

## South Australia

### University of South Australia

**LP0884005** Dr JW Boland; Prof GI Metternicht; Prof JA Filar; Dr T Wigley

**Approved Project Title** **Unlocking the Grid: the future of the electricity distribution network**

**2008 :** \$ 35,000

**2009 :** \$ 60,000

**2010 :** \$ 45,000

**2011 :** \$ 20,000

**Primary RFCD** 2911 ENVIRONMENTAL ENGINEERING

APA(I) Award(s): 1

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

Electricity Supply Industry Planning Council

**Administering Organisation** University of South Australia

#### **Project Summary**

This project applies to the National Research Priority of an environmentally sustainable Australia. A critical challenge for the development of power systems will be to transform them from their current dependence on conventional centralised generation to a situation where more diversified, more volatile and less controllable generation sources contribute a significant percentage of the energy. Coupled with this is a change in demand patterns due to both demographic and socio-economic variables as well as climate change. Careful analysis is required in the design of the future grid architecture to ensure the security of supply.

**LP0883400** Prof DA Brooks; Dr EJ Parkinson-Lawrence; Dr R Kakavanos-Plew; A/Prof J Gecz; Dr M Corbett

**Approved Project Title** **Development of a gene delivery system to access neuronal cells**

**2008 :** \$ 45,000

**2009 :** \$ 87,500

**2010 :** \$ 85,000

**2011 :** \$ 42,500

**Primary RFCD** 2708 BIOTECHNOLOGY

APDI Dr R Kakavanos-Plew

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

Women's and Children's Hospital

Neubody Pty Ltd

**Administering Organisation** University of South Australia

#### **Project Summary**

Understanding the pathways for gene delivery and efficient expression will result in new knowledge in the areas of biotechnology and cell biology. This project will result in significant new information on vesicular trafficking pathways in neurons. An effective gene delivery system will realise significant commercial potential for our partner organisations and economic benefit to other Australian industry. This project aligns directly with the National Research Priority of "Promoting and maintaining good health" with a specific benefit for patients that suffer mental and physical degeneration and for their families.

## Summary of Linkage Projects Proposals for Funding to Commence in 2008

**LP0883949** Dr J Dollman; Dr K Ball; Prof TS Olds; Dr MJ Drummond; Dr AM Magarey; Dr N Sinn; Mr J Smith; Ms TK Gill; Ms L Jarman

**Approved Project Title** **Exploring resilience in relation to physical activity and dietary behaviours among children from neighbourhoods of low socioeconomic position**

**2008 :** \$ 20,000  
**2009 :** \$ 30,000  
**2010 :** \$ 20,000  
**2011 :** \$ 10,000

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

**Collaborating/Partner Organisation(s)**

Department of Health

**Administering Organisation** University of South Australia

**Project Summary**

The link between social disadvantage and poor health, across a broad age range, is a serious public health challenge. Current interventions to promote healthy weight-related behaviours among young people ignore the motivators and barriers unique to demographic sub-groups, and are largely ineffective. The personal and socio-environmental correlates of healthy behaviours among young South Australians identified in this study are likely to be relevant to low socioeconomic neighbourhoods in other states and territories. As such, this study will offer new insights into intervention design that will give impetus to the efforts of researchers, policy makers and practitioners throughout Australia.

**LP0883872** A/Prof D Fornasiero; Prof CJ Moran; Prof J Ralston

**Approved Project Title** **Impact of recycled and low quality process water on sustainable mineral processing practices**

**2008 :** \$ 45,000  
**2009 :** \$ 90,000  
**2010 :** \$ 90,000  
**2011 :** \$ 45,000

**Primary RFCD** 2907 RESOURCES ENGINEERING

APA(I) Award(s): 2

**Collaborating/Partner Organisation(s)**

AMIRA International Limited

**Administering Organisation** University of South Australia

**Project Summary**

Water is in short supply and needs to be considered as a 'key reagent'. The quality of this reagent can vary widely. For a sustainable mineral processing practice, the use of recycled or low quality/saline process water will be essential for a plant to operate in the future. The major benefit is recognition that significant recycle of process water for flotation is achievable if simple water quality control and management practices are implemented. In addition, a better understanding and control of water quality in recycled/saline process water may lead to improved flotation stability and performance, and reduced reagent consumption.

## Summary of Linkage Projects Proposals for Funding to Commence in 2008

**LP0883672** Prof B Johnson; Prof B Down; Dr R Le Cornu; Dr JH Peters; Dr AM Sullivan; Dr JM Pearce; Ms J Hunter

**Approved Project Title** **Addressing the teacher exodus: Enhancing early career teacher resilience and retention in changing times**

**2008 :** \$ 10,000  
**2009 :** \$ 35,000  
**2010 :** \$ 50,000  
**2011 :** \$ 35,000  
**2012 :** \$ 10,000

**Primary RFCD** 3301 EDUCATION STUDIES

### Collaborating/Partner Organisation(s)

Department of Education and Training  
Australian Education Union South Australian Branch  
State School Teachers Union of Western Australia  
Association of Independent Schools of South Australia  
Association of Independent Schools of Western Australia  
Catholic Education Office of Western Australia

**Administering Organisation** University of South Australia

### Project Summary

This research will produce new knowledge, strategies, models and recommendations that will help to keep early career teachers in the profession in regional, rural and remote areas. In doing so it will address the problem of teacher shortage that is currently threatening the nation's educational, economic and social outcomes. The research outcomes will have particular credibility at the national level because they will be the result of dialogue and collaboration across three universities and six industry partners who are the key stakeholders in teacher employment in two states. In addition, the collaborative approach will facilitate implementation of recommendations at the local, state and national levels.

