

Programme

Monday 23 June

10:30 -11:00

Registration

Coffee and poster hanging

11:00-12:30

SYMPOSIUM

Current concepts in musculoskeletal research

Chairs:

Jonathan Reeve (Cambridge, UK)

Brigitte Scammell (Nottingham, UK)

11:00

WHAT ARE THE FUTURE DEVELOPMENT NEEDS IN TRAUMA AND ORTHOPAEDICS?

Brigitte Scammell (Nottingham, UK)

11:25

IMPLANT-RELATED INFECTION. WHERE DO WE GO FROM HERE?

Roger Bayston (Nottingham, UK)

11:50

NICE, FRAX AND OSTEOPOROSIS

Jon Tobias (Bristol, UK)

12:10

DISCUSSION
NICE: WHAT ROLE FOR BRS/BORS?

12:30-13:30

Lunch



13:30-16:30

ROOM C16

BRS-BORS CLINICAL AFTERNOON

Chairmen:

David Marsh (London, UK)

Peter Selby (Manchester, UK)

13:30

IS01

THE NATIONAL HIP FRACTURE DATABASE

Rob Wakeman (Basildon, UK)

14:00

IS02

WHAT IS A VERTEBRAL FRACTURE? EFFECTS OF STUDY DESIGN MEASUREMENT IMPRECISION ON STUDY OUTCOMES

Mark Lunt (Manchester, UK)

14:20

IS03

VERTEBROPLASTY/KYPHOPLASTY: WHEN TO INTERVENE

Rick Whitehouse (Manchester, UK)

14:40

IS04

BONE AS AN ENDOCRINE "GLAND": PHOSPHATE AND OTHER TARGETS

William Fraser (Liverpool, UK)

15:10-15:30

Tea

PARALLEL SESSION

15:30-16:30

ROOM C16

CLINICAL CASES

Chairmen:

William Fraser (Liverpool, UK)

Rick Whitehouse (Manchester, UK)

15:30

CC1

SOFT TISSUE CALCIFICATION IN THE HAND- A BENIGN ENTITY?

KS Rankin, WA Hadden, GG McLeod*

Department of Orthopaedic Surgery, Perth Royal Infirmary, UK

15:45

CC2

AN OMINOUS RADIOLOGICAL SIGN OF IMPENDING ALENDRONATE-RELATED FEMORAL SUBTROCHANTERIC INSUFFICIENCY FRACTURES - AN INDICATION FOR PROPHYLACTIC OPERATIVE FIXATION?

S Das De, T Setiobudi, S Das De*

Department of Orthopaedic Surgery, National University Hospital, Singapore

16:00

CC3

NOT ALL REFERRALS FROM MAXILLOFACIAL SURGEONS ARE OSTEONECROSIS OF THE JAW

JS Bubbear^[1], R Green^[2], RW Keen^[1]*

^[1]Metabolic Unit, Royal National Orthopaedic Hospital, Stanmore, UK; ^[2]Department of Radiology, Royal National Orthopaedic Hospital, Stanmore, UK

16:15

CC4

A TEN YEAR RETROSPECTIVE STUDY INTO THE MORTALITY AND MORBIDITY BENEFITS ACHIEVED BY PROPHYLACTIC STABILISATION OF SKELETAL METASTASES

SR Davies^[1], C Dent^[1], P Barrett-Lee^[2]*

^[1]Department of Orthopaedics, University Hospital of Wales, Cardiff, UK; ^[2]Department of Oncology, Valindra Hospital, Cardiff, UK

Programme – Monday 23 June

PARALLEL SESSION

15:30-16:30	ROOM D7 NEW INVESTIGATORS' SESSION: Shaping your future in skeletal biology <i>Chairmen:</i> <i>Claire Clarkin (London, UK)</i> <i>Nick Harvey (Southampton, UK)</i>
15:30	WELCOME AND INTRODUCTION
15:35	BARBARA MAWER VISITING FELLOWSHIP <i>Claire Clarkin (London, UK)</i>
15:40	PATHWAYS TO TENURE <i>Alan Silman (Manchester, UK)</i>
15:50	WHAT MAKES A SUCCESSFUL FELLOWSHIP APPLICATION? <i>Chris Buckley (Birmingham, UK)</i>
16:00	LIFE AS AN ARC CLINICAL FELLOW <i>Ken Poole (Cambridge, UK)</i>
16:10	EXAMPLE OF CAREER VIA ACADEMIC ROUTE MINUS FELLOWSHIP <i>Alison Gartland (Sheffield, UK)</i>
16:20	OPEN DISCUSSION
16:30	CLOSE

16:30-17:15

Tea/posters

17:15-17:20

ROOM C16

Welcome

Chairmen:

Jonathan Reeve (Cambridge, UK)

Brigitte Scammell (Nottingham, UK)

Alan North

Vice-President and Dean

Faculty of Life Sciences & Faculty of Medical
and Human Sciences

17:20-18:00

ROOM C16

KEYNOTE LECTURE:

Moving beyond the bone and joint decade: rejuvenating the research agenda

Alan Silman (Manchester, UK)

18:00-19:15

ROOM C16

SATELLITE SYMPOSIUM

Advances in RANK/RANKL/OPG Pathway Research

Supported by Amgen

Chairmen:

Graham Russell (Oxford, UK)

Eugene McCloskey (Sheffield, UK)

18:00

LESSONS LEARNED FROM RANK
LIGAND INHIBITION IN HURANKL
KNOCK-IN MICE AND IN
OVARECTOMISED MONKEYS
Serge Ferrari (Geneva, Switzerland)

18:20

CLINICAL EXPERIENCE WITH RANK
LIGAND INHIBITION: OSTEOPOROSIS
AND RHEUMATOID ARTHRITIS
David Reid (Aberdeen, UK)

18:40

TUMOUR-INDUCED BONE
DESTRUCTION
Janet Brown (Leeds, UK)

