

Programme

All sessions in West Road Concert Hall unless otherwise indicated

Monday 27th June

- 10:00 Registration and coffee
- Poster hanging
- 10:40 Welcome
Nigel Loveridge (Cambridge, UK)
- 10:45 Keynote Lecture
Chairs: Juliet Compston (Cambridge, UK) & Allen Goodship (London)
- Sir Michael Berridge
- 11:15 Symposium 1
The Bone and Joint Decade: Closed Chapter or Open Book?
- Chairs: David Marsh (London, UK) & Eugene McCloskey (Sheffield, UK)
- 11:15 **Nigel Arden** (Southampton, UK): Osteoarthritis
- 11:35 **John Kanis** (Sheffield, UK): Osteoporosis
- 11:55 **Keith Willett** (Oxford, UK): Trauma
- 12:15 Panel discussion
- 12:30 Lunch and Posters (odd-numbered boards)
- 13:45 Symposium 2
The 4Ms: Materials, Mineralisation, Microdamage and Mechanics
- Chairs: Nigel Loveridge (Cambridge, UK) & Andrew McCaskie (Newcastle, UK)
- 13:45 **Chris Burgoyne** (Cambridge, UK): An Engineer's view
- 14:05 **David Burr** (Indianapolis, USA): Bone microdamage
- 14:25 **Peter Fratzl** (Potsdam, Germany): Bone materials
- 14:45 **John Currey** (York, UK): A Biologist's view
- 15:05 Panel discussion
- 15:20 Tea and Posters (odd-numbered boards)
- 16:15 **Oral Communications**
Chairs: Tim Arnett (London, UK) & Xuebin Yang (Leeds, UK)
- 16:15 OC1

OSTEOCYTES PROMOTE OSTEOBLAST PROLIFERATION DIRECTLY AND EXERT A DISTINCT EFFECT WITH MECHANICAL STRAIN

RFL Suswillo, SCF Rawlinson*, GP Dowthwaite, LE Lanyon, AA Pitsillides
London

16:25 OC2

ELEVATED SCLEROSTIN LEVELS IN INDIVIDUALS WITH HIGH BONE MASS

CL Gregson*, KES Poole, SA Steel, J Ayuk, EV McCloskey, WD Fraser, JH Tobias
Bristol; Cambridge; Hull; Birmingham; Sheffield; Liverpool

16:35 OC3

MARKED REDUCTION IN THE EXPRESSION OF SCLEROSTIN IN OSTEOCYTES CLOSE TO THE SITE OF FEMORAL NECK FRACTURES

J Power, M Parker S Papapoulos, R van Bezooijen J Reeve, N Loveridge*
Cambridge; Peterborough; Leiden

16:45 OC4

RESULTS OF BONE MORPHOGENETIC PROTEIN (BMP-7) ALONE OR IN COMBINATION WITH AUTOLOGOUS BONE GRAFT (ABG) FOR THE TREATMENT OF LONG BONE FRACTURE NON-UNIONS

A Shoaib*, MA Rashid, O Lahoti, AFG Groom, SL Phillips
London

16:55 OC5

EFFECTS OF CHRONIC SYSTEMIC METAL EXPOSURE ON WHOLE BODY BONE MINERAL DENSITY AND BONE TURNOVER IN THE LATE PERIOD AFTER METAL-ON-METAL HIP RESURFACING

J Prentice*, M Clark, I Stockley, JM Wilkinson
Sheffield

17:05 OC6

HIGH FAILURE RATES WITH A LARGE DIAMETER HYBRID METAL ON METAL TOTAL HIP REPLACEMENT: CLINICAL, RADIOLOGICAL AND RETRIEVAL ANALYSIS

BJRF Bolland*, DJ Culliford, DJ Langton, JPS Millington, NK Arden, JM Latham
Southampton; Newcastle; Oxford

17:15 New Investigators' Session

Career pathways - examples and discussions

This short informal session is designed for both non-clinical and clinical PhD students and Post-docs in their early research career.

