



MACQUARIE
University

**FACULTY OF SCIENCE
AND ENGINEERING**

27 September 2019

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From the Dean

NEWSLETTER

My first month as interim Executive Dean has been one of celebration, renewal and new discoveries.

Our researchers have published their research into the social habits of [manta rays](#) and the mating habits of [butterflies](#). We also learned that there are more accurate ways to map the spread of [infectious disease](#), and how a well-known maths problem describes how immune cells decide which cells are [friends or foes](#).

It has also been a month full of celebrations. On 28 September we had [Eureka Prize](#) wins for NISEP, the innovative STEM program managed by Joanne Jamie; and for Neil Saintilan in the Blue Carbon Horizons Project.

Congratulations are also due for Simon Gross who won a CSIRO prize to help commercialise his research over the next 12 months and to our students who have won several awards for their work as part of Macquarie University's internship program, [PACE](#).

Earlier this month we celebrated the success of our long-standing partnership with the [Department of Industry, Planning and the Environment](#) by signing a new Memorandum of Understanding to cover the next five years of collaboration on environmental projects.

This month we also welcomed over 1300 people who attended our sold-out Astronomy Open Night to find out more about the latest discoveries in space and use our many telescopes to see the night sky for themselves.

Our popular FSE Safety Day is back again in October and, while only open to staff, it is a great opportunity for the faculty to come together and increase awareness around safety and well-being.

We also have several team members who are finalists in the Academic Staff Awards and I would like to wish them the best of luck. These awards recognise excellence in research as well as in Learning and Teaching.

With so much happening, I would like to encourage you follow the Faculty on Twitter at @MQSciEng and myself @mans_bernard to discover our latest news in real time.

Regards,

Prof Bernard Mans
Interim Executive Dean

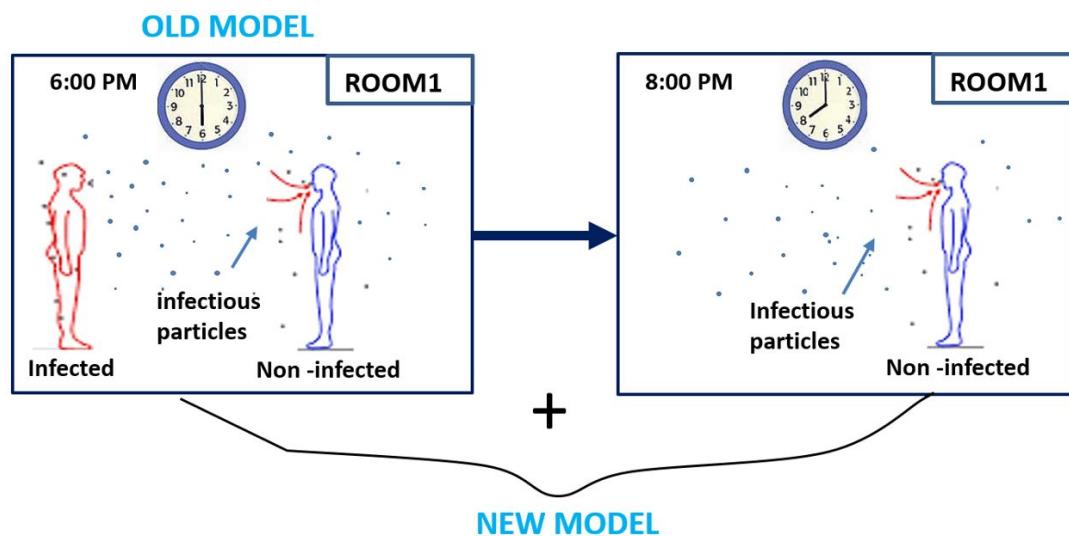
Manta rays like hanging out with their mates



A five-year study in Indonesian waters has confirmed that wild-roaming reef manta rays (*Manta alfredi*) form selective bonds with other rays, providing evidence of structured social relationships.

