









2016 ANNUAL REPORT

AUSTRALIAN AND NEW ZEALAND BONE AND MINERAL SOCIETY

AIMS AND GOALS

THE AIMS AND GOALS OF THE SOCIETY ARE TO:

- ACT AS THE PRINCIPAL PROFESSIONAL BODY FOR SCIENTISTS AND CLINICIANS
 INVOLVED IN RESEARCH AND MANAGEMENT OF PATIENTS IN THE FIELD OF
 METABOLIC BONE DISEASE AND MINERAL METABOLISM IN AUSTRALIA AND
 NEW ZEALAND;
- ACT AS THE PREMIER FORUM FOR THE PRESENTATION OF RESEARCH AND DEBATE ABOUT CLINICAL AND METABOLIC BONE DISEASE IN AUSTRALIA AND NEW ZEALAND; AND
- ADVANCE THE EDUCATION OF CLINICIANS, ALLIED HEALTH PROFESSIONALS
 AND THE PUBLIC IN THE NATURE OF AND MANAGEMENT OF DISEASES
 IMPACTING UPON THE SKELETON.



Dear Colleagues

Since becoming president of ANZBMS, I have given a lot of thought over this last year about why our society exists and what makes us different from other professional societies, about the priorities and challenges for our society, and how we should meet these.

In terms of the first question – why the ANZBMS – our mission statement as per our website states that we exist to promote excellence in bone and mineral research, to foster excellence in the integration of clinical and basic science, and to facilitate the translation of science to health care and clinical practice. The various activities of our society need to be viewed through this prism, to see if we are achieving these aims. To a certain extent, though, just looking at the mission statement skirts the question. Many of us pursue these aims in our everyday jobs; and there are several other societies with similar interests – most obviously the ESA, the ARA, and Osteoporosis Australia. So why have a separate organisation?

In terms of what makes the ANZBMS unique, it is hard to think of any other professional society that has the breadth of disciplines within its members. The activities of our society span an incredible cross-section of clinical specialities - endocrinology, rheumatology, general medicine, geriatrics, orthopaedics, physiotherapy, and exercise physiology; and the full gamut of research - from genetics to cell biology, histomorphometry, transgenic animal models, tissue engineering, pharmacology, clinical studies, epidemiology and drug trials. This is both our blessing and our curse. The blessing is demonstrated abundantly at our annual scientific meeting, at which the extraordinary breadth of knowledge and experience of our members is so evident. I would like to thank our POC co-chairs for this year, Mark Cooper and Mike Rogers, and their full committee for their

hard work in putting together such a terrific programme. I have had wonderful feedback from both our members and members from ESA and SRB; and that we reached 924 attendees means our delegates similarly viewed the programme as outstanding. Our ASMs are powerhouses of thinking about bone and mineral: great opportunities for cross-fertilisation of ideas and for learning from people outside our immediate discipline. The LOC, chaired by Mark Forwood, ensured that the venue and social activities supported the delivery of the academic programme in a collegiate and convivial atmosphere. The consequence of our vibrant bone community is seen internationally. Like our Olympic team (particularly the sailors), Australian bone and mineral research has a disproportionately large impact on the world stage relative to our size.

The curse of our diverse society I think is best illustrated in the difficulties we have in research funding and support. Because we are spread across many disciplines, it is hard for the funding bodies to see our activities. This was particularly evident in responding to the Medical Research Futures Fund roadshow, in September this year. Musculoskeletal disease is just not seen by the politicians or by the bodies tasked with funding health care and research. The ARC funds multidisciplinary research at lower levels than single discipline projects. We have struggled to have fair NHMRC committee assessment of musculoskeletal projects, with consequently disproportionately low funding rates. These are issues we have been grappling with, particularly through the work of the research committee chaired by Paul Baldock.

So one of the big challenges I see is how to ensure our longevity, because if we think our society's existence and activities are worthwhile then we need to ensure we still have a society in 20 years' time. In part this is achieved by prudent management of our fiscal resources - I would like to thank Nathan Pavlos, our honorary treasurer, who



PRESIDENT

has chaired the financial committee and will present the audited reports and discuss our financial strategy. Our collective resources are there to be used to further the interests of our society and its members. We need to balance our support of individuals, though prizes, travel support for international meetings, and grants such as our Mid-Career Fellowship, with support for new ventures such as lobbying for fracture liaison services and other initiatives.

However, a bigger issue beyond balancing the budget is ensuring that younger people engage in our society. To this end Council has decided to develop a Young Investigators Committee, which chair will also attend Council meetings in an honorary capacity. Peter Croucher will be developing the remit for this committee; and I would encourage anyone who regards themselves as a young investigator to volunteer. It's a great opportunity to learn about leadership and governance, to shape meetings, and to have input and influence into how our society supports its younger members' careers and opportunities.

A specific concern is to ensure that junior doctors engage with our society. Speaking as an endocrinologist for a moment, advanced trainees in endocrinoloty are required to attend an event organised by the ANZBMS – our ASM, our registrars' meetings or our densitometry course. Most attend one of the latter, do not join the society, and never come to the ASM – it's just not on their radar, in contrast to ESA and ADA meetings. Part of the reason we joined with ESA and SRB for this year's conference was to make our society more visible to these trainees, and to show them that coming to the ANZBMS is of benefit for their education and will be useful for their clinical practice. From looking at the audiences at our sessions, I think this strategy has been very successful. Rheumatology trainees don't have to attend any ANZBMS-badged event as part of their training and our activities seem to be unknown to many in the ARA - indeed, the current president of the ARA, Rachelle Buchbinder, thought our advanced training meeting was an excellent idea and was unaware of it prior to discussions at council. Rachelle's membership of Council is thus a great opportunity for us to improve our profile with ARA members not only with respect to engagement and education of trainees but also to improve our scientific and academic collaborations with the ARA. I hope that through Gustavo Duque, chair of the newly formed Professional Affairs Committee and a geriatrician, we will see similar connections forged with both the trainees and the geriatrics society. Our professional affairs committee also includes orthopaedic colleagues for similar reasons.

I see improving our collaborative relationships with sister societies as very important for our future. The success

of this year's meetings with ESA/SRB was not just in terms of attendance and sponsorship but more importantly the benefits are of collaboration and collegiality with respect to our shared academic interests. Our MRFF response and submission has brought all the musculoskeletal societies together and there is a palpable keenness that the camaraderie expressed in our political battles should extend to camaraderie in other areas, such as meetings and educational activity. We need to use the generous and much appreciated support from pharma smartly and efficiently.

