BRS Annual Meeting 2017
25- 27 June 2017, Bristol, UK
Invited Speakers

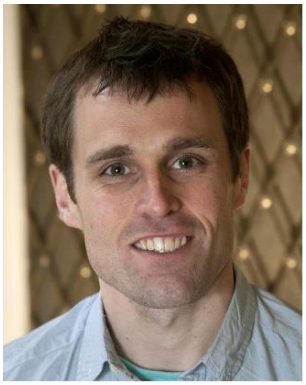
Katherine Brooke-Wavell

Research examines the influence of exercise and other lifestyle factors on risk factors for osteoporosis, falls, physical function and related health outcomes in populations ranging from young athletes to inactive older adults. In particular, Katherine has conducted a number of collaborative randomised controlled trials of exercise and whole body vibration training interventions on bone physical parameters and bone metabolism, including the Hiphop study and ProAct65+ bone study.

Geert Carmeliet

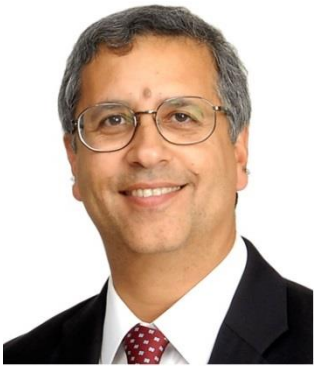
Geert Carmeliet obtained the degree of Medical Doctor at the KU Leuven in 1983. After obtaining her Board Certificate in Paediatrics, she switched to scientific research in the field of cell biology at the Centre of Human Genetics at the KU Leuven. In 1994, she obtained her PhD and was appointed Assistant professor in 1995 in the Laboratory of Endocrinology, headed by prof. Roger Bouillon. At this moment, she is head of the laboratory of Clinical and Experimental Endocrinology, teaches pathological physiology to medical students and is member of several research councils. Her research focuses on two topics related to bone biology. On the one hand, her lab investigates the tissue-specific contributions of vitamin D signalling in bone and calcium homeostasis using several mouse models and in vitro approaches in order to optimize therapeutic strategies for osteoporosis. In the second research line, the lab investigates the role of angiogenic factors and hypoxia signalling in bone development and homeostasis, aiming to improve fracture repair and tissue engineering approaches. During the last years, research interest has also been focussed on cell metabolism of osteolineage cells.

Will Cawthorn



My research background is in the formation and function of adipose tissue, originally from the perspective of obesity and associated metabolic diseases and, more recently, in the context of caloric restriction. I did my PhD at the Institute of Metabolic Science, University of Cambridge, focusing on the regulation of adipogenesis by tumour necrosis factor-alpha. In 2009 I moved to the University of Michigan to pursue postdoctoral research with Professor Ormond MacDougald, initially studying novel regulators of mesenchymal stem cell fate. During this time I began a side project studying bone marrow adipose tissue (MAT), which, unlike white and brown adipose tissues, has been largely ignored by modern biomedical research. This side project eventually took centre stage, leading to the identification of MAT as an endocrine organ that can contribute to systemic adaptations to caloric restriction. To further pursue this research, in 2015 I moved to the University of Edinburgh to take up a Chancellor's Fellowship in the Centre for Cardiovascular Science. My lab is continuing to investigate the novel endocrine functions of MAT through studies that include unique mouse models, imaging approaches and clinical sample analysis.

Cyrus Cooper



Cyrus Cooper is Professor of Rheumatology and Director of the MRC Lifecourse Epidemiology Unit; Vice-Dean of the Faculty of Medicine at the University of Southampton; and Professor of Epidemiology at the Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford. He leads an internationally competitive programme of research into the epidemiology of musculoskeletal disorders, most notably osteoporosis. He is Chairman of the Committee of Scientific Advisors, International Osteoporosis Foundation; Chair of the Arthritis Research UK Clinical Studies Initiative; Chair of the BHF Project Grants Committee; an NIHR Senior Investigator; and Associate Editor of Osteoporosis International. He has previously served as Chairman of the MRC Population Health Sciences Research Network; Chairman of the National Osteoporosis Society of Great Britain; past-President of the Bone Research Society of Great Britain; and has worked on numerous Department of Health, European Community and World Health Organisation committees and working groups. He has published extensively (>850 research papers) on osteoporosis and rheumatic disorders and pioneered clinical studies on the developmental origins of peak bone mass. In 2015, he was awarded an OBE for services to medical research.

Lynne Cox

My lab researches the molecular underpinnings of cell senescence, which contributes to tissue and organismal ageing. I studied at Cambridge for my undergraduate degree in Natural Sciences, and then carried out my PhD under the supervision of Prof Ron Laskey on DNA replication control. I carried out a short post-doc with Prof Sir David Lane in Dundee, on the role of the tumour suppressor p53 in DNA replication control, then was awarded a Royal Society of Edinburgh research fellowship to analyse regulation of DNA replication, particularly through the protein PCNA. Though my early career interests focussed on cancer, it became apparent that ageing involves same molecular processes. I set up my group in Oxford in 1996 and we have been studying the molecular basis of ageing since, through human premature ageing Werner syndrome, with models in both worms and fruit flies, and directly through dissecting the pathways of cellular senescence in normal human cells. I serve on the Executive committee of the British Society for Research on Ageing, and as a founder member of the Oxford Ageing Network, OxAgeN.