**LP0883493** Dr JE Kellett; Ms KM Davidson; Dr DA Ness; Dr LJ Wilson; Dr A Sivam; Dr S Karuppanan; Mr S Pullen; Dr PM Tisato

**Approved Project Title** **An integrated model for the assessment of urban sustainability**

**2008 :** \$ 41,167  
**2009 :** \$ 80,491  
**2010 :** \$ 78,648  
**2011 :** \$ 39,324

**Primary RFCD** 3101 ARCHITECTURE AND URBAN ENVIRONMENT

APDI Ms KM Davidson

### Collaborating/Partner Organisation(s)

Department for Families and Communities  
Planning SA  
Department of Transport, Energy and Infrastructure  
City of Onkaparinga

**Administering Organisation** University of South Australia

### Project Summary

The redevelopment and improvement of outdated urban infrastructure and the establishment of new infrastructure to meet needs of a growing population and increased services is a challenge faced by urban planners and developers in most Australian cities. This research will develop a systems-based framework within which combinations of models and tools will be evaluated for inclusion in an integrated assessment tool. The tool will enable us to address urban growth and its inter-relationship with infrastructure systems and services, including transport, energy, water, affordable housing, education and other land-use issues in relation to a case study of urban development.

## Summary of Linkage Projects Proposals for Funding to Commence in 2008

LP0883701 Prof C Kulik; Dr MI Metz

**Approved Project Title** **Managing Diversity: Diversity Practice Configurations and Organisational Effectiveness**

**2008 :** \$ 20,994

**2009 :** \$ 43,433

**2010 :** \$ 43,185

**2011 :** \$ 20,745

**Primary RFCD** 3502 BUSINESS AND MANAGEMENT

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

Diversity@Work Pty Ltd

Australian Senior Human Resources Roundtable

**Administering Organisation** University of South Australia

### **Project Summary**

Organisations expend a lot of money on their diversity efforts but often fail to implement the most effective diversity management practices. Left unmanaged, workforce diversity can create internal conflict and lower organisational performance. These challenges are especially difficult for the small organisations characteristic of Australian business. This project is designed to identify the most effective diversity management practices for small and large organisations and provide recommendations for their use. The project benefits employers and employees alike by identifying diversity management practices that maximise organisational effectiveness and create positive working environments in the Australian context.

LP0883743 Prof L Segal; Prof DA Scott; A/Prof PH Delfabbro; A/Prof J Ratcliffe; Ms N Rogers; Ms G Mondy; Ms S Thompson; Dr TG Donald

**Approved Project Title** **Priority Setting in Child Protection: developing an evidence-based strategy to reduce child abuse and neglect and associated harms.**

**2008 :** \$ 74,314

**2009 :** \$ 158,877

**2010 :** \$ 169,560

**2011 :** \$ 122,497

**2012 :** \$ 37,500

**Primary RFCD** 3402 APPLIED ECONOMICS

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

Social Inclusion Unit, Department of the Premier and Cabinet

Children, Youth and Women's Health Service

Department of Families and Communities

Department of Education and Children's Services

South Australian Department of Health

**Administering Organisation** University of South Australia

### **Project Summary**

Persons who are potential, current or previous victims of child abuse and neglect are the primary beneficiaries of this research. The study will facilitate evidence-based funding decisions by government (and nongovernment organizations) integrating data on quality of life impacts (physical/mental health, educational, social etc), and the costs to society of dealing with the consequences of child abuse. The research has the potential to profoundly enhance the well-being of Australia's most vulnerable children, simultaneously addressing the large costs on agencies of dealing with child abuse. The methodology will be highly applicable to other complex social problems requiring whole of government strategies.

## Summary of Linkage Projects Proposals for Funding to Commence in 2008

**LP0883955** Prof L Segal; Prof RA McDermott; Dr RA Boyce; Ms JM Hoiles; Prof EJ May; Mr JD Glover; Ms BM Gaughwin; Ms DS Law; Ms C Turnbull

**Approved Project Title** **Development and implementation of an evidence-based primary health care workforce planning model to support best practice chronic disease management**

**2008 :** \$ 50,629

**2009 :** \$ 101,259

**2010 :** \$ 99,844

**2011 :** \$ 49,214

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

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

South Australian Department of Health

**Administering Organisation** University of South Australia

### **Project Summary**

The workforce model will inform government health workforce and health services planning, with the promise of improving access to best practice care for persons with diabetes, and potentially other chronic conditions, that represent the dominant Australian health burden. It also will inform education and training of health professionals and support a more flexible response to health workforce needs. Given projected health work force shortages, flexibility in responding to health care needs will be crucial to maintaining health system capacity. The model supports system level change that will enable improved population health outcomes, reduce preventable hospital admissions and deliver production gains

**LP0884158** Prof MA Taylor; Prof S Hamnett; Mr AE Rix

**Approved Project Title** **The potential role of transit-oriented development in Australian cities: a critical assessment using a suburban rail corridor**

**2008 :** \$ 56,482

**2009 :** \$ 127,240

**2010 :** \$ 129,932

**2011 :** \$ 59,174

**Primary RFCD** 2908 CIVIL ENGINEERING

APA(I) Award(s): 1

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

Land Management Corporation

City of Salisbury

Department for Transport, Energy and Infrastructure

Town of Gawler

City of Playford

**Administering Organisation** University of South Australia

### **Project Summary**

Sustainability in urban development and a reduction in our dependence on the private car for mobility are key concerns in Australia and elsewhere. The results of this research will inform and lead world's best practice in the evaluation and adoption of sustainable transport solutions, especially those related to investment in urban public transport systems, and hence provide options for planners and developers to minimise the impacts of developments on the environment. The benefits from the project will be in improved planning and design principles and planning tools for transit-oriented urban developments in both inner and outer suburbs in Australian cities.