19:00

QUESTIONS AND ANSWERS

20:00-21:00

Manchester Town Hall

Civic Reception

Programme

Tuesday 24 June

08:30-09:30		ROOM C16
SYMPOSIUM		
New aspects of bone repair and ortho-pharmacology		
<i>Chairmen:</i>		
<i>Jonathan Reeve (Cambridge, UK)</i>		
<i>Brigitte Scammell (Nottingham, UK)</i>		
08:30	IS05	MECHANO-BIOLOGY OF FRACTURE HEALING <i>Georg Duda (Berlin, Germany)</i>
09:00	IS06	ENHANCING BONE REPAIR WITH PHARMACOTHERAPY <i>David Marsh (London, UK)</i>
09:30-11:00		ROOM C16
ORAL COMMUNICATIONS (BRS/BORS)		
<i>Chairmen:</i>		
<i>Jonathan Reeve (Cambridge, UK)</i>		
<i>Brigitte Scammell (Nottingham, UK)</i>		
09:30	OC01	INFLAMMATORY CYTOKINES CAUSE LOSS OF DNA METHYLATION TOGETHER WITH INDUCTION OF ABNORMAL GENE EXPRESSION IN HEALTHY HUMAN ARTICULAR CHONDROCYTES <i>K Hashimoto^{1,2}, S Kokubun², E Itoi², HI Roach²</i> ^[1] Bone & Joint Research Group, Institute of Developmental Sciences, University of Southampton, UK; ^[2] Dept of Orthopaedic Surgery, Tohoku University School of Medicine, Sendai, Japan
09:42	OC02	LOADING-RELATED REDUCTION IN OSTEOCYTE SCLEROSTIN EXPRESSION IN VIVO IS ASSOCIATED WITH BONE FORMATION IN TRABECULAR AND CORTICAL BONE <i>AM Moustafa*, G Zaman, L Saxon, LE Lanyon, J Price</i> Department of Veterinary Basic Sciences, The Royal Veterinary College, Royal College Street, London NW1 0TU, UK
09:54	OC03	A BIOACTIVE SCAFFOLD FOR BONE REGENERATIVE MEDICINE <i>DMC Sharp*, A Martin, N Khan, H Simpson, BS Noble</i> Musculoskeletal Tissue Engineering Collaboration (MTEC), MRC Centre for Regenerative Medicine, University of Edinburgh Medical School, UK

10:06	OC04	PREDICTION OF INCIDENT HIP FRACTURE RISK BY FEMUR GEOMETRY VARIABLES MEASURED BY HIP STRUCTURAL ANALYSIS IN THE STUDY OF OSTEOPOROTIC FRACTURES <i>S Kaptoge^{*1}, TJ Beck², J Reeve¹, KL Stone³, TA Hillier⁴, JA Cauley⁵, SR Cummings⁶</i> ^[1] Departments of Medicine and Public Health and Primary Care, University of Cambridge, Cambridge, UK; ^[2] Department of Radiology, The Johns Hopkins University School of Medicine, Baltimore MD, USA; ^[3] California Pacific Medical Centre Research Institute, San Francisco CA, USA; ^[4] Kaiser Permanente Centre for Health Research Northwest and Hawaii, Portland Oregon, USA; ^[5] Department of Epidemiology, University of Pittsburgh, Pittsburgh PA, USA; ^[6] California Pacific Medical Centre, Research Institute, and Department of Epidemiology and Biostatistics, University of California, San Francisco CA, USA
10:18	OC05	VARIATION IN THE INTERLEUKIN-1 RECEPTOR ANTAGONIST GENE PROTECTS AGAINST OSTEOLYSIS AFTER TOTAL HIP ARTHROPLASTY: A CLINICAL AND GENE EXPRESSION STUDY <i>A Gordon^{*1}, E Kiss-Toth², E Greenfield³, R Eastell¹, JM Wilkinson¹</i> ^[1] Academic Department of Bone Metabolism, University of Sheffield, Sheffield, UK; ^[2] Department of Genomic Medicine, University of Sheffield, Sheffield, UK; ^[3] Department of Orthopaedics, Case Western Reserve University, Cleveland, USA
10:30	OC06	EFFECTS OF ACUTE HYPOXIA ON OSTEOCLAST ACTIVITY: A BALANCE BETWEEN ENHANCED RESORPTION AND INCREASED APOPTOSIS <i>HJ Knowles^{*1}, NA Athanasou²</i> ^[1] Botnar Research Centre, University of Oxford, UK; ^[2] Department of Pathology, Nuffield Department of Orthopaedic Surgery, University of Oxford, UK
10:42	OC07	ISOLATION OF SENESCENT MULTIPOTENT STROMAL CELLS FROM HUMAN FRACTURE NON-UNIONS <i>S Bajada^{*1}, JB Richardson², WEB Johnson¹</i> ^[1] Centre for Spinal Studies, Keele University at the RJA Orthopaedic Hospital, Oswestry, UK; ^[2] Institute of Orthopaedics, RJA Orthopaedic Hospital, Oswestry, UK

11:00-12:00

Coffee

ATTENDED POSTERS (ODDS)

