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MACQUARIE University


THE MQ RESEARCH SERVICES NEWSLETTER

July Edition

## IN THE SPOTLIGHT

Read the interview with **Assoc Prof Simon McMullan** from the Department of Biomedical Sciences. Learn about his area of research, sources of inspiration, and how his work is having real impact.

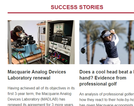
**Spotlight on...**

Assoc Prof Simon McMullan

Department of Biomedical Sciences

*"Research is a long game, and it's easy to get caught up in the short-term pressures of publishing and grant applications, but the value lies in the long-term."*

## SUCCESS STORIES



### Macquarie Analog Devices Laboratory renewal

Having achieved all of its objectives in its first 3 year term, the Macquarie Analog Devices Laboratory (MADL) has been renewed for an additional for 3 more years and is looking to expand its investment from the Cellum Alvarino (Cadiz) focus of the last 3 years to include Cellum-Sydney. Prof Nick Fewings explains that the partnership can train the next generation of microwave and millimeter-wave integrated circuit (MMIC) designers to meet the demand

"Macquarie University has a history of world class MMIC design and modelling expertise," Professor Nick Fewings, Director of Engineering, John Cowles. "Bringing these technical skills closer to real product development is critical towards accelerating the introduction of advanced semiconductor devices into emerging high frequency applications. The merging of design innovation with world class manufacturing is what makes this partnership so exciting."

Macquarie University were pioneers in wireless computing 20 years ago and have maintained this leading expertise in that space. Now they are partnering with industry to develop the next generation of engineers to address the exponion in applications for microwave and millimeter-wave frequencies. Read more

### Does a cool heat beat a hot hand? Evidence from professional golf

An analysis of professional golfers and their use of "cool" and "hot" hand theory has given Macquarie economists a useful insight into human performance. **Dr Andrew Evans and Dr Paul Crosby** from the Department of Economics used data from 2 million golf putts on tournaments to study the impact of both bad and good play on pro golfers' ensuing performances. The researchers tended for the hot hand effect to be true, meaning that success on a prior hole had a positive effect on the score on the next hole, and the 'cool hand effect, where a bad prior hole increased the chance of another bad hole. Dr Andrew Evans, Lecturer in Economic Modelling, only found a cold hand effect, potentially due to a loss of confidence or composure, suggesting that performance training should focus on maintaining composure and controlling emotional responses to success and failure. This is relevant to economics as emotions and confidence are often thought to affect the choices people make and their ability to perform tasks. Read more

### Hero volunteers of the AUS$ crisis tell their stories at last

Forty years since NYADES began rescuing the wildlife of Australia, volunteers who cared for the dying during the crisis years have been held up in a moving new book, In the Eye of the Storm, co-authored by historian **Prof Tom Griffiths**. The book tells how volunteered to help during the NYADES crisis of the 1980s and early 1990s provided compassion and support to heavily stigmatised people. These volunteers were ready to care for the sick and dying, stuffed needle exchanges and telephone help lines, produced educational resources, served on boards of management, and provided support to families and communities among many other roles. In the process volunteering left an indelible mark on the lives and outlooks of these volunteers. This book explores for the first time the stories of these volunteers, and the disaster. Despite their critical role, they have not been sufficiently recognised. Their stories reveal how those on the front-line navigated and survived a pandemic that was ignored, the long-term impact of those grim years of illness, death and loss. Read more



### Conservation on ice: How frozen zoos can help save animals

Countless species worldwide are in need of urgent conservation, but resource limitations mean captive breeding programs are only available for a small number of them. **Emeritus Prof Dick Frankham** from the Department of Biological Sciences and the Department of Genetics make a case for bolstering as part of the future of conservation. Conventional zoos and captive breeding programs have saved many species from extinction and will contribute to pre-emptive conservation. However, the researchers wanted to create awareness of the massive potential to save funding, time, and the extensive resources that are required in breeding programs and thus conserve more species with existing resources, by incorporating biobanked sperm into captive populations using assisted reproductive technology. The research, published in Conservation Letters, showed biobanks could provide a 20-fold increase in the number of species that could be conserved and highlighted the urgent need to address the problems associated with cryoing sperm and rebreeding in captive breeding programs. Read more

