

# NEWSLETTER



## NEWS

**ISSUE 24** | 05 NOVEMBER 2010

### BOOK LAUNCH

Janine Deakin, Paul Waters and Jenny Graves are editors of a book called "Marsupial Genetics and Genomics" that was launched at the ANU Co-op bookshop on 27th October.



### VC AWARD

Steve O'Connor, School Manager, is to receive the *Vice-Chancellor's Award for Innovation and Excellence in Service Quality* at the forthcoming Awards Ceremony on 16 November. Steve's award is for his key role in the formation of the School,



his role in overseeing financial matters in the School and his role in heading the School's General Staff.

### COUNCIL ELECTION

Jochen Zeil, EEG, has been elected to the Council of the [International Society for Neuroethology](http://www.international-society-for-neuroethology.org).

### ULTIMATE FRISBEE PREMIERS

The EEG ultimate frisbee team, 'Darwin's Finches,' won the grand finale of the lunch time frisbee comp on Monday 25, scoring three points in a row to win 7-6.

### ARC GRANTS

Members of the School achieved some notable successes in the recent ARC grant round (see below for details). Particular congratulations to Naomi Langmore, EEG, and Shunichi Takahashi, PS, who were both awarded five year ARC Research Fellowships.

### DISCOVERY GRANTS

Marilyn C Ball, Gary J Bryant, Lawren Sack, Noel M Holbrook

**Coping with temperature extremes: morphological constraints on leaf function in a warmer, drier climate**  
2011-2013 (\$315 K)

Marcel Cardillo, Lindell D Bromham  
**Origins of a biodiversity hotspot flora: diversification of the Australian Proteaceae**  
2011-2013 (\$390 K)

Graham D Farquhar, Michael L Roderick  
**Tree water use, bushfires, and the implications for urban and rural water supplies**  
2011-2013 (\$335 K)

Adrienne Hardham  
**Transcriptome profiling of Phytophthora pathogenicity genes: regulation of cell wall degrading enzyme synthesis during**

**plant infection**  
2011-2013 (\$375 K)

Naomi E Langmore, Robert Heinsohn, Rebecca M Kilner, Robert C Lacy  
**Cuckoo – host coevolution: a model system for investigating the impact of climate change**

**on interspecific interactions and biodiversity**  
2011-2015 (\$4,220 K)

Anthony A Millar, Ming-Bo Wang  
**Plant microRNA systems: investigating slicing versus translational repression and the development of an anti-viral defence mechanism**  
2011-2013 (\$270 K)

John P Rathjen  
**Molecular characterisation of the Prf bacterial recognition complex of tomato**  
2011-2013 (\$425 K)

Iain R Searle, David J Tremethick, Christopher A Helliwell  
**Identifying components of a novel imprinting mechanism that regulates seed size in plants**  
2011-2013 (\$210 K)

Shunichi Takahashi  
**Understanding the mechanisms of thermal acclimation in the symbiotic algae (*Symbiodinium*) within cnidarian corals**  
2011-2015 (\$600 K)

Susanne Von Caemmerer  
**Using *Arabidopsis* mutants to discover the role of guard cell**

[continued overleaf]

### CONGRATULATIONS

Jianbin Wang, PhD student, Saint, EEG, who has been awarded his PhD.

Gabrielle Lockett, Maleszka lab, EEG, has submitted her PhD thesis.

Alison Knight from Carolyn Behm's lab, BSB, won the Australian Society for Parasitology prize for the best student poster at the International Congress of Parasitology for her poster entitled 'The nematode protein VHA-19 has a critical role in secretion by oocytes'.

### WELCOME

Dr Vra, Visiting Fellow with Rod Peakall, EEG, until October 2011

Christopher Cvitanovic, PhD student with the Chris Fulton Lab, EEG

Jose Ramirez, Visiting Fellow with Adrienne Nicotra, EEG, until April 2011. Jose is from the Polytechnic University of Madrid and will be working on phenotypic plasticity and local adaptation in Alpine plants and *Pelargonium* species.

