

## Australian Capital Territory

### The Australian National University

**LP0776242** Prof MG Banwell

**Approved Project Title** **Marine Natural Products as Sources of Agrochemicals - The Variolins**

**2007 :** \$ 12,813

**2008 :** \$ 25,627

**2009 :** \$ 25,627

**2010 :** \$ 12,813

**Primary RFCD** 2503 ORGANIC CHEMISTRY

APA(I) Award(s): 1

#### **Collaborating/Partner Organisation(s)**

BASF Aktiengesellschaft Global Research Agricultural Products

**Administering Organisation** The Australian National University

#### **Project Summary**

The aim of this project is the identification of new classes of agrochemicals with better pest resistance and environmental profiles. The proposed partnership with a major international chemical manufacturing organization will allow access to state-of-the-art techniques for the screening and development of novel compounds as agents for the control of pests that affect many major agricultural crops relevant to Australia's economy. Australian graduate students will experience the operations of one of the world's biggest chemical manufacturers. The derivation of agrochemicals from marine sources will promote further recognition of the value of marine ecosystems around Australia.

**LP0776940** Prof JR Butler; A/Prof LB Connelly

**Approved Project Title** **Motor vehicle injuries: economic evaluation of a new treatment modality**

**2007 :** \$ 14,539

**2008 :** \$ 29,079

**2009 :** \$ 29,079

**2010 :** \$ 14,539

**Primary RFCD** 3402 APPLIED ECONOMICS

APA(I) Award(s): 1

#### **Collaborating/Partner Organisation(s)**

NRMA - ACT Road Safety Trust

**Administering Organisation** The Australian National University

#### **Project Summary**

The management of injured persons following motor vehicle accidents is a serious health issue in Australia, with over 60,000 minor injuries and 20,000 major injuries occurring annually. This project will provide a cost-effectiveness analysis of a new multidisciplinary approach to managing minor injuries by utilising data from the Accident Care Evaluation (ACE) trial of a new clinic being tested for this purpose.

## Summary of Linkage Projects Proposals for Funding to Commence in 2007

**LP0776706** Prof PD Drysdale; Prof AJ MacIntyre; Prof R Jha; Dr L Song; Prof C Athukorala; Prof W Maley; Dr S Howes; Dr C Bowman

**Approved Project Title** **South Asian and East Asian economic integration and Australia: strategies for Asian regional cooperation**

**2007 :** \$ 70,000  
**2008 :** \$ 136,500  
**2009 :** \$ 151,500  
**2010 :** \$ 110,000  
**2011 :** \$ 63,500  
**2012 :** \$ 38,500

**Primary RFCD** 3402 APPLIED ECONOMICS

### Collaborating/Partner Organisation(s)

AusAID

**Administering Organisation** The Australian National University

### Project Summary

Australia has a vital interest in India's rise, its impact on South Asia's development and its integration with South and East Asia. The limited knowledge and the thinness of the intellectual base and institutional connections that would allow us to manage our interests in this event effectively mean that Australia is not yet well positioned to influence the forces and the thinking that will drive the process. Moving to explore the phenomenon of South Asia's development and aspirations in Asia and globally, is now a priority for Australia as other economies move to take up the opportunities that are unfolding from this development. This is a ground-breaking project that will address these deficiencies.

**LP0776958** Dr BH Hunter; Dr RG Schwab; Dr DJ Weatherburn

**Approved Project Title** **An inter-disciplinary analysis of the dynamics of Aboriginal interactions with the criminal justice system**

**2007 :** \$ 20,000  
**2008 :** \$ 40,000  
**2009 :** \$ 40,000  
**2010 :** \$ 20,000

**Primary RFCD** 3904 LAW ENFORCEMENT

APA(I) Award(s): 1

### Collaborating/Partner Organisation(s)

NSW Department of Attorney General

**Administering Organisation** The Australian National University

### Project Summary

The over-representation of Indigenous Australians in prison continues to be a serious problem, more than a decade after the Royal Commission into Aboriginal Deaths in Custody. There are few rigorous studies identifying the dynamic factors associated with Indigenous interaction with the criminal justice system. This project will identify the Indigenous pathways within the system, in order to alert policy-makers to potential interventions at crucial junctures of criminal careers. It will use dynamic statistical models to identify important socioeconomic and geographic factors. Qualitative data will facilitate a deeper understanding of processes underlying the high rates of Indigenous arrest and imprisonment.

