International Conference on Children's Bone Health

10 - 13 June 2017

Speakers

Justine Bacchetta

Justine Bacchetta (MD 2009, PhD 2011) is an Associate Professor of Pediatrics in Lyon, France. She is specialized in pediatric nephrology and pediatric diseases of calcium and phosphate metabolism. After a research fellowship at UCLA (Los Angeles, USA), she has four main research topics of interest: bone and mineral disorders associated to chronic kidney disease (CKD-MBD), bone disease in pediatric chronic diseases, bone disease in rare inherited renal diseases and bone physiology during growth. She is a council member of the European Society for Paediatric Nephrology (ESPN), and board-member of the CKD-MBD working group of the ESPN. She has published more than 100 publications in peer-reviewed journals. She has given 49 invited lectures in international and national conferences, and she received in 2016 the Renee Habib award from the International Pediatric Nephrology Association (IPNA).

Roland Baron

Dr Roland Baron is Professor of Medicine at the Harvard Medical School, Endocrine Unit, Massachusetts General Hospital, Professor in the Division of Bone and Mineral Research and Chair of the Department of Oral Medicine, Infection and Immunity at the Harvard School of Dental Medicine since January 2008. From 1977 - 2007 Dr Roland Baron was a Professor in the departments of Medicine, Orthopedics and Cell Biology at Yale University School of Medicine. He received his DDS and PhD degrees from the Medical School, University of Paris, France. He is the founder and past Editor-in-Chief of BONE. Between 1994 and 2002, he also held the position of Vice President and Head of the Bone Diseases Group at Hoechst Marion Rousse and then at Aventis. In 2002 he founded ProSkelia, a small pharmaceutical company devoted to the discovery and development of new drugs for bone and hormonal dependent diseases, now part of Galapagos. He has held the positions of President and Chief Scientific Officer of ProSkelia and then ProStrakan, until April 2006. Dr Baron was the President of ECTS 2008-11 and the President of the American Society for Bone and Mineral Research (ASBMR) in 2014-15. Dr Baron received the William Neumann Award and the Avioli Founder Award from ASBMR, the Harold Copp Award from the International Bone and Mineral Society (IBMS), the Excellence in Research Award from the European Calcified Tissue Society (ECTS) and has published over 330 scientific papers in the field of bone biology, bone diseases and their treatment. He is currently the co-Chair of the International Federation of Musculoskeletal Research Societies.

Nick Bishop

Professor Nick Bishop is an internationally recognised expert in the field of paediatric bone research with a particular focus on EM/early phase studies in osteogenesis imperfecta, steroid-induced or disease-associated osteoporosis and hypophosphatasia, as well as an interest in early life influences on later skeletal health. He is based at Sheffield Children's Hospital, a member of the Rare Bone Disease ERN, and the lead designated centre for the nationally-commissioned Highly Specialised Severe, Complex and Atypical Osteogenesis Imperfecta Service. He is an Associate Director of the AR-UK Experimental Arthritis Treatment Centre, leading the bone theme, President of the Academic Paediatric Association of Great Britain and Ireland and Director of the Clinical Research Facility at Sheffield Children's Hospital.

Björn Busse

Björn Busse is currently head of a 'Emmy Noether Research Group' (eq. Assistant Professor) which is a prestigious 5 year-program run by the German Research Foundation (DFG). The group of Björn is hosted by the Department of Osteology and Biomechanics at the University Medical Center Hamburg-Eppendorf. Björn has finished his PhD work (*Free and Humboldt University Berlin, 2006-2009*) with honors, where he has focused on research regarding bone biomechanics and bone mineralization. In particular, he has developed strong skills in scanning and backscattered electron microscopy, microanalysis, image analysis, materials testing and bone histomorphometry. Björn's work provides a contribution to our understanding on the fracture of bone, specifically by focusing on aspects of bone quality, such as structural and compositional osseous changes with aging, osteoporosis, osteoporosis treatment, Paget's disease of bone, *etc.* from both a medical and engineering perspective.

