

Bone Research Society Annual Meeting
The University of Winchester, Winchester, UK
27-29 June 2018

Programme

Wednesday 27 June <i>Talks in Stripe Auditorium</i> <i>Catering breaks, exhibition and poster viewing in Stripe Lecture Room, Stripe Studio 1 and 2</i>	
1200	<i>Foyer, The Stripe Building</i> Registration desk opens, coffee available
1300 - 1500	BRS-IOF Symposium: Global burden of osteoporosis and sarcopenia Chair: Cyrus Cooper (Southampton, UK)
1305 - 1330	Secondary fracture prevention Kassim Javaid (Oxford, UK)
1330 – 1355	Anabolic therapies Serge Ferrari (Geneva, Switzerland)
1355 – 1420	Advances in clinical risk assessment Eugene McCloskey (Sheffield, UK)
1420 – 1445	Osteoporotic fracture risk: A lifecourse perspective Nick Harvey (Southampton, UK)
1445 - 1455	Industry presentation
1500 – 1530	Refreshment break and exhibition
1530 - 1650	Muscle and bone workshop Organisers: Alex Ireland (Manchester, UK) and Kate Ward (Southampton, UK)
1515 – 1540	Physiological and structural changes in skeletal muscle and nerve-muscle interactions: the effects of nutrition and ageing Aphrodite Vasilaki (Liverpool, UK)
1540 – 1605	Exercise, nutrition and sarcopenia Elaine Dennison (Southampton, UK)
1605 - 1645	Oral presentations selected from submitted abstracts
1700 - 1830	<i>Terrace Bar and Lounge</i> New Investigator Evening – Meet the Professor – Mentorship Organisers: Elizabeth Curtis (Southampton, UK) and Katherine Staines (Edinburgh, UK)

Wednesday 27 June Continued/...	
	<i>Winchester Cathedral – Wessex Suite</i>
1900 – 2200	Rare Bone Diseases Workshop and Supper Organisers: Nick Bishop (Sheffield, UK) and Kassim Javaid (Oxford, UK)
1900 – 1930	Registration and networking
1930 – 1955	What has genetics taught us about bringing basic scientist and clinicians together? Matt Warman (Boston, USA)
1955 – 2015	100,000 Genomes and rare bone disorders: impacts for patients, clinicians and scientists Richard Scott (Cambridge/London, UK)
2015 – 2025	OP1 X-linked hypophosphataemia: burden of disease using United Kingdom primary care data Kassim Javaid (Oxford, UK)
2025 - 2035	OP2 Localisation and partial deletion of the HGD gene in a new targeted model of Alkaptonuria Juliette Hughes (Liverpool, UK)
2035 - 2045	OP3 A review of clinical, radiological and treatment features from 18 patients with SAPHO (synovitis, acne, pustulosis, hyperostosis and osteitis) syndrome and CRMO (chronic recurrent multifocal osteomyelitis) at Addenbrooke's hospital Jagtar Singh Nijjar (Cambridge, UK)
2045 – 2100	Short break
2100 – 2120	Burosumab in paediatric bone diseases: what have we learnt? Anya Rothenbuhler (Paris, France)
2120 – 2140	Asfotase alfa in paediatric and adult diseases Wolfgang Högl (Birmingham, UK)
2140 – 2200	Repurposing in rare bone disease therapies Mike Briggs (Newcastle upon Tyne, UK)
2200	Close