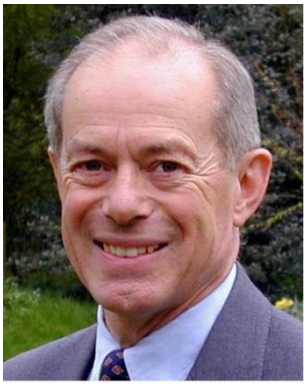
George Davey-Smith

A clinical epidemiologist whose research has pioneered (1) understanding of the causes and alleviation of health inequalities; (2) lifecourse epidemiology (3) systematic reviewing of evidence of effectiveness of health care and health policy interventions (4) population health contributions of the new genetics. He has published over 1000 peer-reviewed journal articles, 15 books/edited collections and numerous editorials, commentaries and reviews. He is an ISI highly cited scholar and Foreign Associate of the National Academy of Medicine Fellow of the Royal Society of Edinburgh. He is co-editor of the International Journal of Epidemiology (during his tenure the impact factor has increased from less than 2 to over 9), has sat on the MRC Public Health and Health Services Research, Physiological Medicine and Infection Boards and the MRC Military Health Research Advisory Group and Global Health Group. He is on the Wellcome Trust Science Funding Interview Panel. He has established or has been central to the running of a large number of epidemiological cohort studies involving detailed clinical and biomarker assessments. He is currently Scientific Director of the Avon Longitudinal Study of Parents and Children; and became Director of the MRC Centre for Causal Analyses in Translational Epidemiology in 2007 and of the MRC Integrative Epidemiology Unit in 2013. He is Director of the Wellcome Trust 4 year PhD programme in Lifecourse and Genetic Epidemiology at the School of Social and Community Medicine, University of Bristol.

Fredrik Karpe

Fredrik Karpe is a physician-scientist who is professor of metabolic medicine at the University of Oxford. He is using genomic and physiological tools to investigate metabolic consequence of obesity and fat distribution. To promote research in translational medicine he has established the Oxford Biobank consisting of 8,500 deeply phenotyped participants who have given informed consent to be recalled for future studies. The interaction between bone and fat phenotypes are explored together with Dr Costas Christodoulides, who is a BHF Intermediate fellow in the unit.

Lance Lanyon



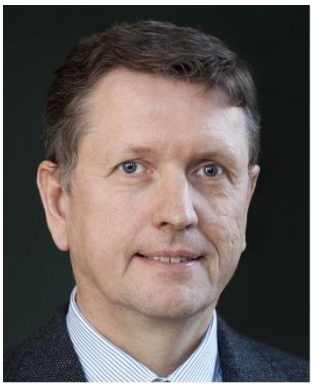
Qualified as a veterinarian from Bristol University, in 1966. During research for his PhD he established the technique of using chronically implanted strain gauges to measure mechanical strains *in vivo* from the surface of bones during animals' physical activity. By combining this technique with the application of artificial loads to bones *in vivo* in a number of animal models he, with colleagues, started to define those components of bones' loading regimens that influence their architecture and the cellular mechanisms involved in the mechanically adaptive process.

His research has been primarily conducted in the veterinary schools in which he has been a member of staff; Bristol (1966-79), Tufts (1979-84), the Royal Veterinary College, London (1984-2011) of which he was also Principal from 1989-2004, and Bristol again from 2010-2016.

Qing-Jen Meng

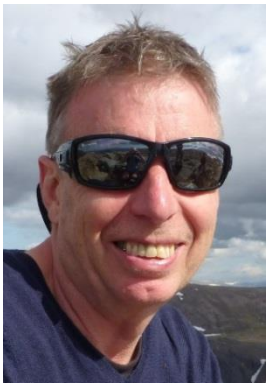
Currently an Arthritis Research UK (ARUK) Senior Research Fellow in the Faculty of Biology, Medicine and Health, The University of Manchester. Qing-Jun obtained his MD & PhD (2002) in China. In 2003, Qing-Jun began his post-doctoral training (at University of Manchester) to investigate the molecular mechanisms and pharmacological resetting of the biological clocks. In 2009, Qing-Jun received a MRC Career Development Fellowship and started his own research group, focusing on circadian clocks, ageing and age-associated diseases. In 2015, Qing-Jun was awarded an ARUK Senior Fellowship to continue his work into the roles of circadian clocks in the musculoskeletal system. Qing-Jun is a Committee member and Bursary Chair for British Society for Matrix Biology, Editorial Board member of Scientific Reports, Management Board member of ShARM UK, International Advisory Board member of Matrix Biology Europe 2018, MRC College of Reviewers for the Newton Fund, ARUK College of Experts.