Programme – Tuesday 24 June

PARALLEL SESSION

12:00-13:00		ROOM C16	BRS
		ORAL COMMUNICATIONS - BRS	
		<i>Chairmen:</i> <i>Colin Farquharson (Edinburgh, UK)</i> <i>Harri Sievänen (Tampere, Finland)</i>	
12:00	OC08	PRIMARY OSTEOBLASTS AND BONE MATRIX OF BONES WITH DIFFERENT FUNCTIONS HAVE DISTINCT CHARACTERISTICS <i>SCF Rawlinson*^[1], G Zaman^[2], IJ McKay^[1], M Ghuman^[1], FJ Hughes^[1], VJ Kingsmill^[1]</i> ^[1] Adult Oral Health, Barts and The London School of Medicine and Dentistry, UK; ^[2] Bone Unit, The Royal Veterinary College, UK	
12:12	OC09	MICROCT ANALYSIS OF P2Y1 AND P2Y2 RECEPTOR KNOCKOUT MICE DEMONSTRATES SIGNIFICANT CHANGES IN BONE PHENOTYPE <i>IR Orriss*^[1], HR Evans^[2], A Gartland^[2], TR Arnett^[1]</i> ^[1] Department of Anatomy and Developmental Biology, University College London, London, UK; ^[2] Academic Unit of Bone Biology, University of Sheffield, Sheffield, UK	
12:24	OC10	RANKL-INDEPENDENT OSTEOCLASTOGENESIS IN PAGET'S DISEASE <i>F Jones*, H Knowles, J Wass, N Athanasou</i> Nuffield Department of Orthopaedic Surgery, University of Oxford, Oxford, UK	
12:36	OC11	UROCORTIN STRONGLY SUPPRESSES BONE RESORPTION IN IN-VITRO-DERIVED MURINE OSTEOCLASTS <i>CE Combs*, K Fuller, TJ Chambers, KM Lawrence</i> St George's, University of London, Cranmer Terrace, London, SW17 0RE, UK	
12:48	OC12	TSG-6 REGULATES BONE REMODELLING THROUGH INHIBITION OF OSTEOBLASTOGENESIS AND OSTEOCLAST ACTIVATION <i>DJ Mahoney*^[1,2], K Mikecz^[3], T Ali^[2,4], G Mabileau^[1], D Benayahu^[5], A Plaas^[6], CM Milner^[2,4], AJ Day^[2,4], A Sabokbar^[1]</i> ^[1] Botnar Research Centre, Nuffield Department Orthopaedic Surgery, University of Oxford, OX3 7LD, UK; ^[2] MRC Immunochemistry Unit, Department of Biochemistry, University of Oxford, OX1 3QU, UK; ^[3] Department of Orthopaedic Surgery, Rush University Medical Centre, Chicago IL 60612, USA; ^[4] Faculty of Life Sciences, Michael Smith Building, University of Manchester, M13 9PT, UK; ^[5] Department of Cell and Developmental Biology, Sackler School of Medicine, Tel Aviv University, Tel Aviv 69978, Israel; ^[6] Department of Biochemistry, Rush University Medical Centre, Chicago IL 60612, USA	

PARALLEL SESSION

12:00-13:00		ROOM C2	BORS
		ORAL COMMUNICATIONS - BORS	
		<i>Chairmen:</i> <i>Hamish Simpson (Edinburgh, UK)</i> <i>Xuebin Yang (Leeds, UK)</i>	
12:00	OC13	EXPRESSION OF THE CELL TO CELL ADHESION MOLECULE, ALCAM, IN BREAST CANCER PATIENTS AND THE POTENTIAL LINK WITH SKELETAL METASTASIS <i>SR Davies*^[1], C Dent^[1], G Watkins^[2], J King^[3], K Mokbell^[4], RE Mansell^[2], WG Jiang^[2]</i> ^[1] Department of Orthopaedics, University Hospital of Wales, Cardiff, UK; ^[2] Metastasis and Angiogenesis Research Group, Department of Surgery, Cardiff University School of Medicine, Cardiff, UK; ^[3] University of South Alabama, Centre for Lung Biology, 3330 MSB, Mobile, Alabama 36688-0002, USA; ^[4] Department of Surgery, St. George Hospital, London, UK	
12:12	OC14	ROLE OF EPIGENETIC MODIFIERS IN BONE MARROW STROMAL CELL DIFFERENTIATION <i>AT El-Serafi*, ROC Oreffo, HI Roach</i> Bone and Joint Research Group, DOHaD division, School of Medicine, University of Southampton, UK	
12:24	OC15	CHONDROCYTE SURVIVAL IN ARTICULAR CARTILAGE EXPLANTS - THE INFLUENCE OF SUBCHONDRAL BONE <i>AK Amin*^[1,2], JS Huntley^[1], AHRW Simpson^[1], AC Hall^[2]</i> ^[1] Department of Orthopaedic and Trauma Surgery, University of Edinburgh, UK; ^[2] Centre for Integrative Physiology, School of Biomedical Sciences, University of Edinburgh, UK	
12:36	OC16	ABNORMAL IN SITU HUMAN CHONDROCYTE MORPHOLOGY IS ASSOCIATED WITH INCREASED LEVELS OF IL-1BETA BUT NOT MMP-13 <i>DH Murray^[1], PG Bush^[1], IJ Brenkel^[2], AC Hall*^[1]</i> ^[1] Centre for Integrative Physiology, University of Edinburgh, UK; ^[2] Department of Orthopaedics, Queen Margaret Hospital, Dunfermline, UK	
12:48	OC17	HEAT SHOCK PROTEIN AND APOPTOSIS IN SUPRASPINATUS TENDINOPATHY <i>NL Millar*^[1,2], AQ Wei^[1], TJ Molloy^[1], F Bonar^[1], GAC Murrell^[1]</i> ^[1] Orthopaedic Research Institute, St. George Hospital Campus, University of New South Wales, Sydney, Australia; ^[2] West of Scotland Orthopaedic Training Programme, Glasgow, UK	

Programme – Tuesday 24 June

13:00-14:00

Lunch and posters

14:00-15:30

ROOM C16

SYMPOSIUM

Mechanobiology

Chairmen:

David Marsh (London, UK)

Jonathan Tobias (Bristol, UK)

14:00

IS07

IMPACT OF PHYSICAL ACTIVITY ON THE SKELETON

Harri Sievänen (Tampere, Finland)

14:30

IS08

LOW PROTEIN INTAKE AND BONE RESPONSES TO MECHANICAL LOADING

Patrick Ammann (Geneva, Switzerland)

