Abstracts from the 50th Anniversary Meeting of the Bone and Tooth Society

10-12 July 2000

Churchill College,
Cambridge, UK

Local Organiser

Dr Juliet Compston
Cambridge University School of Medicine
Bone and Tooth Society

The Society is the oldest and largest scientific society in Europe that is dedicated to further research into clinical and basic science problems related to mineralised tissues. The meeting attracts a wide audience from throughout the UK and, increasingly, from continental Europe and further afield. The presentations are traditionally a balance between clinical and laboratory-based studies. The participation of young scientists and clinicians is actively encouraged.

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Web Site
www.batsoc.org.uk
Annual Meeting 2000

Venue
The meeting will take place at Churchill College, Storey’s Road, Cambridge.

The Society gratefully acknowledges the support of the following:

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**CME**

The meeting is approved for 18.5 CME credits for full attendance.

**Meeting Organiser**

For further information please contact our Meeting Organiser:
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**Future Bone and Tooth Society Meetings**

3-5 July 2001, York, UK
Local Organiser: Professor Tim Skerry
PROGRAMME

Bone and Tooth Society Meeting
10th - 12th July 2000
Churchill College, Cambridge

Monday, 10th July, 2000

10.30 Registration & Coffee

11.30 Oral Session 1: Osteoclasts
   Chair: Adrienne Flanagan

11.30 O01, Nucleotide effects on human osteoclast formation and transcription factor activation
   Buckley KA, Hipskind RA, Gaw A, Gallagher JA, Bowler WB
11.42 O02, On the mechanism of osteoclastic bone resorption
   Stenbeck G, Horton M
11.54 O03, Increased osteoclast sensitivity associated with osteoporosis
12.06 O04, PTH-inhibition of rank ligand-induced osteoclast formation from human peripheral blood
   Buckley KA, Gaw A, Gallagher JA, Bowler WB
12.18 O05, Transforming growth factor-β promotes osteoclast induction by tumour necrosis factor-α
   Fox SW, Fuller K, Bayley KE, Chambers TJ

12.30 Clinical Case Presentations
   Chair: Michael Parfitt and Trevor Stamp

   CC1, A case of mastocytosis?
   Peel N, Hughes D, Bainbridge P, Clowes J, Eastell R
   CC2, A spontaneous case of osteoporosis
   O’Gradaigh D, Compston J
   CC3, Metabolic bone disease in a patient with ankylosing spondylitis
   Haq I, Sturge RAS, Pringle J, Keen RW
   CC4, A case of cherubism
   Flanagan AM, Mangion J, Townend JV, Stratton MR

13.30 Lunch

14.30 Jack Martin (Melbourne)
   Osteoclast formation in bone diseases of cancer and inflammation
   Chair: Iain MacIntyre

15.30 Poster viewing and Tea (Posters P21 - P40)

16.30 Workshop: Mini-symposium: Bone as an Organ
Jack Martin, Alan Boyde, Erik Eriksen, John Currey
17.30 **Oral Session 2: Clinical**  
   Chair: Peter Selby

17.30 O06, Coxarthrosis: Protection against hip fracture is associated with decreased lacunar density and increased cancellous bone mass  
   Jordan GR, Loveridge N, Rushton N, Bell KL, Power J, Reeve J  
17.42 O07, Time course for the attainment of peak bone mineral density (PBMD)  
   Henry YM, Fatayerji D, Eastell R  
17.54 O08, Reduction in bone mineral density following burn injury is due to a fall in bone mineral content  
   Klein GL, Nusynowitz ML, Herndon DN  
18.06 O09, Increased paternal age and occurrence of sporadic osteogenesis imperfecta  
   Blumsohn A, McAllion SJ, Paterson CR  
18.18 O10, Osteoclast differentiation in Paget's disease is hypersensitive to RANKL  
   Neale SD, Pocock A, Smith R, Wass JAH, Athanasou NA

