

ANZBMS 2007 Annual Scientific Meeting
9-12 September 2007, Queenstown, New Zealand

SCIENTIFIC PROGRAM

SUNDAY 9 SEPTEMBER 2007

13:00	Registration opens	5th Floor
18:00 – 20:00	Welcome Cocktail Party	Queenstown Room

MONDAY 10 SEPTEMBER 2007**07:00 PARALLEL SESSION**

07:00	MEET THE PROFESSOR 1 Best practice for mouse skeletal analysis Natalie Sims Cost: A\$30, includes breakfast and discussion	Inigo Room
07:00	MEET THE PROFESSOR 2 Management and diagnosis of osteoporosis Peter Ebeling Cost: A\$30, includes breakfast and discussion	Clancy's Room

08:30	OPENING AND WELCOME Jill Cornish , President ANZBMS	Coronet Room
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8:35 SESSION 1
G-protein coupled receptors in bone
Chairs: Rachel Davey, David Findlay

08:35	IS1	Catabolic and anabolic actions of PTH <u>Martin, T.J.</u> (Australia)
09:00	IS2	Calcitonin: essential hormone or vestigial peptide <u>Zajac, J.D.</u> and Davey, R. (Australia)
09:25	IS3	The role of receptor activity-modifying proteins in receptor modulation <u>Naot, D.</u> (New Zealand)
09:50	ORI	The calcitonin receptor plays a physiological role in maintaining trabecular bone volume in young female and adult male mice <u>Chiu, W.S.M.</u> , Turner, A.G., Tjahjono, F., Moore, A.J., Ma, C., Anderson, P.H., McManus, J.F., Morris, H.A., Findlay, D.M., Zajac, J.D. and Davey, R.A. (Australia)

10:02 – 10:30	Refreshment Break	5th Floor
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10:30	SESSION 2 Absolute Risks <i>Chairs: Emma Duncan, John Wark</i>	Coronet Room
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10:30	IS4	Risk of fracture and treatment of osteoporosis <u>Cummings, S.R.</u> (USA)
11:10	IS5	Toward the individualisation of fracture risk <u>Nguyen, T.V.</u> (Australia)
11:36	OR2	Can bone density assessed by DXA at age 8 predict fracture risk in males and females during puberty? <u>Flynn, J.</u> , Foley, S. and Jones, G. (Australia)
11:48	OR3	Endogenous sex hormones and incident fracture risk in older men: The Dubbo Osteoporosis Epidemiology Study (DOES) Meier, C., Nguyen, T.V., Handelsman, D.J., Schindler, C., Kushnir, M.M., Rockwood, A.L., Meikle, A.W., Center, J.R., Eisman, J.A. and <u>Seibel, M.J.</u> (Switzerland, Australia and USA)

12:00 – 13:00	Lunch	5th Floor
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12:00	SERVIER SYMPOSIUM	Remarkables Room
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MONDAY 10 SEPTEMBER (CONTINUED)

13:00		SESSION 3	Coronet Room
		Calcium	
		<i>Chairs: Rory Clifton-Bligh, Kathy Briffa</i>	
13:00	IS6	Why should we think about calcium? <u>Nordin, B.E.C.</u> (Australia)	
13:28	IS7	Calcium and vitamin D for whom, when and why <u>Prince, R.L.</u> (Australia)	
13:56	IS8	Bone and non-bone effects of calcium <u>Reid, I.R.</u> (New Zealand)	
14:24	OR4	Bone turnover is higher and bone density lower in adolescents with subclinical vitamin D deficiency <u>Winzenberg, T.</u> , Hynes, K., Powell, S. and Jones, G. (Australia)	
14:36	OR5	Low vitamin D status increases osteoclastogenesis and bone loss in the rat <u>O'Loughlin, P.D.</u> , Anderson, P.H., Sawyer, R.K., Moore, A.J., Muliabrahimovic, A., May, B.K. and Morris, H.A. (Australia)	
14:48	OR6	Accelerated bone resorption, due to dietary calcium deficiency, promotes tumour growth in a murine model of breast cancer bone metastasis Zheng, Y., Zhou, H., Modzelewski, J.R.K., Kalak, R., Blair, J.M., Seibel, M.J. and <u>Dunstan, C.R.</u> (Australia)	
15:00 – 15:30		Refreshments	5th Floor
15:30		POSTER SESSION	Clancy's Room & 5th Floor
17:30-18:30		SANOFI-AVENTIS SYMPOSIUM	Remarkables Room
19:00		Student's BBQ	Peppers Hotel

