Recognition

Professor Jamie Kirkpatrick, School of Land & Food, Faculty of Science Engineering and Technology was awarded the J.P. Thomson Medal this month for services to geographical education in Australia. The award was presented by the Royal Geographical Society of Queensland. Prof Kirkpatrick’s address at the June lecture meeting was entitled: ‘How the interagency between people and trees creates spatial patterns in Australian cities.’

Ms Jeannie-Marie LeRoi, Faculty of Science Engineering and Technology, received a Highly Commended finalist award for the Unsong Hero of Science Communication 2014. The awards are presented by the Australian Science Communicators, a national professional body for science communicators and working closely with Inspiring Australia.

Public Outreach

Drs Andrew Cole and Kym Hill, School of Physical Sciences, Faculty of Science Engineering and Technology appeared in an article in The Mercury this month entitled: ‘Tassie at centre of the universe’. The article describes how the astronomers are preparing to make the most of a rare celestial event this month to discover vital new information about dwarf plant Pluto.

The Tasmanian Institute of Agriculture (TIA), Faculty of Science Engineering and Technology will be running a series of roadshows across Tasmania this month to share their research and engage in discussions with local communities. Roadshows will be held in Smithton, Scottsdale, Deloraine and Richmond across June and July. These events will feature panel discussions with key industry leaders and presentations from TIA’s top researchers.

Professor Sergey Shabala, and Dr Lana Shabala, Faculty of Science Engineering and Technology presented talks in four universities during their visit to China this month. The meetings were promoted locally in the media.

Drs Kathy Evans and Peat Leith, School of Land and Food, Faculty of Science Engineering and Technology made significant contributions this month to the implementation of a new UTas breadth unit Working with Communities. Drs Richard Doyle, Aidan Davison, and Anna Carew are also part of a team teaching the new unit Global Food Security.

Dr Joanna Jones and Ms Amber Wilson, School of Land and Food, Faculty of Science Engineering and Technology were successful in attracting $2000 in funding this month through WhySci to run a community engagement activity: Food Science Extravaganza to take place in September. WhySci aims to inform the community regarding the Tasmanian science sector by providing easy access to science news, events and other science resources

Dr Menna Jones and students Tracey Hollings and Kaely Kreger, School of Biological Sciences, Faculty of Science Engineering and Technology attracted widespread media coverage in relation to their recent paper on the effect of the decrease in the apex predator, the Tasmanian devil, on possum foraging behaviour.
In preparation for the Science Investigation Awards, teacher professional learning sessions were held in Hobart and Launceston and attended by around 15 teachers from 10 schools. Reference group meetings for external stakeholders were also hosted in Hobart, Launceston and Burnie.

**Grants and Funding**

Professor Bruce Gemmell, ARC Centre of Excellence in Ore Deposits (CODES), Faculty of Science Engineering and Technology has been awarded a $1.8 million grant from the Department of Industry and Science through the Brisbane-based Cooperative Research Centre for Optimising Resource Extraction (CRC ORE II). CODES is an essential partner in CRC ORE II, which aims to drive Australia’s mining growth by transforming the sector to an advanced manufacturing industry.

**Publications**

Professor Matt King, Faculty of Science Engineering and Technology and others co-authored: *Greenland supraglacial lake drainages triggered by hydrologically induced basal slip* in *Nature* in June 2015. The paper outlines the discovery of a mechanism that triggers the sudden drainage of Greenland supraglacial lakes. The discovery will allow researchers to predict more accurately how glacial lakes will affect ice sheet flow and sea level rise as the region warms in the future [IF 42]

Dr Lana Shabala and Professor Sergey Shabala, Faculty of Science Engineering and Technology, and others co-authored: *Calcium sensor kinase activates potassium uptake systems in gland cells of Venus flytraps* in *Proceedings of the National Academy of Sciences of the United States of America* in June 2015. The paper identifies the genes responsible for ensuring that the Venus flytrap can catch and digest animals and use the vital potassium from their prey efficiently. [IF 9.674]

Ms Aliaa Shalla, Professor Michael Breadmore, Faculty of Science Engineering and Technology and others co-authored *Electrokinetic size and mobility traps for on-site therapeutic drug monitoring* in *Angewandte Chemie* International Edition in June 2015. The paper describes a simple way to manufacture a microfluidic device for bedside testing of the antibiotic ampicillin from whole blood within 5 minutes [IF 11.261].

Mr Vasaant Krishnan, Professor Simon Ellingsen and Dr Jamie McCallum, Faculty of Science Engineering and Technology and others co-authored: *First Parallax Measurements toward a 6.7 GHz methanol maser with the Long Baseline Array - Distance to G339.884-1.259*, in *The Astrophysical Journal* in June 2015. The paper uses ultra-high precision astrometry to measure the distance to a high-mass star formation region, demonstrating it lies in the Scutum spiral arm and that the Scutum and Sagittarius arms likely merge at lower longitudes. [IF 6.28]

Dr Jim Lovell, Faculty of Science Engineering and Technology and others co-authored *Ruling out IC/CMB X-Rays in PKS 0637-752 and the implications for TEV emission from large-scale quasar jets* in *The Astrophysical Journal*, June 2015. Data from NASA's Fermi gamma-ray space telescope have ruled out a popular explanation for the physics associated with the powerful jet of emission over 200,000 light years long emanating from the quasar PKS 0637-752. (IF 6.28)

Prof John Dickey, Faculty of Science Engineering and Technology and others co-authored: *The 21-sponge HI Absorption Survey. I. Techniques and Initial Results* in *The Astrophysical Journal* in May 2015. The paper is the first in a series to present the results of very deep integration time radio spectra using the US JVLA telescope, the world's largest interferometer that was recently upgraded with new receivers and other equipment. (IF 6.28).