

BORS-P1	<p>TRANSLATION FROM LABORATORY TO THEATRE: AUGMENTATION OF IMPACTED ALLOGRAFT WITH HUMAN BONE MARROW STROMAL CELLS</p> <p>BJ Bolland*, S Tilley, K Partridge, JM Latham, ROC Oreffo, DG Dunlop Bone &amp; Joint Research Group, Developmental Origins of Health and Disease, University of Southampton, UK</p>
BRS-P1	<p>MOLECULAR MODELING COMPARISON OF NITROGEN-CONTAINING BIPHOSPHONATES OF VARYING POTENCY CO-CRYSTALLIZED IN FARNESYL DIPHOSPHATE SYNTHASE</p> <p>FH Ebetino*<sup>[1]</sup>, B Kashemirov<sup>[2]</sup>, CE McKenna<sup>[2]</sup>, A Evdokimov<sup>[1]</sup>, M Pokross<sup>[1]</sup>, BL Barnett<sup>[3]</sup>, J Dunford<sup>[4]</sup>, K Kavanagh<sup>[4]</sup>, MJ Rogers<sup>[5]</sup>, MW Lundy<sup>[1]</sup>, U Opperman<sup>[4]</sup>, RGG Russell<sup>[4]</sup></p> <p><sup>[1]</sup>Procter and Gamble Pharmaceuticals, OH, USA; <sup>[2]</sup>University of So. California, LA, CA,USA; <sup>[3]</sup>University of Cincinnati, OH, USA; <sup>[4]</sup>Oxford University, Oxford, UK; <sup>[5]</sup>University of Aberdeen, Scotland, UK</p>
BORS-P2	<p>THE EFFECT OF OSTEOPOROSIS ON BONE MINERAL DENSITY AND FRACTURE REPAIR IN A RAT FEMORAL FRACTURE MODEL</p> <p>RM McCann*, G Colleary, C Geddis, SA Clarke, D Marsh, GR Dickson Queen's University of Belfast</p>
BRS-P2	<p>EARLY LIFE - CALCIUM SENSING RECEPTOR GENE POLYMORPHISM INTERACTION IN DETERMINATION OF ADULT BONE MASS: THE HERTFORDSHIRE COHORT STUDY</p> <p>EM Dennison*<sup>[1]</sup>, HE Syddall<sup>[1]</sup>, INM Day<sup>[2]</sup>, TR Gaunt<sup>[2]</sup>, S Rodriguez<sup>[2]</sup>, M Lips<sup>[1]</sup>, C Cooper<sup>[1]</sup></p> <p><sup>[1]</sup>MRC Epidemiology Resource Centre &amp; <sup>[2]</sup>Human Genetics Division, University of Southampton, SO16 6YD, UK</p>
BORS-P3	<p>EFFECTS OF TRANSFECTION OF RECOMBINED RAT TRANSFORMING GROWTH FACTOR BETA-1 AND RECOMBINED RAT INSULIN-LIKE GROWTH FACTOR-1 ON RABBIT CHONDROCYTES EX VIVO</p> <p>XC Wei*, C Xiang Department of Orthopaedics, The 2nd Hospital, Shanxi Medical University</p>
BRS-P3	<p>EVIDENCE FOR INTRINSIC SNARE-DEPENDENT GLUTAMATE RELEASE AND ITS ROLE IN MESENCHYMAL STEM CELL FATE ALLOCATION AND CELL SURVIVAL</p> <p>G Spencer*, CJ McGrath, PG Genever Biomedical Tissue Research, University of York, York, UK</p>

BORS-P4	<p>REPAIRING RABBIT ARTICULAR CARTILAGE DEFECTS WITH AUTOLOGOUS BONE MARROW MESENCHYMAL STEM CELLS Z Yang*<sup>[1]</sup>, G Li<sup>[1]</sup>, X Wei<sup>[2]</sup> <sup>[1]</sup>Musculoskeletal Education and Research Unit, School of Biomedical Sciences, Queen's University Belfast, Musgrave Park Hospital, Belfast, BT9, 7JB, UK; <sup>[2]</sup>Department of Orthopaedic Surgery, 2nd Hospital, Shanxi Medical University, Tai-Yuan, Shanxi Province, PR China</p>
BRS-P4	<p>APOPTOTIC OSTEOCYTES INDUCE THE PRODUCTION OF OSTEOCLASTOGENIC CYTOKINES G Kogianni*, V Mann, BS Noble Musculoskeletal Tissue Engineering Collaboration (MTEC), University of Edinburgh, Medical School, Edinburgh, UK</p>
BORS-P5	<p>A NEW HIP SIMULATOR FOR IN-VITRO FATIGUE TESTING OF IMPLANTED ACETABULA NP Zant<sup>[1]</sup>, P Heaton-Adegbile<sup>[1,2]</sup>, J Tong<sup>[1]</sup> <sup>[1]</sup>Department of Mechanical and Design Engineering; <sup>[2]</sup>Queen Alexandra Hospital, University of Portsmouth</p>
BRS-P5	<p>VALUE OF VERTEBRAL FRACTURE ASSESSMENT IN IDENTIFYING VERTEBRAL FRACTURE AT DXA: A CASE-CONTROL STUDY AL Dolan*, J Wilkinson Queen Elizabeth Hospital, Woolwich, UK</p>
BORS-P6	Abstract withdrawn
BRS-P6	<p>REGENERATION POTENTIAL OF OSTEOPROGENITOR CELLS DERIVED FROM HUMAN EMBRYONIC AND ADULT STEM CELLS IMPLANTED IN A RAT CALVARIAL LESION JL Tremoleda*<sup>[1]</sup>, SN Racey<sup>[1]</sup>, NS Khan<sup>[1]</sup>, D Wojtacha<sup>[2]</sup>, J McWhir<sup>[2]</sup>, AHRW Simpson<sup>[1]</sup>, BS Noble<sup>[1]</sup> <sup>[1]</sup>Musculoskeletal Tissue Engineering Collaboration (MTEC), University of Edinburgh, Medical School, UK; <sup>[2]</sup>Gene Function and Development, Roslin Institute, UK</p>
BORS-P7	<p>THE EFFECT OF ATORVASTATIN TREATMENT ON BONE MINERAL DENSITY AND FRACTURE REPAIR IN A RAT FEMORAL FRACTURE MODEL RM McCann*, G Colleary, C Geddis, SA Clarke, D Marsh, GR Dickson Queen's University of Belfast, UK</p>
BRS-P7	<p>BONE MINERALISATION IN VITRO IS INHIBITED BY EXTRACELLULAR NUCLEOTIDES IR Orriss<sup>[1]*</sup>, J Utting<sup>[1]</sup>, A Brandao-Burch<sup>[1]</sup>, BR Grubb<sup>[2]</sup>, G Burnstock<sup>[1]</sup>, TR Arnett<sup>[1]</sup> <sup>[1]</sup>Department of Anatomy and Developmental Biology, University College London, UK; <sup>[2]</sup>Cystic Fibrosis Research and Treatment Centre, University of North Carolina, USA</p>

BORS-P8	TREATMENT OF VANCOUVER TYPE B-2 PERIPROSTHETIC FRACTURE OF THE FEMUR USING AN EXTENSIVELY HYDROXYAPATITE COATED REVISION STEM RK Trehan*, PA Mitchell, SH Bridle St George's Hospital, Tooting, London, UK
BRS-P8	DISTINCT EFFECTS OF OESTROGEN AT PERIOSTEAL AND CANCELLOUS BONE ENVELOPES MAY REFLECT DIFFERING REQUIREMENTS FOR ANGIOGENESIS AT THESE TWO SURFACES SC Hou, JH Tobias, MJ Perry University of Bristol, Bristol, UK
BORS-P9	RELEVANCE OF BONE DENSITY MEASUREMENTS INCLUDING THE FOREARM IN PATIENTS AWAITING JOINT REPLACEMENT FOR HIP AND KNEE OSTEOARTHRITIS EA Lingard*[1,2], SY Mitchell <sup>[1]</sup> , RM Francis[1,2], RT Peaston <sup>[1]</sup> , FN Birrell [1,2], D Rawlings <sup>[1]</sup> , AW McCaskie [1,2] <sup>[1]</sup> Freeman Hospital, Newcastle upon Tyne, UK; <sup>[2]</sup> Univeristy of Newcastle upon Tyne, Newcastle upon Tyne, UK
BRS-P9	IMPAIRED GROWTH PLATE FUNCTION OF BMP-6 NULL MICE M Perry*, KE McDougall, JH Tobias University of Bristol, Bristol, UK
BORS-P10	RELEASE OF GROWTH FACTORS FOLLOWING FRACTURE FIXATION I Pountos, T Georgouli, S Perry, J Morley, PV Giannoudis Academic Department of Trauma & Orthopaedic, School of Medicine, University of Leeds, UK
BRS-P10	SELECTIVE ESTROGEN RECEPTOR MODULATOR INHIBITS OSTEOCYTE APOPTOSIS DURING ESTROGEN LOSS. IMPLICATIONS FOR BONE QUALITY MAINTENANCE C Huber* <sup>[1]</sup> , S Collishaw <sup>[1]</sup> , JR Mosley <sup>[1]</sup> , C Taylor <sup>[1]</sup> , J Reeve <sup>[2]</sup> , BS Noble <sup>[1]</sup> <sup>[1]</sup> Musculoskeletal Tissue Engineering Collaboration (MTEC), University of Edinburgh, Medical School, Edinburgh, UK; <sup>[2]</sup> Cambridge University, Cambridge, UK
BORS-P11	HOW TO BEST IMMOBILISE PARTIALLY WEIGHT BEARING EXTENSOR MECHANISM INJURIES: A GAIT ANALYSIS STUDY WS Khan*, R Jones, L Nokes, DS Johnson Stepping Hill Hospital, Stockport, UK
BRS-P11	HIGH-DOSE OESTROGEN-INDUCED OSTEOGENESIS IS DECREASED IN AGED CBFA1 HETEROZYGOUS MICE KV Juttner, MJ Perry* University of Bristol, Bristol, UK