We are inviting 3 speakers who have established careers and who have taken different career paths; one lab-based scientist, one clinical scientist, and one clinician researcher. Each will speak for 15 minutes outlining their career path to date, identifying the key decisions which they have made along the way - the good decisions and the not so good decisions (if any!), and reflect upon if they were to embark upon the same career now, how the system might have changed and how they might negotiate it now? After the 3 presentations we will open the session up to the floor for an informal panel discussion.

Speakers:

Nicola Crabtree (Birmingham, UK)

Nick Harvey (Southampton, UK)

Helen Knowles (Oxford, UK)

18:30 End
19:30- Quiz Night/Buffer Supper
23:00 Murray Edwards Hall

Tuesday 28th June

08:30 **Satellite 1**
Supported by Servier

New Insights in the Treatment of Postmenopausal Osteoporosis

West Road Concert Hall

Chair: Juliet Compston (Cambridge, UK)

Eugene McCloskey (Sheffield UK): How does bone metabolism change with age and osteoporosis?

Juliet Compston (Cambridge, UK): What is the impact of our treatment options on bone metabolism? – New insights

Serge Ferrari (Geneva, Switzerland): What are the clinical implications in the fight against fractures?

09:30 **Clinical Update 1**

Divinity Lecture Theatre

(concurrent with Oral Communications, below)

Chairs: Ken Poole (Cambridge, UK) & Hamish Simpson (Edinburgh, UK)

09:30 **Juliet Compston** (Cambridge, UK):
Bisphosphonates and atypical femur fractures: tip of the iceberg?

09:50 **Richard Keen** (London, UK):
Preventing the second hip fracture; what drugs to give and when?

10:10 Panel discussion

10:20 Coffee and Posters (even-numbered boards)

09:30 **Oral Communications (basic science)**

West Road Concert Hall

(concurrent with Clinical Update, above)

Chairs: Alison Gartland (Sheffield, UK) & Tom Joyce (Newcastle upon Tyne, UK)

09:30 OC7
A BMPRI1 SOLUBLE RECEPTOR CONSTRUCT INCREASES TIBIAL AND TRABECULAR BONE VOLUME IN VIVO
M Baud'huin*, D Lath, AD Chantry, J Seehra, RS Pearsall, I Bellantuono, PI Croucher
Sheffield, UK; Cambridge MA, USA

09:40 OC8
THE MOLECULAR MECHANISM OF ISCHAEMIC PRECONDITIONING IN SKELETAL MUSCLE CELLS
C McGuire*, P Walsh, KJ Mulhall
Dublin

09:50 OC9
ACCELERATED SKELETAL DEVELOPMENT AND HIGH BONE MASS IN MICE LACKING RAMP3

S Pacharne*, G Richards, K Caron and T Skerry
Sheffield, UK; Chapel Hill, USA

- 10:00 OC10
PAGET'S DISEASE-CAUSING MUTATIONS IN SEQUESTOSOME-1 AFFECT AUTOPHAGIC
PROTEIN DEGRADATION
E Azzam*, A Duthie, MH Helfrich, LJ Hocking
Aberdeen
- 10:10 OC11
LACK OF NUCLEOTIDE PYROPHOSPHATASE PHOSPHODIESTERASE1 ACTIVITY IN *Enpp1*^{-/-}
MICE RESULTS IN ALTERED BONE DEVELOPMENT AND PATHOLOGICAL MINERALISATION
OF SOFT TISSUE
NCW Mackenzie*, D Zhu, EM Milne, JL Millan, C Farquharson, VE MacRae
Edinburgh, UK; La Jolla, USA
- 10:20 OC12
METAL ION LEVELS AND CHROMOSOME ABERRATIONS IN METAL-ON-METAL (MoM) AND
METAL-ON-POLYETHYLENE (MoP) TOTAL HIP ARTHROPLASTY
BS Dhinsa, JR Perera*, KR Gallagher, B Spiegelberg, S Hanna, S Tai, R Pollock, R Carrington, SR Cannon,
TWR Briggs
Stanmore
- 10:30 Coffee and Posters (even-numbered boards)
- 11:15 Symposium 3
Cell-Cell Communication in Aged Skeletal Elements

