AUSTRALIAN CONFERENCE ON SCIENCE AND MATHEMATICS EDUCATION 2025

KEYNOTE SPEAKERS



Dr Claire MeadersUniversity of California San Diego

Dr. Claire Meaders is an Associate Teaching Professor in the Cell and Developmental Biology department at the University of California, San Diego. During her PhD in Organismic and Evolutionary Biology at Harvard University Claire developed an interest in evidence-based instructional practices. As a result, she pivoted her research interests and completed a discipline-based education research postdoc at Cornell University where she studied large introductory STEM courses. She has been a faculty member at UC San Diego for five years, where she teaches biology lecture and lab courses, as well as teaching assistant pedagogy courses. Claire continues to research faculty instruction and student learning and experiences in STEM, and is an active member of the Society for the

Advancement of Biology Education Research (SABER), where she serves as chair of the national conference abstract committee. Outside of research Claire is an avid runner, hiker, and is often joined on adventures by her golden retriever.

Keynote Address: Ripple effects from individual practice to shifting teaching culture in STEM



Professor Tracy Kuit University of Wollongong

Tracey Kuit is a Professor of Biochemistry and Molecular Biology Education in the School of Science and the Associate Dean (Education) in the Faculty of Science, Medicine and Health at the University of Wollongong (UOW), Australia. Tracey's practice

focuses on partnerships with students, educators, researchers, industry and community members. As an example, Tracey embraces Universal Design for Learning (UDL) principles to support diverse students in groups to pose creative scientific solutions to the United Nations Sustainable Development Goal (UN SDG) targets. Essential to this work is supporting student critical reflection of their skill gain, and importantly their professional identity, empowering students to take charge of their ongoing development and career futures. Tracey has received numerous teaching awards, including the 2018 Shimadzu Education award from the ASBMB, an OLT National Citation in 2013, and most recently the 2025 FAOBMB Education Award and the 2024 AAUT Teaching Excellence Award for Science. Tracey's leadership extends beyond the University of Wollongong, currently serving as Education Special Interest Group Chair and Council Member of the ASBMB, a member on the Education Committee of FAOBMB, and IUBMB. Tracey is the co-editor of the Education section of the quarterly Australian Biochemist Magazine, editor for the international journal Biochemistry and Molecular Biology Education and reviewer for FEBS Open Bio. Tracey has been attending ACSME since 2011.

Keynote Address: Building environmental stewardship with a focus on interdisciplinarity and teamwork in STEM education

AUSTRALIAN CONFERENCE ON SCIENCE AND MATHEMATICS EDUCATION 2025

KEYNOTE SPEAKERS



Professor Joe Sambono Queensland University of Technology

Joe Sambono (Professor of Practice in Indigenous Australian Perspectives in the Academic Division, University of Queensland) is a proud Jingili man with Aboriginal family connections throughout NT, QLD, and WA. He is a curriculum specialist with extensive experience in the embedding of Australian First Nations histories and cultures in the primary, secondary, senior secondary and tertiary education sectors.

Leveraging off his lifelong passion and experience with wildlife and conservation Joe enrolled in a BSc (Zoology) at James Cook University and spent his early career working as a zoologist. After receiving a BEd from the University of Queensland, Joe was able to merge his biology interests and cultural background with a new career in education. Joe started his education career 18 years ago as a senior secondary science teacher and was immediately involved in supporting his region with various cross-cultural education initiatives. Joe's multi-faceted skill set, and experiences grounded in his First Nations Australian identity, science and education careers and lived experiences as a First Australian student continues to fuel his desire to work in the complex space of First Nations education.



Dr Katrina Wruck Queensland University of Technology

Dr Katrina Wruck is a proud Mabuygillayg women with ancestral roots to the saltwater people of Panaylayg on Mabuyag Island in the Torres Strait Islands.

Currently, she is a teaching and research academic at the Queensland University of Technology in the School of Chemistry and Physics. Her research focus centres around the electrochemical destruction of PFAS "forever chemicals" using an innovative, cost-effective, and energy-

efficient method specifically designed for remote locations. This research project began during her previous role as research fellow in the Department of Chemical Engineering at the University of Melbourne. In recognition of her work, she was awarded the 2025 Young Australian of the Year. Beyond her research pursuits, Katrina is a passionate advocate for STEM outreach and is involved in various mentoring and outreach programs, teaching, and active engagement with the community.

Keynote Address (Joe Sambono and Katrina Wruck): Indigenising the curriculum and a first nations scientist's perspective

INDUSTRY PANEL

lan Lucas - Director at SeerPharma

Jennifer Hollands – External Affairs Lead and Business Development Consultant at Cell Therapies **Mubin Yousuf** - CTO and Co-Founder at Navi Medical Technologies

Proceedings of the Australian Conference on Science and Mathematics Education, The University of Melbourne 30 September - 2 October 2025, pages 4-5, ISSN 2653-0481.