

# The CIM and AMBEHR 2008 Ph.D.-Course: “Inflammation and Metabolism”

Monday April 21<sup>st</sup> – Friday April 25<sup>th</sup> 2008

## *Programme*

Venue:  
Rigshospitalet, Section 7622  
Tagensvej 20, entrance 76, 2<sup>nd</sup> floor,  
DK-2200 Cph N

## Monday, April 21<sup>st</sup>: Insulin resistance: target genes, inflammatory markers, and clinical manifestations

12.00 – 12.30	<i>Student registration and sandwiches</i>
12.30 – 12.45	Welcome and Introduction. Post doc. Camilla Scheele
12.45 – 13.30	“Muscle as an endocrine organ?”. Prof. Bente Klarlund Pedersen
13.30 – 14.15	“Clinical manifestations of insulin resistance”. Prof. Allan Vaag
14.30 – 15.15	“Genetic epidemiology in type 2 diabetes and related disorders”. Assoc. Prof. Paul Franks
15.30 – 16.15	“Key molecules in inflammatory diseases”. Prof. Allan Randrup Thomsen
16.30 – 17.15	“The insulin signalling cascade and inflammation” Assist. Prof. John Thyfault
17.00 – 17.30	Introduction to project work  Tutors: Prof. Frank Booth, Prof. Mark Febbraio, Assist. Prof. John Thyfault, Assoc. Prof. Matthew Watt, Post doc. Camilla Scheele
19.00 –	<i>Student get-together</i>

## Tuesday, April 22<sup>nd</sup>: How to target the target molecules?

- 08.00 – 08.45      “Inflammation, metabolism, and cognitive function”.  
Senior Researcher Helle Bruunsgaard
- 09.00 – 09.45      “Caloric restriction and aging”  
Prof. Richard Weindruch
- 10.00 – 10.45      “Central and peripheral metabolic effects of GIP and GLP-1”.  
Senior Researcher Tina Vilsbøll
- 10.45 – 11.30      Coffee and group discussions
- 11.45 – 12.30      “Central and peripheral metabolic effects of the CNTF”.  
Assoc. Prof. Matthew Watt
- 12.30 – 13.30      *Lunch*
- 13.30 – 14.15      Introduction to the afternoon workshops  
Assoc. Prof. Gerrit van Hall, Assoc. Prof. Bettina Mittendorfer,  
MD Christian Fischer, MD Kirsten Møller, MD Peter Plomgaard
- 14.30 – 17.00      Workshop – hands-on introduction to human experimentation
1. *Stable isotopes*
  2. *Human in vivo inflammation models*
  3. *Invasive interventions, including biopsies, clamps, microdialysis, and catheterization.*
- Assoc. Prof. Gerrit van Hall, Assoc. Prof. Bettina Mittendorfer,  
MD Christian Fischer, MD Kirsten Møller, MD Peter Plomgaard
- 19.00 –              *Dinner for students and teachers in Copenhagen*

## Wednesday, April 23<sup>rd</sup>: Adipokines

- 08.30 – 09.15      “Adipokines”  
Prof. Bjørn Richelsen
- 09.30 – 10.15      “Fatty acids from adipose tissue as a signal to the rest  
of the body”.  
Prof. Fredrik Karpe
- 10.15 – 11.00      Coffee and group discussions
- 11.15 – 12.00      “Thrifty genes; from molecule to man”.  
Prof. Frank Booth
- 12.00 – 13.00      *Lunch*
- 13.00 – 13.45      Introduction to the afternoon workshops  
Assoc. Prof. Henriette Pilegaard, Post doc. Camilla Scheele
- 14.00 – 16.00      Workshop – hands-on introduction to metabolic assays *in vitro*.
1. *Glucose uptake*
  2. *AMPK activity*
  3. *Gene expression analyses - qPCR and Western blot*
- Assoc. Prof. Henriette Pilegaard, Post doc. Camilla Scheele
- 19.30 -              *Speakers' dinner.*
- No social events planned for the students.*

## Thursday, April 24<sup>th</sup>: Myokines

08.30 – 09.15	“Proteomics – limitations and potential”. Prof. Matthias Mann
09.30 – 10.15	“IL-6 and energy balance”. Cora Weigert
10.30 – 11.15	“gp130 receptor ligands: new strategies to overcome therapeutic pitfalls”. Prof. Mark Febbraio
11.30 – 12.15	“Central pathways in inflammation and metabolism”. Prof. John-Olov Jansson
12.15 – 13.00	<i>Lunch</i>
13.00 – 16.00	Discussion groups / presentation of student projects
19.00 –	<i>Course dinner for students and teachers</i>

The 2<sup>nd</sup> CIM Conference on Inflammation and Metabolism  
Friday, April 25<sup>th</sup> 2008

