

RESEARCH NEWS

NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL (NHMRC) SUCCESS

Late in 2012 UWS was awarded significant NHMRC funding to Researchers in the School of Medicine. The two grants awarded were:

1. Project Title: Randomised controlled trial of antimicrobial treatment versus watchful waiting for the acute otitis media without perforation in low risk Aboriginal children Amount: \$1,640,326 Chief Investigator Professor Jennifer Reath
2. Project Title: Sensorimotor and autonomic dysregulation in hereditary sensory and autonomic neuropathies. Amount \$48,750 Chief Investigator Professor Vaughan Macefield.

COMMONWEALTH DEPARTMENT OF HUMAN SERVICES

What are our data holdings?

The department holds data on social and health related payments and services, including those relating to income support payments for pensioners, families, the unemployed and people with disabilities. It also holds information on Medicare payments and the Pharmaceutical Benefits Scheme (PBS).

What is available online now?

We have consolidated links to a range of statistical information on <http://data.gov.au/>, listed in the catalogue section under Social Security and Related Information.

There is also a link to publicly available statistical information and data available on the Department of Human Services Website: <http://www.humanservices.gov.au/corporate/publications-and-resources/>

EVENTS

2013 Three Minute Thesis Competition 2013 Trans-Tasman 3MT®

2013 is the year that UWS will host the Trans-Tasman 3MT Competition and we hope you will be joining us at our Auditorium Parramatta Campus on 18 October 2013.

Semi Finals will be held 9am to 2pm

Finals 3pm to 5pm

Register your attendance at

www.uws.edu.au/3mt

Please hold this date in your diaries.

This is a major Trans-Tasman event that will put the spotlight on UWS. We have secured Ruben Meerman (the surfing scientist) as the MC for the event and Robyn Williams (AM) will be on the final judging panel, together with the NSW Chief Scientist Mary O'Kane, Julie Hare journalist, from The Australian and Professor McEwan from UQ.

Hosting the 3MT Competition is also a very timely honour for UWS as we commence our celebrations to mark our 25th anniversary. Over this time, UWS has continuously endeavoured to enhance and strengthen the educational aspirations of the people of Greater Western Sydney and beyond.

UWS schools and research institutes are starting to hold their heats. We encourage researchers to attend and support the school and institute based heats. The UWS 3MT Final to find our 2013 Trans-Tasman entrant will be held 23rd August, 2013.

PRIZES AND AWARDS

Congratulations to Professor Alan Bensoussan from the Centre for Complementary Medicine awarded the 5th International Award for Contribution to Chinese Medicine by the World Federation of Chinese Medicine Societies in Beijing. The Award Ceremony was held in the Great Hall of the People Beijing, China on 29th June 2013. Professor Bensoussan was presented with a trophy, certificate and \$10,000 at the ceremony.

Congratulations to Dr Zhonghua Chen, School of Science and Health who was awarded the Minister for Agriculture, Fisheries and Forestry Award for his project 'Functional analysis of stomatal movement genes for barley salt tolerance: connecting gene to yield performance in saline soil.' He also was awarded an industry category award by the Grains Research and Development Corporation. Soil salinity is estimated to account for losses of over \$100m to the Australian grain industry. Dr Chen is addressing this problem through his research on barley suitable for malting. Australian exports account for around one-third of the world's malting barley and there is increasing demand for Australian barley in Asian countries such as China. However, some of the leading cultivars of Australian barley are sensitive to salinity. 'A third of our agricultural land will be significantly affected by salinity by 2050,' says Zhonghua. 'Therefore, breeding malting barley suitable for saline soils is very important for the barley industry.' Zhonghua's research will focus on stomatal guard cells. These cells are specialised leaf cells which regulate CO₂ uptake

and water loss and therefore, influence yield. Zhonghua aims to develop genetic markers associated with functions of stomatal guard cells for salinity tolerance. His approach spans the disciplines of plant physiology and molecular genetics. He will use stomatal imaging to link the traits of the stomata with molecular markers. Zhonghua plans to publish his research in peer-reviewed, open-access journals in order to communicate the research to disciplines spanning plant physiology, environmental biology, and plant breeding. 'I appreciate this award very much as it will help cover research, travel and conference expenses,' says Zhonghua. 'Ultimately, this research will contribute to the success of breeding programs for salt-tolerant barley. The research may also have application to other cereal crops, allowing farmers to better adapt to the threat of salinity.'

Congratulations to Dr Robert Sharwood, Hawkesbury Institute for the Environment who was also awarded an industry category award by the Cotton Research and Development Corporation Award.

