Judith Adams

Consultant Radiologist, Royal Infirmary, Manchester Academic Health Science Centre, Central Manchester University NHS Foundation Trust, Oxford Road, Manchester, M13 9PT, UK and Honorary Professor of Diagnostic Radiology, University of Manchester, Oxford Road, Manchester M13 9PT, UK. Email: judith.adams@manchester.ac.uk

Consultant radiologist: the Royal Infirmary and University in Manchester, with commitment to teaching, training, clinical service and research over many years. Particular interests: osteoporosis, bone densitometry (involved for over 30 years), identification/accurate reporting of vertebral fractures, and imaging in metabolic and endocrine diseases. Served as: Dean/Vice President Royal College of Radiologists, trustee National Osteoporosis Society (NOS), chairman NOS Bone Density Forum and of the Osteoporosis Group of European Society of Skeletal Radiologists (ESSR). Awarded: Founders' Gold Medal - International Skeletal Society 2007, Clinician of the Year - International Society for Clinical Densitometry (ISCD) 2009; elected honorary member ESSR 2012. Author: 245 peer reviewed publications, 27 invited reviews and 37 chapters and has received considerable collaborative research funding over the years; in 2014 (with computer scientist colleague Professor Tim Cootes) awarded £615k over 3 years from Health Innovation Challenge Fund (NICF) to automate identification of vertebral fractures in radiology PACS.

Terry Aspray

Terry is a Consultant Metabolic Bone Physician and lead clinician at the Bone Clinic, Newcastle upon Tyne. His clinical background is in Geriatric Medicine and Nutrition. Having originally completed his doctoral studies at the MRC Dunn Nutrition Unit on bone health and nutrition in West Africa, he trained in General and Geriatric Medicine, but now focuses entirely on metabolic bone disease.

He is Senior Lecturer at Newcastle University where he leads the Masters in Ageing and Health Programme. He has been a member of NICE Guideline Development Committees on Fracture Risk Assessment and The Menopause and was co-author of the National Osteoporosis Society's *Vitamin D and bone health: Practical clinical guideline*. He is Chief Investigator for the VDOP study, evaluating the impact of monthly vitamin D dosing on the over 70s, which is soon to report its results.

Paolo Bonaldo

Paolo Bonaldo is Full Professor of Cell Biology at the Medical School of The University of Padova. He graduated with honors in B.Sc. in 1986, and carried out his PhD at the CRO-IRCCS National Cancer Center. After being nominated assistant professor at the University of Padova in 1990, he completed his education as a visiting EMBO and EU fellow in the laboratory of Prof. Peter Gruss at the Max Planck Institute of Biophysical Chemistry in Germany. From 1998 to 2004, he was associate professor of Biology at the Medical School of The University of Padova, and in 2005 he was appointed full professor.

He is author of 120 full-length publications in peer-reviewed journals, including several high impact journals such as *Nature Genetics* and *Nature Medicine*. His research work has been founded, among others, by European Union, NIH, Telethon and MIUR. In 2011 he was awarded the Conte Prize for basic research in the field of myology. Since 2014, he is Director of the CRIBI Biotechnology Research Center of the University of Padova.

The main focus of his work is the study of the extracellular matrix and in particular the role of its components during development and disease. His team produced mouse models for different extracellular matrix components and demonstrated that a failure of the autophagic machinery plays a pathogenic role in muscular dystrophies, opening the way to clinical trials in patients.

Tracy Briggs

Dr Tracy Briggs is an NIHR Clinical Lecturer in Genomic Medicine. She works 50% of the time in the Genomic Medicine Department at the Central Manchester NHS Foundation Trust and 50% of the time at The University of Manchester. Dr Briggs has trained in paediatrics, at Alder Hey Children's Hospital, Liverpool and St. James Hospital, Leeds and in genetics at St. James Hospital, Leeds and in Manchester. Her research interest is immunogenetics, particularly innate and autoimmune genetic disorders .