Jinzi Yang, PhD student in Carolyn Behm's lab, BSB. Jinzi has been awarded a PhD scholarship from the China Scholarship Council and will undertake a research project on nematode olfactory receptors, in a collaboration with Drs Alisha Anderson and Stephen Trowell (CSIRO Ecosystems Sciences).

### FAREWELL

Farewell to Lisa McEwan who has worked as a research assistant and Honours student in Carolyn Behm's lab, BSB, for the past two years. Lisa has been appointed to a position in Canberra at AQIS.

## NOTICES

### DIRECTOR'S SERIES SEMINAR

Australian Laureate Fellow Hanna Kokko 'Ecology and evolution: why they should form a two-way street' Wednesday 24 November, 3-4pm, refreshments in the foyer to follow. Robertson Lecture Theatre.

### RSB END-OF-YEAR WRAP-UP AND CHRISTMAS PARTY

Friday 17 December, from 3pm. Robertson Lecture Theatre followed by a School barbecue in the Robertson Building's Japanese courtyard.

This newsletter is distributed monthly by email and hard-copy, and is archived at <http://biology.anu.edu.au/Newsletter>. Please contact Sharyn Wragg to submit material for future issues.

chloroplasts in the stomatal response to light  
2011-2013 (\$315 K)  
  
Susanne Von Caemmerer, John R Evans, Margaret M Barbour  
Oxygen isotope discrimination during C4 photosynthesis.  
2011-2013 (\$330 K)  
  
Daniel S Falster, Hanna Kokko, S. J Wright

Putting adaptation into vegetation models: towards a predictive theory of trait diversity and stand structure  
2011-2013 (\$310K)  
  
LINKAGE GRANTS  
  
William J Foley, Gavin F Moran, Jonathan Gershenzon  
Improving production of essential oils from Australian trees

2011-2013 (\$320 K)  
  
Rod Peakall, Kingsley W Dixon, Celeste Linde  
Above and below-ground specialisation in Australian orchids and its implications for diversification and vulnerability  
2011-2013 (\$460 K)  
  
Peter S Solomon, Scott D Bringans, Richard J Lipscombe

The development of mass spectrometry techniques for mapping post-translational modifications in the wheat pathogen *Stagonospora nodorum*  
2011-2013 (\$90 K).

