
CONTENTS

| | |
|--|-----------|
| CONTENTS | 1 |
| WELCOME FROM THE COMMITTEE | 2 |
| SOCIETY SECRETARIATS | 2 |
| ANZBMS 2019 COMMITTEE | 3 |
| ANZBMS OFFICE BEARERS 2019 | 3 |
| PAST ANZBMS OFFICE BEARERS 1988-2017 | 4 |
| SPONSORS, AWARDS AND LECTURERS OF THE AUSTRALIAN & NEW ZEALAND BONE & MINERAL SOCIETY | 5 |
| DELEGATE INFORMATION | 9 |
| PLENARY SPEAKERS | 12 |
| SYMPOSIUM SPEAKERS | 13 |
| SUNDAY 27 TH OCTOBER 2019 | 18 |
| MONDAY 28 TH OCTOBER 2019..... | 20 |
| TUESDAY 29 TH OCTOBER 2019 | 24 |
| ANZBMS AGM..... | 26 |
| WEDNESDAY 30 TH OCTOBER 2019 | 27 |
| PLENARY POSTER LISTING | 28 |
| POSTER LISTING | 29 |
| ODD NUMBERS..... | 29 |
| EVEN NUMBERS..... | 32 |
| SPONSOR AND TRADE PARTICIPANTS | 35 |
| EXHIBITION FLOOR PLAN | 35 |
| PLATINUM SPONSOR..... | 35 |
| GOLD SPONSOR | 35 |
| EXHIBITORS | 36 |
| AUTHOR LISTING | 37 |
| ATTENDEES | 43 |
| NOTES | 47 |

Indigenous Artwork at ANZBMS 2019

Chidanpee Cultural Enterprises - Meeting in Darwin NT.

Darwin is the place that is occupying the lands of the Larrakia people, Dungalaba is the tribe represented by the crocodile, who watches over the harbour, the sun is setting in the Arafura Sea, Dungalaba surrounds the four arches of Darwin town and people sit around the subjects of the symbols below in conference. Chidanpee creator of the artwork.

Artist: Norma Chidanpee Benger, Chidanpee Cultural Enterprises

WELCOME FROM THE COMMITTEE

The Program and Local Organising Committee Chairs, and the President of the Australian and New Zealand Bone and Mineral Society (ANZBMS), extend their warmest welcome to you at our 29th Annual Scientific Meeting of the ANZBMS, in the tropical city of Darwin, Australia, from the 27th to the 30th of October 2019.

Chaired by Rachel Davey and Rory Clifton Bligh, together with members David Findlay, Brya Matthews, Christian Girgis and Joshua Lewis, the Program Organising Committee have put together an exciting program of cutting-edge science that will appeal to both clinician and basic scientists in the musculoskeletal field.

Our scientific program includes invited international and national speakers, basic and clinical abstract presentations and young investigator awards including a mini-oral session. Our plenary speakers include Professor Yuuki Imai (Japan), Professor Melissa Kacena (USA), Professor Bente Langdahl (Denmark) and Professor Martina Rauner (Germany). Key musculoskeletal themes being presented include:

- *Osteoimmunology*
- *Therapeutics*
- *Bone and energy metabolism*
- *Molecular and cellular mechanisms in bone*
- *Population bone health*
- *Bone repair*
- *Muscle and bone interactions*
- *Bone health in the disadvantaged*
- *Epigenetics*

The Early Career Investigator Committee is hosting a Clinical Cases in Metabolic Bone Diseases Seminar dinner and an evening Bones and Brews networking event. Along with the Welcome Function, another highlight of the social program will be the Conference Gala Dinner at the iconic PeeWees on the Point Restaurant with a stunning view of the tropical harbour city of Darwin. This event is sure to be an unforgettable night filled with dancing and entertainment.

Over the next few days, there will be many opportunities for networking and discussion, and to build collaborations and contacts with national and international colleagues. Whether you are a young investigator, clinician, basic scientist, allied health professional, or industry representative, we are sure that you will experience an exciting meeting that highlights the latest clinical and basic research topics in the musculoskeletal field.

We hope you enjoy this year's vibrant and informative meeting in Darwin!

Julia Kuliwaba
LOC Chair

SOCIETY SECRETARIATS

ANZBMS

145 Macquarie Street
Sydney, NSW 2000, Australia
Ph: +61 (0) 2 9256 5405
Fax: +61 (0) 2 9251 8174
ijohnson@anzbms.org.au
Contact person: Ivone Johnson
www.anzbms.org.au

Conference Secretariat – ASN Events Pty Ltd

Unit 9/397 Smith Street,
Fitzroy VIC 3065
Phone 03 8658 9530
Fax: 03 8658 9531
jf@asnevents.net.au
Contact person: Jim Fawcett
www.asnevents.com.au

ANZBMS 2019 COMMITTEE

LOCAL ORGANISING COMMITTEE

Dr Julia Kuliwaba (Chair)

University of Adelaide

Dr Diana MacKay – LOC Member

The Royal Darwin Hospital

Prof Natalie Sims – ANZBMS Meetings Committee Chair

St Vincent's Institute of Medical Research

Dr Dzenita Muratovic – LOC Member

University of Adelaide

Dr Sridhar Chitturi – LOC Member

The Royal Darwin Hospital

Professor Mike Rogers – LOC Member

Garvan Institute of Medical Research

PROGRAM ORGANISING COMMITTEE

A/Prof Roderick Clifton-Bligh (ANZBMS POC Co-Chair)

University of Sydney

Dr Christian Grigis – POC Member

University of Sydney

A/ Prof Rachel Davey (ANZBMS POC Co-Chair)

The University of Melbourne

Dr Joshua Lewis – POC Member

University of Sydney

Prof David Findlay – POC Member

University of Adelaide

Dr Brya Matthews – POC Member

University of Auckland

ANZBMS OFFICE BEARERS 2019

President

Peter Croucher

Councillors

Rob Daly

President Elect

Natalie Sims

Allison Pettit

Secretary

Paul Anderson

Mark Forwood

Treasurer

Nathan Pavlos

Jillian Cornish

Past President

Emma Duncan

Mark Cooper

PAST ANZBMS OFFICE BEARERS 1988-2017

| 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 |

SPONSORS, AWARDS AND LECTURERS OF THE AUSTRALIAN & NEW ZEALAND BONE & MINERAL SOCIETY

ANZBMS AWARD SPONSORS



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

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 | | |

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 | | |

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

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 | | Rachele Johnson |
| 2009 | Mark Bolland | 2016 | Michelle McDonald |
| 2010 | Kun Zhu | 2017 | Feitong Wu |
| 2011 | Susannah O'Sullivan | 2018 | Dawn Aitken |
| 2012 | Emma Duncan | | |

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 | | |

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 | | |

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 Ashika Channa Christina Vrahnas | 2015 | Campbell Macgregor Megan Thomas Scott Yaulten |
| 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 | 2016 | Jack Martin |
| 2015 | Howard Morris | 2018 | John Eisman |

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)
Associate Professor Jane Moseley
Professor B.E.C Nordin (deceased)
Dr Solomon Posen (deceased)
Professor Thomas J. Martin

Dr Donald Gutteridge
Dr Ailsa Goulding
Associate Professor Michael Hooper
Professor John Eisman
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

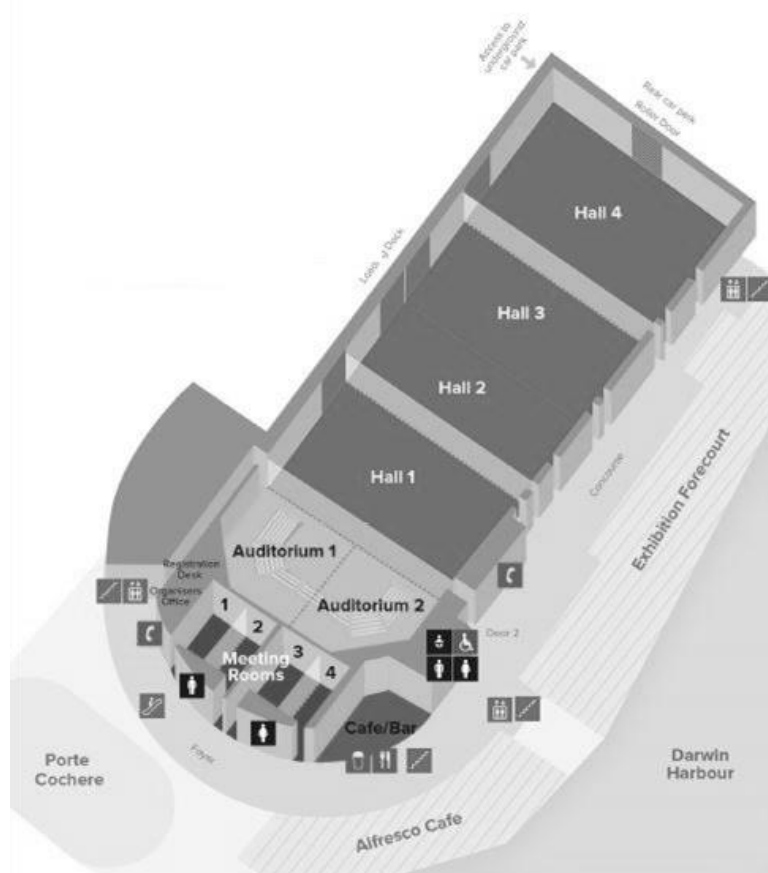
2018 Marija Simic

DELEGATE INFORMATION

VENUE

Darwin Convention Centre
10 Stokes Hill Rd
Darwin City, NT 0800
Phone: +61 8 8923 9000

VENUE LAYOUT



THE REGISTRATION DESK

The registration desk is located on Ground Level next to Hall 3 & 4. Any enquiries can be directed to ASN staff located at the registration desk except those regarding accommodation which should be dealt directly with your hotel.

The registration desk office hours are:

| | |
|----------------------|-------------------|
| Sunday 27 October | 1:00 PM – 6:00 PM |
| Monday 28 October | 6:30 AM – 6:00 PM |
| Tuesday 29 October | 7:00 AM – 4:00 PM |
| Wednesday 30 October | 7:30 AM – 1:00 PM |

THE SPEAKER PREPARATION ROOM

You should bring your talk on a USB, saved in a format for display on a PC within the room (ie PowerPoint). You will need to load your presentation directly into the room in which you are presenting. A technician will be on hand to assist with any transfer / loading issues and to help you check your presentation. Please note there are no Macintosh computers in the presentation room – please format your USB drives appropriately (FAT32).

REGISTRATION

Conference delegates receive the following services as part of their registration:

- Access to the sessions of your choice
- Conference satchel complete with conference book
- Use of the Conference App
- Morning and/or afternoon tea for the days of nominated attendance
- Lunches on the days of nominated attendance
- Welcome Function (Sunday 27 October)
- Conference Dinner (Tuesday 29 October)

NAME TAGS

Delegates are required to wear their name tags to all scientific and catered sessions. Delegates should note that within their name tag pouch will be the specific function tickets they have purchased.

POSTER VIEWING

Delegates with posters can find the correct position for their poster by locating the appropriate abstract number on the display panels. The Plenary posters are displayed within the Exhibition (Hall 4) and general posters are also displayed within the Hall 4, both located on the Ground Level. Use the program reference (or ANZBMS smart phone APP) to identify your abstract number and poster position. Presenters should stand next to their poster during allocated poster sessions. **Plenary**

posters (located in Hall 4) can be mounted on **Saturday afternoon** and must be removed by **morning tea on Wednesday**. **General posters** (located in Hall 4) can be mounted on **Sunday evening** and must be removed by the **morning tea on Wednesday 30th October**.

POSTER SESSIONS

There are three official poster sessions at this year's meeting:

Plenary Poster session – 5:55 PM – 7:15 PM, Sunday 27th October, Exhibition (Hall 4)

Poster session 1 – even numbers – Monday 28th October at 3:00pm – 4:00pm (during afternoon tea)

Poster session 2 – odd numbers – Tuesday 29th October at 10:00am – 11:00am (during morning tea)

SOCIAL FUNCTIONS

Welcome Function

Date: Sunday, 27th October 2019

Time: 5.55pm - 7.15pm

Price: Complimentary with Full Conference Registration

Location: Darwin Convention Centre

Additional ticket: \$50.00

**Additional tickets for partners can be purchased in advance or at the registration desk.*

ECIC - 'Bones & Brews' Networking Dinner

Date: Sunday, 27th October 2019

Time: 7.30pm - Late

Location: The Precinct

Cost: \$55.00

Student/ECR cost: \$25.00

**This is a ticketed function; tickets can be purchased in advance or at the registration desk.*

Clinical Cases in Metabolic Bone Diseases Seminar

Date: Monday, 28th October 2019

Time: 6.30pm - 9.30pm

Price: \$40 (Trainee or Student), \$50 (Non-Trainee or Non-Student)

Location: Darwin Convention Centre, Meeting Rooms 1 & 2

Dinner and drinks provided.

ANZBMS Conference Dinner

Date: Tuesday, 29th October 2019

Time: 5.30PM - Late

Price: Complimentary with Full Conference Registration

Location: PeeWees on the Point

Additional ticket: \$110.00

Buses will depart at 5.30pm from the Darwin Convention Centre.

**This is a ticketed function; tickets can be purchased in advance or at the registration desk.*

RECORDING OF SESSIONS AT ANZBMS 2019

We are excited to announce that all authorised oral presentations (presented in the Hall 3) will be recorded at ANZBMS 2019. The sessions will be recorded live and published to Armchair Medical (<https://www.armchairmedical.tv/>) post conference. Subscribers to Armchair Medical (Mainly GP's in Australia) will be able to access these presentations as well as ANZBMS members. If you do not wish to have your presentation recorded, please advise ASN Staff at the registration desk.

DIETARY REQUIREMENTS

If you requested a special meal, please make yourself known to the venue staff and advise your name and special request.

SMOKING

Smoking is not permitted in the venue.

MOBILE PHONES

Please ensure your mobile phone is turned off or on silent during any session you attend.

INSURANCE

The hosts and organisers are not responsible for personal accidents, any travel costs, or the loss of private property and will not be liable for any claims. Delegates requiring insurance should make their own arrangements.

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.

WI-FI INTERNET

Darwin Convention Centre provides complimentary Wi-Fi and signage will be placed around the venue and at the registration desk for access.

CONFERENCE APP

The App is displayed in a simple and easy to read format on your phone, iPad, or even your computer. To get the 'App', please open the below link in your internet browser on your phone, iPad or laptop.