Jacqui Clinch

Dr Jacqui Clinch is a consultant in paediatric rheumatology at the Bristol Royal Hospital for Children and the rheumatology lead for Osteogenesis Imperfecta service. She is also a consultant in the Royal National Hospital for Rheumatic Diseases where she is the Clinical Director for the National Adolescent and Young Adult Chronic Pain Service (Bath Centre for Pain Services). Dr Clinch is on a number of national/international boards addressing aspects of childhood pain, childhood osteoporosis and hypermobility and has co-written a number of international reports and guidelines in these areas (including WHO guidelines for childhood pain 2013 and IASP guidelines for pediatric joint pain 2015). Academically she is widely published with specialist areas of interest including child and adolescent chronic pain conditions (disease and non-disease related), hypermobility, paediatric arthritis and parenting in chronic childhood disease. Current NIHR grants aim to address supporting parents of children with chronic disease, improving adolescent adherence to medications/therapy and understanding pain in childhood disease. She was awarded National Hospital Doctor of The Year (2003) and named within The Times Top 100 Doctors (2013). Outside work she enjoys an active family life, cycling, squash and chickens.

Nicola Crabtree

Dr Nicola Crabtree has worked in the field of bone densitometry for over 25 years. For the last 18 years, her research has concentrated predominately on bone development in the healthy child and in children with chronic diseases. As part of this work, in 2007 she completed her PhD thesis “Interpretation of Paediatric Bone Evaluation by DXA”. In 2010 she was awarded a NIHR Research fellowship to prospectively evaluate fracture risk in children with chronic inflammatory and/or disabling conditions. In addition to the prospective study Nicola was also awarded an Arthritis Research-UK grant to collate bone density data in 3500 healthy children from across the UK, including data from Sheffield, London, Manchester, Birmingham, Leeds and Glasgow. The overriding theme of her research is the development of imaging techniques which can improve the diagnosis of poor bone health and increased fracture risk in chronically sick children.

Antonella Forlino

Dr Antonella Forlino obtained her Degree in Biological Science in 1991 at the University of Pavia, Italy; her PhD in Biochemistry in 1994 at the University of Pavia and her Speciality Degree in Genetic in 1997. From 1995 to 1999 Dr Forlino had a fellowship at NIH, Bethesda, MD, USA. She is now Associate Professor of Biochemistry at the Department of Molecular Medicine, Unit of Biochemistry, University of Pavia. Her research activity is focused on the molecular, biochemical, and functional study of genetic diseases of the connective tissue, in particular Osteogenesis Imperfecta (OI). Her present research interests are the investigation of the intracellular retained mutant collagen fate in OI using *in vitro* and *in vivo* models, the development of a cell/gene therapy approach using OI murine models and she also recently started a *D.Rerio* facility to generate zebrafish models of skeletal dysplasias and to start drug screening approach.

Cecilia Götherström

Cecilia Götherström is Associate Professor in Stem Cell Research at Karolinska Institutet and her research is in the field of perinatal regenerative medicine. She was one of the first in the world to isolate and characterize human fetal mesenchymal stem cells. Dr Götherström has developed fetal mesenchymal stem cells for prenatal and postnatal transplantation purposes and since then the cells has indeed been used clinically to treat fetuses and children suffering from severe osteogenesis imperfecta with promising results. Dr Götherström is leading an international multicentre trial to evaluate the clinical effect of mesenchymal stem cell transplantation in the treatment of severe osteogenesis imperfecta.