West Road Concert Hall

Chairs: Colin Farquharson (Edinburgh, UK) & Tim Skerry (Sheffield, UK)
- 11:15 **James Edwards** (Oxford, UK): Ageing mechanisms in musculoskeletal biology
- 11:35 **Jean-Marie Delaisse** (Vejle, Denmark): Bone remodelling: how are bone resorption and formation
integrated in a joint bone renewal program?
- 11:55 **Graham Russell** (Oxford/Sheffield, UK): Pharmacological targets in ageing bone
- 12:15 Panel discussion
- 12:30 Lunch and Posters (even-numbered boards)
- 13:30 **Clinical Update 2**

Divinity Lecture Theatre

(concurrent with Oral Communications, below)

Chairs: Ken Poole (Cambridge, UK) & Tim Briggs (London, UK)
- 13:30 **Patrick Case** (Bristol, UK):
The current understanding of the problems associated with metal-on-metal hip replacements with special
reference to ALVAL
- 13:50 **Nick Higgins** (Cambridge, UK):
Vertebro/Kyphoplasty
- 14:10 **Richard Villar** (Cambridge, UK):
Femoroacetabular impingement: Is it important?

- 14:30 Panel discussion (to 14:45)
- 13:30 **Oral Communications (basic science)**
West Road Concert Hall

(concurrent with Clinical Update, above)

Chairs: Vicky McRae (Edinburgh, UK) & Richard Oreffo (Southampton, UK)
- 13:30 OC13
PLATELET RICH PLASMA IN ACCELERATED ACHILLES TENDON REGENERATION: A
RANDOMIZED CONTROLLED TRIAL
J Alsousou*, R Handley, P Hulley, M Thompson, E McNally, P Harrison, K Willett
Oxford
- 13:40 OC14
ENRICHMENT OF SKELETAL STEM CELLS FROM BONE MARROW TO ENHANCE SKELETAL
REGENERATION - A NOVEL CLINICAL TECHNIQUE
JO Smith*, JI Dawson, A Aarvold, AMH Jones, JN Ridgway, SJ Curran, DG Dunlop, ROC Oreffo
Southampton; York
- 13:50 OC15
THE SYSTEMIC STIMULATION OF MESENCHYMAL STEM CELLS (MSCS) IN BONE MARROW
IN RESPONSE TO TRAUMA
HB Tan*, E Jones, L Kozera, K Henshaw, D McGonagle, PV Giannoudis
Leeds
- 14:00 OC16
HOW DO OSTEOCLASTS GENERATE ENERGY TO MAINTAIN BONE RESORPTION WITHIN A
HYPOXIC ENVIRONMENT?
HJ Knowles*, NA Athanasou
Oxford
- 14:10 OC17
FLUID FLOW STIMULATES ATP RELEASE FROM HUMAN DERIVED OSTEOCLASTS WITHOUT
CHANGING RESORPTION
RMH Rumney*, A Agrawal, K Shah, A Gartland
Sheffield
- 14:20 OC18
OSTEOBLAST EXTRACELLULAR MATRIX MINERALIZATION IS PROMOTED BY PHOSPHO1
OVEREXPRESSION
C Huesa*, M Yadav, E Seawright, JL Millan, C Farquharson
Edinburgh, UK; La Jolla, USA
- 14:30 OC19
IN VIVO EVALUATION OF MINERALISED COLLAGEN-GLYCOSAMINOGLYCAN AS A BONE
GRAFT SUBSTITUTE
MQ Arumugam*, AK Lynn, N Rushton, RA Brooks
Cambridge
- 14:40 OC20
INTRAOSSSEOUS TRANSCUTANEOUS AMPUTATION PROSTHESES VS DENTAL IMPLANTS: A
COMPARISON BETWEEN KERATINOCYTE AND GINGIVAL EPITHELIAL CELL ADHESION IN
VITRO
CJ Pendegrass*, C Fontaine, GW Blunn
Stanmore