BORS-P12	<p>CHANGES IN ENDOTHELIAL EXPRESSION OF BETA-DYSTROGLYCAN AND SPECIFIC MATRIX METALLOPROTEINASES IN OSTEOARTHRITIS</p> <p>S Wimsey<sup>[1,2]</sup>*, CFLien<sup>[2]</sup>, S Sharma<sup>[3]</sup>, PA Brennan<sup>[3]</sup>, HIRoach<sup>[4]</sup>, GD Harper<sup>[1]</sup>, DC Gorecki<sup>[2]</sup></p> <p><sup>[1]</sup>Department of Orthopaedic Surgery, Queen Alexandra Hospital, Portsmouth,UK; <sup>[2]</sup>Department of Molecular Medicine, University of Portsmouth, Portsmouth,UK; <sup>[3]</sup>Department of Maxillofacial Surgery, Queen Alexandra Hospital, Portsmouth,UK; <sup>[4]</sup>Bone and Joint Research Group, Southampton General Hospital, Southampton, UK</p>
BRS-P12	<p>PHOTODYNAMIC THERAPY OF DISEASED BONE</p> <p>SK Bisland*<sup>[1]</sup>, S Burch<sup>[2]</sup></p> <p><sup>[1]</sup>Princess Margaret Hospital, Ontario Cancer Institute, University Health Network, Toronto, Ontario, M5G 2M9, Canada; <sup>[2]</sup>University of California, San Francisco, Department of Orthopaedic Surgery, San Francisco, CA USA</p>
BORS-P13	Abstract withdrawn
BRS-P13	<p>CARDIOVASCULAR DISEASE AND OSTEOPOROSIS: RELATIONSHIP BETWEEN HYPERTENSION AND FRACTURE</p> <p>DJ Armstrong*, ASH Lee, M McQuilkin, MB Finch</p> <p>Department of Rheumatology, Musgrave Park Hospital, Belfast, UK</p>
BORS-P14	<p>EARLY NUTRITIONAL COMPROMISE AFFECTS THE MECHANICAL PROPERTIES OF SHEEP SPINES</p> <p>P Pollintine<sup>[1]</sup>, GW Barrett*<sup>[1]</sup>, IE Millais<sup>[1]</sup>, LR Green<sup>[2]</sup>, C Cooper<sup>[3]</sup>, SA Lanham<sup>[3]</sup>, ROC Oreffo<sup>[3]</sup>, P Dolan<sup>[1]</sup></p> <p><sup>[1]</sup>Department of Anatomy, University of Bristol, UK; <sup>[2]</sup>DOHAD, University of Southampton, UK; <sup>[3]</sup>Bone and Joint Research Group, DOHAD, University of Southampton, UK</p>
BRS-P14	<p>CYR61: A NOVEL INHIBITOR OF OSTEOCLAST FORMATION</p> <p>JC Crockett*<sup>[1]</sup>, D Tosh<sup>[1]</sup>, A Duthie<sup>[1]</sup>, F Jakob<sup>[2]</sup>, N Schuetze<sup>[2]</sup>, MJ Rogers<sup>[1]</sup></p> <p><sup>[1]</sup>University of Aberdeen, Aberdeen, UK; <sup>[2]</sup>University of Wuerzburg, Wuerzburg, Germany</p>
BORS-P15	<p>THE USE OF VIBRATION-ASSISTED GRAFT COMPACTION IN IMPACTION BONE GRAFTING: IMPROVEMENT IN BONE GRAFT STRENGTH WITHOUT INCREASED RISK OF FRACTURE</p> <p>BJ Bolland*, AMR New, ROC Oreffo, DG Dunlop</p> <p>University of Southampton</p>
BRS-P15	<p>ABNORMALITIES OF CHONDROCYTE GROWTH IN-VITRO IN HEREDITARY MULTIPLE EXOSTOSIS</p> <p>AC Watts*, DE Porte, AHRW Simpson, BS Noble</p> <p>Musculoskeletal Tissue Engineering Collaboration (MTEC), University of Edinburgh, Medical School, UK</p>

BORS-P16	<p>DEMONSTRATION OF CELLULAR CYTOTOXICITY IN UNWASHED FRESH FROZEN FEMORAL HEAD ALLOGRAFT AND COMPARISON TO WASHED GRAFT</p> <p>TN Board*[1,2], P Rooney<sup>[2]</sup>, PR Kay<sup>[1]</sup></p> <p><sup>[1]</sup>Wrightington Hospital, Wigan, UK; <sup>[2]</sup>Tissue Services R&amp;D, National Blood Service, Liverpool, UK</p>
BRS-P16	<p>INHIBITING ADIPOCYTE DIFFERENTIATION IN HUMAN PREADIPOCYTES AND FETAL FEMUR-DERIVED MESENCHYMAL STEM CELLS USING SMALL INTERFERING RNA</p> <p>Y Xu*<sup>[1]</sup>, S-H Mirmalek-Sani<sup>[1]</sup>, J Zhang<sup>[2]</sup>, ROC Oreffo<sup>[1]</sup></p> <p><sup>[1]</sup>Bone and Joint Research Group, Developmental Origins of Health and Disease Division, University of Southampton, Southampton General Hospital, Southampton, UK; <sup>[2]</sup>Division of Clinical Sciences, University of Warwick, CSB, Walsgrave Hospital Campus, Coventry, UK</p>
BORS-P17	<p>COVALENT BONDING OF LAMININ-5 TO TITANIUM ALLOY: A RADIOISOTOPE STUDY</p> <p>D Gordon*, C Pendegrass, G Blunn</p> <p>Centre for Biomedical Engineering, Institute of Orthopaedics and Musculoskeletal Science, UCL, UK</p>
BRS-P17	<p>EPIGENETICS OF OSTEOARTHRITIS: IS DNA DMETHYLATION INVOLVED IN THE PATHOGENESIS OF THE DISEASE?</p> <p>HI Roach*<sup>[1]</sup>, N Yamada<sup>[2]</sup>, K Hashimoto<sup>[2]</sup>, KS Cheung<sup>[1]</sup>, RO Oreffo<sup>[1]</sup>, S Kokubun<sup>[2]</sup>, F Bronner<sup>[3]</sup></p> <p><sup>[1]</sup>Bone &amp; Joint Research Group, University of Southampton, UK ;<sup>[2]</sup>Tohoku University School of Medicine, Sendai, Japan; <sup>[3]</sup>University of Connecticut Health Center, Farmington, USA</p>
BORS-P18	<p>A BIOMECHANICAL INVESTIGATION OF PROBLEMS ASSOCIATED WITH NEWER INTRAMEDULLARY NAIL DESIGNS</p> <p>SV Karupiah*<sup>[1]</sup>, DET Shepherd<sup>[2]</sup>, J McConnachie<sup>[3]</sup>, AJ Johnstone<sup>[1]</sup></p> <p><sup>[1]</sup>Orthopaedic Trauma Unit, Aberdeen Royal Infirmary, Foresterhill, Aberdeen AB25 2ZN, UK; <sup>[2]</sup>Department. of Mechanical &amp; Manufacturing Engineering, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK; <sup>[3]</sup>School of Engineering, The Robert Gordon University, Schoolhill, Aberdeen AB10 1FR, UK</p>
BRS-P18	<p>RISEDRONATE PREVENTS BONE DISEASE AND REDUCES TUMOUR BURDEN IN A SYNGENEIC MODEL OF MULTIPLE MYELOMA</p> <p>MA Lawson*<sup>[1]</sup>, L Coulton<sup>[1]</sup>, FH. Ebetino<sup>[2]</sup>, O Gallagher<sup>[1]</sup>, M Prideaux<sup>[1]</sup>, K Vanderkerken<sup>[3]</sup>, PI Croucher<sup>[1]</sup></p> <p><sup>[1]</sup>Academic Unit of Bone Biology, Division of Clinical Sciences, University of Sheffield Medical School, Sheffield, UK; <sup>[2]</sup>New Drug Development, Procter and Gamble Pharmaceuticals, Mason, OH, USA; <sup>[3]</sup>Free University Brussels (VUB), Department of Hematology and Immunology, Brussels, Belgium</p>

BORS-P19	<p>A 3-DIMENSIONAL, IN VITRO MODEL TO STUDY THE EFFECTS OF COMPRESSIVE LOADING ON OSTEOBLASTIC CELLS</p> <p>A Sittichokechaiwut*, AJ Ryan, G Reilly</p> <p>Dept. Engineering Materials and Dept. Chemistry, University of Sheffield, UK</p>
BRS-P19	<p>THE LETROZOLE (L), EXEMESTANE (E), AND ANASTROZOLE (A) PHARMACODYNAMICS (LEAP) TRIAL: A DIRECT COMPARISON OF BONE BIOCHEMICAL MEASUREMENTS BETWEEN AROMATASE INHIBITORS (AIS) IN HEALTHY POSTMENOPAUSAL WOMEN</p> <p>*E McCloskey<sup>[1]</sup>, R Hannon<sup>[1]</sup>, G Lakner<sup>[2]</sup>, G Clack<sup>[3]</sup>, A Miyamoto<sup>[4]</sup>, R Eastell<sup>[1]</sup></p> <p><sup>[1]</sup>Academic Unit of Bone Metabolism, University of Sheffield, Sheffield, UK; <sup>[2]</sup> MÁV Hospital, Budapest, Hungary; <sup>[3]</sup>AstraZeneca, Macclesfield, Cheshire, UK <sup>[4]</sup>AstraZeneca, Wilmington, DE, USA</p>
BORS-P20	<p>COMPARISON OF PRESSURES GENERATED BY VARIOUS INTRAMEDULLARY REAMERS IN USE IN THE NHS TODAY</p> <p>SM Sarasin*<sup>[1]</sup>, A Reeves<sup>[2]</sup>, E Maylia<sup>[2]</sup></p> <p><sup>[1]</sup>University of Cardiff, UK; <sup>[2]</sup>Biomet UK</p>
BRS-P20	<p>OSTEOCLASTOGENESIS AND OSTEOCLAST ACTIVITY IN CHILDHOOD ACUTE LYMPHOBLASTIC LEUKAEMIA</p> <p>R Cox*<sup>[1]</sup>, J Gregory<sup>[1]</sup>, M Jenney<sup>[2]</sup>, J Davies<sup>[3]</sup>, C Elford<sup>[1]</sup>, B Evans<sup>[1]</sup></p> <p><sup>[1]</sup>Dept Child Health, Cardiff University, Cardiff, UK ;<sup>[2]</sup>Dept Paediatric Oncology, Cardiff and Vale NHS Trust, Cardiff, UK; <sup>[3]</sup>Dept Child Health, Southampton University Hospitals NHS Trust, Southampton, UK</p>
BORS-P21	<p>PATELLAR TENDON OR PATELLAR LIGAMENT? A COMPARATIVE STUDY IN AN OVINE MODEL</p> <p>AP Rumian*<sup>[1]</sup>, AL Wallace<sup>[1]</sup>, HL Birch<sup>[2]</sup></p> <p><sup>[1]</sup>Department of Musculoskeletal Surgery, Imperial College, Charing Cross Hospital, London, W6 8RF, UK; <sup>[2]</sup>Institute of Orthopaedics &amp; Musculoskeletal Science, University College London, Brockley Hill, Stanmore, HA4 7LP, UK &amp; Royal Veterinary College, Hawkshead Lane, North Mymms, Hatfield, Herts. AL9 7TA, UK</p>
BRS-P21	<p>VALIDATION OF CORTICAL THICKNESS ESTIMATES IN THE FEMUR MADE WITH WHOLE BODY COMPUTED TOMOGRAPHY (QCT) AND MINDWAYS SOFTWARE: COMPARISON WITH HIGH RESOLUTION PQCT</p> <p>S Ibrahim*<sup>[1]</sup>, K Brown<sup>[2]</sup>, CD Thomas<sup>[3]</sup>, PM Mayhew<sup>[1]</sup>, N Loveridge<sup>[1]</sup>, JG Clement<sup>[3]</sup>, K Poole<sup>[1]</sup>, J Reeve<sup>[1]</sup></p> <p><sup>[1]</sup>University of Cambridge, Cambridge, UK; <sup>[2]</sup>Mindways Software Inc, Austin, Tx,USA; <sup>[3]</sup>University of Melbourne, Victoria, Australia</p>