<http://anzbms-2019.m.asnevents.com.au/>



You will be prompted to add an icon onto your device home screen. The Smartphone/Mobile Device 'App' will allow you to:

- View the full conference program
- View all abstracts for the conference
- Save your favourite sessions and plan your day
- Take notes which will then be saved and downloaded from your registration profile.
- To use most of these functions, you will be prompted to 'log in' each day.

PLENARY SPEAKERS



Professor Melissa Kacena

Dr. Kacena is the Director for Basic and Translational Research and a Professor in the Department of Orthopaedic Surgery at IU School of Medicine. Her laboratory's overall research goal is to improve the understanding of the interaction of the bone and hematopoietic systems, thereby potentially improving the treatment of metabolic bone disease, hematopoietic disorders, and fracture healing. In collaboration with NASA and the US Army Center for Environmental Health Research, Dr. Kacena has been investigating the impacts of spaceflight and drug therapies on bone healing (launched February 19, 2017 on SpaceX-10) and osteoblast function (to be launched 2019/2020). Dr. Kacena's laboratory has been funded since 2007 by the National Institute for Health, the Department of Defense, the US Army, the Veteran's Affairs, and several foundations. In 2017, the American Society for Bone and Mineral Research recognized Dr. Kacena's scientific contributions to the bone and mineral field by presenting her with the esteemed Fuller Albright Award.



Professor Bente Langdahl

Bente Langdahl is a Professor at Aarhus University and a Consultant at the Department of Endocrinology and Internal Medicine at Aarhus University Hospital, Denmark. Professor Langdahl graduated from the medical school at Aarhus University in 1988 and did her clinical training in internal medicine and endocrinology at Aarhus University Hospital. Professor Langdahl attained her PhD at Aarhus University with the thesis title "Investigations on a possible pathogenic role of thyroid hormones in postmenopausal osteoporosis". Professor Langdahl also received her DMSc at Aarhus University for the thesis "The genetics of bone mass and risk of osteoporotic fractures". Professor Langdahl's main research interests are identification and investigation of genetic variants that imply increased risk of osteoporotic fractures, osteogenesis imperfecta in adults, the impact of thyroid diseases, HIV and diabetes on bone health, the development of new treatments and the long-term management of osteoporosis. She is co-chair of the International Federation of Musculoskeletal Research Societies and past president of ECTS.



Professor Yuuki Imai

Yuuki Imai, MD, PhD is a Professor at Proteo-Science Center, Graduate School of Medicine and Advanced Research Support Center, Ehime University, Japan. He graduated from Medical school, Osaka City University in 1999. In 2005, he obtained PhD degree from the Department of Orthopaedic Surgery, Graduate School of Medicine, Osaka City University. He moved to Institute of Molecular and Cellular Biosciences (IMCB), The University of Tokyo in 2006 as a postdoctoral fellow. He returned the Department of Orthopaedic Surgery, Graduate School of Medicine, Osaka City University in 2007 as a Research Associate. In 2009, he joined to Prof. Myles Brown's Laboratory, Dana-Farber Cancer Institute and Harvard Medical School, Boston, USA as a visiting scientist, working on genome-wide integrative analyses. He returned to IMCB in 2010 as a Project Lecturer. In 2013, he moved to Ehime University and started his own Lab. From 2014, he is a member of IFMRS Big Data Work Group. He is now a councilor and a member of several committees of JSBMR. His research interests lie in the area of musculoskeletal biology with specific interest in the molecular mechanisms of sex steroids, epigenetics and bone metastasis.



Professor Martina Rauner

Martina Rauner studied biotechnology at the University of Applied Sciences in Vienna, Austria from 2002-2006. After completing her doctorate at the Department of Pathophysiology at the Medical University of Vienna in 2008, she received the ECTS/AMGEN bone research fellowship and joined the group of Professor Lorenz Hofbauer in Dresden, Germany to study mechanisms of glucocorticoid-induced osteoporosis. In 2011, Martina became Group leader for Osteoimmunology and expanded her research area to chronic inflammatory diseases and Wnt signaling. Due to her comprehensive knowledge on bone biology, its interactions with other organ systems, and her leadership skills, she was promoted to the Scientific Director of the Bone lab in 2015 and became Professor for Molecular Bone Biology in 2018. Currently, her group is particularly interested in the interactions of bone with hematopoiesis, the immune system, and hormones (glucocorticoids, erythropoietin, and thyroid hormones), and studies the role of Wnt and BMP signaling. Martina has published over 100 publications in the field of bone biology and has received several awards for her work. Moreover, she is on the board of the European Calcified Tissue Society (ECTS), has promoted the needs of New Investigators in that society, and is a founding member of the ECTS Academy, a group of outstanding young scientists in the musculoskeletal field.

Martina is the inaugural invited speaker of the ANZBMS/ECTS Academy early career investigator invited presentation exchange program, a joint initiative of the ANZBMS ECIC and the ECTS Academy.

SYMPOSIUM SPEAKERS



A/ Professor Paul Baldock

A/Prof Paul Baldock received his PhD in 2001 from the University of Adelaide, investigating the skeletal response to ovarian hormone deficiency with Professor Howard Morris. He then moved to the Garvan Institute in Sydney, where he is Head of the Skeletal Metabolism Group in the Osteoporosis and Bone Biology Division. He is a basic scientist, working with murine models of altered bone homeostasis. His research has focussed upon neuropeptide pathways: Demonstrating interactions between the brain and osteoblast in the control of bone mass. This work has defined novel links between bone, energy and glucose homeostasis. Most recently, his work has explored signalling from bone tissue, to regulate not only itself, but also aspects of energy and glucose homeostasis.



Prof Frank Beier

Frank Beier is the Canada Research Chair in Musculoskeletal Research at the University of Western Ontario and a member of Western's Bone and Joint Institute. He is a Professor and Chair of the Department of Physiology and Pharmacology. His lab explores mechanisms controlling cartilage and joint biology, using genomic approaches and genetically engineered mice in combination with surgical, dietary and activity manipulations. Dr. Beier has published over 120 peer-reviewed articles and gave more than 100 invited presentations. His work is supported by the Canadian Institutes of Health Research. He was a member of the Board of Directors of the Osteoarthritis Research Society International (OARSI) and is a current member of the Faculty of 1000 and several editorial boards, including the Deputy Editor for Osteoarthritis & Cartilage. He was the Chair of the 2017 Cartilage Gordon Conference and was awarded the Basic Science Award from OARSI in 2019.



A/ Professor Sharon Brennan-Olsen

Associate Professor Sharon Brennan-Olsen is supported by NHMRC Career Development Fellowship and is Principal Research Fellow with the Department of Medicine-Western Health, University of Melbourne, and Program Director of 'Social Epigenomics and Population Health' at the Australian Institute for Musculoskeletal Science (AIMSS). Her research interests are the social determinants of musculoskeletal diseases and related health service utilisation, and biological mechanisms that may underpin the social gradient of musculoskeletal diseases. Her track record includes ~160 peer-reviewed publications, several books and book chapters, and ~\$4.1million in research funding. She is an active advocate for transparency in science, community engagement, and gender equity.



Professor Emma Duncan

Prof Emma Duncan is Pre-Eminent Senior Staff Specialist, Department of Endocrinology and Diabetes, Royal Brisbane and Women's Hospital; Adjunct Professor, Institute of Health and Biomedical Innovation, Faculty of Health, Queensland University of Technology; and Professor of Medicine, Faculty of Medicine, University of Queensland. After graduating in medicine with first class honours from the University of Sydney, Prof Duncan moved to the UK. She undertook her doctoral studies into the genetics of osteoporosis at the Wellcome Trust Centre for Human Genetics, University of Oxford in collaboration with the Open University, and was appointed locum Consultant at the Oxford Centre for Diabetes, Endocrinology and Metabolism. On return to Australia she was appointed initially to the Princess Alexandra Hospital, Brisbane, before moving to her current position in 2010.



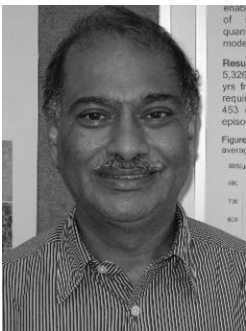
Dr Christian Girgis

Dr Christian Girgis is a staff endocrinologist at Royal North Shore and Westmead Hospitals in Sydney. He completed a PhD in 2014 at the Garvan Institute of Medical Research on vitamin D signaling and skeletal muscle. He was subsequently awarded an NHMRC post-doctoral research fellowship and in 2015, was a visiting scholar to the Salk institute of Biological studies, USA. Currently, his clinical work focuses on metabolic bone disease, calcium disorders and osteoporosis re-fracture prevention. He conducts translational research in broad areas of musculoskeletal health and is involved in medical education as a conjoint senior lecturer at the University of Sydney.



Professor Stan Gronthos

Stan Gronthos is Professor of Stem Cell Biology and Regenerative Medicine, and Founder and Head of the Mesenchymal Stem Cell Laboratory, Adelaide Medical School, Faculty of Health and Medical Sciences, University of Adelaide. He is a Senior Principal Research Fellow of the South Australian Health and Medical Research Institute Faculty, and a Fellow of the American Society of Bone and Mineral Research. He has co-authored over 206 publications with over 37,500 citations (Google Scholar, H factor = 75) and 13 patents describing the composition of matter and application of purified postnatal human mesenchymal stem cells derived from bone marrow, adipose tissue, and dental tissue. His stem cell patent family was the foundation intellectual property for the formation of Mesoblast Ltd., one of the world's largest regenerative medicine-based companies, which is currently sponsoring multiple human Phase II/III trials in cardiovascular disease, diabetes, osteoarthritis, cancer and immune/inflammatory conditions.



Professor Charles Inderjeeth

Professor Charles Inderjeeth is a Clinical Epidemiologist and Consultant Physician in Rheumatology and Geriatric Medicine. He completed his Master of Public Health at the University of Western Australia. He is an NHMRC-NICS-DVA Fellow. He is involved in education, research and development of guidelines and publications in the field of Rheumatology, osteoporosis, Vitamin D, Dementia and Geriatric Syndromes. He is involved in Phase 1 – 4 research in Rheumatological diseases including Rheumatoid arthritis, Osteoarthritis and Sjogren's syndrome, Vitamin D, Osteoporosis, Frailty and Sarcopenia, Falls and Dementia. He received research funding from numerous organisations including the NHMRC-NICS- DVA Fellowship. He supervises Fellows in Training and PhD students through the University of Western Australia. He has numerous Advisory/Executive/Board roles to the Department of Health (WA), the Arthritis Foundation of WA, Osteoporosis Australia, Australian Rheumatology Association, Australian and New Zealand Society of Bone Mineral Research, Australian and New Zealand society for Sarcopenia and Frailty.



Professor Susan Kurlle

Susan Kurlle is a geriatrician practising at Hornsby Ku-ring-gai Hospital in northern Sydney and at Batemans Bay Hospital in southern NSW. She holds the Curran Chair in Health Care of Older People in the Faculty of Medicine at the University of Sydney, and she has led the NHMRC Partnership Centre on Dealing with Cognitive and Related Functional Decline since 2012. This Centre focusses on research and implementation projects dealing particularly with the care aspects of dementia and functional decline. She has been involved in frailty research and practice since 2008 including a successful intervention trial addressing frailty and mobility disability in older people living in the community, and currently leads the Northern Sydney Frailty Initiative bringing together the Local Health District (acute hospitals) and the Primary Health Network (general practice and allied health) to recognise and manage frailty in older patients.



Professor Gordon Lynch

Professor Lynch is Director of the *Centre for Muscle Research* in the Department of Physiology at The University of Melbourne. The *Centre* is a discovery hub for basic science research on skeletal muscle with translational links across biomedicine, biomedical engineering, food, agriculture and aquaculture. His research encompasses studying muscle adaptation and plasticity, injury and regeneration, and the mechanisms underlying wasting and weakness in diseases and conditions, including ageing, cancer, and the muscular dystrophies. He completed his BSc (Honours) at La Trobe University (1988), his Ph.D. in Physiology from The University of Melbourne (1992) and postdoctoral training at The University of Michigan (1995-1997) while a NHMRC C.J. Martin Fellow. He was awarded the A.K. McIntyre Medal (1995) from the Australian Physiological Society, an ARC Research Fellowship (1998) and NHMRC R.D. Wright Research Fellowship (1998), before being appointed Lecturer in Physiology at The University of Melbourne (1999). He was promoted to full Professor (2008) and served as Head of the Department of Physiology (2011-2016). He has published >190 papers and reviews (*Nature, Cell, Physiological Reviews*) and a textbook on *Sarcopenia* – age-related muscle wasting and weakness. His inspirational mentoring has been recognised through multiple national and University awards.



Professor Louise Maple-Brown

Louise Maple-Brown is Head of Department of Endocrinology, Royal Darwin Hospital (Northern Territory, Australia) and an NHMRC Practitioner Fellow with Menzies School of Health Research. Louise leads a clinical research program within the Wellbeing and Preventable Chronic Diseases division of Menzies, with a focus on diabetes and related conditions in Indigenous Australians. Currently Louise is the lead investigator on several large NHMRC-funded projects, including the Northern Territory and Far North Queensland Diabetes in Pregnancy Partnership and The PANDORA (Pregnancy And Neonatal Diabetes Outcomes in Remote Australia) Cohort Study. After completing the majority of her physician and endocrinology training at St Vincents Hospital Sydney, Louise moved to Darwin in 2002 to pursue her passion for improving the health of Indigenous Australians. Louise is currently on the Australian Diabetes Society Council and was previously a member of the Council of the Australasian Diabetes in Pregnancy Society. Louise has been providing clinical diabetes services to urban and remote NT communities for over 17 years, including more recently via telehealth.



Dr Saulo Martelli

Dr Saulo Martelli is appointed as Senior Lecturer in the College of Science and Engineering at Flinders University. He has received a PhD in Biomechanical Engineering (2008) from the University of Bologna, Italy. His post-doctoral fellowship on musculoskeletal mechanics at the Rizzoli Orthopaedic Institute, Italy, and the University of Melbourne, Australia. Dr Martelli is a Future Fellow of the Australian Research Council, member of the European Society of Biomechanics and of the Australian & New Zealand Orthopaedic Society. Dr Martelli research focus on musculoskeletal science by combining laboratory tests, human experiments and computational methods to study the interaction between anatomy, material properties and function in healthy and pathological systems. His research seeks impact to orthopaedic, exercise and material science. Dr Martelli has published approximately 30 journal papers and he is a chief investigator for the Australian Research Council and industry.



