

## Australian National University

# Research School of Biology Newsletter

#### Issue 137 | May 2022

### Congratulations

In April 2022, Research.com released the 1st edition of the annual ranking for top scientists in the area of plant science and agronomy science. This list of leading

scholars is designed to offer the academic community more visibility and exposure to the influential research contributions made by those at the forefront of plant and agronomy science. **Graham Farguhar** (Plant Sciences) has been



named the <u>#1 plant or agronomy scientist globally.</u> Yet another well-deserved accolade for him, and one which emphasises the strength in Plant Sciences in RSB.

**Ben Corry** and **Josiah Bones** (Corry Group, BSB) are co-authors on a paper *TLR7 gain-of-function genetic variation causes human lupus* published in <u>Nature</u> which establishes the molecular basis of Lupus, a debilitating autoimmune disease.



Sarah Shafik (Djordjevic Group, PS), Sashika Richards

(Whitney Group, PS), and their team recently published a paper entitled Mechanistic basis for multidrug resistance and collateral drug sensitivity conferred to the malaria parasite by polymorphisms in PfMDR1 and PfCRT in PLOS Biology.



An article on their work was published in The Australian on Friday and can be found <u>here</u>. This paper generated

40 media items across print and online. These items reached a total potential audience of 1.6+ million (if we count total online audience, total print circulation and total broadcast audience) and a base line audience of



367,262 (if we count average readers per online article, total print circulation and total broadcast audience). (Figures from Isentia).

Tavish Eenjes and Salome Wilson (Schwessinger Group, PS)( 3rd and 4th from left), were recipients of the 2022 Kim Ritman Scholarship for postgraduate students with a commitment to plant health and biosecurity. Awardees were supported to attend and gave a presentation of their PhD research at the Plant Biosecurity Research Initiative (PBRI) Symposium. PBRI supports cross-sectoral research, development and extension into plant health and biosecurity, encouraging partnerships between industry, government and researchers.



#### **PhDs submitted**

**Suha Naser** (Lanfear Group, E&E) Systematic bias in phylogenetic inference: Implications, Assessment, and Reduction

**Tomas Fuenzalida** (Ball Group, E&E and PS) *Plant hydration dynamics: measurement and uptake pathways* 

Kalya Subasinghe (Langmore Group, E&E) Avian morphometrics and climate change

**Elizabeth Whitty** (Callaghan Group, BSB) Assessment of the "Smart" Polymer Poly(sodium acrylate) for Anticancer Drug Targeting and Delivery

**Jesse Wallace** (Zeil Group, E&E) Unravelling the mystery of migratory behaviour in the Bogong moth Agrotis infusa using genomics and novel automated monitoring techniques

**Tobias Hayashi** (Peakall Group, E&E) Pollination and chemical ecology of Pterostylis (Orchidaceae)

#### Kimberley Hunnam (Jennions Group, E&E)

Small pelagic fisheries in tropical food systems: strengths, challenges and opportunities for Timor-Leste's small-scale sardine fishery.

### PhDs awarded

Haochen Wei (Solomon Group, PS) Using RNAseq to dissect disease mechanisms in the cereal pathogen Bipolaris sorokinana

**Ritupama Mittra** (Callaghan Group, BSB) *Identifying the location of the drug binding site(s) in P-glycoprotein* 

**Yi-Yang (Alex) Chen** (Jennions Group, E&E) The nature and significance of 'macroalgae-epifauna-invertivorous fish' trophic links within a macroalgal-dominated reef ecosystem

**Ding Yuan** (Whitney Group, PS) *Bioengineering Monocot Crop Rubisco in Tobacco Chloroplasts* 

**Bradley Posch** (Atkin Group, PS) In the heat of the night: wheat respiration and photosynthesis in a warming world

#### PhDs commenced

Dalton Leibold (Noble Group, E&E) Ejiroghene Ruona Evivie (Millar Group, PS) Zala Gluhic (Maier Group, BSB) (Dual-Award – Humboldt/ ANU) Maxim Karnetzki (Maier Group, BSB) (Dual-Award – Humboldt/ANU) Florian Kirscht (Maier Group, BSB) (Dual-Award – Humboldt/ANU)

John Mackenzie (Atkin Group, PS)

#### Welcome

**Ana Sequeira** (*E&E*) one of the new Group Leaders in RSB, has just started with us and will be about as soon as she is settled in Canberra.





Another recent appointee is Group Leader Lucy Aplin (E&E) who will be on campus part time until early next year.

Welcome to Fraser Scott and Sameer Kamrani who have joined RSB IT Services Team as IT Client Services Officers. Fraser joins us from the JCSMR Purchasing Team and is studying Data





Science and Software Engineering at UC. Sameer is a current RSB staff member, working three days a week in the APPF as a Data Management Officer, and two days a week in IT.

A warm welcome to **Jack Wess** (Rathjen Group, PS) who has joined the weekend watering team.



### Farewell

Farewell to **Micah Stevenson** and **Caitlin Conroy** (both Plant Services Team) who have both been offered employment with the Australian National Botanic Gardens. While we are sad to see them leave our small team we realise this is an exciting opportunity for them both. We wish them all the best for the future.

The Plant Services Team would also like to thank **Reynaldi Darma** for being on the weekend watering team and wish him all the best for the future.



Soumi Bala is leaving the Plant Sciences Divisional



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Support team after 12 months in the role, to follow her long-time dream of working in finance. Soumi has moved to a position within the College of Science finance team, congratulations Soumi and good luck with your new career direction.

## In the media

Ryan O'Donnell (Linde Group, E&E) and Tobias Hayashi (Peakall Group, E&E) (who recently submitted his PhD) presented their orchid research at a virtual event hosted by Gardening Australia's Costa Georgiadis and Botanic Gardens Australia and New New Zealand (BGANZ) in the leadup to Botanic Gardens Day. The broadcast can be viewed <u>here.</u>

#### **Papers**

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