

30<sup>TH</sup> AUSTRALIAN AND NEW ZEALAND  
BONE AND MINERAL SOCIETY  
ANNUAL SCIENTIFIC MEETING

**VIRTUAL**

**12<sup>TH</sup> - 14<sup>TH</sup> OCTOBER**

**DELEGATE E-BOOK**

[www.anzbmsconference.org](http://www.anzbmsconference.org)



**ANZBMS**

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## WELCOME FROM THE COMMITTEE

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On behalf of the Program Organising Committee and the council of the ANZBMS, we extend our warmest welcome to you for the 30th Annual Scientific Meeting of the society.

With the uncertainty and upheaval of this year, the pandemic has brought unexpected challenges. Despite these challenges the society saw an opportunity for innovation, aiming to bring us all together to share our research through the delivery of a comprehensive 2020 ASM. We are therefore proud to present the society's inaugural virtual meeting, showcasing the latest clinical and basic research in the musculoskeletal field.

This year's scientific program includes basic and clinical abstract presentations, awards for students and young investigators, 5 outstanding oral awards, a plenary poster session and e-poster viewing sessions. Our plenary speakers include Dr Harold Jueppner (USA), Dr Yuki Yoshimoto (Japan) and Prof Jennifer Byrne (Australia).

The Early Career Investigator Committee will deliver 2 excellent sessions to inspire younger members of the society, and those young at heart, including a Career Development Session on increasing funding success and a seminar on Clinical Cases in Metabolic Bone Diseases. All are welcome to attend these popular sessions!

There will be many opportunities for networking and interaction over the next 3 days, and we encourage you to fully immerse yourself in the virtual format. Whether you are a young investigator, clinician, basic scientist, or allied health professional, we hope this virtual meeting offers opportunities for you to reconnect with peers, drive collaboration and inspiration, and provide an exciting program of cutting-edge musculoskeletal science.

Please note all sessions will run in Australian Eastern Daylight Savings Time (AEDT).

We hope you enjoy this year's first virtual meeting! Stay safe and well.

Michelle McDonald, Craig Munns and Christian Girgis, POC co-chairs

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## SOCIETY SECRETARIATS

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### ANZBMS

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## ANZBMS 2020 COMMITTEE

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### PROGRAM ORGANISING COMMITTEE CHAIRS

**Dr Christian Girgis – Program Co-Chair**  
*Westmead and Royal North Shore Hospital*

**Prof Mark Forwood – Meetings Chair**  
*Griffith University*

**Dr Michelle McDonald – Program Co-Chair**  
*Garvan Institute of Medical Research*

**Prof Natalie Sims – ANZBMS President**  
*St Vincent's Institute of Medical Research*

**Prof Craig Munns – Program Co-Chair**  
*The Children's Hospital at Westmead*

### PROGRAM ORGANISING COMMITTEE

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*The University of Adelaide*

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*The University of Adelaide*

**Dr Brya Matthews**  
*University of Auckland*

**A/Prof Roderick Clifton Bligh**  
*Royal North Shore Hospital*

**Dr Sabashini Ramchand**  
*University of Melbourne*

**A/Prof Rachel Davey**  
*University of Melbourne*

**A/Prof David Scott**  
*Deakin University*

**Prof David Findlay**  
*The University of Adelaide*

**Dr Peter Simm**  
*Royal Children's Hospital Melbourne*

**Dr John Kemp**  
*University of Queensland Diamantina Institute*

**Dr Ayse Zengin**  
*Monash University*

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## ANZBMS OFFICE BEARERS 2020

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**President**  
**President Elect**  
**Secretary**  
**Treasurer**  
**Past President**

Natalie Sims  
Mark Forwood  
Paul Anderson  
Nathan Pavlos  
Peter Croucher

### Councillors

Mark Cooper  
Jillian Cornish  
Rachel Davey  
Gustavo Duque  
Allison Pettit

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## PAST ANZBMS OFFICE BEARERS 1988-2017

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YEAR	PRESIDENT	VICE PRESIDENT PRESIDENT ELECT	SECRETARY	TREASURER	COUNCILLORS
1990 - Steering Group	T.J.Martin		M.Hooper		A.Need, R.Prince, J.Eisman, I.Reid, K.Ibbertson, D.Fraser, P.Sambrook, E.Seeman
1991-93 - Inaugural Council	T.J.Martin		M.Hooper	M.Hooper	J.Eisman, A.Goulding, D.Perry-Keen, J.Wark, A.Need, N.Kent
1993-95	J.Eisman	I.Reid	N.Kent	J.Wark	P.Sambrook, A.Need, R.Prince, D.Perry-Keene, E.Seeman
1995-97	I.Reid	N.Kent	J.Moseley	P.Ebeling	P.Sambrook, A.Need, R.Prince, D.Perry-Keene
1997-99	N.Kent	P.Ebeling	J.Moseley	P.Ebeling	R.Prince, I.Reid, M.Hooper, H.Morris, M.Forwood
1999-01	P.Ebeling	M.Hooper	J.Cornish	M.Forwood	J.Moseley, H.Morris, E.Mackie, M.Zheng
2001-03	M.Hooper	E.Seeman	J.Cornish	M.Forwood	R.Mason, R.Price, D.Findlay, G.Nicholson
2003-05	E.Seeman	J.Cornish	D.Findlay	M.Forwood	R.Mason, R.Price, G.Nicholson, P.Sambrook
2005-07	J. Cornish	P. Sambrook	D. Findlay	R. Price	R. Mason, G. Nicholson, P. Nash, M. Gillespie
2007-09	P. Sambrook	R. Mason	M. Gillespie	R. Price	P. Nash, N. Fazzalari, M. Kotowicz, T. Cundy
2009-11	R. Mason	M. Gillespie	N. Fazzalari	R. Price	P. Sambrook, N. Sims, M. Seibel, G. Thomas, N. Gilchrist
2011-13	M.Gillespie	M. Seibel	G. Atkins	G. Thomas	N. Sims, M. Bolland, C. Inderjeeth, N. Pocock, R. Mason
2013-15	M. Seibel	E. Duncan	G. Atkins	G. Thomas	N. Sims, M. Gillespie, N. Pocock, N. Pavlos, E. Dennison
2015 - 17	E. Duncan	P. Croucher	P. Anderson	N. Pavlos	R. Daley, R Buchbinder, N. Pocock, A. Pettit, E. Dennison

**ANZBMS AWARD SPONSOR**



**ROGER MELICK YOUNG INVESTIGATOR AWARD**



This award is presented to commemorate the contribution of Dr Roger Aziz Melick to endocrinology and student education. Roger Melick died in November 1986 after a long battle with cancer. He trained in endocrinology with Fuller Albright, in Boston, and joined The Royal Melbourne Hospital as the third member of the foundation Department of Medicine. He was appointed Dean of the Clinical School in April 1979 and he was forced to retire because of his illness during 1986. Roger Melick was particularly known for his kindness, consideration and empathy for both patients and students. The prize is awarded annually to young members of the Society working towards a higher degree (including FRACP).