TUESDAY 11 SEPTEMBER 2007

07:00		WOMEN'S BREAKFAST	Inigo Room
		An event to help establish mentoring and networking opportunities for women in the ANZBMS with respect to career advancement, academic promotion and combining careers with family. Hosted by Nicky Partridge Cost: A\$30, includes breakfast and discussion	
07:00		MEET THE PROFESSOR 3	Clancy's Room
		RANKL – lessons from the lab, mice and man Colin Dunstan Cost: A\$30, includes breakfast and discussion	
08:30		SESSION 4	Coronet Room
		Arthritis and Gout <i>Chairs: Nicole Walsh, Nick Fazzalari</i>	
08:30	IS9	Mechanisms of bone erosion in chronic tophaceous gout <u>Dalbeth, N.</u> , Smith, T., Gregory, K., Clark, B., Callon, K., McQueen, F.M., Reid, I. and Cornish, J. (New Zealand)	
08:55	IS10	The role of bone in osteoarthritis <u>Jones, G.</u> (Australia)	
09:20	IS11	Insights on arthritis from animal models <u>Little, C.</u> (Australia)	
09:48	OR7	Osteoclastogenesis inhibitors modulate experimental osteoarthritis Sims, N.A., MacGregor, N., Poulton, I., Gillespie, M.T. and <u>Romas, E.</u> (Australia)	
10:00 – 10:30		Refreshment Break	5th Floor
10:30 – 12:32		PARALLEL ORAL PRESENTATIONS	
10:30		SESSION 5A	Coronet Room
		Clinical Presentations <i>Chairs: Ailsa Goulding, Peter Nash</i>	
10:30	OR8	Sexual dimorphism in radial and longitudinal bone growth differ by tempo and magnitude: a study in male-female co-twins pairs <u>Iuliano-Burns, S.</u> , Hopper, J., Zebaze, R. and Seeman, E. (Australia)	
10:42	OR9	Bone mass tracks strongly from childhood to adolescence <u>Foley, S.</u> and Jones, G. (Australia)	
10:54	OR10	Clinical nomogram for individualizing 5-year and 10-year risk of fracture <u>Nguyen, N.D.</u> , Frost, S.A., Center, J.R., Eisman, J.A. and Nguyen, T.V. (Australia)	
11:06	OR11	Bone varies its spatial distribution rather than its mass to optimise strength and minimize bulk <u>Zebaze, R.</u> , Jones, A., Wang, Q., Bohte, A., Knackstedt, M. and Seeman, E. (Australia)	
11:18	OR12	Hypovitaminosis D and parathyroid hormone response in the elderly: effects on bone turnover and mortality <u>Sambrook, P.N.</u> , Chen, J.S., March, L., Cameron, I.D., Cumming, R.G., Simpson, J.M. and Seibel, M.J. (Australia)	
11:30	OR13	The effect of a one-year randomised resistance exercise and walking intervention on the prevention of bone loss in older men <u>Whiteford, J.</u> , Kerr, D., Dhaliwal, S.S., Ackland, T., James, T., Woodhouse, J., Price, R. and Prince, R. (Australia)	
11:42	OR14	Depression and falls: Geelong Osteoporosis Study <u>Williams, L.J.</u> , Henry, M.J., Jacka, F.N., Berk, M., Dodd, S., Kotowicz, M.A., Nicholson, G.C. and Pasco, J.A. (Australia)	

TUESDAY 11 SEPTEMBER (CONTINUED)

11:54	OR15	Hypercalcaemia and undetectable serum PTH: a case of primary hyperparathyroidism due to secretion of a mutant PTH <u>Clifton-Bligh, R.</u> , Au, A., McDonald, K., Gill, A., Wilkinson, M., Mun, R., Conigrave, A., Diamond, T. and Sywak, M. (Australia)	
12:06	OR16	A phase I genomewide association study in osteoporosis Sims, A.-M., <u>Duncan, E.L.</u> , Dowling, A., Doan, T., Evans, D., Eisman, J., Jones, G., Nicholson, G., Prince, R., Seeman, E., Wass, J.A. and Brown, M.A. (Australia and UK)	
12:18	OR17	RANKL/RANK/OPG in breast cancer metastasis to bone <u>Mackie, K.</u> , Robbins, P., Saunders, C., Wood, D.J., Pavlos, N.J., Xu, J. and Zheng, M.-H. (Australia)	
10:30		SESSION 5B Basic Presentations <i>Chairs: Nicky Partridge, Colin Dunstan</i>	Remarkables Room
10:30	OR18	Imatinib mesylate inhibits bone formation and decreases bone mass <i>in vivo</i> by inhibiting PDGFR-mediated osteoblast mitogenesis O'Sullivan, S., Naot, D., Callon, K., Watson, M., Gamble, G., Karsdal, M.A., Ladefoged, M., Cornish, J., Browett, P. and <u>Grey, A.</u> (New Zealand and Denmark)	
10:42	OR19	Androgens act directly via the androgen receptor in mineralising osteoblasts to maintain trabecular bone in male mice by regulating bone turnover <u>Davey, R.A.</u> , Chiu, W.S.M., Chiang, C., Moore, A.J., Doust, E.A., Ma, C., Clemens, T.L, Morris, H.A. and Zajac, J.D. (Australia and USA)	
10:54	OR20	Oncostatin m is an essential stimulus of bone formation and osteoclastogenesis <u>Sims, N.A.</u> , Walker, E.C., McGregor, N.E., Poulton, I.J., Gillespie, M.T. and Martin, T.J. (Australia)	
11:06	OR21	Neuropeptide Y protects the skeleton from bone loss induced by stress <u>Baldock, P.A.</u> , Allison, S.A., Karl, T., Lin, D., Pierroz, D., Sainsbury, A., Enriquez, R.F., Ferrari, S., Herzog, H. and Eisman, J.A. (Australia and Switzerland)	
11:18	OR22	Osteoclast formation and osteolysis are promoted by the AMP-activated protein kinase (AMPK) activator aminoimidazole-4-carboxamide ribonucleoside (AICAR) <i>in vivo</i> <u>Quinn, J.M.W.</u> , Tam, S., Sims, N.A., Saleh, H., McGregor, N.E., Poulton, I.J., Kemp, B.E., Gillespie, M.T. and van Denderen, B.J.W. (Australia)	
11:30	OR23	Adiponectin knock-out mice have increased trabecular number and bone volume at 14 weeks of age <u>Williams, G.A.</u> , Callon, K.E., Watson, M., Naot, D., Wang, Y., Xu, A., Reid, I.R. and Cornish, J. (New Zealand and Hong Kong PR China)	
11:54	OR24	Adverse effects of valproate on bone: defining a model to investigate the pathophysiology Senn, S.M., <u>Kantor, S.</u> , Andrikopoulos, S., Poulton, I.J., Sims, N.A., O'Brien, T.J., Morris, M.J. and Wark, J.D. (Australia)	
11:56	OR25	RUNX2 trinucleotide repeat mutations are associated with decreased bone density and altered protein function <u>Stephens, A.</u> , Doecke, J., Ralston, S., Prince, R., Nicholson, G., Sambrook, P., Osato, M. and Morrison, N. (Australia, UK and Singapore)	
12:08	OR26	TWEAK inhibits human osteoblast differentiation and modulates the activity of TNF- α on osteoblast behaviour, in part through mitogen activated kinase (MAPK) induction of sclerostin expression <u>Vincent, C.</u> , Findlay, D.M., Welldon, K.J., Zheng, T.S., Evdokiou, A. and Atkins, G.J. (Australia and USA)	
12:20	OR27	Potential role of Rab3D-calmodulin interaction in osteoclastic bone resorption <u>Xu, J.P.</u> , Nathan, J., Cheng, T., Ang, E. and Zheng M.H. (Australia)	
12:32 – 13:30	Lunch		5th Floor
12:32-13:30	MERCK SYMPOSIUM		Remarkables Room