When I came into this position in November 2015, I followed the principle that time spent in reconnaissance was seldom wasted, so I asked Rebecca Mason how she thought the president should manage – because there is an awful lot that comes across the desk. I am paraphrasing but essentially her advice included delegating where possible. This of course is only possible when one has excellent people to delegate to – and here I have been blessed, by the members of ANZBMS Council: Elaine Dennison, Rob Daly, Paul Anderson, Markus Seibel, Peter Croucher, Rachelle Buchbinder, Nicholas Pocock and Allison Pettit; by many others in our society who have volunteered their time and expertise; and by having Ivone and Melissa whose help as executive officers of our society is invaluable. The work and input of many individuals is what makes our society work, and I would like to say thank you to you all.

So to specific events and activities:

- a) ESA/SRB/ANZBMS ASM 2016
 A great success 924 attendees. In addition to thanking the POC and LOC chairs (who will give their meeting reports) I would also like to thank ASN events for their help and support in organisation; and all the sponsors, particularly those who are perhaps more "bone field" including platinum sponsors Amgen, gold sponsors Lilly, MSD, TEVA (formerly Allergan), and NovoNordisk, silver sponsors Novartis and Ipsen, and bronze plus sponsors Medtronic and Sanofi, as well as the many others in the trade display area.
- b) ANZBMS-IFMRS-JSBMR 2017
 This is our next challenge. We will be hosting the inaugural meeting of the newly-formed international federation of musculoskeletal societies next year, in Brisbane in June. We are particularly pleased that this meeting will be in collaboration also with our colleagues the Japanese Society for Bone and Mineral Research. It's looking like being a spectacular programme and we are hoping for 750 attendees. The POC chairs will again be Mark Cooper and Mike Rogers and the LOC chair Mark Forwood; and I would like to thank them for undertaking this huge task.

PRESIDENT

I just wanted to highlight a few strategies for this meeting. In addition to collaborating with our international fellow societies, particularly JSBMR, we will reaching out to other Australasian societies to co-badge sessions – for example, we will be co-badging symposia in osteoimmunology and inflammation in bone with the ARA; and similarly we are hoping to reach out to the oncology community to co-badge symposia in malignancy in bone. We are planning workshops around the meeting – including genomics in bone. Each day will have sessions aimed towards practising clinicians. And finally we will have career development and leadership training as part of mentoring of our younger investigators.

- c) Meetings after 2017. Current plans are that
 - Current plans are that our next meeting in 2018, after all these big events, will be a standalone ANZBMS meeting, and Adelaide looks like the most likely venue. Our new POC chairs have been approached and I hope will accept. Subsequent meetings will probably be in Sydney and New Zealand though these plans are very fluid currently. The 2018 meeting will be our first standalone meeting in five years. Strategically, there is value in both standalone meetings and in conjoint meetings; we just need to get the balance right. To this end, I have reformed the Meetings Committee, currently chaired by Peter Croucher as presidentelect. This committee will be responsible for long term planning and for liaising with other societies who are keen to work with us about future joint meetings.
- Other educational activities This year, we ran one Advanced Clinical Postgraduate Meeting in Bone Disease in Sydney, chaired by Markus Seibel and supported by Allergan (now TEVA). We have had a lot of discussion about this meeting's structure as it is currently completely free to registrars. Whilst it is important to reach registrars it is not sufficient to have one day of training only and be completely competent in bone. We really want them to engage longer term in education in this area. We also want to future-proof this meeting against potential decreases in pharma sponsorship without in any way diminishing our gratitude for the support we have received. Council has decided that this meeting will be free for ANZBMS members and that the cost of the meeting will be the same as the cost of membership to non-members (which is \$60.50 currently).

The next meeting is planned for Melbourne in 2017, and will be chaired by Rob Daly. We are keen to see

- if making this meeting available as a webinar or similar would be useful for trainees particularly for regional and remote regions, and are exploring these options.
- e) Committees

As a society, our activities are vast; and we need to ensure that all our activities are carried out with good governance and at a high standard. The purpose of having committees is because no one person, or few individuals, can manage all the activities. Also, a lot of people have good ideas to contribute.

To this end, I've already mentioned that we have formed several new committees this year, and each will be providing a report:

- Professional affairs committee
- Meetings committee
- Young Investigator committee

I have also had some discussions with our honorary secretary, Paul Anderson, whose brief has also become large enough for a committee. We've been particularly looking at new means of communication, including Twitter, Facebook, on-line resources (in collaboration with the RACP perhaps) as well as webinars for our educational meetings.

All the committees will be presenting their own reports; however, I just wanted to briefly highlight that ANZBMS has continued to engage with fracture liaison initiatives and osteoporosis action plans, through our professional affairs committee; and our research committee has been particularly active in responding to the MRFF and NHMRC review processes. I have mentioned most of the chairs of our committees above; the last people to thank are Mark Kotowitz who chairs the therapeutics committee; and Nick Pocock who chairs the bone densitometry committee. Both committees have dealt with multiple issues on behalf of our society and their full reports are below. I would particularly like to thank Mark for representing our society at the MBS review; and Nick for continuing to run the extremely popular bone densitometry course.



It only remains for me to again thank Ivone and Council members for their support, and for the society for the honour of serving as president. I look forwards to the next year and to handing over to Peter Croucher at the next AGM.

Emma Duncan

TREASURER'S REPORT

ASSOCIATE PROFESSOR NATHAN PAVLOS **ANZBMS TREASURER**

General Financial Result

2016 Member's funds = \$1,107,226 invited speakers and in the 2015 Member's funds = \$1,158,532

The society remains in a sound financial position with considerable funds conservatively invested. These funds have decreased marginally compared to the previous period due to a small loss from the last ioint annual meeting and the introduction of the ANZBMS Gap Fellowship Scheme, discussed later in this report. Current external support is also significantly down on previous years and will likely remain at reduced levels in the immediate future. This inevitably impacts profits from our meetings and we will likely see only small profits if any from future joint ASMs (except joint international meetings).

