

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

## South Australia

### The Flinders University of South Australia

**LP0776660** Prof AP Beer; Dr E Baker; Prof GA Wood

**Approved Project Title** **Housing Assistance and the Life Course: Understanding the Impact of Policy Alternatives**

**2007 :** \$ 43,313

**2008 :** \$ 43,313

**Primary RFCD** 3704 HUMAN GEOGRAPHY

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

HomeStart Finance

**Administering Organisation** The Flinders University of South Australia

#### **Project Summary**

Australian governments are confronted by increasing pressure to assist low-income and vulnerable households gain access to affordable and appropriate housing. Over 100,000 Australians are homeless and 1.3 million households experience housing stress. This project will answer the question, what form of housing assistance generates the best outcomes for both vulnerable individuals and society as a whole? It does so through interviews with low income home purchasers, private tenants and public tenants. The research will strengthen Australia's social fabric by helping governments make better decisions around housing assistance to vulnerable groups.

**LP0777033** Dr SR Clarke; Dr MR Johnston; Ms E Markovic

**Approved Project Title** **XeroCoat: Modifying and Improving a New, Commercial, Anti-Reflective, Non-Fogging Sol-Gel Coating**

**2007 :** \$ 85,000

**2008 :** \$ 175,000

**2009 :** \$ 90,000

**Primary RFCD** 2505 MACROMOLECULAR CHEMISTRY

APDI Ms E Markovic

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

XeroCoat Pty Ltd

**Administering Organisation** The Flinders University of South Australia

#### **Project Summary**

XeroCoat is commercialising nanotechnology research out of UQ's Physics department. XeroCoat has received much local and international interest in its signature product 'XeroCoat'. The company is rapidly expanding and has established new research facilities with production facilities to be set-up. This will result in high technology, employment growth for Australia. Links with Flinders could see expansion into SA. The company operates in 'Sol-Gel' nanotechnology, which has huge global, academic and commercial interest. However in Australia this technology has only been serviced by Flinders, ANSTO and ANSTO's spin-out company Ceramisphere. The project will help to build a new Australian high tech industry in sol-gel nanotechnology.

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**LP0776604** Dr DA Driscoll; Mr M Bedward; Prof Dr RA Bradstock; Prof CM Bull; Prof SC Donnellan; Dr MK Henderson; Dr DA Keith; Dr S Kleindorfer

**Approved Project Title** **Spatial-dynamic models to identify optimal fire mosaics, based on demography, dispersal and fire responses of plants, birds and reptiles**

**2007 :** \$ 55,000

**2008 :** \$ 115,000

**2009 :** \$ 120,000

**2010 :** \$ 100,526

**2011 :** \$ 40,526

**Primary RFCD** 2707 ECOLOGY AND EVOLUTION

APA(I) Award(s): 4

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

Department for Environment & Heritage

South Australian Museum

Native Vegetation Council

Department of Environment and Conservation NSW

**Administering Organisation** The Flinders University of South Australia

### **Project Summary**

Inappropriate fire regimes threaten native species with extinction. The threat is higher in cleared landscapes where habitat is isolated and recolonisation unlikely. Furthermore, climate change is predicted to increase the frequency of intense bushfires. To meet the priority goals Sustainable Use of Biodiversity, and Responding to Climate Change, landscape-scale fire management is essential. We will use simulation models based on detailed biological data and fire-behaviour to explore large-scale and long-term consequences of alternate fire management policies. Our project will enable fire mosaics to be implemented that maintain biodiversity and will identify effective fire management responses to climate change, and habitat fragmentation.

**LP0776237** A/Prof RR Huilgol; Dr R Zheng; Dr Z You

**Approved Project Title** **Viscoplasticity, Solidification and Non-Isotropic Heat Transfer in Injection Moulding**

**2007 :** \$ 41,250

**2008 :** \$ 81,675

**2009 :** \$ 40,425

**Primary RFCD** 2804 COMPUTATION THEORY AND MATHEMATICS

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

Moldflow Pty Ltd

**Administering Organisation** The Flinders University of South Australia

### **Project Summary**

The development of new software for use by the plastics industry will maintain Australia's position at the forefront of research contributing to improved production in this extremely important manufacturing sector. The application of this research by Melbourne's Moldflow, already the world's leading supplier of injection moulding software, will consolidate its position and enable it to increase further its market share, with consequential employment and other economic flow-on benefits to Australia. This project also increases the quantum of industry relevant scientific research, contributing to the enhancement of the national profile in exporting Australian products to world markets.

