



Ingo Miller

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AIMS@JCU Award Winners

Congratulations to the successful applicants of the first round of AIMS@JCU awards in 2026!

We are excited to be supporting a large cohort to attend the International Coral Reef Symposium in Auckland, New Zealand in July 2026. Just across 'the ditch', this world class conference will provide key networking opportunities.

In addition to Grace Yarger, Greta Zampa, Rana Elmesserri, Marine Pablo and Alex Macadam who received science communication awards to attend ICRS in the last round, the following award winners will each receive \$1,500 towards their conference travel and will all be presenting their research: Elizabeth Ivory, Crystal Wee, Matilde Drake, Merle Schlawinsky, Seth Keep, Tiny Remmers, Kelsey Kingsbury, Sophie Renton, Courtney Burns, Martina Burgo, Rhea George and Nicolas Viscarra.



We can look forward to a sneak peak of these presentations at the AIMS@JCU Seminar Day, on the 5th June.

Grace Yarger also received a science communication award to attend the 20th International Symposium of Microbial Ecology in August.

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Photographs in this publication were submitted by AIMS@JCU members unless otherwise stated.

About the AIMS@JCU Newsletter:

This newsletter is produced regularly and distributed by email to AIMS@JCU members, AIMS and JCU staff.

If you'd like to be added to our mailing list, or have a query regarding this newsletter, please contact:

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AIMS@JCU Award Winners

continued

AIMS@JCU is also excited to support the following pilot research projects with \$1,000 awards:

Rana Elmesseri - Understanding the coral microbiome and its immune defences is critical for advancing coral resilience research, yet bacterial symbionts remain underexplored.

Kelsey Kingsbury - Heterotrophic feeding as a mechanism of coral resilience to climate-induced bleaching.

Josie Danckaert - Seeks to address issues in the current Symbiodiniaceae monitoring system through investigating the sources of technical error and biological variation within genetic information.

Marine Pablo - The coral microbiome plays a fundamental role in coral health and ecosystem function, yet key aspects of its dynamics remain poorly understood.

Seth Keep - This project explores chimerism in *Acropora kenti* corals to investigate previously underexplored implications on juvenile fitness.

Joe Kerigan - This project investigates the potential of native Great Barrier Reef sponges to improve water quality in aquaculture and other environmentally at-risk areas by removing excess nutrients, organic matter, microplastics, and plasticizers.

We are also upskilling our student members, via a range of \$750 professional development awards:

Kelsey Kingsbury - Support completion of the PADI Divemaster certification at Adrenalin Snorkel & Dive in Townsville, including course fees, materials, and dive training.

Seth Keep - Rescue diver certification, funds will be utilized to cover the costs associated with the HLTAID011 & HLTAID015 (First Aid and Advanced Resuscitation) course (\$250, First Aid Training JCU) as well as the rescue course (\$525, JCU Dive Club).

Bambang Hermanto - partially support hands-on training in environmental DNA (eDNA) methods through mentored eDNA technical training within TropWATER.

Marine Pablo - Volume EM Masterclass (June–July 2026).

Look out for their write ups in future newsletters.

Science Communication Award report

Redbird Ferguson

In April of 2024, I applied for and was awarded an AIMS@JCU Science Communication Award to attend the Native American and Indigenous Studies Association (NAISA) conference held in Bodø, Norway 6-8 June 2024 and deliver a guest lecture for the Global Heritage Lab at the University of Bonn in Germany. My European odyssey began in Bonn, Germany a picturesque city situated along the Rhine River. I delivered a guest lecture at the invitation of the University of Bonn's Global Heritage Lab and the German Archaeological Institute. From Germany, I travelled north to Bodø, Norway deep in Sámi territory (the Indigenous people of Scandinavia). I used the Science Communication Award to pay for my conference registration and to offset some of the travel and accommodation costs of attending the conference. Travelling to Europe to deliver a paper from my PhD research and a guest lecture at the University of Bonn was an enriching, inspiring, and motivating experience.