[Read more here.](#)

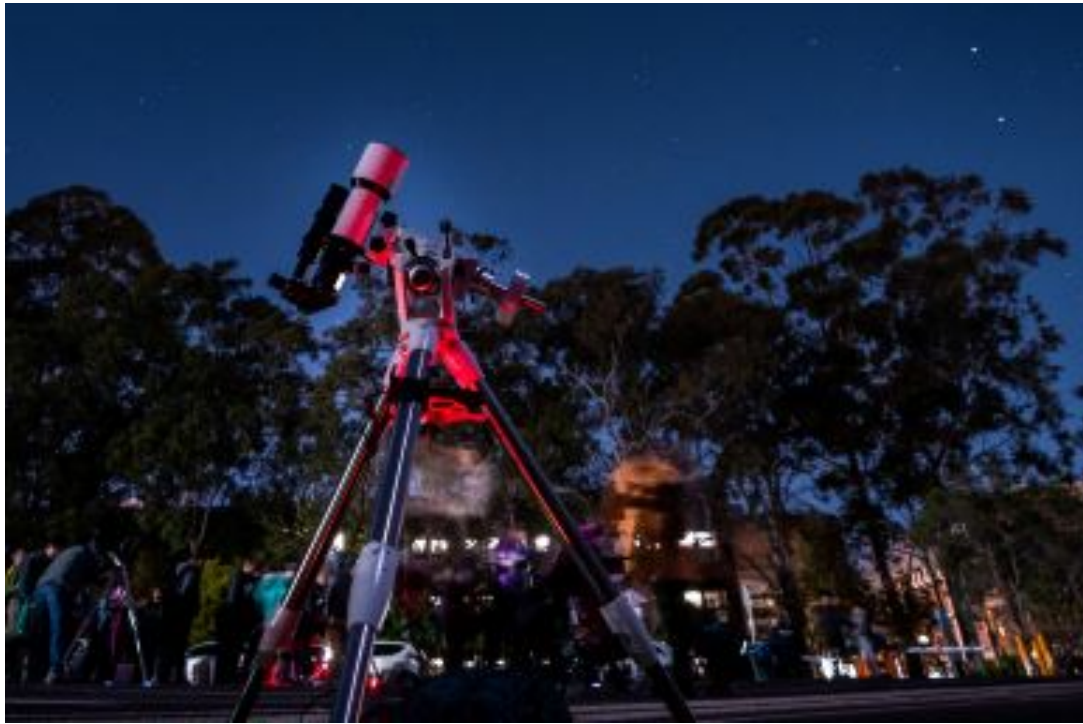
Researchers develop model to more accurately track infectious disease



A team of researchers from Macquarie University, QUT, and CSIRO are helping to improve infectious disease modelling by including people who can be infected by germs found in the environment, long after the person carrying them has moved on.

[Read more here.](#)

Astronomy Open Night



More than 1300 people came to MQ to enjoy the annual Astronomy Open Night (AON). AON has been running for over 25 years and is an excellent way to learn more about the latest in space discovery and technology, dive into our planetarium or use one of our many telescopes to observe the night sky.

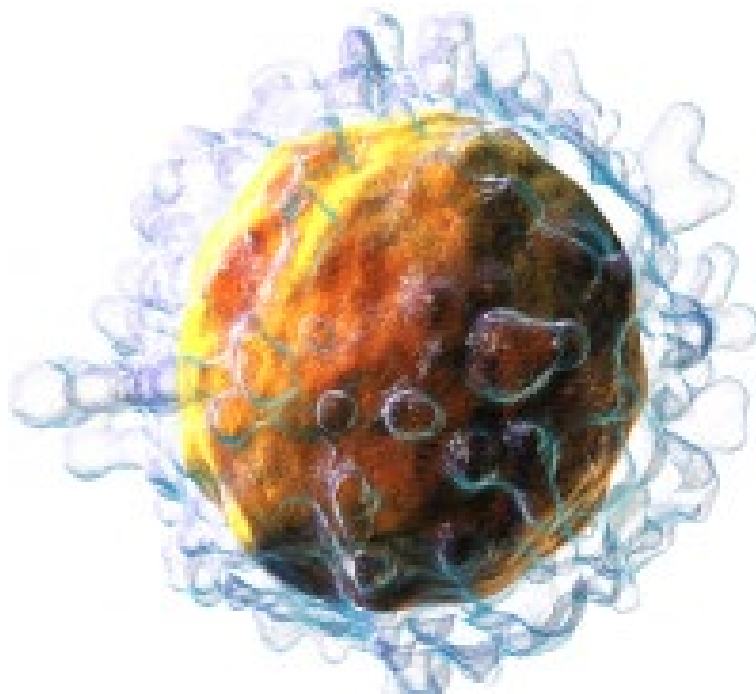
Butterflies stick to their 'burbs



Birthplace exerts a lifelong influence on butterflies as well as humans, new research reveals.