Thursday 28 June 2018 <i>Talks in Stripe Auditorium</i> <i>Catering breaks, exhibition and poster viewing in Stripe Lecture Room, Stripe Studio 1 and 2</i> <i>Lunch in Food Hall</i>	
	Registration and coffee
0940 - 1000	Welcome and opening remarks Miep Helfrich (Aberdeen, UK) and Kate Ward (Southampton, UK) Cyrus Cooper (Southampton, UK) and Richard Oreffo (Southampton, UK) Mark Spearing , University of Southampton
1000 – 1100	Symposium 1: Tissue engineering and regenerative medicine bench to clinic Chairs: John Dawson (Southampton, UK) and Richard Oreffo (Southampton, UK)
1000 – 1020	IS1 Polymers for controlling and manipulating cells Mark Bradley (Edinburgh, UK)
1020 – 1040	IS2 The future of cellular therapies in orthopaedics – the regenerative paradigm from bench to clinic Ivan Martin (Basle, Switzerland)
1040- 1100	IS3 Mesenchymal stromal cell lineages in the joint in health, injury and arthritis Anke Roelofs (Aberdeen, UK)
1100 – 1140	Oral communications Chairs: Duncan Bassett (London, UK) and Vicky Macrae (Edinburgh, UK)
1100 – 1110	OC1 Social deprivation predicts adverse health outcomes after hospital admission with hip fracture in England, Arti Bhimjiyani (Bristol, UK)
1110 – 1120	OC2 <i>Tram2</i> is a novel genetic determinant of bone mass and strength, Victoria D Leitch (London, UK)
1120 - 1130	OC3 Novel combination therapy with zoledronic acid and anti-TGFβ repairs established osteolytic lesions in preclinical models of multiple myeloma, Andrew Chantry (Sheffield, UK)
1130 - 1140	OC4 Systematic fracture risk screening using FRAX results in greater use of, and adherence to, anti-osteoporosis medications: The UK SCOOP Trial, Camille Parsons (Southampton, UK)
1140-1200	Poster Pitching Chairs: Duncan Bassett (London, UK) and Vicky Macrae (Edinburgh, UK)
	PP5 Cluster analysis of high resolution peripheral quantitative computed tomography parameters including finite element analysis identifies bone phenotypes associated with higher rates of prevalent fracture Mark Edwards (Southampton, UK)
	PP7 Spontaneous atypical tibial and femoral fractures associated with alendronate then denosumab therapy in an adult patient with juvenile idiopathic arthritis: a case report, Juan Tan (Edinburgh, UK)
	PP9 Impact of mild and moderate/severe vertebral fractures on physical activity: A five-year prospective study based on a cohort of older women in the UK, Usama Al-Sari (Bristol, UK)
	PP11 A tale of two phosphatases: dissecting the roles of PHOSPHO1 and TNAP during skeletal biomineralisation, Scott Dillon (Edinburgh, UK)
	PP13 <i>Slc38a10</i> is a novel genetic determinant of osteoblast proliferation and bone mineral density Andrea Pollard (London, UK)

Thursday 28 June Continued/...	
1140-1200 Continued...	PP15 Bone induction in a murine subcutaneous model using nanoclay gel and bone morphogenic protein: an optimisation study, Josephine McEwan (Southampton, UK) PP17 TGFβ inhibition in combination with chemotherapy repairs existing lytic bone lesions in a novel plateau phase model of multiple myeloma, Michelle Lawson (Sheffield, UK) PP19 Gpc6: a novel determinant of bone mineral density in osteoporosis, Naila Mannan (London, UK) PP21 Fam73b is essential for skeletal growth and the maintenance of bone mass and strength, David Komla-Ebri (London, UK) PP23 Osteocalcin Regulates Arterial Calcification via Altered Wnt Signalling and Glucose Metabolism, Nabil Rashdan (Edinburgh, UK) PP25 All that fractures is not bone: microscopic anatomy of vertebral bodies, Alan Boyde (London, UK)
1200 - 1300	Coffee and poster viewing (odd numbered posters)
1300 - 1400	Lunch - Food Hall Annual General Meeting - Stripe Auditorium
1400 - 1440	UCB sponsored Lecture Targeting and tracking Wnt-related signalling mechanisms in mesenchymal stem cells, Paul Genever (York, UK)
1440 - 1510	Plenary Lecture: Chairs: Cyrus Cooper (Southampton, UK) and Bronwen Evans (Cardiff, UK) IS4 Targeting cellular senescence: A new therapeutic approach for age-related osteoporosis Sundeep Khosla (Rochester, USA)
1510 – 1530	Coffee and poster viewing
1530 – 1630	Symposium 2: Imaging, mice to men Chairs: Ken Poole (Cambridge, UK) and Katherine Staines (Edinburgh, UK)
1530 – 1550	IS5 Label free imaging Sumeet Mahajan (Southampton, UK)
1550 – 1610	IS6 Mechanobiology Markus Heller (Southampton, UK)
1610 - 1630	IS7 QCT bench to bedside Phillipp Schneider (Southampton, UK)
1630 - 1640	Industry presentations Imaging and analysis for bone research – from nanometre to micrometre scale, Katherine Lau (Carl Zeiss Ltd, Cambridge, UK)
1645 - 1715	Plenary Lecture: Chairs: Alex Ireland (Manchester, UK) and Richard Oreffo (Southampton, UK) IS8 Osteocytes Lynda Bonewald (Indianapolis, USA)