BORS-P22	<p>A COMPARISON OF THE IN-VITRO BIOMECHANICAL PERFORMANCE OF A COMPOSITE BIO-ABSORBABLE SCREW AND CONVENTIONAL METAL SCREWS FOR SCAPHOID FRACTURE FIXATION</p> <p>R Wharton*, JH Kuiper, C Kelly Robert Jones &amp; Agnes Hunt Orthopaedic Hospital, Oswestry, Shropshire, SY10 7AG, UK</p>
BRS-P22	<p>A DXA-BASED COMPOSITE BEAM MODEL OF THE PROXIMAL FEMUR FOR STRESS ESTIMATION</p> <p>L Yang, EV McCloskey, R Eastell Division of Clinical Sciences, University of Sheffield, Sheffield, UK</p>
BORS-P23	<p>COLLAGEN GEL COMPRESSION DURING INITIAL CULTIVATION ENHANCES CELL DISTRIBUTION AND SCAFFOLD STABILITY OF OSTEOCHONDRAL CONSTRUCTS</p> <p>C Haasper*<sup>[1]</sup>, M Colditz<sup>[1]</sup>, C Hurschler<sup>[2]</sup>, J Zeichen<sup>[1]</sup>, C Krettek<sup>[1]</sup>, M Jagodzinski<sup>[1]</sup> <sup>[1]</sup>Department of Trauma Surgery, Hannover Medical School (MHH), Germany; <sup>[2]</sup>Laboratory for Biomechanics and Experimental Orthopedics, Department of Orthopedics, Hannover Medical School (MHH), Germany</p>
BRS-P23	<p>FACTORS AFFECTING THE COHESION OF IMPACTION BONE GRAFT</p> <p>J Oakley, JH Kuiper Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry, Shropshire, SY10 7AG, UK</p>
BORS-P24	<p>A CADAVERIC STUDY TO EVALUATE THE ROLE OF THE SCAPHOLUNATE INTEROSSEOUS LIGAMENT AND THE RADIO SCAPHOLUNATE LIGAMENT IN THE SCAPHOLUNATE KINEMATICS</p> <p>A Jariwala*, A Azhar, RJ Abboud, CA Wigderowitz Department of Orthopaedics and Trauma Surgery, TORT Centre, Ninewells Hospital, Dundee, Scotland, UK</p>
BRS-P24	<p>INFLUENCE OF BIRTH WEIGHT ON PQCT MEASUREMENTS OF CORTICAL BONE SITES IN YOUNG GAMBIAN ADULTS</p> <p>S de Bono*<sup>[1]</sup>, A Laskey<sup>[1]</sup>, M Ceesay<sup>[2]</sup>, M Mendy<sup>[2]</sup>, A Prentice [1,2] <sup>[1]</sup>MRC Human Nutrition Research, Elsie Widdowson Laboratory, Cambridge, UK; <sup>[2]</sup>MRC Keneba, The Gambia</p>
BORS-P25	<p>SIMULATION OF FRACTURE IN THE CEMENT MANTLE AND AT THE BONE-CEMENT INTERFACE IN RECONSTRUCTED ACETABULA</p> <p>KY Wong*, N Zant, J Tong Department of Mechanical and Design Engineering, University of Portsmouth, UK</p>

BRS-P25	<p>MATERNAL 25(OH)-VITAMIN D STATUS IN LATE PREGNANCY PREDICTS INTRAUTERINE BONE MINERAL ACCRUAL IN THE OFFSPRING</p> <p>NC Harvey*<sup>[1]</sup>, MK Javaid<sup>[1]</sup>, R Swaminathan<sup>[3]</sup>, NK Arden<sup>[1]</sup>, P Taylor<sup>[4]</sup>, JR Poole<sup>[1]</sup>, EM Dennison<sup>[1]</sup>, HM Inskip<sup>[1]</sup>, KM Godfrey<sup>[1,2]</sup>, C Cooper<sup>[1]</sup></p> <p><sup>[1]</sup>MRC Epidemiology Resource Centre, Southampton, UK; <sup>[2]</sup>Centre for the Developmental Origins of Health and Disease, University of Southampton, Southampton, UK; <sup>[3]</sup>Department of Chemical Pathology, St. Thomas' Hospital, London, UK; <sup>[4]</sup>Medical Physics and Bioengineering, Southampton General Hospital, Southampton, UK</p>
BORS-P26	<p>INTRODUCING GEOMETRIC MORPHOMETRICS TO COMPARE ANATOMICAL VARIATION IN BONE SHAPE AND THE POTENTIAL APPLICATION 3-DIMENTIONAL RECONSTRUCTIONS OF BONES FOR FURTHER STUDIES</p> <p>A Atrey<sup>[1]</sup>, J Compson<sup>[1]</sup>, P O'Higgins<sup>[2]</sup></p> <p><sup>[1]</sup>King's College Hospital, London, UK; <sup>[2]</sup>Hull York Medical School (HYMS), UK</p>
BRS-P26	<p>THE CONTRIBUTION OF FEMORAL NECK TRABECULAR BONE TO HIP FRACTURE PREVENTION</p> <p>J Reeve*, CD Thomas, PM Mayhew, N Loveridge, J G Clement, CJ Burgoyne</p> <p>University of Cambridge UK</p>
BORS-P27	<p>A COMPARISON OF BONE FRAGMENT DISPLACEMENT IN TWO DISTAL RADIUS ORIF TECHNIQUES</p> <p>MC Quaye<sup>[1]</sup>, CT Reynolds<sup>[1]</sup>, KE Tanner<sup>[1]</sup>, J B Mitchell<sup>[1]</sup>, S Owen-Johnstone<sup>[2]</sup></p> <p><sup>[1]</sup>Department of Materials, Queen Mary University of London, Mile End Road, London, E1 4NS, UK; <sup>[2]</sup>Department of Orthopaedics, The Royal London Hospital, London, E1 1BB, UK</p>
BRS-P27	<p>THIAZIDE DIURETICS DIRECTLY STIMULATE OSTEOBLAST FUNCTION</p> <p>C de Jossineau*, MM Dvorak, D Riccardi</p> <p>University of Cardiff, Cardiff, Cardiff, UK</p>
BORS-P28	<p>GEOMETRY OF THE PROXIMAL ARTICULAR SURFACE OF THE HUMERUS AS IT RELATES TO THE GLENOID</p> <p>FR Harrold*<sup>[1]</sup>, F Park-Wesley<sup>[2]</sup>, R Abboud<sup>[1]</sup>, C Wigderowitz<sup>[1]</sup></p> <p><sup>[1]</sup>Dept. Orthopaedic &amp; Trauma Surgery, Ninewells Hospital &amp; Medical School, Dundee, Scotland,UK; <sup>[2]</sup>University of St Andrews, St Andrews, Scotland,UK</p>

BRS-P28	<p>ASSOCIATION BETWEEN TGF-BETA AND LRP 5 &amp; 6 GENETIC POLYMORPHISMS WITH FRACTURE RISK AND BONE MINERAL DENSITY IN THE EPOS STUDY</p> <p>S Kaptoge*<sup>[1]</sup>, S Scollen<sup>[1]</sup>, S Boonen<sup>[2]</sup>, G Lyritis<sup>[3]</sup>, G Póor<sup>[4]</sup>, R Nuti<sup>[5]</sup>, A Lopes Vaz<sup>[6]</sup>, A Bhalla<sup>[7]</sup>, L I Benevolenskaya<sup>[8]</sup>, I Jajic<sup>[9]</sup>, K Weber<sup>[10]</sup>, T Miazgowski<sup>[11]</sup>, JB Cannata<sup>[12]</sup>, M Naves Diaz<sup>[12]</sup>, JJ Stepan<sup>[13]</sup>, P Masaryk<sup>[14]</sup>, CJ Todd<sup>[15]</sup>, RP Cano<sup>[16]</sup>, KT Khaw<sup>[17]</sup>, J Bruges Armas<sup>[18]</sup>, JA Da Silva<sup>[19]</sup>, M Kruk<sup>[20]</sup>, R Lorenc<sup>[20]</sup>, A Dunning<sup>[1]</sup>, J Reeve<sup>[1]</sup></p> <p><sup>[1]</sup>Strangeways Research Laboratory, University of Cambridge, UK;  <sup>[2]</sup>University Hospital, Leuven, Belgium; <sup>[3]</sup>University of Athens, Greece;  <sup>[4]</sup>National Institute of Rheumatology and Physiotherapy, Budapest, Hungary;  <sup>[5]</sup>University of Siena, Italy; <sup>[6]</sup>Hospital de San Joao, Oporto, Portugal;  <sup>[7]</sup>Royal National Hospital for Rheumatic Diseases, Bath, UK; <sup>[8]</sup>Institute of Rheumatology, Moscow, Russia; <sup>[9]</sup>Clinical Hospital, Zagreb, Croatia;  <sup>[10]</sup>University Hospital, Graz, Austria; <sup>[11]</sup>University School of Medicine, Szczecin, Poland; <sup>[12]</sup>Asturia General Hospital, Oviedo, Spain; <sup>[13]</sup>Charles University, Prague, Czech-Republic; <sup>[14]</sup>Institute of Rheumatic Diseases, Piestany, Slovakia; <sup>[15]</sup>School of Nursing, Midwifery and Social Work, University of Manchester, UK; <sup>[16]</sup>Department of Medicine, University of Seville, Spain; <sup>[17]</sup>Clinical Gerontology Unit, University of Cambridge, UK;  <sup>[18]</sup>Hospital de Angra do Herismo, SEEBMO, Azores, Portugal; <sup>[19]</sup>Clinica Reumatologica, Coimbra, Portugal; <sup>[20]</sup>The Childrens Memorial Health Institute, Warsaw, Poland</p>
BORS-P29	<p>COMPRESSIVE LOAD-BEARING BY THE APOPHYSEAL JOINTS AND UNCOVERTEBRAL JOINTS IN THE CERVICAL SPINE</p> <p>D Skrzypiec*, P Pollintine, A Przybyla, T Dolan, M Adams  Department of Anatomy, University of Bristol, Bristol, UK</p>
BRS-P29	<p>PAGET'S DISEASE: A CONFORMATIONAL DISEASE?</p> <p>DI Scott*<sup>[1]</sup>, SYuen<sup>[1]</sup>, J Greenhorn<sup>[1]</sup>, JC Crockett<sup>[1]</sup>, A Duthie<sup>[1]</sup>, SH Ralston<sup>[2]</sup>, MJ Rogers<sup>[1]</sup>, MH Helfrich<sup>[1]</sup></p> <p><sup>[1]</sup>Bone Group, Institute of Medical Sciences, University of Aberdeen, Foresterhill, Aberdeen AB25 2ZD, UK ;<sup>[2]</sup>Molecular Medicine Centre Western General Hospital Edinburgh EH4 2XU, UK</p>
BORS-P30	<p>IMPROVED KNEE KINEMATICS IN POSTTRAUMATIC NON-ANATOMIC ARTICULAR GEOMETRY: APPLICATION OF COMPUTER ASSISTED ORTHOPEDIC SURGERY USING ORTHOPILOT SOFTWARE</p> <p>M Bhattacharyya*, B Gerber  University Hospital Lewisham, London</p>

