

NEWSLETTER

NEWS

RSB ARC AND NHMRC GRANT SUCCESS

Staff of the School have achieved outstanding results in the recently-announced ARC and NHMRC grant round, gaining twelve ARC Discovery Grants, two ARC Linkage Grants and seven NHMRC Project Grants, as well as an NHMRC Principal Research Fellowship awarded to Shin-Ho Chung (BSB). The School's success rate for both the ARC Discovery and NHMRC Project Grant schemes was 32%. The full details are set out overleaf. Congratulations to all concerned.

BUILDING 46 NAMED

The Vice-Chancellor has approved that Building 46 (aka the RSBS building) be named the 'R N Robertson Building.'

As many will be aware, Sir Rutherford Ness (Bob) Robertson (after whom the Robertson lecture theatre is named) was the second Director of RSBS. An account of his life and scientific career can be found [here](#), and a history of the building [here](#).



AUSTRALASIAN SCIENCE PRIZE

Dr Michael Roderick, of the Research School of Biology and the Research School of Earth Sciences, has been awarded the 2009 Australasian Science Prize for climate change research into water evaporation rates in Australia and around the world.

Now in its tenth year, the Australasian Science Prize recognises outstanding achievement by an Australasian scientist or small research team.

This is the second time the prize has been awarded to staff in RSB. In 2001, Professor Mandyam Srinivasan, Dr Shaowu Zhang and Dr Javaan Chahl were awarded the prize for their work on bee behaviour.



Above: Peter Pockley (Senior Correspondent, *Australasian Science*), Brian Kennett (RSES), Guy Nolph (Editor, *Australasian Science*), Michael Roderick and Kieran Kirk. Image Credit: Stuart Hay. Left: Spencer Whitney, Michael Roderick and Owen Atkin at the Prime Minister's Awards.

RSB MEDIA COVERAGE

A new paper by Richard Millner, Michael Jennions and Pat Backwell (EEG) on crabs and sex has received a lot of media coverage (eg, [Female crabs 'exchange sex for protection'](#).)

Trevor Lamb, Ian Morgan and Krisztina Valter (BSB) were interviewed for ABC's *All In The Mind* radio program. A transcript of the episode *The eyes have it! Deep time and future vision* can be [viewed here](#), or [listen to the audio](#).

ISSUE 10 | 6 NOVEMBER 2009

CONGRATULATIONS

Alvin Pratama, a PhD student in the Ball/Hayward lab (EEG), was a joint winner of the prize for the best talk at the recent PhD Student Conference 2009. The title of Alvin's talk was *Investigation of taxonomically restricted genes in the coral, Acropora millepora*

Kelly Debono (Team Leader, Animal Services) is to receive a Vice-Chancellor's Award for Innovation and Excellence in Service Quality for her contribution, on going support and involvement in animal facilities and staff training across the campus.



Angelika Bröer (BSB) is to receive a Vice-Chancellor's Award for Career Achievement, in recognition of her outstanding contribution to the research carried out in the Bröer Lab.



Congratulations to Deyun Qui (PS) and Yan who had a big, beautiful boy (4.3kg!!!) last Sunday. Baby, mum and dad are well and happy.

WELCOME

Olle Lind, a PhD student from Lund University, Sweden, will spend the next seven weeks at the ARC Centre of Excellence in Vision Science. Olle will be working with Shaun New and Jan Hemmi (EEG) investigating the visual optics and retinal specialisations of the Jacky dragon, *Amphibolurus muricatus*.

FAREWELL

Fiona Shaw of OzDros (MGE) and the Plant Animal Culture is leaving RSB to take on a new role with Australian Bioscience Services.

NOTICES

ANU PUBLIC LECTURE SERIES

16 November, 5-6pm
Finkel Theatre, JCSMR
Climate Change and Global Health.
Professors Tony McMichael and John Mackenzie.

HAPPY HOUR

The next happy hour will be in the Banks-Gould building, Friday 13 November from 4:30pm.

This newsletter is distributed fortnightly by email and hard-copy, and is archived at <http://biology.anu.edu.au/Newsletter>. Contact [Diane Whitehead](#) to be added to the mailing list, and submit material for future issues.

GRANTS AWARDED

NHMRC PROJECT GRANTS

A/Pr Michael Ibbotson, Dr Shaun Cloherty, Dr Brendan O'Brien
Determining the electrical stimulation parameters required to program the Bionic Eye to effect vision. \$364,750

Prof Ryszard Maleszka, Dr Jennifer Cornish, Dr Andrew Barron
Molecular memory: how DNA methylation contributes to spatial memory. \$465,500

Prof Helen O'Neill
Characterisation of an antigen presenting cell unique to spleen. \$405,600

Dr Shin-Ho Chung
Theoretical and Computational Studies on Voltage-Gated Potassium (Kv) Channels. \$412,500

Dr Kevin Saliba, Prof Kieran Kirk, Dr Alexander Maier, Prof Leann Tilley
The Na⁺/H⁺ exchanger and H⁺-pumping pyrophosphatases of the malaria parasite. \$640,875

Prof Stefan Broer, Prof Joachim Deitmer, Prof Carsten Wagner, Dr Megan O'Mara

The role of the glutamine transporter SNAT3 in ion transport, cell signaling and ammonia detoxification. \$379,125

Dr Catherine Leamey (University of Sydney), Dr Lauren Marotte, Dr William Phillips. The role of Ten_m3 in patterning ipsilateral retinal projections. \$437,050.

