



NEWS

Congratulations on their recent promotions:



Professor **Adrienne Nicotra** (EEG)
Professor **David Tschärke** (BSB)
Associate Professor **Aude Fahrér** (BSB).

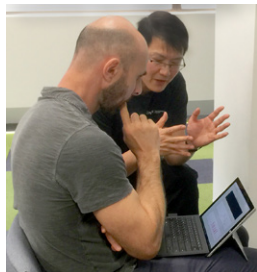
Brain cancer fundraiser

In memory of Warwick Hillier, who we tragically lost to a glioblastoma in January 2014, a recent RSB Happy Hour was held to support the Cure Brain Cancer Foundation's campaign to improve the survival rates of brain cancer sufferers.

A large crowd of hungry, thirsty and generous people feasted on spit roasted lamb and baked potatoes, washed down with sangria and boutique beer. A small auction of donated items and profits from the event, along with generous contributions throughout the night, resulted in a \$1000 donation made to Sari, Warwick's widow, who will donate to the Foundation on our behalf - Duncan Fitzpatrick (Price Group, PS).

Machine learning for biologists

More than 50 researchers from ANU, CSIRO and UC attended 'Introduction to Machine Learning for Biologists', at the RSB. The day, which featured seminars by machine learning experts Steve Gould (ANU CECS), and Cheng Soon Ong and Mark Reid from Data61,



Cheng Soon Ong from Data61 and Jason Potas from the JCSMR at the machine learning symposium (see NEWS item).

was funded by the RSB and CSIRO, and organised by the COMBINE bioinformatics student group. "The day went really well", said spokesperson for the group, Jack Simpson (Foret Group, EEG), "and we're hoping to make it bigger and better next year." COMBINE also ran a 3-day advanced phylogenetics workshop at ANU this month.



Melanie Trinick (BTLC) (blue labcoat, centre) instructs a group of Year 11 students from Narrabundah College at a recent outreach event in the Science Teaching lab (see News item).

Outreach to college students

As part of ongoing RSB outreach activities for schools, staff of Biology Teaching and Learning, including Juliej Beckman, Peta Moisis and Melanie Trinick hosted a group of year 11 students from Narrabundah College recently. During the two-hour session, students prepared and examined microscope slides, studied mammalian skulls, learned to use lab equipment, and studied their own heart beat (see main photo).

Guillaume Tcherkez (PS) contributed



two chapters to a new book published in France, commemorating the educational publisher Deyrolle, who produced panels (plates) used in classrooms for teaching natural sciences.

AWARDS



Marilyn Ball (PS) has been awarded the Chancellor's Award for Distinguished Contribution to the University.



Tamara Browne (BTLC) has received the Colleges of Science Citation for Outstanding Contribution to Student Learning (Early Career Academic).



Paul Cooper (EEG) has been awarded a Special Commendation for his teaching contributions by the Colleges of Science.



Dimanthy Uduwela from the Research School of Chemistry, inaugural winner of The Charles Hocart Award for Academic Research Excellence, Michael Mariani from Thermo Fisher, and Charles Hocart (see NEWS item).

Inaugural 'Charles Hocart Award'

Charles Hocart (Visiting fellow, Mass Spectroscopy Unit, RSB) received a pleasant surprise at the recent ACT Mass Spectrometry Symposium. A couple of months ago Michael Mariani from ThermoFisher Scientific approached Charles, the symposium organiser, with the idea to present an award to commemorate the 10th anniversary of the Symposium, to be presented to an early career researcher who gave the best presentation. Unbeknownst to Charles, the organisers intended to name the award for him, and kept it a secret until it was first presented. Hillary Stuart-Williams (Farquhar group, PS) announced

Group Leader Profile:

Owen Atkin (PS)

Group research focus



The major foci of my lab's research are understanding: (1) the role of genotype and environment in controlling variations in plant

respiration rates; (2) the impact of variable respiration rates on carbon exchange between terrestrial ecosystems and the atmosphere. While much of our work in recent years has been on natural ecosystems (arctic to tropics), we are increasingly using cereal crops as model systems to elucidate the molecular, biochemical and physiological factors responsible for variable respiration rates.

Teaching and research achievements

The last few years have enabled us to better understand global patterns in plant respiration, which in turn provides a framework for improving representation of plant respiration in vegetation-climate models.

What do you enjoy most about teaching?

Nothing better than giving a good lecture to a large first year cohort - a highlight of any day. Equally, giving a flat lecture is a nightmare, and one that I try to avoid!

What do you see as challenges for your field of research?

Despite advances in recent years, our understanding of factors controlling variation in plant respiration rates remains poor - a step-change is therefore needed in our scientific understanding of this process. I am hopeful that collaborations among diverse research groups will enable this to occur.

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the award, and Charles was surprised to see **Allen Rodrigo**, RSB Director, come forward to present it. "Excellent idea – it will add a certain gravitas," said Charles. "Next thing was, my name was being mentioned!"

The \$500 award was presented to Dimanthi Uduwela, a PhD student at the Research School of Chemistry, to be used towards travel to a ThermoFisher Scientific laboratory and the opportunity to work with a ThermoFisher specialist for three days on-site.