BRS-P30	<p>VITAMIN D STATUS AND BONE HEALTH IN YOUNG BRITISH AND MIDDLE EASTERN WOMEN</p> <p>S Khoja<sup>[1]</sup>, J Khan<sup>[1]</sup>, D Pattinson<sup>[2]</sup>, J Catterick<sup>[2]</sup>, A Woolf<sup>[2]</sup>, S Lanham-New<sup>[3]</sup>, J Berry<sup>[4]</sup></p> <p><sup>[1]</sup>King Abdul Aziz University, Jeddah, Kingdom of Saudi Arabia; <sup>[2]</sup>Royal Cornwall Hospital, Truro, UK; <sup>[3]</sup>University of Surrey, Guildford, UK; <sup>[4]</sup>University of Manchester, Manchester, UK</p>
BORS-P31	<p>BONE CEMENT CREEP AND POROSITY: THE EFFECT OF ANTIBIOTICS?</p> <p>JCJ Webb*, S Gheduzzi, RF Spencer, ID Learmonth</p> <p>Department of Orthopaedic Surgery, Avon Orthopaedic Centre, Bristol, UK</p>
BRS-P31	<p>PRENATAL INFLUENCES ON SKELETAL GROWTH ASSESSED BY 3D ULTRASOUND AND DXA</p> <p>PA Mahon<sup>[1]</sup> *, J Poole<sup>[1]</sup>, N Harvey<sup>[1]</sup>, HM Inskip<sup>[1]</sup>, C Cooper<sup>[1]</sup>, KM Godfrey<sup>[2]</sup></p> <p><sup>[1]</sup>The Southampton Women's Survey Study Group; <sup>[2]</sup>MRC Epidemiology Resource Centre, University of Southampton, UK</p>
BORS-P32	<p>THE BENEFICIAL EFFECT OF MUSCLE ACTION ON STRESS DISTRIBUTION IN THE PELVIS</p> <p>ATM. Phillips, P Pankaj, CR Howie, AS Usmani, AHRW Simpson</p> <p>University of Edinburgh, Medical School, Edinburgh, UK</p>
BRS-P32	<p>DISTINCTIONS IN MINERAL MORPHOLOGY AND MAGNESIUM AND SILICON CONTENT BETWEEN OSTEOPOROTIC AND OSTEOARTHRITIC BONE</p> <p>KM Linton*<sup>[1]</sup>, RC Shore<sup>[2]</sup>, JE Aaron<sup>[1]</sup></p> <p><sup>[1]</sup>Structural Bone Biology Research Laboratory, Faculty of Biological Sciences, University of Leeds, Leeds, UK; <sup>[2]</sup>Division of Oral Biology, Leeds Dental Institute, University of Leeds, Leeds, UK</p>
BORS-P33	<p>DETERMINING IN-VIVO PERFORMANCE OF METAL ON METAL BEARING HIP ARTHROPLASTY WITH EXERCISE RELATED RISE IN COBALT LEVELS</p> <p>M Khan*, JH Kuiper, JB Richardson</p> <p>Institute of Orthopaedic. Robert Jones and Agnes Hunt Orthopaedic and District Hospital, Oswestry, UK</p>
BRS-P33	<p>VERTEBRAL FRACTURE AND NON-OSTEOPOROTIC VERTEBRAL DEFORMITY: RELATIONSHIP WITH BONE DENSITY AND CLINICAL CRITERIA ASSOCIATED WITH OSTEOPOROSIS</p> <p>L Ferrar*<sup>[1]</sup>, G Jiang<sup>[1]</sup>, D Felsenberg<sup>[2]</sup>, C Roux<sup>[4]</sup>, DM Reid<sup>[5]</sup>, C Gluer<sup>[5]</sup>, R Eastell<sup>[1]</sup></p> <p><sup>[1]</sup>University of Sheffield, UK; <sup>[2]</sup>Free University, Berlin, Germany; <sup>[3]</sup>Descartes University, Paris, France; <sup>[4]</sup>University of Aberdeen, UK; <sup>[5]</sup>University Hospital, Schleswig Holstein, Kiel, Germany</p>

BORS-P34	<p>CUP INCLINATION ANGLE IS POSITIVELY CORRELATED WITH WHOLE BLOOD CONCENTRATIONS OF COBALT AND CHROMIUM IONS AFTER METAL-ON-METAL HIP RESURFACING</p> <p>P Buddhdev*, AJ Hart, P Tarassoli, J Skinner Institute of Orthopaedics, Royal National Orthopaedic Hospital, Brockley Hill, Stanmore, Middx, UK</p>
BRS-P34	<p>CRYOPRESERVED AORTIC ALLOGRAFTS VERSUS SYNTHETIC MEMBRANES FOR LONG-BONE GUIDED TISSUE REGENERATION</p> <p>M A Suarez-Suarez*[1,2], F Ferrero-Manzanal<sup>[1]</sup>, M Alvarez-Rico<sup>[1]</sup>, A Meana-Infiesta<sup>[3]</sup>, MA delBrio-Leon<sup>[2]</sup>, P Riera-Rovira<sup>[2]</sup>, A Murcia-Mazon[1,2] <sup>[1]</sup>Cabueñes-Gijon Hospital, Asturias, Spain; <sup>[2]</sup>Oviedo University, Asturias, Spain; <sup>[3]</sup>Centro Comunitario de Sangre y Tejidos, Asturias, Spain</p>
BORS-P35	<p>THE EFFECT OF THE CEMENT THICKNESS ON THE ACETABULAR STRAIN DISTRIBUTION NEAR THE BONE-CEMENT INTERFACE</p> <p>P Heaton-Adegbile[1,2], JG Hussell<sup>[3]</sup>, J Tong<sup>[1]</sup> [1]Department of Mechanical and Design Engineering, University of Portsmouth, Anglesea Road, Portsmouth PO1 3DJ, UK; [2]King Edwards VII Hospital, Midhurst GU29 OBL, UK; <sup>[3]</sup>Queen Alexandra Hospital, Southwick Hill Road, Portsmouth PO6 3LY, UK</p>
BRS-P35	<p>BONE DISTRIBUTION IN THE CROSS SECTIONS OF THE FEMORAL NECK AND INTERTROCHANTERIC REGIONS: A STUDY USING CLINICAL QCT</p> <p>L Yang*<sup>[1]</sup>, I Maric<sup>[2]</sup>, R Eastell<sup>[1]</sup> <sup>[1]</sup>Division of Clinical Sciences, University of Sheffield, Sheffield, UK; <sup>[2]</sup>Department of Anatomy, University of Rijeka, Rijeka, Croatia</p>
BORS-P36	<p>PROXIMAL FEMORAL PRESSURISATION DURING STEM INSERTION OF A CEMENTED HIP REPLACEMENT: AN IN-VITRO COMPARISON OF THREE MODALITIES</p> <p>VM Budnar*, GC Bannister University of Bath, Bath, UK</p>
BRS-P36	<p>COMPARISON BETWEEN DENSITOMETRIC VERTEBRAL FRACTURE ASSESSMENT AND ASSESSMENT OF SPINAL RADIOGRAPHS</p> <p>G Jiang<sup>[1]</sup>, JT Schousboe<sup>[2]</sup>, CR DeBold<sup>[2]</sup>, R Eastell<sup>[1]</sup>, L Ferrar<sup>[1]</sup> <sup>[1]</sup>Academic Unit of Bone Metabolism, Division of Clinical Sciences (N), University of Sheffield, U.; <sup>[2]</sup>Park Nicollet Clinic, Park Nicollet Health Services, Minneapolis, MN, USA</p>
BORS-P37	<p>MIGRATION OF THE ACETABULAR CUP FOLLOWING IMPACTION GRAFTING</p> <p>ATM Phillips, P Pankaj, CR Howie, AS Usmani, AHRW Simpson University of Edinburgh, UK</p>

BRS-P37	DAY-TO-DAY VARIABILITY OF CIRCULATING OSTEOCLAST PRECURSOR POPULATIONS IN POSTMENOPAUSAL WOMEN SJ Glover*, A Rogers, R Eastel. University of Sheffield, Sheffield, UK
BORS-P38	KINEMATICS OF A MEDIAL PIVOT TOTAL KNEE REPLACEMENT BH Van Duren <sup>[1]</sup> , H Pandit <sup>[1]*</sup> , J Gallagher <sup>[1]</sup> , HS Gill <sup>[1]</sup> , AB Zavatsky <sup>[1]</sup> , DT Shakespeare <sup>[2]</sup> , DW Murray <sup>[1]</sup> <sup>[1]</sup> Nuffield Department of Orthopaedic Surgery and Department of Engineering Science, University of Oxford, UK; <sup>[2]</sup> Warwickshire Nuffield Hospital, Leamington Spa, UK
BRS-P38	QUALITY OF LIFE AND CURRENT PAIN LEVELS ARE ASSOCIATED WITH FRACTURE RATHER THAN WITH OSTEOPOROSIS C Heales* <sup>[1]</sup> , KM Knapp <sup>[1]</sup> , AEB Moore <sup>[2]</sup> , ML Frost <sup>[2]</sup> , R Patel <sup>[2]</sup> , GM Blake <sup>[2]</sup> , I Fogelman <sup>[2]</sup> <sup>[1]</sup> University of Exeter, Exeter, UK; <sup>[2]</sup> Guy's, King's and St Thomas' School of Medicine, London, UK
BORS-P39	THE CONTRIBUTION OF BONE CREEP TO VERTEBRAL DEFORMITY. A PRELIMINARY STUDY P Pollintine*, B Offa-Jones, P Dolan, MA Adams Department of Anatomy, University of Bristol, Bristol, UK
BRS-P39	MMP-2 AND MMP-9 SERUM VALUES IN OSTEOPOROTIC SUBJECTS UNDERGOING MUD PACK TREATMENT S Bellometti* <sup>[1]</sup> , P Richelmi <sup>[2]</sup> , F Berte <sup>[2]</sup> <sup>[1]</sup> P.d'Abano, Scientific Research Center, Abano T.- PD, Italy; <sup>[2]</sup> Internal Medicine Department, University of Pavia, Italy
BORS-P40	PREDICTING THE EFFECT OF WEAR RATE REDUCTION ON THE INCIDENCE OF ASEPTIC LOOSENING A Gordon <sup>[1]</sup> , AJ Hamer <sup>[2]</sup> , I Stockley <sup>[2]</sup> , R Eastell <sup>[1]</sup> , JM Wilkinson* <sup>[2]</sup> <sup>[1]</sup> University of Sheffield, Sheffield, UK; <sup>[2]</sup> Department of Orthopaedics, Sheffield, UK
BRS-P40	GLUCOCORTICOIDS STIMULATE P21 EXPRESSION IN GROWTH PLATE CHONDROCYTES HC Owen* <sup>[1][2]</sup> , SF Ahmed <sup>[2]</sup> , C Farquharson <sup>[1]</sup> <sup>[1]</sup> Bone Biology Group, Roslin Institute, Edinburgh, UK; <sup>[2]</sup> Bone & Endocrine Research Group, Royal Hospital for Sick Children, Glasgow, UK
BORS-P41	CLINICAL MEASUREMENT OF THE WRIST MOTION USING A THREE-DIMENSIONAL ELECTROMAGNETIC GONIOMETER A. Jariwala*, I Scott, GP Arnold, RJ Abboud, CA Wigderowitz Dept of Orthopaedics and Trauma Surgery, TORT Centre, Ninewells Hospital, Dundee, Scotland, DD1 9SY, UK