*Venue: The Haderup Auditorium,  
Panum Institute, University of Copenhagen*

Programme

08.30 – 09.00	<i>Coffee and registration</i>
09.00 – 09.15	Welcome. Prof. Bente Klarlund Pedersen
09.15 – 10.00	“Caloric restriction – metabolic and inflammatory consequences”. Prof. Richard Weindruch
10.00 – 10.45	“Diurnal fatty acid delivery and metabolic flexibility”. Prof. Fredrik Karpe
10.45 – 11.15	<i>Coffee</i>
11.15 – 12.00	“Interactions between the immune system and body fat.” Prof. Jan-Olov Jansson
12.00 – 12.45	“Mass-spectrometry based proteomics to study muscle and fat”. Prof. Matthias Mann
12.45 – 13.45	<i>Lunch</i>
13.45 – 14.30	“IL-6 in insulin resistance, body fat distribution and energy balance”. Prof. Cora Weigert
14.30 – 15.15	“Molecular links between inflammation and metabolism”. Prof. Mark Febbraio
15.15 – 15.30	Closure. Prof. Bente Klarlund Pedersen

## Lecturers/speakers

### **Frank Booth**

Professor, Departments of Biomedical Sciences and of Medical Pharmacology and Physiology,  
Dalton Cardiovascular Institute, University of Missouri, Columbia, USA

### **Helle Bruunsgaard**

MD, PhD, DMSc, Centre of Inflammation and Metabolism, Rigshospitalet, Copenhagen, Denmark

### **Mark Febbraio**

Professor of Cell Biology, Cellular and Molecular Metabolism Laboratory, Diabetes & Metabolism Division,  
Baker Heart Research Institute, Melbourne, Australia

### **Christian Fischer**

Postdoctoral fellow, MD, PhD, Centre of Inflammation and Metabolism, Rigshospitalet, Copenhagen, Denmark

### **Paul Franks**

PhD, MPhil, MS, BS (Hons), Docent/Associate Professor of Experimental Medicine  
Head, Genetic Epidemiology & Clinical Research Group, Dept. Public Health & Clinical Medicine, Division of  
Medicine, Umeå University Hospital, Sweden.

### **Gerrit van Hall**

Associate Professor, dr.scient., Copenhagen Muscle Research Center and CIM, Rigshospitalet and University of  
Copenhagen, Denmark

### **John-Olov Jansson**

Professor, Institute of Neuroscience and Physiology/Endocrinology, Sahlgrenska Academy at Gothenburg  
University, Sweden

### **Fredrik Karpe**

Reader in Metabolic Medicine, Hon. Consultant Physician, Wellcome Trust Senior Clinical Research Fellow,  
Oxford Centre for Diabetes, Endocrinology and Metabolism, Nuffield Department of Clinical Medicine,  
University of Oxford, UK

### **Matthias Mann**

Professor, Dr., Department of Proteomics and Signal  
Transduction, Max-Planck Institute for Biochemistry, Martinsried, Germany

### **Bettina Mittendorfer**

Assistant Professor, PhD, Washington University School of Medicine, St Louis, USA.

### **Kirsten Møller**

MD, DMSc, Dept Centre of Inflammation and Metabolism, Rigshospitalet, Copenhagen, Denmark

### **Bente Klarlund Pedersen**

Professor, DMSc., Director, Centre of Inflammation and Metabolism, Rigshospitalet, and University of  
Copenhagen, Denmark

**Henriette Pilegaard**

Associate Professor, PhD, Centre of inflammation and Metabolism, Department of Biology, University of Copenhagen, Denmark

**Peter Plomgaard**

Postdoctoral fellow, MD, PhD, Centre of Inflammation and Metabolism, Rigshospitalet, Copenhagen, Denmark

**Bjørn Richelsen**

Professor, DMSc, Department of Medicine, Århus Hospital, Århus, Denmark

**Camilla Scheele**

MSc, Ph.D., Post doctoral fellow, Centre of Inflammation and Metabolism, Rigshospitalet, and University of Copenhagen, Denmark

**Allan Randrup Thomsen**

Professor in Experimental Virology, DMSc, Institute of Medical Microbiology & Immunology, University of Copenhagen, Denmark

**John Thyfault**

Assistant Professor, PhD, Departments of Nutritional Sciences/Internal Medicine and Harry S. Truman VA Hospital, University of Missouri, Columbia, USA

**Allan Vaag**

Professor, Chief Physician, Steno Diabetes Center, Copenhagen, Denmark

**Tina Vilsbøll**

Senior Researcher, MD, DMSc, Gentofte Hospital, Department of Internal Medicine F, University of Copenhagen, Denmark

**Matthew Watt**

Associate Professor, PhD, NHMRC RD Wright Fellow, Department of Physiology, Monash University, Clayton, Australia

**Cora Weigert**

Dr., PhD, Dept. Internal Medicine, Div. Endocrinology, Metabolism, Pathobiochemistry and Clinical Chemistry, University of Tübingen, Germany.

**Richard H. Weindruch**

Professor, PhD, Section of Geriatrics, Director of the Aging Research Group, Wisconsin Regional Primate Research Center, University of Wisconsin-Madison, USA.



The Ph.D.-Course / Conference on “Inflammation and Metabolism”  
is arranged by the Centre of inflammation and Metabolism (CIM)  
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the Danish Academy of Muscle Biology, Exercise, and Health Research (AMBEHR)  
and the Faculty of Health Sciences, University of Copenhagen

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