Mike Briggs

Mike Briggs obtained his PhD at the MRC Clinical Research Centre, Harrow, studying the genetic basis of Osteogenesis Imperfecta. He undertook postdoctoral work at UCLA identifying the genetic basis of chondrodysplasias. In 1996 Mike moved to Manchester as an AR-UK Fellow to continue studying disease mechanisms in chondrodysplasia. In 2004 he was awarded a Wellcome Trust Senior Research Fellowship that was renewed in 2009. In 2012 he was appointed Professor of Skeletal Genetics in the Institute of Genetic Medicine at Newcastle University and continues to work on disease mechanisms in chondrodysplasia with a focus on identifying novel therapeutics for these rare diseases. Mike has been instrumental in establishing several European consortia for the diagnosis and research of rare skeletal diseases. These have included European Skeletal Dysplasia Network, EuroGrow and most recently SYBIL, a large-scale FP7 funded project involving 18 partners over 5 years.

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 Musculoskeletal Science at the 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 published extensively (over 700 research papers) on osteoporosis and rheumatic disorders and pioneered clinical studies on the developmental origins of peak bone mass.

Matthew Dalby

Matthew Dalby is Professor of Cell Engineering in the Institute of Molecular Cell and Systems Biology at the University of Glasgow. His research focuses on cell interactions at the nanoscale with particular interest with influencing mesenchymal stem cell differentiation. He is academic secretary of the Glasgow Orthopaedic Research Initiative (GLORI).

Colin Faquharson

Colin Farquharson completed his PhD (supervisor, Simon Robins) at the University of Aberdeen in 1989. His 1st post-doctoral position was with Nigel Loveridge and this led to a career long interest in skeletal biology. He obtained his chair in Skeletal Biology from the University of Edinburgh in 2010 where he is presently a group leader within the Royal (Dick) School of Veterinary Studies. His research programme is focussed on the cellular mechanisms underpinning bone and cartilage development. In particular his research aims are to (1) develop a functional understanding of the role of phosphatases in skeletal mineralisation, (2) unravel the actions of GH and IGF-1 on linear growth and bone accrual and (3) understand the molecular switches responsible for osteocyte differentiation and their role in OA pathology. Colin serves on the editorial board of Calcified Tissue International and Cell Biochemistry and Function and is a Senior Editor for the Journal of Endocrinology/Journal of Molecular Endocrinology.

Serge Ferrari

Serge Ferrari is Full Professor of Medicine at the Faculty of Medicine, University of Geneva, Switzerland. He is also Head of the Bone Diseases Service at the Department of Internal Medicine Specialties, Geneva University Hospital. Professor Ferrari obtained his medical degree from the Faculty of Medicine, University of Geneva in 1989. He trained in internal medicine and pathophysiology at Geneva University Hospital, and subsequently as a research and clinical fellow in bone diseases and endocrinology at Beth Israel Deaconess Hospital in Boston, USA. Professor Ferrari was the nominated Instructor in Medicine at Harvard Medical School, Boston, in 2000 and was also the recipient of a Professorship grant from the Swiss National Science Foundation in 2001. His main research areas are the molecular mechanisms of parathyroid hormone activity and bone remodelling, and the genetic determinants of bone microarchitecture. Professor Ferrari is Vice-chair of the Council of Scientific Advisors of the International Osteoporosis Foundation, past President of the Swiss Bone and Mineral Society, and current Vice-president of the Swiss Association against Osteoporosis. He is Editor-in-Chief of BoneKEy Reports (Nature publishing group) from the International Bone and Mineral Society, and a member of the editorial board of several scientific journals including Osteoporosis International and Bone. Professor Ferrari has published over 200 articles and book chapters in the field of osteoporosis and bone and mineral metabolism.

