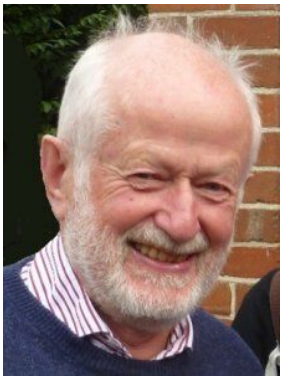
BRS Annual Meeting 2016

29 June - 1 July 2016, Liverpool, UK

Invited Speakers

Alan Boyde



Alan Boyde is Professor of Mineralised Tissue Biology in Dental Physical Sciences, QMUL, at the Barts and the London School of Medicine and Dentistry. Research interests:

- Dental and skeletal hard tissue development, structure, function, disease and treatment.
- Skeletal tissue responses to hormonal and drug challenges, impact exercise, aging, osteomalacia, osteoporosis, osteoarthritis, traumatic osteochondrosis, fatigue fracture, dental and skeletal implants, tumour metastases.
- Skeletal changes in genetically modified mice.

Moira Cheung

Moira Cheung is a Consultant Paediatric Endocrinologist and the Clinical Lead for Paediatric Metabolic Bone Disease at Evelina Children's Hospital, Guy's and St Thomas' NHS Foundation Trust. She became interested in metabolic bone disease during her training in London as a paediatric endocrinologist and undertook a two year fellowship at the Montreal Shriners Hospital, McGill University, conducting clinical research and treating children with rare bone disorders. She returned to Imperial College, London to complete a PhD researching the effects of oestrogen and thyroid hormone on the skeleton in animal models. Moira's areas of interest include the pathophysiology of skeletal growth, bone phenotyping and improving clinical care for children with musculoskeletal disorders. She is an active member of the British Paediatric and Adolescent Bone Group and has recently been coordinating clinical phenotyping across the UK for patients with juvenile onset hypophosphatasia.

Melinda Duer

Melinda Duer completed her PhD in Chemistry at the University of Cambridge (Department of Chemistry) in 1989, and then took up a temporary appointment as a lecturer in the same department, during which time she trained herself in the then relatively new technique of solid-state nuclear magnetic resonance (NMR) spectroscopy. Four years as a Royal Society Research Fellow followed, where she focussed on developing new solid-state NMR experiments to examine molecular structures and dynamics, particularly for complex, heterogeneous systems. Ten years ago, then a Senior Lecturer (and still in Cambridge), she began to develop and apply solid-state NMR methods to study the atomic structure of bone and other biological tissues. Today she is Professor of Biological and Biomedical Chemistry in the Dept. of Chemistry, University of Cambridge and has a broad range of research interests covering the development and turnover of calcified tissues, the molecular structure of both the organic matrix and mineral components of these tissues and the changes in molecular structure and dynamics/flexibility with age and disease.

Florent Elefteriou

Dr Elefteriou generated the first experimental evidence supporting the role of the central and sympathetic nervous systems in the control of bone remodelling, and currently investigates the potential clinical relevance of these findings through the study of one metastasis and vestibular dysfunctions. Another main contribution of Dr Elefteriou is in the field of rare genetic bone diseases. Through the generation of multiple preclinical models, Dr Elefteriou investigates the etiology of the skeletal maladies in children with Neurofibromatosis type I (NF1) and identified novel targeted approaches to prevent and treat NF1 tibial dysplasia and pseudarthrosis. Dr Elefteriou is Associate Professor at Baylor College of Medicine (Houston, TX) in the Department of Molecular and Human Genetics and Orthopedic Surgery, and the co-director of the Baylor Center for Skeletal Medicine and Biology.

Bill Fraser

Bill Fraser is Consultant Metabolic Physician at the Norfolk and Norwich University Hospital, where he is also Director of the SAAS Bone Markers Service, and Director of the Bioanalytical Facility of the University of East Anglia.

Alison Gartland

Dr Alison Gartland studied for her PhD at The University of Liverpool, completed Post-Doctoral Researcher positions at IGMM, CNRS France and University of Massachusetts Medical School, USA. She is a Reader in Bone and Cancer Cell Biology at The University of Sheffield with expertise in purinergic signalling, bone and cancer cell biology, in vitro and in-vivo murine models of MSK disorders, including in the setting of cancer. Her principal research area focus is on developing fundamental understanding of the basic cellular, molecular and genetic mechanisms responsible for musculoskeletal disease and cancer. Dr Gartland has over 40 publications in leading journals in the field of bone and cancer and has also authored several book chapters on human bone cell culture technique. Current projects include looking at the mechanisms of breast cancer metastasis to bone, effect of metal ions on bone cell function, and P2 receptors in bone health and disease.