BRS-P41	<p>THE ANTI-PROLIFERATIVE AND PRO-APOPTOTIC EFFECTS OF CERAMIDE ON GROWTH PLATE CHONDROCYTES</p> <p>V MacRae [1,2], S F Ahmed <sup>[2]</sup>, C Farquharson<sup>[1]</sup></p> <p><sup>[1]</sup> Bone Biology Group, Roslin Institute, Roslin, UK; <sup>[2]</sup>Bone &amp; Endocrine Research Group, Royal Hospital For Sick Children, Glasgow, UK</p>
BORS-P42	<p>VALIDATION OF 'STRESS' MEASUREMENTS INSIDE DEGENERATED INTERVERTEBRAL DISCS</p> <p>J Chu, D Skrzypiec, P Pollintine, M Adams*</p> <p>Department of Anatomy, University of Bristol, Bristol, UK</p>
BRS-P42	<p>EFFECTS OF SYNOVIAL-FLUID AND SERUM FROM CHILDREN WITH JUVENILE IDIOPATHIC ARTHRITIS ON GROWTH PLATE CHONDROCYTE DYNAMICS</p> <p>VE MacRae[1,2], SC Wong<sup>[2]</sup>, W Smith, <sup>[2]</sup>, A Gracie<sup>[3]</sup>, I McInnes<sup>[3]</sup>, P Galea<sup>[3]</sup>, J Gardner-Medwin<sup>[3]</sup>, C Farquharson<sup>[1]</sup>, SF Ahmed<sup>[2]</sup></p> <p><sup>[1]</sup>Bone Biology Group, Roslin Institute, Roslin, UK; <sup>[2]</sup>Bone &amp; Endocrine Research Group, Royal Hospital For Sick Children, Glasgow,UK; <sup>[3]</sup>Dept of Child Health, University of Glasgow, UK</p>
BORS-P43	<p>CONTACT STRESS DISTRIBUTION IN REAMED HIP HEMIARTHROPLASTY, A FINITE ELEMENT MODEL</p> <p>S Fang*, SP Ahir, GW Blunn, AE Goodship</p> <p>Centre for Bio-medical Engineering, Institute of Orthopaedics and Musculo-Skeletal Science, University College London, Stanmore, UK</p>
BRS-P43	<p>THE DEVELOPMENTAL EXPRESSION OF PHOSPHO1 PRIOR TO SKELETAL MINERALISATION AND ITS PRESENCE WITHIN MATRIX VESICLES</p> <p>SJ Roberts*, AJ Stewart, E Seawright, MG Davey, RH Fleming, C Farquharson</p> <p>Roslin Institute, Roslin, Midlothian EH25 9PS, UK</p>
BORS-P44	<p>THE WEAR OF PEEK-COCRMO AND CFR-PEEK-COCRMO ASSESSED ON A PIN-ON-PLATE MACHINE</p> <p>SC Scholes*, A Unsworth</p> <p>Durham University, Durham, UK</p>
BRS-P44	<p>A NOVEL ELECTROPORATION METHOD FOR EFFICIENTLY TRANSFECTING HUMAN OSTEOCLASTS</p> <p>A Taylor*, MJ Rogers, D Tosh, FP Coxon</p> <p>Bone Research Group, University of Aberdeen, UK</p>
BORS-P45	<p>EFFECT OF BONE QUALITY ON THE PRIMARY STABILITY OF ACETABULAR PRESS-FIT CUP AND THE CONTACT MECHANICS OF A METAL-ON-METAL HIP RESURFACING PROSTHESIS</p> <p>I Udofia*<sup>[1]</sup>, F Liu<sup>[1]</sup>, Z Jin<sup>[1]</sup>, P Roberts<sup>[2]</sup>, P Grigoris<sup>[3]</sup></p> <p><sup>[1]</sup>University of Leeds, Leeds, UK; <sup>[2]</sup>Royal Gwent Hospital, Newport, UK; <sup>[3]</sup>University of Bradford, Bradford, UK</p>

BRS-P45	<p>THE IDENTIFICATION OF TRANSCRIPTIONAL TARGETS ASSOCIATED WITH OSTEOBLAST APOPTOSIS SIGNALING IN RESPONSE TO GROWTH FACTOR WITHDRAWAL</p> <p>M Liang*<sup>[1]</sup>, B Espina<sup>[1]</sup>, H de Wet<sup>[2]</sup>, MM Conradie<sup>[2]</sup>, RGG Russell<sup>[1]</sup>, PA Hulley<sup>[1]</sup>.</p> <p><sup>[1]</sup>Botnar Research Centre, Nuffield Dept of Orthopaedic Surgery, University of Oxford, UK; <sup>[2]</sup>Dept Internal Medicine, Faculty of Health Sciences, University of Stellenbosch</p>
BORS-P46	<p>GENERATION OF VIRTUAL MODELS OF BONE MICRO-ARCHITECTURE</p> <p>P Pankaj, FA Beeson, C Perrone, ATM Phillips, AHRW Simpson</p> <p>University of Edinburgh, UK</p>
BRS-P46	<p>AMYLOID PRECURSOR PROTEIN CLEAVAGE IN OSTEOBLASTS GENERATES THE INTRACELLULAR SIGNALING PEPTIDE AICD AND A NOVEL EXTRACELLULAR ADHESIVE FRAGMENT</p> <p>J McLeod*<sup>[1]</sup>, HD Lewis<sup>[2]</sup>, TPG Genever<sup>[1]</sup></p> <p><sup>[1]</sup>Biomedical Tissue Research, Dept. of Biology, University of York, York, UK; <sup>[2]</sup>The Neuroscience Research Centre, Merck Sharp and Dohme Research Laboratories, Terling Park, Essex, UK</p>
BORS-P47	<p>METAL LEVELS IN 'CELL SAVER' BLOOD RECOVERED DURING REVISION HIP ARTHROPLASTY</p> <p>M Ganapathi*<sup>[1]</sup>, S Jones<sup>[1]</sup>, P Roberts<sup>[2]</sup></p> <p><sup>[1]</sup>University Hospital of Wales, Cardiff, UK; <sup>[2]</sup>Royal Gwent Hospital, Newport, UK</p>
BRS-P47	<p>INTRAUTERINE PROGRAMMING OF SKELETAL DEVELOPMENT: A LONGITUDINAL STUDY</p> <p>SA Lanham*<sup>[1]</sup>, C Roberts<sup>[1]</sup>, MJ Perry<sup>[2]</sup>, C Cooper<sup>[1]</sup>, ROC Oreffo<sup>[1]</sup></p> <p><sup>[1]</sup>Bone and Joint Research Group, University of Southampton, UK; <sup>[2]</sup>Department of Anatomy, University of Bristol, UK</p>
BORS-P48	<p>A THICK CEMENT MANTLE INCREASES EARLY MIGRATION OF IMPACTION GRAFTED FEMORAL STEMS</p> <p>M Ganapathi*<sup>[1]</sup>, JH Kuiper<sup>[2]</sup>, SG Griffin<sup>[2]</sup>, ES Saweeres<sup>[2]</sup>, NM Graham<sup>[2,3]</sup></p> <p><sup>[1]</sup>University Hospital of Wales, Cardiff, UK; <sup>[2]</sup>Robert Jones and Agnes Hunt Hospital, Oswestry, UK; <sup>[3]</sup>Wrexham Maelor Hospital, UK</p>
BRS-P48	<p>CHARACTERIZATION OF P2X<sub>7</sub> RECEPTOR EXPRESSION AND FUNCTION IN HUMAN OSTEOBLASTS</p> <p>SM Al-qallaf*[1, 2], EJ Kidd<sup>[1]</sup>, C Elford<sup>[2]</sup>, BAJ Evans<sup>[2]</sup></p> <p><sup>[1]</sup>Welsh School of Pharmacy, Cardiff University, Cardiff, UK; <sup>[2]</sup>Department of Child Health, School of Medicine, Cardiff University, Cardiff, UK</p>

BORS-P49	<p>QUANTIFYING THE BEHAVIOUR OF MORSELLISED CORTICO-CANCELLOUS BONE</p> <p>P Pankaj, ATM. Phillips, CR Howie, AJ McLean, AHRW Simpson University of Edinburgh, UK</p>
BRS-P49	<p>HSPGS CORE PROTEINS AND GLYCOAMINOGLYCAN SIDE CHAINS ARE ELEVATED IN THE PATHOLOGICAL CONDITION FIBRODYSPLASIA OSSIFICANS PROGRESSIVA.</p> <p>MP O'Connell<sup>[1,4]</sup>, PC Billings<sup>[1]</sup>, J Fiori<sup>[1]</sup>, G Deirmengian<sup>[1]</sup>, HI Roach<sup>[4]</sup>, EM Shore<sup>[2]</sup>, FS Kaplan<sup>[1,3]</sup></p> <p><sup>[1]</sup>Department of Orthopedic Surgery, <sup>[2]</sup>Genetic, <sup>[3]</sup>Medicine, University of Pennsylvania School of Medicine, Philadelphia, PA, USA; <sup>[4]</sup>University Orthopaedics, Bone and Joint Research Group, University of Southampton School of Medicine, Southampton, UK</p>
BORS-P50	<p>PULL-OUT STRENGTH OF CEMENTING BIRMINGHAM (CEMENTLESS) CUPS: A BIOMECHANICAL STUDY</p> <p>AP Kadakia<sup>[1]</sup>, S Green<sup>[2]</sup>, PF Partington<sup>[1]</sup></p> <p><sup>[1]</sup>Department of Orthopaedics, Wansbeck General Hospital, Ashington, UK; <sup>[2]</sup>Engineering Department, University of Durham, UK</p>
BRS-P50	Abstract withdrawn
BORS-P51	<p>DETERMINATION OF INTERFACIAL FRACTURE TOUGHNESS OF BONE-CEMENT INTERFACE USING SANDWICH BRAZILIAN DISKS</p> <p>J Tong, KY Wong, C Lupton*</p> <p>Department of Mechanical and Design Engineering, University of Portsmouth, Anglesea Road, Anglesea Building, Portsmouth PO1 3DJ, UK</p>
BRS-P51	<p>ESTROGEN RECEPTOR ALPHA MRNA LEVELS ARE HIGHER IN CANINE CORTICAL BONE THAN IN TRABECULAR BONE</p> <p>R Garcia*, G Zaman, J Price</p> <p>Royal Veterinary College, Veterinary Basic Sciences, London, UK</p>
BORS-P52	<p>COMPARISON OF SUTURE ANCHORS AND PULL-OUT SUTURES FOR TENDON ATTACHMENTS TO THE DISTAL PHALANX: A BIOMECHANICAL STUDY IN VITRO</p> <p>AR Tolat*, RS Reddy, I Persad, J Compson, A Amis</p> <p>Dept of Orthopaedics, Kings College Hospital and Depts of Mechanical Engineering and Musculoskeletal Surgery, Imperial College, London, UK</p>

BRS-P52	<p>SUBSTITUTIONS IN THE R1 HYDROXYL AND C1 PHOSPHATE POSITIONS SIGNIFICANTLY AFFECT BINDING OF RISEDRONATE DURING HYDROXYAPATITE CERAMIC CHROMATOGRAPHY</p> <p>Z. Xia<sup>[1]</sup>, JT Triffitt<sup>[1]</sup>, MA Lawson<sup>[1]</sup>, H Ebetino<sup>[2]</sup>, CE McKenna<sup>[2]</sup>, M Marma<sup>[3]</sup>, B Kashimirov<sup>[2]</sup>, RGG Russell<sup>[1]</sup></p> <p>[1]Institute of Musculoskeletal Sciences, Botnar Research Centre, University of Oxford, Oxford, OX3 7LD, UK; [2]Procter &amp; Gamble Pharmaceuticals, Cincinnati OH, USA; [3]Dept. of Chemistry, University of Southern California, Los Angeles, CA, USA</p>
BORS-P53	<p>LESS INVASIVE STABILISATION SYSTEM (LISS PLATE) FOR THE MANAGEMENT OF PERIPROSTHETIC FEMORAL FRACTURES AROUND HIP ARTHROPLASTY</p> <p>V Kumar*, P Kanabar, PJ Owen, N Rushton</p> <p>Department of Trauma and Orthopaedics, Addenbrooke's Hospital, Box 37, Hills Road, Cambridge, CB2 2QQ, UK</p>
BRS-P53	<p>GLUCOCORTICOID METABOLISM IN MURINE BONE CELLS: A MODEL FOR THE EFFECTS OF LOCAL GLUCOCORTICOID GENERATION ON BONE</p> <p>R Crook*, L Palmer, PM Stewart, MS Cooper, EH Rabbitt</p> <p>University of Birmingham, Birmingham, UK</p>
BORS-P54	<p>PROOXIDATIVE AND ANTIOXIDATIVE PROPERTIES OF ORTHOPAEDIC MATERIALS</p> <p>VG Bulgakov*, NS Gavryushenko, AN Shal'nev.</p> <p>Central Institute of Traumatology and Orthopaedics, Moscow, Russia</p>
BRS-P54	<p>A COMPUTATIONAL MODEL EXPLAINS BISPHOSPHONATE BINDING AFFINITY DIFFERENCES ON HYDROXYAPATITE</p> <p>FH Ebetino*<sup>[1]</sup>, BL Barnett<sup>[2]</sup>, RGG Russell<sup>[3]</sup>, Z Henneman<sup>[4]</sup>, GH Nancollas<sup>[4]</sup></p> <p><sup>[1]</sup>Procter &amp; Gamble Pharmaceuticals, OH, USA; <sup>[2]</sup>University of Cincinnati, OH, USA; <sup>[3]</sup>Oxford University, Oxford, UK; <sup>[4]</sup>SUNY, Buffalo, NY, USA</p>
BORS-P55	<p>MEASURING THE SURFACE GEOMETRY OF TENDON</p> <p>STS Salisbury*, CP Buckley, AB Zavatsky</p> <p>Department of Engineering Science, University of Oxford, Oxford, UK</p>
BRS-P55	<p>POTASSIUM CHANNEL SUBUNITS IN HUMAN OSTEOBLAST-LIKE CELLS</p> <p>NC Henney*<sup>[1]</sup>, B Li<sup>[1]</sup>, BAJ Evans<sup>[2]</sup>, EJ Hall<sup>[1]</sup>, KT Wann<sup>[1]</sup></p> <p><sup>[1]</sup>Welsh School of Pharmacy, Cardiff University, Redwood Building, King Edward VII Ave, Cardiff CF10 3XF, UK; <sup>[2]</sup>Department of Child Health, School of Medicine, Cardiff University, Heath Park, Cardiff CF14 4XN, UK</p>