A/ Professor Fran Milat

Associate Professor Frances Milat is an Endocrinologist, Head of the Metabolic Bone Services at Monash Health, Head of the Metabolic Bone Research Group at the Hudson Institute and Research Fellow in the Department of Medicine, School of Clinical Sciences, Monash University. She graduated from Medicine at Monash University in 1996 and completed endocrine training at Monash Health and St Vincent's Hospital in Sydney. She pursued her research interest in metabolic bone disorders, examining mechanisms of PTH and Wnt pathway action in bone at St Vincent's Institute (University of Melbourne) before returning to Monash. Fran is committed to improving patient care through clinical research, with interests in metabolic bone disorders associated with chronic neurological diseases, transfusion-dependent haemoglobinopathies, renal disease, premature ovarian insufficiency, malignancy and other medical conditions. She is involved in the supervision of research students as well as medical student and postgraduate teaching. A/Prof Frances Milat has been awarded several prizes for clinical and research excellence (including the Endocrine Society of Australia's Mid-Career Award in 2017). She is also involved in osteoporosis and endocrine guideline development and serves on several national committees in both a clinical and research capacity.



Professor Craig Munns

Prof Munns is a Senior Staff Specialist in Endocrinology, and Clinical Program Director for the Division of Diagnostic Services at the Children’s Hospital at Westmead. He is the Professor of Paediatric Bone and Mineral Medicine at the Sydney Medical School at the University of Sydney and is Head of Clinical Research at the Centre for Children’s Bone and Musculoskeletal Health, at Kids Research. Prof Munns’ primary clinical and research interest is the diagnosis and management of primary and secondary paediatric bone disorders.



Dr David Scott

Dr. David Scott, PhD is an exercise scientist and NHMRC Career Development Fellow in the Bone and Muscle Research Group at the School of Clinical Sciences at Monash Health, Monash University. His work focuses on age-related changes in skeletal muscle mass and function (sarcopenia) and adiposity, their effects on risk for falls, fracture and disability in older adults, and potential lifestyle interventions for preventing these outcomes. He collaborates with investigators from several cohort studies including the Tasmanian Older Adult Cohort, Concord Health and Ageing in Men Project and Healthy Ageing Initiative (Sweden). He also currently leads several clinical trials exploring the effects of targeted exercise and nutrition interventions on body composition, physical function and bone health in older populations. He has a keen interest in musculoskeletal imaging and techniques for objectively assessing physical activity and has published over 120 journal articles and book chapters.



Clinical A/ Professor Aris Siafarikas

Dr Aris Siafarikas is Consultant Paediatric Endocrinologist and Division-Head of Endocrinology at the Department of Endocrinology and Diabetes at Perth Children’s Hospital, WA. He holds appointments at the University of Western Australia, the Health Research Institute at the University of Notre Dame, the Exercise Medicine Research Institute, Edith Cowan University, and the Telethon Kids Institute, WA. He completed his training in Berlin, Germany before he moved to Australia. Aris is a founding member and the clinical lead of the Western Australian Bone Research Collaboration (WABRC), which explores bone health and disease over the life span in a cross-institutional and multi-disciplinary environment with academics and clinicians. His current research is focusing on ways to identify children and adolescents at risk of osteoporosis and on the prevention of osteoporosis later in life using targeted mechanical loading in youth.



Professor Tanya Smith

Dr. Tanya Smith is a Professor in the Australian Research Centre for Human Evolution and the Griffith Centre for Social and Cultural Research at Griffith University. She has previously held a professorship at Harvard University and fellowships at the Radcliffe Institute for Advanced Study and the Max Planck Institute for Evolutionary Anthropology. Dr. Smith explores the evolution and development of the human dentition. Teeth preserve remarkably faithful records of daily growth and infant diet - as well as stress experienced during birth - for millions of years. Her research has helped to identify of the origins of a fundamental human adaptation: the costly yet advantageous shift from a “live fast and die young” strategy to the “live slow and grow old” strategy that has helped to make us one of the most successful mammals on the planet. Her first popular science book, *The Tales Teeth Tell*, was published in 2018 by

MIT Press.



A/ Professor Debra Waters

A/Prof Waters is the Director of Gerontology Research at the University of Otago and the Director of the Ageing Well National Science Challenge, which is a New Zealand government funding programme that was launched in 2015. She also holds a research appointment at the University of New Mexico Health Sciences Center in the US, and has collaborators in the US (Prof DT Villareal) France (Profs Vellas, Rolland), Italy (Prof M Cesari) and Australia (Prof G Duque). She was part of the research group that originally proposed cut-scores for sarcopenia and sarcopenic-obesity in the US and her research continues to focus sarcopenia and sarcopenic-obesity and how this impacts on physical function and frailty, and effective interventions to combat these geriatric syndromes.



Professor Tania Winezberg

Tania Winzenberg is Professor of Chronic Disease Management at the University of Tasmania. Her research focuses on the prevention and management of musculoskeletal conditions, including preventing osteoporotic fractures by improving bone and muscle health in childhood and younger adulthood. She is an academic general practitioner with nearly 150 peer-reviewed journal publications in top specialty and general journals, including BMJ and JAMA, as well as being an invited author for the ASBMR's Primer on the Metabolic Bone Disorders. She has been involved in writing six clinical guidelines for osteoporosis and for chronic disease prevention in general practice. For a decade she has been osteoporosis editor for the Cochrane Database of Systematic Reviews. In 2011, she was one of only 8 primary care researchers globally selected to undertake the International Primary Care Research Leadership Programme at Oxford University, 2011-13 and is a past recipient of the ANZBMS Kaye Ibbertson Award.



Professor Jiake Xu

Dr Jiake Xu is currently Winthrop Professor, Head of Molecular Laboratory, and Head of the Division of Regenerative Medicine, School of Biomedical Science, at the University of Western Australia (UWA). He is also a founding Fellow, Faculty of Science, the Royal College of Pathologists of Australia, and has served the President of the Australian and New Zealand Orthopaedic Research Society (ANZORS, 2012-2015). After completing his PhD studies at UWA in 1994, he carried out his postdoctoral research at Stanford University from 1994 to 1998. He returned to UWA in 1998 and has since undertaken research and teaching in the School of Biomedical Sciences, UWA. His current research interests are in osteoclast biology, molecular cross talks of osteoclast and osteoblast, as well as angiogenic and angiocrine dysregulation in bone microenvironment, which have significant implication in skeletal disorders. He has published 214 SCI papers, including Nat. Med. Endocr Rev. PNAS, Ann Rheum Dis. JBMR, MCB and JBC.

SUNDAY 27TH OCTOBER 2019

ANZBMS Council Meeting

9:30AM - 2:30PM

Meeting Room 3

Registrations Open

1:00PM - 6:00PM

Concourse - Halls

Early Career Investigator 'Town Hall' Meeting

2:30PM - 3:15PM

Meeting Room 3

President's Welcome

3:30PM - 3:40PM

Hall 3

Prof Peter Crouch

In memorium – Professor Howard Morris

3:40PM - 3:50PM

Hall 3

A/Prof Paul Anderson

Session 1 - Osteoimmunology

3:50PM - 5:55PM

Hall 3

Chairs: Stan Gronthos & Victoria Leitch

3:50 PM

Melissa Kacena

Megakaryocyte-Mediated Regulation of Skeletal and Hematopoietic Cells. *abs# 1*

4:20 PM

Martina Rauner

Novel insights into immune-mediated mechanisms of postmenopausal osteoporosis. *abs# 2*

4:40 PM

Yuuki Imai

Mechanisms underlying prostate cancer bone metastasis identified by Big Data analyses. *abs# 3*

- 5:00 PM **Robin M Daly**
Amgen-ANZBMS Outstanding Abstract – Clinical Presentation: Effects of exercise with a multi-nutrient fortified milk drink on physical performance, body composition, bone and cartilage turnover and inflammation in sedentary middle-aged women: A 4-month, double-blind, placebo randomized controlled trial. *abs# 4*
- 5:15 PM **Kai Chen**
Amgen-ANZBMS Outstanding Abstract – Basic Presentation Reactive oxygen species mediate the pathogenesis of steroid-induced osteonecrosis of the femoral head by enhancing osteoclast activity. *abs# 5*
- 5:30 PM **Charles A Inderjeeth**
Vertebral fracture risk and mortality is increased in patients with Ankylosing Spondylitis - a population-based study. *abs# 6*
- 5:42 PM **Jenny Gunton**
Mice with myocyte-deletion of vitamin D receptor (VDR) have sarcopenia and impaired muscle function. *abs# 7*

Welcome Reception and Plenary Posters

5:55PM - 7:15PM

Hall 4

ECIC Bones & Brews Function

7:30PM - 10:30PM

The Precinct

MONDAY 28TH OCTOBER 2019

Breakfast Session – Therapeutics

7:30AM - 9:00AM

Hall 3

Chairs: Bente Langdahl & Jasna Aleksova

Breakfast served outside of room for attendees of this session.

7:30 AM **Richard Prince**

Update from the ANZBMS Therapeutics Committee.

7:45 AM **Christian Girgis**

Sclerostin Inhibitors in the Management of Osteoporosis: A New Dawn? *abs# 8*


8:10 AM **Emma Duncan**

The hidden cost of cancer treatment: optimising bone health for women with breast cancer. *abs# 9*

8:35 AM **Craig Munns**

Burosumab: role in management of X-linked hypophosphataemic rickets. *abs# 10*

Session 2 – Population Bone Health

The conference acknowledges the support of 

9:00AM - 10:30AM

Hall 3

Chairs: Peter Ebeling & Joseph Wong

9:00 AM **Bente Langdahl**

Long-term Management of Osteoporosis. *abs# 11*

9:30 AM **Charles Inderjeeth**

Fixing a Fractured Service: Improving Osteoporosis Management. *abs# 12*

9:50 AM **Tania Winzenberg**

Canaries in the coalmine? The diverse roles of observational epidemiology in understanding bone health. *abs# 13*

10:10 AM **Aris Siafarikas**

Perspectives on bone health in youth. *abs# 14*

The ANZBMS Pharmacoepidemiology Special Interest Group

10:00AM - 10:30AM

Meeting Room 3

Morning Tea

10:30AM - 11:00AM

Hall 4

Christopher and Margie Nordin Young Investigator Award Finalists – Mini-oral session

11:00AM - 12:00PM

Hall 3

Chairs: Rachel Davey & Roderick Clifton-Bligh

- 11:00 AM **Mahmoud M Bakr**
The systemic effect of Parathyroid Hormone and Alendronate on femoral bone volume in the rat ulnar stress fracture model. *abs# 15*
- 11:06 AM **Amy B P Ribet**
Deciphering the Secretory Lysosome ‘Transportome’ Unveils Novel Regulators of Osteoclast Function and Bone Homeostasis. *abs# 17*
- 11:12 AM **Alicia R Jones**
Osteoporosis in premature ovarian insufficiency: Clinicians’ knowledge gaps and barriers to care. *abs# 18*
- 11:18 AM **Yea Rin Olivia Lee**
Altered trabecular bone mineral properties of subchondral bone marrow lesions in knee osteoarthritis patients. *abs# 19*
- 11:24 AM **Dima Alajlouni**
Muscle performance improves predictive accuracy of the Garvan fracture risk calculator: A reclassification analysis. *abs# 20*
- 11:30 AM **Saki Tamaki**
Upregulated macrophage distribution in reduced osteonecrosis of the jaw-like lesions by the discontinuation of anti-RANKL antibody in mice. *abs# 21*
- 11:36 AM **Nithin Kolanu**
Utility of an automated vertebral fracture detection software. *abs# 22*
- 11:42 AM **Ali Ghasem-Zadeh**
Evaluation of bone microstructure of distal radius and distal tibia on human objects using phase-contrast synchrotron radiation computed tomography. *abs# 23*
- 11:48 AM **Kara B Anderson**
Mood disorders and antidepressant use are associated with trabecular bone score in women. *abs# 24*

Lunch

11:55PM - 1:00PM

Hall 4

AMGEN Lunchtime Symposium


Transitioning and sequencing osteoporosis treatments.

12:00PM - 1:00PM

Meeting Room 3

Chair: Peter Ebeling

Panellists: Michael McClung & Bente Langdahl

The conference acknowledges the support of 

Session 3 – Bone Biology and Pathology

1:00PM - 3:00PM

Hall 3

Chairs: Yuuki Imai & Renee Ormsby

- 1:00 PM **Frank Beier**
Molecular mechanisms involved in the progression of osteoarthritis. *abs# 25*
- 1:20 PM **Stan Gronthos**
Epigenetic Regulation of Mesenchymal Stem Cell Differentiation, Skeletal Development and Ageing. *abs# 26*
- 1:40 PM **Jiake Xu**
Uncovering a new case of human malignant osteopetrosis and its mechanistic insights. *abs# 27*
- 2:00 PM **Jean-Pierre Levesque**
Neurogenic heterotopic ossifications following spinal cord injuries are derived from fibro-adipogenic progenitors in the skeletal muscle not from satellite cells. *abs# 28*
- 2:12 PM **Melissa D Cantley**
Serum CTX-1 levels to predict smouldering myeloma patients at high risk of progression to multiple myeloma. *abs# 29*
- 2:24 PM **Michelle M McDonald**
Increased Osteoclast activity precedes rebound bone loss following withdrawal of rankl inhibition. *abs# 30*
- 2:36 PM **Joshua R Lewis**
Effects of calcium supplementation on long-term changes in high sensitivity cardiac troponin I in older women: analysis from a 5 year double-blind randomised controlled trial. *abs# 31*
- 2:48 PM **Ahmed Al Saedi**
Severely Decreased Bone Formation in the *Winnie* Mouse Model of Inflammatory Bowel Disease (IBD). *abs# 32*

Afternoon Tea and Attended Poster Session (Even numbered posters)

3:00PM - 4:00PM

Hall 4

Session 4 – Bone and Energy Metabolism

4:00PM - 6:00PM

Hall 3

Chairs: Christopher Kovacs & Eleanor Thong

- 4:00 PM **Martina Rauner**
Wnt-mediated mechanisms of diabetic bone disease. *abs# 33*
- 4:20 PM **Paul Baldock**
The osteoblast as an energy and nutrient sensing cell. *abs# 34*
- 4:40 PM **David Scott**
Sarcopenia and obesity: associations with fracture risk in older adults. *abs# 35*
- 5:00 PM **Kun (Kathy) Zhu**
Relationship between visceral adipose tissue and bone mineral density in middle to older age Australians. *abs# 36*

- 5:12 PM **Victoria D Leitch**
PYY is a negative regulator of bone mass and strength. *abs# 37*
- 5:24 PM **Deepti Sharma**
Post-menopausal women with high visceral fat levels exhibit impaired bone turnover and altered bone resorption in response to acute calcium consumption. *abs# 38*
- 5:36 PM **Junjie Gao**
Endoplasmic reticulum mediates mitochondrial transfer within the osteocyte dendritic network. *abs# 39*
- 5:48PM **Alexander Seeto**
Cardiovascular safety of denosumab versus bisphosphonates or placebo in post-menopausal women: systematic review and meta-analysis. *#abs 40*