Antonella Forlino

Dr. Antonella Forlino obtained:

- ◊ her Degree in Biological Science in 1991 at the University of Pavia, Pavia, Italy;
- ◊ her Doctoral Degree in Biochemistry in 1994 at the University of Pavia, Pavia, Italy;
- ◊ her Speciality Degree in Genetic in 1997 at the Department of Genetic and Microbiology of the University of Pavia, Pavia, Italy
- ◊ From 1995 to 1999 Dr. Forlino had a fellowship at the National Institute of Health, Bethesda, MD, USA, in Dr. Marini's laboratory.
- ◊ From 2001 to 2010 she was Researcher at the Department of Biochemistry Section of Medicine and Pharmacy of the University of Pavia.
- ◊ Since 2010 she is Associate Professor at the Dept of Molecular Medicine, Section of Biochemistry, University of Pavia

Her research activity had been focused on the molecular, biochemical, and functional study of genetic diseases of the connective tissue, in particularly Osteogenesis Imperfecta (OI), Distrophyc Dysplasia (DTD) and Prolidase Deficiency (PD).
She developed and characterized the knock in murine models for OI and DTD and she identify a bone phenotype in the murine model of PD. She generated the recombinant human prolidase to develop enzyme replacement therapy for PD patients.
She is now involved in a cell/gene therapy project using the OI murine models BrtlIV and *col1a2*$^{+/G610C.}$
She recently started a *D.Rerio* facility to generate zebrafish models of skeletal dysplasias and to start drug screening approaches.

Jenny Gregory

Jenny Gregory is a Senior Research Fellow at the University of Aberdeen. Graduating with a degree in Artificial Intelligence and Operational Research from Leeds, she joined the departments of Orthopaedics and Biomedical Physics at Aberdeen University where she graduated with her PhD in 2005. As part of the interdisciplinary Musculoskeletal Research Programme, the focus of her work is developing imaging biomarkers to aid the study of osteoporosis and osteoarthritis. Central to this work is measurement of bone morphology using statistical shape modelling techniques. These have been shown to add to bone mineral density in hip fracture prediction and can identify those at greatest risk of total hip replacement before osteoarthritis is visible on radiographs. She also applies her background in computer science and biomedical research to a range of imaging modalities, from microscopy to radiography. Dr. Gregory's research is currently funded by the MRC and Arthritis Research UK.

Bente Langdahl

Bente Langdahl graduated from medical school at Aarhus University in 1988 and did clinical training in internal medicine and endocrinology at Aarhus University Hospital. Bente Langdahl received her PhD at Aarhus University in 1995: “Investigations on a possible pathogenic role of thyroid hormones in postmenopausal osteoporosis” and received a DMSc at the same university in 2004: “The genetics of bone mass and risk of osteoporotic fractures”. In 2004 Bente Langdahl was appointed consultant at the department of Endocrinology and Internal Medicine at Aarhus University Hospital and research lecturer at Aarhus University. In 2012 Bente Langdahl was appointed professor at Aarhus University. Bente Langdahl’s main research interests are identification and further investigation of genetic variants that imply increased risk of osteoporotic fractures, osteogenesis imperfecta in adult patients, interactions between fat and bone tissues with a special interest in the PPARgamma pathway, the impact of diabetes on bone health, the effects of vitamin D and K on bone metabolism, and the development of new treatments for osteoporosis.

Bente Langdahl is past-President of the European Calcified Tissue Society.

Marco Narici

Marco Narici (BSc, MSc, PhD) is Professor in Clinical Physiology at MRC ARUK Centre for Musculoskeletal Ageing of the University of Nottingham. He is also the current President of the European College of Sport Science (ECSS). Marco completed his studies in 1984 (BSc in Physiology and MSc in Human and Applied Physiology, KCL, London) and subsequently achieved his doctorate degree in muscle physiology from University of Pavia. He worked as researcher at the Rodolfo Margaria Laboratory, University of Milan, Italy, and took up the position of Assistant Professor at the Medical Research Centre of Geneva University, CH (1994-96). In 1999 he moved back to the UK as Professor in Physiology of Ageing at Manchester Metropolitan University where he was Director of the Institute of Research into Human Movement from 2000 to 2012. He has been coordinator of EU FP5 Project Better Ageing and co-I of EU FP7 Project Myoage. In 2012 he moved to the University of Nottingham to work at the MRC ARUK Centre for Musculoskeletal Ageing.

