



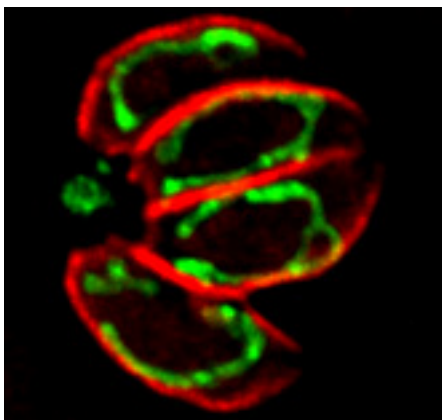
NEWS

Raman Spectrometer

A team from RSB and the Research School of Chemistry have been successful in securing \$200K from the ANU's Major Equipment Committee for a FT-Raman spectrometer for chemical analysis of a range of materials. The Raman analysis uses infrared laser radiation as a non-destructive probe of molecular structure. The spectrometer will be delivered in a few months and housed in RSB. The FT-Raman instrumentation provides a new tool to analyse photosensitive and fluorescent materials and will assist research into biofuels, artificial photosynthesis, and organometallic nanomaterials.

New DeltaVision Microscope

The School has recently had installed an inverted deconvolution (DeltaVision Elite) microscopy system that is ideal for live cell imaging of microorganisms. The microscope is currently equipped with a four-filter set, 60X and 100X lenses, and is housed within an environmental chamber that enables the control of temperature, humidity and gas conditions. This system enables time-lapse imaging of live cells and has features such as integrated cell tracking and multi-point visiting. If you'd like to find out more, please contact **Giel van Dooren** or **Alex Maier** (both in BSB).



An image taken with the new microscope: *Toxoplasma tachyzoites* with the pellicle labeled in red and the mitochondrion in green. Image: Giel van Dooren.

Walking with Ants

Ajay Narendra (EEG) led a group of thirty Canberrans aged from four to eighty years old for the sixth consecutive year of the



Green headed metallic ant, *Rhytidoponera metallica*. Image: Ajay Narendra

annual Ant Walk at Mt Majura (organised by the Friends of Mt Majura) and at Mt Ainslie (organised by the Mt Ainslie Weeders). The group spotted about 40 ant species, the highlight being the flying ants and green headed metallic ants.



Volunteers preparing for the Ant Walk

Women's Day Champions

Lindell Bromham (EEG) and **Bill Speed** (Workshop Manager) were named as 2012 International Women's Day Champions, in an award programme coordinated by the ANU's Diversity and Inclusion Section. Award recipients were chosen for their work to improve women's career opportunities, to help women achieve a better work/life balance, to raise the profile of women, and to act as mentors or coaches for women.

WELCOME

Claire Anderson has commenced work in the Jones Lab (PS) on an ARC Discovery Project to identify and characterise a pathogen meta-effector able to suppress the detection of multiple disease effectors by resistant host plants. Claire is a former PhD student from the Jones Lab who worked as a postdoctoral fellow at CSIRO Plant Industry in Adelaide and at the University of

Florida before returning to Canberra.

Laura Rolston also joins the Jones Lab (PS) as a PhD student working on the identification and functional characterisation of fungal effectors of disease in plants. Laura graduated from the University of Otago and worked at Plant and Food Research New Zealand before starting her PhD.

Bárbara Quinan is a PhD student from the Universidade Federal de Minas Gerais in Belo Horizonte, Brazil and is doing a year of her research in the Tschärke Lab (BSB). Bárbara is studying immune responses to a set of recombinant vaccines for Dengue virus that she has made in the first part of her PhD.

Vinson Tran has begun his PhD working in the O'Neill Lab (BSB) on the molecular interactions which control hematopoiesis in the spleen.

Ilana Medina and **Amanda Edworthy** will be commencing IPRS PhD scholarships with the Langmore lab (EEG). Ilana comes from Colombia and will be working on brood parasitism in shining bronze-cuckoos. Amanda comes from Canada and will be working on conservation of the endangered forty-spotted pardalote.

Jo McLanders will be working with the Millar lab (PS) as a PhD student with CSIRO, investigating the role of small RNA and their role in the RNA-directed DNA methylation pathway in *Arabidopsis thaliana* after *Fusarium oxysporum* infection.

Denise Higgins will be working with Susan Howitt (BSB) and Anna Wilson (RSPE) on their ALTC funded project investigating what students learn from undergraduate research projects. Denise was previously at the

Lab Leader Profile Sylvain Foret, EEG



Researching: "I use bioinformatics and molecular techniques to understand how a genome works, and the interaction between genome and environment. I have focussed mainly on honeybees and corals."

Greatest achievement: "I assembled the first animal genome entirely sequenced in Australia, that of the coral *Acropora millepora*."

Next big thing: "To understand how epigenomic regulation underlies higher levels of complexity. I am interested more specifically in the emergence of multicellularity and of eusocial superorganisms."

Science hero: "I would choose Aristotle for the breadth of his work and the extent of his legacy. He created formal logic, but was also a very keen observer of nature, in particular, of marine invertebrates and honey bees."

Science Teaching and Learning Centre and was instrumental in setting up the Peer Assisted Learning programme now running for our first year students.