1996	Vicky Kartsogiannis	2004	Susan Allison	2012	Farzin Takyar
1997	Linda Crofts		Kirk Ho Man Yip		Audrey Chan
1998	Janelle Barry	2005	James Doecke	2013	Asiri Wijenayaka
1999	Liza-Jane Raggatt	2006	Yosuke Kawasaki	2014	Hua Ying
2000	Sandra Iuliano-Burns	2007	Stella Foley		Irina Kulina
	Nathan Pavlos		Garry Williams	2015	Niloufar Ansari
2001	David Good	2008	Jonathan Gooi	2016	Christina Vrahnas
2002	Kun Zhu	2009	Nicola Lee	2017	Mahmoud Bakr
2003	Agatha Labrinidis	2010	Irene Zinonos	2018	Jun Li
	Xiaofang Wang	2011	Chiaming Fan	2019	Amy Harding

**CHRISTOPHER AND MARGIE NORDIN YOUNG INVESTIGATOR POSTER AWARD**



This Award is named in honour of the outstanding and major clinical investigations into disorders of bone and mineral metabolism made by Professor Christopher Nordin and his contributions to the ANZBMS. Professor B.E Christopher Nordin was a senior specialist at the Institute of Medical and Veterinary Science in Adelaide, and the man credited with drawing the medical community's attention back to the link between calcium deficiency and osteoporosis (brittle bones).

1997	Anne Nelson	2007	Taksum Cheng
	Hidenori Murata	2008	Hasnawati Saleh
1998	Marianne Holzherr	2009	Ee-Cheng Khor
1999	Tanya Uebergang	2010	Kylie Alexander
2000	Josef Kaplan	2011	Shek Man Chim
2001	Rebecca Jackson	2012	Alvin Ng
2002	Nathan Pavlos		Marie-Luise Wille
2003	Nicole Walsh	2013	Yu Wen Su
	Rouha Granfar	2014	Masato Koike
2004	Laura Gregory	2015	Dzenita Muratovic – Clinical
	Mark Bolland		Scott Youlten – Basic
2005	Mark Bolland	2016	Audrey Chan
	Catherine Wang	2017	Scott Youlten
2006	Andrew Hattam	2018	Alexander Rodriguez
	Estabelle Ang	2019	Amy Ribet

## CHRISTINE AND T JACK MARTIN RESEARCH TRAVEL GRANT



This grant is offered by the ANZBMS in memory of Christine Martin and to honour the outstanding and major scientific contributions of Professor T Jack Martin to bone and mineral research and his contributions to associates and trainees in teaching, research, and administration.

2002	Catherine Middleton-Hardie	2011	Julie Quach
2003	Vicky Kartsogiannis	2012	Ashika Chhana
2004	Kerrie Sanders	2013	Yohann Bala
2005	Susan Allison	2014	Michelle McDonald
2006	Mark Forwood	2015	Christina Vrahnas
2007	Brya Matthews	2016	Audrey Chan
2008	Roger Zebaze	2017	Alexander Rodriguez
2009	Bich Tran	2018	Thao Ho-Le
2010	Garry Williams	2019	Sabashini Ramchand

## AMGEN / ANZBMS OUTSTANDING ABSTRACT AWARD

The Council of ANZBMS wishes to recognise the high standard of bone and mineral research presented at the Annual Scientific Meeting. The Program Organising Committee will award a prize to the basic and clinical abstracts receiving the highest scores.

2003	Rob Will, Amanda Devine	2012	Ego Seeman, Rachele Johnson
2004	Roger Zebaze	2013	Peter Ebeling, Rossana Nogueira, Simon Junankar, Narelle McGregor, Jinwen Tu
2004	Christine Rodda	2014	Allison Pettit, Paul Baldock, Jinwen Tu, Roger Zebaze, Kirtan Gandaz
2005	Markus Seibel, Julian Quinn	2015	Michelle McDonald, Allison Pettit, Audrey Chan, Le Phong Thao Ho, Ayano Nakayama
2006	Yosuke Kawasaki, Julie Kuliwaba, Stella Foley, Dana Bliuc, Jonathan Gooi, Hugh Zhang	2016	Nicola Lee, Steven Watson, Emma Walker, Natalie Hyde, Michelle McDonald
2007	Colin Dunstan, Richard Prince, Maria Chiu, Natalie Sims, Paul Baldock, Ian Parkinson, Hong Zhou	2017	Victoria D Leitch, Emma M Wade, Michelle M McDonald, Ego Seeman
2008	Robert Kalak, Andrew Grey	2018	Ian Reid, Nathan Pavlos
2009	Vicky Kartsogiannis, Nguyen Nguyen	2019	Kai Chen, Robin Daly
2010	Markus Seibel, Emma Walker, Iris Wong, Sarah Brennan, Jasreen Kular, Markus Seibel		
2011	Ian Reid, Asiri Wijenayaka		

## ANZBMS CLINICAL RESEARCH EXCELLENCE AWARD

MSD, through the Merck Research Labs have a long history in bone research and continue to achieve clinical innovations in this field. While the scientists at Merck are dedicated to exploring new ways to address health problems, they also recognize that the best scientific discoveries often emerge from collaboration with clinical researchers outside Merck laboratories. This award is offered to recognise and support clinicians in or within 10 years of postgraduate training who are contributing to clinical research in the field of bone-related disorder.

2012	Belal Khan	2016	Thach Tran
2013	Syndia Lazarus	2017	Weiwen Chen
2014	Masakazu Kogawa	2018	Jasna Aleksova
2015	Hanh Nguyen		



## KAYE IBBERTSON AWARD ON METABOLIC BONE DISEASE



This Award is named in honour of the outstanding career and major investigations into skeletal disorders made by Professor Kaye Ibbertson, and his contributions to the ANZBMS.