He has published over 150 peer reviewed journal articles and book chapters. His present work and interests are focused on the mechanisms of remodeling of human skeletal muscle, tendon and the neuromuscular system with use, disuse and ageing.

Socrates Papapoulos

Socrates E Papapoulos is Professor of Medicine (Diseases of Calcium and Bone Metabolism) and Consultant at the Leiden Center for Bone Quality, the Netherlands. He received his MD from the University of Athens, Greece and he was trained in Internal Medicine and Endocrinology in Athens and at the Middlesex Hospital, London, UK. Between 1989 and 2012 he was Director of Bone and Mineral Research at the Department of Endocrinology and Metabolic Diseases of the Leiden University Medical Center. Since 1974 he has been continuously engaged in basic and clinical research in disorders of calcium and bone metabolism.

Manuel Salmeron Sanchez

Professor Manuel Salmeron-Sanchez is Head of the Division of Biomedical Engineering and Chair of Biomedical Engineering at the School of Engineering (University of Glasgow). He received his PhD from the Technical University of Valencia (Spain) in 2002. He has held postdoctoral positions at the Charles University in Prague (2003) and the Katholieke Universiteit Leuven (2004-06). He has been full Professor at the Technical University of Valencia (2010-2013) and Visiting Professor at the Georgia Institute of Technology (2010). In 2012 He was seconded to Abengoa Research – a research company within Abengoa, an international company with +20000 employees – to set up the materials research division and join the Scientific Advisory Board.

Manuel has more than 100 publications in international renowned peer-reviewed journals and has held a number of national and international grants as Principal Investigator. In 2012, I was awarded the prestigious ERC Consolidator grant. In 2013 hos group joined the Uk Regenerative Medicine Platform through one of the 5 Disease Oriented grants focused on bone regeneration in non-union bone defects.

Liliana Schaefer

Liliana Schaefer, M.D. is a Professor of Pharmacology at Goethe University, Frankfurt/Main, Germany. Her laboratory has investigated the role of the two small leucine-rich proteoglycans (SLRPs), decorin and biglycan, in acute inflammation, innate immunity and renal fibrosis. Dr. Schaefer has made significant contributions to the field of innate immunity by discovering that both SLRPs, when in soluble form in the blood and body fluids, can act as endogenous “danger” signals and thus directly involved in modulating the activity of Toll-like receptors.

Dr. Schaefer has occupied several leadirship positions, both nationally and internationally, in the field of matrix biology. Currently, she is the President of the German Society for Matrix Biology, President-elect of the International Society for Matrix Biology, Council Member of the American Society for Matrix Biology, Senior Associate Editor of Matrix Biology journal and member of the Editorial Board of the Journal of Histochemistry & Cytochemistry. Dr. Schaefer has organized a number of international conferences including Joint Meetings of the British and German Societies for Matrix Biology (2010 in Frankfurt and 2012 in Oxford), and the 8th International Conference on Proteoglycans (2013, Frankfurt.

Catherine Shanahan

Professor Shanahan was educated in Australia and obtained a PhD in Genetics from the University of Adelaide. She began research in the field of cardiovascular medicine in the Biochemistry Department at the University of Cambridge UK. From 1995-2004 she was a British Heart Foundation Lecturer and in 2005 became a BHF Senior Fellow in the Department of Medicine, University of Cambridge. In 2007 she left Cambridge to take up the Chair of Cellular Signalling in the Cardiovascular Division at King’s College London.

Professor Shanahan’s work focuses on mechanisms of vascular smooth muscle cell (VSMC) dysfunction in ageing and disease. Her group has made a significant contribution to understanding the mechanisms of vascular calcification and has published over 80 papers and reviews in the field focussing on understanding the mechanisms of both medial and atherosclerotic, intimal calcification. More recently her work has addressed the role of VSMC ageing in mediating phenotypic changes that promote calcification. These studies have led to novel work highlighting a role for nuclear lamina dysfunction in the premature vascular ageing observed in patients with renal failure and diabetes.