TUESDAY 11 SEPTEMBER (CONTINUED)

13:30		SESSION 6	Coronet Room
		Cell attachment	
		<i>Chairs: Gethin Thomas, Rebecca Mason</i>	
13:30	IS12	Role of α v β 3 integrin in osteoclast function: from attachment assays to clinical trials <u>Rodan, S.B.</u> (USA)	
14:10	IS13	The effect of surface chemistry modification of implants <u>Zreiqat, H.</u> (Australia)	
14:36	OR28	Prediction of vertebral body bone strength: the contribution of individual trabecular elements <u>Parkinson, I., Badiei, A., Stauber, M., Müller, R. and Fazzalari, N.</u> (Australia and Switzerland)	
14:48	OR29	Osteoblast-targeted disruption of glucocorticoid signalling delays intra-membranous bone development <i>in vivo</i> <u>Zhou, H., Mak, W., Zheng, Y., Dunstan, C.R. and Seibel, M.J.</u> (Australia)	
15:00 – 15:30		Refreshment Break	5th Floor
15:30		SESSION 7	Coronet Room
		Effects of Treatment	
		<i>Chairs: Kerrie Sanders, Chris Nordin</i>	
15:30	IS14	Telling the effects of treatments: randomized trials vs observational studies <u>Cummings, S.R.</u> (USA)	
16:00	IS15	Falls prevention-risk factors and RCTs <u>Cumming, R.G.</u> (Australia)	
16:24	IS16	Effectiveness of fracture prevention <u>Sanders, K.M.</u> (Australia)	
16:48	OR30	A RCT of the effects of vitamin D and calcium on bone structure and muscle strength in older women with vitamin D insufficiency <u>Prince, R.L., Zhu, K., Austin, N., Devine, A., Dick, I.M., Ebeling, P. and Bruce, D.</u> (Australia)	
17:00		ANZBMS AGM	Coronet Room
19:30 – 23:00		Conference Dinner	Ben Lomond Restaurant – 6th Floor

WEDNESDAY 12 SEPTEMBER 2007

07:00	Fun Run/Walk	Lake Wakatipu Pathway (opposite Rydges)
09:00	SESSION 8	Coronet Room
	New Targets	
	<i>Chairs: Nicola Dalbeth, Mark Kotowicz</i>	
09:00	IS17	Cathepsin K, a new molecular target for treatment of osteoporosis <u>Rodan, S.B.</u> (USA)
09:24	IS18	Protease-activated receptors and thrombin Pagel, C.N., Sivagurunathan, S., Loh, L.-H., Tudor, E.M., Pike, R.N. and <u>Mackie, E.J.</u> (Australia)
09:48	OR31	Osteal macrophages: novel regulators of bone formation <u>Raggatt, L.J.</u> , Chang, M.K., Alexander, K.A., Kuliwaba, J.S., Fazzalari, N.L., Hume, D.A. and Pettit, A.R. (Australia)
10:00 – 10:30	Refreshments	5th Floor
10:30	New Targets (continued)	Coronet Room
10:30	IS19	PPAR gamma – an osteoblast and adipocyte switch <u>Nicholson, G.C.</u> (Australia)
10:55	IS20	The skeletal effects of thiazolidinediones in humans <u>Grey, A.</u> (New Zealand)
11:20	SESSION 9	Coronet Room
	Cellular commitment and communication	
	<i>Chairs: Edith Gardiner, Nathan Pavlos</i>	
11:20	IS21	Multipotential mesenchymal stem/ precursor cells <u>Gronthos, S.</u> and Zannettino, A.C.W. (Australia)
11:45	IS22	Chemokines and cytokines involved in PTH's actions <u>Partridge, N.C.</u> , Qin, L., Raggatt, L.J., and Li, X. (USA)
12:10	IS23	Osteocytes and bone health <u>Findlay, D.M.</u> and Atkins, G.J. (Australia)
12:35	IS24	Osteoclast – osteoblast communication <u>Quinn, J.</u> (Australia)
13:00 – 14:00	Boxed Lunch	5th Floor
14:00	Close of Meeting	