Mark W Hamrick

Dr Hamrick is Regent's Professor in the Department of Cellular Biology & Anatomy at the Medical College of Georgia, Augusta University (formerly Georgia Health Sciences University), Augusta, Georgia, USA. He received his PhD in Cellular & Integrative Biology from Northwestern University and completed postdoctoral studies in Anatomy at Duke University. He is currently Associate Editor at the *Journal of Musculoskeletal & Neuronal Interactions* and Section Editor for Muscle & Bone at *Current Osteoporosis Reports*. His research focuses on the role of soft tissues, particularly muscle and fat, in bone mineral accrual during growth and bone loss with aging. His research on muscle-bone interactions has received funding support from the US National Institutes of Health, the Department of Defense, and the National Science Foundation.

Nicholas Harvey

Nicholas Harvey was appointed to a personal chair at the University of Southampton in 2015, and leads, with Professor Cooper and Professor Dennison, an MRC programme focused on the lifecourse epidemiology of bone and joint disease, as part of the MRC Lifecourse Epidemiology Unit. He is working to 1) translate epidemiological observations linking early life influences on later bone health into potential novel public health strategies (e.g. gestational vitamin D supplementation) aimed at optimising childhood bone mineral accrual and reducing risk of later fracture; and 2) elucidate underlying mechanisms. He has won several Awards at national and international meetings, is an investigator/ author on >£50m grant funding, has published over 130 peer-reviewed papers, and is a member of the National Osteoporosis Society (UK) Scientific Programme Committee, UK Biobank Imaging Working Group, International Osteoporosis Foundation Committee of Scientific Advisers, Bone Research Society (UK) Committee, Arthritis Research UK PRC.

Eric Hesse

Eric Hesse studied Medicine at Hannover Medical School in Germany where he became MD in 2003. He was trained in Orthopedic Surgery and graduated as PhD in 2007 in Genetics & Cell Biology in Hannover, Germany. In 2005, he moved as a Postdoctoral Fellow funded by the German Research Foundation to the laboratory of Dr Roland Baron at Yale University School of Medicine. The laboratory moved to Harvard University Schools of Medicine and Dental Medicine in 2008, where he continued his work as a Postdoc and later as Junior Faculty until 2011. During this time, he worked on clinical and basic science projects focusing on osteoblast biology and bone homeostasis, leading to publications in top tier journals including JCB, JBMR, Dev Cell, Bone, and the NEJM. He received numerous awards and fellowships, including the ASBMR Young Investigator-, John Haddad- and Harold Frost Award, the ECTS New Investigator Award, the Harvard Deans Fellowship, and the Gideon & Sevgi Rodan IBMS Fellowship. By the end of 2011, he moved to the University Medical Center Hamburg-Eppendorf in Germany, where he established an independent international research group as full, endowed, tenure-track Heisenberg-Professor. His research continues to focus on translational aspects of osteoblast function and bone remodeling as well as on cancer-induced bone diseases and is funded by the German Research Foundation, the German Federal Ministry of Education and Research, the European Union, the Helmholtz Association, and several Foundations. In addition, he was Co-Chair of the IBMS Young Investigator Committee and serves as a member of the ASBMR Professional Practice Committee, the ECTS Training Committee, the IBMS Awards Committee, the IBMS Publication Committee, the ORS Sun Valley Workshop Advisory Board, and as Director of Research of the Molecular Skeletal Biology Laboratory and of the Department of Trauma, Hand, and Reconstructive Surgery, in which he is practicing as Orthopedic Surgeon. Furthermore, he is Adjunct Professor in the Department of Anatomy and Cell Biology at Indiana University School of Medicine in the USA and serves as spokesperson of the BMBF/ANR bi-national Consortium “Integrative

Biology of Osteoanabolic Networks in the Epigenome (iBONE).

