



AUSTRALIAN & NEW ZEALAND SOCIETY OF BIOMECHANICS

Newsletter

October
2023
Volume 14
Issue 3

PRESIDENT'S REPORT

By Karen Mickle

Hello members,

I hope this newsletter finds you all well. The Footy Finals are now done (sorry to all the Queenslanders), which means most of us are at the back end of the semester and starting to plan out our 2024 research projects, grant submissions and conferences.

It was great to catch up with many of you at ISB at the start of August. Thanks to Logemas for putting on drinks at our ANZSB social night and to Patricio for looking after the social media updates. For a relatively small society, ANZSB was well represented and an integral part of the international community. Congratulations to Liz Clarke for taking over the role of President of ISB, the society is in great hands and continues the legacy of our outgoing Past president Andy Cresswell. I had the huge honour of introducing this year's Wartenweiler Memorial Lecture to our very own Emeritus Professor Julie Steele in acknowledgment of her contribution to Biomechanics.

As discussed at our last AGM, we will hold regional meetings in the off year to ABC as an additional dissemination/networking opportunity for our members, particularly for our students who may not have had the chance to travel to an international conference. Thanks to the institutions who have volunteered to organise these end-of-year meetings. More details about these are provided in the newsletter.

Until next time,
Karen



**ANZSB**
anzsb.asn.au

SOCIAL MEDIA

Don't forget to engage with us via social media;
Facebook - facebook.com/ANZSB
Twitter - twitter.com/ANZSB



ISB 2023 - FUKUOKA JAPAN

It was great to see so many ANZSB members attend ISB. Once again congratulations to our student and EMCR travel award winner, who have shared their experience with us below.

Student travel awards

Paige Treherne (UQ) - How do bones of the sub-talar joint complex cope with size?

<https://www.linkedin.com/in/paigetreherne/> [@PaigeTreherne](#)

Earlier this year, I had the privilege of presenting my PhD research at ISB2023 in Fukuoka. My research explores how the bones of the sub-talar joint complex cope with size. Specifically, we investigated how the bones and their articular surfaces scale across the spectrum of size and sought to determine if there are any shape features that serve as a scaling strategy.

My experiences at ISB2023 were both educational and memorable. Not only was I able to meet other students and researchers from around the globe working on similar topics, but I also connected with fellow Aussies whom I hadn't met before. The opportunity to meet people from diverse areas in biomechanics, especially attending the mentor-mentee lunch was a standout experience for me. ISB2023 was my first time presenting at an international conference, and it has been a highlight of my PhD journey. I would like to thank ANZSB for the support to help me attend Japan for ISB2023.

Brian Chow (NeuRa) - Human lower leg muscles grow asynchronously

www.linkedin.com/in/brianvoonyangchow/

Stepping into Fukuoka was like stepping into an oven, with temperatures soaring to an almost 40°C. But within the ISB-JSB conference, a different kind of heat was brewing. Sharing my research on "human lower leg muscles grow asynchronously" was a thrill, sparking engaging conversations that left me buzzing. The talks by keynote speakers were mind-blowing too, delving into intriguing topics like how our brains control computers and the way animals and humans jump and sprint. I have learnt so much from other research groups discussing the use of DT-MRI imaging and IMU sensors. Mingling with bright minds from across the globe and reconnecting with familiar faces made the conference feel like a grand scientific gala.

And guess what? It was a double jubilee – ISB marked 50 years and JSB celebrated a whopping 60 years of brilliance! Beyond the scientific domain, Fukuoka's blend of contemporary and traditional vibes provided a genuine immersion into Japanese life. Oh, and let's not forget the delicious bento lunch – a burst of delectable flavours that painted a vivid picture of Japanese cuisine. As the conference concluded, I realised that this captivating scientific escapade, intertwined with Fukuoka's allure and forging new connections, is a treasure I will hold close. Thank you ANZSB for this amazing opportunity.

ISB 2023 - FUKUOKA JAPAN

Early to mid career travel awards

Joshua Mattock (UoW) - Are sagittal plane leg alignment and the active peak force generated during running associated with medial tibial stress syndrome development?

I sincerely thank the ANZSB Travel Awards Selection Committee for their financial support to help with my attendance at the ISB Conference in lovely Fukuoka, Japan. The ISB Conference was exceptional, again filled with a vast breadth of topics I have come to love about ISB. Highlights of mine were witnessing Emeritus Professor Julie Steele deliver the Wartenweiler Memorial Lecture and the amazing research presented by Professors Peter Weyand and Bill Sellers. I was particularly fascinated by the modelling work presented by Professor Sellers on the running speeds of dinosaurs and humans. In addition, I enjoyed the opportunity to network with colleagues, particularly ECRs, and fellow ANZSB members. Finally, I was humbled by the warm welcome my colleagues and I received in Japan, and it was fantastic to sample the amazing food. I look forward to catching up with my colleagues again in Stockholm in 2025.