The NAISA conference is held by the largest Indigenous studies association in the world, and this conference had over 1,000 delegates in attendance. The paper I presented on, combining remote sensing data and Indigenous knowledge of estuaries was very well received, spurring an engaged and enthusiastic discussion during the session I was part of. Sessions consisted of 3-4 papers followed by generous discussion time. Even after the session, many of the other scholars had more questions and were keen to continue the conversation. Attending other sessions throughout the conference confirmed that my research is addressing questions raised by other indigenous and First Nations scholars about how to gain recognition and validation of Indigenous knowledge and, in particular, seasonal calendars. I attended sessions on a wide range of topics, making many new connections, learning about the variety and diversity of research projects with and by indigenous scholars and communities around the world, many of them working to improve their Sea Country and to build recognition for Indigenous knowledge.

The University of Bonn warmly welcomed me for my guest lecture on decolonising Sea Country research and improving engagement with indigenous communities. The German Archaeological Institute provided accommodation and facilitated the connections with the University. Overall, it was a wonderful trip, intellectually stimulating, filled with natural beauty, and a fantastic experience.

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Nicholas Barrett

Science Communication Award report

Merle Schlawinsky

I attended the 1st Australian & New Zealand eDNA Conference in Hobart in 2023 as a newly enrolled PhD candidate at James Cook University. My research uses environmental DNA (eDNA) to investigate the distribution and ecology of the giant triton snail on the Great Barrier Reef. At the conference, I presented a 5-minute overview of my PhD project proposal, which provided an opportunity to introduce both my study system and myself to the eDNA research community.

This conference was highly beneficial at this early stage of my candidature. It allowed me to learn more about current eDNA applications across diverse research fields, increased the visibility of my project, and enabled me to begin building a professional network within the eDNA community. I was able to meet researchers with expertise relevant to my work and discuss approaches and techniques that will help shape my project over the next three years.

A particular highlight was the supportive networking environment created throughout the conference, including the pre-conference Early Career Researcher event and the conference dinner. These events helped foster connections with both peers and senior researchers in a more informal setting. Overall, the conference was a valuable professional development opportunity that strengthened my research direction, confidence, and network at the beginning of my PhD.

Professional Development Award report

Merle Schlawinsky

The AIMS@JCU Professional Development Award supported a research placement with Professor Aaron MacNeil at Dalhousie University, Halifax, Canada, in May 2025. This opportunity was extremely valuable for my PhD, as it allowed me to work with Aaron in person on Chapters 3 and 4 of my thesis and to further develop the Bayesian modelling approaches underpinning my analyses. The placement contributed directly to my thesis and helped me address technical challenges more efficiently than would have been possible remotely. It also provided an excellent opportunity to learn from other PhD students in Aaron's lab, which broadened my skills and perspectives. Overall, the visit was a highly rewarding experience that strengthened my thesis research and provided valuable training for my future career.



From the left: Sophie Tattrie, Arun Oakley-Cogan, Aaron MacNeil and Merle Schlawinsky.

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Nicholas Barrett

AIMS@JCU Writing Retreat

This March, AIMS@JCU hosted our annual writing retreat on Magnetic Island. We hosted seven students (including three of our new AIMS@JCU scholarship recipients), for three days of Pomodoro sessions designed to maximise writing success. Each day started with yoga sessions and included information packed talks from fabulous AIMS scientists: Dr. Daniela Ceccarelli and Dr. Michelle Dyer. Here are summaries of some of the students' experiences:



Sarah: The pomodoro sessions were very useful, they are well structured, and working with a bigger group encouraged me to be more productive. I did achieve more than I had planned. The yoga was very refreshing and a very nice start to the day as well. Daniela and Michelle were amazing and

inspiring. Lauren did such a great job organising this session and I really hope this continues in the upcoming years!

Viliani: The retreat was a valuable and enriching experience. The structured writing sessions, especially the Pomodoro technique, helped improve my productivity and keep me on track. I also appreciated the opportunity to exchange feedback and learn from others' PhD journeys, which was both insightful



and encouraging. The food and overall organisation exceeded my expectations, and the social moments—like our final night—made the experience even more enjoyable. Overall, it was a great balance of learning, collaboration, and connection.



Rana & Josie: At the AIMS@JCU writing retreat, we had a great time working on our various projects using the Pomodoro method. We were sceptical about this method at first but found it extremely useful. We all had very different projects despite being AIMS@JCU students but found great community together. It was

productive and fun, and I can't wait to read everyone's thesis! We are all looking forward to the next retreat.

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Nicholas Barrett

2026 AIMS@JCU PhD Scholarship Recipient

Muhammad Hamza

Project Title: Improved Local-Scale Hydrodynamic and Biogeochemical Modelling of Coral Reefs on the GBR.