Wolfgang Högler

Dr Högler is a Consultant Paediatric Endocrinologist at Birmingham Children's Hospital, and Honorary Reader at the University of Birmingham. Dr Högler received paediatric and endocrine training at the Medical University Innsbruck, Austria and at The Children's Hospital at Westmead, Sydney, Australia. His Department is one of the largest paediatric endocrine units in Europe and regularly hosts international clinical, research and ESPE fellows. Dr Högler's clinical research group focuses clinical and translational research, in particular on mechanism of disease, novel diagnostic tools and treatments of rare bone and growth disorders such as osteogenesis imperfecta, hypophosphatasia, rickets as well as disorders in vitamin D and growth hormone metabolism. Dr Högler recently chaired the 7th International Conference on Children's Bone Health (ICCBH) and the Global Consensus for the Prevention and Management of Rickets. He organises postgraduate paediatric endocrine seminars for the Ipokrates Foundation

Heike Hoyer-Kuhn

PD Dr Heike Hoyer-Kuhn is pediatrician at the Children's Hospital, University of Cologne, Germany. She is member of the pediatric bone dysplasia outpatient department and was trained in a fellowship for pediatric endocrinology and osteology by Professor Eckhard Schoenau and PD Dr Oliver Semler. PD Dr Hoyer's interest in clinical care is focused on children and adolescents with Osteogenesis imperfecta and skeletal dysplasia. Based on the large sample size of patients in the outpatient department she is involved in basic research deciphering the molecular causes and pathophysiology of the disease by identifying clinical differences between classical collagen associated types and rare subtypes of skeletal diseases. Her main clinical research interest includes evaluating new drug treatment approaches within clinical trials.

Melita Irving

Dr Melita Irving is a consultant in clinical genetics and joint head of service at Guy's and St Thomas' Hospital NHS Foundation Trust with the Evelina London Children's Hospital. She is a trained general geneticist and sub-specialises in skeletal dysplasia, particularly achondroplasia and other genetic dwarfing conditions. She has developed clinical whole exome sequencing for skeletal dysplasia conditions. Melita completed her research higher degree in clinical and molecular studies in skeletal dysplasia and is chief investigator for a number of clinical trials and projects in achondroplasia. In 2011, she received the Maroteaux Award for advancing knowledge of skeletal dysplasia conditions. She is a keen teacher and trainer in skeletal dysplasia and clinical genetics, and is part of the team recruiting families with rare diseases to the 100 000 Genomes Project through the Genomic Medicine Centre South London, which she helped to establish. In addition, she is co-lead for the Genomics England Clinical Interpretation Partnership (GECIP) for skeletal dysplasia, recruiting patients and undertaking research across a number of conditions,

including undiagnosed skeletal dysplasia.

M Kassim Javaid

After completing medical training at Charing Cross and Westminster Medical School, I specialized in adult rheumatology at the Wessex Deanery. During that time, I completed a PhD examining the maternal determinants of intra-uterine bone growth as part of an ARC Clinical Fellowship at the University of Southampton followed by a travelling fellowship and worked with the OA group in UCSF to study the role of vitamin D and bone in lower limb OA. Since my return to the UK, I have been appointed as Honorary Consultant Rheumatologist and am the Associate Professor in Metabolic Bone disease at the University of Oxford. My research interests include the role of epidemiology of musculoskeletal diseases focusing in secondary fracture prevention and rare bone diseases (www.rudystudy.org).

Uwe Kornak

Uwe Kornak, MD PhD, is leader of a research group at the Institute of Medical Genetics and Human Genetics, and the Berlin-Brandenburg Center for Regenerative Therapies, Charité-Universitaetsmedizin Berlin and the Max Planck Institute for Molecular Genetics, Berlin, Germany. Through his work as a human geneticist he has a broad experience with clinical and molecular genetic diagnostics of rare human disorders with a special focus on neuromuscular and skeletal phenotypes. He has established several gene panels for diagnostics of metabolic and skeletal disorders and helped to develop bioinformatics tools for data evaluation. As a basic researcher, he is most interested in understanding the cellular pathophysiology of hereditary disorders of the skeleton and of connective tissues. An important focus has always been the regulation of trafficking and ion homeostasis of intracellular compartments with a focus on Golgi-related processes including glycosylation. During his PhD project as a biochemist at the Center for Molecular Neurobiology Hamburg Uwe Kornak became involved in the generation and interdisciplinary analysis of mouse models for human disorders. Up to now he not only identified several genes associated with human disorders, but also analysed the effect of these gene defects in in vitro and in vivo models using transgenic mice and zebrafish. Uwe Kornak has been reviewer for different human genetics journals and in 2007 received the Ian T Boyle award of the European Calcified Tissue Society and in 2011 the Ulmer Dermatologiepreis. He is member of three consortia on rare diseases (DIMEOs, SYBIL, and EURO-CDG).