POSTERS

MINERAL REGULATING HORMONES

- P01** OPG and a variant of OPG, EGX-010, prevent bone loss in the ovariectomised rat model
Anderson, P., Sawyer, R., Moore, A., Roberts, A., Sleigh, M. and Morris, H. (Australia)
- P02** 14-3-3 protein isoforms interact differentially with the calcium-sensing receptor intracellular tail
Arulpragasam, A., Ward, B.K., Magno, A.L., Ingley, E., Conigrave, A.D. and Ratajczak, T. (Australia)
- P03** Serum testosterone in elderly men measured by liquid chromatography-tandem mass spectrometry and radioimmunoassay: concordance and effect on epidemiologic association
Nguyen, T.V., Meier, C., Handelsman, D.J., Kushnir, M.M., Rockwood, A.L., Meikle, A.W., Center, J.R., Eisman, J.A. and Seibel, M.J. (Australia, Switzerland and USA)
- P04** The vitamin K homologue menatetrenone (K2) provides the optimal conditions for the differentiation of primary human osteoblasts into osteocyte-like cells
Welldon, K.J., Findlay, D.M., Vincent, C. and Atkins, G.J. (Australia)
- P05** Evidence that human cartilage and chondrocyte do not express calcitonin receptor
Lin, Z., Pavlos, N.J., Cake, M.A., Wood, D.J., Xu, J. and Zheng, M.H. (Australia)

MECHANISMS OF ACTION

- P06** Characterisation of RANKL gene regulation in human T cells
Alexander, K.A., Walsh, N.C., Gravallesse, E.M., Manning, C., Raggatt, L.J. and Pettit, A.R. (Australia and USA)
- P07** Progressive recruitment of amino acids with successively larger side-chains contribute to the calcium-sensing receptor's extreme sensitivity to Ca²⁺
Brennan, S.C., Mun, H.-C. and Conigrave, A.D. (Australia)
- P08** Bone turnover and loss is significantly associated with inflammatory biomarkers in older adults: a longitudinal study
Ding, C., Parameswaran, V., Udayan, R., Burgess, J. and Jones, G. (Australia)
- P09** Saturated fatty acids inhibit osteoclastogenesis
Lin, J.M., MacGibbon, A., Watson, M., Callon, K.E., Reid, I.R. and Cornish, J. (New Zealand)
- P10** Cxcl1 is a target of PTH/PTHrP in committed osteoblasts
Onan, D., Allan, E., Quinn, J., Gillespie, M.T. and Martin, T.J. (Australia)
- P11** Glucocorticoids stimulate Wnt expression in mature osteoblasts
Mak, W., Zhou, H., Dunstan, C.R. and Seibel, M. J. (Australia)
- P12** Transgenic disruption of glucocorticoid signalling in mature osteoblasts attenuates KRN serum-induced arthritis *in vivo*
Zhou, H., Buttgereit, F., Gaber, T., Kalak, R., Dragovic, R., Huscher, D., Straub, R.H., Modzelewski, J., Dunstan, C.R. and Seibel, M.J. (Australia and Germany)

CELL BIOLOGY

- P13** Potential involvement of ephrinb2 in the anabolic action of PTH in osteoblasts
Allan, E.H., Häusler, K.D., Wei, T., Gooi, J.H., Quinn, J.M.W., Onyia, J.E., Sims, N.A., Gillespie, M.T. and Martin, T.J. (Australia and USA)
- P14** Strontium ranelate promotes osteoblast differentiation resulting in an enhanced osteocyte-like phenotype in mineralised cultures of human primary osteoblasts
Atkins, G.J., Welldon, K.J. and Findlay, D.M. (Australia)
- P15** Effects of a phosphodiesterase 4 (PDE4) inhibitor on bone mass: mechanism of action in human osteoblasts
Brennan, T.C., Rybchyn, M.S., Seale J.P. and Mason, R.S. (Australia)
- P16** Macrophages persist within primary osteoblast cultures and enhance osteoblast mineralisation
Chang, M.K., Pettit, A.R., Schroder, K., Ripoll, V.M., Alexander, K.A., Hume, D.A. and Raggatt, L.J. (Australia)
- P17** G-CSF enhances osteoclast differentiation and function
Granfar, R.M.S., Day, C.J. and Morrison, N.A. (Australia)

POSTERS (CONTINUED)