Supervisors: Dr. Barbara Robson (AIMS), Dr. Stephanie Duce (JCU), and Dr. Renata Ferrari Legorreta (AIMS).

Muhammad Hamza is a PhD candidate at JCU, conducting research in collaboration with AIMS through the AIMS@JCU program. His work focuses on understanding how the three-dimensional structure of coral reefs influences water flow, nutrient transport, and ecosystem processes across the Great Barrier Reef.



Muhammad completed his MPhil in Applied Mathematics at Islamia College Peshawar, Pakistan, where he specialized in mathematical modeling of complex fluid dynamics. His research includes developing computational mathematical models for non-Newtonian fluid flows, heat and mass transfer, and advanced numerical simulations, providing a strong foundation in solving of complex Navier-stokes equations and applying computational fluid dynamics (CFD) to environmental systems. His work has resulted in multiple publications in high-impact peer reviewed Q1 international journals and several manuscripts currently under review.

Muhammad is thrilled to be working alongside his supervisory panel and is grateful to have been awarded the AIMS@JCU PhD scholarship, which allows him to combine mathematical modeling expertise with applied marine science to address challenges in reef resilience and ecosystem sustainability.

Through his PhD, Muhammad aims to improve the representation of coral reef structures in large-scale ecosystem models such as eReefs and the RECOM downscaling tool. Unlike current models, which often simplify reefs as flat surfaces, his research integrates high-resolution three-dimensional reef data obtained via underwater photogrammetry with advanced CFD simulations. This approach will investigate how reef morphology shapes water movement, connectivity, and nutrient delivery to benthic communities. The outcomes will provide more accurate predictive models and support data-driven strategies for reef management and restoration.

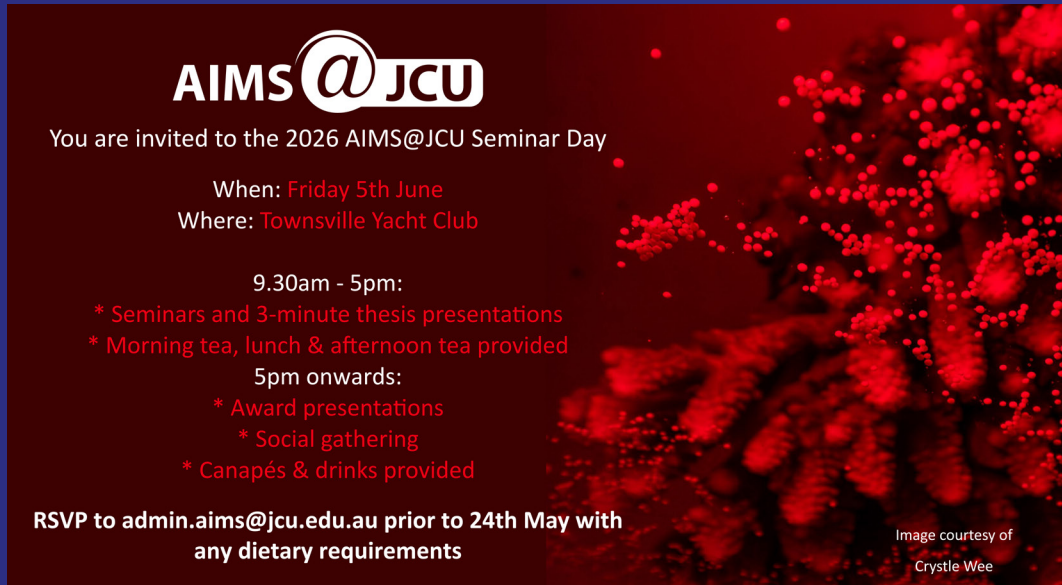
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Important dates for 2026

Save the dates!

AIMS@JCU is excited to let you know what we have coming up for the rest of this year!