Overall Loss

\$51,305 Loss (2015 = \$79,747, 2014 = \$43,041;2013 = \$18,374 profit)

Despite the 2015 ASM in Hobart realising a profit (~\$35,000), we incurred a small loss (~\$1200) following distribution of agreed profit splits with MBSANZ and MEPSA and after adjusting for speaker costs (~ \$24,000) which lay outside of the ordinary meeting budget. Council agreed that this was a small price to bear considering the high quality of the meeting which hosted an unprecedented 10 international

interest of collegiality for future joint meetings.

Following Australian accounting standards the Auditor assigns ASM revenues to the year received, and expenditure to the year when committed. Consequently, the gross income and gross expenditure in respect of each ASM will be reflected in the profit and loss account, as they occur, rather than simply recognizing a 'net profit' of each individual meeting.

Investments

\$600,698.00 Rural Bank Term deposit @ 2.95%. Matures 28/08/2016

\$285,714.09 Bank of Oueensland 2.75% Matures 30/9/16

\$137,019.97 Bank of Oueensland 2.75% Matures 30/9/16

Total: \$1,023,432.00

We continue to exercise a conservative investment approach, although this strategy will be subject to revision in 2016/17. Term deposits are at <3%, which yielded \$33,388 in 2015-2016 with this income increasing over (2015-2014; \$29,163).

Expenses

Our society expenses are stable at about \$96,000 for 2015-2016.

This includes: Office - \$65,000 (Rent + salaries + minor extras) Audit - \$4,750 Council meeting costs - \$7,430 Awards - \$20,000 (Christine & T Jack Martin Research Travel Grant (\$15,000 - Amgen funded), Amgen-ANZBMS Outstanding Abstract award (x5, \$1,000 each - Amgen funded), Roger Mellick and Chris & Margie Nordin Young Investigator Awards, Kaye Ibbertson Award, Sol Posen Award (all \$1,000, funded by the society))

Income

Sponsorship - \$19,000 Amgen donation - \$20,000 (covers Christine & T Jack Martin Research Travel Grant (\$15,000) and 5 Amgen-ANZBMS **Outstanding Abstract awards** (\$1,000 each) ANZBMS satellite meetings (post graduate trainee meetings + densitometry courses) - \$69,386 Subscriptions - \$63,000 Interest from term deposits -\$28,000

TREASURER'S REPORT

ASSOCIATE PROFESSOR NATHAN PAVLOS ANZBMS TREASURER

The Society remains in a strong financial position.

Subscriptions have increased significantly over the last few years through reviewing unfinancial members and encouraging them to renew. Many thanks to Ivone for managing this. The Society should acknowledge the contributions of the 2016ASM POC and Nick Pocock for overseeing the Densitometry Courses and Markus Siebel for his efforts for the postgraduate training meetings.

Future directions

For 2015-2016 we encountered a downturn in overall profits (~\$50,000) reflecting a modest loss from the 2015 joint MBSANZ/MEPSA/ANZBMS ASM, declining sponsorship and increased fiscal demands incurred from the introduction of the ANZBMS Gap Fellowship Scheme (\$50,000). Moderate profits realised from future meetings and diversifying our current investment portfolio may provide a viable fiscal mechanism to offset the Gap Fellowship scheme.

For 2017, our standard outgoings are likely to be largely unchanged. We anticipate income from interest to be ~ \$28,000 (at an interest rate of 2.95%), accounting for slightly reduced term deposits due to supporting the Gap Fellowship. A challenge will be to continue to attract and maintain the level of sponsorship support afforded in previous years.

I would like to offer my thanks to members of the Finance Committee, Ivone Johnson and Melissa Dupavillion who have provided excellent guidance and support to me and Rod Laws of Tinworth & Co Chartered Accounts for overseeing the accounts.



Associate Professor Nathan Pavlos, ANZBMS Treasurer

SOCIAL MEDIA

WIKIPEDIA



FACEBOOK

Please visit the ANZBMS Facebook page and "LIKE" us to keep up to date with current news items and upcoming events!



MEMBERS

INTERNATIONAL RECOGNITION OF ANZBMS MEMBERS

Australia Day 2016 Honours congratulations Member (AM) in the General Division

Professor Ego SEEMAN

Department of Endocrinology
For significant service to medicine,
as a researcher in the fields of
osteoporosis and endocrinology,
and as a clinician and academic.

Radcliffe Institute Fellowship Pioneering biomaterials and tissue engineer **Professor Hala Zreiqat** has been awarded a prestigious Radcliffe Institute Fellowship at Harvard University. The Radcliffe Institute for Advanced Study selected Professor Zreiqat from more than 1300 international applications worldwide.



Professor Ego Seeman



Professor Hala Zreigat

MEMBERS

ANZBMS MEMBERS PASSING

Professor Soloman Posen

29/7/24 - 16/5/16 Beloved husband of Jean Katie (nee Simpson), loving father of Jennifer, James (deceased), Mark and Timothy; cherished father-inlaw of John, Jacinda and Kieran; adored grandfather of Thomas, Sarah, Michael, Amelia, Maxwell, Sophie and Mira.

He had a brilliant mind and made an invaluable contribution to his patients, medical teaching and research. He lived for his family and led a full and active life until the end. He will be greatly missed by all.

Don Perry-Keene



Professor Soloman Posen

REPORTS

THERAPEUTIC COMMITTEE REPORT

MASC Application 131 – Bone densitometry item number for women with breast cancer on or commencing aromatase inhibitors In November, we were invited to respond to the MSAC rejection of our application. We indicated that ANZBMS are unhappy with the outcome as the application appears to have been rejected because of an unfavourable cost benefit of diagnosis and treatment driven by the inclusion of women with osteopenia in the economic modelling. This means that high risk women with osteoporosis commencing aromatase inhibitor therapy, for whom this strategy appears cost-effective based on the ESC analysis, are also being denied the possible benefits of identification an intervention. The introduction of extraneous material relating to the use and possible abuse of DXA was not relevant to this application and one cannot help but feel that MSAC has pre-empted the outcome of the Medicare review in their decisionmaking process.

Given the current Medicare
Review into bone densitometry,
the committee has felt that a
reapplication should be kept on hold
pending the outcome of this review
that could potential result in changes
to indications for densitometry and
changes in remuneration.

MBS Review:

The purpose of the review was to create incentives for the use of high value items and discourage the use of low value items. The review aimed to be completed in mid-2017 and it's vision was "to ensure that the MBS provides affordable universal access to best practice health services that represent value for both the individual patient and the health system".