- 14:50 Break
- 15:00 Symposium 4
Obesity, Energy Metabolism and Bone
West Road Concert Hall
 (concurrent with Symposium 5, below)
 Chairs: Celia Gregson (Bristol, UK) & Graham Russell (Oxford/Sheffield, UK)
- 15:00 **Antonio Vidal-Puig** (Cambridge, UK): Adipocytes and energy metabolism
- 15:20 **Chantal Chenu** (London, UK): Energy metabolism and bone
- 15:40 **Jon Tobias** (Bristol, UK): Obesity and bone in childhood
- 16:00 Panel discussion
- 16:15 Tea and Posters (even-numbered boards)
- 15:00 Symposium 5
Bone Graft Substitutes
Divinity Lecture Theatre
 (concurrent with Symposium 4, above)
 Chairs: Neil Rushton (Cambridge, UK) & Brigitte Scammell (Nottingham, UK)
- 15:00 **Gordon Blunn** (London, UK): Bone graft materials: osteoconduction and osteoinduction
- 15:20 **Molly Stevens** (London, UK): New materials-based strategies for bone repair
- 15:40 **Roger Brooks** (Cambridge, UK): What is the best source of cells for bone grafts?
- 16:00 Panel discussion
- 16:15 Tea and Posters (even-numbered boards)
- 16:45 **Clinical Cases and Research**
Divinity Lecture Theatre
 (concurrent with Oral Communications, below)
 Chairs: Cathy Holt (Cardiff, UK) & Sanjeev Patel (London, UK)
- Clinical Research**
- 16:45 OC21
 SEPTIC ARTHRITIS VS TRANSIENT SYNOVITIS IN CHILDREN: A TERTIARY HEALTH CARE CENTRE STUDY
 R Singhal*, D Perry, FN Khan, D Cohen, HL Stevenson, LA James, JS Sampath, CE Bruce
 Macclesfield; Alder Hey, UK; Sparsh, India
- 16:55 OC22
 HISTOLOGICAL RESULTS OF 406 BIOPSIES FOLLOWING ACI/MACI PROCEDURES FOR OSTEOCHONDRAL DEFECTS IN THE KNEE
 AS Shekkeris*, JR Perera, G Bentley, AM Flanagan, J Miles, RWJ Carrington, JA Skinner, TWR Briggs

Stanmore

Clinical cases

- 17:05 CC1
FIBROBLAST GROWTH FACTOR-23: STRONG ASSOCIATION WITH THE RENAL FANCONI SYNDROME IN A PATIENT WITH ONCOGENIC OSTEOMALACIA
AGW Norden*, RJC Laing, RJ Unwin, OM Wrong, AJ Crisp
Cambridge; London
- 17:20 CC2
CORD COMPRESSION RESULTING FROM FIBROUS DYSPLASIA (FD) OF THE SPINE : A CASE REPORT
I Scott*, J Lucas, G Gnanasegaran, C Silve, I Fogelman, G Hampson
London, UK; Paris, France
- 17:35 Break
- 16:45 **Oral Communications (basic science)**
- West Road Concert Hall*
- (concurrent with Clinical Cases and Research, above)
- Chairs: Debbie Mason (Cardiff, UK) & Gordon Blunn (London, UK)
- 16:45 OC23
INVESTIGATING THE INTERACTION OF RAT OSTEOBLASTS WITH TITANIUM OXIDE NANOLAYERS
SR Deshmukh*, MA Birch, D Robbins, AW McCaskie
Newcastle upon Tyne
- 16:55 OC24
MEPE REGULATES GROWTH PLATE MINERALISATION THROUGH ITS CLEAVAGE TO THE ASARM PEPTIDE
KA Staines*, VE MacRae, C Farquharson
Edinburgh
- 17:05 OC25
THE EFFECT OF RECOMBINANT HUMAN FIBROBLAST GROWTH FACTOR-18 ON ARTICULAR CARTILAGE FOLLOWING SINGLE IMPACT LOAD
LV Barr*, FMD Henson , A Getgood , N Rushton
Cambridge
- 17:15 OC26
THE APPEARANCE AND MODULATION OF OSTEOCYTE MARKER EXPRESSION DURING CALCIFICATION OF VASCULAR SMOOTH MUSCLE CELLS
D Zhu*, NCW Mackenzie, JL Millán, C Farquharson, VE MacRae
Edinburgh, UK; Sanford, USA
- 17:25 OC27
DOES A STRONTIUM SUBSTITUTED BIOGLASS ENHANCE THE RATE OF BONE INGROWTH INTO A CRITICAL SIZE DEFECT COMPARED TO A COMMERCIALY AVAILABLE TCP-CASO4?
F Allen F*, G Blunn; ID McCarthy; M O'Donnell; MM Stevens; AE Goodship;
London
- 17:35 OC28
INTRA-ARTICULAR AMPA/KAINATE GLUTAMATE RECEPTOR ANTAGONISTS ALLEVIATE INFLAMMATION AND PAIN IN RAT ANTIGEN INDUCED ARTHRITIS
CS Bonnet*, AS Williams, DJ Mason