BORS-P56	<p>FAILURE OF BONE-CEMENT INTERFACE IN CEMENTED ACETABULAR SOCKETS UNDER FATIGUE LOADING CONDITIONS</p> <p>N Zant*<sup>[1]</sup>, P Heaton-Adegbile<sup>[1,2,3]</sup>, J Tong<sup>[1]</sup></p> <p><sup>[1]</sup>Department of Mechanical and Design Engineering, University of Portsmouth,UK; <sup>[2]</sup>Queen Alexandra Hospital,UK; <sup>[3]</sup>King Edwards VII Hospital, UK</p>
BRS-P56	<p>TRANSCRIPTOMIC ALTERATIONS UNDERPINNING COBALT MEDIATED OSTEOLYSIS</p> <p>AM Byrne*<sup>[1,2]</sup>, BM Devitt<sup>[1,2]</sup>, JM O'Byrne<sup>[2]</sup>, PP Doran<sup>[1]</sup></p> <p><sup>[1]</sup>General Clinical Research Unit, UCD School of Medicine and Medical Science, Mater Misericordiae University Hospital, Dublin Molecular Medicine Centre Eccles St, Dublin 7, Ireland; <sup>[2]</sup>Department of Orthopaedic Surgery, Royal College of Surgeons in Ireland, Cappagh National Orthopaedic Hospital, Dublin, Ireland</p>
BORS-P57	<p>THE CREEP BEHAVIOUR OF LEADING CEMENT BRANDS</p> <p>JCJ Webb*, S Gheduzzi, RF Spencer, AW Miles, ID Learmonth</p> <p>Dept of Orthopaedic Surgery, Avon Orthopaedic Centre, Bristol,UK; Dept of Mechanical Engineering, University of Bath,UK</p>
BRS-P57	<p>SYNOVIUM BIOPSIES AND SYNOVIAL FLUID CYTOKINES AT KNEE ARTHROPLASTY</p> <p>RG Pearson*, B Scammell</p> <p>University of Nottingham</p> <p>Nottingham, UK</p>
BORS-P58	<p>THE BIODEGRADABLE IMPLANT LITAR IN PURULENT ORTHOPEDICS</p> <p>AN Kulikov<sup>[1]</sup>, AN Mitroshin<sup>[2]</sup>, SD Litvinov*<sup>[3]</sup></p> <p><sup>[1]</sup>Municipal Hospital No. 4, Togliatti, Russia; <sup>[2]</sup>Penza State Medical Institute, Penza, Russia; <sup>[3]</sup>Samara State Technical University, Samara, Russia</p>
BRS-P58	<p>LOW DOSES OF HEPARIN STIMULATE RAT OSTEOBLAST DIFFERENTIATION BY POTENTIATING BONE MORPHOGENETIC PROTEIN 2 SIGNALLING</p> <p>G Malik*, AW McCaskie, MA Birch</p> <p>Musculoskeletal Research Group, The Medical School, University of Newcastle, UK</p>
BORS-P59	<p>THERMOGRAPHIC INVESTIGATION OF DRILLING OF BONE</p> <p>CY Ng*, F Borocin, A Muir, H Simpson</p> <p>Edinburgh Orthopaedic Engineering Centre, University of Edinburgh, UK</p>

BRS-P59	<p>CLONING AND EXPRESSION OF HUMAN BMP-2: POTENTIAL FOR USE IN SKELETAL TISSUE ENGINEERING</p> <p>KA Partridge*<sup>[1]</sup>, M Heyde<sup>[2]</sup>, M Garnett<sup>[2]</sup>, S Howdle<sup>[2]</sup>, K Shakesheff<sup>[2]</sup>, ROC Oreffo<sup>[1]</sup></p> <p><sup>[1]</sup>Bone and Joint Research Group, Developmental Origins of Health and Disease Division, University of Southampton, Southampton SO16 6YD, UK;</p> <p><sup>[2]</sup>The School of Pharmacy, University of Nottingham, University Park, Nottingham, NG7 2RD, UK</p>
BORS-P60	<p>ANATOMICAL AND MORPHOLOGICAL VARIATIONS IN LUMBAR SPINE IN CHILDREN WITH OSTEOGENESIS IMPERFECTA</p> <p>AD Gorva, NJ Bishop, AC Cole</p> <p>Department of Paediatric Orthopaedics, Sheffield Children's Hospital, Western Bank, Sheffield S10 2TH, UK</p>
BRS-P60	<p>SOX9 ENHANCES BMP-2-INDUCED OSTEOGENIC DIFFERENTIATION IN A PKA DEPENDENT MANNER</p> <p>L Zhao*, G Li</p> <p>Musculoskeletal Research Unit, School of Biomedical Sciences, Musgrave Park Hospital, Queen's University Belfast, Belfast, BT9 7JB, UK</p>
BORS-P61	<p>NOVEL APPLICATION OF PQCT TO STANDARDISE SYNOVIAL FLUID BIOMARKER CONCENTRATIONS</p> <p>RE Weaver<sup>[1]*</sup>, J Dudhia<sup>[2]</sup>, ERC Draper<sup>[1]</sup>, RKW Smith<sup>[2]</sup>, AE Goodship<sup>[1]</sup></p> <p><sup>[1]</sup>The Department of Veterinary Basic Science, RVC, UK; <sup>[2]</sup> The Department of Veterinary Clinical Science, RVC, UK</p>
BRS-P61	<p>MECHANO GROWTH FACTOR EXPRESSION IN BONE: RESPONSE TO MECHANICAL STIMULATION</p> <p>V Mann*<sup>[1]</sup>, A Adams<sup>[1]</sup>, G Kogianni<sup>[1]</sup>, AHRW Simpson<sup>[1]</sup>, G Goldspink<sup>[2]</sup> and B S Noble<sup>[1]</sup></p> <p>University of Edinburgh, UK</p>
BORS-P62	<p>HIP FRACTURES IN NONAGENERIAN PATIENTS-OUTCOME OF SURGICAL TREATMENT</p> <p>AM Byrne*, C Ridge, SR Kearns, SK O'Rourke, W Quinlan</p> <p>St Vincent's University Hospital, Dublin 4, Ireland</p>
BRS-P62	<p>CHARACTERISATION OF MESENCHYMAL STEM CELLS ON BESPOKE BIOCERAMIC SCAFFOLDS PRODUCED BY SELECTIVE LASER SINTERING</p> <p>JA Dyson*<sup>[1]</sup>, PG Genever<sup>[2]</sup>, DJ Wood<sup>[3]</sup>, K W Dalgarno<sup>[1]</sup></p> <p><sup>[1]</sup>School of Mechanical Engineering, University of Leeds, Leeds, UK;</p> <p><sup>[2]</sup>Biomedical Tissue Research, Department of Biology, University of York, York, UK; <sup>[3]</sup>Division of Oral Biology, Leeds Dental Institute, University of Leeds, Leeds, UK</p>

BORS-P63	<p>MEDIUM TERM FOLLOW UP OF THE PIPINO COLLUM FEMORIS PRESERVING TOTAL HIP ARTHROPLASTY</p> <p>I Gilli*, K Gill, N Jayasekera, AJ Miller</p> <p>Department of Trauma and Orthopaedic Surgery, Mayday University Hospital, Croydon, UK</p>
BRS-P63	<p>BONE TISSUE FORMATION FROM HUMAN EMBRYONIC STEM CELLS IN VIVO</p> <p>JL Tremoleda<sup>[1]</sup>, NR Forsyth<sup>[2]</sup>, N Khan<sup>[1]</sup>, D Wojtacha<sup>[2]</sup>, I Christodoulou<sup>[2]</sup>, BJ Tye<sup>[2]</sup>, SN Racey<sup>[1]</sup>, S Collishaw<sup>[1]</sup>, V Sottile<sup>[2]</sup>, AJ Thomson<sup>[2]</sup>, AHWR Simpson<sup>[1]</sup>, BS Noble<sup>[1]</sup>, J McWhir<sup>[2]</sup></p> <p><sup>[1]</sup>Musculoskeletal Tissue Engineering Collaboration (MTEC), University of Edinburgh, Medical school, Edinburgh, UK; <sup>[2]</sup>Gene Function and Development, Roslin Institute. Roslin, UK</p>
BORS-P64	<p>RELATIONSHIP BETWEEN BONE MINERAL DENSITY AND RATE OF FUNCTIONAL RECOVERY AFTER DISTAL RADIAL FRACTURE</p> <p>A Awad*<sup>[1]</sup>, JG Andrew<sup>[1]</sup>, C Williams<sup>[2]</sup>, C Hutchinson<sup>[3]</sup></p> <p><sup>[1]</sup>Ysbyty Gwynedd, Bangor, UK; <sup>[2]</sup>Hope Hospital, Salford, UK; <sup>[3]</sup>University of Manchester, UK</p>
BRS-P64	<p>THE IN VITRO RESPONSE OF HUMAN OSTEOBLASTS AND OSTEOBLAST-LIKE CELLS TO A NOVEL PHOSPHATE BASED SOLUBLE GLASS</p> <p>KL Skelton*<sup>[1]</sup>, JV Glenn<sup>[2]</sup>, SA Clarke<sup>[1]</sup>, S Nazhat<sup>[3]</sup>, GR Jordan<sup>[1]</sup></p> <p><sup>[1]</sup>Queen's University Trauma Research Group, Department of Orthopaedic Surgery, Musgrave Park Hospital, Belfast, BT9 7JB, UK; <sup>[2]</sup>Queen's University, Ophthalmology and Vision Science Research Centre, Institute of Clinical Science, The Royal Victoria Hospital, Belfast, BT12 6BA, UK; <sup>[3]</sup>Department of Biomaterials, Eastman Dental Institute, University of London, 256 Gray's Inn Road, London, WC1X 8LD, UK</p>
BORS-P65	<p>AO VOLAR PLATE FIXATION FOR UNSTABLE OR COMMUNUTED DISPLACED DISTAL RADIUS FRACTURES</p> <p>SG Haidar*, S Joshy, RM Charity, S Ghosh, AB Tillu, SC Deshmukh</p> <p>City Hospital, Birmingham, UK</p>
BRS-P65	<p>PROPORTION OF RED TO YELLOW MARROW DERIVED BY MAGNETIC RESONANCE SPECTROSCOPY, AN INDICATOR OF SKELETAL REMODELLING CAPACITY?</p> <p>CM Langton*<sup>[1]</sup>, GP Liney<sup>[2]</sup>, M Pickles<sup>[2]</sup>, M Lowry<sup>[2]</sup>, LW Turnbull<sup>[2]</sup></p> <p><sup>[1]</sup>Centre for Metabolic Bone Disease, Hull &amp; East Yorkshire Hospitals and University of Hull, UK; <sup>[2]</sup>Centre for Magnetic Resonance Investigations, University of Hull, UK</p>