More than 25 groups have been established – Prof Johnathan Sepell will chair the Endocrinology review. The process consists of triage and evaluation of evidence leading to draft recommendation that will be followed by consultation with peak bodies, colleges and stakeholder before final recommendations are sent to the Minister who has final approval. The review would:

- Recommend changes to existing items or removal of obsolete and low value items
- Recommend new items or services
- Recommend detailed rapid review of new items

Evolve:

This RACP initiative seeks to reduce the costs associated with low value procedures and seeks to develop lists of low value procedures from each of the Specialty Societies associated with the College, supported by an appropriate literature review. The Committee's draft list has been circulated to the membership and feedback received from forty-five members, resulting in refinement of the list. We have proposed that our list be circulated to the ARA and Endocrine Society membership for further feedback. Suggestions relating to bone densitometry have been noted but not currently included given the politics currently surrounding densitometry.

The current top five on our list are as follows:

- Do not prescribe calcium or vitamin D alone or in combination as treatment of osteoporosis or for fracture prevention
- Do not screen for vitamin D deficiency in low-risk individuals or for non-skeletal indications; and do not prescribe vitamin D for nonskeletal indications
- Do not recommend anabolic steroids for fracture prevention in



Mark Kotowicz

- osteoporosis except in androgen deficient males
- Do not organise imaging of the parathyroid glands (either by ultrasound and/or sestamibi scanning) for individuals with primary hyperparathyroidism until a decision has been made that surgical management (i.e. parathyroidectomy) is indicated
- Do not routinely prescribe calcitriol as treatment of postmenopausal osteoporosis

Clinical Standards for Fracture Liaison Services in New Zealand

ANZBMS has endorsed these standards that have now been published by Osteoporosis New Zealand: http://osteoporosis.org.nz/news/clinical-standards-for-fracture-liaison-services-in-new-zealand/

Osteoporosis Clinical Guidelines – New Zealand:

ANZBMS has provided feedback on these guidelines, including a suggestion that an attempt be made to harmonise these guideline with those currently under review by Osteoporosis Australia, taking into account differences in the availability of therapeutic agents in Australia and New Zealand.

Nurse Practitioner initiation of denosumab

ANZBMS has provide support for this proposal with the caveat that approval should be contingent on ensuring that Nurse Practitioners are trained to interpret the clinical and technical data used to initiate treatment with denosumab and that guideline ensure that patients are vitamin D replete and do not have advanced chronic kidney disease. In addition, the Nurse Practitioners would need to be able to recognise acute hypocalcaemia and ensure that patients receive appropriate management of this complication.

Associate Professor Mark Kotowicz

REPORTS

RESEARCH SUB-COMMITTEE REPORT

Medical Research Future Fund Priorities submission.

- Alerted by David Findlay after the MRFF Road Show in Adelaide, Burden of Disease (BoD) estimates for musculoskeletal disease was an order of magnitude lower than actual. BoD is a fundamental component of the funding priority matrix for the MRFF Advisory Board. One submission was driven by Arthritis Australia, including all musculoskeletal disease, a specific paragraph addressing osteoporosis was written by the ANZBMS and included in the submission.
- A second submission driven by ANZBMS and focussing upon improved health outcomes and secular changes has been drafted and submitted.
- It is important to note the enthusiasm shown by the entire MSK sector in responding to the MRFF.

Annual Scientific Conference/ Awards

- The committee conducted an audit of the processes used to adjudicate the various awards given by the ANZBMS. Various changes were suggested. This process will continue after the AGM, focussing upon whether the submission requirements and information are appropriate for the various awards.
- The first action of the committee in late 2015 was the judging of the ANZBMS GAP Fellowship and the International Travel Award (ITA), for attendance to the IBMS Herbert Fleisch Workshop in Brugge. It was noted that half of the ITA applicants filed incomplete awards; it was decided to allow subsequent submissions to complete applications.

ASM: The committee
 contributed to scoring of
 abstracts, and conferred as to
 the appropriateness of awards
 allocated based upon these
 scores. Additionally, applications
 for the Sol Posen, Kaye Ibbertson
 and Christine and T Jack Martin
 Travel Awards were judged.
 Members of the Research
 Subcommittee also actively
 participated in the review of
 several high quality applications
 for this year's Amgen GSK/OA
 ANZBMS awards.



Paul Baldock

ADVANCED CLINICAL POSTGRADUATE MEETING IN BONE DISEASE

The Advanced Clinical Postgraduate Meeting in Bone Disease was held at the Concord Hospital Medical Education Centre in Sydney on 18 June 2016. With over 90 advanced trainees from diverse specialities participating, the meeting was well attended and provided opportunity for lively discussion. It is hoped that the ANZBMS Postgraduate Courses, which have been offered free of charge since 2008, contribute to a deeper understanding and better management of musculoskeletal disorders by the next generation of doctors.



REPORTS

PROFESSIONAL AFFAIRS COMMITTEE

The new Professional Affairs
Committee was implemented in
February 2016 with the mission
to engage with other Scientific
Societies, Non-governmental
organizations (NGOs) and
Professional Colleges sharing a
similar interest in promoting high
quality research, strong scholarship
and professional development in
areas directly or to some extent
associated with musculoskeletal
diseases.

Membership of this Committee was finalised in March 2016. The Terms of Reference for this Committee were presented and approved at the last meeting of the Council. Since then, several members of the Committee have represented ANZBMS at activities and meetings organised by our partner Organisations, NGOs and Colleges.



Professor Gustavo Duque

DENSITOMETRY SUB-COMMITTEE ANZBMS TRAINING COURSE

ANZBMS Training Course

The course in Sydney in April was very successful with over 70 registrants. The course that was held in Adelaide in September

2016 had over 60 registrants. **DXA Medicare Item No.**The review of Medicare service provision, including the DXA item, is still underway. No draft recommendations for public comment have yet been



Nick Pocock



NATIONAL ACTION PLAN 2016



New Osteoporosis National Action Plan 2016

A new Osteoporosis National Action Plan, the result of a 12 month collaboration among a national alliance of stakeholder groups, launched on 20 October 2016 - World Osteoporosis Day. The plan presents a joint vision to address this major health issue as a matter of urgency.

