"Advancing today's research; Fostering tomorrow's leaders"

Chair and meeting organiser:
Roger Bouillon (Leuven, BE)

Co-chairs:
Christa Maes (Leuven, BE)
Roland Baron (Boston, USA)
Jack Martin (Melbourne, AUS)

PRELIMINARY PROGRAMME

(NB – subject to change)

Sunday 17 March 2019	
11:30- 17.00	Registration open
12:30-14:00	Lunch
14:00-14:15	Welcome

14:15-16:15

Session 1: Osteoblast biology in health, disease, and ageing of the skeleton

Keynote lecture (45 min keynote lecture + 15 min discussion)

14.15-15:15 - ***Sundeep Khosla (Mayo Clinic, USA)***

"Senescence of bone cells"

15:15-16:15 **Five Oral presentations, to be selected from submitted abstracts** [based on scientific merit, and fitting the topic of this session]

OC1 TBD
OC2 TBD
OC3 TBD
OC4 TBD
OC5 TBD

16:15 Coffee Break

16:15-18:30 **Poster viewing and discussion: all submitted abstracts are presented as posters (including those that are also selected for a short (10 min) oral presentation)**

19:00 Assemble for walking to the conference dinner (hotel lobby)

19:30 **CONFERENCE DINNER** [included in registration fee]: **Networking event**

Monday 18 March 2019

08:30- 10:30

Session 2: Cancer and Bone

Keynote lecture (45 min keynote lecture + 15 min discussion)

08:30-09:30 - ***Peter Croucher (Garvan Institute, Australia)***
"Cancer and bone"

9:30-10:30 **Five Oral presentations, to be selected from submitted abstracts** [based on scientific merit, and fitting the topic of this session]

OC6 TBD
OC7 TBD
OC8 TBD
OC9 TBD
OC10 TBD

10:30-11:00 Coffee Break

11:00-13:00

Session 3: Molecular and Cellular Mechanisms Regulating Bone Remodeling

Keynote lecture (45 min keynote lecture + 15 min discussion)

11:00-12:00 - ***Sakae Tanaka (Tokyo University, Japan)***
"Mechanisms of regulation of osteoclast differentiation"

12:00-13:00 **Five Oral presentations, to be selected from submitted abstracts** [based on scientific merit, and fitting the topic of this session]

OC11 TBD
OC12 TBD
OC13 TBD
OC14 TBD
OC15 TBD

13:00-14:00 Lunch

14:00-15:00 **Poster viewing and discussion: all submitted abstracts are presented as posters (including those that are also selected for a short (10 min) oral presentation)**

15:00-17:00

Session 4: Diet, Microbiome, and Bone Health

Keynote lecture (45 min keynote lecture + 15 min discussion)

15:00-16:00 - ***Claes Ohlsson (Gotheborg, Sweden)***
"Microbiome and bone"

16:00-17:00 **Five Oral presentations, to be selected from submitted abstracts** [based on scientific merit, and fitting the topic of this session]

OC16 TBD
OC17 TBD
OC18 TBD
OC19 TBD
OC20 TBD

17:10-17:40

Special keynote historical lecture by *Graham Russell (Oxford University, UK)*
"History of bisphosphonates"
(celebrating 50 years of BPs, the prime bone resorption-inhibiting drugs used in clinical therapeutics)

18:00 Assemble for walking to the city hall (hotel lobby)

18:30-19:30 **RECEPTION at City Hall**

Tuesday 19 March 2016

08:30-10:30

Session 5: Skeletal Stem and Progenitor Cells (SSPCs) for Bone Growth and Regeneration

Keynote lecture (45 min keynote lecture + 15 min discussion)

8:30-9:30 - ***Pamela Robey (NIH, USA)***
"Stem cells and bone"

9:30-10:30 **Five Oral presentations, to be selected from submitted abstracts** [based on scientific merit, and fitting the topic of this session]

OC21 TBD
OC22 TBD
OC23 TBD
OC24 TBD
OC25 TBD

10:30-12:00

Methodological / thematic interactive workshops

(including coffee and drinks)

In this session, three interactive workshops will be given by selected keynote speakers. Each workshop spans 45 minutes, such that attendees can follow up to 2 workshops of their choice. The specific topics that will be covered in this session are:

- ***"Studying and correctly identifying skeletal stem cells" (Pamela Robey)***
- ***"Determining the mechanical performance and adaptation of the skeleton" (Marjolein Van der Meulen)***
- ***"Modelling malignancy in the skeleton" (Peter Croucher)***

12:00-12:45 **Poster viewing and discussion: all submitted abstracts are presented as posters (including those that are also selected for a short (10 min) oral presentation)**

12:45-13:45 Lunch

13:45-15:45

Session 6: Musculoskeletal Mechanobiology

Keynote lecture (45 min keynote lecture + 15 min discussion)

13:45-14:45 - ***Marjolein Van der Meulen (Cornell University, USA)***
"Mechanosensing and bone"

14:45-15:45 **Five Oral presentations, to be selected from submitted abstracts** [based on scientific merit, and fitting the topic of this session]

OC26 TBD
OC27 TBD
OC28 TBD
OC29 TBD
OC30 TBD

15:45-16:00 Closing Remarks

16:00 Brugge city excursion and museum visit

Speaker biographies

Sundeep Khosla

Mayo Clinic, US – Senescence of bone cells
Dr Sundeep Khosla is the Dr Francis Chucker and Nathan Landow Research Professor of Medicine and Physiology and a Mayo Foundation Distinguished Investigator. He also serves as Director of the Center for Clinical and Translational Science and Dean for Clinical and Translational Science at Mayo Clinic. Dr Khosla's research interests include mechanisms of age-related bone loss and sex steroid regulation of bone metabolism. Dr Khosla currently serves as the Editor-in-Chief of Bone, has served as Associate Editor of the Journal of Bone and Mineral Research and as a member of the editorial boards for the Journal of Clinical Investigation, Journal of Bone and Mineral Research, Journal of Clinical Endocrinology and Metabolism, Bone, and Endocrine Reviews.