Craig B Langman

Professor Craig B Langman, is the Isaac A Abt, MD, Professor of Kidney Diseases at the Feinberg School of Medicine, Northwestern University, Head of Kidney Diseases at the Ann and Robert H Lurie Children's Hospital of Chicago. His research focuses on the basic and clinical expression of inherited or acquired disorders of calcium, phosphorus vitamin D, and FGF23 metabolism, inherited genetic diseases (cystinosis, oxalosis, kidney stones, atypical HUS, hypophosphatasia), and the rehabilitation of patients around the world with chronic kidney disease. Professor Langman has published more than 235 articles, reviews and chapters in his discipline.

Agnès Linglart

Agnès Linglart is a 48-year-old pediatrician involved in endocrinology and rare disorders affecting the mineral metabolism. After a residency and a clinical fellowship in both Pediatrics and Endocrinology, AL spent 2 years at the Endocrine Unit of the Massachussets General Hospital in Harald Jueppner's team which prompted her to extend her knowledge from genetics to epigenetics. Back in France AL built the French center for reference for rare disorders of the calcium and phosphorus metabolism, a national networking structure dedicated to improve the care and research for these diseases. The center aims at developing multidisciplinary care and transition from childhood to adulthood care for patients affected with XLHR, hypoparathyroidism and pseudohypoparathyroidism. Her team is trained for clinical trials, implementation of registries collecting the natural history of diseases, collaboration with patient's groups and dissemination of research.

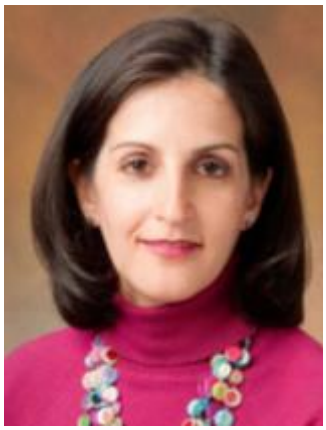
Outi Mäkitie

Outi Mäkitie received her MD degree in 1986 and MD PhD degree in 1992 at the University of Helsinki, Finland. She completed specialty training for pediatrics in 1998 and for pediatric endocrinology in 2000. After a Clinical and Research Fellowship in 2000-2003 at the Hospital for Sick Children, University of Toronto, Canada, she worked at the Children's Hospital, Helsinki University Hospital until 2013 as the Head of Metabolic Bone Clinic, Division of Pediatric Endocrinology. In 2013-2015 Dr Mäkitie was a Visiting Scientist at Karolinska Institutet, Stockholm, Sweden. In 2015 she was appointed as Professor of Pediatric Endocrinology at Children's Hospital, University of Helsinki, Finland and in 2016, Visiting Professor of Pediatric Endocrinology at Karolinska Institutet, Stockholm, Sweden. Dr Mäkitie has carried out clinical and translational research on various genetic and acquired skeletal disorders and on disorders of mineral homeostasis, and has published over 200 scientific papers in these research areas.

José Luis Millán

Professor José Luis Millán received his early training in clinical chemistry and biochemistry at the University of Buenos Aires, Argentina, and his PhD in Physiological Chemistry at the University of Umeå, Sweden, in 1983. Professor Millán is currently based at the Children's Health Research Center, Sanford Burnham Prebys Medical Discovery Institute, La Jolla, California, USA. He studies the mechanisms of initiation of skeletal and dental mineralization, the pathophysiology of hypophosphatasia and other soft-bones conditions, as well as dystrophic calcification, with a particular focus on medial vascular calcification.