## Summary of Linkage Projects Proposals for Funding to Commence in 2007

**LP0777012** Prof MA Knackstedt; Prof B Gurevich; Prof SA Shapiro

**Approved Project Title** **Computational Rock Physics**

**2007 :** \$ 37,500

**2008 :** \$ 73,500

**2009 :** \$ 36,000

**Primary RFCD** 2907 RESOURCES ENGINEERING

### **Collaborating/Partner Organisation(s)**

ExxonMobil Upstream Research Co.

**Administering Organisation** The Australian National University

### **Project Summary**

Knowledge of the quantitative relationships between rock and fluid properties, and seismic characteristic is necessary to improve the determination of fluid saturation and accurately monitor recovery of oil and gas. The proposed project aims to develop these relationships by teaming up two Australian-based experts in 3D seismic image analysis and theoretical rock physics, with a global company at the forefront of the industry. Developing these relationships will be a cutting edge research achievement, will directly impact on exploration, interpretation and production decisions within the oil and gas industry in Australia and globally, and greatly advance Australia's reputation as a leader in petroleum research services and training.

**LP0776685** Prof ID McCalman; Prof JM Chappell; A/Prof DP Coleman; Dr P Hyland; Dr NP Erskine

**Approved Project Title** **Seeing Change: Science, Culture and Technology in the Antipodes from the age of Darwin - a multi-media research collaboration**

**2007 :** \$ 70,000

**2008 :** \$ 135,554

**2009 :** \$ 110,528

**2010 :** \$ 44,974

**Primary RFCD** 4301 HISTORICAL STUDIES

### **Collaborating/Partner Organisation(s)**

Constraint Technologies International

Eptec Pty. Limited

Australian National Maritime Museum

Film Australia Limited

**Administering Organisation** The Australian National University

### **Project Summary**

To build a collaboration across the humanities, natural sciences, business technology and public culture sectors that will use new forms of digital and visual research to demonstrate the neglected importance of Australasia in the formation of nineteenth-century evolutionary thought and to suggest the relevance of these ideas to understanding contemporary issues of environmental sustainability and the development of frontier technologies within our society and region.

## Summary of Linkage Projects Proposals for Funding to Commence in 2007

**LP0776332** Prof H Morphy; Dr PM Veth; Dr JJ McDonald

**Approved Project Title** **The recognition, interpretation and management of significant rock art and related dreaming (Jukurrpa) sites on the Canning Stock Route, Western Australia**

**2007 :** \$ 177,971

**2008 :** \$ 320,471

**2009 :** \$ 285,917

**2010 :** \$ 143,417

**Primary RFCD** 4302 ARCHAEOLOGY AND PREHISTORY

APA(I) Award(s): 1

### **Collaborating/Partner Organisation(s)**

Jo McDonald Cultural Heritage Management Pty Ltd

WA Dept of Environment and Conservation (DEC)

Ngaanyatjarra Council Aboriginal Corporation (Native Title Representative Body)

Department of Indigenous Affairs

Department of Land Information

Department of the Environment and Heritage

Kimberley Land Council (Native Title Representative Body)

**Administering Organisation** The Australian National University

### **Project Summary**

The Canning Stock Route is an iconic linear transect of profound importance to a variety of parties: the original inhabitants of the Western Desert, surveyors and drovers who used it in the 20th century and more recently tourists and outback adventurers. Systematic documentation, mapping and synthesis of Indigenous cultural values of the Canning Stock Route will provide a unique resource of benefit to traditional custodians as well as the wider community. Accurate information on sites, places and landscapes and their cultural and scientific values should underpin successful management, protection of sites and sustainable use of the Canning Stock Route into the future.