- P18** The osteogenic sensitivity of skeletal myoblasts corresponds to an increased expression of bone morphogenetic protein receptors
Liu, R., Schindeler, A., Mikulec, K., Morse, A. and Little, D.G. (Australia)
- P19** Abnormal chondrocyte and osteoclast morphology in mice with collagenase-resistant type II collagen
Tatarczuch, L., Gauci, S.J., Fosang, A.J. and Mackie, E.J. (Australia)
- P20** CRELD2: a potentially novel thrombin-interacting protein and its expression by osteoblasts
Pagel, C.N., Quinsey, N., Pike, R.N. and Mackie, E.J. (Australia)
- P21** Rab3D recruits the dynein complex to secretory vesicles in osteoclasts through direct interaction with Tctex-1
Pavlos, N.J., Xu, J., Carrello, A., Jahn, R. and Zheng, M.H. (Australia and Germany)
- P22** IL-33 inhibits osteoclast formation indirectly through osteoblastic cells
Saleh, H., Quinn, J.M.W., Martin, T.J. and Gillespie, M.T. (Australia)
- P23** The calcium-sensing receptor is involved in human osteoblast proliferation and function
Rybchyn, M.S., Brennan, T.C., Conigrave, A.D. and Mason, R.S. (Australia)
- P24** Osteoclast precursor numbers from peripheral blood are increased in patients with the arthritis mutilans form of psoriatic arthritis
Smith, T., Dalbeth, N., Lee, J., Taylor, W., Reeves, Q., Robinson, E., Jones, P., Østergaard, M., Reid, I., Cornish, J. and McQueen, F.M. (New Zealand and Denmark)
- P25** Osteoclast formation is inhibited at therapeutic ranges of NFAT inhibitors FK506 and Cyclosporin A
Stephens, S.R.J., Day, C.J. and Morrison, N.A. (Australia)
- P26** DMSO potently enhances RANKL-dependant osteoclast formation
Stephens, S.R.J., Stephens, A. and Morrison, N.A. (Australia)
- P27** Adenosine receptors can modulate osteoclastogenesis
Stephens, S.R.J., Auchampach, J., Blangy, A., Rose'Meyer, R., Headricks, J. and Morrison, N. (Australia, USA and France)
- P28** The role of the calcitonin receptor in osteoclast formation and function
Turner, A.G., Chiu, M.W.S., Vincent, V., Atkins, G.J., Findlay, D.M., Zajac, J.D. and Davey, R.A. (Australia)
- P29** Wnt signaling antagonists may suppress osteoblast differentiation and function in rheumatoid arthritis
Walsh, N.C., Manning, C.A., Condon, K.W., Ratliff, J., Iwata, K., Burr, D.B. and Gravallese, E.M. (USA)
- P30** Chondrocyte apoptosis in osteoarthritic knee joint of rabbits
Qu, N.-H., Chen, Y.-B., Tao, D., Wang, C. and He, Y. (China)
- P31** Ectoderm Neural Cortex 1, a Wnt target gene, is expressed in chondrocytic and osteoblastic cells
Worton, L.E., Shi, Y.-C., Smith, E.J., Little, D.G., Whitehead, J.P. and Gardiner, E.M. (Australia)

BIOMATERIALS

- P32** Novel biomaterials for skeletal tissue regeneration
Ramaswamy, Y., Wu, C., Grau, G., Combes, V. and Zreiqat, H. (Australia)

ORTHOPAEDICS

- P33** Osteoclast-associated receptor (OSCAR) is expressed at sites of focal bone resorption adjacent to orthopaedic implants
Shah, S.A., Dharmapatni, A.A.S.S.K., Atkins, G.J., Findlay, D.M., Holding, C.A. and Haynes, D.R. (Australia)
- P34** Gene expression of stress fracture healing
Kidd, L.J., Stephens, A., Kuliwaba, J.S., Fazzalari, N.L. and Forwood, M.R. (Australia)
- P35** Early, soft fracture callus exhibits the smooth muscle-associated traits of stress-relaxation and reverse stress-relaxation: implications for the fracture repair process
McDonald, S.J., Dooley, P.C., McDonald, A.C., Schuijers, J.A., Ward, A.R. and Grills, B.L. (Australia)

POSTERS (CONTINUED)

P36 PTH treatment increases fracture callus size and strength more effectively in closed than open fractures
McDonald, M., Tagil, M., Morse, A., Godfrey, C., Schindeler, A., Amanat, N. and Little, D. (Australia)

P37 Mesenchymal precursor cells in ovine lumbar spinal fusion
Moore, R.J., Oakley, A.P., Tizzard, S.P., LaRue, B., Mulaibrahimovic, A., Nikoloff, S., Gronthos, S., Zannettino, A.C.W., Taylor, D.J., Itescu, S., Vernon-Roberts, B. and Fraser, R.D. (Australia)

BASIC - OTHER

P38 Examination of pagetic osteoblasts by transmission electron microscopy
Bava, U., Naot, D., Matthews, B.G., Callon, K.E., Edgar, S., Pitto, R., McCowan, S., Cundy, T., Cornish, J. and Reid, I.R. (New Zealand)

P39 Species variation in bone mineral investigated using pyrolysis and X-ray diffraction analysis
Beckett, S. and Rogers, K. (UK)

P40 V-ATPase subunit d2 promoter is regulated by NFAT in osteoclasts
Cheng, T., Leong, C.L., Feng, H.-T., Pavlos, N., Zheng, M.H. and Xu, J. (Australia)

P41 Effects of dietary antioxidants on human osteoclast formation and function
Constable, M.J., Zimmerman, N., Hodge, J.M., Kirkland, M.A., Parratt, A. and Nicholson, G.C. (Australia)

P42 Human parathyroid hormone (1-34) restores ovariectomy-Induced cortical and cancellous bone loss within axial and appendicular skeletal sites of C57BL/6j mice
Davey, T., Xu, J., Pavlos, N. and Zheng, M.H. (Australia)

P43 Is persistence with alendronate better in the Waikato region and New Zealand wide than international published rates?
Doube, A. (New Zealand)

