ANZMAG NEWS: AUGUST 2022

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Hi all, Welcome to the August 2022 edition of ANZMAG News.

ANZMAG CONFERENCE

The 13th Conference of the Australia & New Zealand Society for Magnetic Resonance will take place in Marysville, Victoria from 4 to 8 December 2022. That's just 89 days away. Registrations and submissions are now open. The website is at https://www.anzmagconference.org.au with all registration information.

NZ UPDATE

Congrats to Dr Vanessa Morris in Canterbury who has just had a 600 installed - https://twitter.com/_VanessaMorris_/status/1552415440261226496 (and thanks to Prof Joel Mackay for the heads up).

ARC INDUSTRY FELLOWSHIP SCHEME

The ARC have now released details of the new Industry Fellowship scheme. See https://www.arc.gov.au/funding-research/funding-schemes/linkage-program/arc-industry-fellowships The main points are:

- There are three levels Early Career, Mid-Career and Laureate fellowships. There are 50 ECR fellowships, 25 MCR fellowships and only 8 Laureate fellowships
- The main industry partner has to be an Australian company (with an ACN), government entity or registered charity.
- There are no cash requirements, although the level of cash and/or in-kind commitment from the partner(s) are taken into account in the assessment
- At least 20% of the fellows time must be spent working in the key industry partner setting.

Please contact your research office for more information.

PAPER OF THE MONTH

With spring upon us and summer not too far away August's paper of the month for August is "Noninvasive detection of the endogenous free radical melanin in human skin melanomas using electron paramagnetic resonance (EPR)" by Mignion et al. Melanin is a stable semiquinone free radical and so can be detected by EPR. The method was not sensitive enough to measure differences in melanin content due to changes in skin pigmentation but the EPR signal of melanin was significantly higher ($p < 0.0001$) in melanoma lesions ($n = 26$) than that in benign atypical marks ($n = 62$). This is the first time the of EPR to detect an endogenous free radical has been demonstrated, which, potentially, opens the door to clinical EPR as a potential aid in the diagnosis of pigmented skin lesions. You can read more on this at https://www.sciencedirect.com/science/article/pii/S0891584922005482 if you wish.

ANZMAGERS IN THE NEWS

NMR swept the board at the National Measurement Institute's (NMI) 2022 Metrology Awards as part of National Science week.

The NMI Prize, an award for outstanding achievement by early to mid-career professionals up to the age of 35, went to Dr Neil Robinson from the University of Western Australia. This was for his research on the development and application of novel nuclear magnetic resonance techniques for characterising functional porous materials important to energy, environment, and society.

The Barry Inglis Medal for outstanding achievements in measurement science over an extended period of time was awarded to Oliver Jones. This was for extended and careful development of analytical measurement techniques (inc NMR) and their application in environmental science and metabolomics.

There is a very kind write up of this on the NMI website at https://www.industry.gov.au/news/winners-of-the-2022-metrology-awards-announced-in-national-science-week in case it is of any interest

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NEXT ANZMAG SEMINAR

The next virtual ANZMAG seminar will be held on Wed 7 Sep at noon AEDT.

STORIES FROM THE WEB

- https://www.azom.com/news.aspx?newsID=58891

This story is on the use of EPR to help work out how Ternary polymer solar cells work

- https://scitechdaily.com/scientists-find-strong-magnetic-fields-can-relieve-anxiety-and-depression/

I wasn't sure about this one, but I think I should be open to new ideas. This article is about a recent finding that strong magnetic fields may relieve anxiety and depression

- https://www.eurekalert.org/news-releases/963570

This is an interesting article about a potential new handheld NMR spectrimeter achieved by combining so-called zero- to ultralow-field NMR with hyperpolarization techniques.