

University has secured 17 Australian Research Council grants

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The University has been successful in securing 17 of the newly created Australian Research Council (ARC) Future Fellowships, which have been announced by the Minister for Innovation, Industry, Science and Research, Senator Kim Carr.

The new Fellows will receive up to \$135,000 each year over four years, with the administering institution receiving up to \$50,000 a year for associated infrastructure and other costs.

A total of 200 outstanding national and international mid-career researchers have been chosen as the first ARC Future Fellows.

"The Government established the ARC Future Fellowships scheme to address the gap in opportunities for mid-career researchers in Australia, which forced many of our talented researchers to search for work overseas," Senator Carr said.

The successful Fellows from The University of Sydney are:

- **Dr F Allon**, *The Wealth Effect: A cultural analysis of prosperity, financialisation and everyday life in contemporary Australia;*
- **Dr MM Barbour**, *Novel laser isotopic techniques to assess the potential for water-use efficiency improvement of Australian crops;*
- **Dr K Belov**, *The genetics of resistance to devil facial tumour disease*
- **Dr AD Corn**, *Indigenising the Semantic Web: Ontologies for Indigenous knowledge and heritage resources on a machine-readable Web;*
- **Dr AC Doherty**, *Quantum control in mesoscopic condensed matter systems;*
- **Dr PJ Franks**, *Past and future effects of climate change on the carbon-water balance of plants;*
- **Dr G Gottwald**, *Stochastic Methods in Mathematical Geophysical Fluid Dynamics;*
- **Dr IM Harris**, *Seeing the forest and the trees: Cognitive and neural mechanisms underlying recognition of individual objects and sets;*
- **Dr AO Holcombe**, *Position perception, attention, object motion, and action;*
- **Dr DJ Hunter**, *The early osteoarthritis (OA) phenotype;*
- **Dr BT Kuhlmeiy**, *Ringed photonic crystal fibres for broadband nonlinear optics;*
- **A/Prof J Latimer**, *Innovative solutions to primary care management of back pain;*
- **Dr HY Liu**, *Fatigue Life Prediction of Nano-filler Modified Composites;*
- **A/Prof AJ Martin**, *Academic Buoyancy and Academic Resilience: New Approaches to Examining and Understanding Adversity and Setback in the Academic Domain;*
- **Prof Dr T Maschmeyer**, *Sustainable Solar Hydrogen Production from Waste Water;*
- **Dr ME Thomas**, *Expedition to Arnhem Land: Intercultural inquiry in a trans-national context;*
- **Dr JY Yang**, *New statistical methods for identifying micro-ribonucleic acid (miRNA) regulatory networks.*

The ARC Future Fellowships scheme is administered by the Australian Research Council under the National Competitive Grants Program. The Australian Government has committed funding of \$844 million over five-years from 2009 for the scheme. More information about the ARC Future Fellowships scheme is available [here at its website](#).

A SELECTION OF AWARD RECIPIENTS:

Associate Professor Jane Latimer

Associate Professor Jane Latimer has been awarded an ARC grant to provide innovative multi-disciplinary approaches to the primary care of back pain. A/P Latimer from the University's George Institute for International Health will look into the use of community pharmacists in

managing recurrent lower back pain in order to reduce demand on over-burdened medical services and the cost of treating musculoskeletal disease. More than \$1 billion is spent on lower back pain each year and in 2005, nearly four million Australian were suffering from back pain at any one time (AIHW 2005). A/P Latimer, a physiotherapist, was responsible for developing the first mechanical device to accurately measure the stiffness of the human spine *in vivo* and has been widely published on her research into lower-back pain.

Dr Kathy Belov

Eureka-award winning scientist Dr Kathy Belov has been granted an ARC grant to continue her fight to prevent the extinction of the Tasmanian devil. With her team, Dr Belov, a senior lecturer from the Faculty of Veterinary Science, has recently identified animals with different Major Histocompatibility Complex (MHC) antigens that may be resistant to Devil Facial Tumour Disease (DFTD), the major threat to the devil. Dr Belov's ARC project aims to determine the genetic nature of DFTM resistance and will look at the feasibility of breeding resistant animals for release into the wild. "This project will directly contribute to the conservation management of this iconic and ecologically important species," says Dr Belov. Earlier this year, Dr Belov was awarded the Australian Museum's People's Choice Eureka Award for recognition of her work on Tasmanian devils.

Dr Martin Thomas

University of Sydney historian Dr Martin Thomas will look into how Indigenous and Western knowledge systems interact as well as how Indigenous knowledge has shaped our national image with his newly awarded ARC grant. Using the 1948 event known as the American-Australian Scientific Expedition to Arnhem Land (AASEAL) as a springboard into this project, Dr Thomas will study the history of trans-national enquiry. In consultation with the three main communities visited by AASEAL, he will continue research using historical documents, films, photographs and sound recordings in US and Australian collections taken to Arnhem Land for interpretation. Dr Thomas is the author of 2004's award-winning *The Artificial Horizon: Imagining the Blue Mountains* and a research fellow with the University's Department of History.

Dr Boris Kuhlmeiy

A leading University researcher in Photonic Crystal Fibres has been awarded an ARC grant that should lead to breakthroughs in monitoring carbon emissions. Dr Boris Kuhlmeiy from the University's Institute of Photonics and Optical Science at the School of Physics will exploit the recent developments in fibre optics to produce stable narrow-band coherent light sources that will be able to detect, quantify and identify organic molecules. According to Dr Kuhlmeiy, ringed photonic crystal fibre used in his research is "compact, easily engineered and low cost" and "will lead to dramatically increased capability for infrared spectroscopic measurement throughout biology and medicine." Dr Kuhlmeiy is a senior lecturer with the School of Physics and in 2003 was awarded a PhD jointly by the Université Aix Marseille III and the University of Sydney. Dr Kuhlmeiy is the author of the *CUDOS MOF Utilities*, the first free software dedicated to the simulation of PCFs and co-authored *Foundation of Photonic Crystal Fibres*.

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