19.00 **Reception**

19.30 **Gala Dinner**

21.00 **Disco**

**Tuesday, 11th July, 2000**

08.00 **Oral Session 3: Bisphosphonates, Oestrogen**  
   Chair: Stuart Ralston

08.00 O11, Bisphosphonates inhibit glucocorticoid but not oxidant-induced apoptosis in osteocytes  
   Stevens HY, Rogers MJ, Wheeler-Jones CP, Lanyon LE, Noble BS  
08.12 O12, Farnesyl diphosphate synthase is the target of nitrogen-containing bisphosphonates: Evidence from structure-activity relationships  
   Dunford JE, Coxon FP, Thompson K, Hahn FM, Poulter CD, Rogers MJ  
08.24 O13, Myeloma cells isolated from patients with multiple myeloma express osteoprotegerin ligand  
   Shipman CM, Holen I, Lippitt JM, Edwards T, Croucher PI  
08.36 O14, PTH Blocks oestrogen's inhibitory action of periosteal bone formation  
   Samuels A, Perry MJ, Gibson RL, Tobias JH  
08.48 O15, Oestrogen receptor beta in vivo in osteoclasts and other bone cells of adult men and women  
   Hainey L, Batra G, Selby PL, Saunders P, Hoyland JA, Braidman IP

09.00 **Michael Parfitt (Little Rock)**  
   Pathogenesis of parathyroid adenoma: The set point hypothesis revisited  
   Chair: Jeffrey O'Riordan

10.00 **Poster viewing and Coffee (Posters P41 - P60)**
11.00 Workshop: Osteoclasts
Greg Mundy, Adrienne Flanagan, Nick Athanasou, Tim Chambers
12.00 Clinical governance
Guidelines for the management of:
Primary Hyperparathyroidism
Osteoporosis
Management of Paget's Disease
Hypercalcaemia of Malignancy

13.00 Lunch and afternoon social event
(Newmarket races/punting/free time)

18.30 Buffet supper

20.00 Poster Discussion
Chair: Agi Grigoriadis and Richard Eastell

20.00 P01, 200IU salmon calcitonin nasal spray prevents vertebral fractures and is well tolerated in women with established post-menopausal osteoporosis: Final 5-year results of the PROOF study
Moniz C, Doyle D, Chestnut C

20.06 P02, Characterisation of early and late osteoblast gene expression during in vivo bone formation
Plant A, Perry MJ, Tobias JH

20.12 P03, Extracellular ADP is a powerful activator of rat osteoclasts
Hoeberitz A, Burnstock G, Arnett TR

20.18 P04, Localization of PTHrP in regenerating deer antlers
Nicholls BM, Faucheux C, Danks J, Price JS

20.24 P05, Human myeloma cells shed Syndecan-1 in vitro: Evidence for mediation by a non-matrix metalloproteinase
Holen I, Dury NL, Hargreaves PG, Croucher PI

20.30 P06, Gonadal steroid receptor expression in human fracture callus

20.36 P07, Modulation of cell cycle protein expression by c-Fos during differentiation of chondrocytes
Gentry A, Thomas DP, Sunters A, Grigoriadis AE

20.42 P08, Lack of effect of intravenous pamidronate on bone mineral density and fracture incidence after liver transplantation
Ninkovic M, Love S, Tom B, Bearcroft P, Compston JE, Alexander GJM

20.48 P09, The effect of corticosteroids on human osteoclast formation and activity
Hirayama T, Athanasou NA, Sabokbar A

20.54 P10, Effect of phosphodiesterase inhibitors on fibroblastic colony formation in vitro
Scutt A, Still K, Reading L, Fittschen C
Wednesday, 12th July, 2000

08.00 Oral Session 4: Osteoblasts, Chondrocytes
Chair: Colin Farquharson

08.00 O16, FGF2 induces rat osteoblast attachment, proliferation and cranial suture fusion
Moursi AM, Winnard PL, Rubenstrunk J

08.12 O17, An intracellular form of osteopontin associated with CD44 and involved in cell migration

08.24 O18, The role of fibroblast growth factor (FGF) signalling in c-Fos-induced inhibition of chondrocyte differentiation
Thomas DP, Sunters A, Grigoriadis AE

