ANZMAG NEWS - FEBRUARY 2025

By Oliver A.H. Jones (RMIT University - oliver.jones@rmit.edu.au)

Dear all,

Welcome to February 2025 edition of ANZMAG NEWS.

CONFERENCES

- Save the date, the 14th biennial ANZMAG conference will be held on 30th November to 4th of December 2025 at Tangalooma Resort, Moreton Island, Queensland, Australia. See https://anzmag.com.au/conferences-and-events/conferences/
- The 2025 International Society for Magnetic Resonance in Medicine (ISMRM) Annual Meeting & Exhibition will be held from 10-15 May 2025 Honolulu, Hawai'i. See https://www.ismrm.org
- The Royal Society of Chemistry's Annual LinkedIn Poster Conference will run over 24 hours starting at 11pm (Melbourne time) on the 4th March. #RSCPoster is a free global online poster conference held on LinkedIn over the course of 24 hours. Please see https://www.rsc.org/our-events/rsc-poster/ for details.
- If this is not enough, you can find more upcoming magnetic resonance events in 2025 online at http://t.ly/4laEY

AWARDS

- The Australian Academy of Science has just opened nominations for its awards which cover early mid and later careers. More details at https://www.science.org.au/supporting-science/awards-and-opportunities-2/2026-awards-and-funding-opportunities I am sure that there are plenty of ANZMAGers who could be nominated. I have been told that it helps to have an Academy Fellow as a nominator, as they can speak up for you in the academy, but we have several Academy Fellows in ANZMAG.
- The Australian Museum Eureka Prizes are the country's most comprehensive national science awards, honouring excellence across the areas of research & innovation, leadership, science engagement, and school science. See https://australian.museum/get-involved/eureka-prizes/ for details for this year.
- The 2025 Tall Poppy Awards from the Australian Institute of Policy and Science are open for applications. See https://aips.net.au/2025-young-tall-poppy-awards for details.
- The L'Oréal-UNESCO For Women in Science Australia & New Zealand Fellowships are intended to provide practical help for the winners to undertake a one-year research project in their chosen fields. See https://www.forwomeninscience.com.au/about
- The Science Excellence Awards South Australia will open soon. Keep an eye out for details at https://www.scienceawards.sa.gov.au

---

JOBS

- Griffith University are looking for a Mass Spectrometry/NMR Facility Manager at the Institute for Biomedicine and Glycomics on the Gold Coast Campus. It is a fixed term (12 month) contract and applications close on **5/3/25**. You can find out more at https://smrtr.io/pJFnS
- Melbourne University are looking for a Lecturer or Senior Lecturer in Biotechnology applications close on **13/3/25**. You can find out more at https://jobs.unimelb.edu.au/caw/en/job/918758/lecturer-or-senior-lecturer-in-biotechnology
- The University of Western Australia is looking for a Lecturer or Senior Lecturer in Soil-Plant Interactions. Applications close on 30/3/25. If keen you can find more details at https://external.jobs.uwa.edu.au/en/job/519677/lecturer-or-senior-lecturer-soilplant-interactions

---

PAPER OF THE MONTH

This month's Paper of the Month is on the topic of AI (what isn't these days). We all know that interpreting NMR spectra can be tricky, and many algorithms have been developed to try and help, but none quite have the success of a well-trained spectroscopist. However, perhaps AI may help. So, this month's paper is titled "Beyond traditional magnetic resonance processing with artificial intelligence" by Amir Jahangiri and Vladislav Orekhov. The authors developed and trained artificial neural networks to solve three problems that until now were deemed "impossible": quadrature detection using only Echo (or Anti-Echo) modulation from the traditional Echo/Anti-Echo scheme; accessing uncertainty of signal intensity at each point in a spectrum processed by any given method; and defining a reference-free score for quantitative access of NMR spectrum quality. The findings certainly highlight the potential of AI techniques in NMR processing and analysis – and presumably those of MRI and EPR as well. You can read the paper at https://www.nature.com/articles/s42004-024-01325-w

---

AI

But wait, there is more. What if you are too busy with LIEF grants to read the paper, well good news, you can listen to a podcast about it. I created this 'deep dive' conversation podcast about the paper with Google NotebookLM. Everything you hear is AI generated (you can tell it is American based by the number of times they say game changer). You can have a listen at https://notebooklm.google.com/notebook/c8c49b67-2472-44d6-aad4-2d9f6b6b1e33/audio if you want to find out how to do this on your own papers, let me know.

There is another AI tool that I came across recently that you might like. It is called Napkin AI and it generates useful infographics from text. So you can take the abstract of your paper, for example, and it will generate several infographics that you can pick and choose from and then customise. It can save a lot of time if you need something for a presentation. See https://www.napkin.ai for the details.

SOCIAL MEDIA

Eagle eyed readers may have noticed that the Royal Society of Chemistry switched their annual poster conference from Twitter (X) to LinkedIn. Many scientists have left Twitter for alternatives such as Mastodon, Threads and BlueSky. The latter seems to be the most popular with academics. from Twitter you may find this list of starter packs of use https://blueskystarterpack.com/chemists they allow you to follow either all the people on the list, or selected members rather than finding people individually. There is a similar list for those interested in Metabolomics at https://blueskystarterpack.com/metabolomics

---

STORIES FROM THE WEB

- https://www.bruker.com/en/resources/library/application-notes-mr/epr-101.html - EPR 101 from Bruker.
- https://healthimaging.com/topics/medical-imaging/magnetic-resonance-imaging-mri/new-low-field-scanner-detects-cancer-spread-better-traditional-breast-mri - An article on the use of new low-field MRI scanners that can detect cancer spread better than traditional MRI.
- https://www.chemistryworld.com/news/12ghz-nmr-magnet-arrives-at-university-of-warwick/4021065.article One of the most powerful nuclear magnetic resonance (NMR) magnets in the world has been delivered to the University of Warwick in the UK