Download a copy of the Osteoporosis National Action Plan here

REPORTS

PROGRAMME ORGANISING COMMITTEE 2016

POC report -

Mark Cooper, Mike Rogers The ANZBMS POC (Mike Rogers, Co-Chair; Mark Cooper, Co-Chair; Natalie Sims, Paul Anderson, Jiake Xu) worked hard to develop an exciting program for this year's meeting. We had to adapt our usual meeting format to fit in with the framework of the ESA-SRB meeting, which placed some pressure on scheduling and ability to include all the usual components of an ANZBMS meeting. The final program offered a good balance between basic and clinical sciences and, although being a stand-alone meeting, is likely to have appealed to members of the other societies involved. The representatives of ESA and SRB were a pleasure to work with and we had 2 joint symposia with ESA. We were fortunate to have 2 high profile overseas plenary speakers in Christopher Kovacs (Canada) and Seiji Fukumoto (Japan) who greatly enhanced the meeting through their lectures and mentorship. In the main program we had 35 invited speaker presentations, 36 oral communications, 21 plenary posters and 65 regular posters. Overall ESA-SRB-ABZBMS was a great success in many respects and the total delegate number for the whole meeting was ahead of expectations. The amount of sponsorship attracted to the meeting has also greatly exceeded expectations. We would like to thank all the individual members of the ANZBMS POC for their multiple contributions, the ANZBMS Council for additional speaker

suggestions, the abstract

reviewers (who worked hard to mark abstracts to a tight schedule) and all the session Chairs and co-Chairs. Special mention is required for the considerable input of Ivone Johnson, Mark Forwood (and the local POC) and the ASN staff (Mike Pickford, Jim Fawcett and Brad Ogden) in the development of the meeting and its coordination.

2016 LOC report – Mark Forwood Members of the LOC for 2016 included Mark Forwood (Chair), Belinda Beck (ANZBMS), James Cuffe (SRB), Lisa Akison (SRB) and Mark Forbes (ESA). The LOC was supported and guided by Ivone Johnson (secretariat ESA and ANZBMS) and the ASN Team, Jim Fawcett, Brad Ogden and Jennifa Vo. Total attendance at this meeting was 924 delegates.

Registrations for other events included the Welcome reception (575), Meeting of the Minds function (Early career researcher,119), conference dinner (338), SRB Early and Mid-Career session (172) and the

public symposium "Big Ideas in Pluripotency and Re-programming" (144). Major events requiring catering included the welcome Reception, Meeting of the Minds, Conference Dinner, ECR function, Poster session Monday evening; and, the ANZBMS President's Dinner (42 attendees at Hank Dining and Bar, Broadbeach). A band was engaged for the Conference Dinner and an acoustic musician for the Meeting of the Minds function.

The meeting had attracted 19 sponsors/exhibitors: Amgen Australia (Platinum Sponsor); Allergan, MSD, Novo Nordisk and Eli Lilly (Gold Sponsors); Novartis (Silver Sponsor); Sanofi, Medtronic Australasia (Bronze Sponsors); Mercy Hospital for Women (advertising); Siemens Healthcare (satchel inserts) and RACP (advertising). Exhibitors included: Besins Healthcare, MYLAN, Mater Pathology, InMed Pty Ltd, Getz Healthcare, Thomson Scientific Instruments Ptv Ltd, and Lawler Pharmaceuticals.



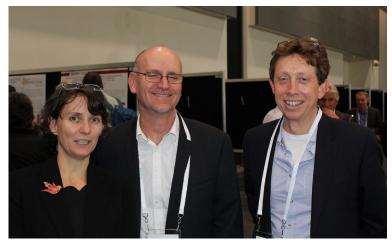
Mark Cooper Mike Rogers Mark Forwood

ESA/SRB/ANZBMS

JOINT MEETING 2016 GOLD COAST













AWARD RECIPIENTS

AMGEN OUTSTANDING ABSTRACT AWARD

Nicola Lee

Institute: Garvan Institute of Medical Research Title: Osteoglycin, a novel regulator of bone mass and glucose homeostasis

Steven Watson

Institute: Griffith University
Title: High intensity progressive
resistance training is safe and
effective for postmenopausal
women with low to very low
bone mass: The LIFTMOR Trial

Emma Walker

Institute: St Vincents Institute
Title: Shifting the balance towards
STAT3: identification of a new
anabolic pathway for bone



Emma Walker

Michelle McDonald

Institute: Garvan Institute of Medical Research Title: Real-time intravital longitudinal imaging of osteoclast formation, function and fate within the bone marrow microenvironment

Natalie Hyde

Institute: Deakin University
Title: Maternal vitamin D during
pregnancy and offspring
trabecular bone score



Emma Duncan, Jeffrey Hassal, Nicola Lee, Steven Watson, Michelle McDonald, Natalie Hyde

AWARD RECIPIENTS

KAYE IBBERTSON AWARD

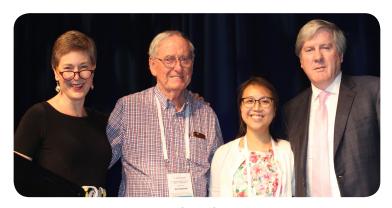
Michelle McDonald Institute: Garvan Institute of Medical Research



Michelle McDonald

CHRISTINE AND TJ MARTIN TRAVEL GRANT

Audrey ChanInstitute: University of Western Australia



Audrey Chan

SOL POSEN AWARD

Paul Lee Institute: Garvan Institute of Medical Research Paper title: Preadmission bisphosphonate and mortality in critically ill patients



Paul Lee

ROGER MELICK YOUNG INVESTIGATOR AWARD

Christina Vrahnas

Institute: St. Vincent's Institute of Medical Research Title: Using synchrotron-based Fourier Transform Infrared Microscopy (sFT-IRM) to study the process of bone formation and mineralisation and its contribution to bone strength



Christina Vrahnas

AWARD RECIPIENTS

NORDIN YOUNG INVESTIGATOR POSTER

Audrey Chan

Institute: University of Western

Title: The extreme C-terminus of PTHR encodes the key molecular determinants for PTHR-SNX27 interaction and trafficking

MSD-ANZBMS CLINICAL ANZBMS CAREER RESEARCH EXCELLENCE

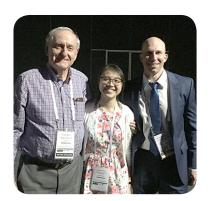
Thach Tran

Institute: Garvan Institute of Medical Research Title: Excess mortality following individual types of fragility fracture: A relative survival analysis

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.