08.36 O19, Local metabolism of glucocorticoids promotes selective regulation of osteoblast proliferation and differentiation
Rabbitt EH, Eyre LJ, Hughes SV, Cooper MS, Stewart PM, Hewison M

08.48 O20, The effects of overexpressing the osteoblast-stimulating factor Osf-1
Roach HI, Tare RS, Hashimoto-Gotoh T, Oreffo ROC, Clarke NMP

09.00 Greg Mundy (San Antonio)
In search of an anabolic agent
Chair: Juliet Compston

10.00 Poster viewing and Coffee (Posters P61 - P80)

11.00 Poster Discussion
Chair: Jon Tobias and David Hosking

11.00 P11, Inhibition of osteoclast differentiation in rheumatoid arthritis by IL-1β and TNFα
Danks L, Gundle R, Athanasou NA

11.06 P12, Pro-inflammatory cytokines stimulate glucocorticoid production in human osteoblasts
Cooper MS, Poyser L, Sheppard MC, Stewart PM, Hewison M

11.12 P13, Evidence for a novel signalling interaction between the G-protein coupled P2Y and PTH receptors in UMR-106 cells
Buckley KA, McKay G, Wagstaff SC, Gaw A, Gallagher JA, Bowler WB

11.18 P14, Vascular invasion into non-calcified, non-hypertrophic epiphyseal cartilage
Roach HI, Oreffo ROC, Clarke NMP

11.24 P15, Oestrogen-induced osteogenesis in vivo is associated with an increase in BMP-6 expression
Plant A, Tobias JH

11.30 P16, Clodronate is metabolised by osteoclasts and macrophages in vivo
Frith JC, Monkkonen J, Auriola S, Monkkonen H, Ralston SH, Rogers MJ

11.36 P17, Localised impairment of bone formation in osteoporotic hip fracture
Bell KL, Loveridge N, Power J, Reeve J

11.42 P18, Differential regulation of 25-hydroxyvitamin D3-1α-hydroxylase activity in human proximal tubule and cortical collecting duct cell lines
Bland R, Zehnder D, Hughes SV, Ronco PM, Stewart PM, Hewison M
11.48 P19, Differential expression of glucocorticoid receptor isoforms in human bone
   Beavan S, Bord S, Horner A, Compston J

11.54 P20, Oestrogen receptors (ER)α and β demonstrate differential expression in growing human bone
   Bord S, Horner A, Compston JE

12.00 Barbara Mawer (Manchester)
   50 years of vitamin D - from rickets to the gene
   Chair: Graham Russell

13.00 Lunch

14.00 Oral Session 5: Miscellaneous
   Chair: Tim Skerry

14.00 O21, Three-dimensional imaging of bone-resorbing osteoclasts: Spatial analysis of matrix collagens, cathepsin K, MMP-9 and TRAP by confocal microscopy
   Nesbitt SA, Charras GT, Lehenkari PP, Horton MA

14.12 O22, Increased bone mass in mice lacking the receptor for thrombopoietin
   Perry MJ, Samuels A, Evans C, Tobias JH

14.24 O23, Undermineralisation and reduced bone strength in growth hormone (GH) deficient transgenic (Tgr) rats
   Warner JT, Wells T, Elford C, Evans BAJ, Evans SL, Gregory JW

14.36 O24, Osteocyte density is higher in osteonal bone surrounding remodelling vs quiescent canals in the human femoral neck
   Power J, Loveridge N, Rushton N, Reeve J

14.48 O25, Effects of motion and the COX-2 inhibitor (Meloxicam) on fracture healing process
   Connolly CK, Dickson GR, Li G, Marsh DR

15.00 Bone and Tooth Society AGM

15.45 Tea

16.00 Prize giving
   Young Investigator Awards
   Registrar Prize
   Best Oral Presentation
   Best Poster Presentation

16.15 Close of meeting