ARC DISCOVERY GRANTS

Dr OK Atkin; Dr JR Evans; Dr MG Tjoelker; Dr SA Sitch; Prof JJ Lloyd
Leaf respiration under drought: a global perspective. \$330,000

Prof MC Ball; Dr CE Lovelock; Dr B Choat; Dr L Sack
Salinity tolerance along an aridity gradient: linking physiological processes with morphological constraints on leaf function in mangroves. \$326,000

Dr A Catanzariti; Dr M Rep (APD for Dr A Catanzariti)
Pathogen recognition and plant defence activation by a novel *Fusarium* wilt resistance protein from tomato. \$330,000

Prof WS Chow
Probing the four photosynthetic

membrane protein complexes at work in situ in leaves. \$268,000

Prof A Cockburn; Dr M van de Pol; Dr LE Kruuk (APD for Dr M van de Pol)

Fitness in free living populations in a changing world. \$626,000

Dr MA Djordjevic; Prof LN Mander; Prof CR Parish
New functions for bioactive flavonoids in plants and mammals. \$390,000

Prof GD Farquhar
Carbon uptake and water use by plants: is there prestomatal control? \$729,554

Prof AR Hardham; Dr DA Jones; Dr PN Dodds; Dr JG Ellis
Role of fungal secreted proteins as plant disease effectors. \$330,000

Prof R Maleszka
Epigenetic integration of genomic and environmental information in honey bees. \$570,000

Prof R Peakall; Dr RA Barrow; Prof E Pichersky
The chemical, biochemical, genetic and ecological basis of pollinator driven speciation in Australian

sexually deceptive orchids. \$315,000

A/Prof GD Price; Prof MR Badger; Prof CA Kerfeld
How do nanomolecular carboxysome protein structures function in alpha and betacyanobacteria and can we use them for novel reaction compartmentalisation? \$327,000

Dr PD Waters; Dr JE Deakin; Prof JA Graves
Epigenetic silencing in vertebrates: evolution and function from the bottom up. \$315,000

ARC LINKAGE GRANTS

Dr Lindell D Bromham, Prof David J Cantrill, Dr Daniel J Murphy, Prof Dr Timothy J Flowers, Prof Darren M Crayn
Evolution of halophytes: a phyloinformatic approach to understanding and exploiting the traits underlying salt tolerance in plants. \$233,000

Dr David A Jones, Mr Des J McGrath
Protecting tomato crops from *Fusarium* wilt through the efficient application of new genetic resources. \$80,007.

PAPERS ACCEPTED

Abramyan, J., Ezaz, T., Graves, J.A.M., Koopman, P. Z. W sex chromosomes in the cane toad (*Bufo marinus*) *Chromosome Research*.

Alonso H., Blayney M.J., Beck J.L., Whitney S.M. Substrate-induced assembly of *Methanococcoides burtonii* D-ribulose-1,5-bisphosphate carboxylase/oxygenase dimers into decamers. *J Biol Chem*.

Ashby, R.S., Megaw, P.L., Morgan, I.G. Changes in retinal expression of α B-crystallin RNA transcripts during periods of altered ocular growth in chickens. *Experimental Eye Research*.

Davies, S.B., Chui J., Madigan, M.C., Provis, J.M., Wakefield, D., Girolamo, N. Stem cell activity in the developing human cornea. *Stem Cells*.

Fotadar R, Wang, J.J., Burlutsky, G., Morgan, I.G., Rose, K.A., Wong, T.Y., Mitchell, P. Distribution of axial length and ocular biometry measured using partial coherence laser interferometry (IOL Master) in an older white population. *Ophthalmology*.

Flesch, I.E., Woo Y.-P., Wang Y., Panchanathan, Wong, V.Y.-C., La Gruta, N. L., Cukalac T., Tschärke D.C. Altered CD8⁺ T cell immunodominance after vaccinia virus infection and the naïve repertoire in inbred and F1 mice. *J. Immunol*.

Gorsuch, P., Pandey, S. and Atkin, O.K. (2009). Temporal heterogeneity of leaf structural and metabolic phenotypes in response to sustained cold treatments. *Plant, Cell and Environment*.

Haff, T. M. and Magrath, R.D. Vulnerable but not helpless: nestlings are fine-tuned to cues of approaching danger. *Animal Behaviour*.

Kozulin, P., Provis, J.M. Differential gene expression in the developing human macula: Microarray analysis using rare tissue samples. *J Ocular Biology, Disease and Informatics*.

Kozulin, P., Natoli, R., Bumsted O'Brien, K., Madigan, M.C., Provis, J.M. Gradients of EphA6 expression in primate retina suggest a role in vascular patterning and definition of the foveal avascular area. *Molecular Vision*.

Martin, K.C. and Bruhn, D., Lovelock C.E, Feller I.C., Evans J.R., Ball M.C. Nitrogen fertilisation enhances water use efficiency in a saline environment. *Plant, Cell and Environment*.

Miller, D.J., Ball, E.E. The gene complement of the ancestral bilaterian-was Urbilateria a monster? *Journal of Biology*.

Morgan, I.G., Rose, K.A., Ellwein, L.B. and the RESC Study Group. Is emmetropia the end-point for human refractive development? An analysis using data from the refractive error study in children surveys, *Acta Ophthalmologica*.

Murchison, E.P., Hsu, A., Bender, H.S., Tovar, C., Pouya, K., Rebbeck, C., Conlan, C., Obendorf, D., Pyecroft, S., Blizzard, C.L., Dickson, C., Kreiss, A., Kellis, M., Stark, A., Harkins, T.T., Speed, T.P., Woods, G.M., Graves, J.A.M., Hanson, G.J. and Papenfuss, A.T. Schwann cell origin of a clonally transmissible cancer in Tasmanian devils. *Science*.

Rodriguez-Calcerrada, J., Atkin, O.K., Robson, M., Zaragoza-Castells, J., Gil, L., Aranda, I. Thermal acclimation of leaf dark respiration of beech seedlings experiencing summer drought in high and low light environments.