### Climate change: Cattle burp issue on the rice

Greenhouse gas emissions from cattle are still on the rise despite scattered efforts over decades to reduce them. **Assoc Prof Andrew McGregor, Assoc Prof Donna Houston and Winnie Chen** from the Department of Sciences published a study in Animals that traced 30 years of UN reports and scientific research aimed at mitigating the methane reported by cattle when they burp, which contributes as much as 5.5% of climate change, causing global emissions. As the world's cattle herd has grown from 1 billion to 1.5 billion in the past 20 years, methane from cattle burps has increased by 11% to 72.8 million tonnes in 2017. Improving digestive processes was considered a way to reduce methane production, but the continuing rise in emissions suggests that these efforts have not addressed the central problem, which is the increasing cattle population as opposed to the amount that each animal emits. Read more



### Microplastics in Australian indoor house dust

Limited attention has been given to the presence of microplastics in the atmosphere, particularly in indoor environments where people spend about 90% of their time. Recently published in Environmental Science & Technology, **Dr Sohan Poor Mark Taylor and Dr Scott Wilson** from the Department of Earth and Environmental Sciences are the first to author an Australian study that investigated microplastics in the home. The study examined indoor dust samples collected over 30 days during 2019 from 32 different homes across metropolitan Sydney. The data revealed that 92% of the samples contained Australian homes and that the greatest risk of exposure resides with young children. Notwithstanding the limited number of global studies and the lack of standardised methods for microplastics, this study indicates Australian deposition and inhalation rates are at the lower end of the exposure spectrum. Read more

## NEWS & INFORMATION

### Research Excellence Awards Now Open

Applications and nominations for the 2021 Research Excellence Awards are now open. The DVCR, Prof Sabine Pretorius would like to encourage applications from all faculties.

The 2021 Research Excellence Awards reward the significant and ground-breaking work of our finest researchers and postgraduate research students, identifying outstanding performance and excellence in research and innovation.

The 2021 awards are:

- The 20 Years Award for Excellence in Research Leadership
- The Excellence in Research: Five Future-Impacting Research Priorities awards
- The Excellence in Higher Degree Research Supervision award
- The Early Career Researcher of the Year award in HASS or STEMM
- The Excellence in Higher Degree Research award in HASS or STEMM

**Applications close on 4 June.**

Introducing a new category in 2021

- The Research Innovation, Partnership and Entrepreneurship (RIPE) award rewards excellence in research innovation, partnership, commercialisation, translation and entrepreneurship.

**Applications for the new RIPE award close on 14 June.**

Any questions regarding the awards can be emailed to: dvcr.research.excellence@mq.edu.au

### 2023 DECRA and 2022 Future Fellowship EOIs now open

The Macquarie University Internal Expression of Interest (EOI) period for the 2023 DECRA and the 2022 Future Fellowship scheme are now open.

Interested candidates are required to complete the EOI form:

- 2023 DECRA EOI form
  **EOI submission deadline: 5 pm (AEST) Wednesday 11 August 2021**
- 2022 Future Fellowship EOI form
  **EOI submission deadline: 5 pm (AEST) Wednesday 15 September 2021**

More information is available on the DECRA and Future Fellowship information webpages.



### 2022 MQ Research Fellowship EOIs now open

Expressions of interest (EOIs) are now open for the 2022 Macquarie University Research Fellowship (MQRF) scheme. The MQRF scheme supports researchers within 3 years of the award of their PhD who have an outstanding track record and/or who show evidence of outstanding research potential. This is a full time MQRF's commencing in 2022 will be awarded on a competitive basis, and will be tenurable for 3 years.

**Please note there has been a change to the eligibility requirements for the 2022 round.** At the time of applying for the MQRF, the applicant must maintain Permanent Residency Australian Citizenship or an existing entitlement to work in Australia for the duration of the fellowship (2022-2024) in order to be eligible to apply in 2021.

Interested candidates are required to complete the EOI form and submit it to the Faculty Research Office by **Wednesday 25 May 2021, 5pm (AEST).** Please find more information on the MQRF webpage.

### Research Engagement vs Research Impact

Researchers are increasingly expected to carry out engagement activities and generate impact associated with their research, and are increasingly required to report on this. However, the terms 'research engagement' and 'research impact', although related, are often confused.

Research Services have developed a little site with definitions and examples to help researchers understand what are underlining engagement activities and when their research is achieving impact.

Please visit our little site to view the ARC's list of almost 40 types of research engagement activities. Engagement with industry, government, non-profit, and knowledge institution can lead to impact. Impact, then, is the measurable result of knowledge mobilisation. It is the change or benefit that results from research engagement in society and/or environment as a result of research being used, adopted or adapted.

For further information or to have a chat about your research engagement and/or impact, please email us.