Jack Martin



Jack Martin Audrey Chan Nathan Pavlos



Thach Tran



Jack Martin

AWARD RECIPIENTS

THE PHILIP SAMBROOK AWARD

Dr Jinwen Tu (centre)
ANZAC Research Institute,
Concord Repatriation General
Hospital, Sydney

'Tamoxifen-Induced Deletion of the Glucocorticoid Receptor in Chondrocytes Enhances K/ BxN Serum-Induced Arthritis in Mice'

Glucocorticoids (steroids) have been used successfully for many years to treat rheumatoid arthritis (RA). We have a clear understanding of how these drugs work, but we know much less about how the steroids that are produced by our own body (endogenous glucocorticoids) also affect the development and severity of diseases such

as RA and osteoporosis. Dr Tu presented research at the 2016 Annual Scientific Meeting of the American Society for Bone and Mineral Research (ASBMR), in Atlanta, Georgia, that demonstrates the importance of the interactions between endogenous glucocorticoid molecules and cartilage cells in the development of RA. In a series of laboratory experiments, Dr Tu has shown that blocking the 'signals' that cartilage cells receive from endogenous glucocorticoids results in loss of control of cartilage cell behavior. As a result, cartilage cells release molecules that stimulate inflammation, leading to the destruction of cartilage and bone that are characteristic of RA.

Understanding these complex processes is important in order to develop new, specifically targeted drugs that may help to control the devastating effects of RA on joints and bones.



Peter Ebeling, Jinwen Tu, Emma Duncan

AMGEN/GSK GRANT RECIPIENTS

Clinical Associate Professor Amanda Vincent Monash Centre for Health Research and Implementation (MCHRI), Monash University, Victoria

'Improving awareness and management of bone health and fracture prevention in women with premature menopause.'

Up to 10% of women experience premature menopause (before the age of 40), which puts them at increased risk of developing osteoporosis. Both medical professionals and patients lack awareness of this increased risk, and action that could reduce osteoporosis and fracture risk is often not taken.

Professor Vincent's project will focus on identifying knowledge gaps via a consultation process with women, health professionals and support groups. This will inform the development of evidence based information for both women and health professionals, which will be made freely available on the Osteoporosis Australia website. Another arm of the project will investigate the ability of a new bone strength measurement technique, trabecular bone score, to improve the identification of women with premature menopause who are at risk of fracture. Lastly, the project will compare different methods of bone

density testing in women with premature menopause due to Turner syndrome, a group in whom the usual method of bone density testing can be inaccurate.



Amanda Vincent, Jeffrey Hassall, Peter Ebeling, Emma Duncan

AWARD RECIPIENTS

ANZBMS GAP FELLOWSHIP REPORT (NOW MID-CAREER FELLOWSHIP)

Dr Allison Pettit

The ANZBMS Gap Fellowship is a proactive response by the ANZBMS to the difficult Australian research funding climate. Unprecedented lows in NHMRC project grant and fellowship funding rates are having particularly acute impact on mid-career researchers as the approach what was already a significant 'bottle neck' in nationally competitive fellowship schemes. It was my great pleasure and honour to be the inaugural recipient of and ANZBMS Gap Fellowship and I hope I've done the scheme iustice and demonstrated ongoing value to our Society. The Fellowship has had many positive impacts on my laboratory's research productivity and my career progression. Firstly I was able the leverage the Fellowship to increase direct research funds allocated to my laboratory, boosting research productivity in 2016. As detailed in my Fellowship proposal, this included research toward understanding the interdependency and reciprocal regulatory mechanisms controlling bone and bone marrow (BM) and in particular the decline in both these organs during aging. We are continuing to test the hypothesis that macrophage-mediated mechanisms play significant roles in bone and BM pathology, injury, aging and subsequent regeneration mechanisms. During the Fellowship tenure my research team has published 2 research articles and an invited review (see below for reference list). Two additional research articles are currently under review, and I

anticipate submission of 3 more research articles, on which I am corresponding author, before then end of 2016. I was invited to present a symposium oral at the ANZBMS conference and presented an oral selected from abstract as well as a highly attended poster at the 2016 ASBMR meeting in Atlanta. I was invited (including honorarium) by Professor Laurie McCauely, Dean of The University of Michigan Dental School, to visit and give a Departmental seminar. The University of Michigan is a vibrant research organization with an impressive commercialization track record and I learnt a great deal during the visit as well as established new collaborations. On all occasions, the ANZBMS was acknowledged for their support and I advocated the benefits of the fellowship scheme.

In 2016, I was involved in the submission of 3 NHMRC project grants (CIA, CIB and CIC), none of which were funded. I was however awarded an ARC Future Fellowship which will commence in January 2017 and will allow continuation of the same project detailed in my ANZBMS Gap Fellowship. Being a recipient of the ANZBMS Gap Fellowship provided a significant track record boost in my Future Fellowship application as it demonstrated that I had the support of my immediate colleagues who are best able to judge the quality of my past research and the potential of my future research.

During the Fellowship I've continued service to our Society as a member of the ANZBMS Council. I've assisted in the training and mentoring of junior members in the Society and completed funding and manuscript assessments/

reviews for NHMRC and field relevant journals. I'd like to thank the ANZBMS Council and Research Sub-Committee for initiating this Fellowship scheme and advocate that it's continuation will help to sustain the vibrancy and future of ANZBMS.

Publications

- 1. Wu CW, He Y, Broomfield A, Paatan NJ, Harrington BS, Tseng H-W, Beaven EA, Kiernan DM, Swindle P, Clubb AB, Levesque J-P, Winkler IG, Ling M-T, Srinivasan B, Hooper JD, Pettit AR. CD169+ macrophages mediate pathologic woven bone formation in prostate cancer skeletal lesions. The Journal of Pathology. 2016; 239(2), 218-30.
- 2. Kaur S, Raggatt LJ, Batoon L, Hume DA, Levesque JP, Pettit, AR. Role of bone marrow macrophages in controlling homeostasis and repair in bone and bone marrow niches. Seminars in Cell and Developmental Biology. 2016 Aug 10. doi: 10.1016/j. semcdb.2016.08.009. [Epub ahead of print]
- 3. Alexander KA, Raggatt LJ, Millard S, Batoon L, Wu AK, Chang MK, Hume DA, Pettit AR. Resting and injury-induced inflamed periosteum contain multiple macrophage subsets that are located at sites of bone growth and regeneration. Immunol Cell Biol. 2016 Aug 24. doi: 10.1038/icb.2016.74. [Epub ahead of print]