Cardiff

17:45 **Satellite 2**
Supported by Amgen

A Force Against Fracture: New Perspectives in Preventing Bone Loss

West Road Concert Hall

Chair: Juliet Compston (Cambridge, UK)

Graham Russell (Oxford and Sheffield, UK): Bone remodelling and bone strength: what is the correlation?

Jon Tobias (Bristol, UK): Effects of denosumab on the skeleton: a clinical perspective

18:45 End

19:45- Conference Dinner
22:30 Cripps Hall, Queen's College

Wednesday 29th June

09:00 Oral Communications (BRS)

(Concurrent with Oral Communications (BORS), below)

Divinity Lecture Theatre

Chairs: David Burr (Indianapolis, USA) & Gavin Clunie (Ipswich, UK)

09:00 OC29

AN INVESTIGATION OF RELATIONSHIPS BETWEEN FRACTURE RISK, TOTAL BODY DXA AND TIBIAL pQCT REVEALS INDEPENDENT INFLUENCES OF AREAL AND CORTICAL BMD: IS THERE A CASE FOR COMBINING DXA AND pQCT IN ASSESSING FRACTURE RISK?

A Sayers*, J Chau, K Tilling, J Tobias
Bristol

09:10 OC30

IRON STATUS, FGF23 AND RICKETS IN THE GAMBIA

V Braithwaite*, LMA Jarjou, GR Goldberg^[1,2], A Prentice^[1,2]
Cambridge, UK, MRC Keneba, The Gambia

09:20 OC31

TESTING THE MECHANOSTAT THEORY: THE RELATIONSHIP BETWEEN CT BONE AND MUSCLE VARIABLES IN MID-THIGH IN ELDERLY MEN AND WOMEN AND ASSOCIATION WITH INCIDENT LOWER LIMB FRACTURES

F Johannesdottir*, T Aspelund, K Siggeirsdottir, BY Jonsson, B Mogensen, S Sigurdsson, TB Harris, TF Lang, V Gudnason, G Sigurdsson
Reykjavik, Iceland; Kopavogur, Iceland; Malmö, Sweden; Bethesda MD, USA; San-Francisco CA, USA

09:30 OC32

CIRCULATING FIBROBLAST GROWTH FACTOR-23 (FGF-23) FOLLOWING VITAMIN D SUPPLEMENTATION IN VITAMIN D INSUFFICIENCY

R Inaoui*, WD Fraser, I Fogelman, G Hampson
London; Liverpool

09:40 OC33

OBESITY AND FRACTURES IN POSTMENOPAUSAL WOMEN: THE GLOBAL STUDY OF OSTEOPOROSIS IN WOMEN (GLOW)

JE Compston*, et al
Cambridge ... (see abstract)

