



NEWSLETTER

NEWS

PAPER IN THE MEDIA

A paper on the phenotypic plasticity of plants, with authors from multiple groups in two of the Divisions in RSB, together with their collaborators (AB Nicotra, OK Atkin, SP Bonser, AM Davidson, EJ Finnegan, U Mathesius, P Poot, MD Purugganan, CL Richards, F Valladares and M van Kleunen (2010). "Plant phenotypic plasticity in a changing climate." *Trends in Plant Science* 15: 684-92.) has been featured on a wide range of international media websites [Science Daily](#), [Alpha Galileo](#), [e! Science News](#), [Physorg](#), [R&D magazine](#), [Prometheus Wiki](#), and the [Spanish Agency for Science and Innovation](#).

RSB PHOTOGRAPHY COMPETITION

The competition was held on Tuesday 15 March.
The winners in the four

categories were:

Microscopic: James Davies;
Environment: Michael Whitehouse;
Animals: Jasper Pengelly (below right);
Plants: Andrew Kahn (below left).



WELCOME & NEW APPOINTMENTS

Camile Moray, a PhD student joins the Bromham Lab, EEG. Camile will be working on the evolution of salt tolerance in plants. She has previously studied at University of Texas at Austin and has a Masters in Conservation and Utilization of Plant Genetic Resources

from the University of Birmingham.

Rose Andrew, Visiting Fellow with Bill Foley, EEG, until June; **Marta Vidal-Garcia**, Visiting Student with Scott Keogh, EEG, until July; **Trevor Murray**, PhD Student with Rob Magrath, EEG; **Maryam Mirtalebi**, Visiting Scholar with Celeste Linde, EEG, until November; **Zoe Haws**, PhD Student with Pat Backwell, EEG.

Nadine Tietze, who undertook her PhD studies with Prof. Stefan Bröer, has recently joined the Martin lab, BSB, as a postdoctoral fellow. Nadine will study drug resistance in the malaria parasite.

Eddie Mwesigye has joined the Kirk Lab, BSB, as a PhD student. Eddie completed Hons at La Trobe last year. His PhD project will focus on Ca^{2+} regulation in the malaria parasite.

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CONGRATULATIONS

Christina Spry, Saliba/Kirk labs, BSB, has been awarded an NHMRC Postdoctoral Training Fellowship. The Fellowship will allow Christina to spend the next two years in the laboratory of Prof Chris Abell at the University of Cambridge and another two years after that back at RSB.

Kylie Easton, Saliba lab, BSB, has been awarded a Researcher Exchange Grant from the Australian Research Network for Parasitology. The award will allow Kylie to spend time in the laboratory of Prof Matthias Mack in Germany and Prof Carlo Contini in Italy working on various aspects of her PhD.

Rizza Albarracin, BSB, PhD student, Provis Lab, was awarded the ARVO International Travel Grant to attend and present a poster in the Association of Research in Vision and Ophthalmology (ARVO) Annual Meeting, May 1 - 5, in Fort Lauderdale, Florida.

Natalie Spillman, a PhD student in the Kirk Lab, BSB, has won an Australian Society for Biochemistry & Molecular Biology Fellowship that provides her with funding to attend the 'Biology of the Malaria Parasite' meeting in Heidelberg in May.

Lucia Kusumawati and **Peta Holmes**, PhD students in the Djordjevic lab, PS, have been awarded their PhDs.

BIOLOGY CURRICULUM REVIEW

Now that grant applications have been submitted, we are returning to the Biology Curriculum Review. The deadline by which we need to finalise any changes is 12 May. In order to meet this timeline, the Chairs of each discipline committee are drafting proposals for courses that will contribute to the Biology 'Minors'. The present intention is to have Minors in Ecology Evolution & Zoology, Genetics, Infection & Immunity, Neuroscience & Physiology, Plant Sciences, Biochemistry (with Chemistry), Marine Sciences (with Earth Sciences) and Biodiversity Conservation & Management (with Fenner). Later in April, these proposals, and the proposal for the Biology Major, will be presented to an open meeting of all people interested in biology teaching.

TEACHING AND LEARNING

On 2 March over 200 first year (and later year) biology students and many teaching staff attended the 'Welcome to Biology' BBQ (image right). Thanks to the Biology Teaching & Learning Admin staff for organising the event, and to our expert cooks - Steve

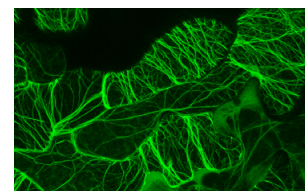
Fairweather, Chris Munday, Anesh Nair, Pravin Periasamy and David Stephenson. Another particular thank you is to Ian Wallis who has left us with a comprehensive field trip manual, collating his cooking philosophy, recipes and bulk-buying tips.



