

# Basic and Clinical Research in Musculo-skeletal Sciences

Post graduate research program, Faculty of Health and Medical Sciences – University of  
Copenhagen

in collaboration with

**Clinical Academic Groups, Greater Copenhagen Health Science Partners  
Physical Activity and Sports in Clinical Medicine (ImPact)**



## “Physical Activity in Disease Prevention, Treatment and Rehabilitation”

### Annual Symposium

Thursday 28<sup>th</sup> November – Friday 29<sup>th</sup> November 2019

**Comwell Borupgaard  
Nørrevej 80, 3070 Snekkersten**

#### **THURSDAY 28. NOVEMBER**

10.00 – 10.45

**Key-note lecture:**

Health span and exercise

Professor Karyn Hamilton, Colorado State Univ, USA

Chair: Flemming Dela

10.50 – 12.30

## Free oral presentations from PhD students

<p><b>Auditorium A</b> <b>Chairs:</b> Professor Ylva Hellsten, Professor Per Hölmich</p> <p>Presentations each 8+2 min</p> <p>The oral presentations are followed by feedback on the presentation technique (20 min)</p> <p><b>Comments on presentation technique:</b> MA in rhetoric: Thea Feveile Sejr Hansen</p> <p>10.50 – 11.00 <b>Casper Simonsen</b> “Safety and feasibility of postoperative exercise training for patients with cancer of the gastro-esophageal junction – A follow-up of the PRESET pilot study”</p> <p>11.00 – 11.10 <b>Martin Kaj Fridh Nielsen</b> “Effects of supervised in-hospital physical activity on cardiorespiratory fitness and physical function in children with cancer – A Nonrandomized Controlled Trial from the RESPECT study”</p> <p>11.10 – 11.20 <b>Karina Louise Skov Husted</b> “A new approach to workplace health promotion: Body age assessment in 9851 Danish employees – a cohort study”</p> <p>11.20 – 11.30 <b>Kenneth Mertz</b> “Effect of daily protein supplementation with or without resistance training for 1 year on muscle size, strength and function in healthy older adults”</p> <p>11.30 – 11.40 <b>Signe Hulsbæk</b> “Maximal isometric knee-extension strength measures indicating sarcopenia is associated with health-related outcomes and mortality in older patients with hip fracture”</p> <p>11.40 – 11.50 <b>Jacob Bülow</b> “Effect of long-term nutritional supplementation and different types of training on glucose tolerance in healthy elderly: CALM cohort”</p> <p>11.50 – 12.00 <b>Anne Theil Gylling</b> “The influence of prolonged muscular strength training upon muscle function and volume in healthy and chronically diseased elderly close to retirement age: The LISA study (Live active Successful Aging)”</p>	<p><b>Auditorium B</b> <b>Chairs:</b> Professor Charlotte Suetta, Senior Researcher Jesper Løvind Andersen</p> <p>Presentations each 8+2 min</p> <p>The oral presentations are followed by feedback on the presentation technique (20 min)</p> <p><b>Comments on presentation technique:</b> MA in rhetoric: Mads Højlyng</p> <p>10.50 – 11.00 <b>Rasmus Skov Husted</b> “The relationship between pre-operative knee-extensor exercise dosage and effect on knee-extensor strength prior to and following total knee arthroplasty: A systematic review and meta-regression analysis of randomized controlled trials”</p> <p>11.00 – 11.10 <b>Müjgan Yilmaz</b> “Early follow-up of hybrid Total Knee Arthroplasty (TKA) using Persona® prostheses – a prospective study using Model-based Radiostereometric Analysis (Mb-RSA)”</p> <p>11.10 – 11.20 <b>Lasse Ishøi</b> “Between-hip differences in maximal hip muscle strength and rate of torque development 6-30 months after hip arthroscopy for femoroacetabular impingement syndrome: A cross-sectional study”</p> <p>11.20 – 11.30 <b>Adam E. M. Jørgensen</b> “The effect of resistance exercise on gene-expression in Human articular cartilage with osteoarthritis – a single-blind RCT”</p> <p>11.30 – 11.40 <b>Jonathan J. Bjerre-Bastos</b> “Evaluation of serum ARGS Neoepitope as an osteoarthritis biomarker using a standardized model for exercise-induced cartilage extra cellular matrix turnover”</p> <p>11.40 – 11.50 <b>Kristine Bramsen Andersen</b> “Acute Acromioclavicular Dislocation: Epidemiology, Natural History and Analysis of Prognostic Factors – A prospective cohort study”</p> <p>11.50 – 12.00 <b>Nikolaj M. M.-Clausen</b> “The impact of non-steroidal anti-inflammatory drugs as an adjuvant treatment in early phase tendinopathy”</p>
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12.30 – 13.15            **Lunch**

