

Paul Simmons (Matthew Roberts Laboratory, Adelaide)

09.00 Oral Presentations 2 Room 1.11

Chair: Juliet Compston

- 09.00 **O06**, CBFA1 expression is induced in the metaphysis of female mice by high-dose oestrogen
Samuels A, Perry MJ, Gibson RG, Tobias JH
- 09.12 **O07**, Megakaryocyte population in human bone marrow increases with oestrogen treatment: a role in bone remodelling?
Bord S, Vedi S, Beavan SR, Horner A, Compston JE
- 09.24 **O08**, ROS cells proliferate in response to estrogen through IGF-I and mechanical strain through IGF-II
Cheng MZ, Zaman G, Rawlinson SCF, Mohan S, Baylink DJ, Lanyon LE
- 09.36 **O09**, Mechanical strain acts through the estrogen receptor in ROS cells
Zaman G, Cheng MZ, Jessop H, White R, Lanyon LE
- 09.48 **O10**, Nitric oxide mediates IL-1-induced osteoclast formation by sustaining NFkB activation in mouse co-cultures
Van t'Hof RJ, Smith LM, Ralston SH

10.00 Coffee Common Room and Atrium

10.30 Workshop 1 Room 1.11

W1, Investigations ex vivo – the third way

Sponsored by Smith and Nephew

Chair: Tim Skerry

Panellists: Larry Suva (Philadelphia), Katherine Dobson (Sheffield), Christine Ferguson (London)

12.00 Oral Presentations 3 Room 1.11

Chair: Adrienne Flanagan

- 12.00 **O11**, Human osteoclasts generated with soluble TRANCE – differences from stromal-cell based culture systems
Lader CS, Scopes J, Horton MA, Flanagan AM
- 12.12 **O12**, Functional GLAST; an essential molecular link in glutamatergic signalling during osteoblast differentiation
Spencer GJ, Bhanu PS, Genever PG, Grewal TS, Skerry TM
- 12.24 **O13**, Nitrogen-containing bisphosphonates induce apoptosis in human myeloma cells in vitro by inhibiting protein prenylation
Gordon S, Helfrich MH, Sati HIA, Shipman CM, Soutar RL, Greaves M, Stewart T, Ralston SH, Croucher PI Sebt S, Hamilton A, Rogers MJ
- 12.36 **O14**, Small pH changes alter osteoclast membrane conductance
Dunina-Barkovskaya A, Arnett TR
- 12.48 **O15**, Loss of functional activity in blood-derived macrophages is associated with mutations in the 1α -hydroxylase (P450c1 α) gene in four families with pseudovitamin D-deficiency rickets (PDDR)
Berry JL, Rucka AK, Smith SJ, Davies M, Mylchreest S, Paterson CR, Heath DA, Tassabehji M, Read AP, Mee AP, Mawer EB

13.00 Lunch and Poster Viewing Common Room & Atrium
(even numbers)

- 14.30 Plenary lecture** **Room 1.11**
The Ann Stansfield Lecture, sponsored by the National Association for the Relief of Paget's Disease
 Chair: Peter Selby
IS3, Why one skeleton is enough: Review of recent insights into fibrodysplasia ossificans progressiva
Fred Kaplan (University of Pennsylvania, Philadelphia)
- 15.15 Oral Presentations 4** **Room 1.11**
Sponsored by the International Bone and Mineral Society
 Chair: Stuart Ralston
- 15.15 **O16**, Does c-fos have a role in the pathophysiology of Paget's Disease?
 Beedles KE, Sharpe PT, Wagner EF, Grigoriadis AE
- 15.27 **O17**, Osteoclast differentiation from circulating mononuclear precursors in Paget's disease
 Neale SD, Smith R, Wass J, Athanasou NA
- 15.39 **O18**, Polymorphism in the promoter region of the Bcl-2 gene: a possible explanation for enhanced Bcl-2 expression in Paget's disease
 Brandwood CP, Hoyland JA, Selby P, Davies M, Hillarby MC, Mee AP
- 15.51 **O19**, Extracellular ATP potentiates growth factor signaling to the c-fos proto-oncogene in MCF-7 breast cancer cells – implications for metastasis
 Bowler WB, Wagstaff SC, Gallagher JA, Hipskind RA
- 16.03 **O20**, Infero-anterior remodelling clusters: a cause of focal weakness in hip fracture
 Jordan G, Loveridge N, Power J, Bell K, Reeve J
- 16.15 Tea** **Common Room and Atrium**
- 16.45 Oral Presentations 5** **Room 1.11**
Sponsored by Strakan
 Chair: Richard Eastell
- 16.45 **O21**, Long-term effects of lactation on bone mineral
 Laskey MA, Prentice A
- 16.57 **O22**, Subchondral bone mineral density falls in knees at risk of progressive osteoarthritis (OA)
 Clarke S, Duddy J, Shepstone L, Ellingham KEM, Watt I, Elson CJ, Dieppe PA, Kirwan JR
- 17.09 **O23**, High prevalence of osteoporosis in patients with chronic liver disease prior to transplantation
 Ninkovic M, Love S, Alexander GJM, Compston JE
- 17.21 **O24**, Neonatal predictors of bone mass in children who were born preterm
 Smith CM, Coombs RC, Gibson AT, Eastell R
- 17.33 **O25**, Col1A1 SP1 polymorphism predicts fracture independent of bone mass: a population based study in men and women
 McGuigan FEA, Reid DM, Ralston SH
- 17.45 **O26**, Can the dedicated forearm densitometer predict T-scores in femoral neck (FN) and lumbar spine (LS) in patients with clinical risk factors?
 Pattison D, Wood S, Young A
- 17.57 **O27**, Progesterone delays oestrogen-induced uncoupling in postmenopausal women
 Clarke S, Amer H, Robins SP, Fraser WD, Tobias JH