Australia is a world leader in cotton production. However, the high temperatures and drought over recent years pose a growing threat to cotton yields. Heat waves and drought conditions have prompted research scientists and plant breeders to produce cotton cultivars with higher heat tolerance and improved water use efficiency. Dr Robert Sharwood, a postdoctoral fellow of the University of Western Sydney,

is examining the underlying physiology of cotton cultivars expressing these traits. In collaboration with the CSIRO, Robert will use state-of-the-art technology at the University of Western Sydney's Hawkesbury campus to investigate gas exchange and water use efficiency of different cotton cultivars. This will allow him to identify cotton lines that produce more biomass per unit of water. 'We will examine gas exchange and measurements of proteins involved in photosynthesis,' says Robert. 'This will give us insight into the biochemistry that underpins water use efficiency and thermotolerance.' Armed with this knowledge, cotton researchers and plant breeders will be able to make more informed choices when selecting cotton lines that are better suited for current and projected climatic conditions. Robert grew up on the land and farming has influenced his research career. 'I always wanted to keep in touch with agriculture,' says Robert. 'Improving how we use water for crops has always been a long-term goal of mine.' This opportunity to translate and apply my research in industry is invaluable.'

Recipients have each been granted up to \$22,000 to undertake a project on an emerging scientific issue or innovative activity over the next twelve months. The recipient of the Minister's Award receives an additional \$33,000 to further pursue their research area.

See link for further details: <http://www.daff.gov.au/abares/conferences-events/scienceawards>

RECENT RESEARCH SUCCESSSES

INSTITUTE FOR CULTURE AND SOCIETY

Led by Chief Investigator Dr Philippa Collin are Co-Investigators Doctor L Walsh, Doctor Amanda Third. Grant Title: eSmart Schools Evaluation and Monitoring Project [via Foundation for Young Australians]. Funded Body: The Alannah and Madeline Foundation \$206k (Award-Grant General).

HAWKESBURY INSTITUTE FOR THE ENVIRONMENT

Science and Industry Endowment Fund (SIEF)

Professor David Tissue is a co-investigator on a successful SIEF proposal led by Professor Graham Farquhar from the ANU for a project titled: Forests for the future: making the most of a high CO2 world with total funding set at \$4 million with \$1.179 million coming to UWS over 5 years.

Grains Research and Development Corporation

Associate Professor Braj Singh is a co-investigator on a project submitted by a consortium led by NSW Department of Primary Industries that has been approved for funding. The project is titled Building Resilient and Profitable Grain Cropping Systems and will bring \$350k into the HIE over the life of the project.

Dr Sebastian Pfautsch has won funding through the 2013 Scientific Mobility Program of the French Embassy in Australia to enable him to travel to Bordeaux, France to conduct research into the evolution of drought resistance in Cypress Pines (*Callitris* spp.) with colleagues at INRA.

Associate Professor Sally Power and Dr Scott Johnson have been awarded funding of \$83k over 3 years from Hermon Slade Foundation for a project titled Drought, Deluge and Diversity Decline – How do Root Herbivores affect Grassland Resilience to Predicted Changes in Rainfall Patterns”. It also capitalises on the mini rainout shelter experiment that HIE has recently established.

Led by Chief Investigator Associate Professor Brajesh Singh are Dr M McNee, Dr S Manalil, Dr L Nazaries (Co-Investigators). Grant Title: DAFF Action on the Ground Projects, AOTGR1-43 and AOTGR1-9 [via WANTFA and UWA]. Funded Body: Department of Agriculture, Fisheries and Forestry (ACRG). \$80k (Award- Grant Carbon Farming Futures – Action on the Ground Program).

SCHOOL OF COMPUTING, ENGINEERING AND MATHEMATICS

Led by Chief Investigator Professor Athula Ginige is Co-Investigator Dr Y Deshpande. Grant Title: Development of Information Architecture, Processes and Technologies for creating, converting and managing large repositories of architectural content. Funded Body: Transport for NSW \$116k (Award-Contract General).

Led by Chief Investigator Associate Professor Arumugam Sathasivan is Co-Investigator Dr M Angles. Grant Title: Trial of a new nitrification management approach for chloraminated systems. Funded Body: Sydney Water \$75k (Award-Contract General).

SCHOOL OF MEDICINE

Chief Investigator Dr Joanne Lind. Grant Title: Relationship between ageing and disease. Funded Body: Anonymous Donation \$426k (Award-Grant General).

Led by Chief Investigator Professor Jennifer Reath are Co-Investigators Dr Penny Burns, Dr Ron Brooker, Dr Penny Abbott. Grant Title: Evaluation of the Western Sydney Medicare Local and Western Sydney Local Health District Partnership Memorandum. Funded Body: WentWest Limited \$122k (Award – Contract General).