## **SYMPOSIUM 1 (auditorium A):**

### **Hormones, muscle and metabolism**

Chair: Flemming Dela

- 13.15 – 13.40            **Metabolism in body builders**  
Professor Caroline Kistorp, Rigshospitalet, Denmark
- 13.45 – 14.10            **Testosterone/estrogen and sarcopenia in elderly**  
Professor Charlotte Suetta, Bispebjerg/Frederiksberg and  
Herlev/Gentofte hospital
- 14.15 – 14.40            **Exercise, sympathetic activity and insulin resistance**  
Professor Chris Bell, Colorado State Univ, USA

## **SYMPOSIUM 2 (auditorium B):**

### **How to present scientific results**

Chair: Thomas Bandholm

- 13.15 – 13.55            **Oral presentation of scientific results: Interactions**  
Associate Professor Thea Feveile Sejr Hansen, Univ of Copenhagen
- 14.00 – 14.40            **Oral presentation of scientific results: Slides**  
MA (Rhetoric) Mads Højlyng, Dept. of Management, CBS

**14.45-15.15            Break (coffee/tea)**

## **SYMPOSIUM 3 (auditorium A):**

### **Cardiovascular and respiratory interplay**

Chair: Ylva Hellsten and Vibeke Backer

- 15.15 – 15.40            **Exercise as prevention and treatment of asthma**  
Professor Vibeke Backer, Center for Physical Activity Research,  
Rigshospitalet
- 15.45 – 16.10            **Exercise as prevention and treatment of COPD,**  
Professor Nina Godtfredsen, Dept of Respiratory Medicine, Amager and  
Hvidovre Hospital

16.15 – 16.40                      Exercise as prevention and treatment of cardiovascular disease  
Chief physician Hanne Rasmussen, Dept. of Cardiology, Bispebjerg and Frederiksberg Hospital

## **SYMPOSIUM 4 (auditorium B):**

### **Exercise and cancer**

Chair: Julie Gehl and Bente Klarlund Pedersen

15.15 – 15.40                      Why would anyone imagine that exercise inhibits cancer?  
Professor Julie Gehl, Roskilde-Køge Hospital, Region Zealand

15.45 – 16.10                      Exercise in Pediatric Cancer  
Professor Alejandro Lucia, Faculty of Sports Sci, European Univ of Madrid, Spain

16.15 – 16.40                      Integrating exercise in cancer treatment.  
Senior researcher, PhD Jesper Frank Christensen, Center of Inflammation and Metabolism/Center for Physical Activity Research (CIM/CFAS), Rigshospitalet

17.00 - 18.30                      **Poster presentation in Aud A** (5 min + 3 slides for each poster)  
Posters from all others than MUSKOS PhD students.

Afterwards poster walk including drinks

**Chairs:** Associate Professor Abigail Mackey, Professor Peter Magnusson

**1.**  
**Asthma in adults and cardiorespiratory exercise**

Erik Soeren Halvard Hansen  
Centre for Physical Activity Research (CFAS) Rigshospitalet

**2.**  
**Autophagy gets to the tendons: implications in mechanobiology and injury**

Costanza Montagna  
Department of Orthopedic Surgery M, Institute of Sports Medicine Copenhagen, Bispebjerg Hospital

**3.**  
**Endorsing a Treatment that creates ambivalence in my professional role”: Facilitators and barriers among physiotherapists and orthopaedic surgeons to pre-operative home-based exercise therapy with *one* exercise-only in patients with severe knee osteoarthritis**

Rasmus Skov Husted  
Clinical Research Centre, Copenhagen University Hospital Hvidovre

**4.**  
**Identification of biomarkers for human tendon-derived exosomes using proteomics**

Ching-Yan Chloé Yeung  
Institute of Sports Medicine Copenhagen, Bispebjerg Hospital

**5.**  
**Reattachment of proximal avulsions of the hamstrings tendons is a good treatment in middle aged patients**

Niels Rithamer Jakobsen  
Department of Orthopaedics, Section of Sports traumatology and Arthroscopy – Bispebjerg Hospital, University of Copenhagen

**6.**  
**Influence of dietary protein-matrix on amino acid absorption and anabolic response – application of intrinsically-labeled intact- or hydrolysed meat protein**