Mark Stafford-Bell (Howitt Group, BSB) won



the student poster award at the International Society for Scholarship of Teaching and Learning Conference in Melbourne.

Thomas Wallenius (Rowell Group, EEG) has been nominated for an 2015 ANU Media and Outreach Award.

GRANTS



Mr John Townend AM (Chairman, Diabetes Australia Research), the Hon Sussan Ley (Minister for Health), and Stefan Bröer, at the award ceremony for the Diabetes Australia grant (see NEWS item).

Stefan Bröer (BSB) has received two grants: an NHMRC grant with Brian Billups (JCSMR) to study dynamic trafficking of amino acid transporters at synapses and their roles in regulating neurotransmission, and a Diabetes Australia grant to study the targeting of amino acid transport to treat type 2 diabetes. The second grant was awarded at a breakfast at Old Parliament House to mark World Diabetes Day (see photo).

The RSB has done very well in the latest round of Discovery projects and DECRA fellowships. Discovery Project awards went to: **Patricia Backwell** (EEG), **Lindell Bromham** (EEG), **Marcel Cardillo** (EEG), **Michael Jennions** (EEG), **Denisse Leyton** (BSB), **Ryszard Maleszka** (EEG) and **Allen Rodrigo**. **Jason Bragg** (EEG), **Mike Crisp** (EEG), **Roderick Dewar** (PS), and **Craig Moritz** (EEG) are part of externally hosted grants. DECRA Fellowships were awarded to **Adele Lehane** (Kirk Group, BSB), **Angela McGaughran** (Moritz Group, EEG), **Dan Rosauer** (Moritz Group, EEG) and **Simon Williams** (Solomon Group, PS).

Susan Howitt (BSB) is a CI on an Office for

Learning and Teaching Extension Grant awarded to the University of Tasmania for 'Embedding the benefits of undergraduate research experiences for medical research and health professional students'.

Iliana Medina has won an Endeavour Fellowship to continue her work on brood parasitism in the Langmore Group (EEG).

Thomas Merkling (Keogh Group, EEG) has been awarded an Endeavour Fellowship to work with collaborators at the UNSW for six months in 2016.

Michael Djordjevic (PS) received an ARC Linkage Project grant to study crop improvement using peptide regulators of growth and N demand signalling.

Rob Sharwood (PS) has won a Thomas Davies Research Grant from the Australian Academy of Science.

IN THE MEDIA

Craig Moritz (EEG) appeared in the ABC TV science show *Catalyst*, broadcast on November 17, entitled 'Life Without Males'.

The work of PhD student **Jessie Au** (Foley Group, EEG) has been reported in *The Guardian* and ABC online, as part of an article about koalas eating tree bark. Jessie is studying the relationship between gum-leaf quality in koala habitats across eastern Australia with the location and size of animal populations in those areas. She hoped her research, to be completed before the end of the year, would determine what the Southern Tablelands koalas were targeting. This may explain why the koalas scrape bark from specific trees and ignore others.

PHDS SUBMITTED

Alan Severini (Evans Group, PS) "The capture of deep water and its relationship with root length density in wheat"

Viridiana Silva Perez (Evans Group, PS) 'Improving photosynthetic efficiency and capacity in wheat for increased yield potential.'

PHDS AWARDED

Peter Crisp (Pogson Group, PS) 'Balancing the messages: RNA metabolism mediates stress-signalling and recovery in plants'

Anna Harts (Kokko Group, EEG) 'Mating systems and strategies'

Yanjiao (Renee) Li (Millar Group, PS) 'Functional analysis of the miR159-MYB33/65 pathway in *Arabidopsis* rosette'

Katherine Meacham (Von Caemmerer

Group, PS) 'Diurnal light and fluorescence profiles in rice canopies: building a dynamic model of photosynthesis for *Oryza sativa*'

Melita Milner (Crisp Group, EEG) 'Phylogeography and speciation of *Lomatia* and *Telopea* (Proteaceae)'

Esther Rajendran (Kirk Group, BSB) 'Characterisation of an essential arginine transporter in the apicomplexan parasite *Toxoplasma gondii*'

Claudia Rodriguez Delgado (Deakin Group, EEG) 'Evolution of Dosage Compensation and X Inactivation in Therian Mammals'.

NEW APPOINTMENTS

Senior Future Fellow Professor **Loeske**



Kruuk (EEG) has returned to RSB to take up a permanent position. She is located on the upper floor of the Banks Building.

Victoria Allen recently joined RSB as administrator for **Graham Farquhar**. Victoria was formerly with the Colleges of Science, as deputy finance manager and finance team leader for Chemistry and Physics. She works part-time, from 8.30am - noon every day, and when she is not at work, she studies accounting and looks after two teenagers.

WELCOME



Mary MacDonald is RSB Acting School Manager until early February 2016, while Steve O'Connor is on leave.