ECIC Clinical Cases in Metabolic Bone Disease Seminar

6:30PM - 10:30PM Meeting Rooms 1 & 2

ECIC Clinical Cases

7:05PM - 9:30PM Meeting Rooms 1 & 2

- 7:05 PM **Jordyn Mahanga**
No longer fracturing over a cup of tea: remarkable improvement in bone health and functional status in an adult with hypophosphatasia treated with asfotase alfa. *abs# 41*
- 7:25 PM **Shejil Kumar**
Lessons learnt from delayed diagnosis of FGF-23-producing tumour-induced osteomalacia and post-operative hungry bone syndrome. *abs# 42*
- 7:45 PM **Genevieve L Calder**
Chronic kidney disease-mineral and bone disorder (CKD-MBD) and delayed puberty: a case of renal and gonadal dysgenesis. *abs# 43*
- 8:05 PM **Emily Papadimos**
Hypophosphataemia in the newborn: a peculiar cause. *abs# 44*
- 8:25 PM **Matthew Balcerek**
Craniofacial aneurysmal bone cysts in a young man with polyostotic fibrous dysplasia. *abs# 45*
- 8:45 PM **Senthil Thillainadesan**
A case of drug-induced osteomalacia. *abs# 46*

TUESDAY 29TH OCTOBER 2019

Registrations Open

7:00AM - 4:00PM

Concourse - Halls

Session 5 – Bone Repair and Biomechanics

8:00AM - 09:50AM

Hall 3

Chairs: Eleanor Mackie & Niloufar Ansari

8:00 AM **Melissa Kacena**

Spaceflight Investigations: Impact of Spaceflight on Bone Regeneration. *abs# 47*

8:30 AM **Saulo Martelli**

VPH-inspired personalised exercise intervention for promoting hip strength. *abs# 48*

8:50 AM **Jeffery Nielsen**

Fracture Targeted Parathyroid Hormone Agonist As An Effective Pharmaceutical For Bone Repair in Murine and Canine Models. *abs# 49*

9:02 AM **Roger Zebaze**

Atypical femur fractures are at least partly due to growth-related design of hip geometry. *abs# 50*

9:14 AM **Ryan C. Chai**

Single cell transcriptional mapping defines the cellular landscape of the bone microenvironment. *abs# 51*

9:26 AM **Thach Tran**

Trajectories to subsequent admissions and mortality following a specific fragility fracture: A nationwide population-based follow-up study. *abs# 52*

9:38 AM **Peter Ebeling**

Ethnic differences in the incidence of atypical femur fractures in an Australian hospital setting. *abs# 53*

Morning Tea and Attended Poster Session (Odd Poster Numbers)

9:50AM - 11:00AM

Hall 4

Roger Melick Young Investigator Award Finalists

11:00AM - 12:40PM

Hall 3

Chairs: Nathan Pavlos & Martina Rauner

11:00 AM **Kotaro Tanimoto**

Mechanical unloading accelerates myeloma tumor expansion. *abs# 54*

11:12 AM **Alexander J. Rodriguez**

Cardiovascular events in a population-based observational cohort of bisphosphonate users and untreated control subjects linked to BMD and co-morbidity information. *abs# 55*

11:24 AM **Alexander P Corr**

Single Cell Ligand-Receptor Mapping of the Endosteal Bone Niche Identifies Regulators of Tumour Cell Dormancy. *abs# 56*

- 11:36 AM **Amy T Harding**
A comparison of bone-targeted exercise strategies to reduce fracture risk in middle-aged and older men with osteopenia and osteoporosis: The *Lifting Intervention For Training Muscle and Osteoporosis Rehabilitation for Men* trial. *abs# 57*
- 11:48 AM **Lena Batoon**
Osteal macrophage contributions to bone homeostasis and post-menopausal osteoporosis bone pathology. *abs# 58*
- 12:00 PM **Nithin Kolanu**
Natural Language Processing of radiology reports for the identification of patients with fracture. *abs# 59*
- 12:12 PM **Martha Blank**
EphrinB2 deficiency in osteocytes leads to increased mineralisation and autophagosomes due to a Golgi-mediated lysosomal storage disorder. *abs# 60*
- 12:24 PM **Eleanor P Thong**
Associations between reproductive factors and bone health outcomes in women with diabetes: a 15-year longitudinal study. *abs# 61*

Lunch

12:40PM - 1:40PM Hall 4

Session 6 – Muscle and Bone Interactions Co-badged session with ANZSSFR

1:40PM - 3:20PM Hall 3
Chairs: Robin Daly & Marc Sim

- 1:40 PM **Gordon Lynch**
Physiology of sarcopenia: cross-talk and countermeasures. *abs# 62*
- 2:00 PM **Debra Waters**
Lifestyle intervention for frail obese older adults: effects on muscle, bone and fat. *abs# 63*
- 2:20 PM **Susan Kurrle**
Addressing frailty in clinical practice: an evidence based approach. *abs# 64*
- 2:40 PM **Thach Tran**
Multimorbidity and long-term mortality following a specific fragility fracture: Latent class analysis of a nationwide population-based cohort. *abs# 65*
- 2:52 PM **Katherine R Barratt**
Elevating serum 25-hydroxyvitamin D levels improves bone volume and mineral density in *HYP* mice. *abs# 66*
- 3:04 PM **Benny Antony**
A randomised clinical trial of *Curcuma longa* extract for treating symptoms and effusion-synovitis of knee osteoarthritis. *abs# 67*
- 3:16 PM **Belinda R Beck**
Exercise for osteoporosis in clinical practice: The rising tide of evidence. *abs# 68*

Afternoon Tea

3:30PM - 3:50PM Hall 4
Afternoon tea will also be served outside [Meeting room 3](#) for delegates attending the ECIC Career Development Seminar.

ECIC Career Development Seminar – Grant writing and manuscript reviews.

3:40PM - 5:00PM

Chairs: Alex Rodriguez and Laura Laslett

Meeting Room 3

3:40pm – 3:50pm

Welcome and Introduction of the Panel

Alex and Laura

3:50pm – 4:25pm

Tips and Tricks of Grant Writing

Louise Maple-Brown

Joshua Lewis

4:25pm – 5:00pm

How to Review a Paper

Emma Duncan

Tuan Nguyen

Buses depart for Conference Dinner (Pee Wee's at the Point)

5:20PM - 5:35PM

Foyer

ANZBMS AGM

5:40PM - 6:40PM

Pee Wee's at the Point

Pre-dinner drinks with sunset

6:40PM - 7:15PM

Pee Wee's at the Point

Conference Dinner

7:15PM - Late

Pee Wee's at the Point

Shuttle buses will depart from the dinner venue at the conclusion of dessert.

WEDNESDAY 30TH OCTOBER 2019

Session 7 – Bone Health in the Disadvantaged

8:30AM - 10:30AM

Hall 3

Chairs: Christian Girgis & David Scott

8:30 AM **Bente Langdahl**

Bone Health in Patients with Diabetes Mellitus. *abs# 69*

9:00 AM **Sharon Brennan-Olsen**

Social context of arthritis: Discussing the distinct factors of chronic stress during childhood and low-middle income countries. *abs# 70*

9:20 AM **Frances Milat**

Optimising Bone Health in Cerebral Palsy. *abs# 71*

9:40 AM **Louise Maple-Brown**

Musculoskeletal Health of Aboriginal and Torres Strait Islander peoples. *abs# 72*

10:00 AM **Peter R Ebeling**

T-score as an indicator of fracture risk on therapy: Evidence from Romosozumab vs Alendronate treatment in the ARCH trial. *abs# 73*

10:12 AM **Michael McClung**

Subject characteristics and changes in bone mineral density after transitioning from denosumab to alendronate in the denosumab adherence preference satisfaction (DAPS) study. *abs# 74*

Morning Tea

10:25AM - 11:00AM

Hall 4

Session 8 – Epigenetics and Evolution

11:00AM - 12:40PM

Hall 3

Chairs: Melissa Kacena & Dzenita Muratovic

11:00 AM **Yuuki Imai**

The role of an epigenetic regulator, Uhrf1, in musculoskeletal biology. *abs# 75*

11:20 AM **Tanya M. Smith**

Dental Tissue Research in Evolutionary Anthropology. *abs# 76*

11:40 AM **Alexandra J Barker**

Deletion of CYP24A1 in chondrocytes increases hypertrophic zone maturation and metaphyseal bone volume in female mice. *abs# 77*

11:52 AM **Victoria D Leitch**

Tram2 acts in osteoblasts and osteoclasts to regulate bone mass and strength. *abs# 78*

12:04 PM **Niloufar Ansari**

Dmp1Cre-directed knockdown of PTHrP in maternal placenta is associated with increased bone size and a life-long increase in bone mass in male mice. *abs# 79*

12:16 PM **Minhao Gao**

Two types of osteocytes depending on the process of ossification. *abs# 80*

PLENARY POSTER LISTING

Mahmoud M Bakr

The systemic effect of Parathyroid Hormone and Alendronate on femoral bone volume in the rat ulnar stress fracture model. *abs# 15*

Benny Antony

Associations of fat mass and overweight status in childhood and early adulthood with bone mineral density and microarchitecture in early adulthood. *abs# 16*

Amy B P Ribet

Deciphering the Secretory Lysosome 'Transportome' Unveils Novel Regulators of Osteoclast Function and Bone Homeostasis. *abs# 17*

Alicia R Jones

Osteoporosis in premature ovarian insufficiency: Clinicians' knowledge gaps and barriers to care. *abs# 18*

Yea Rin Olivia Lee

Altered trabecular bone mineral properties of subchondral bone marrow lesions in knee osteoarthritis patients. *abs# 19*

Dima Alajlouni

Muscle performance improves predictive accuracy of the Garvan fracture risk calculator: A reclassification analysis. *abs# 20*

David Scott

Accelerometer-determined physical activity and sedentary behaviour are associated with sarcopenia but not 12-month incident falls in community-dwelling Swedish older adults. *abs# 83*

Frances Milat

Reduced trabecular bone score (TBS) is common in thalassemia major and is associated with renal calculi. *abs# 84*

Joshua R Lewis

Effects of calcium supplementation on long-term change in abdominal aortic calcification in older women: analysis of a 5-year double-blind randomised controlled trial. *abs# 85*

Benjamin K Weeks

Regional site-specific effects of exercise-derived impact and muscle-generated loads from the OPTIMA-Ex trial. *abs# 86*

Jeffrey Hassall

Effect of denosumab versus risedronate on cortical and trabecular bone microarchitecture by high resolution peripheral quantitative computed tomography (HR-pQCT) in glucocorticoid-treated individuals. *abs# 88*

Jeffrey Hassall

A pooled analysis of fall incidence from placebo-controlled trials of denosumab. *abs# 89*

John P. Kemp

Identification of drug targets for osteoporosis: Evidence from whole-exome sequencing in 42,263 individuals, CRISPR-Cas9 and murine models. *abs# 90*

Jian-ming Lin

Development of potent fatty acid analogues for inhibition of osteoclastogenesis. *abs# 91*

Hirofumi Tenshin

The role of NLRP3 inflammasome activation in joint inflammation and destruction in rheumatoid arthritis: novel therapeutic approaches with TAK1 inhibition. *abs# 92*

Aaron Schindeler

Preclinical Models of Orthopaedic Infection. *abs# 93*

Renee Ormsby

A Gender Specific Role of Osteocytes in the Development of Osteolytic Lesions. *abs# 94*

Christopher S Kovacs

Loss of FGF23 does not alter fetal mineral homeostasis except during maternal phosphate loading. *abs# 95*

Dzenita Muratovic

Knee osteoarthritis: presence of bone marrow lesions in subchondral bone indicates increased number and thickness of plate like trabeculae. *abs# 96*

Richard L Prince

Differences in femoral neck anatomy in Beijing women with and without femoral neck fractures. *abs# 97*

POSTER LISTING

ODD NUMBERS**Mahmoud M Bakr**

The systemic effect of Parathyroid Hormone and Alendronate on femoral bone volume in the rat ulnar stress fracture model. *abs# 15*

Amy B P Ribet

Deciphering the Secretory Lysosome 'Transportome' Unveils Novel Regulators of Osteoclast Function and Bone Homeostasis. *abs# 17*

Yea Rin Olivia Lee

Altered trabecular bone mineral properties of subchondral bone marrow lesions in knee osteoarthritis patients. *abs# 19*

Saki Tamaki

Upregulated macrophage distribution in reduced osteonecrosis of the jaw-like lesions by the discontinuation of anti-RANKL antibody in mice. *abs# 21*

Ali Ghasem-Zadeh

Evaluation of bone microstructure of distal radius and distal tibia on human objects using phase-contrast synchrotron radiation computed tomography. *abs# 23*

David Scott

Accelerometer-determined physical activity and sedentary behaviour are associated with sarcopenia but not 12-month incident falls in community-dwelling Swedish older adults. *abs# 83*

Joshua R Lewis

Effects of calcium supplementation on long-term change in abdominal aortic calcification in older women: analysis of a 5-year double-blind randomised controlled trial. *abs# 85*

Jeffrey Hassall

A pooled analysis of fall incidence from placebo-controlled trials of denosumab. *abs# 89*

Jian-ming Lin

Development of potent fatty acid analogues for inhibition of osteoclastogenesis. *abs# 91*

Aaron Schindeler

Preclinical Models of Orthopaedic Infection. *abs# 93*

Christopher S Kovacs

Loss of FGF23 does not alter fetal mineral homeostasis except during maternal phosphate loading. *abs# 95*

Richard L Prince

Differences in femoral neck anatomy in Beijing women with and without femoral neck fractures. *abs# 97*

Arun Prakas Ramaswami

Medical and surgical management of Secondary hyperparathyroidism in hemodialysis patient. *abs# 103*

Lisa M Raven

Brittle bones in a big man. *abs# 105*

Nisha Venkatesh

Bilateral atypical femoral fractures following long term bisphosphonate and denosumab use. *abs# 107*

Anna R Quirk

Skeletal Sarcoidosis – A novel therapy for skeletal sarcoid lesions. *abs# 109*

Michael J Bennett

Osteomalacia due to a phosphaturic mesenchymal tumour of the lateral glenoid. *abs# 111*

Paola T Chivers

Youth with low motor competence and poor bone health: feasibility of a 13-week targeted exercise intervention on tibial bone outcomes as measured by peripheral Quantitative Computed Tomography. *abs# 113*

Carrie-Anne Ng

Associations between self-reported and objective assessments of physical activity and bone structure in older adults'. *abs# 115*