Peter Croucher

Garvan Institute, Australia – Cancer and bone
Peter undertook his training at the University College Cardiff and the University of Wales College of Medicine. He did post-doctoral training in the Department of Medicine and LMB in Cambridge and Clinical Biochemistry in Sheffield where he became a Leukeamia Research Fund Bennett Senior Research Fellow. In 2001 he moved to the Institute of Musculoskeletal Sciences at Oxford University. In 2009 Peter was appointed the inaugural joint Direct of the Mellanby Center for Bone Research and the Head of the Department of Human Metabolism, at the University of Sheffield.

Peter joined the Garvan Institute in December 2011 as Head of the Osteoporosis and Bone Program and now leads the Division of Bone Biology. Peter's research interests are in understanding the cellular and molecular mechanisms responsible for physiological and pathological regulation of the skeleton. He has a particular interest in tumors that grow in bone such as multiple myeloma, or those that metastasise to bone, including prostate and breast cancer.

Sakae Tanaka

Tokyo University, Japan – Mechanisms of regulation of osteoclast differentiation
Sakae Tanaka, M.D., Ph.D. is currently a Professor at the Department of Orthopaedic Surgery, Faculty of Medicine, University of Tokyo and is Deputy Director at The University of Tokyo Hospital. His research interests include osteoporosis, bone metabolism, rheumatoid arthritis and osteoarthritis.

Professor Tanaka is currently an Editorial Board member for *Bone* and has held previous editorial positions for the *Journal of Bone and Mineral Research*, *Journal of Bone and Mineral Metabolism*, *Modern Rheumatology, Arthritis Research & Therapy, Journal of Orthopaedic Science,* and the *Journal of Clinical Investigation*
He is a member of the Japanese Orthopaedic Association (Director), Japan College of Rheumatology (Director), Japanese Society for Bone and Mineral Research (President), Japan Osteoporosis Society (Director), American Society for Bone and Mineral Research, and the International Federation of Musculoskeletal Research Societies (Director).

Claes Ohlsson

Gotheborg, Sweden – Microbiome and bone
Claes Ohlsson MD, PhD is professor at the Sahlgrenska Academy in Göteborg, Sweden. He combines a professorship at the Gothenburg University with a position as a senior consultant responsible for treatment strategies within endocrinology and osteoporosis at the Sahlgrenska University Hospital. Dr. Ohlsson has made several contributions to the field of osteoporosis with a special focus on hormonal regulation of bone growth and metabolism. His research on osteoporosis has a translational profile, combining cell and molecular biology with experimentation on animals and human tissue, as well as epidemiological methods. He has been a pioneer in using novel non-invasive imaging techniques for thorough phenotypic analyses of subjects in longitudinal population-based clinical cohorts with the aim to characterize environmental and genetic determinants of bone mass and fracture risk. In human genetic studies he demonstrated that the WNT16 locus is robustly associated with cortical bone thickness and the clinical endpoint, fracture, and showed osteoblast-derived WNT16 to be a paracrine regulator of fragility at cortical bone sites. He has helped open a new research field suggesting that the gut microbiota might be a crucial regulator of bone mass.

Pamela Robey

NIH, US – Stem cells and bone
Pamela Gehron Robey, Ph.D., is chief of the Skeletal Biology Section of the National Institute of Dental and Craniofacial Research, National Institutes of Health in Bethesda, Maryland., and Acting Scientific Director of the NIH Stem Cell Characterization Facility. Her work focuses on characterization of the biological activity of tissue-specific stem/progenitor cells from hard tissues. She has served on numerous editorial boards (Stem Cell Research, Journal of Bone and Mineral Research, Stem Cells and Stem Cell Reports) in addition to being a regular reviewer for many other journals. She is an active member of the NIH and extramural community, and focuses in particular on activities to foster career development of junior investigators in the field.

Marjolein Van der Meulen

Cornell University, US – Mechanosensing and bone

Marjolein C. H. van der Meulen is the James M. & Marsha McCormick Chair and Swanson Professor of Biomedical Engineering in the Nancy E. & Peter C. Meinig School of Biomedical Engineering and the Sibley School of Mechanical & Aerospace Engineering at Cornell University. She is also a Senior Scientist at the Hospital for Special Surgery. Her research in orthopaedic biomechanics focuses on musculoskeletal mechanobiology and bone biomechanics. She is a member of the American Society for Bone and Mineral Research (ASBMR), the Biomedical Engineering Society (BMES), and the Orthopaedic Research Society (ORS). She is an associate editor of the Journal of Bone and Mineral Research, member of the BMES boar