The 4th August Krogh Symposium:

Rising Stars in Physiology

28-29 November 2019

Venue:

The Royal Danish Academy of Sciences and Letters
H.C. Andersens Boulevard 35, Copenhagen, Denmark

Organized by the August Krogh Club
Symposium program

Thursday 28 November

08:30–09:00 Arrival, registration and coffee

09:00–09:15 Welcome speech

Professor Jørgen F.P. Wojtaszewski, University of Copenhagen, Denmark

Session 1: Chairs Rasmus Kjøbsted and Nils Færgeman

09:15–09:45 Applications of beta2-agonists - from obesity to athletes

Associate Professor Morten Hostrup, Integrative Physiology Group, Department of Nutrition, Exercise and Sports, University of Copenhagen, DK

09:45–10:15 Deciphering tissue cross talk during exercise

Senior Lecturer Martin Whitham, School of Sport Exercise & Rehabilitation Sciences, University of Birmingham, UK

10:15–10:45 Regulation of glucagon secretion – a metabolic perspective

Assistant Professor Jakob Grunnet Knudsen, Section for Cell Biology and Physiology, Department of Biology, University of Copenhagen, DK

10:45–11:15 Coffee break

Session 2: Chairs Jens Frey Halling and Glenn McConell

11:15–11:45 Vascular function in health and disease – the beauty and the beast

Assistant Professor Lasse Gliemann, Integrative Physiology Group, Department of Nutrition, Exercise and Sports, University of Copenhagen, DK

11:45–12:15 Controlling arterial tone – the role of the microtubule network

Assistant Professor Thomas Qvistgaard Jepps, Vascular Research Group, Department of Biomedical Science, University of Copenhagen, DK

12:15–13:30 Lunch
Session 3: Chairs Jonas R. Knudsen and Jørgen Jensen

13:30–14:00 All singing, all-dancing: The embodied motor control of vocal behavior
Associate Professor Coen Elemans, Sound Communication Group, Department of Biology, University of Southern Denmark, DK

14:00–14:30 Subcellular compartmentalization of energy stores in muscle
Associate Professor Joachim Nielsen, Department of Sport Science and Clinical Biomechanics, University of Southern Denmark, DK

14:30–15:00 Decoding the homeostatic mechanisms of body weight regulation: Implications for obesity treatment
Associate Professor Christoffer Clemmensen, Novo Nordisk Foundation Center for Basic Metabolic Research, Faculty of Health and Medical Sciences, University of Copenhagen, DK

15:00–15:30 Coffee break

Session 4: Chairs Trisha Grevengoed and Zachary Gerhart-Hines

15:30–16:00 Phosphoproteomics reveals global rewiring of adipocyte insulin signalling in insulin resistance
MRC Career Development Fellow Daniel Fazakerley, Institute of Metabolic Science – Metabolic Research Laboratories, Department of Clinical Biochemistry, University of Cambridge, AUS

16:00–16:30 Mitochondrial redox control over health and disease
Assistant Professor Edward Chouchani, Harvard Medical School/Dana-Farber Cancer Institute, US

16:30–16:40 Final remarks

17:15–17:30 Walk to the National Museum of Denmark, Ny Vestergade 10, 1471 Copenhagen

17:30–18:45 Guided tour at the National Museum of Denmark (Viking exhibition)

19:00–21:30 Dinner at National Museum of Denmark
**Friday 29 November**

09:00–09:15 Good morning

**Session 5:** Chairs Janne Rasmus Hingst and Atul Deshmukh

09:15–09:45 **Exercise response variation in type 2 diabetes: a clinical outcome with epigenetic underpinnings**

Lauren Sparks, Investigator, Translational Research Institute for Metabolism & Diabetes at AdventHealth, Florida, US

09:45–10:15 **RabGAPs in exercise physiology**

Dr. Alexandra Chadt, German Diabetes Center, Leibniz-Center for Diabetes Research, Heinrich-Heine University Düsseldorf, GE

10:15–10:45 **NextGen proteome-wide systems genetics to interrogate metabolism**

Senior Research Fellow Benjamin Parker, Department of Physiology, Faculty of Medicine Dentistry and Health Sciences, The University of Melbourne, AUS