PAPERS ACCEPTED

- Albarracin, R., Eells, J., Valter, K. Photobiomodulation protects the retina from light-induced photoreceptor degeneration. *Investigative Ophthalmology and Visual Science*.
- Arnett, S.V., Alleva, L.M., Korossy-Horwood, R., Clark, I.A. Chronic fatigue syndrome - a neuroimmunological model. *Medical Hypotheses*.
- Broer, S. and Palacin, M. The role of amino acid transporters in inherited and acquired diseases. *Biochem J*.
- Cuttriss, A.J., Cazzonelli, C.I., Wurtzel, E.T. and Pogson, B.J. Vitamin A (carotenoids). In: Biosynthesis of vitamins in Plants, Eds F. Rébeillé and R. Douce, *Advances in Botanical Research*.
- Förster, B., Pogson, B.J., and Osmond C.B. Lutein from de-epoxidation of lutein epoxide replaces zeaxanthin to sustain an enhanced capacity for non-photochemical chlorophyll fluorescence quenching in avocado shade leaves in the dark. *Plant Physiol*.
- Gabor Miklos, GL, Maleszka, R. Epigenomic communication systems in humans and honey bees: from molecules to behaviour. *Hormones & Behavior* [Cover article].
- Hardham, A.R. Confocal microscopy in plant-pathogen interactions. In: Plant Fungal pathogens: Methods and Protocols. Eds: M.D. Bolton and B.P.H.J. Thomma. Humana Press, New York.
- Hirsch J., Misson J., Crisp P.A., David P., Bayle V., Estavillo G.M., Javot H., Chiarenza S., Mallory A.C., Maizel A., Declerck M., Pogson B.J., Vaucheret H., Crespi M., Desnos T., Thibaud M-C., Nussaume L., Marin, E. A novel *fry1* allele reveals the existence of a mutant phenotype unrelated to 59'->39' exoribonuclease (XRN) activities in *Arabidopsis thaliana* roots. *PLoS ONE*.
- Lyko, F. and Maleszka, R. Insects as innovative models for functional studies on DNA methylation. *Trends in Genetics* [Cover article]
- Maleszka, R. Elucidating the path from genotype to behaviour in honey bees: insights from epigenomics. In: Honeybee Neurobiology and Behavior: A Tribute to Randolph Menzel. Eds. D. Eisenhardt, G. Galizia & M. Giurfa, Chapter VI, Springer Publisher, Berlin.
- Mautz, B. , & Jennions, M.D. The effect of competitor presence and relative competitive ability on male mate choice. *Behav. Ecol*.
- Meier, C.M., Starrfelt, J. & Kokko, H. Mate limitation causes sexes to coevolve towards more similar dispersal kernels. *Oikos*.
- Otte, A., Sauter, M., Alleva, L., Baumgarte, S., Klingel, K. and Gabriel, G. Differential host determinants contribute to the pathogenesis of 2009 pandemic H1N1 and human H5N1 influenza A viruses in experimental mouse models. *American Journal of Pathology*.
- Pogson, B.J., and Albrecht, V. Genetic dissection of chloroplast biogenesis and development: an overview. *Plant Physiol*.
- Saur, I.M.L., Oakes, M. Djordjevic, M.A. and Imin, N. Crosstalk between the nodulation signaling pathway and the autoregulation of nodulation in *Medicago truncatula*. *New Phytologist*.
- Slatyer, R., Mautz, B., Backwell, P.R.Y., Jennions, M.D. The genetic benefits of polyandry: a meta-analysis. *Biological Reviews*.
- Taylor, R.W. Australasian ants of the subfamily Heteroponerinae (Hymenoptera: Formicidae): (1) General introduction and review of the Heteroponeraleae (Wheeler, 1923) species group, with descriptions of two new species. *Myrmecological News*.
- Tilley, L., Dixon, M.W. and Kirk, K. The *Plasmodium falciparum*-infected red blood cell. *Int. J. Biochem. Cell Biol*.
- Torok, V.A., Allison, G.E., Percy, N.J., Ophel-Keller, K. and R. J. Hughes. Influence of in-feed antimicrobials on broiler commensal post-hatch gut microbiota development and performance. *Applied and Environmental Microbiology*.
- Woo, N.S., Gordon, M.J., Graham, S.R., Rossel, J.B., Badger, M.R. and Pogson, B.J. A mutation in the purine biosynthetic enzyme ATASE2 impacts high light signalling and acclimation responses in green and chlorotic sectors of *Arabidopsis* leaves. *Funct. Plant Biol*.
- Yabas, M., Teh, C. E., Frankenreiter, S., Lal, D., Roots, C. M., Whittle, B., Andrews, D. T., Zhang, Y., Teoh, N. C., Sprent, J., Tze, L. E., Kucharska, E. M., Kofler, J., Farrell, G. C., Broer, S., Goodnow, C. C. and Enders, A. ATP11c is critical for the internalization of phosphatidylserine and differentiation of B lymphocytes. *Nature Immunol*.

Banner image: Actin microfilaments in epidermal cells of an *Arabidopsis* leaf revealed by labelling with a fluorescently-tagged actin-binding protein. The image is a composite of 31 optical sections taken with a Zeiss confocal microscope and encompasses a total z-axis depth of 17.5 μ m. Image & caption: Adrienne Hardham.



This newsletter is published monthly, and is archived at <http://biology.anu.edu.au/newsletter>. Please contact [Sharyn Wragg](#) to submit material for future issues, or to be added to our newsletter mailing list. Editing: Kieran Kirk and Sharyn Wragg. Design and layout: Sharyn Wragg.