Sogol Mostoufi-Moab



I am an Assistant Professor of Pediatrics at the Children's Hospital of Philadelphia, University of Pennsylvania Perelman School of Medicine, and board certified in pediatric oncology and endocrinology. I have advanced epidemiology training and my research program is focused on bone, body composition, and metabolic abnormalities in survivors of childhood malignancies. Clinically, I practice as a pediatric oncologist with a focus in thyroid cancer as well as endocrine late effects after childhood cancer therapy. My NIH-funded research program is focused on examining the mechanisms of skeletal deficits and body composition abnormalities after childhood hematopoietic stem cell transplantation (HSCT), with an emphasis on the fat-bone axis and its contribution to the bone and metabolic complications following childhood HSCT. My ongoing research goal is identification of targeted interventions to form the basis of future studies to conduct randomized clinical trials. When not at work, I enjoy Pilates, Yoga, cooking, gardening, and theatre.

Stefan Mundlos

Stefan Mundlos is currently Professor and Chairman of the Institute for Medical and Human Genetics at the Charité, Berlin's Medical School, and head of the research group Development & Disease at the Max Planck Institute for Molecular Genetics in Berlin. He received his MD (1985) and Dr med. (1987) from the University of Heidelberg, Germany and did a specialization in Pediatrics and Human Genetics thereafter. His lifelong interest is in genotype-phenotype correlations and the molecular basis of Mendelian disorders with a particular focus on skeletal disease. He discovered numerous disease genes and has a special interest in understanding basic mechanisms of skeletal development, maintenance and regeneration. His current interests and research projects are focused on the function of non-coding DNA in gene regulation and disease, the functional in vivo analysis of structural variations, as well as the development of tools for the diagnostics of genetic disorders.

Keiichi Ozono

Keiichi Ozono is Professor and Head of Department of Pediatrics at Osaka University, Japan, in the Graduate School of Medicine. He gained his MD in 1982 and his PhD in 1992, both from Osaka University, Japan. Since then his work has included Department Head of Environmental Medicine, Osaka Medical Center and Research Institute for Maternal and Child Health between 1994 and 2002 as well as Visiting Professor, Osaka University Graduate School of Medicine between 1999 and 2002. He is a council member of the Japanese Society of Bone and Mineral Metabolism, Japanese Society of Endocrinology, Japanese Society of Pediatrics and the Japanese Society for Pediatric Endocrinology. Professor Ozono has won a number of awards including Investigator Award, Japanese Society of Bone and Mineral Metabolism (2002) and the Kenji Fujieda Award, Japanese Society of Pediatric Endocrinolgy (2013). He is associate editor of 3 journals: Journal of Bone and Mineral Metabolism, Clinical Pediatric Endocrinology and Endocrine Journal. Professor Ozono's fields of research are pediatric endocrinology, vitamin D, skeletal dysplasia, bone and mineral metabolism.

Frank Rauch

Frank Rauch, MD, is a Professor of Pediatrics and clinician-scientist at the Shriners Hospital for Children and at McGill University. His clinical activities and research program concentrate on improving bone health in children, with a special focus on genetic conditions leading to fractures and on the role of the muscle system in bone diseases. In his recent work, Dr Rauch has identified new genetic causes of brittle bone disorders and has assessed the long-term effects of bisphosphonate treatment in children with osteogenesis imperfecta. He is also collaborating with Statistics Canada in a study that assesses muscle and bone health in Canadians. Dr Rauch is currently serving as Editor-in-Chief of the Journal of Musculoskeletal and Neuronal Interactions. Dr Rauch has authored or co-authored more than 200 original publications.