Welcome as well to **Marta Vidal-Garcia** (PhD Student - Keogh Lab, EEG), **Bokyung Choi** (PhD Student - Crisp Lab, EEG), **Eleanor Stalenberg** and **Carlos Bustos-Segura** (PhD Students - Foley Lab, EEG), **Meisha Holloway-Phillips** (Postdoc - Nicotra Lab, PS) and **Amy Shergold** (Visiting Fellow - Backwell Lab, EEG).

FAREWELL

Alison Knight, who has been with the Behm lab (BSB) since 2005 as a PhD student and post-doc, has taken up a position at IP Australia.

CONGRATULATIONS

Tonya Haff (Magrath lab, EEG) submitted her thesis entitled "Parent-offspring communication under the risk of predation

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in the white-browed scrubwren".

Pravin Periasamy's (O'Neill Lab, BSB) PhD thesis was passed without any revision. Pravin is now working as a postdoc in the O'Neill Lab on stromal cells which form hematopoietic niches in the spleen.

William Feeney (Langmore lab, EEG) has been awarded a Vice-Chancellor's HDR Travel Grant for Cross-Institutional Study (\$2000) and an IARU Travel Grant (\$1500) to travel to Cambridge University.

Natalie Spillman's (Kirk lab, BSB) PhD thesis was passed with minimal corrections. Natalie is currently working as a postdoc in the Kirk lab before taking up a postdoctoral position at the Washington University in St Louis, mid-year.

Danswell Starrs, (Fulton lab, EEG) has received two grants. Firstly, \$700 from the Linnean Society of New South Wales for research on behavioural interactions between native and invasive freshwater fishes, and \$2700 from the Wet Tropics management Authority for research on enriched stable isotope labelling of freshwater fishes.

MEDIA

Amber Beavis' (Rowell lab, EEG) commentary on spiders ballooning to escape floodwaters in NSW featured in several publications including the [ABC blogs](#), [The Sydney Morning Herald](#) and the [Canberra Times](#).

Michael Crisp's (PS) commentary on the possible introduction of the cabbage palm to Australia by aborigines featured on ABC Darwin radio.

Chris Fulton (EEG) was featured on extended interviews on [ABC Radio](#) and on [Fuzzy Logic](#) on 2XX regarding marine protected areas.

PAPERS ACCEPTED

Arkell, R. M., & Tam, P.P.L. Initiating head development in mouse embryos: integrating signalling and transcriptional activity. *Open Biology*.

Attenborough, R.M.F., Hayward, D.C., Kitahara, M.V., Miller, D.J. & Ball, E.E. A "neural" enzyme in non-bilateria animals and algae: Pre-neural origins for peptidylglycine α -amidating monooxygenase (PAM). *Molecular Biology and Evolution*

Broer S., & Gether U. The solute carrier family 6. *British Journal of Pharmacology*

Cheng, Y., Stuart, A., Morris, K., Taylor, R., Siddle, H.V., Deakin, J.E., Jones, M., Amemiya, C.T., & Belov, K. Antigen-presenting genes and genomic copy number variations in the Tasmanian devil MHC. *BMC Genomics*.

Deakin, J.E., & Belov, K. A comparative genomics approach to understanding transmissible cancer in Tasmanian devils. *Annual Review of Genomics and Human Genetics*.

Edwards, M.J., Hinds, L.A., Deane, E., & Deakin, J.E. A review of complementary mechanisms which protect the developing marsupial pouch young. *Developmental and Comparative Immunology*.

Feeney, W.E., Welbergen, J.A., & Langmore, N.E. The front-line of avian brood parasite-host coevolution. *Animal Behaviour*.

Hassan, S., & Mathesius, U. Roles for Flavonoids in symbiotic root-rhizosphere interactions. In: *Molecular Microbial Ecology of the Rhizosphere*. (F. de Bruijn, Ed.) John Wiley & Sons.

Jin, J., Watt, M. & Mathesius, U. The autoregulation gene SUNN mediates changes in root organ formation in response to nitrogen through alteration of shoot-to-root auxin transport. *Plant Physiology*.

Kokko, H. & Mappes, J. Multiple mating by females is a natural outcome of a null model of mate encounters. *Entomologia Experimentalis et Applicata*.

Kornfeld, A., Horton, T., Yakir, D., Searle, S., Griffin, K.L., Atkin, O.K., Subke J., & Turnbull, M.T. A field-compatible method for measuring alternative respiratory pathway activities in vivo using stable O2 isotope. *Plant Cell and Environment*.

O'Neill, H.C. Niches for extramedullary hematopoiesis in spleen. *Niche: Journal of Cellular Therapy and Regenerative Medicine*.

Poorter, H., Atkin, O.K., Finck, A., Fiorani, F., Gibon, Y., Munns, R., Pons, T., Schurr, U., Stitt, M., Tardieu, F., & Usadel, B. The art of growing plants for experimental purposes; a practical guide for the plant biologist. *Functional Plant Biology*.

Starrfelt, J. & Kokko, H. The multicausal nature of dispersal. In: *Informed Dispersal and Spatial Evolutionary Ecology* (J.

Clobert, M. Baguette, T. Benton and J. Bullock, eds.) Oxford University Press.