

Queensland

Griffith University

FT0991213 Dr KT Andrews

Approved Project Title **New drugs for malaria that target histone deacetylases**

2009 : \$ 85,800
2010 : \$ 171,600
2011 : \$ 171,600
2012 : \$ 171,600
2013 : \$ 85,800

Primary RFCD 2703 MICROBIOLOGY

Administering Organisation Griffith University

Project Summary

There is no vaccine for malaria and current drugs are failing, contributing to millions of malaria-related deaths each year. The aim of this project is to develop new drugs to address this significant global health issue. This project will focus on drugs that act in novel ways to existing malaria drugs by targeting enzymes that are involved in altering gene expression in the parasite. These kinds of enzymes are recognised drug targets in other diseases such as cancer. The outcomes of this project will include advances in malaria drug development that build on Australian drug discovery efforts, seeding further funding opportunities from industry and other sources and contributing research training and capacity building in Australia.

FT0991574 Dr BA Buchan

Approved Project Title **A Colonial and Conceptual History of Asymmetric Warfare and Security**

2009 : \$ 64,540
2010 : \$ 133,380
2011 : \$ 133,640
2012 : \$ 137,768
2013 : \$ 72,968

Primary RFCD 3601 POLITICAL SCIENCE

Administering Organisation Griffith University

Project Summary

War and terrorism feature prominently in popular, political and scholarly perceptions of Australia's colonial past and its geopolitical future. Our understanding of what constitutes war and terrorism emerged from a long colonial and conceptual history of Western international and political thought. The national and community benefits of this program of research derive precisely from its ability to link the uniqueness of Australia's colonial history to its global context, and to use both to provide new insight into current debates on terrorism and security that are integral to Australia's capacity to interpret itself to the rest of the world.

Summary of ARC Future Fellowships Proposals for Funding to Commence in 2009

FT0990547 Dr C Chen

Approved Project Title **Forest ecosystem diversity, function and service in response to perturbations: the key regulatory role of biogeochemical cycling**

2009 : \$ 85,800

2010 : \$ 171,600

2011 : \$ 171,600

2012 : \$ 171,600

2013 : \$ 85,800

Primary RFCD 3001 SOIL AND WATER SCIENCES

Administering Organisation Griffith University

Project Summary

The natural and anthropogenic perturbations such as elevated atmospheric carbon dioxide (CO₂), nitrogen(N) deposition, fires and land contamination have transformed much of the land surface on the earth and significantly modified terrestrial biogeochemical cycles in the past century. This project seeks to develop and apply novel nuclear magnetic resonance spectroscopy, isotopic and bio-molecular techniques to examine the key role of interactive biogeochemical cycles of carbon and major elements (N, Phosphorous) in regulating forest ecosystem responses to these perturbations. This project will result in improved mitigation and adaptation strategies for such perturbations, thereby restoring and sustaining forest ecosystems and conserving biodiversity in natural ecosystems.

FT0991557 Dr SM Dennison

Approved Project Title **What about the children? A study of the intergenerational consequences of paternal incarceration**

2009 : \$ 65,350

2010 : \$ 140,700

2011 : \$ 151,200

2012 : \$ 144,950

2013 : \$ 69,100

Primary RFCD 3904 LAW ENFORCEMENT

Administering Organisation Griffith University

Project Summary

Parental incarceration may have a profound and detrimental effect on children, heightening risk of offending and extreme disadvantage. The proportion of children affected is certain to increase as prison populations continue to grow. This research will identify policies and prevention strategies that will interrupt the cycle of disadvantage for children of prisoners and prevent social exclusion. Significant cost-savings and prevention of victimisation could result from effectively targeting this high-risk population, reducing risk of offending and increasing the young person's ability to contribute meaningfully to society. Appropriately timed programs can deliver a range of long-term benefits for children, families and communities.

FT0991711 Dr JM Elias

Approved Project Title **The Gender Politics of Global Economic Competitiveness in Southeast Asia**

2009 : \$ 85,750

2010 : \$ 171,550

2011 : \$ 171,200

2012 : \$ 166,550

2013 : \$ 81,150

Primary RFCD 3601 POLITICAL SCIENCE

Administering Organisation Griffith University

Project Summary

States such as Malaysia face similar economic challenges to Australia - for example maintaining economic competitiveness in the face of rising competition from low(er) wage labour countries (especially China), maintaining and enhancing a competitive ICT infrastructure and building successful and sustainable technology policies. Critically assessing the role that women and the family can play in Malaysia's attempts to transition to a more knowledge intensive economy will invariably open up policy lessons for Australia.

Summary of ARC Future Fellowships Proposals for Funding to Commence in 2009

FT0991003 A/Prof SW Smallbone

Approved Project Title **Testing theoretical propositions concerning the onset and progression of child-sex offending, and field testing a new sexual abuse prevention model**

2009 : \$ 97,732

2010 : \$ 196,248

2011 : \$ 191,692

2012 : \$ 183,646

2013 : \$ 90,470

Primary RFGD 3904 LAW ENFORCEMENT

Administering Organisation Griffith University

Project Summary

Child sexual abuse poses serious threats to the health and well-being of Australian children. Data from a variety of sources indicate that, for a variety of reasons, Indigenous children are exposed to a heightened risk of sexual abuse. The present project is expected to lead to new discoveries about the causes of sexual abuse and to new evidence-based prevention methods both within Indigenous communities and in the wider community. The project will therefore contribute at a national level, as well as at a local community level, to broader efforts to improve the life chances of Australian children.

FT0991785 Dr K Su

Approved Project Title **Model checking Multi-Agent System and its applications**

2009 : \$ 85,800

2010 : \$ 171,600

2011 : \$ 171,600

2012 : \$ 171,600

2013 : \$ 85,800

Primary RFGD 2802 ARTIFICIAL INTELLIGENCE AND SIGNAL AND IMAGE PROCESSING

Administering Organisation Griffith University

Project Summary

This research project directly addresses two of the Australian Government's four National Research Priorities: National Research Priorities 3 and 4. It will develop an enabling technology that is applicable to the development of safety-intensive and highly dependable software systems like medical equipment and airport controlling systems. The security protocol analysis technologies developed by this project can be useful for providing improved ways of military operation flows, and for making Australian security communication systems more dependable.

FT0991554 Dr S Zhang

Approved Project Title **Development of a photoelectrochemical system based on Titanium dioxide nanotubes/boron doped diamond heterojunction for online water quality monitoring**

2009 : \$ 85,800

2010 : \$ 171,600

2011 : \$ 171,600

2012 : \$ 171,600

2013 : \$ 85,800

Primary RFGD 2914 MATERIALS ENGINEERING

Administering Organisation Griffith University

Project Summary

The reuse of purified recycled wastewater (PRW) creates an additional water supply source and improves the sustainability of the overall water resources. This calls for online water quality monitoring systems to prevent potential water quality risk from organic contaminants in PRW and enable industries and government bodies to monitor and manage our water resources effectively. The success of the project would lead to a robust and reliable environmental monitoring system capable of online, real-time monitoring of organic pollutants and toxins, which will transform the existing water quality monitoring technology and directly benefit water resource management practice in Australia.