Gary Hattersley

Dr Hattersley is the Chief Scientific Officer and is a Founder of Radius, with over 25 years R&D experience in women's health, musculoskeletal diseases, oncology, with a primary focus on bone disease and osteoporosis. His professional career includes over 20 years of pharmaceutical and biotech industry experience, spanning early stage drug discovery to late stage clinical development. Prior to joining Radius, Dr Hattersley has held positions at Millennium Pharmaceuticals and Genetics Institute/Wyeth Research. Dr Hattersley received a PhD from St. George's Hospital Medical School in London.

Anthony Hollander

Anthony Hollander is Associate Pro-Vice Chancellor (Enetrprise) at the University of Liverpool.

Nathan Jeffery

Nathan Jeffery is director of the Human Anatomy Resource Centre (HARC) and senior lecturer in human and comparative anatomy, University of Liverpool. He has worked extensively over the past 20 years in the field of functional morphology, with a particular emphasis on the application of novel imaging and computational methods to study musculoskeletal adaptation, ageing and pathology.

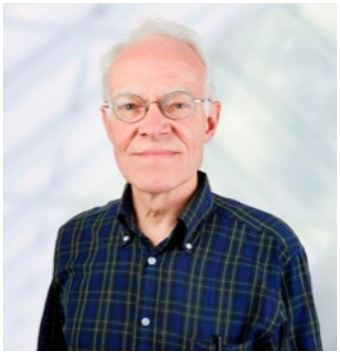
Virginia Byers Kraus

Dr Virginia Byers Kraus, MD, PhD, is Professor of Medicine and Adjunct Professor of Pathology and Orthopaedic Surgery at the Duke University School of Medicine. She is a practicing Rheumatologist with over 20 years experience in musculoskeletal research focusing on osteoarthritis. She trained at Brown University (ScB 1979), Duke University (MD 1982, PhD 1993) and Duke University Medical Center (Residency in Internal Medicine and Fellowship in Rheumatology). Her career has focused on elucidating osteoarthritis pathogenesis and translational research into the discovery and validation of biomarkers for early osteoarthritis detection, prediction of progression, and monitoring of disease status. She served as the President of the Osteoarthritis Research Society International (OARSI, 2013-2015). In addition, she is a member of the Orthopaedic Research Society (ORS), American College of Rheumatology (ACR) and the national board of directors of the Arthritis Foundation (AF). For work related to prevention of post-traumatic arthritis, she is a recipient of the 2015 Kappa Delta award from the American Academy of Orthopaedic Surgeons (AAOS) and Orthopaedic Research Society (ORS).

Henry M Kronenberg

Henry M Kronenberg is Chief of the Endocrine Unit at the Massachusetts General Hospital and Professor of Medicine at the Harvard Medical School. There he leads a research group that studies the actions of parathyroid hormone and parathyroid hormone-related protein, with a particular emphasis on bone development, the osteoblast lineage, calcium homeostasis, and the roles of osteoblast lineage cells in hematopoiesis. Dr Kronenberg received his BA from Harvard University, his MD from Columbia University, his medical house officer training at the Massachusetts General Hospital, and post-doctoral training at NIH, MIT, and the MGH. Dr Kronenberg is President of the Endocrine Society has served as President of the American Society for Bone and Mineral Research and of the International Bone and Mineral Society. He has won the Fuller Albright Young Investigator Award, the William F. Neuman Award, and the Rodan Mentoring Award of the American Society for Bone and Mineral Research.

Paul Lips



Paul Lips is emeritus professor of endocrinology in the VU University medical center in Amsterdam and was chair of the Endocrine Section within the Department of Internal Medicine until 2012, when he partially retired. His PhD thesis was on “Metabolic causes of femoral neck fractures” in 1982. He spent a training period in Lyon, France at the “Laboratoire de recherches sur l’histodynamique osseuse” (Université Claude Bernard) with Professor P.J. Meunier to gain experience with bone biopsies and metabolic bone diseases. His research is focused on osteoporosis, metabolic bone disease and vitamin D within the EMGO Institute for Health and Care Research and the Institute MOVE with epidemiological, clinical and translational research. Important subjects are prevalence, consequences and prevention of vitamin D deficiency, and effects of mechanical forces and inflammation on bone. He has authored and co-authored more than 400 papers in peer-reviewed international journals (see PubMed). He was member of three WHO scientific groups on osteoporosis. He serves on the Editorial Board of Osteoporosis International and the Journal of Internal Medicine and is reviewer for many international journals on internal medicine, endocrinology and metabolic bone diseases. In 2013 he received the Philippe Bordier Award of the European Calcified Tissue Society.