2005	Roger Zebaze	2013	Tara Brennan-Speranza
2006	Julie Pasco	2014	Nicole Yu
2007	Tania Winzenberg	2015	Joshua Lewis
2008	Paul Baldock		Rachelle Johnson
2009	Mark Bolland	2016	Michelle McDonald
2010	Kun Zhu	2017	Feitong Wu
2011	Susannah O'Sullivan	2018	Dawn Aitken
2012	Emma Duncan	2019	Fran Milat

## SOL POSEN RESEARCH AWARD

This Award is named in honour of Professor Sol Posen who was one of the pioneers in the field of bone and mineral endocrinology in this country. Sol Posen's contributions span the range from basic biochemistry – his citation classic in Clinical Chemistry described the first means of distinguishing alkaline phosphatase of bone origin – to clinical studies in metabolic bone disease, including Paget's disease, osteoporosis, hyperparathyroidism and tumour-induced osteomalacia. He attended meetings and journal clubs, where his presence was marked, as ever, by his propensity to ask incisive questions.



2006	Nathan Pavlos	2013	Farzin M Takyar
2007	Aaron McDonald	2014	Heath McGowan
2008	Haotian Feng	2015	Dana Bliuc
2009	Ming-Kang Chang	2016	Paul Lee
2010	Tak Sum Cheng	2017	Thao P. Ho-Le
2011	Kylie Alexander	2018	Nicola Lee
2012	Julie Quach	2019	Kai Chen

## PHILIP SAMBROOK AWARD



The Professor Philip Sambrook Award is presented annually to an outstanding early career researcher to honour the major clinical and scientific contributions by Professor Philip Sambrook to the field of rheumatology and osteoporosis. Successful applicants must be passionate about bone research, results driven and committed to giving back to the community.

2012	Gustavo Duque	2016	Jinwen Tu
2013	Emma Duncan	2017	Jansa Aleksova
2014	Kirtan Ganda	2018	Feitong Wu
2015	Sharon Brennan-Olsen	2019	Sabashini Ramchand

## ANZBMS INTERNATIONAL TRAVEL AWARD

This award is offered by the ANZBMS to support travel to attend the IBMS Herbert Fleisch Workshop.

The objective of this workshop is to provide a Gordon-conference style forum for students, post-docs and early stage principal investigators to present work in progress, discuss thoroughly and network with peers, and get constructive feedback from experienced senior scientists.

2014	Tara Brennan-Speranza	2015	Campbell Macgregor
	Ashika Channa		Megan Thomas
	Christina Vrahnas		Scott Youlten
2018	Babtunde Ayodele		
	Dzenita Muratovic		

## ANZBMS CAREER ACHIEVEMENT AWARD

This esteem award recognises outstanding and major scientific or clinical contributions, and excellence in teaching and service to and within the bone and mineral field.

The award will be widely publicised and presented annually during the society's Annual Scientific Meeting. The awardee will receive free registration to the Annual Scientific Meeting and invitations to the annual and the president's dinner the year the award is received.

2014	Jillian Cornish, Ego Seeman	2018	John Eisman
2015	Howard Morris	2019	Ian Reid
2016	Jack Martin		

## ANZBMS GAP FELLOWSHIP

In recent years, funding for mid-career researchers has become increasingly difficult to obtain, jeopardising the future career of many of our colleagues in bone and mineral research. The ANZBMS has therefore created a new Fellowship Award with the intention to bridge shortfalls in salary funding for outstanding mid-career scientists.

2016	Allison Pettit	2018	Dana Bliuc
2017	Nicki Lee Rachel Davey		

## ANZBMS LIFE MEMBERS

Professor Henry Kaye Ibbertson (deceased)	Dr Donald Gutteridge
Associate Professor Jane Moseley	Dr Ailsa Goulding
Professor B.E.C Nordin (deceased)	Associate Professor Michael Hooper
Dr Solomon Posen (deceased)	Professor John Eisman
Professor Thomas J. Martin	Professor Ego Seeman

## ANZBMS HIGHEST RATED STUDENT ABSTRACT AWARD

The prize, of a single free registration, will be awarded to the student first author of the abstract that receives the highest score from the scoring committee.

2017	Junjie Gao
2018	Marija Simic
2019	Kotaro Tanimoto

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## INVITED PLENARY SPEAKERS

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### Professor Jennifer Byrne


Jennifer Byrne has spent her scientific career analyzing childhood and adult cancers at a molecular level. Her PhD studies mapped loss of chromosome 11p15 loci in embryonal tumours, and she then identified a novel gene family during postdoctoral studies in France. Professor Byrne is Director Of Biobanking with NSW Health Pathology, and Professor of Molecular Oncology in the School of Medical Sciences in the Faculty of Medicine and Health. Jennifer Byrne was previously (Acting) Head of the Children's Cancer Research Unit at The Children's Hospital at Westmead from 2008-2019, and Deputy Director of the Kids Cancer Alliance from 2018-2019. She chaired the Biobanking Sub-committee of Australia and New Zealand Children's Oncology Group from 2016-2020.



### Dr Harald Jueppner

Harald Jueppner, MD, is the Chief of Pediatric Nephrology at the Massachusetts General Hospital and a Professor of Pediatrics at Harvard Medical School. He has had a long-standing interest in the regulation of calcium and phosphate homeostasis as well as the mechanisms contributing to bone growth and turnover. He and his colleagues were the first to isolate cDNAs encoding the PTH/PTHrP receptor (PTHr1), which allowed the search for human disorders caused by mutations in this gene. Initially it was thought that such mutations are the cause of pseudohypoparathyroidism types 1b (PHP1B); however, his group excluded such mutations, subsequently mapped the genetic locus for the autosomal dominant form of PHP1B (AD-PHP1B) to the GNAS complex locus on chromosome 20q13, and eventually showed that deletions in GNAS or STX16 are disease-causing. Instead, Dr. Jueppner's group identified several different, activating mutations in Jansen's metaphyseal chondrodysplasia (JMC), which is characterized

by severe and crippling bone deformities, short-limbed dwarfism, and hypercalcemia. Expression of the PTHr1 mutant under the control of the type II collagen promoter (Col2-H223R-PTHr1) in mice resulted in a significant delay in chondrocyte differentiation, while expression of one of the mutant receptors under the control of the collagen type I promoter (Col1-H223R-PTHr1) resulted in massive new bone formation. Together with Dr. Gardella, Dr. Jueppner now explores in vitro and in vivo the role of inverse agonists at the PTHr1 for the treatment of growth plate and bone abnormalities observed in the currently available transgenic mouse JMC models.

Participation made possible with the support of 



### Specially Appointed Research Associate Yuki Yoshimoto

During a graduate student, I worked on research about tendon and ligament formation under Dr. Hiraki and Dr. Shukunami in Kyoto University. My thesis for degree presented that Scx+/Sox9+ progenitors contribute to the formation of chondro-tendinous/ligamentous junction. I continued the research in the same field under Dr. Shukunami, and then investigated the role of Scx in the enthesal formation. From last year, I have moved to current institute and then started the research about relation between tendons and skeletal muscles under Dr. Uezumi.