15:00

IS09

PRIMING OF SKELETAL MECHANOBIOLOGICAL MEMORY

Andy Pitsillides (London, UK)

15:30-16:30

Tea

ATTENDED POSTERS (EVENING)

PARALLEL SESSION

16:30-18:06

ROOM C2

ORAL COMMUNICATIONS - BRS

Chairmen:

Cyrus Cooper (Southampton, UK)

Terry O'Neill (Manchester, UK)

16:30

OC18

GENETIC VARIATION IN THE AROMATASE GENE INFLUENCES HEEL ULTRASOUND PARAMETERS: RESULTS FROM THE EUROPEAN MALE AGEING STUDY (EMAS)

KL Limer^{*[1]}, SR Pye^[1], W Thomson^[1], S Boonen^[2], H Borghs^[2], D Vanderschueren^[2], IT Huhtaniemi^[3], JE Adams^[4], KA Ward^[4], G Bartfai^[5], F Casanueva^[6], JD Finn^[7], G Forti^[8], A Giwercman^[9], TS Han^[10], K Kula^[11], MEJ Lean^[10], N Pendleton^[12], M Punab^[13], AJ Silman^[1], FCW Wu^[7], TW O'Neill^[1] and the EMAS Study Group

^[1]ARC Epidemiology Unit, The University of Manchester, UK; ^[2]Katholieke Universiteit Leuven, Belgium; ^[3]Imperial College London, UK; ^[4]Department of Imaging Science and Biomedical Engineering, The University of Manchester, UK; ^[5]University of Szeged, Hungary; ^[6]University of Santiago de Compostela, Spain; ^[7]Department of Endocrinology, The University of Manchester, UK; ^[8]University of Florence, Italy; ^[9]Lund University, Sweden; ^[10]University of Glasgow, Scotland; ^[11]University of Lodz, Poland; ^[12]Clinical Gerontology, The University of Manchester, UK; ^[13]University of Tartu, Estonia

16:42

OC19

MATERNAL VITAMIN D INSUFFICIENCY AND FETAL BONE DEVELOPMENT

PA Mahon^{*[1]}, NC Harvey^[1], SR Crozier^[1], HM Inskip^[1], SM Robinson^[1], NK Arden^[1], R Swaminathan^[2], C Cooper^[1], KM Godfrey^[1]

^[1]MRC Epidemiology Resource Centre, University of Southampton, UK; ^[2]Department of Chemical Pathology, St Thomas' Hospital, London, UK

16:54

OC20

PARENTAL HEIGHT AND CHILDHOOD MILK INTAKE AT 4 YEARS ARE ASSOCIATED WITH CATCH UP BONE MINERAL ACCRUAL IN EARLY CHILDHOOD

NC Harvey^{*}, MK Javaid, ZA Cole, SM Robinson, SR Crozier, HM Inskip, KM Godfrey, EM Dennison, C Cooper

MRC ERC, University of Southampton, Southampton, UK

17:06

OC21

COMPARISON OF DXA AND QUS FOR PREDICTION OF FRACTURE RISK AMONG OLDER MEN AND WOMEN: THE EPIC-NORFOLK COHORT STUDY

A Moayyeri^{*[1]}, S Kaptoge^[1], RN Luben^[1], S Bingham^[2], NJ Wareham^[3], J Reeve^[1], KT Khaw^[1]

^[1]Department of Public Health and Primary Care, University of Cambridge, UK; ^[2]MRC Dunn Human Nutrition Unit; ^[3]MRC Epidemiology Unit, Cambridge, UK

17:18

OC22

USE OF DXA-BASED STRUCTURAL ENGINEERING MODELS OF THE PROXIMAL FEMUR TO PREDICT HIP FRACTURE

L Yang^{*[1]}, N Peell^[2], J Clowes^[3], EV McCloskey^[1], R Eastell^[1]

^[1]Academic Unit of Bone Metabolism, University of Sheffield, UK; ^[2]Metabolic Bone Centre, Northern General Hospital, Sheffield, UK; ^[3]Mayo Clinic, Rochester, USA

17:30

OC23

OSTEOPROTEGRIN AS A PROGNOSTIC INDICATOR FOR BONE METASTASIS IN DUCTAL BREAST CANCER

SR Davies^{*[1]}, RE Mansel^[2], WG Jiang^[2]

^[1]Department of Orthopaedics, University Hospital of Wales, Cardiff, UK; ^[2]Metastasis and Angiogenesis Research Group, Department of Surgery, Cardiff University School of Medicine, Cardiff, UK

17:42

OC24

INHIBITING DICKKOPF-1 (DKK-1) PREVENTS THE DEVELOPMENT OF OSTEOLYTIC BONE DISEASE IN MULTIPLE MYELOMA

DJ Heath^[1], AD Chantry^{*[1]}, C Buckle^[1], L Coulton^[1], JD Shaughnessy Jr^[2], H Evans^[1], DR Stover^[3], K Vanderkerken^[4], PI Croucher^[1]

^[1]Academic Unit of Bone Biology, University of Sheffield, UK; ^[2]Myeloma Institute for Research and Therapy, University of Arkansas for Medical Sciences, USA; ^[3]Novartis Institutes for Biomedical Research Incorporated, Cambridge, USA; ^[4]Department of Haematology and Immunology, Vrije Universiteit Brussel, Belgium

Programme – Tuesday 24 June

17:54 OC25 A RANDOMISED DOUBLE BLIND PLACEBO CONTROLLED TRIAL TO DETERMINE THE MAGNITUDE OF CHANGE IN BONE MINERAL DENSITY IN RESPONSE TO LASOFOXIFENE
SJ Glover^[1], A Rogers^[1], R Eastell^[1]*
 Academic Unit of Bone Metabolism, University of Sheffield, Sheffield, UK