Thursday 28 June Continued/...	
1720 - 1750	Charles Dent Lecture Chair: Miep Helfrich (Aberdeen, UK) Cyrus Cooper (Southampton, UK)
1755 – 1840	Debate Chair: Kate Ward (Southampton, UK) Fracture is the only endpoint for osteoporosis trials For the motion: Celia Gregson (Bristol, UK) Against the motion: Ken Poole (Cambridge, UK)
1915 - 2300	Conference Dinner (River Cottage, Winchester)
Friday 29 June 2018 <i>Talks in Stripe Auditorium (and Tom Atkinson Building)</i> <i>Catering breaks, exhibition and poster viewing in Stripe Lecture Room, Stripe Studio 1 and 2</i> <i>Lunch in Food Hall</i>	
0830 – 0930	Symposium 3: Early life origins of disease Chairs: Elizabeth Curtis (Southampton, UK) and Kassim Javaid (Oxford, UK)
0830 – 0900	IS9 Epigenetics of early life origins of disease Karen Lillycrop (Southampton, UK)
0900 - 0930	IS10 Global perspective on early life determinants of non-communicable disease Mark Hanson (Southampton, UK)
0930 – 1000	Poster pitching Chairs: Elizabeth Curtis (Southampton, UK) and Kassim Javaid (Oxford, UK) PP4 Self-perception of fracture risk is associated with radial bone microarchitecture in the GLOW Study, Leo Westbury (Southampton, UK) PP6 Severe lumbar spinal stenosis on MRI scans is related with heavy manual work: The Wakayama Spine Study, Yuyu Ishimoto (Southampton, UK) PP8 Osteoclasts are multinucleated cells that degrade cartilage, as well as bone, Quitterie Larrouette (Oxford, UK) PP10 Limb bones scale similarly despite forelimb-hindlimb load asymmetry in bipedal hopping, Michael Doube (London, UK) PP12 Human decellularised blood vessel matrices promote bone repair in an ex vivo bone defect model, Janos Kanczler (Southampton, UK) PP14 In vivo skeletal regeneration using a nanocomposite silicate-based bioink, Gianluca Cidonio (Southampton, UK) PP16 Osteoporosis as a risk factor for the occurrence of frailty: a four-year follow-up of the ROAD study, Noriko Yoshimura (Tokyo, Japan) PP18 Photoperiod-induced central actions of thyroid hormone are essential for medullary bone formation in Japanese quail, Natalie Butterfield (London, UK) PP20 Age related changes in native human bone marrow mesenchymal stem cells, Payal Ganguly (Leeds, UK)

