



NEWS

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NHMRC GRANTS ANNOUNCED

David Tscharke (BSB) has been awarded a \$562K NHMRC project grant to investigate the quantification of antigen presentation to CD8 T cells during virus infection. The project will entail applying cutting-edge technology to gain the first holistic view of how a virus-infected cell looks to the immune system.

Ted Maddess (BSB) has been awarded a \$436K NHMRC grant to pursue novel functional testing for early diabetic retinopathy. About 6% of Australian adults have diabetes and up to 60% of patients will show some eye damage within 6 years of diagnosis. The project will involve looking at a diagnostic method for characterising damage to the eyes by diabetes in order to help physicians limit damage to its earliest stages.

ADVISOR TO CHINESE ACADEMY OF SCIENCES

Michael Roderick (PS) has

been invited to be an adviser to the Chinese Academy of Sciences on their agricultural water programs.

PLoS ONE EDITOR

Jochen Zeil (EEG) has accepted an invitation to join the Editorial Board of PLoSOne.

DUTCH CLIMATE CHANGE RESEARCH AT RSB

Martijn van de Pol (EEG) is co-investigator on a new project 'Resilience of plant and bird communities under climate change scenarios' with chief investigator Professor Hans de Kroon (Radboud University, the Netherlands), funded by the Netherlands Organisation for Scientific Research.

WELCOME

Mae Noble joins us as a Research Officer in the Fulton Lab (EEG).

Wendy Dimond joins the Langmore Lab (EEG) as a Research Officer.

The Kokko lab (EEG) has grown this month to a team of

eight, swelled by new arrivals **Luke Holman** (formerly of Copenhagen and Sheffield), **Ruben Requejo-Martinez** (visiting from Barcelona), **Anna Harts** (soon arriving as a PhD student), as well as long-term RSB-ers **Rob Lanfear**, **Kate Umbers** and Honours student **Jonathan Henshaw**. The 'Kokkonuts' work on diverse questions in evolution and ecology, using a range of theoretical and empirical approaches.

FAREWELL

Delphine Vincent has finished her two year postdoc position in the Solomon lab (PS).

RSB OKTOBERFEST

RSB will once again celebrate Oktoberfest with German themed beer, food and music. The event will be held on Friday 4 November in the Robertson Building Courtyard. All welcome.

MEDIA

Photos from **Michael Whitehead's** (Peakall lab, EEG) [media release](#) on using microdots (see below) to track wasps, was featured in the [gallery](#) of most Fairfax websites.



Sophia Callander's (Backwell/Jennions labs, EEG) robotic crab work was featured on the Discovery Channel's [Daily Planet Discoveries](#) (14 September) and on [New Scientist TV](#).

Pat Backwell (EEG) was interviewed by [ABC Central Australia](#) about her work on fiddler crabs on the East Coast Reserve.

Susanne von Caemmerer (PS) was featured in [Australian Life Scientist](#) about her work on C4 photosynthesis.

Conrad Hoskin (Keogh lab, EEG) received some media coverage for his [media release](#) on the discovery of a new boulder frog.

LAB LEADER SPOTLIGHT – STEFAN BRÖER, BSB



Lab Members: Angelika Bröer, lab manager; Torsten Juelich, postdoc; Farid Rahimi, postdoc; Steven Fairweather, PhD; Emrah Tumer, PhD; Sarojini Balkrishna, PhD; Pey-Chuan (Tina) Lyu, Honours

Currently researching: Molecular nutrition. "We are interested in the molecules that take up and digest nutrients; how they allow our body to take up all the nutrients we eat. In particular my lab is specialised in membrane proteins."

Lab's greatest achievement: "I had one key publication in 2004 describing the discovery of a gene/protein involved in a rare human condition called Hartnup disorder, where you have a malfunction of protein digestion. It's always a goal in medical research to find a gene that causes a certain disease. And you know this is the protein that we discovered and your name will always be attached to that disease."

The next big thing: "There are two things that are happening in my field. We are interested in the step of how nutrients get from the outside to the inside of the cell. People want to know the molecular structure of these transport proteins and what signals these nutrients send to your body. And the other one is the cancer nutrition. We want to find out which metabolic pathways or transporters are essential for cancer cells but may not be essential for other cells so we can get a possible cancer treatment."

Science hero: Halvor Christensen. "He was one of the first people to deal with the question of amino acid transporters and his research was really long lasting. We still look at his publications and look at his ideas today. He certainly left a legacy".

PUBLICATIONS

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- Bröer, S. Targeting tumour cells at the entrance. *Biochemical Journal*.
- Brouwer, L., van de Pol, M., Atema, E. & Cockburn, A. Strategic promiscuity helps avoid inbreeding at multiple levels in a cooperative breeder where both sexes are philopatric. *Molecular Ecology*.
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- Cazzonelli, C.I. Carotenoids in nature: insights from plants and beyond. *Functional Plant Biology*.
- Crisp, M. D. & Cook, L. G. Cenozoic extinctions account for the low diversity of extant gymnosperms compared with angiosperms. *New Phytologist*.
- Fahim, M., Mechanicos, A., Ayala-Navarette, L., Haber, S., & Larkin, P.J. Resistance to Wheat Streak Mosaic Virus in Australia – a Survey of Resources and Development of Markers. *Plant Pathology*.
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- Jähnichen, S., Long, B.M., & Petzoldt, T. Microcystin production by *Microcystis aeruginosa*: Direct regulation by multiple environmental factors. *Harmful Algae*.
- Jennions, M.D., & Kokko, H. Sexual selection: mate choice. In: *The Princeton Guide to Evolution* (Losos, J., Baum, D., Futuyma, D.J., Hoekstra, H., Lenski, R., Moore, A., Schluter, D., & Whitlock, M., eds.). Princeton University Press.
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- Kokko, H. & Jennions, M.D. Sex differences in parental care. In: *The Evolution of Parental Care* (Royle, N., Smiseth, P.T. & Kölliker, M. eds.). Oxford University Press.
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This newsletter is published monthly, and is archived at <http://biology.anu.edu.au/newsletter>. Please contact [Casey Hamilton](#) to submit material for future issues, or to be added to our newsletter mailing list.
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