

Administering Organisation	Project Summary	Total Funding Amount (\$)	Funding Commencement Year	Scheme	Investigators	Number of years funded	State/Territory	Participating Organisations	Fields of Research	Socio-Economic Objective	Fellowship Recipient
The University of Sydney	Plant roots "leak" 5-10% of the carbon fixed in photosynthesis. Surprisingly, we have a limited understanding of which compounds leak from roots. This project will identify the compounds leaking from roots and explore their function in tolerance of biotic and abiotic stress and implications for soil respiration.	\$ 802,592	2010	ARC Future Fellowships	Charles Warren	4	NSW		060203 - Ecological Physiology; 060705 - Plant Physiology; 059902 - Global Change Biology	970105 - Expanding Knowledge in the Environmental Sciences; 970106 - Expanding Knowledge in the Biological Sciences	Charles Warren (FT)
The University of Western Australia	This project addresses two challenges facing scientists trying to predict the effects of global change on Australia's ecosystems: i) what factors most exacerbate the total impact of global change? and ii) how do the complex responses of so many interacting species actually translate into altered structural properties of the web of life?	\$ 919,832	2010	ARC Future Fellowships	Raphael Didham	4	WA	Commonwealth Scientific and Industrial Research Organisation (CSIRO)	050101 - Ecological Impacts of Climate Change; 050102 - Ecosystem Function; 050202 - Conservation and Biodiversity	960305 - Ecosystem Adaptation to Climate Change; 960805 - Flora, Fauna and Biodiversity at Regional or Larger Scales; 961305 - Remnant Vegetation and Protected Conservation Areas in Farmland, Arable Cropland and Permanent Cropland Environments	Raphael Didham (FT)
University of South Australia	This project aims to realise an artificial system that converts solar energy to hydrogen (artificial photosynthesis). The resulting device will be able to 'split' water into oxygen and hydrogen, whereas hydrogen can be further converted into electricity or heat (combustion).	\$ 908,832	2010	ARC Future Fellowships	Thomas Nann	4	SA		030302 - Nanochemistry and Supramolecular Chemistry; 030601 - Catalysis and Mechanisms of Reactions; 030604 - Electrochemistry; 030606 - Structural Chemistry and Spectroscopy; 100708 - Nanomaterials	850303 - Hydrogen Production from Renewable Energy	Thomas Nann (FT)
The Australian National University	Adhesion in materials relies on the ability to tune molecular scale interactions. This project unlocks knowledge to transfer to industry for the intelligent use of polymer additives at a surface. Outcomes will connect fields including ceramic and minerals processing, waste water treatment, printing and coatings.	\$ 697,752	2010	ARC Future Fellowships	Shannon Notley	4	ACT	School of Process, Environmental and Materials Engineering, University of Leeds; Université Paris 7	020405 - Soft Condensed Matter; 030603 - Colloid and Surface Chemistry; 090408 - Rheology	970102 - Expanding Knowledge in the Physical Sciences; 970103 - Expanding Knowledge in the Chemical Sciences; 970109 - Expanding Knowledge in Engineering	Shannon Notley (FT)
The University of Western Australia	Diseases caused by improper function of carbohydrate-processing enzymes are a major health burden. This research aims to find ways to restore the function of these enzymes bringing a better quality of life to people suffering from these diseases.	\$ 706,552	2010	ARC Future Fellowships	Keith Stubbs	4	WA	University of Victoria, Canada; The University of York United Kingdom	030599 - Organic Chemistry not elsewhere classified; 060107 - Enzymes	920110 - Inherited Diseases (incl. Gene Therapy); 970106 - Expanding Knowledge in the Biological Sciences	Keith Stubbs (FT)
The University of Melbourne	This project aims to understand how killer T cells are 'programmed' upon activation and acquire their characteristic functions and how these are maintained into immunological memory. This proposal will provide insights important for the design and improvement of vaccine strategies to fight pathogens such as influenza, HIV and even tumors.	\$ 919,036	2010	ARC Future Fellowships	Stephen Turner	4	VIC		110704 - Cellular Immunology; 110799 - Immunology not elsewhere classified	920108 - Immune System and Allergy; 920109 - Infectious Diseases	Stephen Turner (FT)
La Trobe University	Aphasia: a communication disability resulting from brain injury and experienced by over 80,000 Australians, impacts significantly on social connection, well being and mental health. This research defines excellent community aphasia groups, an important preventative health measure and investigates their impact for Australians with aphasia.	\$ 612,870	2010	ARC Future Fellowships	Miranda Rose	4	VIC	The Aphasia Institute; The Aphasia Centre of California; Connect: The communication disability and Community network Services	110321 - Rehabilitation and Therapy (excl. Physiotherapy); 111702 - Aged Health Care; 111708 - Health and Community Services	920201 - Allied Health Therapies (excl. Mental Health Services); 920403 - Disability and Functional Capacity; 920502 - Health Related to Ageing	Miranda Rose (FT)
The University of Western Australia	This study will test the validity of factors influencing imprisonment rates and initiatives that have been trialled in other jurisdictions to decrease prison numbers in Australia. It aims to identify ways to reduce the prison population, most particularly the over-representation of Indigenous people.	\$ 695,709	2010	ARC Future Fellowships	Hilde Tubex	4	WA		160299 - Criminology not elsewhere classified; 160303 - Migration; 160504 - Crime Policy; 160512 - Social Policy; 160801 - Applied Sociology, Program Evaluation and Social Impact Assessment	940403 - Criminal Justice; 969999 - Cultural Understanding not elsewhere classified	Hilde Tubex (FT)
Deakin University	Chemical reactions that emit tiny quantities of light, not even visible to the naked eye, can be used to detect the biomarkers of disease or traces of chemical or biological weapons in a terrorist attack. This project creates a new generation of reagents for this remarkably sensitive mode of detection for these and other important applications.	\$ 706,552	2010	ARC Future Fellowships	Paul Francis	4	VIC	The University of Manchester; La Trobe University	030102 - Electroanalytical Chemistry; 030103 - Flow Analysis; 030199 - Analytical Chemistry not elsewhere classified; 030302 - Nanochemistry and Supramolecular Chemistry	861503 - Scientific Instruments; 970103 - Expanding Knowledge in the Chemical Sciences	Paul Francis (FT)
The University of Queensland	This research aims to understand why community members accept or reject alternative water supply options such as recycled water. The project aims to provide information to inform risk management and communication programs.	\$ 567,380	2010	ARC Future Fellowships	Kelly Fielding	4	QLD		160802 - Environmental Sociology; 170113 - Social and Community Psychology	960311 - Social Impacts of Climate Change and Variability; 970116 - Expanding Knowledge through Studies of Human Society	Kelly Fielding (FT)
Macquarie University	Quantum technologies promise a revolution in computing speed and measurement precision but are currently sensitive to noise and difficult to demonstrate on a large scale. This project will develop practical solutions to these problems, providing a clear path to future production of large-scale quantum technologies.	\$ 585,347	2010	ARC Future Fellowships	Dominic Berry	4	NSW		020603 - Quantum Information, Computation and Communication; 020604 - Quantum Optics	861699 - Computer Hardware and Electronic Equipment not elsewhere classified; 910599 - Measurement Standards and Calibration Services not elsewhere classified; 970102 - Expanding Knowledge in the Physical Sciences	Dominic Berry (FT)