PARALLEL SESSION

16:30-18:06 ROOM C16 BORS
ORAL COMMUNICATIONS - BORS
Chairmen:
Gordon Blunn (Stanmore, UK)
Andrew McCaskie (Newcastle upon Tyne, UK)

16:30 OC26 THE METAPHYSEAL-DIAPHYSEAL INDEX SCORE, A NOVEL METHOD OF PREVENTING INTRA-OPERATIVE PERIPROSTHETIC FRACTURE IN MODERN UNCEMENTED HEMIARTHROPLASTY
R Chana^[1], R Mansouri^[2], C Jack^[1], MR Edwards^[1], R Singh^[3], F Khan^[2]*
^[1]Trauma and Orthopaedics, South East Thames Region, London, UK; ^[2]Trauma & Orthopaedics, Queen Elizabeth Hospital, London, UK; ^[3]Trauma & Orthopaedics, Lewisham Hospital, London, UK

16:42 OC27 ANALYSIS OF EX VIVO RESURFACING HIP PROSTHESES AND COMPARISON WITH CLINICAL DATA
TJ Joyce^[1], D Langton^[2], S Jameson^[2], AVF Nargoll^[2]*
^[1]Centre for Rehabilitation and Engineering Studies, School of Mechanical and Systems Engineering, Newcastle University, Newcastle upon Tyne, NE1 7RU, UK; ^[2]Joint Replacement Unit, University Hospital of North Tees, Hardwick, Stockton-on-Tees, TS19 8PE, UK

16:54 OC28 EFFECTS OF METAL IONS ON OSTEOBLAST ACTIVITY
G Mabileau, HS Gill, A Sabokbar*
 Botnar Research Centre, Nuffield Department of Orthopaedic Surgery, University of Oxford, OX3 7LD, UK

17:06 OC29 CEMENT MANTLE THICKNESS DETERMINES CEMENT PENETRATION AND STEM SUBSIDENCE IN IMPACTION GRAFTING
M Ganapathi^[1], JH Kuiper^[1,2], S Griffin^[1], E Saweeres^[1], N Graham^[1]*
^[1]The Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry, UK; ^[2]Institute for Science and Technology in Medicine, Keele University, UK

17:18 OC30 MENISECTOMY ELEVATES FRICTION AND WEAR OF ARTICULAR CARTILAGE IN THE KNEE JOINT
L McCann, E Ingham, Z Jin, J Fisher*
 Institute of Medical and Biological Engineering, University of Leeds, UK

17:30 OC31 VERIFICATION OF A NOVEL SPINE WEAR SIMULATOR
RE Vicars^[1], J Fisher^[1], N Heyes^[2], R Birrell^[2], RM Hall^[1]*
^[1]Institute of Medical and Biological Engineering, School of Mechanical Engineering, University of Leeds, UK; ^[2]Simulation Solutions Ltd, Manchester, UK

17:42 OC32 SURROGATE-BONE VERTEBRAL MODELS ARE NOT APPROPRIATE FOR USE IN THE MECHANICAL ASSESSMENT OF VERTEBROPLASTY
RJ Oakland^[1], N Kapur^[1], J Timothy^[2], T Buckland^[3], RM Hall^[1]*
^[1]School of Mechanical Engineering, University of Leeds, UK; ^[2]Neurosurgery, Leeds Teaching Hospitals Trust, UK; ^[3]Apatech Ltd, Hertfordshire, UK

17:54 OC33 NEW TECHNIQUE OF BONE ALLOGRAFT STERILIZATION USING SUPERCRITICAL CARBON DIOXIDE MAINTAINS BONE MECHANICAL PROPERTIES: A SIGNIFICANT ADVANCE IN POTENTIAL FOR USE OF BONE ALLOGRAFT IN TRAUMA AND ORTHOPAEDIC SURGERY
LC Biant^[1], R Mammucari^[2], J Pham^[3], WR Walsh^[4], NR Foster^[2], SM Bell^[3]*
^[1]The Royal National Orthopaedic Hospital, Stanmore, UK; ^[2]Department of Chemical Engineering, University of New South Wales, Sydney, Australia; ^[3]Department of Microbiology, Prince of Wales Hospital, Sydney, Australia; ^[4]Orthopaedic Research Laboratories, University of New South Wales, Sydney, Australia

20:00-midnight

Conference Dinner and Party

BARNES WALLIS BUILDING,
 UNIVERSITY OF MANCHESTER

Programme

Wednesday 25 June

09:00-10:00 ROOM C16

SYMPOSIUM

Imaging Bone Structure: From bench to bedside

Chairmen:

Eugene McCloskey (Sheffield, UK)

James Richardson (Oswestry, UK)

- 09:00 IS10 BONE STRENGTH ASSESSMENT FROM MORPHOMETRY AND STRUCTURE
Judith Adams (Manchester, UK)
- 09:30 IS11 FINITE ELEMENT ANALYSIS (FEA) IN THE ASSESSMENT OF BONE STRENGTH
Sandra Shefelbine (London, UK)

10:00-11:00

Coffee

ATTENDED POSTERS (Odds 10:00-10:30; Evens 10:30-11:00)

11:00-12:00 ROOM C16

JOINT BORS/BRIS ORAL POSTERS

Chairmen:

Roger Bayston (Nottingham, UK)

Mark Cooper (Birmingham, UK)