Cassandra Smith

Osteocalcin and its forms across the lifespan in adult men. *abs# 117*

Laura Laslett

Association of medication use with incident vertebral deformities among community dwelling older adults – a 10.7 years cohort study. *abs# 119*

Natalie K Hyde

Osteosarcopenia in women is associated with low dietary selenium. *abs# 121*

Kara Anderson

Bipolar disorder and bone mineral density. *abs# 123*

Jason Talevski

Effect of Clinical Care Pathways on Health-Related Quality of Life and Physical Function Following Fragility Fracture: A Meta-Analysis. *abs# 125*

Kara Anderson

Associations between bone material strength index, parameters of calcaneal quantitative ultrasound and bone mineral density in men. *abs# 127*

Marc Sim

Dietary vitamin K1 intake and long-term fracture-hospitalisation risk in older Australian women: the Perth Longitudinal Study of Ageing Women. *abs# 129*

Fatma Fayed

MRI inflammation in relation to smoking as well as disease activity in early axial Spondyloarthritis patients'. *abs# 131*

Sharon Brennan-Olsen

Low health-related quality of life, greater psychological distress and productivity loss: The personal burden of shoulder pain among younger people. *abs# 133*

Sharon Brennan-Olsen

The role of perceptions of the environment on associations between neighborhood disadvantage and self-reported arthritis: the HABITAT study. *abs# 137*

Georgette Goode

Outcomes of bone health assessment clinic for men receiving androgen deprivation therapy for prostate cancer. *abs# 141*

Senthil Thillainadesan

Causes of inpatient hypercalcaemia in modern tertiary hospital care. *abs# 143*

Kirtan Ganda

Long-term fracture rates following Teriparatide therapy for osteoporosis. *abs# 145*

Carmella Gunasingam

Opportunistic identification of vertebral compression fractures using artificial intelligence technology. *abs# 147*

Jason Talevski

Associations Between Health Services Use and Quality of Life 4-months After Osteoporotic Fracture in Older Adults: Data from the Australian Arm of the International Cost and Utility Related to Osteoporotic Fractures Study (AusICUROS). *abs# 149*

Melanie Fischbacher

The influence of antiresorptive bone medication on the effect of high intensity resistance and impact training on osteoporotic fracture risk in postmenopausal women with low bone mass: protocol for the MEDEX-OP randomised controlled trial. *abs# 151*

Natalie K Hyde

Maternal Folate in Pregnancy and Offspring Bone Health: The Vitamin D in Pregnancy Study. *abs# 153*

Laura L Laslett

Intravenous bisphosphonates do not improve knee pain or bone marrow lesions in people with knee osteoarthritis: a meta-analysis. *abs# 155*

Jack Lockett

Atypical fracture in an atypical location after intermittent bisphosphonate use unmasks a diagnosis of hypophosphatasia – a novel case report. *abs# 157*

Arthur Conigrave

Phosphate stimulates PTH secretion via inhibitory control of the calcium-sensing receptor. *abs# 159*

Natalie K Hyde

Definition-specific prevalence estimates for sarcopenia in older women: the Geelong Osteoporosis Study. *abs# 161*

Jillian Cornish

Bone-bound bisphosphonates inhibit proliferation of breast cancer cells. *abs# 165*

Muneteru Sasaki

Correlation between phosphorus concentration and autophagy. *abs# 167*

Anna Xiao-Dan Yu

Corylin, derived from *Psoralea Fructus*, induces bone differentiation and metabolic profiling: illustration by using osteoblasts and bone micromass cultures. *abs# 169*

Peilin Chen

Compromised cellular function and extracellular collagen degeneration in stress-deprived tendon. *abs# 171*

Delin Liu

The expression of DMP1 in mouse central nervous system. *abs# 173*

Yusuke Uto

Mechanical repetitive loads regulate bone related cells around the osseointegrated implants in rat maxillae. *abs# 175*

Reza Sanaei

Protease-activated receptor-2 promotes osteogenesis in skeletal mesenchymal stem cells at the expense of adipogenesis: involvement of interleukin-6. *abs# 177*

Natalie C Butterfield

24 new osteoarthritis susceptibility genes identified using novel rapid-throughput joint phenotyping methods. *abs# 179*

Jasmine R Cleminson

Potential regulatory role for serotonin in human osteoclastogenesis. *abs# 181*

Aisha Tarar

Investigating the effects of lactation on bone health in dairy cows. *abs# 183*

Shilpa Sharma

Contribution of gut-derived serotonin to skeletal health in *Winnie* mice model of inflammatory bowel disease. *abs# 185*

Rhys D Brady

Development of rat model of neurological heterotopic ossification. *abs# 187*

EVEN NUMBERS

Benny Antony

Associations of fat mass and overweight status in childhood and early adulthood with bone mineral density and microarchitecture in early adulthood. *abs# 16*

Alicia R Jones

Osteoporosis in premature ovarian insufficiency: Clinicians' knowledge gaps and barriers to care. *abs# 18*

Dima Alajlouni

Muscle performance improves predictive accuracy of the Garvan fracture risk calculator: A reclassification analysis. *abs# 20*

Nithin Kolanu

Utility of an automated vertebral fracture detection software. *abs# 22*

Kara B Anderson

Mood disorders and antidepressant use are associated with trabecular bone score in women. *abs# 24*

Frances Milat

Reduced trabecular bone score (TBS) is common in thalassemia major and is associated with renal calculi. *abs# 84*

Benjamin K Weeks

Regional site-specific effects of exercise-derived impact and muscle-generated loads from the OPTIMA-Ex trial. *abs# 86*

Jeffrey Hassall

Effect of denosumab versus risedronate on cortical and trabecular bone microarchitecture by high resolution peripheral quantitative computed tomography (HR-pQCT) in glucocorticoid-treated individuals. *abs# 88*

John P. Kemp

Identification of drug targets for osteoporosis: Evidence from whole-exome sequencing in 42,263 individuals, CRISPR-Cas9 and murine models. *abs# 90*

Hirofumi Tenshin

The role of NLRP3 inflammasome activation in joint inflammation and destruction in rheumatoid arthritis: novel therapeutic approaches with TAK1 inhibition. *abs# 92*

Renee Ormsby

A Gender Specific Role of Osteocytes in the Development of Osteolytic Lesions. *abs# 94*

Dzenita Muratovic

Knee osteoarthritis: presence of bone marrow lesions in subchondral bone indicates increased number and thickness of plate like trabeculae. *abs# 96*

Difei Deng

An unusual case of transient alkaline hyperphosphatasemia in an adult: a diagnostic dilemma and a commentary on the utility of alkaline phosphatase isoenzyme assays. *abs# 98*

Swee Ping Teh

Metastatic pulmonary calcification: An unusual presentation of respiratory failure. *abs# 100*

Jade Eccles-Smith

A Calcium Conundrum. *abs# 102*

Jianna He

Hypophosphataemia mimicking ankylosing spondylitis. *abs# 104*

Kai Aun Lim

Multiple Brown tumours and fragility fractures following the withdrawal of cinacalcet for management of secondary hyperparathyroidism due to end stage renal disease. *abs# 106*

Aakansha Zala

Pseudohypoparathyroidism Type 1b -Exploration of molecular genetics and the role of genetic testing. *abs# 108*

Melanie Light

Persistent urinary phosphate wasting post renal transplant- bone implications. *abs# 110*

Peter R Ebeling

Asia-Pacific consortium on osteoporosis: IQ driving QI-innovative collaborative initiatives to improve osteoporosis care in the Asia-Pacific region. *abs# 112*

Ebrahim Bani Hassan

Hemoglobin levels are low in osteosarcopenic older patients. *abs# 114*

Marc Sim

Increasing green leafy vegetables containing vitamin K1 reduces the total and the undercarboxylated fraction of osteocalcin: a 4-week randomised control trial. *abs# 116*

Kara Anderson

Bone material strength index is associated with prior fracture in men with and without moderate to severe chronic kidney disease. *abs# 118*

Camilla P Davenport

The reliability of dual-energy X-ray absorptiometry measurements of bone mineral density in the later distal femur of children with Cerebral Palsy. *abs# 120*

Nithin Kolanu

Fracture risk and mortality from Type 2 Diabetes in the Canadian Multicentre Osteoporosis study (CaMos). *abs# 122*

Natalie K Hyde

Associations between health literacy in men and sharing of DXA results with doctors. *abs# 124*

Lavanya Srinivasa Murthy

Higher concentrations of parathyroid hormone (PTH) are associated with reduced gait velocity in adults a systematic review. *abs# 126*

Michael Thompson

Constitutive melanin density is associated with prevalent and short-term, but not long-term, incident fracture risk in older Caucasian adults. *abs# 128*

Fatma Fayed

A study of the early effect of an optimal dose of NSAIDs in treatment of early axial SpA patients. *abs# 130*

Paola Chivers

Please Don't Move - feasibility of automatically evaluating motion artefact from peripheral Quantitative Computed Tomography scans using a deep learning approach. *abs# 132*

Aiden Cushnahan

Atypical femoral fractures - are bisphosphonates the only culprit. *abs# 134*

Sharon L Brennan-Olsen

Supporting those experiencing chronic musculoskeletal pain to re-engage with work: Road-mapping the co-design phase undertaken by community, researchers, government, and policy influencers. *abs# 136*

Victoria D Leitch

Personalised 3D-printed titanium implants for limb-salvage osteosarcoma surgery. *abs# 140*

Shuang Zheng

The cross-sectional and longitudinal associations of dietary patterns with knee symptoms and MRI detected structure in patients with knee osteoarthritis. *abs# 142*

Chris Kwan

Progressive increase in bone turnover despite improvement in markers of calcium homeostasis over twelve months post sleeve gastrectomy in obese subjects. *abs# 144*

Anne-Birgitte Blavnsfeldt

Does the degree of radiographic erosive disease affect the interreader agreement of erosion score using HR-pQCT? *abs# 146*

Yejee Lim

Measures of physical performance as a predictor of fracture risk independent of BMD change: the Chungju Metabolic Disease Cohort study. *abs# 148*

Ghazala Naureen

Moderate to severe vitamin D deficiency is associated with low muscle mass in young women but not men in Karachi Pakistan. *abs# 150*

Feng Pan

Antidepressants use and incident fracture: a 10.7-year follow-up study. *abs# 152*

Kara Anderson

Falls in community-dwelling women with bipolar disorder. *abs# 154*

Ghazala Naureen

A systematic review of prediction models or questionnaires developed to predict vitamin D status in adults aged 18 years and over. *abs# 156*

Aakansha Zala

Pseudohypoparathyroidism Type 1b – Exploration of molecular genetics and the role of genetic testing. *abs# 158*

Natalie K Hyde

Glycaemic control in pregnancy and offspring bone measures: The Vitamin D in Pregnancy Study. *abs# 160*

Steve A Frost

Introducing a fracture liaison service: establishing baseline absolute risk of subsequent fracture. *abs# 162*

Thach Tran

Small individual-level increase in bone mineral density translated into substantial population-level decrease in fracture incidence: revisiting Geoffrey Rose's axiom. *abs# 164*

Rita Hameister

Effect of short-term hypoxia on human osteoblast-like SaOs-2 cells *in vitro*. *abs# 166*

Shinichiro Kuroshima

Effects of cell transplantation on BRONJ-like lesions are quite different between SVF cells and QQ-MNCs. *abs# 168*

Alexandra O'Donohue

Generating a toolbox for screening genetic variants associated with bone fragility disorders. *abs# 170*

Eri Hamaya

Osteoadherin plays roles in the regulation of apoptosis and growth in MC3T3-E1 osteoblast cells. *abs# 172*

Itamar Levinger

Undercarboxylated osteocalcin and vascular function in normal and high glucose environments. *abs# 176*

Nicholas J Gunn

Developing a cell line model of osteocyte infection. *abs# 178*

Catherine J M Stapledon

The effect of Alzheimer's disease on the bone: it's a lose lose situation. *abs# 180*

Yaser Peymanfar

Methotrexate chemotherapy alters Notch signaling in the bone in rats. *abs# 182*

Ahmed Al Saedi

Marrow fat volumes have regional impact of bone cell numbers and structure. *abs# 184*

Egon Perilli

Tibia cartilage thickness, cortical thickness and subchondral bone microarchitecture: varus- and valgus-aligned osteoarthritic knees vs. controls. *abs# 186*

Nicolas Hart

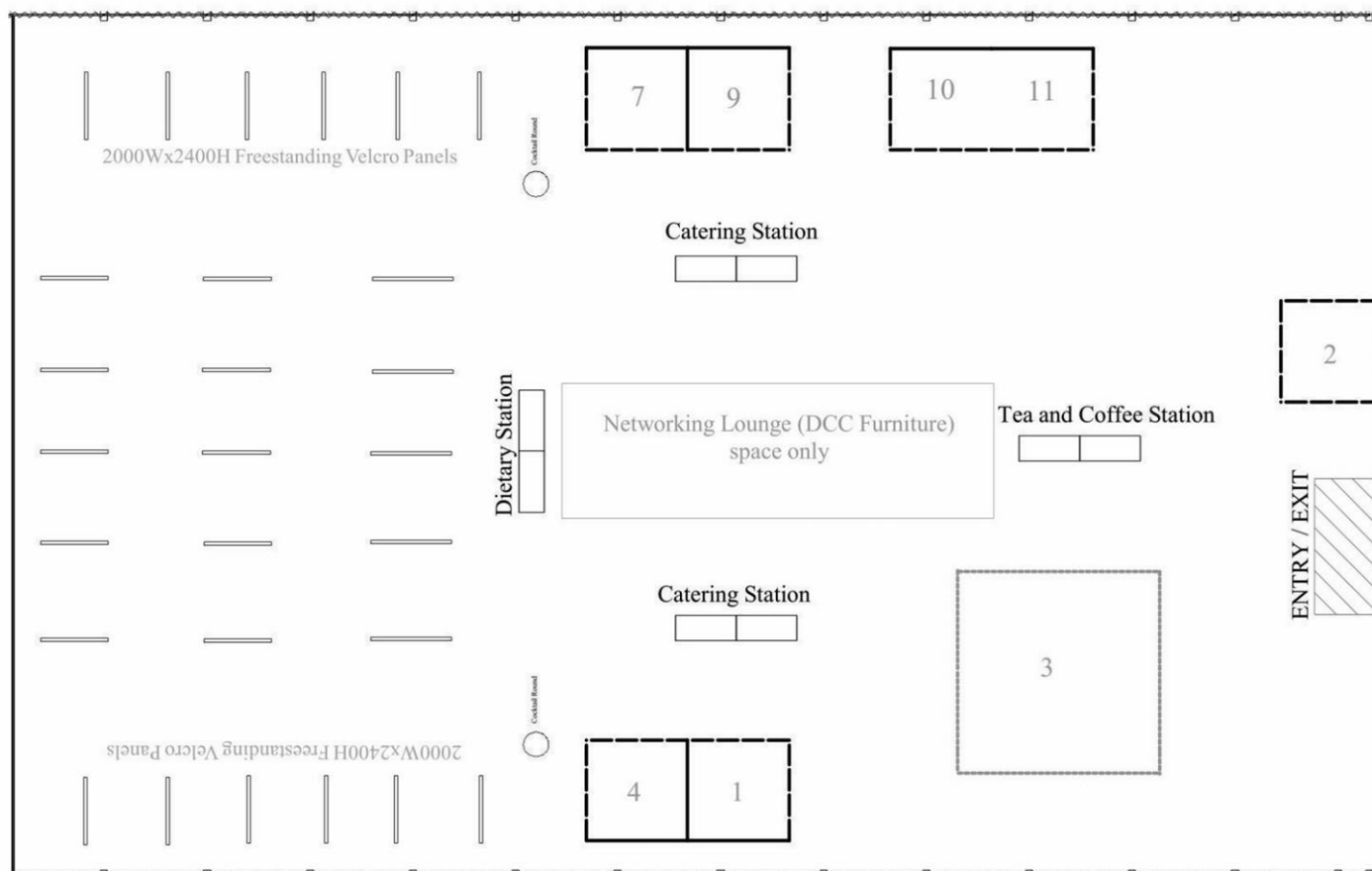
Targeted mechanical loading of stable sclerotic and osteolytic vertebral bone metastases is safe for patients with advanced prostate or breast cancer. *abs# 188*