BORS-P66	TURNING PARTIAL KNEE REPLACEMENT 'INSIDE OUT': THE KINEMATICS OF THE DOMED LATERAL OXFORD UNICOMPARTMENTAL KNEE REPLACEMENT JA Gallagher *,BH Van Duren, H Pandit, D Beard, HS Gill, CAF Dodd, DW Murray Nuffield Orthopaedic Centre, University of Oxford, UK
BRS-P66	OSTEOGENIC DIFFERENTIATION OF INFRAPATELLAR FAT PAD DERIVED STEM CELLS AND THEIR POTENTIAL IN CLINICAL APPLICATIONS W Khan*, G Andrew, T Hardingham United Kingdom Centre for Tissue Engineering, University of Manchester, Manchester, UK
BORS-P67	TREATMENT OF ATROPHIC FRACTURE NON-UNION WITH THE SYNTHETIC COMPOUND TP508 C Huber , M Kelly, T Lautenschlager, BS Noble, H Simpson Musculoskeletal Tissue Engineering Collaboration (MTEC),University of Edinburgh, Medical School, Edinburgh, UK
BRS-P67	A 3D CULTURE SYSTEM TO INVESTIGATE MECHANICALLY-STIMULATED GLUTAMATE AND ADENOSINE SIGNALLING PATHWAYS IN OSTEOCYTES DJ Mason <sup>[1]*</sup> , BAJ Evans <sup>[2]</sup> , A Burleigh <sup>[1]</sup> , K Duggen <sup>[1]</sup> , O Lorraine <sup>[1]</sup> , A Pexa <sup>[3]</sup> , A Deussen <sup>[3]</sup> , J Ham <sup>[4]</sup> <sup>[1]</sup> Connective Tissue Research Laboratories, School of Biosciences, Cardiff University, Museum Avenue, Cardiff CF10 3US, UK; <sup>[2]</sup> Department of Child Health, Cardiff University Heath Park, Cardiff CF14 4XN, UK; <sup>[3]</sup> Institute of Physiology, Faculty of Medicine, Carl Gustav Carus, Dresden, Germany; <sup>[4]</sup> Centre for Endocrine and Diabetes Sciences, Cardiff University Heath Park, Cardiff CF14 4XN, UK
BORS-P68	MEASUREMENT AND CLINICAL SIGNIFICANCE OF HYALURONAN LEVEL IN SYNOVIAL FLUID OF THE KNEES XC Wei*. Department of Orthopaedics, The 2nd Hospital, Shanxi Medical University
BORS-P69	FALLS IN PATIENTS WITH HIP AND KNEE OSTEOARTHRITIS: THE IMPACT OF JOINT REPLACEMENT SURGERY SY Mitchell* <sup>[1]</sup> , AW McCaskie <sup>[1,2]</sup> , RM Francis <sup>[1,2]</sup> , RT Peaston <sup>[1]</sup> , FN Birrell <sup>[1,2]</sup> , EA Lingard <sup>[1,2]</sup> <sup>[1]</sup> Freeman Hospital, Newcastle Upon Tyne, UK; <sup>[2]</sup> University of Newcastle, Newcastle Upon Tyne, UK
BORS-P70	HOW CAN ORTHOPAEDIC SURGEONS' REFERRAL RATES FOR DEXA BE IMPROVED FOR PATIENTS AT HIGH RISK OF OSTEOPOROSIS? E Robinson*, E Baggs, P Brettle, F Birrell, MR Reed. Wansbeck General Hospital, Ashington, Northumberland, NE63 9JJ, UK

BORS-P71	<p>A PROSPECTIVE STUDY OF KNEE LAXITY AFTER ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION</p> <p>M Rathinam<sup>[1]*</sup>, IP Pengas<sup>[2]</sup>, A Hatcher<sup>[1]</sup>, MJ McNicholas<sup>[1]</sup></p> <p><sup>[1]</sup>Warrington General Hospital, Cheshire, UK; <sup>[2]</sup>Ninewells Hospital, Dundee, UK</p>
BORS-P72	<p>ELECTROMYOGRAPHIC ASSESSMENT OF FOREARM MUSCLES IN LATERAL EPICONDYLITIS</p> <p>O Alizadehkhayat, JG Kemp, K Vishwanathan, SP Frostick</p> <p>University of Liverpool, UK</p>
BORS-P73	Abstract withdrawn
BORS-P74	<p>PRINCIPAL COMPONENT ANALYSIS OF DISTAL RADIAL FRACTURE KINEMATICS DURING CYCLIC ACTIVITIES OF DAILY LIVING</p> <p>A Murgia<sup>[1]</sup>, P Kyberd<sup>[1,2]</sup>, T Barnhill<sup>[3]</sup></p> <p><sup>[1]</sup>University of Reading, School of Systems Engineering, Reading, RG6 6AY, UK; <sup>[2]</sup>University of New Brunswick, Institute of Biomedical Engineering, Fredericton, NB, E3B 6H5, Canada; <sup>[3]</sup>Fredericton Medical Clinic, Fredericton, NB, E3B 6H5, Canada</p>
BORS-P75	<p>INVESTIGATION OF RADIO-LUNATE RELATIONS IN NORMAL AND FRACTURED WRISTS</p> <p>IM Stevenson*, AJ Johnstone</p> <p>Department of Orthopaedics and Trauma Surgery, Aberdeen Royal Infirmary, Aberdeen, UK</p>
BORS-P76	<p>DOES FLUOROSCOPY WITH THE MINI C ARM RESULT IN DECREASED RADIATION EXPOSURE COMPARED TO THE CONVENTIONAL C ARM IN EXTREMITY ORTHOPAEDIC SURGEON?</p> <p>A Shoaib*, U Rethnam, R Bansal, A De</p> <p>Wrexham Maelor Hospital, UK</p>
BORS-P77	<p>DOES INTRA-ARTICULAR STEROID INCREASE THE INFECTION RATE FOLLOWING HIP ARTHROPLASTY?</p> <p>SPK Morapudi*, E Oh, IJ Braithwaite</p> <p>Manchester, UK</p>
BORS-P78	<p>ACCURACY OF CLINICAL EXAMINATION OF THE KNEE IN ACUTE INJURIES:A PROSPECTIVE CORRELATION WITH ARTHROSCOPIC FINDINGS</p> <p>AM Byrne*, SR Kearns, SH Orakzai, P Keogh, SJ O'Flanagan</p> <p>Department of Orthopaedics, Connolly Hospital, Blanchardstown, Dublin 15, Ireland</p>

BORS-P79	<p>HOW RELIABLE ARE PRINTED DIGITAL RADIOGRAPHS FOR USE IN PRE-OPERATIVE ARTHROPLASTY TEMPLATING?</p> <p>E Robinson, P Partington Wansbeck General Hospital, Ashington, NE63 9JJ, UK</p>
BORS-P80	<p>EARLY TREND IN FAILURES DUE TO FRACTURE NECK OF FEMUR IN BIRMINGHAM RESURFACING HIP ARTHROPLASTY: MINIMUM OF FIVE YEARS FOLLOW-UP RESULTS FROM AN INDEPENDENT OUTCOME CENTRE</p> <p>M Khan*, JH Kuiper, E Robinson, JB Richardson Institute of Orthopaedics, Robert Jones and Agnes Hunt Orthopaedic Hospital. Oswestry. UK</p>
BORS-P81	<p>TIBITLOCALCANEAL ARTHRODESIS IN NEGLECTED PAINFUL ANKLE WITH RETROGRADE INTRAMEDULLARY VERSA NAIL</p> <p>RK Trehan*, G Kumar, A Shetty, V Naidu Mayday University Hospital, London, UK</p>
BORS-P82	<p>POSTOPERATIVE HYPOKALEMIA: ITS INCIDENCE, CAUSES AND IMPLICATIONS FOR ELDERLY PATIENTS WITH FRACTURE NECK OF FEMUR</p> <p>A Yousef, RK Pagoti, RK Morisetty, P Bolton Orthopaedic Department, Kings Mill Hospital, Mansfield, UK</p>
BORS-P83	<p>POSITION OF CIRCUMFERENTIAL SUTURE AND CORE SUTURE KNOTS IN TENDON REPAIR AND ITS INFLUENCE ON GAPPING AND FAILURE ENERGY</p> <p>MC Rao*, JH Kuiper, CP Kelly Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry, Shropshire, UK</p>
BORS-P84	<p>POSTERIOR STABILISED TKA: IS THE CAM-POST MECHANISM EFFECTIVE?</p> <p>BH Van Duren<sup>[1]</sup>, H Pandit<sup>[1]*</sup>, J Gallagher<sup>[1]</sup>, HS Gill<sup>[1]</sup>, AB Zavatsky<sup>[1]</sup>, NP Thomas<sup>[2]</sup>, DW Murray <sup>[1]</sup>Nuffield Department of Orthopaedic Surgery and Department of Engineering Science, University of Oxford, UK; <sup>[2]</sup>North Hampshire Hospital, Basingstoke, UK</p>
BORS-P85	<p>CASE FINDING OF OSTEOPOROSIS PATIENTS FROM AN ORTHOPAEDIC THEATRE DATABASE</p> <p>AL Dolan*, S Lockwood, P Vandenbosch Queen Elizabeth Hospital, Woolwich, UK</p>
BORS-P86	<p>ASSESSMENT OF HEALING IN DISTRACTION OSTEOGENESIS IN PATIENTS WITH AN ILIZAROV FRAME</p> <p>E Byrne*, C Evans, C Hutchinson, S Kahn University of Manchester, Manchester, UK</p>