### Are you an NHMRC assessor in 2021?

The NHMRC have changed their peer review process, by excluding the requirement of Grant Review Panels and Secondary Assessors. This is a change we are interested to have from 2021 NHMRC assessors, specifically for the NHMRC Investigator and Ideas grant schemes.

We will convene a roundtable in August 2021, when the assessment process has been run for a few rounds, to discuss how the process is working and how assessors can share their opinion. This information will be utilised by the Macquarie University research support team (Research Services and the Office of Research Office) to continue to offer targeted support and strategic advice to applicants in future rounds.

The discussion will be generalised and no assessor will be expected to breach confidentiality.

We are requesting all NHMRC Investigator and Ideas assessors to email Cecilia Rosario with information on which scheme you are assessing and your availability in August 2021.

## FUNDING OPPORTUNITIES, PRIZES & AWARDS

### 2021-2022 Major Grants Round Calendar

View the 2021-2022 major grants round calendar. Please note, dates are subject to change by the funding agencies.

#### ARC Funding Schemes

| Scheme | Opening Date | MQ Submission Date |
|---|---|---|
| Centres of Excellence (ECR stage) | 1 June 2021 | 23 June 2021 |
| Linkage Projects - 2021 round 2 | Continuous | 16 July 2021 |
| DTA and DRA | 4 Aug 2021 | 1 Sept 2021 |
| Australian Laureate Fellowships | 1 Sept 2021 | 22 Sept 2021 |
| DECRA | 8 Sept 2021 | 13 Oct 2021 |
| Future Fellowships | 13 Oct 2021 | 3 Nov 2021 |
| Linkage Projects - 2021 round 3 | Continuous | 18 Nov 2021 |

#### NHMRC Funding Schemes

| Scheme | Opening Date | MQ Submission Date |
|---|---|---|
| Postgraduate Scholarships | 14 Apr 2021 | 12 May 2021 |
| Development Grants | 21 Apr 2021 | 19 May 2021 |
| Partnership Project (Round 2) | 25 Mar 2021 | 15 Jul 2021 |
| Clinical Trials and Cohort Studies | 30 Jun 2021 | 28 Jul 2021 |
| Partnership Project (Round 3) | 29 Jul 2021 | 3 Nov 2021 |

#### MRFF Funding Schemes

| Scheme | Opening Date | MQ Submission Date |
|---|---|---|
| 2021 Innovative Research to Market Stream | 11 Mar 2021 | 23 Jun 2021 |
| 2021 International Clinical Trial Collaborations (ICTC) - round 1 | 17 Mar 2021 | 11 August 2021 |
| 2021 International Clinical Trial Collaborations (ICTC) - round 2 | 17 Mar 2021 | 5 Jan 2022 |

#### Internal MQ Funding Schemes

MQ Research Fellowships - open

MQ Fellowship for Indigenous Researchers Scheme - continuously open

MQ Enterprise Partnership Scheme - continuously open

MQ Carer Conference Support Scheme - continuously open

### Research Prizes and Awards

Discover upcoming research prize and award opportunities, and view recent success stories from Macquarie researchers. Learn more

### Research Professional Database

We encourage you to use the Research Professional database to search for Australian and international research funding and research opportunities. Learn and search

Research Professional runs a series of live online broadcast training sessions for the Australian time zone. View and register

## WORKSHOPS

### Crafting an Effective ARC Discovery Project Rejoinder

Friday 11 June 2021, 12:00-13:30, **Zoom. Add to calendar**

This workshop will provide strategic advice to 2022 ARC Discovery Project applicants on what to include in your rejoinder, pitfalls to avoid, suggested structures, as well as examples from rejoinders where the grant was successfully funded. More details

## RESOURCES & TOOLS

### Successful Grants Library

The Successful Grants Library contains external and internal grant and prize applications that were successfully awarded. Electronic and hard-copy versions of the library are available.

### Advice Toolkits and Budget Calculators

Available for many of the major external funding schemes. View all

### Developing Research Partnerships

Information and processes for developing and submitting research proposals to external organisations. Learn more

### Researcher Development Calendar – myRDC

Easily search and register for professional development events from all sectors of the university. Learn more

### On-Request Workshops

Provided on request for academic departments, research centres, or small groups and can be customised to suit particular needs. Learn more

## MQ Research Services Teams

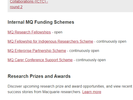
### Pre Award – Grants and Partnership Funding

Contact Grants or Partnerships



### Ethics, Integrity and Policies

Contact Human Ethics, Animal Ethics or Research Integrity



### Contracts and Agreements

Contact us



### Post Award and Reporting

Contact us

**YOU** *to the power of us*

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