19.30 Reception Hiatt Baker Hall

20.00 Dinner “

21.30 Barn Dance “

Thursday, 24th June 1999

08.15 Plenary Lecture

Room 1.11

Sponsored by Eli Lilly

Chair: Richard Eastell

IS4, Recent advances in our understanding of the pathogenesis of male and postmenopausal osteoporosis

Sundeep Khosla (Mayo Clinic, Rochester, Minnesota)

09.00-13.00 CONCURRENT SESSIONS:

Clinical Session 1

Sponsored by Procter and Gamble Pharmaceuticals

Chair: Jon Tobias

09.00 Clinical Workshop 1

Room 1.11

09.00 **C01**, Oncogenic osteomalacia with sarcomatous transformation over an 11 year period
MacGowan J, Pringle J, Stamp TCB

09.10 **C02**, Severe polyostotic fibrous dysplasia complicated by hypophosphataemic rickets:
apparent failure of pamidronate therapy prior to calcitriol treatment
MacGowan JR, Ell PJ, Stamp TCB

09.20 **C03**, Acquired fanconi syndrome presenting as multiple spontaneous fractures
Price EJ, Woods D, Collins DA

09.30 Discussion led by Jeffrey O'Riordan

09.50 Clinical Workshop 2

Room 1.11

09.50 **C04**, Latent coeliac disease masquerading as osteoporosis of pregnancy
Clowes JA, Fordham JN

10.00 **C05**, A case of severe osteoporosis of pregnancy
Marshall AT, Compston JE

10.10 Discussion led by Sundeep Khosla

10.20 Coffee

Common Room and Atrium

Clinical Session 2

Sponsored by Procter and Gamble Pharmaceuticals

Chair: Cyrus Cooper

10.50 Clinical Governance Room 1.11
Dr Juliet Compston

11.20 Clinical Workshop 3 Room 1.11

11.20 **C06**, Transmission of Paget's disease to unaffected bone following femoral fracture and operative fixation

George GHM, Churchill M, Duke O, Patel S

11.30 **C07**, Osteomalacic vertebral collapse associated with three to four years continuous etidronate therapy for Paget's disease

Stamp TCB, Morris V, Horwood N, Pringle J

11.40 **C08**, Englemann's disease – an immunological disorder?

Boehmer G, Ralston SH

11.50 Discussion led by Fred Kaplan

12.10 Clinical Workshop 4 Room 1.11

12.10 **C09**, Adult Still's disease with severe bilateral hip joint destruction

Quilty BM, Hollingworth P

12.20 **C10**, Joint contracture, ligamentous laxity and constitutional short stature in a case of hypophosphatasia

Daniels ED, Miles HL

12.30 Discussion led by Roger Smith

RUNNING CONCURRENTLY

09.00 Workshop 2 Reception Room, Wills Building

W02, Marrow Stromal Cells - Concepts and Controversies

Chair: Richard Oreffo

Panellists: Paolo Bianco (Rome), Paul Simmons (Adelaide) Pamela Gehron-Robey (Bethesda)

10.15 Coffee Reception Room, Wills Building

10.30 Workshop 3 Reception Room, Wills Building

W03, Analysis of Differential Gene Expression

Chair: Judith Hoyland

Panellists: Ged Brady (Manchester), Raj Grewal (York), Teresa Garcia (Paris)

11.45 Break

12.00 Workshop 4 Reception Room, Wills Building

W04, Probing Gene Function In Vivo

Chair: Agi E Grigoriadis

Panellists: Mikka Vikkula (Brussels), Attila Aszodi (Lund)