BORS-P87	<p>PERIACETABULAR OSTEOTOMY: EXPERIENCE IN A NON-SUPER-SPECIALIZED CENTER</p> <p>B Devitt*, J Street, J S Butler, D McCormack, J O'Byrne Cappagh National Orthopaedic Hospital, Finglas, Dublin 11, Ireland</p>
BORS-P88	<p>ARE EXISTING POLYETHYLENE TIBIAL INSERT SELECTIONS FOR TKA ADEQUATE? AN EXPERIMENTAL STUDY EVALUATING SENSITIVITY OF SOFT TISSUE TENSION TO INSERT THICKNESS</p> <p>SV Deshpande*, G Macken, A Kedgley, JA Johnson, DG Chess Lawson Research Institute and St Joseph's Hospital, London, Ontario, Canada</p>
BORS-P89	<p>THE QUALITY OF LIFE OF YOUNG PATIENTS FOLLOWING HIP FRACTURES</p> <p>A Yousef *, CR Pradhan, PJ Livesley Kings Mill Hospital, Sutton-in Ashfield, UK</p>
BORS-P90	<p>ASSESSMENT OF UPPER LIMB MUSCULAR STRENGTH IN TENNIS ELBOW</p> <p>O Alizadehkhayat*, AC Fisher, GJ Kemp, SP Frostick University of Liverpool, UK</p>
BORS-P91	<p>THE RISK OF TRANSMISSION OF INFECTION FROM FRESH FROZEN ALLOGRAFT BONE</p> <p>J Newham*, R Pearson, V Weston, BE Scammell Nottingham University Hospitals NHS Trust, Queen's Medical Centre Campus, Nottingham, NG7 2UH, UK</p>
BORS-P92	<p>IS BONE AGE USEFUL IN PREDICTING CONTRALATERAL SLIP IN SCFE?</p> <p>AD Gorva, J Metcalfe, R Rajan, S Jones, JA Fernandes Department of Paediatric Orthopaedics, Sheffield Children's Hospital, Western Bank, Sheffield S10 2TH, UK</p>
BORS-P93	<p>COMPARATIVE MORPHOMETRY OF PORCINE AND HUMAN THORACOLUMBAR VERTBRAE</p> <p>R Dath*, S Hazarika, KM Porte, AW Miles University Hospital Birmingham NHS Trust, Centre for Orthopaedic Biomechanics, Bath University, UK</p>
BORS-P94	<p>BREAST RECONSTRUCTION SURGERY USING LATISSIMUS DORSI FLAP: DOES IT AFFECT THE SHOULDER FUNCTION?</p> <p>SG Haidar*, CC Kat, F Fatah, SC Deshmukh City Hospital, Birmingham, UK</p>
BORS-P95	<p>INDICATORS OF REHABILITATION IN LOWER LIMB ARTHROPLASTY</p> <p>SP Krishnan, A Bhadra, NC Chayya, JA Skinner, RWJ Carrington, TWR Briggs, D Goldhill Royal National Orthopaedic Hospital, Stanmore, Middlesex, HA7 4LP, UK</p>

BORS-P96	<p>THE ROLE OF PREOPERATIVE NEUROMUSCULAR ELECTRICAL STIMULATION IN TOTAL KNEE REPLACEMENT: A RANDOMISED CONTROLLED STUDY</p> <p>R Raghunathan<sup>[1]</sup> *, J Skinner<sup>[2]</sup>, F Pell<sup>[1]</sup></p> <p><sup>[1]</sup>Institute of Orthopaedics and Musculoskeletal Sciences, University College London, Stanmore, UK; <sup>[2]</sup>Royal National Orthopaedic Hospital, Stanmore, UK</p>
BORS-P97	<p>CAN RECOVERY OF BONE MINERAL DENSITY AT THE FRACTURE SITE IN THE DISTAL RADIUS BE USED AS A MEASURE OF FRACTURE HEALING?</p> <p>A Awad<sup>[1]</sup> *, JG Andrew<sup>[1]</sup>, C Williams<sup>[2]</sup>, C Hutchinson<sup>[3]</sup></p> <p><sup>[1]</sup>Ysbyty Gwynedd, Bangor, UK; <sup>[2]</sup>Hope Hospital, Salford, UK; <sup>[3]</sup>University of Manchester, UK</p>
BORS-P98	<p>OESTROGEN DEFICIENCY LEADS A DECREASE OF THE NUMBER OF CHONDROCYTES IN RABBIT GROWTH PLATE</p> <p>H Takano *, T Aizawa, T Irie, N Yamada, S Kokubun</p> <p>Sendai, Japan</p>
BORS-P99	<p>WHAT IS IMPORTANT IN CARTILAGE REPAIR-MACROSCOPIC GRADING OR HISTOLOGY?</p> <p>SP Krishnan*, JA Skinner, J Jagiello, RWJ Carrington, AM Flanagan, TWR Briggs, G Bentley</p> <p>Royal National Orthopaedic Hospital, Stanmore, Middlesex, HA7 4LP, UK</p>
BORS-P100	<p>TOPOGRAPHICAL GLYCOSAMINOGLYCAN VARIATION IN HUMAN ARTICULAR CARTILAGE</p> <p>BA Rogers, C Murphy, SR Cannon, TWR Briggs</p> <p>The Royal National Orthopaedic Hospital, UK</p>
BORS-P101	<p>CHONDROCYTE APOPTOSIS CORRELATES WITH ARTICULAR CARTILAGE DEGRADATION</p> <p>CM Thomas*, C Whittles, C Fuller, M Sharif</p> <p>University of Bristol, Bristol, UK</p>
BORS-P102	<p>HISTOLOGICAL GRADING OF CARTILAGE IN ANTERO-MEDIAL OSTEOARTHRITIS OF THE KNEE</p> <p>SM McDonnell *, R Benson, P Hulley , N Athanasou, AJ Carr, AJ Price</p> <p>Nuffield Department of Orthopaedic Surgery, University of Oxford, UK</p>
BORS-P103	<p>ASSESSMENT OF A NOVEL ANGIOGENIC FACTOR IN A SMALL ANIMAL MODEL OF ATROPHIC NONUNION</p> <p>L Mills<sup>[1]</sup> *, B Noble<sup>[1]</sup>, S Fenwick<sup>[2]</sup>, H Simpson<sup>[1]</sup></p> <p><sup>[1]</sup>Department of Orthopaedic Trauma, The Musculoskeletal Tissue Engineering Consortium, University of Edinburgh, UK; <sup>[2]</sup>Orthopaedics, Smith and Nephew Research Centre, Heslington, UK</p>

BORS-P104	<p>SUSCEPTIBILITY OF INTERVERTEBRAL DISC CELLS AND OTHER CELL TYPES TO APOPTOSIS</p> <p>L Gardner<sup>[1]*</sup>, G Varbiro<sup>[1]</sup>, GT Williams<sup>[2]</sup>, J Trividi<sup>[1]</sup>, S Roberts<sup>[1,2]</sup></p> <p><sup>[1]</sup>Centre for Spinal Studies, Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry, Shropshire, UK; <sup>[2]</sup>Institute of Science and Technology in Medicine, Keele University, Staffordshire, UK</p>
BORS-P105	<p>ESTABLISHMENT OF AN EXTERNALLY FIXATED RAT FEMORAL FRACTURE MODEL</p> <p>RM McCann*, G Colleary, C Geddis, GR Dickson, D Marsh</p> <p>Queen's University of Belfast, UK</p>
BORS-P106	<p>INFLAMMATORY CHEMOKINE EXPRESSION IN PRIMARY HUMAN OSTEOBLASTS INDUCED BY COBALT PARTICLES</p> <p>B Devitt*, AM Byrne, A Patricelli, D Murray, J O'Byrne, PP Doran</p> <p>General Clinical Research Unit, School of Medicine and Medical Sciences, University College Dublin, Mater Misericordiae University Hospital and Dublin Molecular Medicine Centre, Ireland</p>
BORS-P107	<p>THE INFLUENCE OF EARLY NUTRITIONAL COMPROMISE ON BONE STRUCTURE AND STRENGTH</p> <p>P Pollintine<sup>[1]</sup>, I Cooper<sup>[1]</sup>, HL Anderson<sup>[1]</sup>, LR Green<sup>[2]</sup>, C Cooper<sup>[3]</sup>, SA Lanham<sup>[3]</sup>, ROC Oreffo<sup>[3]</sup>, P Dolan<sup>[1]</sup></p> <p><sup>[1]</sup>Department of Anatomy, University of Bristol,UK; <sup>[2]</sup>Centre for Developmental Origins of Health and Disease, University of Southampton,UK; <sup>[3]</sup>Bone and Joint Research Group, Centre for Developmental Origins of Health and Disease, University of Southampton, UK</p>
BORS-P108	<p>TGF-BATE1 DOSE AND CELLULAR DENSITY-DEPENDENT EFFECT ON CHONDROGENIC DIFFERENTIATION OF HUMAN BONE MARROW STEM CELLS</p> <p>XC Wei*, XD LU, G Gao</p> <p>Department of Orthopaedics, The 2nd Hospital, Shanxi Medical University</p>
BORS-P109	<p>THE EFFECTS OF PHORBOL MYRISTATE ACETATE (PMA) AND N-FORMYL-MET-LEU-PHE (FMLP) ON LEUCOCYTE ADHESION AND ACTIVATION</p> <p>SF Hughes*<sup>[1]</sup>, BD Hendricks<sup>[1]</sup>, SS Bastawrous<sup>[1]</sup>, DR Edwards<sup>[2]</sup>, JFS Middleton<sup>[3]</sup></p> <p><sup>[1]</sup>North Wales Medical Centre, Llandudno, UK; <sup>[2]</sup>North West Wales NHS Trust - Haematology Department, Bangor, UK; <sup>[3]</sup>Arthritis Research Centre, Robert Jones &amp; Agnes Hunt Orthopaedic Hospital, Oswestry, UK</p>

BORS-P110	<p>AUTOLOGOUS CHONDROCYTE IMPLANTATION VERSUS MATRIX-INDUCED AUTOLOGOUS CHONDROCYTE IMPLANTATION FOR OSTEOCHONDRAL DEFECTS OF THE KNEE: MINIMUM 2 YEAR FOLLOW-UP RESULTS</p> <p>DH Park*, SP Krishnan, JA Skinner, RWJ Carrington, AM Flanagan, TWR Briggs, G Bentley</p> <p>The Royal National Orthopaedic Hospital, Stanmore, UK</p>
BORS-P111	<p>TO ASSESS THE CHONDROGENIC POTENTIAL OF HUMAN EMBRYONIC STEM CELLS IN 3D CULTURE</p> <p>NS Khan*<sup>[1]</sup>, SN Racey<sup>[1]</sup>, JL Tremoleda<sup>[1]</sup>, BJ Tye<sup>[2]</sup>, J McWhir<sup>[2]</sup>, BS Noble<sup>[1]</sup>, AHRW Simpson<sup>[1]</sup></p> <p><sup>[1]</sup>Musculoskeletal Tissue Engineering Collaboration (MTEC), University of Edinburgh, Medical School, Edinburgh, UK; <sup>[2]</sup>Gene Function and Development, Roslin Institute, Roslin, UK</p>
BORS-P112	<p>THE OSTEOGENIC POTENTIAL OF BONE SUBSTITUTE MATERIALS SUBJECTED TO PHYSIOLOGICAL STRAINS IN VITRO</p> <p>AJ Martin*, V Mann, AHRW Simpson, BS Noble</p> <p>Musculoskeletal Tissue Engineering Collaboration (MTEC), University of Edinburgh, Medical School, UK</p>
BORS-P113	<p>THE EFFECT OF CYTOMODULIN-1 ON THE PROLIFERATION AND DIFFERENTIATION OF HUMAN BONE MARROW MESENCHYMAL STEM CELLS</p> <p>DAM Amer<sup>[1]</sup>, E Jones<sup>[2]</sup>, X Yang<sup>[1]*</sup></p> <p><sup>[1]</sup>Department of Oral Biology, Leeds Dental Institute, University of Leeds, Leeds LS2 9LU, UK; <sup>[2]</sup>Academic Unit of Musculoskeletal Disease, St James Hospital, University of Leeds, Leeds LS9 7TF, UK</p>
BORS-P114	<p>JUNCTIONAL HISTOLOGY OF BIOLOGIC FIXATION AS GRAFT FIXATION METHOD IN ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTIVE SURGERY: CLINICAL CORRELATION OF EXPERIMENTAL STUDIES</p> <p>M Bhattacharyya*, B Gerber</p> <p>University Hospital Lewisham, UK</p>