Friday 29 June 2018 Cont/...		
0930 – 1000 Cont/...	PP22 Independent skeletal phenotyping of Creb3l1 knockout mice confirms validity of signature in human GWAS, Elena J Ghirardello (London, UK) PP24 The regulation of bone mineralisation in vitro and in vivo models of chronic kidney disease, Shun-Neng Hsu (Edinburgh, UK) PP26 Inhibition of the Protein Kinase R signaling pathway in vivo reduces bone remodeling in post-traumatic osteoarthritis, Sophie Gilbert (Cardiff, UK) PP28 VEGF exerts sexually dimorphic effects on bone mass and architecture, Behzâd Javaheri (London, UK) PP30 Falls risk is increased and bone mineral density reduced in individuals with rheumatoid arthritis: findings from UK biobank, Michael Clynes (Southampton, UK) PP32 IRF5 is required for macrophage-driven bone formation, Nicole Horwood (London, UK)	
1000 – 1100	Coffee and poster viewing (even numbered posters)	
1100 – 1200	Clinical Chairs: Celia Gregson (Bristol, UK) and Mark Edwards (Portsmouth, UK)	Basic/Translational Chairs: Shelly Lawson (Sheffield, UK) and Christa Maes (Leuven, Belgium)
1100 - 1110	OC5 Plasma β-C-terminal telopeptide of type I collagen (CTX) in pregnancy is influenced by cholecalciferol supplementation and is associated with maternal bone health: findings from the MAVIDOS trial, Elizabeth Curtis (Southampton, UK)	OC9 Repurposing glutamate receptor antagonists for the prevention of post-traumatic osteoarthritis, Cleo Bonnet (Cardiff, UK)
1110 – 1120	OC6 A 9-month jumping intervention to improve bone acquisition in adolescent male athletes: The PRO-BONE randomized controlled trial Dimitris Vlachopoulos (Exeter, UK)	OC10 MMnet, a Macrophage Multinucleation Network enriched in genes controlling osteoclast function, Marie Pereira (London, UK)
1120 – 1130	OC7 Age at onset of walking in infancy is associated with hip shape in early old age, Alex Ireland (Manchester, UK)	OC11 Bromodomain inhibitors are potent epigenetic regulators of catabolic gene expression in human osteoarthritic chondrocytes, Maria de Andrés (Southampton, UK)
1130 – 1140	OC8 Relationships between the hypothalamic-pituitary-adrenal axis and bone microarchitecture: findings from the Hertfordshire Cohort Study, Nicholas Fuggle(Southampton, UK)	OC12 Application of 3D printed patient specific skeletal implants augmented with autologous skeletal stem cells, Josephine McEwan (Southampton, UK)

Friday 29 June 2018 Cont/...		
1140 – 1150		OC13 Bovine Lactoferrin Promotes Bone Regeneration, Jillian Cornish (Auckland, New Zealand)
1150 – 1200		OC14 Increased sclerostin expression following OB-derived VEGF deletion, Alice Goring (Southampton, UK)
1200 – 1230	Satellite symposium	
1240 - 1330	Lunch and poster viewing	
1330 – 1430	Symposium 4: Ageing Chairs: Nick Harvey (Southampton, UK) and Eugene McCloskey (Sheffield, UK)	
1330 – 1400	IS11	Inflammation and musculoskeletal ageing Janet Lord (Birmingham, UK)
1400 - 1430	IS12	Neglected patients at high risk of hip fractures Steve Cummings (San Francisco, USA)
1430 - 1500	Plenary Lecture: Chairs: Claire Clarkin (Southampton, UK) and Stephanie Gohin (London, UK)	
	IS13	Osteo-angiogenic coupling Christa Maes (Leuven, Brussels)
1500 – 1600	Oral communications Chairs: Jim Gallagher (Liverpool, UK) and Rosemary Hollick (Aberdeen, UK)	
1500 – 1510	O15	Serum citrate: a novel biomarker of bone resorption? April Hartley (Bristol, UK)
1510 – 1520	O16	Women at high risk of hip fracture based on FRAX respond to appropriate osteoporosis management: analysis from the SCOOP study of population screening, Eugene McCloskey (Sheffield, UK)
1520 – 1530	O17	Osteoblast-specific <i>Enpp1</i> deficiency engenders increased bone mass and insulin resistance, Fiona Roberts (Edinburgh, UK)
1530 – 1540	O18	A new dual injury osteoarthritis model that combines cartilage damage and destabilisation of the medial meniscus leads to accelerated osteophytogenesis, Carl Goodyear (Glasgow, UK)
1540 - 1550	O19	Longitudinal survey of high density mineralised protrusions: a potential novel imaging biomarker of osteoarthritis, Neil Thomas (Liverpool, UK)
1550 - 1600	Late breaking abstract – to be confirmed	
1600 - 1615	Awards and closing remarks Jim Gallagher (Liverpool, UK) and Miep Helfrich (Aberdeen, UK)	