13.00 Lunch Common Room and Atrium

14.00 Annual General Meeting Room 1.11

14.30 Poster Discussion Room 1.11

Chairs: Colin Farquharson, Trevor Stamp

P01-P15 5 minutes each - see list below

15.45 Awards Room 1.11

Presented by: Stuart Ralston

Best Oral Presentation

Best Poster Presentation

Registrar Prize for Best Case Presentation

16.00 Tea and close of meeting Common Room and Atrium

POSTER PRESENTATIONS Common Room and Atrium

Sponsored by Merck Sharp and Dohme

P01, Regulation of osteoblast and osteoclast differentiation by pasteurilla multocida toxin (PMT)
Harmey D Lax AJ Grigoriadis AE

P02, Assessment of the role of macrophage colony stimulating factor on human osteoclast development in vitro

Fujikawa Y, Itonaga I, Sabokbar NS, Torisu T, Athanasou N

P03, Overexpression of c-fos in osteoblasts results in aberrant cell cycle regulation

Sunters A, Thomas DP, Grigoriadis AE

P04, Osteoprotegerin causes osteoclasts to detach from the surface of mouse parietal bones and adhere to the adjacent periosteum

O'Brien EA, Williams JHH, Marshall MJ

- P05**, Comparison of hand bone density and finger ultrasound after distal forearm fracture
Ingle BM, Eastell R
- P06**, Alteration in maternal protein intake and skeletal development in the offspring
Roach HI, Langley-Evans SC, Aihie Sayer A, Cooper C, Clarke NMP
- P07**, Preferential role of endothelial nitric oxide synthase in oestrogen-induced osteogenesis in mice
Perry MJ, Tinston HC, Samuels A, Tobias JH
- P08**, Is increased cortical resorption depth the primary cause of hip fractures?
Bell KL, Loveridge N, Power J, Reeve J
- P09**, Identification of vertebral deformities by wedge angle, height ratios and radiology
Ferrar L, Barrington A, Eastell R
- P10**, The localisation of thyroid hormone receptor mRNAs in human bone
Abu EO, Horner A, Chatterjee VKK, Compston JE
- P11**, Physiological doses of oestrogen stimulate bone formation in female mice
Samuels A, Perry MJ, Tobias JH
- P12**, Intracapsular hip fractures and osteocyte lacunar occupancy
Power JD, Loveridge N, Bell KL, Noble BS, Reeve J
- P13**, Cells from the perichondrium of regenerating deer antlers have an extended lifespan in culture
Price JS, Conway E, Breem M, Fauchoux C
- P14**, c-fos dependent and independent AP-1 translocation induced by NMDA, AMPA and kainate glutamate receptors in bone
Taylor AF, Birch MA, Skerry TM
- P15**, Assessment of the utility of SB-10 and HOP-26 as stage-specific markers for human cells of the osteoblast lineage
Walsh SK, Jefferiss CM, Joyner C, Triffitt JT, Beresford JN
- P16**, Effect of lysophospholipid growth factors on bone cells
Withers SJ, Horton MA, Stenbeck G
- P17**, Glucocorticoid-mediated protection of human osteoblast-like cells from drug cytotoxicity
Davies JH, Evans BAJ, Jenney MEM, Gregory JW
- P18**, Characterisation of sGLAST; a gene involved in osteogenesis in bone
Huggett J, Mason D
- P19**, Measurement of pelvic periprosthetic BMD following total hip arthroplasty: analysis protocols and repeatability
Wilkinson JM, Peel NFA, Stockley I, Eastell R
- P20**, Short term variability of biochemical markers of bone turnover in clinical practice
Hart S, Bainbridge P, Hannon R, Catch I, Price A, Gray T, Peel N, Eastell R
- P21**, Alteration of 14-3-3 levels in fetal bone in skeletal dysplasia and intra-uterine growth retardation
Byers RJ, Le Maitre C, Moore L, Hoyland JA
- P22**, Duration of bone loss from the spine and hip after cardiac transplantation
Johnson A, Locke TJ, Peel NFA, Eastell R
- P23**, Upregulation of mevalonate genes in Paget's disease
Dixon JA, Mee AP, Selby PL, Mawer EB, Hoyland JA
- P24**, The effect of 17β oestradiol in vitro on cytokines measured in peripheral whole blood cultures
Rogers A, Eastell R
- P25**, Rapid measurement of relative alkaline phosphatase activity in 96 well plates without solubilisation of the enzyme
Harbour ME, Davies JH, Gregory JW, Evans BAJ
- P26**, Differential gene expression in early stages of osteoarthritis in vivo

Gilbert SJ, Duance VC, Mason DJ

P27, Identification and functional analysis of genes involved in the osteogenic differentiation of pericytes

Canfield AE, Wood AC, Doherty MJ, Grant ME, Boot-Handford RP

P28, Modifications of algorithms for quantitative identification of vertebral deformities

Jiang G, Barrington NA, Eastell R

P29, Predictors of bone mass in 11-12 year old girls

Lambert H, Barker ME, Eastell R

P30, The expression of the growth-arrest-specific gene GAS7 is down-regulated during chondrocyte hypertrophy