Allison Sigmund

Predicting failure to attend lessons learnt from the first year in a fracture liaison service (FLS). *abs# 190*

SPONSOR AND TRADE PARTICIPANTS

EXHIBITION FLOOR PLAN – Exhibition Hall 4



PLATINUM SPONSOR

Amgen Australia

www.amgen.com.au

Booth 3

Amgen is committed to unlocking the potential of biology for patients suffering from serious illnesses by discovering, developing, manufacturing and delivering innovative human therapeutics. This approach begins by using tools like advanced human genetics to unravel the complexities of disease and understand the fundamentals of human biology. Amgen focuses on areas of high unmet medical need and leverages its expertise to strive for solutions that improve health outcomes and dramatically improve people's lives. A biotechnology pioneer since 1980, Amgen has grown to be one of the world's leading independent biotechnology companies, has reached millions of patients around the world and is developing a pipeline of medicines with breakaway potential.

GOLD SPONSOR

Kyowa Kirin

www.kyowa-kirin.com

Booth 10 & 11

Kyowa Kirin is a global pharmaceutical company that strives to contribute to the health and wellbeing of people around the world by creating new value through advances in life sciences and technologies. We are focused on innovative medicines in rare diseases and therapeutic areas of oncology, nephrology, immunology and central nervous system with high medical needs. Our core values of Commitment to Life, Innovation, Teamwork/Wa* and Integrity are key to create value for patients, caregivers, healthcare professionals and customers through transforming lives with passion and as a diverse team doing the right things. *Harmony & loop among people

EXHIBITORS

Chidanpee Cultural Enterprises

Booth 2

Darwin is the place that is occupying the lands of the Larrakia people, Dungalaba is the tribe represented by the crocodile, who watches over the harbour, the sun is setting in the Arafura Sea, Dungalaba surrounds the four arches of Darwin town and people sit around the subjects of the symbols below in conference. Chidanpee creator of the artwork titled: Meeting in Darwin NT.

Hologic

Booth 4

www.hologic.com

We are an innovative medical technology company primarily focused on improving women's health and wellbeing through early detection and treatment. Our purpose is to enable healthier lives everywhere, every day. Our game-changing diagnostic, detection, surgical and medical aesthetic products are designed to diagnose and treat patients earlier and more effectively. As global champions of women's health, we bring The Science of Sure® to life by helping healthcare professionals minimise doubt and maximise the confidence in their decisions and diagnoses.

Thomson Scientific

Booth 7

www.tsi.com.au

Thomson Scientific Instruments represents Bruker PCI products in Australia and New Zealand. This includes innovative and market leading microCT scanners from the Skyscan range and also the Albira range of SiPM based PET/CT scanners.

MedKom

Booth 9

Supporting women through all of life's stages.

Theramex is a global speciality pharmaceutical company solely committed to supporting the health needs of women.

By working closely with our partners and healthcare professionals, we provide a diverse portfolio of treatments that help women through each of their life stages

Australian and New Zealand Bone and Mineral Society (ANZBMS)

Booth 1

www.anzbms.org.au

The ANZBMS is a not-for-profit collegiate organisation and the principal professional body for scientists and clinicians involved in bone and mineral metabolism research in Australia and New Zealand. Since its inception in 1988, the ANZBMS has become one of the premier bone research societies in Australia, with its members recognised for their outstanding contributions made to clinical and biomedical musculoskeletal research. The ANZBMS continues to act as a policy advisor to national governments of Australia and NZ and to the community throughout Australasia on relevant issues including clinical bone disease and funding for musculoskeletal research.

AUTHOR LISTING

| | | | |
|-----------------------|-----------------|----------------------|------------------------------------|
| A Grande de França, N | 126 | Bobyn, J.D | 93 |
| Abdelati, a | 130,131 | Boersma, D | 114 |
| Abe, M | 54,92 | Bondonno, N | 116 |
| Abel, C | 147 | Bowen, E | 136 |
| Abrahamsen, B | 40,52,55,65 | Boyd, R.N | 120 |
| Abudulai, L.N | 17 | Boyd, S.J | 71 |
| Ackerman, I | 133 | Boyde, A | 179,37 |
| Adachi, J.D | 122 | Brady, R.D | 187 |
| Agoston, D | 187 | Brandt, M | 140 |
| Aitken, D | 128,142,67 | Brassill, M | 37 |
| Al Saedi, A | 117,184,32 | Brennan-Olsen, S | 123,125,133,136,137,149,150,156,70 |
| Alajlouni, D | 20 | Brennan-Speranza, T | 117 |
| Aleksova, J | 43 | Brookes, D.K | 120 |
| Alexander, K.A | 28 | Broughton, N | 133 |
| Ancieto, R | 187 | Brown, J | 71 |
| Anderson, K | 118,123,127,154 | Brown, K.J | 97 |
| Anderson, K.B | 24 | Brown, S | 59 |
| Anderson, P | 38 | Brunt, A | 15 |
| Anderson, P.H | 66,77 | Bucknill, A | 133 |
| ANNWEILER, C | 126 | Bunting-Frame, N | 133 |
| Ansari, N | 79 | Busija, L | 156 |
| Antony, B | 16,67 | Butler, D | 23 |
| Ashtar, M | 54,92 | Butterfield, N.C | 179,37,78 |
| Atkins, G.J | 178,180,94 | Byrnes, E | 116,117,31,85 |
| Baek, K | 148 | Cai, G | 155,67 |
| Bakr, M.M | 15 | Cakouros, D | 26 |
| Balcerek, M | 45 | Calder, G.L | 43 |
| Baldock, P | 34 | Calder, R | 136 |
| Baldock, P.A | 51,56 | Cantley, M.D | 29 |
| Balogun, S | 128 | Cappai, R | 180 |
| Bani Hassan, E | 114 | Casillas-Espinosa, P | 187 |
| Barker, A.J | 77 | Center, J | 109,122,22,59,65 |
| Barratt, K.R | 66,77 | Center, J.R | 164,52 |
| Bassett, D | 51 | Center, J.R | 20 |
| Bassett, D.J | 90, 179 | Chai, R | 30,78 |
| Bassett, J | 37,78 | Chai, R.C | 51,56 |
| Batoon, L | 58 | Chan, V | 147 |
| Batterham, R.L | 37 | Chandran, M | 112 |
| Bava, U | 165 | Chandrasekara, V | 123 |
| Beauchamp, A | 124,125,149 | Chandrasekaran, V | 154 |
| Beautement, S | 147 | Chang, W | 159 |
| Beck, B | 115 | Chapurlat, R | 88 |
| Beck, B.R | 151,57,68,86 | Chee, R | 188 |
| Beech, A | 59 | Chen, K | 5 |
| Beier, F | 25 | Chen, L | 184,32 |
| Bell, K.L | 120 | Chen, P | 171 |
| Bennett, M.J | 111 | Cheng, A | 144 |
| Bennett, T | 134 | Cheng, T | 39 |
| Berger, C | 122 | Cheng, T.L | 93 |
| Berk, M | 123,154 | Cheng, X | 97 |
| Biggin, A | 170 | Chiang, C | 110,50 |
| Blanchard, R | 140 | Chikani, V | 144 |
| Blank, M | 60 | Chines, A | 74 |
| Blavnsfeldt, A | 146 | Chitturi, S | 108,158 |
| Blekkhorst, L.C | 116,117,129 | Chiu, W | 110 |
| Bliuc, D | 122,20,52,65 | Chivers, P | 132 |
| Blizzard, L | 142 | Chivers, P.T | 113 |

| | | | |
|------------------|--|-----------------|-------------|
| Choong, H | 100 | Feng, Y | 145,173 |
| Choong, P | 140 | Ferrari, S | 73 |
| Cicuttini, F | 142,152 | Fetherston, H | 136 |
| Clark, P | 74 | Filipovska, A | 39 |
| Clarke, M | 23 | Findlay, D | 19 |
| Clay, T | 188 | Findlay, D.M | 94,96 |
| Cleminson, J.R | 123,181,181 | Fischbacher, M | 151 |
| Clifton, P | 38 | Fleming, W | 28 |
| Collier, F | 181 | Flicker, L | 117 |
| Coman, D | 44 | Fong, C | 134 |
| Conigrave, A | 159,46 | Forgetta, V | 90 |
| Connaughton, C | 125,149,156 | Forwood, M.R | 15 |
| Conwell, L.S | 44 | Fotis, K | 133 |
| Cooke, B.R | 36 | Freemantle, N | 74 |
| Cornish, J | 165,91 | Fripp, J | 67 |
| Corr, A.P | 51,56 | Frost, S.A | 162 |
| Cosman, F | 73 | Fujisawa, T | 172 |
| Cowdery, S.P | 154 | Fuller, P | 71 |
| Crimeen-Irwin, B | 60,79 | Ganda, K | 145 |
| Crittenden, D.B | 73 | Gandham, A | 83 |
| Croft, K | 116 | Gao, J | 173,39,80 |
| Cross, E | 133 | Gao, M | 80 |
| Croucher, P.I | 30,37,51,56,78,90 | Gao, X | 39 |
| Crowther, H | 98 | Gao, Y | 173 |
| Cummings, S.R | 89 | Galvão, D.A | 188 |
| Curry, K.F | 179 | Genet, S | 28 |
| Cushnahan, A | 134 | Geusens, P | 52,65,88 |
| Dai, K | 39 | Ghasem-Zadeh, A | 23 |
| Daly, R.M | 4 | Ghirardello, E | 78 |
| Dao, A | 93 | Gianoudis, J | 4 |
| Davenport, C.P | 120 | Gill, T | 19 |
| Davey, R | 23 | Girgis, C | 7,8 |
| Davies, P.S | 120 | Goemaere, S | 88 |
| De Ross, B | 4 | Goltzman, D | 122,90 |
| Demetriou, K | 44 | Goode, G | 141 |
| Deng, D | 98 | Green, D | 125 |
| Denny, W.A | 91 | Gronthos, S | 26 |
| Devine, A | 116 | Gunasingam, C | 147 |
| Dewhurst, H | 179 | Gunn, C | 4 |
| Diamond, T | 42 | Gunn, N.J | 178 |
| Diez-Perez, A | 118,127 | Gunton, J | 7 |
| DiGiacomo, K | 183 | Guo, X | 96 |
| Dimitrov, I | 91 | Ha, J | 148 |
| Ding, C | 142 | Habib, A | 150 |
| Dong, T | 169 | Hadwen, T | 45 |
| Duncan, E | 102,41,45,9 | Hall, C | 23 |
| Duque, G | 114,117,125,126,149,184,185,32 | Hamaya, E | 172 |
| Eastell, R | 89 | Hameister, R | 166 |
| Ebeling, P.R | 18,23,40,50,53,55,61,71,73,74,83,112,115 | Hands, B | 113,132 |
| Eccles-Smith, J | 102 | Hanley, D.A | 122 |
| Eisman, J.A | 20,51,52,56,65,164 | Hansen, A | 22 |
| Endo, I | 54,92 | Hansen, L | 52,65 |
| Ernst, M.T | 55 | Harada, T | 54,92 |
| Evans, D.M | 90 | Harding, A.T | 57,86 |
| Evans, H | 37 | Harris, B | 136 |
| Eynon, N | 117 | Harris, M | 44 |
| Fahey, M.C | 71 | Hart, N | 113,132,188 |
| Fayed, F | 130,131 | Hassall, J | 88,89 |
| Feeney, K.T | 188 | Hassan, E | 32 |
| Feng, J | 39 | Hassanshahi, M | 182 |

