

Basic and Clinical Research in Musculo-skeletal and Oral Sciences

Faculty of Health and Medical Sciences – University of Copenhagen



Annual Symposium

Thursday 11th December – Friday 12th December 2014

Comwell Borupgaard
Nørrevej 80, 3070 Snekkersten

THURSDAY 11.DECEMBER

10.00 – 10.45

Key-note lecture:

Skeletal muscle and bone interplay: How does it work?

Professor James A Gallagher, Musculo-skeletal Biology, University of Liverpool, UK

Chair: Professor Peter Schwarz

10.45 – 11.15

Lecture:

The role of BMPs in craniofacial morphogenesis

Professor Matthias Chiquet, University of Bern, Schweiz

Chair: Professor Michael Kjær

11.15 – 11.30

Short Break

11.30 – 12.45

Free oral presentations (10 + 5 min) from PhD students

<p>Auditorium A “ Muscle metabolism” Chair: Professor Flemming Dela and Senior researcher Peter Schjerling</p> <p>11.30 – 11.45 Anja Kuhlmann “Insulin sensitivity and glucose metabolism in Simvastatin-treated patients with and with myalgia”</p> <p>11.45 – 12.00 Marianne Kristensen “Ectopic lipid deposition in skeletal muscle and influence of insulin sensitivity after a gastric bypass surgery”</p> <p>12.00 – 12.15 Tine Dohmann “Training induced alteration in mitochondrial ADP sensitivity depends on training intensity</p> <p>12.15 – 12.30 Ditte Søgaard “Effect of six weeks HIT training in young and elderly subjects”</p>	<p>Room C “ Bone, tendon & surgery” Chair: Associate Professor Niklas Rye Jørgensen and Associate Professor Katja Heinemeier</p> <p>11.30 – 11.45 Morten Dahl “Adipose derived mesenchymal stem cells – osteogenicity and osteoblast mineralization”</p> <p>11.45 – 12.00 Rehne Hansen “Evaluation of peri-implant bone mineral density changes after femoral osseointegrated prosthesis surgery”</p> <p>12.00 – 12.15 Christian Wied “The determination of the total blood loss after lower extremity amputations and its potential influence on the peri-operative mortality”</p> <p>12.15 – 12.30 Andreas Herchenhan “Lysyl oxidase inhibition prohibits regular collagen fibril formation”</p> <p>12.30 – 12.45 Kristine Røn Larsen “Allergy-suspected oral lesions: clinical, histopathological, immunological and molecularbiological aspects”</p>
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12.45 – 13.30

Lunch

13.30-15.00

Invited Symposia (Symposium 1+2)

SYMPOSIUM 1:

Auditorium A

Bone mechanobiology.

Chair: Ass.Prof Niklas Rye Jørgensen and Prof Peter Schwarz

13.30 – 14.00

Bone mechanobiology – the basic mechanisms
Professor James Gallagher, Musculoskeletal biology, University of Liverpool, UK

14.00 – 14.30

Is it possible to cure osteoporosis by altering bone cell mechanosensitivity
Astrid Bakker, PhD, Dept. of Oral Cell Biology, Academic Centre for Dentistry, MOVE Research Institute Amsterdam, The Netherlands

14.30 – 15.00 Osteogenic exercise - from theory to intervention
Associate professor Eva Wulff Helge, Department of Nutrition, Exercise and Sports, University of Copenhagen,

SYMPOSIUM 2:

Room C

Muscle metabolism-inflammation: Exercise and Type-2 Diabetes

Chair: Post doc Steen Larsen and Dr Peter Plomgaard

13.30 – 14.00 Effect of type-2 diabetes on metabolic and transcriptional signatures during exercise and recovery
Professor Cora Weigert, Div of Clin Chem and Pathobiochemistry, Dept of Int Med IV and Inst for Diabetes Research and Metabolic Diseases, University of Tübingen, Germany

14.00 – 14.30 Mitochondrial production of reactive oxygen species – relation to type-2 diabetes and physical training
Post doc Martin Hey-Mogensen, Novo Nordisk

14.30 – 15.00 Insulin secretion and action – relation to type 2 diabetes and physical Training
Post doc Michael Taalo Lund, Department of Biomedical Sciences, Xlab – Center for Healthy Aging, University of Copenhagen

15.00 – 15.30 **Coffee/tea break**

15.30 – 17.00 Invited Symposia (Symposium 3+4)

SYMPOSIUM 3:

Auditorium A

Oral Sciences

Chair: Associate Professor Kim Ekstrand

15.30 – 16.00 Craniofacial Image Research
Research Engineer Tron Darvann, 3D Craniofacial Image Research Laboratory, Department of Odontology, University of Copenhagen.