Charlotte Peterson

Dr Peterson joined the faculty of the University of Kentucky, College of Health Science in 2006 as the Hamburg Endowed Professor and Associate Dean for Research. She also serves as Associate Director of the University Center for Muscle Biology and Center for Clinical and Translation Sciences. She was previously Professor of Geriatrics at the University of Arkansas for Medical Sciences. Peterson received her Bachelor of Science degree at the University of Notre Dame and her doctorate from the University of Virginia, followed by two postdoctoral fellowships, the first at the National Eye Institute at the NIH and the second at Stanford University School of Medicine. Her research, funded by NIAMS and NIA, focuses on elucidation of cellular and molecular mechanisms controlling skeletal muscle structure and function, with the goal of preventing frailty and loss of functional independence. Peterson is Associate Editor of the Journals of Gerontology and Aging Cell and was recently appointed to the National Institute on Aging Board of Scientific Counselors.

Lakshminarayan Ranganath

Professor Lakshminarayan Ranganath (LRR) became interested in Alkaptonuria (AKU) in 2003, when there was no NHS service available for AKU in the UK. Furthermore, systematic assessment of patients with this crippling disease was lacking. Numbers of AKU patients were unknown in UK. There was no effective treatment for AKU. To address these issues, he established an NHS Highly Specialised Services funded National Alkaptonuria Centre (NAC), providing access to a multidisciplinary team of experts, employing off-label use of nitisinone, and other therapies, of which he is the inaugural Director. LRR has carried out a national survey that identified 81 UK, 450 European and 1000 patients worldwide. He has pioneered an assessment of AKU patients. LRR is also co-ordinating an EC-funded international research programme that involves 3 studies in AKU. This will bring advances in AKU to all patients with AKU worldwide.

Michael Stone

Dr Michael Stone BA, MBBS, DM, FRCP qualified from Oxford University in 1981 before completing his clinical training in London. He trained in Metabolic Bone Disease under the auspices of Professor David Hosking in Nottingham culminating in the award of his DM thesis in the Treatment of Paget's Disease of Bone. Since his move to Cardiff he has developed one of the busiest Metabolic Bone Disease Units in the UK. There are 4 bone clinics each week, open access bone densitometry serviced by two DXA scanners and a Fracture Liaison Service. He is also Director of the Bone Research Unit in the Geriatric Medicine Department of Cardiff University with research interests that include: novel methods of bone strength assessment, the bisphosphonate acute phase response, bone loss in patients with cystic fibrosis or COPD, the use of high dose vitamin D in the frail elderly and treatment induced bone loss in prostate cancer. He is a clinical expert/referee for the National Institute for Health Research, Chairman of the Wales Osteoporosis Advisory Group, member of the secondary care forum of the UK National Osteoporosis Society, scientific adviser to the Dorset Osteoporosis Society, a trustee of the Paget's Association and a participant in the Rare Bone Diseases network of bone clinics. He is a member of the faculty and organising committee for the Bone Research Society Training Course on osteoporosis and metabolic bone disease and teaches on bone disease for the Cardiff MSc in geriatrics course.

Matt Warman

Dr Warman is the Harriet M. Peabody Professor of Orthopaedic Surgery and Genetics at Harvard Medical School. He attended college at Brown University and medical school at Cornell University. While in medical school, he performed research with Dr Adele Boskey at The Hospital for Special Surgery. After medical school he trained in Pediatrics at the Children's Hospital in Washington, D.C., in Genetics at the Children's Hospital in Boston, and he performed post-doctoral research with Professor Bjorn R. Olsen at Harvard Medical School. In 1994, Dr Warman established an independent laboratory and clinical program in the Department of Genetics and Center for Human Genetics at Case Western Reserve University and University Hospitals of Cleveland. In 2006, he returned to Boston to become director of the Orthopaedic Research Laboratories at Boston Children's Hospital. Dr Warman is also an investigator with the Howard Hughes Medical Institute. The patients and families, who Dr Warman has come to know through his clinical work as a pediatrician and geneticist, have often served as the impetus for his research. In addition to working with patients and families, members of Dr Warman's lab try to understand and treat human disease by studying cultured cells, purified proteins, and other organisms. Having benefited from superb mentoring throughout his career, Dr Warman enjoys introducing students (from high school to professional school) to the importance and excitement of Human Genetics. He is proud to have mentored students at all levels, who have gone on to become excellent scientists, physicians, and educators.

Steven Wood

Dr Steven Wood is a Senior Research Fellow at the University of Sheffield, Department of Oncology and Metabolism applying proteomics and genomic sequencing techniques to the study of breast cancer bone metastasis in order to discover biomarkers relevant to the detection and treatment of bone metastasis, as well as elucidating the mechanisms responsible for cancer spread to bone. After graduating with a degree in biochemistry (University of Oxford) and a PhD (University of Newcastle upon Tyne) he has worked on the application of biomarker discovery techniques within diverse cancers including those of breast, lung and kidney, working mainly within bio-fluids but also within cell-lines. This work has encompassed academic studies at the University of Leeds, Howard Hughes Medical Institute (Charlottesville, USA), Paterson Institute (Manchester), Imperial College (London) and Institute of Cancer Research (London) as well as work within a university spin-out company.