- 11:00 OP1 AGEING EFFECTS ON FEMORAL NECK TRABECULAR BONE: ROLE IN HIP FRACTURE
CD Thomas^[1], PM Mayhew^[2], JG Clement^[1], N Loveridge^[2], CJ Burgoyne^[2], J Reeve^[2]
^[1]Dental Science, Melbourne University, Australia; ^[2]Medicine & Engineering, Cambridge University, UK
- 11:05 OP2 FRICTION AS A POTENTIAL CAUSE OF PARATENONITIS
PR Landham, L Nokes, C Byrne, D Dowson, C Dent, P Theobald*
Institute of Medical Engineering & Medical Physics, Cardiff University, Cardiff, UK
- 11:10 OP3 AN OSTEOGENIC SCAFFOLD CARRIER FOR THE DELIVERY OF HUMAN MARROW STROMAL CELLS TO A MURINE CALVARIAL DEFECT
AJ Martin, JL Tremoleda, P Vadillo, N Khan, V Mann, BS Noble*
Musculoskeletal Tissue Engineering Collaboration, MRC Centre for Regenerative Medicine, University of Edinburgh Medical School, Edinburgh, UK

- 11:15 OP4 DEVELOPMENT OF A COMBINATION VACCINE AGAINST STAPHYLOCOCCAL IMPLANT-RELATED INFECTION
E Edis, BE Scammell, R Bayston*
Division of Orthopaedic and Accident Surgery, University of Nottingham, UK
- 11:20 OP5 TEMPORAL EXPRESSION OF PHOSPHO1 DURING CHICK LIMB BUD MESENCHYMAL CELL DIFFERENTIATION AND MINERALISATION
VE MacRae^[1], MG Davey^[1], S Narisawa^[2], MC Yadav^[2], J L Millan^[2], C Farquharson^[1]
^[1]Bone Biology Group, Roslin Institute, UK; ^[2]Burnham Institute for Medical Research, USA
- 11:25 OP6 CHONDROPROTECTIVE STRATEGIES: INCREASING THE OSMOLARITY OF JOINT IRRIGATING SOLUTIONS
AK Amin^[1,2], JS Huntley^[1], AHRW Simpson^[1], AC Hall^[2]
^[1]Department of Orthopaedic and Trauma Surgery, University of Edinburgh, UK; ^[2]Centre for Integrative Physiology, School of Biomedical Sciences, University of Edinburgh, UK
- 11:30 OP7 EVIDENCE FOR ADENOSINE RECEPTOR REGULATION OF OSTEOGENESIS VERSUS ADIPOGENESIS IN MESENCHYMAL STEM CELLS
B Gharibi^[1,2], C Elford^[1], BM Lewis^[2], J Ham^[2], BAJ Evans^[1]
^[1]Department of Child Health, School of Medicine, Cardiff University, Heath Park, Cardiff CF14 4XN, UK; ^[2]Centre for Endocrinology and Diabetes Sciences, School of Medicine, Cardiff University, Heath Park, Cardiff CF14 4XN, UK
- 11:35 OP8 FROG GLUE ENHANCES ROTATOR CUFF REPAIR EX VIVO
NL Millar^[1,2], TA Bradley^[1], NA Walsh^[1], IR Appleyard^[1], MJ Tyler^[1], GAC Murrell^[1]
^[1]Orthopaedic Research Institute, St. George Hospital Campus, University of New South Wales, Sydney, Australia; ^[2]West of Scotland Orthopaedic Training Programme, Glasgow, UK
- 11:40 OP9 GLUTAMATE TRANSPORTER INHIBITORS INFLUENCE OSTEOBLAST GENE EXPRESSION
K Brakspear^[1], P Parsons^[2], DJ Mason^[1]
^[1]School of Biosciences, Cardiff University, Cardiff, CF10 3US, UK; ^[2]Smith and Nephew Research Centre, York Science Park, York, YO10 5DF, UK
- 11:45 OP10 COMPARATIVE STUDY ON THE POTENTIAL USE OF DIFFERENT HUMAN CELL TYPES IN CARTILAGE TISSUE ENGINEERING
S Saha^[1], J Kirkham^[1], D Wood^[1], S Curran^[2], XB Yang^[1]
^[1]Department of Oral Biology, University of Leeds, Leeds LS2 9LU, UK; ^[2]Smith & Nephew Research Centre, York Science Park, Heslington, York YO10 5DF, UK

Programme – Wednesday 25 June

- 11:50 OP11 HYPOXIA FACILITATES BONE INVASION BY INCREASING BREAST CANCER CELL EXPRESSION OF MATRIX METALLOPROTEINASE-1
*KS Rankin**, *CH Gerrard*, *RL Lakey*, *AP Sprowson*, *AW McCaskie*, *MA Birch*
Musculoskeletal Research Group, University of Newcastle upon Tyne, UK
- 11:55 OP12 THE CARTILAGE MATRIX BIOLOGY OF ANTEROMEDIAL OSTEOARTHRITIS OF THE KNEE
*SM McDonnell**^[1], *R Rout*^[1], *AP Hollander*^[2], *IM Clark*^[3], *DW Murray*^[1], *HS Gill*^[1], *PA Hulley*^[1], *AJ Price*^[1]
^[1]Nuffield Department of Orthopaedic Surgery, University of Oxford, UK; ^[2]Academic Department of Rheumatology, University of Bristol, UK; ^[3]University of East Anglia, Norwich, UK

PARALLEL SESSION

- 12:00-12:30 ROOM C16** 
BRS ORAL POSTERS
Chairmen:
Nick Harvey (Southampton, UK)
Andy Pitsillides (London, UK)
- 12:00 BRS-OP1 SULFORAPHANE - A NEW THERAPY FOR MULTIPLE MYELOMA?
*RM Locklin**^[1], *PA Hulley*^[1], *RG Russell*^[1], *CM Edwards*^[2]
^[1]Institute of Musculoskeletal Sciences, Botnar Research Centre, Nuffield Department of Orthopaedic Surgery, University of Oxford, Oxford, UK; ^[2]Department of Cancer Biology, Vanderbilt University Medical Center, Nashville, Tennessee, USA
- 12:05 BRS-OP2 ETHNIC DIFFERENCES IN FIBROBLAST GROWTH FACTOR 23 AND PHOSPHATE EXCRETION IN RESPONSE TO PHOSPHATE LOADING
L Du^[1], *L Yan*^[1], *I Schoenmakers*^[1], *B Zhou*^[2], *LM Jarjou*^[3], *S Nigdikar*^[1], *GR Goldberg*^[1,3], *A Prentice**^[1,3]
^[1]MRC Human Nutrition Research, Elsie Widdowson Laboratory, Fulbourn Road, Cambridge, UK; ^[2]Department of Preventive Medicine, Shenyang Medical College, Shenyang, PR China; ^[3]MRC Keneba, The Gambia