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## INVITED NATIONAL SPEAKERS

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### Dr Khoon Lim

Dr Khoon Lim is a current a Senior Research Fellow and Team Leader at the University of Otago Christchurch. His research technology platform involves photo-polymerizable hydrogel bioinks for 3D bioprinting of functional tissues and also delivery of bioactive molecules to promote tissue regeneration. He has generated multiple high impact journal publications and has been awarded a total of >NZD\$ 3.5Million research grant funding. Dr Lim is also currently an Associate Investigator on the Centre of Research Excellence in Medical Technologies (MedTech CoRE), Affiliate Investigator on the Maurice Wilkins Centre (MWC) for Molecular Diversity, and Executive Committee member of the Australasian Society of Biomaterials and Tissue Engineering (ASBTE). He also currently sits on the editorial board of IOP Biomedical Physics & Engineering Express and Frontiers in Bioengineering & Biotechnology.

*Participation made possible with the support of*



### Dr Sabashini Ramchand

Dr Ramchand is a clinical investigator and Endocrinologist whose research focuses on osteoporosis and metabolic bone disease. Her initial work in Melbourne, Australia, focused on evaluating the skeletal and metabolic effects of oestradiol depletion therapy in young women with breast cancer, and strategies to mitigate some of these adverse events. She is currently undertaking a research fellowship at the Massachusetts General Hospital, Harvard University, United States with Professor Leder's group. Here, she is involved in clinical trials assessing the efficacy of combination therapy for osteoporosis, including a mechanistic study evaluating the effects of combining denosumab and teriparatide on iliac crest bone histomorphometry. Part of this work was funded by the Christine and T. Jack Martin Research Travel Grant (2020). Dr Ramchand is the immediate past Co-Chair of the ANZBMS Early Career Investigator Committee,

and a member of the Therapeutics Committee and this year's Program Organising Committee. She is also a member of the ASBMR Early Stage Investigator sub-committee and the IFMRS HubLE "My Mentor and I" sub-committee.



### Professor Ego Seeman

Ego Seeman has worked in the field of bone biology for 38 years studying the epidemiology, pathogenesis and treatment of bone fragility. He emphasized the role of growth as a forerunner of bone fragility in old age, emphasized the role of cortical and trabecular microstructural deterioration as a most important cause of bone fragility, and signaled that fractures in both sexes is a public health problem. He has contributed to studies of many drugs used today. He has over 400 publications. He is past President of the ANZBMS, Editor of Progress in Osteoporosis, and Associate Editor of Osteoporosis International. He is in the top 10 most cited authors in the field of osteoporosis and bone biology.

<https://journals.plos.org/plosbiology/article?id=10.1371%2Fjournal.pbio.3000384>

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## ANZBMS CODE OF CONDUCT

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The Australian and New Zealand Bone and Mineral Society are committed to providing conferences and events that are productive and enjoyable for everyone, regardless of gender, sexual orientation, disability, physical appearance, body size, race, nationality or religion. Each member of ANZBMS and those that attend meetings have a responsibility to act in a way that ensures a positive experience for all members and those that interact with members. All members and registrants are required to read, understand and follow this Code of Conduct. Conference attendees include anyone who registers for and attends the annual conference, irrespective of membership status or organisation.

- Members and those attending conferences will treat others with respect, dignity, consideration and courtesy.
- Members and those attending conferences will comply with the law, and in all their dealings with others behave honestly and ethically and respect individual privacy. This includes not photographing or recording any individual without consent.
- Members and those attending conferences will refrain from any form of behaviour that may be perceived as intimidation, harassment, a threat or otherwise cause a person to fear for their safety.
- Members and those attending conferences will not engage in acts of bullying, aggression or violence.
- Members and those attending conferences will respect the rights of others to attend the annual conference or other events associated with the conference free from discrimination and harassment, including sexual harassment. Harassment includes inappropriate physical contact, unwanted sexual attention or innuendo, deliberate intimidation or stalking. It also includes offensive comments related to gender, sexual orientation, disability, physical appearance, body size, race or religion. Sexist, racist, or exclusionary comments or jokes are not appropriate.
- Members or those attending conferences who witness violations of this code have a duty of care to report the behaviour to the Executive of their society (President, Secretary or Treasurer) other Council member or the Conference Secretariat as they see fit.
- Members or those attending conferences will not photograph data slides (during face to face or virtual presentations) or disseminate data slides for their own personal use.

We do not tolerate harassment in any form. Anyone who wishes to report a violation of this code is asked to contact, in confidence, the President, Secretary or Treasurer, another Council member or the Conference Secretariat.

### DISCLAIMER

The hosts, organisers and participating societies are not responsible for, or represented by, the opinions expressed by participants in either the sessions or their written abstracts.

MONDAY 12<sup>th</sup> OCTOBER 2020

*Please note all sessions will run in Australian Eastern Daylight Savings Time (AEDT)*

### Welcome from ANZBMS President Natalie Sims

9:00AM - 9:05AM

Chair: Michelle McDonald

### Plenary Presentation - Dr Harald Jueppner

9:05AM - 10:00AM

Chair: Natalie Sims

9:05 AM

**Harald Jueppner**

PTH resistance syndrome: genetics and epigenetics *abs# 1*

Participation made possible with the support of



### Outstanding Abstracts Session

10:00AM - 11:20AM

Chairs: Sabashini Ramchand & Peter Croucher

10:00 AM

**Sandra Iuliano**

Dairy supplementation reduces fractures and falls in institutionalised older adults: a cluster-randomised controlled trial *abs# 2*

10:16 AM

**Audrey S Chan**

Bone geometry is altered by follistatin-induced muscle growth in adult male mice *abs# 3*

10:32 AM

**Tsuyoshi Isojima**

Interaction between osteocyte SOCS3-dependent signaling and the bone marrow microenvironment maintains cortical bone integrity *abs# 4*

10:48 AM

**Peter R Ebeling**

Subject characteristics and changes in bone mineral density after transitioning from denosumab (DMab) to alendronate (ALN) in the Denosumab Adherence Preference Satisfaction (DAPS) Study *abs# 5*