| | | | |
|-------------------|---------------------------------|------------------|------------------|
| Hau, R | 134 | Kelly, W | 15 |
| Hauge, E | 146 | Kemp, J.P | 90 |
| Hayano, H | 21 | Kendler, D | 74 |
| Hayes, A | 176 | Khoo, B.C | 97 |
| He, J | 104 | Khoo, W | 30,51,56 |
| He, W | 5 | Kidd, S.P | 178 |
| Helmy, m | 130,131 | Kiel, D.P | 31,85 |
| Herberger, A | 159 | Kirby, B.J | 95 |
| Hermann, P | 55 | Klose-Jensen, R | 146 |
| Hernandez Viña, I | 114 | Ko , R | 169 |
| Hesse, E | 73 | Kolanu, N | 122,22,59 |
| Hiam, D | 117 | Komla-Ebri, D | 179 |
| Hiasa, M | 54,92 | Kotowicz, M | 118,121,123,127 |
| Ho, B | 22 | Kovacs, C | 95,122 |
| Ho, P.W | 79 | Kruger, M | 4 |
| Hodge, J | 123 | Kuek, V | 5 |
| Hodge, J.M | 181 | Kularathna, P.K | 177 |
| Hodgson, J | 116 | Kulina, I | 28 |
| Hodgson, J.M | 129,31,85 | Kuliwaba, J | 19 |
| Holloway-Kew, K.L | 24,118,121,124,127,153, 160,161 | Kuliwaba, J.S | 96 |
| Hooper, J.D | 177 | Kumar, S | 42 |
| Hopper, I | 67 | Kunihiko, W | 81 |
| Horvath, N | 29 | Kuroshima, S | 167,168,175,21 |
| Hosking, S.M | 124,153,160 | Kurrle, S | 64 |
| Huang, S | 74 | Kwan, C | 144 |
| Humbert, L | 115 | Kwan , K | 169 |
| Hunter, M | 36 | Lakhani, A | 53 |
| Hyde, N | 118 | Lambert, C | 57,86 |
| Hyde, N.K | 121,124,153,160,161 | Lane, N.E | 88 |
| Ideta-Otsuka, M | 81 | Langdahl, B | 11,146,69 |
| Igarashi, K | 81 | Langham, R | 18 |
| Imai, Y | 3,75,81 | Langsetmo, L | 122 |
| Inderjeeth, C | 12 | Laslett, L | 119,152,67 |
| Inderjeeth, C.A | 6 | Laslett, L.L | 155 |
| Inoue, K | 81 | Lau, S | 190,98 |
| Inoue, M | 21 | Laurent, L | 90 |
| Inwood, A | 44 | Lazarus, S | 41 |
| Isojima, T | 79 | Leach, S | 161 |
| Jafri, L | 150 | Lee, C | 29 |
| James, A | 36 | Lee, K | 41 |
| Jaunalksnis, A | 147 | Lee, L | 170 |
| Jiang, Q | 39 | Lee, O | 29 |
| Joham, A.E | 61 | Lee, P | 187 |
| Johansson, J | 83 | Lee, Y | 19,96 |
| Jones, A.R | 18 | Leitch, V.D | 140,179,37,78 |
| Jones, G | 119,128,152,155,16,67 | Lelliott, C.J | 78 |
| Jones, R | 67 | Lespessailles, E | 88 |
| Jose, B | 28 | Leury, B.J | 183 |
| Josse, R.G | 122 | Levesque, J | 28 |
| Kacena, M | 1,47 | Levinger, I | 116,117,176 |
| Kaiser, S.M | 122 | Lewiecki, E | 73 |
| Kamnaksh, A | 187 | Lewis, J | 116 |
| Kanagasingam, Y | 132 | Lewis, J.R | 117,129,31,85,97 |
| Kanai, R | 175 | Libanati, C | 73 |
| Kang, M | 148 | Light, M | 110 |
| Kanwar, N | 15 | Lim, E | 36 |
| Kaur, C | 166 | Lim, K | 106,149,156 |
| Keen, H | 6 | Lim, W.H | 31,85 |
| Kees Stad, R | 74 | Lim, Y | 148 |
| Keller, K | 146 | Lin, J | 91 |

| | | | |
|----------------|-------------------|--------------------|--|
| Little, D.G | 30,93 | Ng, Y | 100 |
| Liu, D | 173,39 | Nguyen, H.H | 50,53 |
| Liu, Y | 169,5 | Nguyen, T.V | 20,164,52,65 |
| Lockett, J | 157 | Niddrie, F | 141 |
| Logan, J.G | 179,37,78 | Nielsen, J | 49 |
| LOW, P.S | 49 | Nordstrom, A | 83 |
| LOW, S.A | 49 | Nordstrom, P | 83 |
| Lwin, K | 100 | Nossent, J | 6 |
| Lynch, G | 62 | Nowak, K | 134 |
| Lyster, E | 157 | Nowlan, B | 28 |
| Ma, P | 37 | Nurgali, K | 32,185 |
| MacIsaac, R.J | 43 | Nybo, M | 55 |
| Mackay, D | 108,158 | O'Brien, T | 187 |
| Mackie, E.J | 177,183 | O'Connell, S | 4 |
| Maguire, J | 157 | O'Donohue, A | 170 |
| Mahanga, J | 41 | Oda, A | 54,92 |
| Major, G | 147 | Ognjenovic, M | 6 |
| Malabu, U.H | 157 | Oldenburg, B | 137 |
| Mannan, N | 179 | Ormsby, R | 94 |
| Maple-Brown, L | 72 | Oura, M | 54,92 |
| Martelli, S | 48 | O'Donoghue, S | 52 |
| Martin, H | 188 | Pacios-Centeno, P | 159 |
| Martin, T | 60,79 | Page, R.S | 133 |
| Matsumoto, T | 54,92 | Pagel, C.N | 177,183 |
| Mayadunne, M | 145 | Palmer, C | 116 |
| McCloskey, E | 89 | Pan, F | 152 |
| McClung, M | 74,74,89 | Pannacciulli, N | 88,89 |
| McCullough, J | 187 | Papadimitriou, J | 39 |
| McDonald, M.M | 30 | Papadimos, E | 44 |
| McDonald, S | 187 | Park, Y | 165 |
| McGill, J | 44 | Parker, L | 117 |
| McGregor, N.E | 79 | Pasco, J | 118 |
| McIntyre, F | 113,132 | Pasco, J.A | 24,121,123,124,127,153,154,160,161,181 |
| McMillan, L.B | 115 | Paterson, B.C | 15 |
| Messina, O | 88 | Pauley, E | 22 |
| Milat, F | 18,50,53,61,71,84 | Pavlos, N | 5 |
| Millar, L | 125 | Pavlos, N.J | 17 |
| Millard, S | 28,58 | Pawar, B | 103 |
| Mills, R | 93 | Peacock, L | 93 |
| Mishra, G.D | 61 | Pearson, L | 133 |
| Miura, H | 81 | Percival, M.A | 153,160 |
| Mizuki, S | 81 | Perera, N | 143 |
| Mohanty, S | 30 | Perilli, E | 186 |
| Morris, H | 38 | Pettit, A | 58 |
| Morris, H.A | 66 | Pettit, A.R | 28 |
| Mulholland, B | 15 | Peymanfar, Y | 182 |
| Mun, H | 159 | Pham, H | 22 |
| Munns, C | 10,170 | Phan, T.G | 30 |
| Muratovic, D | 19,96 | Phu, S | 117,184 |
| Murray, S | 23 | Pipelines, S | 179 |
| Mychasiuk, R | 187 | Pocock, N | 22 |
| Myers, D | 184 | Poulton, I.J | 79 |
| Nakajima, K | 168,21 | Pramatarova, A | 90 |
| Naot, D | 165 | Preen, D | 6 |
| Napoli, N | 73 | Prieto-Alhambra, D | 40,55 |
| Naureen, G | 150,156 | Prince, R.L | 116,129,31,85,97 |
| Nemeth, E.F | 159 | Prior, J.C | 122 |
| Newton, R. | 188 | Punchihewa, N | 84 |
| Ng, C | 115 | Qaradakh, T | 176 |
| Ng, P | 17 | Qin, A | 39 |

| | | | |
|--------------------|--------------------------|---------------------|-------------|
| Quinn, J | 30 | Shimizu, S | 54,92 |
| Quirk, A | 22 | Shore-Lorenti, C | 23,50,53 |
| Quirk, A.R | 109 | Shultz, S.R | 187 |
| Rachele, J | 137 | Siafarikas, A | 113,132,14 |
| Raggatt, L | 58 | Sigmund, A | 190 |
| Rahimzada, A | 170 | Silverstone, E | 22 |
| Rahman, S | 37 | Sim, M | 116,129 |
| Ramaswami, A | 103 | Sims, N.A | 60 |
| Ranasinha, S | 61 | Sims, N.A | 79 |
| Ranatainen, T | 132 | Singh, G | 166 |
| Rantalainen, T | 113 | Smith, C | 117 |
| Rapagna, S | 186 | Smith, T. | 76 |
| Rauner, M | 2,33 | Sogabe, K | 54,92 |
| Raven, L.M | 105 | Solomon, B | 94 |
| Raymond, W | 6 | Solomon, L.B | 178,186 |
| Reddy, N | 190 | Solomon, L | 180 |
| Redfern, A.D | 188 | Sparkes, P | 78 |
| Reid, I.R | 165 | Spry, N. | 188 |
| Reynolds, K.J | 186 | Srinivasa Murthy, L | 126 |
| Rhee, Y | 74 | Stapledon, C.J | 180 |
| Ribet, A.B | 17 | Stavkov, R | 94 |
| Richards, B.J | 90 | Steinberg, J | 179 |
| Roberts, B.C | 186 | Stuart, A | 123 |
| Robinson, D | 187 | Stuart, A.L | 154 |
| Rodriguez, A.J | 40,55 | Su, Y | 182 |
| Rogers, M | 30 | Sui, S.X | 161 |
| Rojeski, M | 73 | Summers, M.A | 56 |
| Roscioli, E | 178 | Summers, M.A | 51 |
| Ruan, R | 39 | Suriyaarachchi, P | 114 |
| Rufus, P | 118,127 | Suzue, M | 175 |
| Russell, A | 144 | Swarbrick, A | 51 |
| Ryan, B.A | 95 | Sweeney, S | 22 |
| Saeki, N | 81 | Swiatkowska, A | 78 |
| Saha, S | 132 | T Duval, G | 126 |
| Salga, M | 28 | Taaffe, D.R | 188 |
| Samarasinghe, R | 181 | Tacey, A | 176 |
| Sanaei, R | 177,183 | Takayanagi, H | 39 |
| Sanders, K | 125,149,156 | Takenaka, K | 81 |
| Sargeant, T | 180 | Talevski, J | 125,149,156 |
| Sasaki, M | 167,168,21 | Tamaki, S | 21 |
| Saunders, C | 188 | Tamura, M | 172 |
| Sawase, T | 167,168,175,21 | Tan, E | 103 |
| Sawyer, R.K | 66,77 | Tan, C | 107 |
| Schindeler, A | 170,93 | Tan, J | 113 |
| Schoch, P | 133 | Tan, Y | 157 |
| Schollum, L | 4 | Tanaka, E | 54,92 |
| Schousboe, J.T | 31,85 | Tang, Q | 182 |
| Schultz, C | 116 | Tanimoto, K | 54,92 |
| Scott, D | 115,117,150,156,35,50,83 | Tarar, A | 183 |
| Seeman, E | 23 | Teede, H | 18,61 |
| Seeto, A.H | 40 | Teh, S | 100 |
| Seibel, M | 145 | Tembo, M.C | 161 |
| Sellars, K | 95 | Tenshin, H | 54,92 |
| Seman, E | 117 | Teramachi, J | 54,92 |
| Seneviratne Epa, D | 43 | Thewlis, D | 186 |
| Shah, A | 119 | Thillainadesan, S | 143,46 |
| Sharma, D | 38 | Thomas, S | 136 |
| Sharma, S | 185,32 | Thompson, M | 128 |
| Sheu, A | 122 | Thompson, P.L | 31,85 |
| Shidid, D | 140 | Thong, E.P | 61 |

| | | | |
|--------------------|------------------|-----------------|----------------------------|
| Thuzar, M | 144 | Williams, G.R | 51,90 |
| Thygesen, J | 146 | Williams, L.J | 24,121,124,153,154,161,181 |
| Tian, J | 152 | Williamson, T | 140 |
| To, B | 29 | Winzenberg, T | 13,142,16,67 |
| Toh, L | 119 | Wluka, A | 142 |
| Tran, T | 122,164,20,52,65 | Won, C | 144 |
| Treseder, T | 133 | Wong, J | 100 |
| Trinh, A | 71,84 | Wong, P | 71,84 |
| Tsangari, H | 180 | Woodman, R.J | 31,85 |
| Tseng, H | 28 | Wortman, R | 187 |
| Tsim, K | 169 | Wu, A | 58 |
| Tsoi, D | 188 | Wu, F | 119,142,16 |
| Tu, C | 159 | Wu, S.Z | 51 |
| Turrell, G | 137 | Xian, C | 182 |
| Twigg, S | 143 | Xiao, Y | 30 |
| Uchida, Y | 175 | Xu, J | 27,5 |
| Uto, Y | 175 | Xu, M | 169 |
| van den Bergh, J | 52,65 | Yagoub, D | 17 |
| van den Bergh, J.P | 88 | Yan, X | 117 |
| van Geel, T | 52,65 | Yang, D | 178 |
| Vandyke, K | 29 | Yang, W | 73 |
| Vasiljevski, E | 93 | Yang, Y | 16 |
| Venkatesh, N | 107 | Yao, P | 169 |
| Vestergaard, P | 52,65 | Yates, C | 106 |
| Vincent, A | 18,53 | Yeap, B.B | 117 |
| Vogrin, S | 114,126,149 | Yii, C | 100 |
| Voisin, S | 117 | Yin, X | 88 |
| Vrahnas, C | 60 | Youlten, S | 78 |
| Wagman, R.B | 88 | Yu, A | 169 |
| Walsh, J.P | 36 | Yuan, J | 39 |
| Wang, C | 89 | Yue, S | 89 |
| Wang, L | 97 | Zajac, J | 23 |
| Wang, Q | 39 | Zala, A | 108,145,158 |
| Wang, T | 171 | Zamerli, J | 30 |
| Wang, Z | 67 | Zannettino, A.C | 29 |
| Ward, D.T | 159 | Zebaze, R | 50,53 |
| Wark, J.D | 160 | Zeggini, E | 179 |
| Waters, D | 63 | Zhang, C | 173,39 |
| Watson, R | 106 | Zhang, X | 155 |
| Watson, S.L | 57,86 | Zheng, M | 171,173,39,80 |
| Weeks, B.K | 151,57,86 | Zheng, S | 142 |
| Weis, L.J | 57,68 | Zhou, S | 90 |
| White, C.P | 59 | Zhu, K | 31,36,85 |
| Whyte, L.S | 180 | Zulli, A | 176 |
| Wijenayaka, A.R | 178 | | |
| Williams, G.R | 179,37,78 | | |