10:45–11:15 Coffee break

**Session 6:** Chairs Anders Gudiksen and Helga Ellingsgaard

11:15–11:45 **Novel Mechanisms for Maternal Exercise to Improve Offspring Health**

Assistant Professor Kristin Stanford, Davis Heart and Lung Research Institute, The Ohio State University Wexner Medical Center, US

11:45–12:15 **The human brown fat secretome and the potential of batokines in metabolic crosstalk**

Associate Professor Camilla Schéele, Novo Nordisk Foundation Center for Basic Metabolic Research, Faculty of Health and Medical Sciences, University of Copenhagen, DK

12:15–13:30 Lunch
Session 7: Chairs Nina Brandt and Thomas E. Jensen

13:30–14:00 **Role of NAMPT and NAD+ precursors for metabolic health and disease**

   Associate Professor Jonas T Treebak, Novo Nordisk Foundation Center for Basic Metabolic Research, Faculty of Health and Medical Sciences, University of Copenhagen, DK

14:00–14:30 **Microvascular Oxygen Transport and Regulation**

   Assistant Professor Graham Fraser, Cardiovascular Sciences, Division of BioMedical Sciences, Memorial University of Newfoundland, CA

14:30–15:00 **Metabolic programming by the skeletal muscle circadian clock**

   Postdoc Kenneth Dyar, Molecular Endocrinology, Institute for Diabetes and Cancer, Helmholtz Zentrum Munich, GE

15:00–15:30 Coffee break

Session 8: Chairs Rikke Kruse and Niels Ørtenblad

15:30–16:00 **Identifying the cellular source of fat and fibrosis in human skeletal muscle**

   Postdoc Jean Farup, Research Laboratory for Biochemical Pathology, Department of Clinical Medicine, Aarhus University and Department of Biomedicine, Aarhus University, DK

16:00–16:30 **Rho GTPases - Emerging Regulators of Glucose Homeostasis in Health and Disease**

   Assistant Professor Lykke Sylow, Molecular Physiology Group, Department of Nutrition, Exercise and Sports, University of Copenhagen, DK

16:30–16:45 Final remarks

16:45–17.30 Socializing, Carlsberg beer and snacks
List of speakers:

Alexandra Chad, Dr., German Diabetes Center (DDZ), GE
Edward Chouchani, Assistant Professor, Harvard Medical School/Dana-Farber Cancer Institute, US
Christoffer Clemmensen, Associate Professor, University of Copenhagen, DK
Kenneth Dyar, Postdoc, Helmholtz Zentrum Munich, GE
Coen Elemans, Associate Professor, University of Southern Denmark, DK
Jean Farup, Postdoc, Aarhus University, DK
Daniel Fazakerley, MRC Career Development Fellow, University of Cambridge, GB
Graham Fraser, Assistant Professor, Memorial University of Newfoundland, CA
Lasse Gliemann, Assistant Professor, University of Copenhagen, DK
Morten Hostrup, Associate Professor, University of Copenhagen, DK
Thomas Quistgaard Jepps, Assistant Professor, University of Copenhagen, DK
Jakob G Knudsen, Assistant Professor, University of Copenhagen, DK
Joachim Nielsen, Associate Professor, University of Southern Denmark, DK
Benjamin Parker, Senior Research Fellow, University of Melbourne, AUS
Camilla Schéele, Associate Professor, University of Copenhagen, DK
Lauren Sparks, Investigator, Translational Research Institute for Metabolism & Diabetes at AdventHealth, US
Kristin Stanford, Assistant Professor, Ohio State University, US
Lykke Sylow, Assistant Professor, University of Copenhagen, DK
Jonas Thue Treebak, Associate Professor, University of Copenhagen, DK
Martin Whitham, Senior Lecturer, University of Birmingham, UK
List of participants:

Sarah Louise Armour, Postdoc, University of Copenhagen, DK
Astrid Linde Basse, PhD, University of Copenhagen, DK
Lærke Bertholdt, PhD, University of Copenhagen, DK
Jesper Birk, MSc, University of Copenhagen, DK
Claus Brandt, University of Copenhagen, DK
Nina Brandt, Postdoc, University of Copenhagen, DK
Christian Carl, PhD student, University of Copenhagen, DK
Liselotte Christiansen, Postdoc, University of Copenhagen, DK
Atul Deshmukh, Associate Professor, University of Copenhagen, DK
Kasper Eibye, PhD student, University of Copenhagen, DK
Helga Ellingsgaard, PhD, Centre for Physical Activity, Rigshospitalet, DK
Claus Emborg, Emeritus, Technical University of Denmark, DK
Nils Færgeman, Professor, University of Southern Denmark, DK
Fabian Finger, Dr., University of Copenhagen, DK
Matteo Fiorenza, Postdoc, University of Copenhagen, DK
Zachary Gerhart-Hines, Associate Professor, University of Copenhagen, DK
Trisha Grevengoed, Assistant Professor, University of Copenhagen, DK
Anders Gudiksen, Postdoc, University of Copenhagen, DK
Jens Frey Halling, Postdoc, University of Copenhagen, DK
Bo Falck Hansen, PhD, Novo Nordisk A/S, DK
Carlos Henriquez Olguin, Postdoc, University of Copenhagen, DK
Ylva Hellsten, Professor, University of Copenhagen, DK
Janne Rasmus Hingst, Postdoc, University of Copenhagen, DK
Lam Opal Huang, Postdoc, University of Copenhagen, DK
Kristoffer Jensen, MD, PhD student, University of Southern Denmark, DK
Thomas E. Jensen, Associate Professor, University of Copenhagen, DK
Jørgen Jensen, Professor, Norwegian School of Sport Sciences, NO
Naja Zenius Jespersen, MD, PhD, Centre for Physical Activity, Rigshospitalet/University of Copenhagen, DK
Søren Jessen, PhD student, University of Copenhagen, DK
Nicolas Jørgensen, PhD student, University of Copenhagen, DK
Vaida Juozaityte, PhD, University of Copenhagen, DK
Bente Kiens, Professor, University of Copenhagen, DK
Rasmus Kjøbsted, PhD, University of Copenhagen, DK
Anders Bue Klein, Assistant Professor, University of Copenhagen, DK
Jonas Knudsen, Postdoc, University of Copenhagen, DK
Jonas Møller Kristensen, Postdoc, University of Copenhagen, DK
Rikke Kruse, Postdoc, Steno Diabetes Center Odense, DK
Anders Lemminger, PhD student, University of Copenhagen, DK
Jens Lund, PhD student, University of Copenhagen, DK
Thomas Lunde Sørensen-Hygum, PhD student, University of Copenhagen, DK
Tao Ma, Staff scientist, University of Copenhagen, DK
Glenn McConnell, Professor, Victoria University, AUS/University of Copenhagen, DK
Nadja Møbjerg, Associate Professor, University of Copenhagen, DK
Lisbeth Liliendal Valbjørn Møller, PhD student, University of Copenhagen, DK
Sophie Møller, Postdoc, University of Copenhagen, DK
Thomas Svava Nielsen, PhD, University of Copenhagen, DK
Ivana Novak, Professor, University of Copenhagen, DK
Johan Onslev, PhD student, University of Copenhagen, DK
Niels Ørtenblad, Professor, University of Southern Denmark, DK
Augusto Peluso, Postdoc, University of Copenhagen, DK
Henriette Pilegaard, Professor, University of Copenhagen, DK
Anne Lykke Poulsen, Project coordinator, University of Copenhagen, DK
Steffen H. Raun, PhD student, University of Copenhagen, DK
Nicoline Resen, MSc, University of Copenhagen, DK
Erik Richter, Professor, University of Copenhagen, DK
Stine Ringholm, PhD, University of Copenhagen, DK
Nikolaj Kulahin Roed, PhD, Novo Nordisk A/S, DK
Nicolai Rytter, PhD student, University of Copenhagen, DK
Rugivan Sabaratnam, PhD, Steno Diabetes Center Odense, DK
Kim Sjøberg, Assistant Professor, University of Copenhagen, DK
Beckey Trinh, MD, Centre for Physical Activity, Rigshospitalet, DK
Jennifer van der Horst, PhD student, University of Copenhagen, DK
Tobias Wang, Professor, Aarhus University, DK
Jørgen Wojtaszewski, Professor, University of Copenhagen, DK
Thorbjørn Åkerström, PhD, Novo Nordisk A/S, DK