**LP0776789** Dr SL O'Connor; Dr DR Byrne

**Approved Project Title** **Rethinking Cultural Heritage in Southeast Asia: A Case Study From the New Nation of Timor Leste**

**2007 :** \$ 36,491

**2008 :** \$ 72,983

**2009 :** \$ 77,683

**2010 :** \$ 41,191

**Primary RFCD** 4302 ARCHAEOLOGY AND PREHISTORY

APA(I) Award(s): 1

### **Collaborating/Partner Organisation(s)**

Department of Environment and Conservation, NSW

**Administering Organisation** The Australian National University

### **Project Summary**

The project will contribute to the economic and socially sustainable conservation of cultural heritage in Timor Leste. Collaborative work between project personnel and Timor Leste communities and government agencies will promote good will, strengthen ties and enhance cross-cultural understanding between both countries, as will the training of Timor Leste nationals in techniques of heritage assessment and management. Communication of the results of the project will also enhance Australia's understanding of social and cultural issues within Timor Leste and raise Australia's profile overseas.

## Summary of Linkage Projects Proposals for Funding to Commence in 2007

**LP0776784** Prof TJ O'Neill; Prof PF McDonald; Dr MA Martin; Dr J Penm; Dr JB Temple; Dr S Roberts; Mr TS Higgins

**Approved Project Title** **Expenditure needs and drawdown of retirement savings during later life: how important are demographic factors and financial resources?**

**2007 :** \$ 55,000

**2008 :** \$ 110,000

**2009 :** \$ 78,615

**2010 :** \$ 23,615

**Primary RFCD** 3705 DEMOGRAPHY

APA(I) Award(s): 1

**Collaborating/Partner Organisation(s)**

Rice Warner Actuaries

AMP

**Administering Organisation** The Australian National University

**Project Summary**

Projections of expenditure patterns in retirement which allow for population heterogeneity will provide individuals with a better appreciation of their income needs and their savings requirements for a comfortable retirement. It will also enable financial institutions to develop products which better target retirees' needs over the course of retirement, and in addition it will enable improved assessment of aspects of Government income support policy. Specifically, understanding the complex interactions between private and public pensions, and concession card receipt upon expenditure behaviour, will enable more accurate costings of the public support of elderly families as Australia's population ages.

**LP0776890** A/Prof TJ Senden; Dr RW Stephens; Dr SK Jones

**Approved Project Title** **New methods to improve regional isotope therapy of liver tumours in cancer patients**

**2007 :** \$ 41,000

**2008 :** \$ 82,000

**2009 :** \$ 41,000

**Primary RFCD** 3210 CLINICAL SCIENCES

**Collaborating/Partner Organisation(s)**

Sirtex Technology Pty Ltd

**Administering Organisation** The Australian National University

**Project Summary**

The most common cause of death in cancer patients is secondary tumours in vital organs. Successful treatment of liver tumours with regional isotope therapy now offers improved survival rates. This project will research novel radiolabelled nanoparticles and advanced computer imaging algorithms to improve regional isotope therapy of liver tumours. It will provide better methods of objective assessment and management that can reduce risk and improve patient survival.

**LP0777007** Prof JS Williams; Dr JE Bradby

**Approved Project Title** **Low temperature fabrication of silicon-based thin film transistors (TFTs) for flat panel displays - an entirely new approach**

**2007 :** \$ 55,000

**2008 :** \$ 100,000

**2009 :** \$ 45,000

**Primary RFCD** 2909 ELECTRICAL AND ELECTRONIC ENGINEERING

**Collaborating/Partner Organisation(s)**

WRiota Pty Ltd

**Administering Organisation** The Australian National University

**Project Summary**

This project represents an entirely new approach to low temperature crystallization of amorphous silicon, and its application to TFT fabrication in flat panel displays, and involves a partnership with the Australian high-tech company, WRiota. The research is in a field of high national priority, namely nanotechnology, since the technology is based on materials modification at the nanoscale by nanoindentation. This project will further provide valuable opportunities for a number of research students and ECRs to gain experience in both the industrial and academic worlds and skills needed for Australia's nanotechnology workforce.