

## Musculoskeletal Research Training Workshop, Harare: UK & SA Faculty Biographies

### **Dr Celia Gregson**

Celia Gregson is a Consultant Senior Lecturer in Musculoskeletal Medicine and Arthritis Research UK Clinician Scientist at the Musculoskeletal Research Unit, University of Bristol and is an Honorary Consultant Orthogeriatrician at the Royal United Hospital in Bath. She qualified in Medicine from the University of Nottingham. Following physician training she completed a MSc in Epidemiology from the London School of Hygiene and Tropical Medicine and then a PhD at the University of Bristol funded by a Wellcome Trust clinical research training fellowship. She set up and runs the UK DINAG consortium (DXA-databases to Identify Novel Anabolic Genes). She worked at the MRC Lifecourse Epidemiology Unit at the University of Southampton before taking up her current Arthritis Research UK Clinician Scientist fellowship.

Her research interests include the epidemiology and genetics of osteoporosis and fractures, particularly regarding musculoskeletal health in Sub-Saharan Africa, high bone mass disorders, the role bone plays in the pathogenesis of osteoarthritis, the impact of social deprivation on fracture incidence and outcomes, and the effect of neurological diseases on musculoskeletal health. Celia chairs the Royal College of Physicians Falls and Fragility Fracture Audit Programme Scientific and Publications Committee and is a member of their Fracture Liaison Service Database Advisory Group. She co-chairs the BGS falls and bone health section, is a member of the National Joint Registry research committee, and past committee member for the Bone Research Society.



### **A/Prof Lisa Micklesfield**

Associate Professor Lisa Micklesfield is a Reader and Associate Director of the MRC/Wits Developmental Pathways for Health Research Unit (DPHRU) at the University of the Witwatersrand. She also holds an Honorary Associate Professor research position within the Division of Exercise Science and Sports Medicine at the University of Cape Town. Her research expertise and interests include (i) physical activity epidemiology and its association with body composition and metabolic disease outcomes, (ii) musculoskeletal health at the various life stages; and (ii) the role of physical activity in interventions to reduce the risk and prevalence of non-communicable diseases.

To date she has published 89 scientific papers/chapters, supervised/mentored 14 postgraduate students and mentored 2 postdoctoral fellows. She is currently an NRF C2-rated scientist. She has received grant funding as either the principal investigator or co-investigator from the South African MRC/Newton/GSK, the National Research Foundation and the UK Medical Research Council. She has refereed grants for the South African Medical Research Council and the National Research Foundation, examined 5 PhDs and reviewed manuscripts for many international journals including Obesity, PLoS One and Osteoporosis International.



**Michael O'Breasail**

Mícheál is currently a PhD student at the Medical Research Council Elsie Widdowson Laboratory and the University of Cambridge. He is also working as a part-time research assistant in the Nutrition and Bone Group at MRC EWL. Mícheál completed a BSc. in Human Nutrition & Dietetics at Dublin Institute of Technology and Trinity College Dublin. He became particularly interested in reproduction and maternal bone health while completing an undergraduate research project at the University of Gothenburg.

Mícheál's PhD projects have focused on investigating whether maternal bone mineral is mobilised from the skeleton during pregnancy. This has involved the analysis of peripheral Quantitative Computed Tomography data from a large cohort of pregnant rural Gambian women. The second PhD project is in Cambridge, UK and is investigating bone mineral change in pregnant women living in Cambridge using pQCT and high resolution pQCT. Mícheál is also trained in the acquisition and analysis of DXA scans.

**Dr Ruramayi Rukuni**

I trained as a doctor and graduated from Bristol University in 2009. I worked for the NHS in Cambridgeshire for four years and attained Membership of the Royal College of Physicians before joining the Oxford Public Health Training Programme as an Academic Clinical Fellow in 2013 where I completed the Masters in Global Health Sciences at Oxford University.

I am currently a Wellcome Trust Research Training Fellow in Public Health and Tropical medicine based at the BRTI and registered with LSHTM for a PhD in International Health. My doctoral research project will be analysing the impact of vertical HIV on skeletal development in children.

**A/Prof Kate Ward**

Kate Ward is Associate Professor at the MRC Lifecourse Epidemiology Unit, University of Southampton and an Honorary Senior Scientist at MRC Elsie Widdowson Laboratory in Cambridge. Her research focusses on muscle, bone and joint interactions and the use of imaging as a biomarker to study whole body physiology. Her current work aims to understand the definition, development and maintenance of, a healthy musculoskeletal system to ensure healthy ageing and how environment, particularly nutrition and physical activity, may impact muscle bone and joint interactions. Dr Ward's work and collaborations focus on the UK and in Sub-Saharan Africa, particularly The Gambia.

Dr Ward has been a researcher in bone physiology for over twenty years, starting her research career in 1999 at the University of Manchester, and spending eight years at MRC EWL in Cambridge before joining Southampton.

She is Secretary and a Trustee of the Bone Research Society UK (BRS) and was a co-founder of the now established BRS special interest group for Muscle and Bone. She has worked for over 5 years as a member of the National Osteoporosis Society advisory committees serving on; Research Grants Committee, Conference Program Committee, Nutrition and Lifestyle Forum and the



Vitamin D and Exercise working groups. She was a member of the International Society of Clinical Densitometry Paediatric Task Force in 2007 and 2014. Dr Ward has authored 91 peer-reviewed publications and 11 book chapters. To date, she has supervised 8 PhD students and 2 MPhil students, and mentored several post-doctoral scientists.

**Dr Nicola Crabtree**

Dr Nicola Crabtree is a Principal Clinical Scientist presently employed as a Research Clinical Scientist based at Birmingham Children’s Hospital. She has had an interest in bone research for over 20 years. However, for the last 17 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 Dr Crabtree 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. However, she has a special interest the muscle-bone relationship and how disruption of this relationship affects bone development in both a paediatric and an aging population.