Yuri Mizuno, a Masters student from the Graduate School of Bioagricultural Sciences, Nagoya University, visited the Jones Group (PS) as an Australasian Plant Pathology Society - Phytopathological Society of Japan exchange student. During her visit, Yuri presented a lab seminar about her use of viral-induced gene silencing to investigate transport of mRNA from the nucleus to the cytosol in *Nicotiana benthamiana*.

FAREWELL



Jan Elliott (Senior Technical Officer, EEG) is retiring at the end of the year and EEG will be hosting a special farewell morning

tea for her on 1 December in the Banks Tearoom. Jan has worked for 29 years in the former RSBS and RSB. She spent many years working for Plant Cell Biology (predominantly **Adrienne Hardham** and **Richard Williamson**), **Jenny Graves** and the last five years in the STO role in EEG. Jan works tirelessly in every aspect of her job and in so doing has helped to make EEG run smoothly and a great place to work. She will certainly be missed but she and her husband have some exciting grey nomad travel plans (or in this case, blue nomad..) they need to attend to. She plans to maintain her association with RSB and will help **Howard Bradbury** continue his important Konzo research as a volunteer. - **Scott Keogh**, EEG Division Head.

PAPERS ACCEPTED

Bråte, J, Adamski, M, Neumann, R, Shalchian-Tabrizi, K, Adamska, M, Regulatory RNA at the root of animals: dynamic expression of developmental lincRNAs in the calcisponge *Sycon ciliatum*, *Proceedings of the Royal Society B*

Goh, C-H, Nicotra, AB and Mathesius, U, The presence of nodules on legume root systems can alter phenotypic plasticity in response to internal nitrogen independent of nitrogen fixation, *Plant, Cell and Environment*

Groszmann, M, Gonzalez-Bayon, R, Lyons, RL, Greaves, IK, Kazan, K, Peacock, WJ, Dennis, ES, Hormone-regulated defense and stress response networks contribute to heterosis in *Arabidopsis* F1 hybrids, *Proceedings of the National Academy of Sciences*

Henshaw, JM & Holman, L, Bet-hedging via polyandry: A comment on 'Mating portfolios: bet-hedging, sexual selection and female multiple mating', *Proceedings of the Royal Society*

Holman, L, Bet hedging via multiple mating: a meta-analysis, *Evolution*

Kilner, R, Boncoraglio, G, Henshaw, JM, Jarrett, BJM, DE Gasparini, O, Attisano, A, Kokko, H, 2015, Parental effects alter the adaptive value of an adult behavioural trait, *eLife*

Lavrov, DV, Adamski, M, Chevaldonné, P, Adamska, M, Extensive mitochondrial mRNA editing and unusual mitochondrial genome organization in calcarean sponges (Calcarea, Porifera), *Current Biology*

Medina, I & Langmore, NE, Coevolution is linked with phenotypic diversification but

not speciation in avian brood parasites.

Proceedings of the Royal Society: Biological Sciences

Rowland, L, da Costa, ACL, Mencuccini, M, Galbraith, DR, Oliveira, RS, Binks, OJ, Oliveira, AAR, Pullen, AMM, Doughty, CE, Metcalfe, DB, Vasconcelos, SS, Ferreira, LV, Malhi, Y, Grace, J and Meir, P, Death from drought in tropical forests is triggered by hydraulics not carbon starvation, *Nature*

Moray, C, Goolsby, EW, Bromham, L, The phylogenetic association between salt tolerance and heavy metal hyperaccumulation in angiosperms, *Evolutionary Biology*

Phillips, B, Munoz, M, Hatcher, A, Macdonald, S, Llewellyn, J, Lucy, V, Moritz, C, Heat hardening in a tropical lizard: geographic variation explained by the predictability and variance in environmental temperatures, *Functional Ecology*

Schneebeli, K, Mathesius, U, Zwart, AB, Bragg, JN, Vogel, JP, Watt, M, *Brachypodium distachyon* genotypes vary in resistance to *Rhizoctonia solani* AG8. *Functional Plant Biology*.

NOTICES

Caregivers' travel assistance

RSB staff who have primary caregiving responsibilities that may limit their ability to travel to conferences can apply to the ANU-wide Carers' Career Development Assistance Fund for financial assistance to assist with the cost of care for their dependants while they are away. However, this fund does not cover travel for fieldwork or support conference travel for HDR students with dependants. Requests for financial assistance in these situations can be made to the RSB contingency fund, subject to the normal requirements for this fund. Please contact **Nichole Hanlon** for more information.

RSB Equity Committee

The RSB Equity Committee is now up and running and would welcome feedback and suggestions for action for 2016. Meeting agendas and minutes are available on the intranet and any committee member can be approached if you have concerns or ideas. The committee is: **Maja Adamska** (BSB), **Marcel Cardillo** (EEG), **Denis Hawkins** (IT), **Wes Keys** (DTO, EEG), **Susan Howitt** (BSB)(chair), **Elena Martin Avila** (Whitney Group, PS), **Camile Moray** (Bromham Group, EEG), **Marlene Reichel** (Millar Group, PS), **Dan Rosauer** (Moritz Group, EEG), **Benjamin Schwessinger** (Rathgen Group, PS).