- 12:10 BRS-OP3 A RANDOMIZED CONTROL TRIAL OF ONCE WEEKLY RISEDRONATE FOR PREVENTION OF BONE LOSS OBSERVED IN A SINGLE FLARE-UP OF INFLAMMATORY BOWEL DISEASE
*MH Kriel**^[1], *CSJ Probert*^[1], *TJ Creed*^[2], *M Lockett*^[3], *AJ Bell*^[4], *D Linehan*^[5], *JH Tobias*^[1]
^[1]Department of Clinical Sciences at South Bristol, University of Bristol, UK; ^[2]Department of Gastroenterology, Bristol Royal Infirmary, Bristol, UK; ^[3]Department of Medicine, Frenchay Hospital, Bristol, UK; ^[4]Department of Medicine, Weston-Super-Mare General Hospital, Weston-Super-Mare, UK; ^[5]Department of Medicine, Royal United Hospital, Bath, UK
- 12:15 BRS-OP4 BACKGROUND UVB EXPOSURE IN PREGNANCY AND SKELETAL DEVELOPMENT IN CHILDHOOD
**AE Sayers*^[1], *BJ Boucher*^[2], *JH Tobias*^[1]
^[1]Academic Rheumatology, University of Bristol, UK; ^[2]Diabetes & Metabolic Medicine, Royal London Hospital, UK
- 12:20 BRS-OP5 ORAL CALCIUM SUPPLEMENTATION REVERSES THE BIOCHEMICAL PICTURE OF PARATHYROID HORMONE RESISTANCE IN UNDERPRIVILEGED INDIAN TODDLERS
*M Z Mughal**^[1], *A Khadilka*^[2], *N Hanumante*^[3], *M Sayyad*^[4], *N Sanwalka*^[5], *V Khadilkar*^[2], *M Vaidya*^[6], *A Joshi*^[3]
^[1]Saint Mary's Hospital for Women & Children, Manchester, UK; ^[2]Hirabai Cowasji Jehangir Medical Research Institute, Pune, India; ^[3]Poona Medical Foundation Research Center, Pune, India; ^[4]Abeda Inamdar Senior College, Pune, India; ^[5]Pune University, Pune, India; ^[6]Cummins College of Engineering, Pune, India
- 12:25 BRS-OP6 A RANDOMIZED CONTROLLED TRIAL OF THE EFFECTS OF VITAMIN D SUPPLEMENTATION UPON MUSCLE POWER IN ADOLESCENT GIRLS
*KA Ward**^[1], *G Das*^[2], *J Berry*^[1], *SA Roberts*^[1], *JE Adams*^[1], *MZ Mughal*^[3]
^[1]University of Manchester, UK; ^[2]Central Manchester Primary Care Trust, UK; ^[3]Central Manchester & Manchester Children's University Hospitals NHS Trust, UK

PARALLEL SESSION


- 12:00-12:30 ROOM C2** 
BORS AGM

12:30-13:30


Lunch and posters

Programme – Wednesday 25 June

PARALLEL SESSION

13:30-14:00		ROOM C16	
		BORS ORAL POSTERS	
		<i>Chairmen:</i>	
		<i>Roger Bayston (Nottingham, UK)</i>	
		<i>Mark Birch (Newcastle, UK)</i>	
13:30 BORS-OP1	IS THERE A BENEFIT FROM IMMEDIATE BROTH CULTURE OF INTRA-OPERATIVE MUSCULOSKELETAL SPECIMENS?		
	<i>S Ahmad*, AHRW Simpson</i>		
	^[1] Department of Trauma and Orthopaedics, Royal Infirmary of Edinburgh and University of Edinburgh, UK		
13:35 BORS-OP2	IN VITRO WEAR TESTS OF ORTHOPAEDIC BIOPOLYMERS WITH A VISCO-SUPPLEMENT ADDED TO THE LUBRICANT		
	<i>TJ Joyce*, YH Huang</i>		
	School of Mechanical and Systems Engineering, Newcastle University, Newcastle upon Tyne, UK		
13:40 BORS-OP3	FUNCTIONAL OUTCOME FOLLOWING HIP RESURFACING: THE IMPORTANCE OF COMPONENT SIZE AND ACETABULAR ORIENTATION		
	<i>SS Jameson*, DJ Langton, AVF Nargol</i>		
	Joint Replacement Unit, University Hospital of North Tees, Hardwick, Stockton-on-Tees, UK		
	BORS-OP4 WITHDRAWN		
13:45 BORS-OP5	INDICATIONS FOR TOTAL KNEE ARTHROPLASTY IN THE VALGUS KNEE - IS THE SIGNIFICANCE OF INSTABILITY TRULY UNDERSTOOD?		
	<i>A Prasthofer*, L Unitt, A Sambatakakis</i>		
	Department of Orthopaedics, Solihull Hospital, Solihull, UK		
13:50 BORS-OP6	DOUBLE BUNDLE ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION USING THE CALAXO OSTEOCONDUCTIVE INTERFERENCE SCREW		
	<i>A Getgood*, M Kent, I McNamara, A Dickinson, H Elmadbouh, T Bhullar</i>		
	Edith Cavell Hospital, Peterborough, UK		