Claes Ohlsson



Professor Claes Ohlsson MD, PhD (born 1965) is the Director of Centre for Bone and Arthritis Research at the Sahlgrenska Academy in Göteborg, Sweden. He received his M.D. in 1990 and his Ph.D. in 1993. He has made several contributions to the field of osteoporosis with a special focus on *hormonal regulation of bone 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 was the first to demonstrate that the gut microbiota regulates bone mass. Recently, starting from human genetic studies, he identified a new mechanism involving WNT16 for the regulation of cortical bone mass and fracture susceptibility. He is the author of >475 articles, >37.000 citations and H-index of 86.

Stuart Ralston

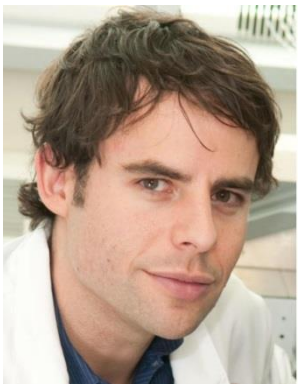


Stuart H Ralston graduated in Medicine from Glasgow University in 1978 and underwent higher medical training in General Internal Medicine and Rheumatology. He previously held the chair of Medicine and Bone Metabolism at the University of Aberdeen and moved to Edinburgh University in 2005 when he now holds the Arthritis Research UK Chair of Rheumatology. He is currently director of Edinburgh University's online distance learning MSc in clinical trials and was director of Edinburgh Clinical Trials Unit between 2009 and 2016. He holds an honorary consultant rheumatologist position with NHS Lothian where he is clinical lead for the osteoporosis service and clinical director of the rheumatology service. Professor Ralston has researched widely on the molecular and genetic basis of osteoporosis and other bone and joint diseases. He has a special interest in the pathogenesis and management of Paget's disease of bone. He is joint editor-in-chief of Calcified Tissue International and editor of Davidson's Principles and Practice of Medicine. He currently chairs the Commission for Human Medicines for the Medicines and Healthcare Regulatory Authority of the UK.

Saravana Ramasamy

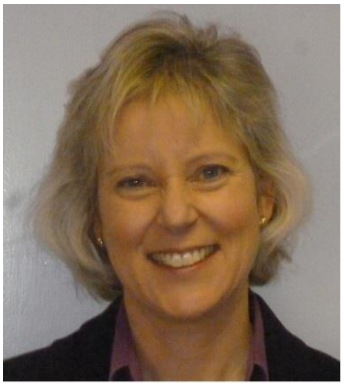
Dr Saravana Ramasamy did his postdoctoral research at the at Max Planck Institute for Molecular Biomedicine, Muenster, Germany where he identified a novel blood vessel sybtype called type H in bone. He also demonstrated a novel mode of angiogenesis in bone. These findings have tremendous contribution towards understanding the function of blood vessels in bone. Then he established his group at the London Institute of Medical Sciences, Imperial College London. He is exploring the therapeutic potential of blood vessels in the skeletal system using novel and challenging approaches such as high-resolution three-dimensional imaging, intravital imaging and cell-specific inducible genetic approaches in Mus musculus. His recent work represents a very fundamental advancement in the understanding of blood circulation and its importance in bone development and ageing.

Brent Richards



Brent Richards is an Associate Professor, William Dawson Scholar and FRQS Chercheur Boursier Clinician Scientist, at the Lady Davis Institute of the Jewish General Hospital, at McGill University and a Senior Lecturer at King's College London, UK. Trained in genetics, clinical medicine, endocrinology, epidemiology and biostatistics, Dr. Richards focuses on understanding the genetic determinants of common aging-related endocrine diseases, such as osteoporosis and vitamin D insufficiency. He and his colleagues have made important advances by identifying some of the genes that may cause these diseases. He co-chaired what was world's largest whole-genome sequencing program for common disease and identified a novel and central protein critical to fracture risk through the study over half a million research subjects around the world. Dr. Richards has also used Mendelian randomization to better understand the role of vitamin D in risk of multiple sclerosis and other diseases. His work has been recognized through election as a Member of the Royal Society of Canada, College of New Scholars, and the American Society of Clinical Investigation.

Karen Walker-Bone



Karen trained as an academic rheumatologist with a special interest in osteoporosis and metabolic bone diseases in Southampton. Between 2003-13, Karen became Senior Lecturer in Rheumatology and Clinical Academic Sub-Dean at the new Brighton & Sussex Medical School where she played a significant role in developing and delivering the curriculum to the first ever cohorts of medical students. It was here that she started a rheumatology HIV service in 2004-5. In total, she has seen more than 400 HIV-infected patients and built up a body of experience which has led to research projects, grants, publications and case reports on HIV and bone and rheumatic diseases. In 2013, she returned to the MRC Lifecourse Epidemiology Unit in Southampton. Here she Directs the national centre of excellence, the Arthritis Research UK/MRC Centre for Musculoskeletal Health and Work and continues to do a clinic for patients with HIV and bone and joint problems.