09:50 OC34

RELATIONSHIPS BETWEEN FAT MASS, PLASMA ADIPOKINES AND BONE IN POST-MENOPAUSAL CAUCASIAN WOMEN

KA Ward*, REB Webb, A Prentice, GR Goldberg
Cambridge

10:00 OC35

THE HIGH BONE MASS PHENOTYPE IS CHARACTERISED BY INCREASED SUBCUTANEOUS AND INTRA-MUSCULAR FAT, BUT DECREASED MARROW FAT

CL Gregson*, A Sayers, SA Steel, V Lazar, J Rittweger, JH Tobias
Bristol; Hull; Manchester, UK; Cologne, Germany

10:10 Coffee and Posters

09:00 **Oral Communications (BORS)**
(Concurrent with Oral Communications (BRS), above)

West Road Concert Hall

Chairs: Alister Hart (London, UK) & Iain McNamara (Cambridge, UK)

09:00 OC36
ENHANCED WEAR AND CORROSION IN MODULAR TAPERS IN TOTAL HIP
REPLACEMENT - AN IN-VITRO BIOMECHANICAL STUDY
J Meswania*, G Biring, C Wylie, JHua S Muirhead-Allwood, G Blunn
Stanmore

09:10 OC37
MEASUREMENT OF SKIN CAPACITANCE: A NOVEL METHOD OF DIAGNOSING
AUTONOMIC DYSFUNCTION IN CARPAL TUNNEL SYNDROME
SK Dheerendra*, WS Khan, P Smitham, NJ Goddard
Macclesfield; Stanmore; London

09:20 OC38
T-2 TOXIN DISRUPTS THE EXPRESSION OF CHONDROITIN SULPHATED SULPHATION
MOTIFS IN ARTICULAR CARTILAGE FROM AN ANIMAL MODEL OF KASHIN-BECK
DISEASE
S Li*, J Chen, B Caterson, CE Hughes
Cardiff, UK; Xi'an, China

09:30 OC39
SPATIAL AND TEMPORAL STUDY OF BONE MARROW LESIONS IN OSTEOARTHRITIS,
AND THEIR RELATIONSHIP TO DENUDED ARTICULAR CARTILAGE
SWD McLure*, MA Bowes, CBH Wolstenholme, GR Vincent, S Williams, R Maciewicz, JC
Waterton, AJ Holmes, P Conaghan
Leeds; Macclesfield

09:40 OC40
THE OPTIMISATION OF POLYMER TYPE AND CHAIN LENGTH FOR USE AS A
BIOLOGICAL COMPOSITE GRAFT IN IMPACTION BONE GRAFTING: A MECHANICAL
AND BIO-COMPATIBILITY ANALYSIS
ER Tayton*, S Fahmy, A Aarvold, JO Smith, S Kalra, A Briscoe, M Purcell, KM Shakesheff, S
Howdle, DG Dunlop, ROC Oreffo
Southampton; Nottingham

09:50 OC41
COMBINED INFLUENCE OF A CONTINUOUS FLOW BIOREACTOR AND BUFFER
SYSTEMS ON CHONDROCYTE PROLIFERATION AND ARTICULAR CARTILAGE
TISSUE ACCUMULATION IN LONG TERM CULTURE
AA Khan*, DC Surrao, SD Waldman
Oxford, UK; Queen's University, Canada

- 10:00 OC42
DOES BONE MARROW ASPIRATE AUGMENT BONE FORMATION WITHIN A
HYDROXYAPATITE SCAFFOLD?
MJ Coathup*, W-J Lo, T Edwards, GW Blunn
London; Nottingham
- 10:10 Coffee and Posters
- 11:00 BRS Dent Lecture

West Road Concert Hall

Chairs: Jon Tobias (Bristol, UK) & Allen Goodship (London, UK)

