Will Obesity Still be a Problem in 10 Years?**

Chair: Professor **Henriette Kirchner**, University of Lübeck (DE)

10:00-10:20 Mapping the Feeding Circuitry in the Human Brain

Professor **Giles Yeo**, University of Cambridge (UK)

10:20-10:30 Questions & answers

10:30-10:50 Incretin-based Treatment of Obesity

Professor **Jens Juul Holst**, University of Copenhagen (DK)

10:50-11:00 Questions & answers

11:00-11:30 Coffee break & preview posters

**Poster
Session**

Chair: Professor **Nils Færgeman**, University of Southern Denmark and Chair of Committee for Education, Danish Diabetes and Endocrine Academy (DK)

11:30-12:05 Poster pitches: PP 1-32

12:05-13:45 Posters & lunch
12:10-12:55: Odd numbers
12:55-13:40: Even numbers

Session IB Neuroendocrine Control of Body Weight and Beyond

Chairs: Professor **Kate Lykke Lambertsen**, University of Southern Denmark (DK) &
Professor **Henrik Oster**, University of Lübeck (DE)

13:45-14:05 Long-acting GLP-1 Receptors Agonists Effects in the Brain
Chief Scientific Advisor **Lotte Bjerre Knudsen**,
Novo Nordisk (DK)

14:05-14:15 Questions & answers

14:15-14:35 Oral Contraceptive Exposure Alters Brain Energy Metabolism
and Exacerbates Ischemic Stroke Injury in Female Rats
Associate Professor **Ami Raval**, University of Miami (US)

14:35-14:45 Questions & answers

14:45-15:15 Coffee break & networking at posters

15:15-15:35 A Striatal - Lateral Hypothalamic Circuit in Control of Glucose
Metabolism
Professor **Susanne la Fleur**, University of Amsterdam (NL)

15:35-15:45 Questions & answers

Session II Type 2 Diabetes & Obesity – Is There a Role for the Brain?

Chairs: Professor **Tune Pers**, University of Copenhagen (DK) & Associate Professor **Christoffer Clemmensen**, University of Copenhagen (DK)

15:45-16:05 They Day After: Weight Management by Leptin Resensitization
Professor **Paul Pfluger**, Helmholtz Munich (DE)

16:05-16:15 Questions & answers

16:15-16:30 Energizer

16:30-16:50 Decoding the Obese Brain: A Matter of Cell Identity?
Principal Investigator **Carmelo Quarta**, INSERM (FR)

16:50-17:00 Questions & answers

17:00-17:15 Poster awards & concluding remarks of the day

17:15-17:50 Networking & wine at posters

18:30-21:00 Symposium dinner
Restaurant Roberta
Sortedams Dossering 3
2200 Copenhagen

Friday 31 May

Jerne Auditorium

08:00-08:30 Coffee, tea & light breakfast

08:30-08:40 Welcome back

Session III **Central Control of Peripheral Metabolism & Energy Homeostasis**

Chair: Professor **Jan-Wilhelm Kornfeld**, University of Southern Denmark (DK)

08:40-09:00 Sympathetic Nervous System Regulation of Brown Adipose Tissue Function

Professor **Lori Zeltser**, Columbia University, New York (US)

09:00-09:10 Questions & answers

09:10-09:30 Adipose Tissue Inter-Organ Crosstalk in Health and Disease: From Adipose Tissue to the Brain and Back

Professor **Philipp Scherer**, University of Texas Southwestern Medical Center (US)

09:30-09:40 Questions & answers

09:40-10:10 Coffee break & networking at posters

Session IV **Short Talks Selected from Submitted Abstracts**

Chairs: Associate Professor **Kim Ravnskjær**, University of Southern Denmark (DK) & Associate Professor **Lars Grøntved**, University of Southern Denmark (DK)