Jakob Agergaard  
Institute of Sports Medicine Copenhagen, Department of Orthopedic Surgery M, Bispebjerg Hospital

**7.**  
**Delayed loading following repair of ruptured Achilles tendon – a randomized controlled trial**

Rikke Høffner  
Institute of Sports Medicine Copenhagen and Department of Physical and Occupational Therapy, Bispebjerg and Frederiksberg Hospital

19.00

**Dinner (including PhD CUP)**

**Chairs:** Professor Thomas Bandholm and associate professor Kristian Thorborg

**FRIDAY 29. NOVEMBER**

8.30 – 9.15

**Key-note lecture:**

History of skeletal muscle adaptation to exercise  
Professor Stefano Schiaffino, Univ Padova, Italy  
Chair: Abigail Mackey

9.20- 10.40

## Free oral presentations from PhD students

<p><b>Room Auditorium A</b> <b>Chairs:</b> Professor Clara Prats, Senior Researcher Peter Schjerling</p> <p>Presentations each 8+2 min</p> <p>The oral presentations are followed by feedback on the presentation technique (20 min)</p> <p><b>Comments on presentation technique:</b> MA in rhetoric Thea Feveile Sejr Hansen</p> <p>9.20 – 9.30 <b>Ronni Eg Sahl</b> “Reliability of maximal mitochondrial oxidative capacity in human adipose tissue”</p> <p>9.30 – 9.40 <b>Rannvá Dahl</b> “Skeletal muscle fatty acid oxidation in patients suffering from carnitine transporter deficiency and the regulation of carnitine uptake in human skeletal muscle”</p> <p>9.40 – 9.50 <b>Arthur Ingersen</b> “The combined effects of endurance exercise and glucagon like peptide receptor agonists on insulin secretory capacity in patients with type 2 diabetes”</p> <p>9.50 – 10.00 <b>Troels Gammeltoft Dolin</b> “Geriatric assessment and intervention in older patients undergoing surgery for colorectal cancer – The GEPOC study”</p> <p>10.00 – 10.10 <b>Rudi Neergaard Hansen</b> “Do patients with patellofemoral pain exhibit elevated bone metabolic activity in the patellofemoral joint?”</p> <p>10.10 – 10.20 <b>Christian Pilely Olsen</b> “Projected prognosis as a predictor of short-term outcome after treatment of minor musculoskeletal injuries in the Emergency Department: A prospective cohort study”</p>	<p><b>Room Auditorium B</b> <b>Chairs:</b> Associate Professor Kristian Thorborg, Professor Thomas Bandholm</p> <p>Presentations each 8+2 min</p> <p>The oral presentations are followed by feedback on the presentation technique (20 min)</p> <p><b>Comments on presentation technique:</b> MA in rhetoric Thore Keitum Fisker</p> <p>9.20 – 9.30 <b>Casper Søndebro</b> “Muscle and neuron signaling – the influence of age and exercise”</p> <p>9.30 – 9.40 <b>Jens R. Jakobsen</b> “A new method to isolate the myotendinous junction for quantitative measures”</p> <p>9.40 – 9.50 <b>Cheng Zhang</b> “Regional difference in turnover of human patellar tendon”</p> <p>9.50 – 10.00 <b>Maria Swennergren Hansen</b> “Validation of the Achilles Tendon Length Measure and the Achilles Tendon Resting Angle in relation to the Copenhagen Achilles Length Measure”</p> <p>10.00 – 10.10 <b>Allan Cramer</b> “Collagen metabolism in acutely ruptured Achilles tendons”</p>
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10.40 – 11.00      **Coffee/tea break**

## **SYMPOSIUM 5 (auditorium A):**

### **Interphases – Where tissues meet and recover**

Chair: Peter Magnusson, Michael Kjær

11.00 – 11.25      **Muscle wasting in intensive care unit patients and different intervention strategies**

Professor Lars Larsson, Dept of Neurophysiology, Karolinska Inst, Stockholm, Sweden

11.30 – 11.55      **Skeletal muscle and tendon – two very different tissues meet**

Associate Professor Abigail Mackey-Sennels, Dept Biomedical Research, Univ Copenhagen

12.00 – 12.25      **Bone regulation – a potential interplay with other tissues?**

Professor Niklas Rye Jørgensen, Dept of Clinical Biochemistry, Rigshospitalet, Denmark

12.30 – 13.15

### **Lunch**

(and separate board meeting Basic and Clinical Research in Musculo-skeletal Sciences)