16.00 - 16.30 Osteoarthritis in the temporomandibular joint – clinical and radiographic findings
Associate Professor Merete Bakke, Department of Odontology, University of Copenhagen

16.30 – 17.00 The role of glycans in phosphate homeostasis and skeletal mineralization: “Glycans are in control”

Associate Professor Eric Paul Bennett, Copenhagen Center for Glycomics (CCG), Department of Odontology, University of Copenhagen

SYMPOSIUM 4:

Room C

Hamstring muscle injury: Prevention and treatment

Chair: Associate Professor Kristian Thorborg and Associate Professor Thomas Bandholm, Hvidovre Hospital

- 15.30 – 15.50 Evidence-based hamstring exercise selection.
Associate Professor Mette K Zebis, Dept Exercise Sciences, University of Southern Denmark
- 15.50 – 16.10 Hamstring exercise specificity
PT Kasper Krommes, Denmark
- 16.10 – 16.30 Myotendinous adaptation to eccentric hamstring exercises
Associate Professor Abigail Mackey, Dept Biomedical Sciences, Faculty of Health and Medical Sciences, University of Copenhagen
- 16.30 - 17.00 Hamstring injury prevention and treatment: The role of stretching and loading
Associate Professor Kieran O’Sullivan, University of Limerick, Ireland
- 18.30- **Dinner**

FRIDAY 12.DECEMBER

- 8.30 – 9.15 **Key-note lecture:**
Osteoarthritis: The molecular pathogenesis behind it
Professor Tonia Vincent, ARUK, University of Oxford, UK
Chair: Associate Professor Katja Heinemeier
- 9.15 – 9.45 **Lecture:**
Head posture. A factor in the development of the facial profile
Associate Professor Liselotte Sonnesen, Department of Odontology, University of Copenhagen.
Chair: Associate Professor Anne Marie Lynge Petersen
- 9.45 – 10.00 **Short break**

10.00 – 11.15

Free oral presentations (10 + 5 min) from PhD students

<p>Auditorium A “Inflammation & connective tissue” Chair: Associate Professor Liselotte Sonnesen and Professor Peter Magnusson</p> <p>10.00 – 10.15 Kasper Dideriksen “Skeletal muscle and tendon size and functional responses to immobilization and rehabilitation in elderly males: Effect of ibuprofen administration”</p> <p>10.15 – 10.30 Andreas Ziegler Muscle mass and inflammation in elderly: Effect of strength training upon local and systemic inflammation in human skeletal muscle</p> <p>10.30 – 10.45 Christian Eriksen “Regulation of tendon matrix and its mechanical properties in elderly individuals: Influence of physical activity”</p> <p>10.45 – 11.00 Jesper Olsen “The effectiveness of tranexamic acid on intraoperative bleeding in bimaxillary orthognatic surgery – a prospective, randomized double-blinded clinical trial”</p> <p>11.00 – 11.15 Annesofie Thorup Olesen “Effect of aging and training on intramuscular connective tissue”</p>	<p>Room C “Ageing muscle & muscular diseases” Chair: Associate Professor Abigail Mackey-Sennels and Associate Professor Thomas Bandholm</p> <p>10.00 – 10.15 Rasmus Bechshøft “The effect of heavy resistance exercise and protein supplementation on skeletal muscle strength and function in very-old individuals”</p> <p>10.15 – 10.30 Anders Karlsen “Counteracting muscle loss in very old (75-90 years) hospitalized bed-ridden patients – effect of neuromuscular electrical stimulation”</p> <p>10.30 – 10.45 Jakob Agergaard “Effect of Light-Load Resistance Exercise and Whey-Protein Supplementation on Hypertrophy Signaling in Elderly”</p> <p>10.45 – 11.00 Grete Andersen “Lamotrigin as treatment for myotonia – an ongoing randomized, double-blinded, placebo controlled crossover study”</p> <p>11.00 – 11.15 Karen Lindhardt Madsen “The effect of Triheptanoin in adults with McArdle Disease (Glycogen Storage Disease Type V)”</p>
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11.15 – 11.30

Coffee/tea break

11.30 – 13.00

Invited Symposia (Symposium 5 + 6)

SYMPOSIUM 5:

Auditorium A

Treatment of knee osteoarthritis with knee arthroplasty: Evidence based optimization of the short and long term outcome

Chair: Professor Anders Troelsen and Professor Mikkel Østergaard

11.30 – 12.00

Optimization of patient treatment in a fast-track hospital department: Organizational, multimodal and cross-disciplinary efforts.
Professor Anders Troelsen, Dept Orthop Surgery, Hvidovre Hospital

12.00 – 12.30 The influence of rehabilitation on surgical results:
Possibilities, limitations and perspectives
Associate Professor Thomas Bandholm, Dept Orthop Surgery and
Clinical Research Centre, Hvidovre Hospital

12.30 – 13.00 Can innovation of arthroplasty design and materials optimize
the long term outcome of surgery?
Professor Anders Troelsen, Dept Orthop Surgery, Hvidovre Hospital

SYMPOSIUM 6:

Room C

Abnormal collagen tissue and the clinical presentation

Chair: Associate Professor Katja Heinemeier and Professor Michael Kjaer

11.30 – 12.00 When collagen tissue genetics go wrong: Ehlers-Danlos
Syndrome
Professor Fransiska Malfait, Dept Clinical Genetics, University of Ghent,
Belgium

12.00 – 12.30 Hernia repair: Potential association between inguinal hernia
and abdominal aneurysm
Dr Nadia Henriksen, Dept Abdominal Surgery, Hvidovre Hospital

12.30 – 13.00 Abnormal wound healing: Keloid scar formation
Dr Patricia Danielsen, Dept of Dermatology, Gentofte Hospital

13.00 – 14.00 **Lunch**
(and board meeting Basic and Clinical Research in Musculo-
skeletal and Oral Sciences)