Bart Bolsterlee (NeuRa) - Typically developing children and children with cerebral palsy have similar moment arms

After the cancellation of the conference in 2021 due to Covid, it was all the more exciting to be travelling again for the 2023 edition of the Congress of the International Society of Biomechanics, held together with the Japanese Society of Biomechanics meeting in Fukuoka, Japan. After a fun morning exploring the surrounds of Fukuoka, I attended the Wartenweiler Lecturer, presented by one of Australia's living legends of biomechanics: Emeritus Professor Julie Steele. She used this important platform to honour the contributions of women to biomechanics, based on her delving through the archives of the Journal of Biomechanics to create an accurate and complete historical record. The contribution to science of these pioneering women has been invaluable, but just as important was their role model for future generations of girls and women in biomechanics. While yet incomplete, progress towards gender equality in biomechanics is gaining pace. Case in point: the recently elected ISB council is, for the first time, majority female.

The conference presentations were the usual mix of movement analysis, computational modelling, imaging, clinical biomechanics and, increasingly, the use of wearables and machine learning techniques to take biomechanics out of the lab. My personal highlights included the sessions on muscle tissue and architecture, and the symposium of the Comparative Neuromuscular Biomechanics group. The conference 'gala dinner' was an unusual one, being hosted in a several hundred meters long arcade in the centre of Fukuoka, with food and drink stalls scattered along the way. It definitely invited mingling, and after four long conference days, it provided a welcome reprieve from sitting down. The food was amazing!

Fortunately, Stockholm will get another chance to host the 2025 ISB Conference. I'm already looking forward to meeting everyone there!

OUT AND ABOUT AT ISB 2023 - FUKUOKA JAPAN



ANZSB COMMITTEE

PRESIDENT
Dr Karen Mickle
University of Newcastle, NSW,
Australia

PRESIDENT-ELECT
A/Prof Tim Doyle
Macquarie University, NSW,
Australia

PAST PRESIDENT
Prof Peter Pivonka
Queensland University of
Technology, QLD, Australia

SECRETARY/TREASURER
Dr Michelle Hall
University of Melbourne, VIC,
Australia

COMMUNICATIONS OFFICER
Dr Elyse Passmore
Murdoch Children's Research
Institute, VIC, Australia

**NEW ZEALAND
REPRESENTATIVE**
Dr Julie Choisne
University of Auckland, New
Zealand

ECR REPRESENTATIVE
Dr Celeste Coltman, University of
Canberra, ACT, Australia

STUDENT REPRESENTATIVE
Ayden McCarthy
Macquarie University, NSW,
Australia

**CONFERENCE LIAISON
OFFICER**
Dr Patricio Pincheira Miranda
University of Queensland, QLD,
Australia

ANZSB MEMBERSHIP

If you know of someone who you think might be interested in receiving this newsletter but is not a member, then please encourage them to sign up as a ANZSB member! Signing up to membership is easy and can be done by going to: <http://www.anzsb.asn.au/membership>

REGIONAL ANZSB SYMPOSIUMS 2024

We are excited to announce that Canberra, Sydney and Brisbane will all be hosting regional symposiums this year.

Brisbane: TBC (week of 27 November), Logemas, 13 Hudson Rd, Albion, QLD, 4010, contact: A/Prof David Saxby d.saxby@griffith.edu.au

Canberra: TBC (week of 11 December 2023), University of Canberra, contact: Mr. Ceridwen Radcliffe Ceridwen.Radcliffe@canberra.edu.au

Sydney: Friday 01 December, Macquarie University, contact: Dr. Jodie Wills jodie.wills@mq.edu.au

Watch out for further details about these upcoming events


EMCR RETREAT


Unfortunately the EMCR retreat will not proceed this year as we had less than 10 people express an interest in the event. However, we will aim to run an event next year. Also keep an eye out for EMCR at ABC14 next year.

Any enquires regarding this please contact celeste.coltman@canberra.edu.au

SAVE THE DATE FOR ABC14

We are excited to announce the upcoming Australasian Biomechanics Conference (ABC14), and we invite you to mark your calendars for this exciting event!

 December 1st to 3rd, 2024

 Swinburne University, Melbourne, Australia

ABC is a premier gathering of professionals and researchers in the field of biomechanics. This event provides a platform for knowledge sharing, collaboration, and discussion of the latest advancements in biomechanical research. Conference biomechanical themes include orthopaedics, sports, clinical, imaging, modelling & simulation, new and emerging technologies and more.

For further details and updates check out our website and social media channels
website <https://abc14.com.au/> [@ANZSB](#) www.facebook.com/ANZSB/

SOCIÉTÉ DE BIOMÉCANIQUE

The Société de Biomécanique (SB) is an affiliated society with the ANZSB. A benefit of this memorandum of understanding is access to SB newsletters and announcements as well as reduced registration rates to attend the annual SB Congress.

Earlier this month in the most recent SB newsletter came out, check it out [here](#), SB newsletters can always be found through the members section of our website (<https://www.anzsb.asn.au/sb>). To access these newsletters, members are required to create a log-in and register for website members access.