Dr Allison Pettit

AWARD RECIPIENTS

CHRISTINE AND T.J. MARTIN RESEARCH TRAVEL GRANT 2016

Christina Vrahnas

My PhD studies have focused on understanding how downstream targets of parathyroid hormone (PTH) affect bone strength and quality using two genetically modified mouse models. My analyses on these two mouse models showed compliant and brittle bone strength phenotypes which were not due to changes in bone structure that could be detected by microCT. This led us to investigate their bone composition using Fourier Transform Infrared Microscopy (FTIRM) at the Australian Synchrotron and Quantitative Backscattered Electron Imaging (gBEI). As there is no Australasian researcher with an expertise in FTIR analysis on mouse bone, this travel grant provided me with an opportunity to learn from the experts in the field of spectroscopy about these techniques and how to analyse the data in more detail. My first lab visit commenced at the Ludwig Boltzmann Institute of Osteology in Vienna, Austria. I spent 2 and a half weeks under the supervision of Dr. Eleftherios Paschalis at Hanusch Hospital. Here I learned Dr. Paschalis' method for performing sub peak analysis on my FTIR spectra from the brittle bone mouse model collected in Melbourne. Sub peak analysis is able to provide further detail on the composition of the bone material. I was able to detect significant alterations in collagen crosslinking of mice with brittle bones compared to their controls. I also scanned my mouse tissue sections again using his lab's FTIR microscope to validate my findings from Melbourne. These scans produced contour plot

images which visually highlighted the changes I observed from this analysis as well as complimented my results collected in Melbourne. I can now apply all that I have learned in Dr. Pashcalis' lab, such as improving our scanning resolution and performing different types of analyses on my spectra.

My second lab visit continued at the Ludwig Boltzmann Institute of Osteology but in the Trauma Centre Meidling, under the supervision of Associate Professor Paul Roschger. In just one week, I learned the detailed steps in preparing bone samples for scanning with the backscattered electron microscope, their scanning protocol and how to obtain bone mineral density distribution measurements from the scans. This method provided greyscale images of our bone samples to visualise osteocyte lacunae and mineralisation distributions. I was able to use samples prepared in Melbourne for learning this gBEI technique which are from the same mouse model that was analysed in Dr. Paschalis' lab. While no significant changes were found in osteocyte lacunae number/size or bone mineral density distribution, these data combined with our FTIR data collected in Dr. Paschalis' lab. demonstrates that the brittle bone strength phenotype may be due to a matrix defect.

I then travelled to Rome, Italy to present my work as a poster at the **European Calcified Tissue Society** (ECTS) Congress, showing my work on the effects of anabolic PTH treatment on primary and secondary mineralisation on the periosteal edge. It was unfortunate that two of the 'meet-the-professor' sessions did not go ahead and the constant program rescheduling ultimately meant that I was unable to make

the most of this meeting. Overall, the highlights from this meeting were talks by Ralph Müller and Mary Bouxsien who discussed in detail on how imaging techniques can be used to determine bone's mechanical properties. I was able to use the information from these talks to pass on to my colleagues in my lab in Melbourne for their own research.

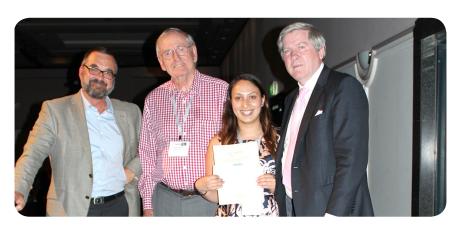
My final lab visit was at the University of Bordeaux in France under the supervision of Dr. Cyril Petibois. Here I learned their method of performing sub peak analysis on our spectra collected in Melbourne. The different ways of sub peak analyses performed in both Dr. Petibois' and Dr. Paschalis' labs provided me with more options on which would be the best method for my work. Dr. Petibois' previous work on investigating different types of collagen using FTIR led us to experiment using a polarising filter to observe the alignment of collagen bonds in our bone thin tissue sections. A polarising filter is used to change the direction in which the infrared beam passes your sample, providing information on the orientation of the bonds within the collagen molecule. I was able to scan the same tissue sections measured in Vienna (in Dr. Paschalis' lab) using different polarising filters and found significant changes in the way the collagen is aligned and organised in the brittle bone mouse model, compared to their controls. The results obtained from this visit can be combined with our FTIR and qBEI results to further explain the cause of the brittle bone phenotype.

CHRISTINE AND T.J. MARTIN RESEARCH TRAVEL GRANT 2016

In summary, this travel grant has allowed me to learn in detail the FTIR and qBEI techniques for analysing bone composition in thin mouse bone sections. The highlights were the lab visits because the data generated and the advice received on my analysis will help me to finalise two papers that are close to submission from my PhD. This also highlights the beginning of future collaborations with our lab and Drs Paschalis, Roschger and Petibois labs.

I would like to thank AMGEN and ANZBMS for being awarded the Christine and T. Jack Martin Travel Grant to allow me to travel and learn about the FTIR and qBEI techniques from the experts in the field. With this award, I have now created new collaborations, discussed my work with and learned from experts in the field of spectroscopy.

I am very grateful for this opportunity and hope to establish these techniques in Australia, advancing our understandings on how changes in bone composition can alter bone strength.



Christina Vrahnas

FUTURE ASM

Programme Organising Committee report - Mark Cooper, Mike Rogers

The 2017 annual scientific meeting in Brisbane (17-21 June 2017; www.anzbms-ifmrs.org) will be the first to be held together with the International Federation of Musculoskeletal Research Societies (IFMRS, formerly IBMS) and promises to be an exceptionally well-attended and vibrant meeting. We are delighted that the meeting will also be in conjunction with the Japanese Society for Bone & Mineral Research (JSBMR). The program is being coordinated by the co-Chairs of the ANZBMS POC (Mike Rogers & Mark Cooper), the IFMRS POC (John Eisman & Roland Baron) and the JSBMR POC (Riko Nishimura and Seiji Fukumoto). The ANZBMS POC also consists of Jill Cornish, Natalie Sims and Gustavo Duque. There will be a varied program of cutting edge basic and clinical science (with at least one session per day that will appeal to physicians and clinical researchers), poster and meet-the-professor sessions, and activities aimed specifically to encourage early career researchers to attend and actively participate in the meeting. In contrast to our usual annual meetings with 2 plenary international speakers, in 2017 we will have at least 14 international speakers (including Australia,