P44 XXY mice have an osteoporotic phenotype
Kalak, R., Liu, P.Y., Lue, Y.H., Erkkila, K., Simanainen, U., Zhou, H., Hikim, A.P., Handelsman, D.J., Seibel, M.J., Wang, C., Swerdloff, R.S. and Dunstan, C.R. (Australia and USA)

P45 Generation of bone forming osteoblasts derived from Wharton's Jelly mesenchymal stem cells – effect of oxygen tension
Fernandes, T.J., Constable, M.J., Hodge, J.M., Zimmerman, N., Kirkland, M.A. and Nicholson, G.C. (Australia)

P46 The novel c-fms inhibitor Cyl 1645 potently inhibits human osteoclast formation and function
Hodge, J.M., Su, S., Joffe, M., Burns, C.J., Wilks, A.F., Kirkland, M.A. and Nicholson, G.C. (Australia)

P47 No evidence of measles virus RNA or somatic SQSTM1 mutations in bone cells from patients with Paget's disease
Matthews, B.G., Bava, U., Callon, K.E., Afzal, M.A., Cornish, J., Reid, I.R. and Naot, D. (New Zealand and UK)

P48 Adenomatous human parathyroid cells exhibit decreased sensitivity to L-amino acids
Mun, H.-C., Brennan, S.C., Delbridge, L., Wilkinson, M. and Conigrave, A.D. (Australia)

P49 Basic milk proteins in the lactoferrin fraction augment anabolic bone activity
Palmano, K., Callon, K.E., Watson, M., Reid, I.R. and Cornish, J. (New Zealand)

P50 Reduced bone mineral content, size, and strength caused by intrauterine growth restriction are corrected by an improved postnatal lactational environment in female offspring
Romano, T., Wark, J.D., Owens, J.A., Morris, H.A. and Wlodek, M.E. (Australia)

P51 Effect of oxygen tension on human osteoclast formation and function
Skinner, J.P.J., Hodge, J.M., Kirkland, M.A. and Nicholson, G.C. (Australia)

P52 State-of-the-art mathematical modeling approaches applied to bone biology
Smith, D.W., Pivonka, P., Gardiner, B.S., Dunstan, C.R. and Martin, T.J. (Australia)

P53 Fatty acids act directly on osteoclast-like cells
Tong, P.C., Lin, J.-M., Bava, U., Callon, K., Naot, D., Reid, I.R. and Cornish, J. (New Zealand)

P54 Micro-CT analysis of tibiae in leptin receptor-deficient mice
Watson, M., Callon, K.E., Williams, G.A., Reid, I.R. and Cornish, J. (New Zealand)

P55 Histomorphological investigation of the mechanisms of the bone loss in an osteoporotic sheep model
Zarrinkalam, M.R., Theodorakakos, O., Atkins, G.J., Findlay, D.M. and Moore, R.J. (Australia)

POSTERS (CONTINUED)

MALIGNANT BONE DISEASE

- P56** Do mutations in *SH3BP2* cause giant cell tumours?
Addison, K., Gardiner, E., Athanasou, N., Brown, M. and Duncan, E. (Australia and UK)
- P57** Tartrate-resistant acid phosphatase 5 as a marker for pulmonary metastasis in osteosarcoma
Endo-Munoz, L., Cumming, A., Rickwood, D., Ng, C., Strutton, G., Cassady, I., Evdokiou, A., Sommerville, S., Dickinson, I., Guminski, A. and Saunders, N.A. (Australia)
- P58** Multimodal imaging analysis of tumour progression and bone destruction in a murine model of multiple myeloma: efficacy of Apo2L/TRAIL
Labrinidis, A., Diamond, P., Martin, S., Hay, S., Liapis, V., Atkins, G.J., Vincent, T., Findlay, D.M., Zannettino, A.C.W. and Evdokiou, A. (Australia)
- P59** Zoledronic acid modulates the expression of ADAMTS-1 and -5 in chondrocytes
Boughton, E.A., Binder, W., Little, C.B., Smith, M.M., Youssef, P., Jackson, M.T. and Zreiqat, H. (Australia)