PARALLEL SESSION

13:30-14:00	ROOM C2	
	BRS AGM	

PARALLEL SESSION

14:00-15:00		ROOM C16	
		BORS SYMPOSIUM	
		What is new in osteoarthritis and cartilage?	
		<i>Chairmen:</i>	
		<i>Bruce Caterson (Cardiff, UK)</i>	
		<i>Trudy Roach (Southampton, UK)</i>	
14:00	IS12	WHERE ARE WE NOW WITH CARTILAGE AND MENISCAL TRANSPLANTATION?	
		<i>James Richardson (Oswestry, UK)</i>	
14:30	IS13	WHAT DO WE KNOW ABOUT THE PATHOAEIOLOGY OF OSTEOARTHRITIS?	
		<i>Thomas Aigner (Leipzig, Germany)</i>	

PARALLEL SESSION

14:00-15:00		ROOM C2	
		BRS SYMPOSIUM	
		New concepts in Vitamin D	
		<i>Chairmen:</i>	
		<i>Richard Keen (London, UK)</i>	
		<i>Zulf Mughal (Manchester, UK)</i>	
14:00	IS14	VITAMIN D AND BONE: ENDOCRINOLOGY AND AUTO/PARACRINOLOGY	
		<i>Hans van Leeuwen (Rotterdam, Netherlands)</i>	
14:30	IS15	NON-SKELETAL EFFECTS OF VITAMIN D	
		<i>Kay Colston (London, UK)</i>	

15:10-16:10 ROOM C16

		ORAL COMMUNICATIONS (joint BRS/BORS)	
		<i>Chairmen:</i>	
		<i>Miep Helfrich (Aberdeen, UK)</i>	
		<i>Brigitte Scammell (Nottingham, UK)</i>	
15:10	OC34	POLYURETHANE MICROARRAYS: A NOVEL PLATFORM FOR SELECTION OF SKELETAL OSTEOPROGENITORS FROM HUMAN BONE MARROW	
		<i>RS Tare*^[1], F Khan^[2], G Tourniaire^[2], SM Morgan^[1], M Bradley^[2], ROC Oreffo^[1]</i>	
		^[1] Bone and Joint Research Group, Centre for Human Development, Stem Cells and Regeneration, Institute of Developmental Sciences, University of Southampton, Southampton SO16 6YD, UK; ^[2] School of Chemistry, University of Edinburgh, Edinburgh EH9 3JJ, UK	

Programme – Wednesday 25 June

- 15:22 OC35 CHONDROITIN SULPHATE SULPHATION MOTIFS AS SPECIFIC COMPONENTS OF THE STEM/PROGENITOR CELL NICHE IN MUSCULOSKELETAL TISSUES
*B Caterson**, *AJ Hayes*, *D Tudor*, *MA Nowell*, *CE Hughes*
School of Biosciences, Cardiff University, UK
- 15:34 OC36 BREAKING AN EGG SHELL: AGE-RELATED THINNING OF THE FEMORAL NECK CORTEX IN-VIVO (THE 100 WOMEN STUDY)
KES Poole^[1], *CM Rose*^[1], *PM Mayhew*^[1], *JK Brown*^[2], *P Bearcroft*^[3], *N Loveridge*^[1], *J Reeve*^[1]
^[1]Department of Medicine, University of Cambridge, UK; ^[2]Mindways Software Inc., Austin, USA; ^[3]Department of Radiology, University of Cambridge, UK
- 15:46 OC37 THE EPITOPE PROFILE AND ADIPOGENIC DIFFERENTIATION OF INFRAPATELLAR FAT PAD DERIVED STEM CELLS AND POTENTIAL CLINICAL APPLICATIONS
WS Khan^[1], *S Anand*^[2], *S Tew*^[1], *DS Johnson*^[2], *JG Andrew*^[1], *TE Hardingham*^[1]
^[1]UK Centre for Tissue Engineering and Wellcome Trust Centre for Cell Matrix Research, University of Manchester, M13 9PT, UK; ^[2]Stockport NHS Foundation Trust, Stepping Hill Hospital, Poplar Grove, Stockport, SK2 7JE, UK
- 15:58 OC38 TIMING OF FIRST INFUSION OF ZOLEDRONIC ACID 5 MG AFTER RECENT HIP FRACTURE AFFECTS ANTIFRACTURE EFFICACY AND REDUCTION OF MORTALITY
M Stone^[1], *EF Eriksen*^[2], *KW Lyles*^[3], *CS Colon-Emeric*^[3], *CF Pieper*^[3], *JS Magaziner*^[4], *JD Adachi*^[5], *L Hyldstrup*^[6], *L Nordsletten*^[7], *S Boonen*^[8], *P Mesenbrink*^[9], *DM Reid*^[10], *J Wass*^[11], *E Dennison*^[12], *GD Summers*^[13], *A McLellan*^[14]
^[1]Llandough Hospital, Cardiff, UK; ^[2]Novartis Pharma AG, Basel, Switzerland; ^[3]Duke University Medical Center, VAMC, Durham, NC, US; ^[4]Univ Maryland, Baltimore, MD, US; ^[5]McMaster University, Hamilton, ON, Canada; ^[6]Hvidovre Hospital, Hvidovre, Finland; ^[7]Ullevål University Hospital, Oslo, Norway; ^[8]Katholieke Universiteit Leuven, Leuven, Belgium; ^[9]Novartis Pharmaceuticals Corp, East Hanover, NJ, US; ^[10]University of Aberdeen, Aberdeen, UK; ^[11]Nuffield Orthopaedic Centre, Oxford, UK; ^[12]Southampton General Hospital, Southampton, UK; ^[13]Derbyshire Royal Infirmary, Derbyshire, UK; ^[14]Western Infirmary, Glasgow, UK

16:10-16:25 ROOM C16

Awards

Chairmen:

Cyrus Cooper (Southampton, UK)

Brigitte Scammell (Nottingham, UK)

16:25

END OF MEETING