11:04 AM

**Victoria D Leitch**

An essential physiological role for MCT8 in bone in male mice *abs# 6*

### Break & E-Poster Viewing

11:20AM - 12:05PM

## Roger Mellick Young Investigator Session

12:05PM - 1:45PM

*Chairs: Rebecca Mason & Marc Sim*

- 12:05 PM                    **Marija K Simic**  
Multi-targeting DKK1 and LRP6 prevents myeloma-induced bone disease *abs# 7*
- 12:17 PM                    **James T Smith**  
Single-cell mapping of bone identifies key intercellular interactions within the endosteal bone microenvironment *abs# 8*
- 12:29 PM                    **Lena Batoon**  
Osteal macrophage contributions to post-menopausal osteoporosis bone pathology *abs# 9*
- 12:41 PM                    **Bridie S Mulholland**  
MCP-1 inhibition prevents breast cancer-induced bone loss *abs# 10*
- 12:53 PM                    **Kara B Anderson**  
Hip structural analysis and incident fractures in a cohort of women *abs# 11*
- 1:05 PM                    **Dunia Alarkawi**  
The effect of denosumab on post-fracture mortality risk in the 45 and Up study *abs# 12*
- 1:17 PM                    **Ali Ghasem-Zadeh**  
Heterogeneity in Microstructural Deterioration Following Spinal Cord Injury Reflects Site-Specificity of Mechano-transduction *abs# 13*
- 1:29 PM                    **Angela Sheu**  
Fractures in T2DM independently predicted by insulin use and vascular complications (FIELD study) *abs# 14*

## Plenary Poster Live Presentations

1:45PM - 2:10PM

*Chair: Peter J Simm*

- 1:45 PM                    **Kara L Holloway-Kew**  
Association between bone measures and use of angiotensin-converting enzyme inhibitors or angiotensin II receptor blockers *abs# 15*
- 1:47 PM                    **Albert S Kim**  
Bone Compartment Characteristics in Patients with Atypical Femoral Fractures on 3D Dual X-Ray Absorptiometry (DXA) *abs# 16*
- 1:49 PM                    **Jasna Aleksova**  
DXA-derived Trabecular Bone Score and Hip Structural Analysis Parameters in Patients with Type 1 Diabetes Mellitus undergoing Simultaneous Pancreas Kidney Transplantation *abs# 17*
- 1:51 PM                    **Yoon Ji Jina Rhou**  
The Use of Denosumab in Central Giant Cell Granuloma: 5-year Institutional Experience *abs# 18*

- 1:53 PM **Shane Patella**  
A global natural history study of fibrodysplasia ossificans progressiva (FOP): 12-month outcomes *abs# 19*
- 1:55 PM **Lillias Nairn**  
The first 4 years of an osteoporosis re-fracture prevention (ORP) service at Royal North Shore Hospital (RNSH): Treatment and re-fracture rates among ORP attendees and non-attendees: *abs# 20*
- 1:57 PM **Ya Xiao**  
Can circulating Wnt antagonist DKK1 alter bone mass by endocrine signalling? *abs# 21*
- 1:59 PM **Aikta Sharma**  
Molecular imaging at the multi-scale discloses novel regulators of matrix organisation during bone pathology *abs# 22*
- 2:01 PM **Lena Batoon**  
Treatment with a chimeric long-acting CSF1 molecule enhances fracture healing of healthy and osteoporotic bones *abs# 23*
- 2:03 PM **Hsu-Wen HWT Tseng**  
Neutrophils are dispensable for neurogenic heterotopic ossification development following spinal cord injury *abs# 24*
- 2:05 PM **Eugenie Macfarlane**  
Chondrocyte glucocorticoid receptor deletion attenuates cartilage damage in murine osteoarthritis *abs# 25*
- 2:07 PM **Rogely Boyce**  
Inhibition of Sclerostin by Sclerostin Antibody Does Not Affect Morphological or Transcriptional Endpoints Related to Atheroprogession, Plaque Calcification, or Inflammation in 2 Murine Models of Atherosclerosis *abs# 26*

### Plenary Poster Q&A - Within Poster Viewing

2:10PM - 2:40PM



## ECIC Career Development Session: Improving your chances of fellowship success

3:00PM - 4:30PM

*Chairs: Melissa Cantley & Sarah Hosking*

*Moderators: Melissa Cantley & Laura Laslett*

*Panel Members: David Scott, Brya Matthews, John Kemp, Allison Pettit & Lana Williams*

3:00 PM

**Melissa Cantley**

ECIC overview, new member introductions and acknowledgement of outgoing members

3:05 PM

**David Scott**

Myth-busting the NHMRC Investigator Grant scheme *abs# 27*

3:20 PM

**Sarah Hosking**

Panel member introductions followed by fellowship advice – top tips and common mistakes to avoid

3:50 PM

**Melissa Cantley & Laura Laslett**

Panel discussion and Q&A

## Break & E-Poster Viewing

4:30PM - 6:00PM

## ECIC Clinical Cases in Metabolic Bone Diseases

6:00PM - 7:45PM

*Chairs: Eleanor Thong & Alicia Jones*

6:05 PM

**Jackie Center**

Bone health in obesity and weight loss *abs# 29*

*Expert Moderator - Debra Waters*

6:40 PM

**Belinda Beck**

Prescribing exercise for osteoporosis *abs# 28*

*Expert Moderator - Robin Daley*

7:15 PM

**Bronwyn Stuckey**

Bone health in young women with primary or secondary hypogonadism *abs# 30*

*Expert Moderator - Fran Milat*

## TUESDAY 13<sup>th</sup> OCTOBER 2020

*Please note all sessions will run in Australian Eastern Daylight Savings Time (AEDT)*

### Christopher and Margie Nordin Finalists

8:30AM - 9:20AM

*Chairs: Allison Pettit & Alexander Rodriguez*

- 8:30 AM                    **Ruby Oberin**  
Determining the role of maternal epigenetic inheritance in bone development and disease *abs# 31*
- 8:36 AM                    **Courtney M Edwards**  
Extra-nuclear PTHrP induces HIF and drives tumor cell exit from dormancy in bone *abs# 32*
- 8:42 AM                    **Yaser Peymanfar**  
Targeting Notch2 signalling to overcome methotrexate chemotherapy-induced bone loss and bone marrow adiposity in rats *abs# 33*
- 8:48 AM                    **Ye Cao**  
Characterisation of osteoprogenitors within the periosteum *abs# 34*
- 8:54 AM                    **Lianzhi Chen**  
Horizontal fissuring at the osteochondral interface: a novel and unique pathological feature in patients with obesity-related osteoarthritis *abs# 35*
- 9:00 AM                    **Carrie-Anne Ng**  
Feasibility, safety and effectiveness of a pilot 16-week home-based, high-impact exercise intervention in post-menopausal women with low bone mineral density *abs# 36*
- 9:06 AM                    **Jason Talevski**  
Multidisciplinary Care Pathways Associated with Recovery of Quality of Life in Individual Fracture Sites: Analyses of the International Costs and Utilities Related to Osteoporotic Fractures Study (ICUROS) *abs# 37*
- 9:12 AM                    **Jasmine R Cleminson**  
Antidepressant use, depressive symptoms and incident fracture: data from the PROFRAC study *abs# 38*