[Read more here.](#)

Immune response depends on maths of narrow escape



The way immune cells pick friends from foes can be described by a classic maths puzzle known as the “narrow escape problem”. That’s a key finding arising from an international collaboration between biologists, immunologists and mathematicians, published in the journal *Proceedings of the National Academy of Sciences*.

Renewed MoU with Department of Planning, Industry and the Environment



Macquarie University researchers have been working closely with NSW government scientists and environment managers to enhance our understanding of the State's coasts, wetlands, rivers, forests and its rich biodiversity. We've now renewed our Memorandum of Understanding (MoU) with the Department of Planning Industry and Environment for another five years. We plan more work on the Macquarie Marshes and Gwydir Wetlands and on estuaries; air quality monitoring, citizen science projects on dust, mallee fowl and more.

For more information on the MoU contact Louise McDonald
louise.mcdonald@mq.edu.au.

Congratulations corner

PACE Prize winners

Pejman Adily: Joint Winner, Short Activity, for his mathematics work on behalf of the NSW Ministry of Health.

Philip Kelso: Joint Winner, Short Activity, for participation and community engagement in science at the Environmental & Molecular Microbiological Analysis (EMMA) Laboratory.

Helen Ramsay, Holly Helprin, Hugh Entwistle: Winners, Long Activity for consulting in statistical sciences at the Viseisei Sai Health Centre, Fiji.

Kara Fry, Anya Palaversich, Ross Kingswell, Amelia Dani, Max McLennan-Gillings: Joint Highly Commended, Long Activity, for a project to measure lead

exposure for the Environmental Protection Authority's Broken Hill Environment Lead Program.

Hannah Scott: Joint Highly Commended, Long Activity, for earth and planetary sciences on behalf of the Geological Survey of NSW.

Oliver Szabo: Leadership Award, for engaging with Macquarie's IT Department in PACE activities.

STAFF

Faculty Safety Day – Wednesday 9 October

The Faculty Safety Day, run by FSE Safety Committee, is a day of fun events and games designed for staff to help increase awareness of best practice in safety, hazard identification, what to do in an emergency as well as ways to improve wellbeing and fitness.

Guests include Campus Wellbeing, Benestar and the local Fire Brigade. There are prizes up for grabs including basil plants grown by Muhammad Masood, Technical Manager in the Plant Growth Facility in Biological Sciences.

Yoga classes will be held in 7WW Level 1 (Old Engineering area) at 10:15 - 10:45am, 11:00 - 11:30am and 11:45am - 12:15pm. BYO yoga mat or large beach towel.

Good luck to our finalists in the Academic Staff Awards

Best of luck to our finalists in the [Academic Staff Awards](#) that recognise excellence in research and learning and teaching. Awards will be held on Monday 18 November from 3pm to 5.30pm in the Graduation Hall (14 Sir Christopher Ondaatje Avenue).

Faculty news and notices

Welcome to new faculty staff

A warm welcome to Patty Hodgson, Nick Cernaz, Melanie Spudic, Georgia Ward-Fear and Paul Lezzard, who have recently joined the Faculty.

Come and work with us

Head of Department, Earth and Environmental Sciences [learn more](#)

Senior Lecturer in Vertebrate Physiology [learn more](#)

Connect with us

If you have comments, questions or research news you think might be of interest to the rest of faculty, I'd love to hear from you. Drop me a line at fse.execdean@mq.edu.au.

Connect with your Faculty online:

- Website: science.mq.edu.au
- Faculty on Twitter: [@MQSciEng](https://twitter.com/MQSciEng)
- Bernard on Twitter: [@mans_bernard](https://twitter.com/mans_bernard)

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