- 10:10-10:20 Carbon Dioxide Inhibits Brown Fat Thermogenesis in a Cerebrovascular Reactivity-susceptible Manner
PhD Student **Dorothea Ziemens**, University of Lubeck (DE)
- 10:20-10:25 Questions & answers
- 10:25-10:35 Adipose Tissue Retains an Epigenetic Memory of Obesity that Persists After Weight Loss
Postdoctoral Fellow **Laura Hinte**, ETH Zürich (CH)
- 10:35-10:40 Questions & answers
- 10:40-10:50 Food Insecurity Influences Feeding Behaviour and Energy Metabolism in Mice and Their Offspring
PhD Student **Cláudia Gil**, University of Copenhagen (DK)
- 10:50-10:55 Questions & answers
- 10:55-11:05 Energizer
- 10:05-11:15 Delineating Leptin Regulated Hypothalamic Feeding Circuits with Single Cell Transcriptomics
Postdoctoral Fellow **Dylan M. Rausch**, University of Copenhagen (DK)
- 11:15-11:20 Questions & answers
- 11:20-11:30 Menstrual Cycle Modulates the Brain's Response to Central Insulin and Food Cues
Professor **Stephanie Kullmann**, University of Tübingen (DE)
- 11:30-11:35 Questions & answers
- 11:35-11:45 Maternal Thyroid Hormone Receptor β Activation Reprograms Offspring's BAT Thermogenesis and Glucose Tolerance
Junior Group Leader Dr. **Rebecca Ölkrug**, University of Lübeck (DE)
- 11:45-11:50 Questions & answers

11:50-12:50 Lunch at posters

Session V Endocrine Control of Energy Homeostasis

Chair: Associate Professor **Emma Börjeson**, Steno Diabetes Center Aarhus, Aarhus University (DK)

12:50-13:10 Extracellular Vesicles: Novel Players in Metabolic Diseases

Professor **Kerstin Stemmer**, University of Augsburg (DE)

13:10-13:20 Questions & answers

13:20-13:40 GDF15 Emerging Biology and Potential Therapeutic Implications for Obesity

Professor **Gregory Steinberg**, McMaster University (CA)

13:40-13:50 Questions & answers

13:50-14:00 Concluding remarks & farewell

Organising Committee Scientific Programme

Christoffer Clemmensen, Associate Professor, Group leader, Novo Nordisk Foundation Center for Metabolic Research, University of Copenhagen (DK)

Emma Börgeson, Associate Professor, Group leader, Steno Diabetes Center Aarhus, Aarhus University (DK)

Henriette Kirchner, Professor, Group leader, Institute for Human Genetics, Center of Brain, Behavior and Metabolism, University of Lübeck (DE)

Henrik Oster, Professor, Institute Director, Lübeck Institute of Neurobiology, Center of Brain, Behavior and Metabolism, University of Lübeck (DE)

Jan-Wilhelm Kornfeld, Professor, Group leader, Department of Biochemistry and Molecular Biology, University of Southern Denmark (DK)

Jens Mittag, Professor, Head of Institute, Institute of Endocrinology and Diabetes, Center of Brain, Behavior and Metabolism, University of Lübeck (DE)

Kate Lykke Lambertsen, Professor, Group leader, Department of Molecular Medicine, University of Southern Denmark (DK)

Kim Ravnskjær, Associate Professor, Group leader, Department of Biochemistry and Molecular Biology, University of Southern Denmark (DK)

Lars Grøntved, Associate Professor, Group leader, Department of Biochemistry and Molecular Biology, University of Southern Denmark (DK)

Nils J. Færgeman, Professor, Group leader, Department of Biochemistry and Molecular Biology, University of Southern Denmark and Chair of Committee for Education, Danish Diabetes and Endocrine Academy (DK)

Tune H. Pers, Professor, Group leader, Novo Nordisk Foundation Center for Metabolic Research, University of Copenhagen (DK)

This symposium is organised by the Neuroscience Academy Denmark (NAD) and the Danish Diabetes and Endocrine Academy (DDEA) to ultimately lead to more interdisciplinary research and training activities.



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