### E- Poster Session with Q&A

9:20AM - 10:20AM

E-Poster Session sponsored by 

### Break & E-Poster Viewing continued

10:20AM - 10:35AM

## National ANZBMS speaker - Khoon Lim

10:35AM - 11:05AM

*Chairs: Tara Brennan-Speranza & Michael Rogers*

10:35 AM

**Khoon S Lim**

Engineering the vasculature for bone engineering *abs# 39*

*Participation made possible with the support of*



## Basic Science and Clinical Orals

11:05AM - 11:30AM

*Chairs: Roderick Clifton-Bligh & Tara Brennan-Speranza*

11:05 AM

**Jad Zamerli**

Duration of OPG:Fc treatment determines the extent of rebound bone loss following its cessation – insight into rebound bone loss and fracture following Denosumab cessation *abs# 40*

11:17 AM

**Arkadi Chines**

Romozosumab (Romo) Improves Lumbar Spine Bone Mineral Density (BMD) and Bone Strength Greater Than Alendronate (ALN) as Assessed by Quantitative Computed Tomography (QCT) and Finite Element Analysis (FEA) in the ARCH Trial *abs# 41*

## Break & E-Poster Viewing

11:30AM - 12:00PM

## Kyowa Kirin Medical Education Symposium: XLH: Management from Paediatrics through Transition and into Adult Life

12:00PM - 1:00PM

*Chair: Craig Munns*

12:00 PM

**Craig Munns**

Welcome, Introductions & Learning Objectives

12:05 PM

**Peter Simm**

Paediatric XLH: Diagnosis, Management & Australian Guidelines

12:23 PM

**Benjamin Wheeler**

Australian & New Zealand Paediatric XLH Prevalence Surveys

12:28 PM

**Craig Munns**

Australian Paediatric Hypophosphatemic Rickets Registry

12:33 PM

**Richard Prince**

Optimising Transition from Paediatric to Adult XLH Management

12:49 PM

**Panel Discussion**

## Plenary Presentation - Prof Jennifer Byrne

1:00PM - 1:35PM

*Chairs: Aaron Schindeler & Craig Munns*

1:00 PM

**Jennifer Byrne**

Tissue Biobanking in Research *abs# 42*

## ANZBMS Awards followed by AGM

1:35PM - 2:30PM

*ANZBMS President: Natalie Sims*

1:35 PM

**ANZBMS Outstanding Abstract Winners**

**OA/AMGEN/ANZBMS Research Grant Winner**

**ANZBMS Highest Rank Student Abstract**

**Christopher & Margie Nordin Young Investigator Award Winner**

**Roger Melick Young Investigator Award Winner**

**Kaye Ibbertson Award Winner**

**Sol Posen Award Winner**

1:45 PM

**AGM**

## WEDNESDAY 14th OCTOBER 2020

*Please note all sessions will run in Australian Eastern Daylight Savings Time (AEDT)*

### Stop, collaborate and listen: The ECIC networking breakfast

8:30AM - 9:30AM

*Chairs: Natalie Hyde & Marc Sim*

*Please note this breakfast session is running on a different platform to the conference.*

### National ANZBMS speaker - Ego Seeman

9:30AM - 10:00AM

*Chairs: Ayse Zengin & Itamar Levinger*

9:30 AM

**Ego Seeman**

The pathogenesis and morphological basis of bone fragility *abs# 43*

### National ANZBMS speaker - Sabashini Ramchand (Early Career Investigator)

10:00AM - 10:30AM

*Chairs: Ayse Zengin & Itamar Levinger*

10:00 AM

**Sabashini Ramchand**

Advances in combination therapy for postmenopausal osteoporosis *abs# 44*

### Break & E-Poster Viewing

10:30AM - 10:45AM

### Clinical Orals

10:45AM - 11:45AM

*Chairs: Christian Girgis & Sue Lynn Lau*

10:45 AM

**Thao P. Ho-Le**

Predicting Mortality and Re-fracture Following an Initial Fracture *abs# 45*

10:57 AM

**Shyan Goh**

Prevalence of vitamin D deficiency in patients with hip fracture over 20 years: time trends and impact on in-hospital mortality *abs# 46*

11:09 AM

**Marc Sim**

Higher dietary nitrate intake is associated with better muscle function in men and women independent of physical activity levels *abs# 47*

11:21 AM

**Abadi Kahsu Gebre**

Heel bone structure is associated with all cause and cardiovascular disease mortality independent of hip bone mineral density *abs# 48*

11:33 AM

**Amy T Harding**

Is high-intensity exercise associated with vertebral fracture in middle-aged and older men with osteopenia and osteoporosis? A secondary analysis of the *LIFTMOR-M* trial *abs# 49*

### Break & E-Poster Viewing

11:45AM - 12:00PM

## AMGEN Lunchtime Symposium: Non-invasive Imaging in Fracture Risk Assessment

12:00PM - 1:00PM

Chair: Prof. John A Eisman

Join us virtually to learn about the latest on non-invasive imaging assessments of bone strength and use of DXA-BMD as a surrogate for fracture endpoints in future clinical studies of osteoporosis therapies. Our invited speaker, Prof. Mary Boussein, is a world-leading expert on the biomechanics of skeletal fragility.

12:00 PM

**John Eisman**

Welcome - Introduction

12:03 PM

**Mary Boussein**

Non-invasive Imaging in Fracture Risk Assessment *abs# 129*

12:52 PM

**Mary Boussein and John Eisman**

Q&A

This symposium is organised and sponsored by



## B.O.N.E Plenary Presentation - Specially Appointed Research Associate Yuki Yoshimoto

1:00PM - 1:30PM

Chairs: Victoria Leitch & Scott Youlten

1:00 PM

**Yuki Yoshimoto**

The functional role of Scleraxis in enthesis formation *abs# 50*

## Basic Science Orals

1:30PM - 2:20PM

Chairs: Jillian Cornish & David Musson

1:30 PM

**Renee T Ormsby**

Loss of Tsc2 in Cathepsin k expressing cells results in a high bone mass phenotype: not the usual suspects *abs# 51*

1:42 PM

**Nathalie Bock**

Utilization of a microtissue-engineered 3D model of osteoblastic metastases to unravel the effects of anti-androgen therapies in the bone microenvironment of metastatic prostate cancer *abs# 52*

1:54 PM

**Natalya Plakhova**

Age-related mesenchymal stromal cell senescence is associated with progression from MGUS to multiple myeloma *abs# 53*