CLINICAL OSTEOPOROSIS

- P60** Are the skeletal benefits of calcium-vitamin D₃ fortified milk sustained following withdrawal of supplementation in older men? An 18 month follow-up study
Daly, R.M., Petrass, N., Bass, S. and Nowson, C. (Australia)
- P61** Hip radiographic osteoarthritis predicts total hip bone density loss over 2 years: the Tasmania Older Adult Cohort (TASOAC) Study
Ding, C., Cooley, H., Srikanth, V. and Jones, G. (Australia)
- P62** Effects of isoflavone on surgically menopausal women
Cheon, K.Y., Kim, S.Y., Jung, I.C., Kim, M.R., Cho, H.H. and Kim, J.H. (Korea Republic)
- P63** The effect of vitamin D₃ addition to bone mineral density in postmenopausal women
Kim, J.H., Jung, J.E., Kim, M.J., Hwang, S.J., Kim, E.J. and Cho, H.H. (Korea Republic)
- P64** Is regular table tennis activity associated with increased bone and muscle strength and improved balance in elderly Asian men and women?
Li, L., Wark, J.D., Hill, K., Wong, P. and Kwok, N. (Australia)
- P65** Complementary and alternative medicine use by patients with osteoporosis: the CAMEO study
Mak, J.C., Mak, L.Y., Shen, Q. and Seibel, M.J. (Australia)
- P66** A cohort study of the effects of protein intake on body composition
Meng, X.Q., Zhu, K., Devine, A., Dick, I.M., Kerr, D. and Prince, R.L. (Australia)
- P67** Bone loss prior to fracture: Geelong Osteoporosis Study
Merriman, E.N., Henry, M.J., Kotowicz, M.A., Nicholson, G.C. and Pasco, J.A. (Australia)
- P68** Risk of fracture in elderly men and women with cancer
Nguyen, T.V., Nguyen, N.D., Frost, S.A., Center, J.R. and Eisman, J.A. (Australia)
- P69** Bone mineral density and hip fracture: a revisit with time-varying effects
Nguyen, T.V., Nguyen, N.D., Frost, S.A., Center, J.R. and Eisman, J.A. (Australia)
- P70** Development of a nomogram for individualizing the absolute risk and time to subsequent fracture
Nguyen, N.D., Frost, S.A., Center, J.R., Eisman, J.A. and Nguyen, T.V. (Australia)
- P71** Hip radiographic image-derived morphometric & trabecular structural phenotypes in a large group of dizygotic twin pairs: methodology
Price, R.I., Wilson, S.G., Bottomley, M., Sweetman, I., Bailey, S., Leatherday, C. and Spector, T.D. (Australia and UK)
- P72** Association between LRP5 gene and bone mineral density: a meta-analysis
Tran, B.H., Nguyen, N.D., Eisman, J.A. and Nguyen, T.V. (Australia)
- P73** Incremental prognosis of osteoporotic fractures by genetic marker: contribution of the collagen I alpha 1 gene
Tran, B.H., Nguyen, N.D., Frost, S.A., Center, J.R., Eisman, J.A. and Nguyen, T.V. (Australia)
- P73A** Bone mineral homeostasis and bone mineral density in Vitamin D sufficient and deficient patients with hyperthyroidism
Dhanwal, D., Goswami, R., Nandita and Kochupillai (India)

POSTERS (CONTINUED)

PAEDIATRICS

- P74** Children experiencing fractures during growth have higher adiposity than those remaining fracture-free: an 8-year study of 142 New Zealand girls
Goulding, A., Grant, A.M. and Williams, S.M. (New Zealand)
- P75** A cross-sectional study of factors associated with skeletal age deviation
Powell, S., Ma, D., and Jones, G. (Australia and USA)
- P76** Relationship of total body fat mass to bone area in New Zealand five-year-olds: a DXA study of the FLAME birth cohort
Goulding, A., Taylor, R.W., Grant, A.M., Murdoch, L., Taylor, B.J. and Williams, S.M. (New Zealand)

EPIDEMIOLOGY, PUBLIC HEALTH AND GENETICS

- P77** Risk of subsequent fracture depends on bone mineral density and fracture type: a 17-year prospective study
Bliuc, D., Nguyen, N., Nguyen, T.V., Eisman, J.A. and Center, J.R. (Australia)
- P78** Bone mineral density in quitters compared with continuing smokers at one year: the Quitline cohort study
Christie, J.J., Day, L., Osborne, R., Segan, C. and Wark, J.D. (Australia)
- P79** The -1260C/A polymorphism in the 1-alpha hydroxylase gene (*CYP27B1*) promoter is associated with fracture risk in the frail elderly (the FREE Study)
Clifton-Bligh, R., Nguyen, T., Au, A., Chen, J. and Sambrook, P. (Australia)
- P80** Osteoporosis: use of bisphosphonates in the Australian population
Gunanti, I., Duncan, E., Nissen, L. and Hollingworth, S. (Australia)
- P81** Body composition and bone mass: childhood to adolescence
Foley, S., Quinn, S. and Jones, G. (Australia)
- P82** Post-fracture excess of mortality in elderly women and men after adjusting for background mortality risk
Frost, S.A., Nguyen, N.D., Center, J.R., Eisman, J.A. and Nguyen, T.V. (Australia)
- P83** Development of a nomogram for making decision concerning measurement of bone mineral density for an individual
Frost, S.A., Nguyen, N.D., Center, J.R., Eisman, J.A. and Nguyen, T.V. (Australia)
- P84** Pacific Island adolescents have greater bone mineral content and bone area than age-and size-matched New Zealand Europeans
Grant, A.M., Taungapeau, F.K., McAuley, K.A., Taylor, R.W., Williams, S.M. and Goulding, A. (New Zealand)
- P85** Bone mineral density in a population-based sample of Australian men: Geelong Osteoporosis Study (GOS)
Henry, M.J., Korn, S., Kotowicz, M.A., Nicholson, G.C. and Pasco, J.A. (Australia)
- P86** Breastfeeding predicts both bone mass and fractures in adolescents: a 16 year longitudinal study
Hynes, K. L., Dwyer, T. and Jones, G. (Australia)
- P87** The burden of fracture imposed by men in a major regional hospital
Korn, S., Pasco, J.A., Henry, M.J., Nicholson, G.C. and Kotowicz, M.A. (Australia)
- P88** Polymorphisms within *ARHGEF3* are associated with bone mineral density in women
Mullin, B.H., Prince, R.L., Dick, I.M., Hart, D.J., Spector, T.D., Dudbridge F. and Wilson, S.G. (Australia and UK)
- P89** Prediction of fracture risk by LRP5 gene polymorphisms: a haplotype analysis in a population-based study
Nguyen, N.D., Tran, B.H., Center, J.R., Eisman, J.A. and Nguyen, T.V. (Australia)
- P90** Knowledge of osteoporosis among tertiary students in Vietnam
Nguyen, H.T.T., Nguyen, N.D., Ha, T.T.H., Nguyen, C.K.T., Nguyen, B.H. and Nguyen, T.V. (Vietnam, Sweden and Australia)
- P91** Characteristics of men with morphometric vertebral fracture: Geelong Osteoporosis Study
Pasco, J.A., Henry, M.J., Korn, S., Nicholson, G.C. and Kotowicz, M.A. (Australia)
- P92** Vitamin D status and effects on postural control between fallers and non-fallers
Austin, N., Devine, A., Dick, I., Zhu, K. and Prince, R. (Australia)