ATTENDEES

Ahmed Al Saedi
The University of Melbourne, VIC

Dima Alajlouni
Garvan Institute of Medical Research, NSW

Jasna Aleksova
Monash Health, VIC

Kara Anderson
Deakin University, VIC

Paul Anderson
University of South Australia, SA

Mahesan Anpalahan
Eastern Health, VIC

Niloufar Ansari
The University of Melbourne, VIC

Benny Antony
Menzies Institute for Medical Research,
University of Tasmania, TAS

Mahmoud Bakr
Griffith University, QLD

Kannan Bakthavatsalam
Liverpool Hospital, NSW

Matthew Balcerek
Sunshine Coast University Hospital, QLD

Paul Baldock
Garvan Institute of Medical Research, NSW

Ebrahim Bani Hassan
University of Melbourne, VIC

Alex Barker
University of South Australia, SA

Kate Barratt
University of South Australia, SA

Lena Batoon
University of Queensland, QLD

Belinda Beck
Griffith University, QLD

Amanda Beech
Prince of Wales Hospital, NSW

Frank Beier
University of Western Ontario, Canada

Jonathan Beilin
Fiona Stanley Hospital, WA

Michael Bennett
Prince of Wales Hospital, NSW

Tim Bennett
Eastern Rheumatology, VIC

Kathryn Berkman
Queensland Health, QLD

Solange Bernado
Sunshine Hospital, VIC

Martha Blank
St. Vincent's Institute, VIC

Anne-Birgitte Blavnsfeldt
Aarhus University Hospital, Denmark

Catie Bonham
Amgen Australia, NSW

Rhys Brady
Monash University, VIC

Sharon Brennan-Olsen
University of Melbourne, VIC

Tara Brennan-Speranza
University of Sydney, ACT

Natalie Butterfield
Imperial College, London, United Kingdom

Genevieve Calder
St Vincent's Hospital Melbourne, VIC

Ralph Campagna
Amgen Australia, ACT

Melissa Cantley
The University of Adelaide, SA

Anne-Marie Cassano
Brunswick Private, VIC

Jackie Center
Garvan Institute of Medical Research and St
Vincent's Hospital, NSW

Ryan Chai
Garvan Institute of Medical Research, NSW

Kai Chen
The University of Western Australia, WA

Peilin Chen
University of Western Australia, WA

Cherie Chiang
Melbourne Health, VIC

Sridhar Chitturi
Royal Darwin Hospital, NT

Paola Chivers
The University of Notre Dame Australia, WA

Kay Hau Choy
Concord Repatriation General Hospital, NSW

Justyn Cleary
Amgen Australia, ACT

Jasmine Cleminson
Deakin University, VIC

Roderick Clifton-Bligh
Royal North Shore Hospital, NSW

Olivia Collyns
Auckland Hospital, New Zealand

Mark Cooper
University of Sydney, NSW

Brian Corley
Capital & Coast DHB, New Zealand

Jillian Cornish
University of Auckland, New Zealand

Alexander Corr
Garvan Institute of Medical Research, NSW

Tania Crotti
University of Adelaide, SA

Peter Croucher
Garvan Institute of Medical Research, NSW

Aiden Cushnahan
Eastern Health, VIC

Robin Daly
Deakin University, VIC

Camilla Davenport
The University of Queensland, QLD

Rachel Davey
University of Melbourne, VIC

Simon Dawson
Kyowa Kirin Australia, NSW

Therese Dawson
Lord Street Specialist Centre, NSW

Maria Dellamalva
Royal Adelaide Hospital, SA

Difei Deng
Westmead Hospital, NSW

Alan Doube
Waikato DHB, New Zealand

Jean Doyle
RNSH, NSW

Emma Duncan
Queensland University of Technology, QLD

Warwick Duncan
University of Otago, ACT

Melissa Dupavillon
Endocrine Society For Australia, NSW

Gustavo Duque
Australian Institute for Musculoskeletal
Science (AIMSS)-The University of
Melbourne, VIC

Peter Ebeling
Osteoporosis Australia, VIC

Jade Eccles-Smith
The Royal Brisbane and Women's Hospital,
QLD

John Eisman
Garvan Institute of Medical Research, NSW

Grahame Elder
Westmead Hospital, NSW

| | | |
|---|--|---|
| Barry Elison Wollongong Nuclear Medicine, NSW | Jenny Gunton University of Sydney, NSW | Phillip Karallis Gatan Inc., Singapore |
| Alison Ellis Ms., New Zealand | Kathryn Hackman Alfred Hospital, VIC | John Kemp University of Queensland Diamantina Institute, QLD |
| Elna Ellis Alice Springs Hospital, NT | Thomas Hadwen Sunshine Coast Health, QLD | Shigeaki Kimura Kyowa Kirin, Japan |
| Ryan Endall Royal Hobart Hospital, Tasmanian Health Service, TAS | Sally Haffenden Haffenden Health, NSW | Jun Kitagawa Kitasato University, Japan |
| Hannah Farquhar Mater Hospital, QLD | Eri Hamaya Hokkaido University, Japan | Mehrnoosh Kiumarsi GeriMed group, VIC |
| Andrea Fernandes RBWH, QLD | Rita Hameister National University of Singapore, Singapore | Nithin Kolanu Garvan Institute of Medical Research, NSW |
| David Findlay University of Adelaide, SA | Amy Harding Menzies Health Institute Queensland, Griffith University, QLD | Mark Kotowicz University Hospital Geelong, VIC |
| Melanie Fischbacher Griffith University, QLD | Matthew Hare Royal Darwin Hospital, NT | Christopher Kovacs Memorial University of Newfoundland, Canada |
| Christopher Fong Eastern Health, VIC | Dan Harmelin Private Practice, NSW | Julia Kuliwaba The University of Adelaide, SA |
| Mark Forwood Griffith University, QLD | Nicolas Hart Edith Cowan University, WA | Shejil Kumar Royal North Shore Hospital, NSW |
| Mark Fountaine Amgen Australia, ACT | Jeffrey Hassall Amgen Australia, NSW | Shinichiro Kuroshima Nagasaki University, Japan |
| Steve Frost South Western Sydney Centre for applied Nursing Research, NSW | Lisa Hayes Princess Alexandra Hospital, QLD | Susan Kurrle University of Sydney, NSW |
| Kirtan Ganda Concord Repatriation General Hospital, NSW | Jianna He St George Public Hospital, NSW | Chris Kwan Princess Alexandra Hospital, QLD |
| Junjie Gao The University of Western Australia, WA | Elise Hickey The Canberra Hospital, ACT | Cathy Lam Amgen, NSW |
| Minhao Gao University of Western Australia, WA | Jacqui Hislop-Jambrich Toshiba Australia, NSW | Mark Lancaster Amgen, NSW |
| Ali Ghasem-Zadeh University of Melbourne, VIC | Michael Hooper University of Sydney, NSW | Bente Langdahl Aarhus University Hospital, Denmark |
| YOSHIMI GIBBS Kyowa Kirin Co., Ltd., Japan | Natalie Hyde Deakin University, VIC | Laura Laslett University of Tasmania, TAS |
| Christian Girgis Westmead and Royal North Shore Hospital, NSW | Yuuki Imai Ehime University, Japan | Sue Lynn Lau Westmead Hospital, NSW |
| Georgette Goode JOHN HUNTER HOSPITAL, ACT | Charles Inderjeeth North Metropolitan Health & University of Western Australia, WA | Syndia Lazarus Royal Brisbane and Women's Hospital, QLD |
| Mohana Krishnan Gopala Krishna Moorthy SWSLHD, NSW | David Jesudason Queen Elizabeth Hospital, SA | Yea Rin Olivia Lee The University of South Australia, SA |
| Katherine Grigg Amgen, NSW | Kanakamani Jeyaraman Royal Darwin Hospital, NT | Victoria Leitch RMIT, VIC |
| Stan Gronthos University of Adelaide, SA | Ivone Johnson Australian and New Zealand Bone and Mineral Society, NSW | Lai Leow Amgen Australia, ACT |
| Carmella Gunasingam John Hunter Hospital, Newcastle, NSW | Alicia Jones Monash University, VIC | Hoi-Tik Leung Ruttonjee Hospital, Hong Kong |
| Nicholas Gunn SA | Melissa Kacena Indiana University, United States | Jean-Pierre Levesque Mater Research Institute - The University of Queensland, QLD |

| | | |
|---|---|--|
| Itamar Levinger Victoria University, VIC | Ciara Mckenna Amgen Australia, ACT | Egon Perilli Flinders University, SA |
| Joshua Lewis Edith Cowan University, WA | Frances Milat Monash Health, VIC | Karl Peters Amgen Australia, NSW |
| Qing Li Amgen Australia, ACT | Mohammad Mir Royal Darwin Hospital, NT | Nicholas Pocock St Vincent's Hospital, NSW |
| Melanie Light Austin Health, VIC | Bridie Mulholland Griffith University, QLD | Joanna Potts Private Practice, NSW |
| Kai Aun Lim Melbourne Health, VIC | Craig Munns The Children's Hospital at Westmead, NSW | Richard Prince University of Western Australia, WA |
| Karmen lim GPh, QLD | Dzenita Muratovic The University of Adelaide, SA | Anna Quirk St Vincent's Hospital Sydney, NSW |
| Yejee Lim Seoul National University Bundang Hospital, South Korea | Geoff Murray ISLHD, NSW | Suchitra Raj Fiona Stanley Hospital, WA |
| Jian-ming Lin University of Auckland, New Zealand | Ghazala Naureen University of Melbourne/Australian Institute for Musculoskeletal Science (AIMSS), VIC | Rohit Rajagopal Campbelltown Hospital, NSW |
| Patricia Linnenlucke Southern Bone Density Services, NSW | Maria-Liza Nery Royal North Shore Hospital, NSW | Arun Prakas Ramaswami Alice springs Hospital, NT |
| Delin Liu The University of Western Australia, WA | Inger Nesdale Amgen, NSW | Swetha Rangaswamaiah Royal Darwin hospital, NT |
| Jack Lockett The Townsville Hospital, QLD | Carrie-Anne Ng School of Clinical Sciences at Monash Health, Monash University, VIC | Martina Rauner Dresden University Medical Center, Germany, Germany |
| Aravinthan Loganathan NSW Health, NSW | Hang Dieu Thuy Nguyen Northern Health, VIC | Lisa Raven Campbelltown Hospital, NSW |
| Judy Luu John Hunter Hospital, NSW | Tuan Nguyen Garvan Institute of Medical Research, NSW | Amy Ribet UWA, WA |
| Gordon Lynch University of Melbourne, VIC | Jeffery Nielsen Purdue University, United States | Alexander Rodriguez Monash University, VIC |
| Christy Macdonald Canterbury District Health Board, New Zealand | Michael Nowitz Pacific Radiology, New Zealand | Michael Rogers Garvan Institute of Medical Research, NSW |
| Diana MacKay Royal Darwin Hospital, NT | Natalie O'Dea Amgen Australia, ACT | Pei Rong Mercy Health Albury, NSW |
| Eleanor Mackie University of Melbourne, VIC | Alexandra O'Donohue Kids Research, Children's Hospital at Westmead, NSW | Noritaka Saeki Ehime university, Japan |
| Jordyn Mahanga Royal Brisbane Hospital, QLD | Renee Ormsby University of Adelaide, SA | Reza Sanaei The University of Melbourne, VIC |
| Louise Maple-Brown Menzies School of Health Research, NT | Keiichi Ozono Osaka University Graduate School of Medicine, Japan | Muneteru Sasaki Nagasaki University, Japan |
| Abdul Mardli Amgen Australia, NSW | Jim Panagiotidis Amgen Australia, VIC | Aaron Schindeler The Children's Hospital at Westmead, NSW |
| Saulo Martelli Flinders University, SA | Emily Papadimos Queensland Children's Hospital, QLD | Robert Schmidli Canberra Hospital, ACT |
| T. John Martin St Vincent's Institute of Medical Research,, VIC | Alexia Pape Wollongong Hospital, NSW | David Scott Monash University, VIC |
| Mike McClung Australian Catholic University,, NSW | Nathan Pavlos University of Western Australia, WA | Christopher Seaborn The Queen Elizabeth Hospital, SA |
| Michelle McDonald Garvan Institute of Medical Research, NSW | Ben Peatt Amgen Australia, NSW | Lay Sim See Kyowa Kirin Asia Pacific Pte. Ltd., Singapore |
| | | Alexander Seeto Griffith University, QLD |

Dilan Seneviratne Epa
St Vincent's Hospital Melbourne, VIC

Deepti Sharma
University of South Australia, SA

Aris Siafarikas
Princess Margaret Hospital, WA

Allison Sigmund
Blacktown Hospital, NSW

Marc Sim
Edith Cowan University, WA

Natalie Sims
St Vincent's Institute, VIC

Joe Singh
Waitemata Health, New Zealand

Ben Sly
Princess Alexandra hospital, QLD

Barbara Smith
Royal Hobart Hospital, TAS

Cassandra Smith
Victoria University, VIC

Tanya M. Smith
Griffith University, QLD

Mei Min Soong
Wyong Hospital, NSW

Lavanya Srinivasa Murthy
AIMSS; University of Melbourne, NSW

Sonia Stanton
Canberra Hospital, ACT

Catherine Stapledon
The University of Adelaide, SA

Matthew Summers
The Garvan Institute of Medical Research,
NSW

Ana Svensson
Amgen Australia, ACT

Jason Talevski
The University of Melbourne, VIC

Philippa Tallis
Royal Darwin Hospital, NT

Saki Tamaki
Graduate School of Biomedical Sciences,
Nagasaki University, Japan

Hong Lin Evelyn Tan
John Hunter Hospital, NSW

Kotaro Tanimoto
Tokushima University, Japan

Aisha Tarar
The University of Melbourne, VIC

Swee Ping Teh
Singapore General Hospital, Singapore

Hirofumi Tenshin
Tokushima University Graduate School,
Japan

Senthil Thillainadesan
Royal Prince Alfred Hospital, NSW

Paul Thomson
Thomson Scientific Instruments Pty Ltd, VIC

Eleanor Thong
Monash Health, VIC

Thach Tran
Garvan Institute of Medical Research, NSW

Van Tran
Royal Melbourne Hospital, VIC

Yusuke Uto
Nagasaki University, Japan

Wim J.F. van der Vijgh
maastricht university, Netherlands

Nisha Venkatesh
Peninsula Health, VIC

Harish Venugopal
Robina Hospital, QLD

Debra Waters
Uni of Otago, New Zealand

Adrian Watt
Amgen Australia Pty Ltd, NSW

Benjamin Weeks
Griffith University, QLD

Christopher White
Prince of Wales Hospital Randwick, NSW

Emma Whittle
Mater Hospital Brisbane, QLD

Tania Winzenberg
University of Tasmania, TAS

Julia Lois Wisenberg
North Shore Bone Densitometry, New
Zealand

Joseph Wong
Qscan Radiology Clinics, QLD

Anna Wood
Royal Darwin Hospital, NT

Jane Wu
St Vincent's Hospital, NSW

Jiaki Xu
University of Western Australia, WA

Sin Dee Yap
Alice Springs Hospital, NT

Christopher Yates
Royal Melbourne Hospital, VIC

Anna Xiao-Dan Yu
Hong Kong University of Science and
Technology, Hong Kong

Aakansha Zala
Royal Darwin hospital, NT

Roger Zebaze
Monash University, School of Clinical
Sciences, VIC

Ayse Zengin
Monash University, VIC

Jane Zhang
Wollongong Hospital, NSW

Kun (Kathy) Zhu
Sir Charles Gairdner Hospital, WA

NOTES

NOTES