Anya Rothenbuhler

Anya Rothenbuhler became MD at the Faculty of Medicine Lille 2 in France in 2003 with a primary specialization in Pediatrics. She then became assistant Professor in the Pediatric Endocrinology Department in Cochin-Saint Vincent de Paul Hospital, Université Paris Descartes and trained to become a pediatric endocrinologist with a special interest in rare diseases of calcium and phosphorus metabolism. Dr Rothenbuhler is now a full time senior clinician in the Department of Pediatric Endocrinology at Bicêtre University Hospital in France working for the national reference center for rare disorders of the mineral metabolism. She has an over 10-year clinical experience in treating children from birth throughout adolescents with rare mineral disorders.

Frank Rutsch

Frank Rutsch is a consultant and Associate Professor in Pediatrics at Münster University Children's Hospital, Münster, Germany. He graduated from Münster University Medical School in 1992 and took part in the Pediatric residency program in Dresden University and Dortmund Municipal Hospital, Germany. After spending a postdoctoral research fellowship at the Department of Rheumatology/Immunology, UCSD, San Diego, USA, he became the leader of an independent research group at Münster University Children's Hospital in 2004. His main research interests are focused on the discovery of the underlying genetic defects and translational aspects in rare Pediatric metabolic and autoimmune disorders. In this respect, with the help of several consortia, his group discovered the genetic cause of generalized arterial calcification of infancy, Crisponi syndrome, certain defets of intracellular cobalamin metabolism, subtypes of Aicardi-Goutières syndrome and Singleton-Merten syndrome. His current projects include experimental studies in animal models of some of these rare disorders.

Oliver Semler

Oliver Semler is head of the department of rare skelettale diseases in childhood at the university Cologne, Germany. PD Dr Semler studied medicine at the universities in Cologne and He completed his PhD in paediatrics with the thesis „Translationale research in Osteogenesis imperfecta: From Pathophysiology to personalized treatment“. PD Dr Semler is certified as paediatric rheumatologist and focusses clinical and scientifically on different skelettale dysplasia's. In this topic a main interest is the improvement and quantification of mobility and muscle function. He is Principal investigator in a number of clinical trials and partner in international research networks. He published more than 50 peer-reviewed articles and book chapters and was awarded with the „Young Investigator Award“ of the „European Society of Pediatric Endokrinology“ and with the „Eva Luise Köhler Forschungspreis für Seltene Erkrankungen".

Bonny Specker

Dr Bonny Specker is currently Director and Chair of the E.A. Martin Program in Human Nutrition at South Dakota State University. Prior to moving to SDSU in 1997, she was at the University of Cincinnati and Cincinnati Children's Hospital Medical Center where she received her PhD in Epidemiology and spent 15 years in research and teaching as Professor of Pediatrics. She has published extensively in the area of bone, calcium and vitamin D metabolism. She was the Principal Investigator of the South Dakota Rural Bone Health study, which was designed to determine how lifestyle (diet and activity) and genetics influence bone density and later bone loss, and the SDSU Study Center of the National Children's Study. Her and her group at SDSU have been working with the South Dakota Department of Health and the Northern Plains Tribal Epidemiology Center on maternal child health issues.

Wim Van Hul

Wim Van Hul is full professor of Molecular biology and genetics at the University of Antwerp, Belgium. He obtained a bachelor degree in Chemistry from the University of Louvain (Belgium) and a master degree in biochemistry. He obtained his PhD on molecular genetics in 1993 from the University of Antwerp. He started his own research group aiming at the identification and characterization of genes underlying skeletal disorders and obesity. His team was successful in identifying and characterizing several disease causing genes including the *SOST* gene encoding the sclerostin protein. He authored and co-authored more than 200 publications and is on the editorial board of several journals. He is currently chair of the educational committee of biomedical sciences at the University of Antwerp, Belgium.