Houston B, Lester D, Seawright E, Jefferies D, Farquharson C

P31, Characterisation of conditionally immortalised cell lines derived from adult human bone marrow

Walsh S, Stewart K, Jefferiss C, Kuznetsov S, Robey P, Gehron, Beresford JN

P32, ORX in adult rats increased CFU-F number and induced B lymphopoiesis

Dobson KR, Scutt AM

P33, Effects of smoking on fracture repair: a study of the possible direct effects on bone cell activity

Walker LM, Thomas PBM, Magnay JL, El Haj AJ

P34, Peripheral densitometry: comparison of Lunar PIXI and Lunar Achilles+

Stewart A, Calder LD, Reid DM

P35, The localisation of peroxisome proliferator-activated receptor gamma in human bone

Abu EO, Horner A, Triffitt JT, Compston JE, Fraser WD

P36, Human articular chondrocytes are stro1 positive in vitro and in situ

Gargiulo B, Turner SL, Harrison PE, Ashton BA

P37, Bone mineral density and depression

Dennison E, Rodin I, Wheeler T, Thompson C, Cooper C

P38, Measurement of type I collagen and TGF β 1 in human bone before and after liver transplantation

Beeton C, Horner A, Bord S, Beavan S, Compston J

P39, Coexpression of sonic and indian hedgehog in growth plate chondrocytes

Jefferies D, Houston B, Seawright E, Farquharson C

P40, Expression of voltage operation calcium channels in the mouse osteocyte cell line MLO-Y4

Gu Y, Preston MR, Publicover SJ, El Haj AJ

P41, Short-term precision of the UBIS 5000 quantitative ultrasound calcaneal imaging device

Crabtree N, Boivin CM

P42, Changes in gene expression in mouse long bones following oestrogen administration

Plant A, Tobias JH

P43, Effect of age on bone mineral density (BMD) in men and women

Henry Y, Fatayerji D, Eastell R

P44, Cloning of the cell surface glycoproteins HT7 and B-cadherin from growth plate chondrocytes by agarose gel differential display

Jefferies D, Houston B, Seawright E, Farquharson C

P45, The osmotic role of betaine and potassium during cell expansion in growth cartilage

Lee RB, Urban JPG

P46, Acid activation of osteoclasts derived from human osteoclastoma

Hoebertz A, Nesbitt SA, Horton MA, Arnett TR

P47, Changes in bone mass and turnover in peri and recent post-menopausal women: early findings

Macdonald HM, New SA, Robins SP, Golden MHN, Grubb D, Reid DM

- P48**, Regulation of macrophage colony-stimulating factor (M-CSF) by oestrogen (17β -E₂) – A direct or indirect mechanism?
Lee JJ, Ebrahim H, Sarma U, Berg LP, Flanagan AM
- P49**, The use of “feeder suspensions” in the analysis and enrichment of fibroblastic-colony forming units
Sherwood K, Scutt A
- P50**, Interaction between substrates and mechanical loading of human bone cells, responses, in vitro
Peake MA, Cooling LM, Magnay JL, El Haj AJ
- P51**, Characterisation of genes down-regulated during the deposition of a mineralised matrix by pericytes in vitro
Harvey B, Wood AC, Boot-Handford RP, Canfield A
- P52**, Response of bone turnover markers to bisphosphonate treatment in Paget’s disease
Gill KA, Naylor KE, Ellison JV, Bainbridge PR, Eastell R
- P53**, Thyroxine stimulated long bone growth in vitro
Bowden WG, Urban JP
- P54**, Does the FAS (APO-1) system mediate the death of osteocytes?
Noble BS, Lignell T, Stevens HY, Reeve J
- P55**, Cytokine profiling in the rat streptococcal cell wall-induced arthritis model
Wicks S, Barham S, Bottoms S, Hardman T, Maitland P, Redford J, Foster M
- P56**, Regulation of activin subunit expression during murine osteoblastogenesis
Coker JK, Gaddy-Kurten D
- P57**, Isolation of a gene that is expressed in bone marrow and not in fetal liver hemopoietic precursors
Bashein A, Brady G
- P58**, Ultrasound measurements at the radius predict wrist fractures in postmenopausal women
Knapp KM, Blake GM, Fogelman I, Spector TD
- P59**, Mouse models for skeletal defects
Boyd Y, Reed V
- P60**, Postmenopausal bone loss has only a modest genetic influence: a longitudinal study of female twins
Keen RW, Baker JR, Baan K, Spector TD
- P61**, Evidence of association and linkage disequilibrium between a novel TGF- β 1 gene polymorphism and hip BMD in female twins
Keen RW, Snieder H, Davies H, Chiano M, MacGregor AJ, Spector TD