Jonathan Reeve (Cambridge, UK)
- 11:30 Symposium 6
Joint Development and Disease

West Road Concert Hall

Chairs: Jon Tobias (Bristol, UK) & Allen Goodship (London, UK)
- 11:30 **Andy Pitsillides** (London, UK): Joint development
- 11:50 **Mary Goldring** (New York, USA): Heterogeneity of chondrocyte responses in cartilage: Lessons from animal models
- 12:10 **Bruce Caterson** (Cardiff, UK): Musculoskeletal tissue repair involves a recapitulation of cellular & matrix phenotypic changes involved in normal tissue and organ development
- 12:30 Panel discussion
- 12:45 Lunch and posters
- 13:30 BRS AGM

Divinity Lecture Theatre
- 13:45 BORS AGM

West Road Concert Hall
- 14:00 **Oral Communications (BORS)**
(Concurrent with Oral Communications (BRS), below)

West Road Concert Hall

Chairs: Mark Birch (Newcastle, UK) & Richie Gill (Oxford, UK)
- 14:00 OC43
ENHANCEMENT OF PLA FOR USE IN IMPACTION BONE GRAFTING: THE EFFECT OF

PRODUCTION VIA SUPERCRITICAL CO₂ DISSOLUTION TO INCREASE POROSITY
ER Tayton*, M Purcell, A Aarvold, JO Smith, S Kalra, A Briscoe, S Fahmy, KM Shakesheff, S
Howdle, DG Dunlop, ROC Oreffo
Southampton; Nottingham

14:10 OC44
PROTECTION OF ARTICULAR CARTILAGE AGAINST DRYING BY GLUCOSE-SALINE
OR SYNOVIAL FLUID
BT McLintock, CE Banfield, AK Amin, AC Hall*
Edinburgh

14:20 OC45
METAL ON METAL TOTAL HIP REPLACEMENT: INFLUENCE OF HEAD SIZE UNDER
ADVERSE HIP SIMULATOR CONDITIONS
M AL-Hajjar*, J Fisher, S Williams, JL Tipper, LM Jennings
Leeds

14:30 OC46
INTERVERTEBRAL DISC FISSURES PROVIDE A LOW-PRESSURE, CHEMICALLY
CONDUCTIVE MICRO-ENVIRONMENT FOR NERVE IN-GROWTH
M Stefanakis*, J Luo1, P Pollintine, T Ranken, J Harris, P Dolan, M A Adams
Bristol; Roehampton

14:40 OC47
THE EFFECT OF HEAT GENERATED BY BONE CEMENT ON THE VIABILITY OF
HUMAN MESENCHYMAL STEM CELLS
Y Reissis*, E Garcia, J Hua, G Blunn
London

14:50 OC48
ULTRASTRUCTURAL CHARACTERISATION OF COBALT/CHROMIUM METAL
NANOPARTICLES IN MACROPHAGES AND CONSEQUENT CYTOTOXICITY
Z Xia*, D Murray
Swansea; Oxford

14:00 **Oral Communications (BRS)**
(Concurrent with Oral Communications (BORS), above)

Divinity Lecture Theatre

Chairs: Jacqueline Berry (Manchester, UK) & Isabel Orriss (London, UK)

14:00 OC49
DISCORDANCE BETWEEN CORTICAL AND TRABECULAR BONE PHENOTYPE
HIGHLIGHTS THE ROLE OF LOCAL VERSUS CIRCULATING IGF-1 IN THE SOCS2 NULL
MOUSE
R Dobie*, C Huesa, RJ van't Hof, VE MacRae, SF Ahmed, C Farquharson
Edinburgh; Glasgow

14:10 OC50
SPIROSTOMUM AMBIGUUM: A PROTOZOAN MODEL FOR PRIMORDIAL
MUSCULOSKELETAL EXCHANGE?