Led by Chief Investigator Paul de Souza are Co-Investigators Professor P Russell, Dr K Scott. Grant Title: Veridex “CellSearch” machine for detection of circulating tumour cells. Funded Body: Prostate Cancer Foundation of Australia \$75k (Award - Grant PCFA Research Program).

SCHOOL OF EDUCATION

Led by Associate Professor Christine Johnston are Co-Investigators Dr Danielle Tracey, Ms S Mahmic, Dr F Papps, Ms D Luscombe. Grant Title: Individualised Funding websites and Online Training Module. Funded Body: Department of Families, Housing and Community Services and Indigenous Affairs. \$124k (Award-Grant Practical Design Fund)

CENTRE FOR HEALTH RESEARCH

Led by Chief Investigator Professor Jane Ussher are Co-Investigators Associate Professor Janette Perz, Professor S Chambers, Associate Professor D Latini. Grant Title: Sexual Wellbeing and Quality of Life after Prostate Cancer for Gay and Bisexual Men and their Partners. Funded Body: Prostate Cancer Foundation of Australia. \$288k (Award-Grant PCFA Research Program).

SCHOOL OF SCIENCE AND HEALTH

Led by Chief Investigator Professor Basant Maheshwari are Mr L Crasti and Mr U Pinto. Grant Title: Development of New Stormwater Decontamination Device (SDD) via ACP Sales Pty Ltd. Funded Body: Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education (nonACRG) \$114k (Award-Grant Enterprise Connect-Researchers in Business).

Led by Chief Investigator Professor William S Price are Co-Investigators Professor P Keall, Professor M Barton, Professor S Crozier. Grant Title: The Australian MRI-Linac Program: Improving cancer treatment through real-time image guided adaptive radiotherapy [via USYD]. Funded Body: National Health and Medical Research Council (ACRG). \$285k (Award-Grant Program Grants).

SCHOOL OF SOCIAL SCIENCES AND PSYCHOLOGY

Led by Chief Investigator Dr Baljinder Sahdra is Co-Investigator Dr C Saron. Grant Title: Quantifiable Constituents of Spiritual Growth (via Regents of the Uni of California). Funded Body: John Templeton Foundation. \$357k (Award-Grant General).

DID YOU KNOW?

That UWS has 117 Articles from 54 Authors read by 363,000 readers on The Conversation Congratulations to our most read authors:

- » Professor Hannah Dahlen
- » Dr Michael Salter
- » Professor Jane Ussher
- » Professor David Rowe
- » Professor James Arvanitakis

And thanks to all our authors for raising the UWS profile.

ARC CENTRES OF EXCELLENCE

UWS researchers have been invited to join a number of *ARC Centres of Excellence* bids in the current round. *ARC Centres of Excellence* are prestigious foci of expertise through which high-quality researchers collaboratively maintain and develop Australia's international standing in research areas of national priority.

The Centres of Excellence round is a staged process and 4 of the expressions of interest that the University is associated with have successfully moved to the next phase of review: Digital Transformations, with the Institute for Culture and Society, led by QUT; Dynamics of Language, with the MARCS Institute led by ANU; Transformative Justice, with the School of Humanities and Communication Arts led by USyd; and Translational Phytosynthesis, with the Hawkesbury Institute for the Environment led by ANU. Congratulations to all the UWS researchers invited to participate in *ARC Centres of Excellence* collaborations.

COOPERATIVE RESEARCH CENTRE PROGRAM

The 16th selection round for the competitive, merit based Cooperative Research Centre program closed on 13 June 2013. UWS was involved in 3 bids: the CRC for Increasing Agricultural Soil Productivity – a new bid co-led by Uni SA and UWS via HIE and two existing CRCs, the CRC for Capital Markets, involving the Centre for Health Research and CRC Hear, involving MARCS.



STAFF PROFILES

Tanya Hobson has been at UWS since 1996 and in her current role in the Office of the Interim Deputy Vice-Chancellor (Research) since 2006. Her role as Senior Project and Strategy Officer is to manage the correspondence and action items for the IDVCR as well as a lot of project related work such as the Future Research Leaders Program and the 3MT Trans Tasman Competition. Tanya's personal interests are travel particularly international, gardening and food (including growing, cooking and eating it).

RESPONSIBLE RESEARCH TIP

Authorship -To be included as an author on a research paper the researcher must have been involved in all of the following:

- a. conception and design
- b. analysis and interpretation of research data
- c. drafting significant parts of the work or critically revising it so as to contribute to the interpretation.

Link to the Vancouver Protocol: www.icmje.org/1991_urm.pdf