Hans Van Leeuwen

Hans (J.P.T.M.) van Leeuwen studied biology in Amsterdam, and did his PhD study on the mechanism of action of PTH in Leiden, The Netherlands. Currently he is professor at the Erasmus University Medical Center in Rotterdam, The Netherlands, leading the research program on Calcium and Bone Metabolism. Main research focus is on regenerative medicine with emphasis on control of mesenchymal stem cell and osteoblast differentiation, on the impact of bone metabolism on hematopoietic stem cell control and tumor cell metastasis, and on aging and calcium and bone homeostasis.

- Professor of Calcium and Bone Metabolism
- Director of Research and Education of Erasmus University Medical Center
- Council member of the American Society for Bone and Mineral Research2015 - present
- Board member of the Advances in Mineral Metabolism from 2011-2014.
- Secretary on the Executive Board of the European Calcified Tissue Society from 2000-2009.
- Served on the board of scientific, academic committees and grant-awarding bodies.
- Served on over 35 organizing and program committees of national and international scientific meetings within as well as outside the bone field.
- Initiated the genetics of osteoporosis research program at the Erasmus University Medical Center.
- Published over 210 peer reviewed papers and 25 book chapters.
- Founder of the biotech companies Therosteon and Arcarios BV.
- Initiated a GRID computing program in collaboration with the RABO bank.
- Obtained about 40 Dutch, EU and industrial research grants

Kate Ward

Kate joined the MRC Lifecourse Epidemiology Unit, University of Southampton in January 2016 as an Associate Professor and is an Honorary Senior Scientist at MRC Human Nutrition Research in Cambridge. She has been a researcher in bone physiology for 20 years and gained her PhD in Anatomy from The University of Leeds in 1999. Kate's main research interests are musculoskeletal interactions through the life course in different populations and the use of imaging as a biomarker to study skeletal phenotype. Her current work aims to understand the definition, development and maintenance of, a healthy musculoskeletal phenotype and the impact of nutrition and lifestyle on skeletal health. Kate is Secretary of the Bone Research Society, and a member of several National Osteoporosis Society management Committees, International Society of Clinical Densitometry Paediatric Task Force, three Editorial boards, including JBMR, and initiated the BRS Muscle and Bone working group.

Leanne Ward

Dr Leanne Ward is an Associate Professor of Pediatrics at the University of Ottawa where she has held a Research Chair in Pediatric Bone Health since 2010. She is the Medical Director of the Pediatric Bone Health Clinical and Research Programs at the Children's Hospital of Eastern Ontario. Dr Ward's research program is dedicated to the study of bone development and the treatment of pediatric bone disorders, with particular emphasis on bone heath in children with chronic illnesses. She has served as an advisor to numerous national and international organizations on various aspects of skeletal health in children, including the Centres for Disease Control Clinical Care Guidelines for Duchenne Muscular Dystrophy. Dr Ward has received a number of awards for her work in pediatric bone health, including a Canadian Child Health Clinician Scientist Career Development Award, a Canadian Institutes for Health Research New Investigator Award and a Canadian Child Health Clinician Scientist Career Enhancement Award.

Bettina Willie

Bettina Willie is an Associate Professor in the Department of Pediatric Surgery at McGill University and an investigator at Shriners Hospitals for Children® - Canada. She is an Associate Member of the Departments of Biomedical Engineering and Surgery. She earned a doctoral degree in Bioengineering from the University of Utah. She performed postdoctoral training at the University of Ulm, Hospital for Special Surgery, and led a research group at the Charité- Universitätsmedizin Berlin. Her research focuses on the importance of the mechanical environment in bone for adaptation, regeneration, and aging. Her work involves in vitro, in vivo, and in silico studies to understand the mechanism(s) responsible for alterations in the response of the skeleton to mechanical strain. These studies center on unravelling the important cellular and mechanical factors regulating mechanoreception in bone cells to improve targeted therapies for treating and preventing bone loss and delayed bone healing.