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

**LP0777019** Prof WC Martin; Prof S Richardson

**Approved Project Title** **Understanding low skilled men's access to jobs: An occupational case-study approach**

**2007 :** \$ 12,813

**2008 :** \$ 25,627

**2009 :** \$ 25,627

**2010 :** \$ 12,813

**Primary RFCD** 3701 SOCIOLOGY

APA(I) Award(s): 1

**Collaborating/Partner Organisation(s)**

Anglicare SA inc.

**Administering Organisation** The Flinders University of South Australia

**Project Summary**

The withdrawal of low skilled men from the labour force has been substantial over recent decades. As many as 40% of men without post-school qualifications do not have full-time jobs. This development has many negative social consequences. It damages the affected men's wellbeing, and that of their families. It reduces labour supply at a time of labour shortages. It increases dependency on the welfare system. This project will develop new understandings of the barriers low skill men face when they seek jobs in areas of rising employment, such as the service sector. It will provide an assessment of the possibilities of overcoming these barriers, and develop ideas about how best to enhance low skilled men's access to good jobs.

**LP0776478** Dr JG Mitchell; Prof A Cooper; Dr WF Humphreys

**Approved Project Title** **Development and implementation of biodiversity information for sustainable management of South Australian groundwater**

**2007 :** \$ 42,907

**2008 :** \$ 85,814

**2009 :** \$ 85,814

**2010 :** \$ 42,907

**Primary RFCD** 2703 MICROBIOLOGY

**Collaborating/Partner Organisation(s)**

Environmental Protection Agency

SA-Water

South Australian Murray-Darling Basin Natural Resources Management Board

South Australian Museum

South East Natural Resources Management Board

Department of Environment and Heritage

Department of Water, Land and Biodiversity Conservation

Commonwealth Department of Environment and Heritage

**Administering Organisation** The Flinders University of South Australia

**Project Summary**

Clean potable water is one of the most important resources for human health and a successful economy. Increasingly, subterranean aquifers are used for storage and recovery of water. These aquifers contain dynamic ecosystems, but little is known about species composition or about the importance of the presence of various species for water quality. We will use the latest laboratory techniques and DNA identification methods to provide a template for determining ground water diversity and food web dynamics throughout Australia. This project will lead to a better understanding of how to manage ground water in a sustainable manner.

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

**LP0776426** Prof J Wakerman; A/Prof MF Dollard; Prof SV Dunn; Ms S Knight; Dr ML MacLeod; Mr G Rickard

**Approved Project Title** **Back from the Edge: Reducing and Preventing Occupational Stress in the Remote Area Nursing Workforce**

**2007 :** \$ 61,879  
**2008 :** \$ 123,330  
**2009 :** \$ 115,352  
**2010 :** \$ 117,513  
**2011 :** \$ 63,612

**Primary RFCD** 3212 PUBLIC HEALTH AND HEALTH SERVICES

APA(I) Award(s): 1

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

Council of Remote Area Nurses of Australia  
Northern Territory Department of Health and Community Services  
Australian Government Department of Health and Ageing

**Administering Organisation** The Flinders University of South Australia

### **Project Summary**

This study will improve services to remote Australia, particularly remote Indigenous communities. Three percent of the population is dispersed across this large area which is characterized by a high proportion of Indigenous people, poorer health outcomes and lower socio-economic status. The study will generate new knowledge and specific stress-reduction interventions in the workforce. These will improve retention in the remote area nursing workforce and thereby benefit employers through reductions in recruitment costs and sick leave. A stable workforce will improve service quality. Other benefits will include improved continuity of care, greater client focus and ultimately improved health outcomes.