



Rat research a PM Prize-winner

The Prime Minister's Science Prizes are New Zealand's most valuable science awards, introduced to raise the profile and prestige of science.

Three of the five winners for this year have connections with the University.

Dr James Russell from the School of Biological Sciences and the Department of Statistics, who is internationally recognised for his research on conservation, has been presented with the 2012 Prime Minister's MacDiarmid Emerging Scientist Prize. The Prime Minister's Science Teacher Prize has been awarded to Peter Stewart, an alumnus of the University, and the Prime Minister's Future Scientist's Prize has been presented to Hannah Ng, a Year 13 student at St Cuthbert's College who won a scholarship in the Liggins Institute science mentorship programme and carried out an innovative study of myopia at the University's Myopia Laboratory.

James Russell uses a combination of ecology, statistics and genetics to prevent rats and other mammalian pests invading predator-free islands, thus helping to keep endangered species safe.

His Prime Minister's prize, worth \$200,000, rewards him for his unique DNA fingerprinting of rats, sophisticated statistical modelling and application of scientific tools to solve conservation problems.

Rats have invaded more than 80 percent of the world's island groups and are blamed – along with other mammalian predators – for killing 26 million native birds in New Zealand forests every year. James says rats are difficult

to catch because they are intelligent creatures that learn to avoid poison and traps.

While working on his PhD, he discovered the extent that rats could swim or hitchhike to pest-free islands. Using genetic tracing, he determined if they were eradication survivors or new invaders, and then tracked their movements on pest-free islands. This resulted in greater understanding of invasions and new island conservation pest management techniques.

James has now implemented a range of scientific tools, involving ecology, statistics, genetics, geography and computer science, and is currently focusing on the complex interactions of climate change, native and invasive species and ecosystem linkages to help conserve native species.

"Removing pests from islands is the single most cost effective way to solve a conservation problem. I am now working to extend this approach to onshore sanctuaries and larger, predator-free areas across New Zealand," says James.

"We worry that academic and research returns can take many decades before they become implemented but in this case, during the three or four years of my doctorate, we were able to use the knowledge I generated to keep islands consistently rat free."

The Prime Minister's prizes are designed to celebrate scientific achievement, to highlight the impact science has on New Zealanders' lives and aim to attract more young people into science careers.

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Dr Kathy Smits, the first female Head of the Department of Pacific Studies, who completed Women in Leadership in 2005 and has been a mentor for the programme, thanked Helen Clark on behalf of those who attended.

Chief organiser of the event was Mary Ann Crick from the Staff and Organisational Development Unit, who manages WIL. Mary Ann mentioned to guests that in a recent piece of research women had identified "good networks" as one of the most important factors

that assisted them in their leadership or career journeys.

When Helen Clark left, one of the special gifts she took away was one presented by Airini, with these words: "May I present a humble gift that gives a nod to times past inspiring future possibilities as leaders – a photo of the door to the office at 16 Symonds Street. Ground floor, second door on the right from the entrance."



University of Auckland academics almost "scooped the pool" at the New Zealand Research Honours Awards held at the Auckland Museum last Wednesday evening. Our congratulations go to:

- Distinguished Professor Margaret Brimble (Chemical Sciences, Maurice Wilkins Centre) who won the Rutherford Medal, New Zealand's highest science honour, together with the MacDiarmid Medal "for outstanding scientific research that demonstrates the potential for application to human benefit" and the Hector Medal for "outstanding work in chemical, physical or mathematical and information sciences by a researcher in New Zealand".

- Professor David Williams (Chemical Sciences) who won the Pickering medal for innovation in science.

- Professor Russell Gray (Psychology) who was awarded the inaugural Mason Durie Medal for outstanding contribution to the social sciences.

- Professor Jonathan Mane-Wheoki (Fine Arts) who received the Pou Aronui Award for distinguished service to humanities-aronui over a sustained period of time.

- Professor John Fraser (Dean of the Faculty of Medical and Health Sciences) who received the Sir Charles Hercus Medal for "for excellence in molecular and cellular sciences, biomedical science or clinical science and public health" These awards reflect the outstanding quality of researchers we are fortunate to have at our university.

Academic and Professional staff will by now have received by email a letter from me detailing the annual salary increase which will apply from 1 February 2013 and, for Professional staff, the results of their annual salary review. The letter details the background to how we have arrived at the salary increase which, unsurprisingly given current low inflation rates and funding constraints, is low but in line with that of other universities.

While on salary-related issues, we have recently become aware of a scam in which people are being offered employment by someone claiming to be representing this university. Recipients of these bogus emails are being asked to complete a "Labor (sic) Department Employment Clearance" form and submit it with a fee (in the hundreds of \$US). If you have friends or family members who receive such an offer please let them know that it is a scam and advise Alan Ward in HR (alan.ward@auckland.ac.nz) so that we can try to put a stop to it.