POSTERS (CONTINUED)

- P93** Calcium and vitamin D supplementation prevents hip bone loss in elderly ambulant Australian women
Zhu, K., Devine, A., Dick, I.M. and Prince, R.L. (Australia)
- P94** Fracture risk index after falling: a selection strategy for fracture reduction through falls prevention
Sambrook, P.N., Chen, J.S., March, L., Simpson, J.M. and Seibel, M.J. (Australia)
- P95** Feedback on calcium intake is an effective tool to increase intake in older women
Hayles, A.L., Nicholson, G.C., Kotowicz, M.A. and Sanders, K.M. (Australia)
- P96** Is BMD a surrogate measure of longterm exposure of risk factors for breast and bowel cancer?
Sanders, K.M., Hunt, A., Nicholson, G.C., Pasco, J.A., Kotowicz, M.A. and Watters, D.A.K. (Australia)
- P97** A genome-wide ENU mutagenesis screen for skeletal abnormalities – a new resource for Australian bone researchers
Thomas, G.P. and Brown, M.A. (Australia)
- P98** The combined influence of bone, muscle and fat on gait, balance and falls in older adults
Waters, D.L., Goulding, A., Herbison, P., Grant, A.M. and Hale, L. (New Zealand)

DENSITOMETRY

- P99** Is quantitative ultrasound a useful monitoring test for antiepileptic drug - associated bone disease?
Chin, L.K., Sakellarides, M., Petty, S., Day, L., Kantor, S., El Haber, N., Wark, J.D. and O'Brien, T.J. (Australia)
- P100** pQCT measures are associated with fractures in dialysis patients
Wong, P., Clifton-Bligh, R., McGinn, S., Catterson, R., Cooper, B., Wells, L., Baird, S., Nery, L. and Clifton-Bligh, P. (Australia)
- P101** Methodological issues in measuring knee subchondral bone density in the tibia
Dore, D., Ding, C. and Jones, G. (Australia)
- P102** Repeatability of micro-CT machine (Viva-CT 40)
Ghasem-Zadeh, A., Wang, Q., Davey, R.A., Evans, A., Cherier, Y.C., Zebaze, R. and Seeman, E. (Australia)
- P103** Anti-epileptic drug usage and bone mineral density: a treatment discordant matched twin and sibling pair study
Petty, S.J., Paton, L.M., Lawrence, K., Fedorova, T., Berkovic, S.F., Sambrook, P., O'Brien, T.J. and Wark, J.D. (Australia)
- P104** Monitoring bone growth using quantitative ultrasound in comparison with DXA and pQCT
Wang, Q., Nicholson, P.H.F., Timonen, J., Alen, M., Moilanen, P., Suominen, H., Cheng, S. and Seeman, E. (Australia and Finland)

BONE QUALITY AND MECHANICAL PROPERTIES

- P105** The structural strength of a femoral cross section varies according to its position along its length
Bohte, A., Zebaze, R., Ghassem-Zadeh, A., Wang, Q.J., Evans, A., Teo, J.W., Price, R.I. and Seeman, E. (Australia)
- P106** Reproducibility of micro-CT for assessing *in vivo* bone structure
Evans, A., Ghasem-Zadeh, A., Iuliano, S., Wang, Q. and Seeman, E. (Australia)
- P107** Back-scattered electron imaging of bone mineralisation in osteoarthritis
Sutton-Smith, P., Beard, H., Ma, B. and Fazzalari, N.L. (Australia)
- P108** Relative contribution of differences in body composition to racial and sex differences in bone mineral density in Chinese and Caucasians
Wang, X.-F., Duan, Y., Evans, A. and Seeman, E. (Australia)
- P109** The femoral neck is no drinking straw: heterogeneity in structure is not captured using the Hip Structural Analysis
Zebaze, R., Jones, A., Bohte, A., Knackstedt, M. and Seeman, E. (Australia)

POSTERS (CONTINUED)

CLINICAL - OTHER

- P110** The time-course of response to three high oral cholecalciferol doses
Bacon, C.J., Gamble, G.D., Horne, A.M., Scott, M.A. and Reid, I.R. (New Zealand)
- P111** Increases in adiposity and areal BMD in young women: Geelong Osteoporosis Study
Clark, E.Y., Henry, M.J., Kotowicz, M.A., Nicholson, G.C. and Pasco, J.A. (Australia)
- P112** Biocompatibility performance of bone allografts irradiated at standard and lower doses
Nguyen, H., Wu, A.C.K., Cassidy, A.I. and Forwood, M.R. (Australia)
- P113** Chronic anti-epileptic drug treatment is associated with lower balance function test performance - an AED-discordant matched twin and sibling pair study
Petty, S.J., El Haber, N., Paton, L.M., Lawrence, K.M., Berkovic, S.F., O'Brien, T.J., Hill, K. and Wark, J. D. (Australia)