- 27th April: *From Strategy to Synergy*: Strengthening Sea Country workshop at JCU
- 5th June: AIMS@JCU Seminar Day at the Townsville Yacht Club



AIMS@JCU

You are invited to the 2026 AIMS@JCU Seminar Day

When: **Friday 5th June**
Where: **Townsville Yacht Club**

9.30am - 5pm:

- * Seminars and 3-minute thesis presentations
- * Morning tea, lunch & afternoon tea provided

5pm onwards:

- * Award presentations
- * Social gathering
- * Canapés & drinks provided

RSVP to admin.aims@jcu.edu.au prior to 24th May with any dietary requirements

Image courtesy of Crystle Wee

- 3rd August: second round of AIMS@JCU awards available
- August, date TBA: AIMS@JCU Morning Tea at AIMS
- 31st August: Deadline for AIMS@JCU scholarship applications
- 14th to 18th September: AIMS@JCU R-Course week 1
- 28th September to 2nd October: AIMS@JCU R-Course week 2
- 25th October: AIMS@JCU Morning Tea at JCU
- November, date TBA: AIMS@JCU End of year gathering

Throughout the year, Pomodoro sessions facilitated by the fabulous AIMS@JCU Post-doctoral fellows are held fortnightly, alternating between AIMS and JCU. The sessions are a structured approach to focused work consisting of:

- 25 minutes concentrated writing
- 5 minute break
- Repeated cycles over a two-hour session

These sessions provide dedicated, distraction-free time in a supportive environment. HDR students, postdoctoral researchers, and staff from both AIMS and JCU are warmly invited to attend. If you are interested in attending, please email us and we'll add you to the calendar invites.

Contacts: admin.aims@jcu.edu.au

Nicholas Barrett

Research Director Report

Moving into our 21st year of strategic partnership between AIMS and JCU, we are not slowing down. Over recent months, we've been working behind the scenes to modernise our systems, with a new SharePoint site, LinkedIn account, and Facebook student group all going live in March. We encourage all members to engage with these platforms and welcome feedback on how we can improve information delivery or develop new systems to meet your changing needs.

Graduation – the happiest day of the AIMS@JCU Year!

AIMS@JCU has marked a major milestone, celebrating a bumper cohort of graduates. It was an absolute privilege to be in attendance for the award of Honorary Doctorate to Woppaburra Elder and Traditional Owner Dr. Uncle Bob Muir, who also delivered the Occasional Address. In his address, Dr. Muir highlighted the enduring connection of Indigenous Australians to Country, and the deep knowledge they hold in caring for land and sea for the benefit of future generations. He called for genuine, meaningful recognition that truly lifts people up, reminding us all of our power to build bridges, foster understanding and respect, and develop stronger pathways toward shared stewardship of our land and seascapes.



It was also my pleasure to doff the bonnet to Dharini Jha (MPhil), and Dr. Marine Lechene, Dr. Taylor Whitman, Dr. Kelsey Webber, Dr. Martina Burgo and Dr. Sarah Kwong. A further congratulations also to Sarah who was awarded the JCU University Medal. Also graduating in absentia were Dr. Marko Terzin, Dr. Alfonso Ruiz Moreno and Dr. Ana Carolina Grillo Monteiro.

From left to right: Dr. Cherie Motti (AIMS@JCU Research Director), Prof. Mia Hoogenboom (AIMS@JCU Science Advisory Committee member and JCU supervisor), Dharini Jha, Dr. Marine Lechene, Dr. Taylor Whitman, Dr. Kelsey Webber, Dr. Martina Burgo, Dr. Sarah Kwong (University Medal), Dr. Carly Randall (AIMS supervisor).

New members and new directions

Since January, we have welcomed 20 new student and staff members, including AIMS@JCU Scholarship students: Viliami Fatongiatau, Md Shamsuddin and Ashoi Dantra. Many have already participated in the annual Writing Retreat held in March and were successful in securing Pilot Research, Science Communication and Professional Development awards.

To help guide the future direction of AIMS@JCU, we have welcomed to the Science Advisory Committee: Dr. Michelle Dyer (AIMS), Dr. Kamran Shafi (AIMS), Dr. David Bourne (JCU) and Dr. Mostafa Rahimi Azghadi. Together, they bring expertise spanning the social sciences through to AI and will play a key role in developing the next AIMS@JCU Triennial Plan.

In support of this work, AIMS@JCU facilitated the first *From Strategy to Synergy* workshop: AI and the Digital Ocean, in March. Participants agreed that AI should not be confined to specialists at the cutting edge, but embraced as a tool accessible to many researchers, enabling new and as yet unknown applications. Planning is underway for a further two *From Strategy to Synergy* workshops: Strengthening Sea Country and A Blue Future. If you are interested in learning more or being involved in the next phase of conversations, we would love to hear from you.

Cherie Motti, AIMS@JCU Research Director

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Nicholas Barrett