2:06 PM

**Lena Batoon**

Skeletal abnormalities in *Csf1r* knockout rats are rescued by transplant of total bone marrow *abs# 54*

## Closing Ceremony

2:20PM - 2:40PM

ANZBMS President: Natalie Sims

### PLENARY E-POSTERS

**Kara L Holloway-Kew**

Association between bone measures and use of angiotensin-converting enzyme inhibitors or angiotensin II receptor blockers *abs# 15*

**Albert S Kim**

Bone Compartment Characteristics in Patients with Atypical Femoral Fractures on 3D Dual X-Ray Absorptiometry (DXA) *abs# 16*

**Jasna Aleksova**

DXA-derived Trabecular Bone Score and Hip Structural Analysis Parameters in Patients with Type 1 Diabetes Mellitus undergoing Simultaneous Pancreas Kidney Transplantation *abs# 17*

**Yoon Ji Jina Rhou**

The Use of Denosumab in Central Giant Cell Granuloma: 5-year Institutional Experience *abs# 18*

**Shane Patella**

A global natural history study of fibrodysplasia ossificans progressiva (FOP): 12-month outcomes *abs# 19*

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Chondrocyte glucocorticoid receptor deletion attenuates cartilage damage in murine osteoarthritis *abs# 25*

**Rogely Boyce**

Inhibition of Sclerostin by Sclerostin Antibody Does Not Affect Morphological or Transcriptional Endpoints Related to Atheroprogession, Plaque Calcification, or Inflammation in 2 Murine Models of Atherosclerosis *abs# 26*

## CHRISTOPHER & MARGIE NORDIN E-POSTERS

### **Ruby Oberin**

Determining the role of maternal epigenetic inheritance in bone development and disease *abs# 31*

### **Courtney M Edwards**

Extra-nuclear PTHrP induces HIF and drives tumor cell exit from dormancy in bone *abs# 32*

### **Yaser Peymanfar**

Targeting Notch2 signalling to overcome methotrexate chemotherapy-induced bone loss and bone marrow adiposity in rats *abs# 33*

### **Ye Cao**

Characterisation of osteoprogenitors within the periosteum *abs# 34*

### **Lianzhi Chen**

Horizontal fissuring at the osteochondral interface: a novel and unique pathological feature in patients with obesity-related osteoarthritis *abs# 35*

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### **Jason Talevski**

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### **Jasmine R Cleminson**

Antidepressant use, depressive symptoms and incident fracture: data from the PROFRACT study *abs# 38*

## BASIC SCIENCE E-POSTERS

### **Nethmi Abeynayake**

Role of Eph and ephrin interactions in mediating cross-communication in the neuro-osteogenic network during development *abs# 55*

### **Ahmed Al Saedi**

Lipid Signaling Mediators Regulate Bone-Muscle Crosstalk During Ageing *abs# 56*

### **Agnieszka Arthur**

The loss of ephrinB1 in osteoprogenitors delays endochondral ossification during the fracture repair process *abs# 57*

### **Behnaz Azimi Manavi**

Antipsychotic medications use and bone mineral density in women from the Geelong osteoporosis study *abs# 58*

### **Emma J Buckels**

Male preptin knockout mice have increased trabecular bone volume with advancing age *abs# 59*

### **Peilin Chen**

Intramuscular injection of Botox induces tendon atrophy and senescence of tendon-derived stem cells *abs# 60*

### **Aiken Dao**

Preclinical Bacterial Bone Infection Models for Orthopaedic Research and Antimicrobial Efficacy Testing *abs# 61*



**Alyse Davies**

Dietary Behaviors That Place Young Adults at Risk for Future Osteoporosis *abs# 62*

**Junjie Gao**

Endoplasmic reticulum stress induced inhibition of mitochondrial transfer and cathepsin K secretion in osteocyte network - a novel mechanism of glucocorticoid induced bone loss *abs# 63*

**Ebrahim Bani Hassan**

Comparison between adjusting DXA-derived lean mass for body mass index (BMI) or height<sup>2</sup> Associations with physical performance and clinical outcomes *abs# 64*

**Maaya Inoue**

Histopathology/immunopathology in high-prevalence bisphosphonate-related osteonecrosis of the jaw around implants in rat maxillae *abs# 65*

**Riho Kanai**

Surface modification of dental implants improves bone quantity and quality in rabbit tibiae *abs# 66*

**Shinichiro Kuroshima**

Gene expression profiling and histopathology/immunopathology in high-prevalence bisphosphonate-related osteonecrosis of the jaw in mice *abs# 67*

**Yea Rin Olivia Lee**

Spatial mapping of *N*-glycans on human osteoarthritis cartilage-bone tissue using mass spectrometry imaging *abs# 68*

**Jiao Jiao Li**

Influence of stem cells in an *in vitro* model of an osteoarthritic joint *abs# 69*

**Xuzhu Lin**

Undercarboxylated osteocalcin and ibandronate improve hindlimb immobilisation-induced atrophy and muscle insulin resistance in a muscle-specific manner in mice *abs# 70*

**Fatemeh Malekipour**

Stress distribution in the third metacarpal condyle (MC3) of a racehorse with focal subchondral bone lysis *abs# 71*

**Sílvia Moreira**

The (un)expected influence of pesticides exposure in bone cancer development and transgenerational epigenetic effects in bone metabolism *abs# 72*

**Dzenita Muratovic**

Elevated Levels of active TGFβ1 in the Subchondral Bone Associate with the Severity of Human Osteoarthritis *abs# 73*

**Alexandra O'Donohue**

Generating a pipeline for screening genetic variants associated with bone fragility disorders *abs# 74*

**Tolu Omokehinde**

LIF/OSM/CNTF Activate Distinct Pathways in Breast Cancer *abs# 75*

**Alisha C Sharma**

Localised alterations in bone geometry and cortical porosity predispose fracture site in a mouse model of Paget's disease of bone *abs# 76*

**Alexander Tacey**

The influence of undercarboxylated osteocalcin on endothelial function in normal and high glucose conditions *abs# 77*

**Senthil Thillainadesan**

Effects of weight loss on bone health in mice *abs# 78*

**Vera M Todd**

Loss of HIF signaling in breast tumors promotes outgrowth in the lung but not bone *abs# 79*

**Jacob Trend**

Automated regional segmentation of the murine bone cortex exposes microstructural diversity in porosity *abs# 80*

**Yusuke Uchida**

Intermittent administration of parathyroid hormone has different effects on peri-implant bone in a site-dependent manner. *abs# 81*

