

ANZMAG NEWS - OCTOBER 2023

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Dear all, Welcome to October 2023 edition of **ANZMAG News**. I hope you have all had a great month.

ANZMAGers IN THE NEWS

Big Congratulations Professor Glenn King from UQ who received the 2023 Prime Minister's Prize for Innovation for his work using peptides from Australian funnel-web spider venom for sustainable crop protection. See more at <https://stories.uq.edu.au/news/2023/pm-awards-innovation-prize-to-uq-venom-researcher/index.html?> and <https://www.youtube.com/watch?v=Po57nEFTZvI> Well done Glenn!

ARC OUTCOMES

Outcomes from the ARC Discovery Projects and LIEF grants were released last week.

For DPs well done to A. Prof Martijn Cloos and team from UQ and Prof Fernando Calamante and team from the University of Sydney, who are both working on MRI projects on the brain. Congrats also to A. Prof Nick Cox and team at the AUN who received funding for a project on tools to study proteomics by electron/nuclear paramagnetic resonance.

For LIEFs. Well done to Associate Professor Martin Johnston and team at Flinders for their project "Revitalising NMR facilities in South Australia - Stage 2". Well done also to Professor Mehdi Mobli and team from across the country who aim to establish a national network for magnetic resonance spectroscopy.

For a full list of projects head to <https://rms.arc.gov.au/RMS/Report/Download/Report/c1d284de-3f2a-410d-8cc4-71daf59bfef2/0> and then select the relevant scheme from the menu in the top right

UPCOMING MAGNETIC RESONANCE EVENTS

- Magnetic Resonance News (@nmr900 on X - formally Twitter) has a handy list of upcoming Magnetic Resonance (NMR, MRI, EPR and ESR) Events in 2023/24 as a Google Spreadsheet with weblinks. See <http://t.ly/4laEY> for the spreadsheet. It's very handy!
- The University of Lille has an online NMR course running. See <https://www.fun-mooc.fr/en/courses/basics-nuclear-magnetic-resonance/> for details.

PAPER OF THE MONTH

This week's paper of the month is on the topic of Solid-State NMR. It is entitled "Structural adaptation of fungal cell wall in hypersaline environment" and is by Fernando et al. The paper looks at Halophilic fungi which thrive in hypersaline habitats and other extreme conditions such as low water activity, and extreme pH. The cell wall is thought to have a key role in surviving these environmental conditions but how this happens is unknown. In this paper the authors employ solid-state NMR spectroscopy to compare the cell wall architecture of *Aspergillus sydowii* across salinity gradients. Analyses of intact cells reveal that *A. sydowii* cell walls contain a rigid core comprising chitin, β -glucan, and chitosan, shielded by a surface shell composed of galactomannan and galactosaminogalactan. When exposed to hypersaline conditions, *A. sydowii* enhances chitin biosynthesis and incorporates α -glucan to create thick, stiff, and hydrophobic cell walls. You can read the paper at <https://www.nature.com/articles/s41467-023-42693-6>

AWARDS

- Nominations are open for Prof. H S Atreya award-2023. The award is given annually to an outstanding scientist working in any area of magnetic resonance. See <https://www.dropbox.com/scl/fi/vfw627w3cu2z2d8yibcwn/HS-Atreya-Award23.pdf?rlkey=yz8js75s5rdfp7vyu9vieox68&dl=0> for a flyer with full details.
- Nominations are now open for the 2024 Prizes from the Royal Society of Chemistry. See <https://www.rsc.org/prizes-funding/prizes/> for details.
- The Order of Australia recognises Australians who have demonstrated outstanding service or exceptional achievement. There are four levels of award. Anyone can nominate someone. To be eligible, a nominated person must be: alive at the time their nomination is received, an Australian citizen or permanent resident, have not been recognised through the Order of Australia in the last five years. Learn more about how to nominate at <https://rb.gy/c2ynh5>
- *NB: I know Academic are often wary of "bigging themselves up" so to speak, but awards and grants are a great way to make yourself stand out and look great on grant and promotion applications. Even if you don't win you learn something and you often get your CV seen by people and this can lead to other opportunities, so it is well worth trying. Please also consider if you can tap a worthy colleague on the shoulder and/or help them apply. Especially candidates from minority and culturally diverse groups.*

JOB

- Applications for RMIT's Vice-Chancellor's Research Fellowships are now open and close at noon (12pm AEDT) on 28 November 2023. See <https://www.rmit.edu.au/careers/vice-chancellors-research-fellowships/apply-now> for details. These are great opportunities and there are several levels depending on career stage.
- The [University of Sydney](https://www.timeshighereducation.com/unijobs/listing/353400/academic-positions-school-of-biomedical-engineering/) is (still) advertising various academic positions at the School of Biomedical Engineering. See <https://www.timeshighereducation.com/unijobs/listing/353400/academic-positions-school-of-biomedical-engineering/> **Applications Close** on 30/11/23.

VALE DR TONY W. KELLER

ANZMAG is sad to hear of the passing of Dr Tony W. Keller, a pioneer of magnetic resonance, who passed away after a long illness on 27th October 2023 in Speiz, Switzerland. There is a detailed obituary at <https://ismar.org/2023/11/01/tony-keller-1937-2023/>

STORIES FROM THE WEB

- <https://phys.org/news/2023-11-situ-electron-paramagnetic-resonance-spectroscopy.html> – A news alert on the topic of in situ electron paramagnetic resonance spectroscopy using single nanodiamond sensors.
- <https://physicsworld.com/a/as-mri-strength-increases-so-do-concerns-about-magnet-safety/> – An interesting discussion of safety concerns around more powerful MRI instruments.
- <https://news.griffith.edu.au/2023/11/03/bourne-foundation-nuclear-magnetic-resonance-nmr-spectroscopy-facility-official-opening/> – A news alert about the opening of the Bourne Foundation NMR Spectroscopy Facility at Griffith University.