## PAPERS ACCEPTED

- Allen, R.S., Li, J., Alonso-Peral, M.M., White, R.G., Gubler, F. and Millar, A.A. MicroR159 regulation of most conserved targets in *Arabidopsis* has negligible phenotypic effects. *Silence*
- Alonso-Peral, M.M., Li, J., Li, Y., Allen, R.S., Schnippenkoetter, W., Ohms, S., White, R.G., Millar, A.A. The microR159 regulated *GAMYB-like* genes inhibit growth and promote programmed cell death in *Arabidopsis*. *Plant Physiology*
- Ashwell, K.W.S. and Marotte, L.R.. Stereotaxic atlas of the brain of the tammar wallaby (*Macropus eugenii*). In: The Neurobiology of Australian Marsupials, ed: KWS Ashwell, Cambridge University Press. 2010
- Ashwell, K.W.S., Marotte, L.R. and Mai, J.K. Atlas of the brain of the developing tammar wallaby (*Macropus eugenii*). In: The Neurobiology of Australian Marsupials, ed: KWS Ashwell, Cambridge University Press. 2010
- Bailey, C.G. Ryan, R.M., Thoeng, A.D. Ng, C. King, K., Vanslambrouck, J.M., Auray-Blais, C., Vandenberg, R.J., Bröer, S., Rasko, J.E.J. *SLC1A1* loss-of-function mutations cause human dicarboxylic aminoaciduria *Journal of Clinical Investigation*
- Bruhn, D., Mikkelsen, T.N., Herbst, M., Kutsch, W.L., Ball, M.C., and Pilegaard, K. Estimating daytime ecosystem respiration from eddy-flux data. *Biosystems*
- Carle, C.F., Maddess, T., Kolic, K., Essex, R.W., James, A.C. Contraction anisocoria: segregation, summation and saturation in the pupil light reflex pathway. *Invest. Ophthalm. Vis. Sci.*
- Delgado, M.D.M, Ratikainen, I.I. & Kokko, H. Inertia: the discrepancy between individual and common good in dispersal and prospecting behaviour. *Biological Reviews*
- Drayton, J.M., Milner, R., Hall, M., Jennions, M.D. The effect of inbreeding on courtship calling in the cricket *Teleogryllus commodus*. *Journal of Evolutionary Biology*
- Faham, A. and Altin, J.G. Ag-bearing liposomes engrafted with peptides that interact with CD11c/CD18 induce potent Ag-specific and anti-tumor immunity. *International Journal of Cancer*
- Fritsch, C., Lanfear, R. and Ray, R. Rapid Evolution of a Novel Signalling Mechanism by Concerted Duplication and Divergence of a BMP Ligand and its Extracellular Modulator. *Development Genes and Evolution*
- Herrington, T.P., Altin J.G. Increasing the anti-tumor efficacy of doxorubicin-loaded liposomes with peptides anchored via a chelator lipid. *Journal of Drug Targeting*
- Ho, S.Y.W., Lanfear, R., Phillips, M.J., Barnes, I., Thomas, J.A., Kolokotronis, S.-O., and Shapiro, B. Bayesian estimation of substitution rates from ancient DNA sequences with low information content *Systematic Biology*
- Lanfear, R. The local-clock permutation test: A simple test to compare rates of molecular evolution on phylogenetic trees. *Evolution*.
- Lanfear, R., Ho, S.Y.W., Love, D., and Bromham, L. Mutation rate is linked to diversification in birds. *PNAS Proc. Natl. Acad. Sci. USA*.
- Maddess, T. The influence of sampling errors on test-retest variability in perimetry. *Invest. Ophthalm. Vis. Sci.*
- Marotte, L.R., Leamey, C.A. and Waite, P.M.E. Somatosensory System. In: The Neurobiology of Australian Marsupials, ed: KWS Ashwell, Cambridge University Press. 2010
- Marotte, L.R., Waite, P.M.E. and Leamey, C.A. Australian marsupials as models of brain development. In The Neurobiology of Australian Marsupials, ed: KWS Ashwell, Cambridge University Press. 2010.
- Medek, D.E., Evans, J.R., Schortemeyer, M. and Ball, M.C. Effects of growth temperature on photosynthetic gas exchange characteristics and hydraulic anatomy in leaves of two cold climate *Poa* species. *Functional Plant Biology*
- O'Brien, B.J., Hirano, A.A., Buttermore, E.D., Bhat, M.A. Peles, E. Localization of the paranodal protein Caspr in the mammalian retina, *Molecular Vision*, 16
- Sabeti, F., James, A.C., Maddess, T. Spatial and temporal stimulus variants for multifocal pupillometry of the central visual field. *Vision Res*
- Schwarz, S., Narendra, A., Zeil, J. The properties of the visual system in the Australian desert ant *Melophorus bagoti*. *Arthropod Structure & Development*
- Reid, S.F., Narendra, A., Hemmi, J.M., Zeil, J. Polarised skylight and the landmark panorama provide night active bull ants with compass information during route following. *Journal of Experimental Biology*
- Wilson, A. Howitt, S., Wilson, K. and Roberts, P. Academics' perceptions of the purpose of undergraduate research experiences in a research-intensive degree. *Studies in Higher Education*
- Wong YC, Lin LCW, Melo-Silva CR, Smith SA, and Tschärke DC. (2010). Engineering recombinant poxviruses using a compact GFP-blasticidin resistance fusion gene for selection. *J. Virol. Methods*