Canada, Japan, New Zealand, the United Kingdom, Germany and the USA). Furthermore, additional speakers will be sponsored by member societies of IFMRS (ECTS, ORS, ASBMR and ICMRS). This international panel of of experts will cover topics including live imaging of bone cells; innovations in orthopaedics; insights into skeletal biology from rare bone diseases; genomics; exercise, muscle and bone: inflammation, infection and bone; fracture prediction and fracture care; cancer and the skeleton; and the latest updates on bone therapeutics. We are delighted that some of these symposia will be co-badged with the Australian Rheumatology Association (ARA) and ANZORS. We are also planning pre-meeting satellite sessions, including a clinical update on osteoporosis for clinicians and allied health professionals, and a workshop on big data. To complement the main scientific program, the local organising committee, chaired by Mark Forwood, will ensure ample opportunities for socialising and networking, with student and young investigator barbeques, a gala dinner-dance, a cocktail party at the Gallery for Modern Art, and other social events in the beautiful Southbank Parklands of Brisbane on the edge of the river. We are confident that the 2017 inaugural meeting with IFMRS and JSBMR will be an exciting and very

Local Organising Committee report – Mark Forwood

Members of the LOC for 2017 include Prof Mark Forwood (Chair), Prof Belinda Beck (ANZBMS) and Dr Andy Wu (ANZBMS). The LOC is supported and guided by Ivone Johnson (secretariat ANZBMS) and the ASN Team, Jim Fawcett, Brad Ogden and Jennifa Vo. The meeting is scheduled from Saturday 17th June, 2017 to Wednesday 21st June, 2017 at the Brisbane Convention and Exhibition Centre. The following social functions have been scheduled by the LOC, and the LOC is also investigating other social and physical activities associated with Southbank Parklands:

- Welcome Reception Sat 17th June, BCEC Exhibition Area. Entertainment includes an Indigenous welcome to Country (prior to plenary session) and Indigenous performance at the Welcome Function
- Gallery of Modern Art (GOMA)
 Function, Sun 18th June.
 Entertainment includes a
 Children's Choir
- Meeting of the Minds (Early and Mid Career Scientists), Mon 19th June BCEC Sky Room. Entertainment to be determined.
- Conference Dinner Tuesday 20th June, BCEC Boulevard Room.
 Entertainment – band to be determined



memorable one.

COUNCIL

OFFICE BEARERS 2016

President

Professor Emma Duncan MBBS (Hons) FRCP, FRACP, PhD
Senior Staff Specialist in
Endocrinology, Royal Brisbane
and Women's Hospital
Department of Endocrinology
Royal Brisbane and Women's
Hospital
Butterfield St
Herston. QLD. 4029
Tel: +61 7 3646 8111
Email: e.duncan@uq.edu.au

President-elect Professor Peter Croucher BSc

PhD
Head of Division
Bone Biology Laboratory
Bone Biology Division
Garvan Institute of
MedicalResearch
384 Victoria Street, Darlinghurst,
NSW 2010
T:+ 61 (0) 2 9295 8243
F:+61 (0)2 9295 81101

E:p.croucher@garvan.org.au

Treasurer

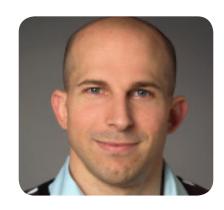
Associate Professor Nathan J. Pavlos B.Sc (Hons), Ph.D.
Head, Cellular Orthopaedic
Laboratory Faculty of Medicine,
Dentistry and Health Sciences
The University of Western
Australia
35 Stirling Highway, Crawley WA
6009
Nedlands, WA 6009
Tel:+61-8-9346-2083
Fax: +61-8 9346-3210
Email: nathan.pavlos@uwa.edu.au



Honorary Secretary Associate Professor Paul H Anderson BSc (Hon), PhDMusculoskeletal Biology Research Sansom Institute University of South Australia Frome Road Adelaide SA 5001 Tel: 61 08 8222 3244 Fax: 61 08 8222 3518 Email:paul.anderson@unisa.edu.au



Council Member
Associate Professor Nicholas
Pocock MB BS, MD, FRACP
St Vincent's Hospital
Dept of Nuclear Medicine
Victoria Street
Darlinghurst NSW 2010
Tel: 61 02 8382 2216
Fax: 61 02 9361 2619
Email: n.pocock@unsw.edu.au



Council Member Professor Elaine Dennison MB BChir MA FRCP MScPhD FRACP Victoria University Wellington, SBS Department Wellington. 6140. New Zealand Tel: 44 023 8077 7624 Email: Elaine.Dennison@vuw.ac.nz







COUNCIL

OFFICE BEARERS 2016

Council Member

Professor Robin Daly B.Appl. Sci(Hon), PhD Deakin University Centre for Physical Activity &

Nutrition Research
221 Burwood Highway
Burwood. VIC. 3125
P: 03 9244 6040
F: 03/9244 6017

E: rmdaly@deakin.edu.au

Council Member

Dr Allison Pettit BSc (Biotech), BSc (Hons), Ph.D.

Mater Research Institute-UQ Translational Research Institute Level 4, 37 Kent St Woolloongabba. QLD. 4102. P: 073443 7575

E: allison.pettit@mater.uq.edu.au

Council Member

Past President Prof Markus J. Seibel MD PhD FRACP FGABJD

Bone Research Program ANZAC Research Institute The University of Sydney at Concord Campus Sydney NSW 2139

Sydney NSW 2139 Tel: 61 2 9767 5000 Fax: 61 2 9767 7472

Email: Markus.Seibel@sydney.edu.au







ANZBMS

OFFICE

ANZBMS Secretariat Ms Ivone Johnson

Executive officer 145 Macquarie Street Sydney. NSW. 2000.

Ph: +61 2 9256 5405 Fax: +61 2 9251 8174

Email: ijohnson@anzbms.org.au

Administrative Assistant Mrs Melissa Dupavillon 145 Macquarie Street Sydney. NSW. 2000. Ph: +61 2 9256 5405

Fax: +61 2 9251 8174







145 MACQUARIE STREET SYDNEY, NSW 2000 PHONE: +61 2 9256 5405

FAX: +61 2 9251 8174

EMAIL: ijohnson@anzbms.org.au

ABN: 69 072 086 894