She is a member of the British Atherosclerosis Society, British Society of Cardiovascular Research and North America Vascular Biology Organisation and serves on the Editorial Boards of Circulation Research and Arteriosclerosis, Thrombosis and Vascular Biology.

Molly Stevens

Molly M. Stevens is currently Professor of Biomedical Materials and Regenerative Medicine & Research Director for Biomedical Material Sciences in the Department of Materials, Department of Bioengineering and the Institute of Biomedical Engineering at Imperial College London. Research in the Stevens Programme focuses on designing and developing innovative bio-inspired materials for applications in regenerative medicine, tissue engineering and biosensing. Her research has been recognised by over 20 major awards, such as the EU40 Prize for best material scientist under the age of 40, a listing in The Times as one of the top 10 scientists under 40 and the European Life Sciences 2014 Research Group of the Year Award, amongst many others. She was recently elected to the Fellowship of the Royal Academy for Engineering and delivered the Clifford Paterson Lecture for the Royal Society in 2012. More information on the Stevens Group can be found at http://www.stevensgroup.org.

Estelle Trifilieff

Dr. Estelle Trifilieff is a Director in the Musculoskeletal Disease Area of the Novartis Institutes for BioMedical Research (NIBR) in Basel, Switzerland. Having obtained a Ph.D. in Pharmacology (Strasbourg, France), she conducted post doctoral fellowships at the Imperial Cancer Research Fund in London, in an Immunonephrology Laboratory in Basel and at Novartis (Respiratory Diseases Area, UK).

After gaining drug discovery experience in Respiratory Diseases (Novartis, UK), Dr. Trifilieff joined the Muscle group within the Musculoskeletal Diseases department and contributed to exploration and establishment of several initiatives aimed at treating muscle wasting diseases. She was particularly involved in the discovery and development of therapeutic antibody to Activin type II receptor (ActRII) and its transition to the clinic in a variety of neuromuscular diseases in addition to sporadic Inclusion Body Myositis, including chronic obstructive pulmonary disease- (COPD) and cancer-cachexia, hip fracture recovery and sarcopenia. Under the leadership of D Glass, Dr. Trifilieff currently oversees the skeletal muscle research efforts in Novartis Basel.

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 more recently obesity. His team was successful in identifying and characterizing several disease causing genes including the *SOST* gene encoding the sclerostin protein. He authored and coauthored about 200 publications and is on the editorial board of several journals. Wim is currently chair of the educational committee of biomedical sciences at the University of Antwerp, Belgium.

Joyce van Meurs

Dr Joyce van Meurs is associate professor at the genetic laboratory of the department of Internal Medicine of the ErasmusMC, Rotterdam The Netherlands. The genetic laboratory focuses on musculoskeletal health and disorders, including osteoporosis, osteoarthritis and musculoskeletal traits such as height, bone geometry, and chronic pain. Dr van Meurs is leading osteoarthritis research within the Rotterdam Study (a large longitudinal cohort study) and her research is focused on the genetic and clinical epidemiology of osteoarthritis and elucidating biological mechanisms behind the genetic association found in large genome wide association studies on OA. In addition, she also focusses on integrative genomics in our population cohorts, where we combine multiple genomic levels, DNA, RNA and methylation, to understand etiology of disease. A large part of our genetic research is embedded in the Rotterdam Study (n=15.000 deeply phenotyped elderly individuals) and Generation R(n=10.000 deeply phenotyped children). Here we also operate within large collaborative international consortia, such as GEFOS (Osteoporosis), TREAT-OA (osteoarthritis), arcOGEN (osteoarthritis), GIANT (Anthropometric Traits), and CHARGE (Integrative genomics).

Joyce van Meurs is (co-)author on over 150 international peer-reviewed publications.