**Natalie K Wee**

Unexpected skeletal phenotype in a mesenchymal-targeted Calcitonin-like receptor (CLR) knockout model *abs# 82*

**Anna Xiao-Dan Yu**

Corylin inhibits RANKL-induced osteoclastogenesis: signaling mediated by NF- $\kappa$ B pathways *abs# 83*

**Yali Zhang**

MicroRNA control in the reduced osteogenesis but increased adipogenesis in the bone marrow following methotrexate treatment in rats *abs# 84*

**CLINICAL E-POSTERS****Matthew Balcerek**

A vexing case of bone pain *abs# 85*

**Stefanie Bird**

Associations between household income and proinflammatory cytokines related to bone early in the life-course: A Systematic Review *abs# 86*

**Kenrick D Blaker**

A comparison of two electronic search tools to identify patients with osteoporotic fractures *abs# 87*

**Robert D Blank**

Targeting the Fracture Prevention Message *abs# 88*

**Mavil May Cervo**

Mediterranean diet adherence and its associations with circulating cytokines, musculoskeletal health and incident falls in community-dwelling older men *abs# 89*

**Lianzhi Chen**

Burden of end-stage osteoarthritis in Australia: A population-based study on the incidence of total knee replacement attributable to overweight/obesity *abs# 90*

**Cellina Ching**

“Age Before Frailty”: Why Do Some People Fracture their Hips at a Younger Age? *abs# 91*

**Gareth Crouch**

Risk factors for atypical femoral fracture: a retrospective radiographic and demographic study *abs# 92*

**Jack Feehan**

Blood borne bone: Circulating Osteoprogenitors Associated with Bone and Muscle quality. *abs# 93*

**Aviva Frydman**

Vitamin D Dependent Rickets Type 1A: A Case Report *abs# 94*

**Kirtan Ganda**

Post-Fracture Care (PFC) Programs: A Literature Assessment of Where Secondary Fracture (Fx) Prevention is Today *abs# 95*

**Anoohya Gandham**

Falls, fractures and areal bone mineral density in older adults with sarcopenic obesity: A systematic review and meta-analysis *abs# 96*

**Shyan Goh**

Primary care management of knee osteoarthritis prior referral to orthopaedic clinic and its concordance with published national guidelines and recommendations *abs# 97*

**Madhuni Herath**

Ongoing bone loss at the hip occurs in young adults with transfusion-dependent thalassemia major and is associated with increased urinary calcium and haemoglobin over time *abs# 98*

**Ana Maria Delgado Lucio**

Mastocytosis, an unusual case of osteoporosis. *abs# 99*

**Md. Saddam Hussain**

A survey on common side effects and incidence of bone pain and fractures among the patients taking long term anti-ulcerant therapies in Bangladesh *abs# 100*

**Natalie K Hyde**

Age of introduction to solids is not associated with bone mineral density in childhood: Data from the Vitamin D in Pregnancy Study *abs# 101*

**Ebrahim Bani Hassan**

Mid-thigh bone, lean and fat mass are reliable indices of tissue mass in predicting osteosarcopenia-associated outcomes – a validation study *abs# 102*

**Alicia R Jones**

Dual energy x-ray absorptiometry reporting displays lack of adherence to international guidelines *abs# 103*

**Melanie Kistler-Fischbacher**

The effect of exercise intensity on postmenopausal BMD: a meta-analysis *abs# 104*

**Sneha Krishna**

Forgotten fractures - the extremes of Paget's disease *abs# 105*

**Joshua L Lee**

Skeletal health in patients with traumatic spinal cord injury: a retrospective cross-sectional study from an Australian tertiary centre *abs# 106*

**Jakub Mesinovic**

Does exercise attenuate bone mineral density losses during diet-induced weight loss in overweight and obese adults? A systematic review and meta-analysis of randomised control trials *abs# 107*

**Jakub Mesinovic**

Risk factors for incident falls and fractures in older men with and without type 2 diabetes mellitus: the concord health and ageing in men project *abs# 108*

**Carrie-Anne Ng**

Estimating the osteogenic potential of physical activity and its associations with five-year bone mineral density changes, incident falls and fractures in older men: the Concord health and ageing in men project *abs# 109*

**Feng Pan**

Sleep disturbance and risk of falls and fractures: a 10.7-year cohort study *abs# 110*

**Julie A Pasco**

Operational definitions of sarcopenia that involve tests of muscle performance in women should consider depressive symptoms *abs# 111*

**Shane Patella**

Measuring outcomes in ultra-rare diseases: methodology of the palovarotene fibrodysplasia ossificans progressiva (FOP) clinical development program *abs# 112*

**Chamath Premawardena**

Management of hypercalcaemia due to hypervitaminosis D *abs# 113*

**Chamath Premawardena**

Case Series: Denosumab and Atypical Femoral Fractures *abs# 114*

**Kavindra N Ratnaweera**

Clots and bleeds in patients with hyperparathyroidism; What is the evidence? *abs# 115*

**Selwin G Samuel**

The effect of pathogen associated molecular patterns in skeletal muscle osteogenic cultures *abs# 116*

**Anuj Shah**

New vertebral deformities lead to clinically important impairments in function and worsening quality of life in older women but not men over 10.7 years *abs# 117*

**Sophia X. Sui**

How well do low population-specific values for poor muscle strength and lean mass associate with indices of poor health? Cross-sectional data from the Geelong Osteoporosis Study *abs# 118*

**Sukesh Sukumaran**

Yoga- A Complementary Medicine for Juvenile Idiopathic Arthritis (JIA)? *abs# 119*

**Monica C. Tembo**

Prevalence of frailty in older men and women: cross-sectional data from the Geelong Osteoporosis Study *abs# 120*

**Michael Thompson**

Population vitamin D stores are increasing in Tasmania and this is associated with less BMD loss over 10 years *abs# 121*

**Emma M Wade**

Deletion of the non-coding exon 1 in *AMER1* causes osteopathia striata with cranial sclerosis *abs# 122*

**Chamica W Gunawardena**

Prolactinoma causing osteoporosis in a young male *abs# 124*

**Lana J Williams**

Bipolar disorder and bone quality *abs# 125*

**Yu-Fang Wu**

Atypical femur fracture with short term bisphosphonate and 36 months of denosumab therapy *abs# 126*

**Hannah Youn**Severe urticarial rash secondary to internet-bought strontium citrate for osteoporosis management *abs# 127***Craig F Munns**In Pediatric X-linked Hypophosphatemia (XLH), Burosumab Improved Clinical Outcomes Versus Higher and Lower Doses of Oral Phosphate and/or Active Vitamin D *abs# 128***AUTHOR LISTING**

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