PE Garner*, V Fallon, JE Aaron
Leeds

14:20 OC51
NOVEL REGULATION STEPS IN PARATHYROID RECEPTOR ACTIVATION
GO Richards*, DJ Roberts, TM Skerry
Sheffield

14:30 OC52
ACTIVE SHAPE MODELLING FOR HIP FRACTURE PREDICTION
SR Goodyear*, RJ Barr, K Yoshida, RM Aspden, IR Reid, DM Reid, JS Gregory
Aberdeen, UK; Auckland, NZ

14:40 OC53
BONE IN VITRO 3D OSTEOBLAST-OSTEOCYTE CO-CULTURE MODEL
M Vazquez*, BAJ Evans, J Ralphs, D Riccardi, DJ Mason
Cardiff

14:50 OC54
NANOTOPOGRAPHY-INDUCED OSTEOGENIC DIFFERENTIATION OF HUMAN
EMBRYONIC AND ADULT SKELETAL STEM CELLS
E Kingham*, MP Tsimbouri, N Gadegaard, MJ Dalby, ROC Oreffo
Southampton; Glasgow

15:00 **Oral Posters**

West Road Concert Hall

Chairs: Melanie Coathup (London, UK) & Alison Gartland (Sheffield, UK)

15:00 P001
AUTOLOGOUS OSTEOCHONDRAL TRANSPLANTATION OF THE TALUS - REGIONAL
AND LOCAL CONTACT MECHANICS AND A GRAFT HEIGHT ANALYSIS - A
BIOMECHANICAL STUDY
AM Fansa, CD Murawski*, CW Imhauser, JT Nguyen, S Schafmeister, JG Kennedy
New York

15:05 P002
HOW MUCH CASUAL SUNSHINE IS ENOUGH FOR ADEQUATE VITAMIN D STATUS
JL Berry*, LE Rhodes, R Kift, AR Webb
Manchester

15:10 P003
CHANGES IN MOUSE GAIT MAY PREDICT OA-LIKE LESION PROGRESSION
RL de Souza*[1,2], B Poulet, AA Pitsillides
London, UK; Mato Grosso, Brazil

15:15 P004
VISUALISATION OF THE APICAL SURFACE OF ACTIVATED OSTEOCLASTS
KA Szewczyk*, K Fuller, RF Moss, TJ Chambers
London

15:20 P005

A TISSUE ENGINEERING APPROACH WITH TANTALUM TRABECULAR METAL TO ENHANCE BONE-IMPLANT INTEGRATION

JO Smith*, BG Sengers, A Aarvold, ER Tayton, DG Dunlop, ROC Oreffo
Southampton

- 15:25 P006
HAPLOINSUFFICIENCY OF BAG-1 AFFECTS CARTILAGE DEVELOPMENT AND OSTEOGENIC DIFFERENTIATION IN VITRO
RS Tare*, PA Townsend, GK Packham, ROC Oreffo
Southampton
- 15:30 P007
CHONDROGIDE VERSUS PERIOSTEUM: A HISTOLOGICAL ANALYSIS
HS McCarthy*, S Roberts
Oswestry
- 15:35 P008
TEMPORAL ANALYSIS OF EMBRYONIC BONE DEVELOPMENT USING AN INNOVATIVE ORGANOTYPIC BONE CULTURE MODEL - APPLICATION OF MICRO-COMPUTED TOMOGRAPHY
JM Kanczler*, EL Smith, CA Roberts, ROC Oreffo
Southampton
- 15:40 P009
HOW DOES VERTEBROPLASTY AFFECT ADJACENT VERTEBRAE?
J Luo*, DJ Annesley-Williams, MA Adams, P Dolan
Nottingham
- 15:45 P010
MODULATION OF ENDOGENOUS FPP SYNTHASE CAUSES BISPHOSPHONATE RESISTANCE IN CULTURED CELLS
S Das*, JC Crockett, MJ Rogers
Aberdeen
- 15:50 P011
VOLUMETRIC WEAR ASSESSMENT OF FAILED METAL-ON-METAL HIP RESURFACING PROSTHESES
JK Lord, DJ Langton, AVF Nargol, TJ Joyce*
Newcastle upon Tyne; Stockton
- 15:55 P012
THE EFFECT OF HYPERBARIC OXYGEN THERAPY ON OSTEOCLAST FORMATION AND BONE RESORPTION
HW AL-Hadi*, SW Fox, GR Smerdon
Plymouth
- 16:00 Awards
- 16:15 End of meeting

Buses to Cambridge Station