

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

## New South Wales

### Macquarie University

**LP0775436** A/Prof SM Burton; Ms LP Clark; Dr AG Penman; Ms A Tang; Ms WR Oakes

**Approved Project Title** **The relationships between retail availability, peer smoking and tobacco purchase and consumption: a diary study of smoking behaviour**

**2007 :** \$ 30,000

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

#### Collaborating/Partner Organisation(s)

The Cancer Council of NSW

**Administering Organisation** Macquarie University

#### Project Summary

Despite multiple public health initiatives, smoking remains the leading preventable cause of death, costing the Australian community more than 19,000 lives each year. Public awareness of the dangers of smoking is high, yet around 19% of Australians continue to smoke. Social effects (e.g. the presence of nearby smokers) and the high retail availability of cigarettes are likely to be associated with smoking rates and failed quit attempts, yet there is little research in this area. By providing a better understanding of the effect of these factors on smoking patterns, the study will suggest the most effective avenues for reducing the rate of smoking in Australia, and thus decreasing its substantial cost to individuals and the community.

**LP0775196** Dr RE Connally; Prof JA Piper; Dr M Paje; A/Prof J Iredell; Dr LG Hamey

**Approved Project Title** **Automated pathogen detection using time-gated luminescence microscopy**

**2007 :** \$ 98,000

**2008 :** \$ 80,000

**2009 :** \$ 75,000

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

APA(I) Award(s): 1

#### Collaborating/Partner Organisation(s)

Olympus Australia

University of Sydney Westmead Hospital

**Administering Organisation** Macquarie University

#### Project Summary

A rapid and general means of in-situ pathogen identification would benefit the community by ensuring that appropriate treatments can be applied in the early stages of a disease. Patient prognosis is thereby improved and opportunities for multi-drug resistant organisms to arise are limited. Time-gated luminescence microscopy (TgM) exploits persistent luminescence to overcome autofluorescence, a serious problem in pathogen detection. Drug-resistant 'Golden Staph' (MRSA) will be used as the model organism to evaluate TgM efficacy. Ultimately however, TgM will be applied for the detection of tuberculosis, a highly contagious disease affecting the respiratory system of more than one-third of the world's population.

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

**LP0775136** Dr C McMahon; Dr FL Gibson; Dr J Fisher; Dr J Boivin; Em/Prof DM Saunders

**Approved Project Title** **Age at first birth, mode of conception and adjustment to parenthood**

**2007 :** \$ 85,000

**2008 :** \$ 85,000

**2009 :** \$ 85,000

**Primary RFCD** 3210 CLINICAL SCIENCES

APA(I) Award(s): 1

**Collaborating/Partner Organisation(s)**

IVFAustralia  
Melbourne IVF

**Administering Organisation** Macquarie University

### Project Summary

The trend to delayed childbearing is well-established, multiply determined and unlikely to change in the short term. This study will provide contemporary Australian evidence on the experience of becoming a parent at different ages, naturally and through assisted conception, for Australian men and women. Both risk and protective factors for older first-time parents will be identified, thus informing policy and services that can better support Australian families with planning and rearing children. A key outcome will be a Parenting Decision-Aid to provide evidence-based reader-friendly information about the positives and negatives of first-time parenthood at different ages.

**LP0774887** Prof SY O'Reilly; Prof WL Griffin; Dr NJ Pearson

**Approved Project Title** **Trace element analysis of diamond: new applications to diamond fingerprinting and genesis**

**2007 :** \$ 77,823

**2008 :** \$ 73,426

**Primary RFCD** 2603 GEOCHEMISTRY

**Collaborating/Partner Organisation(s)**

Rio Tinto OTX (Operational and Technical Excellence)

**Administering Organisation** Macquarie University

### Project Summary

The project will provide new insights into the processes by which diamond crystallises in the Earth's mantle. A better understanding of these processes can lead to improved models and techniques for diamond exploration, enhancing the prospect of finding new deposits in Australia and abroad. The project will test the potential of trace-element microanalysis to fingerprint diamonds by source. If successful, this technology will provide economic benefits by reducing theft and illegal mining, which represent significant losses to legitimate companies. Application of this Australian development could reduce the circulation of "conflict diamonds", which would have real social benefits worldwide, especially in some developing countries.

**LP0774996** Prof AJ Pitman; Dr J Beringer; Prof W Steffen; Dr G Richards; Dr Y Wang

**Approved Project Title** **Reengineering a dynamic vegetation model to explore the stability of Australian terrestrial carbon**

**2007 :** \$ 57,883

**2008 :** \$ 63,856

**2009 :** \$ 70,182

**Primary RFCD** 2606 ATMOSPHERIC SCIENCES

**Collaborating/Partner Organisation(s)**

Australian Greenhouse Office

**Administering Organisation** Macquarie University

### Project Summary

Overseas models do not represent Australian biophysical processes well: our flora and fauna are unique and our soils are old and nutrient poor. In contrast, the National Carbon Accounting System (NCAS) is a world-class framework for estimating current carbon processes. By building NCAS expertise into an overseas model of soil and vegetation processes we can develop the capacity to increase our confidence in future projections of carbon and vegetation change. Our proposal, linking Universities, CSIRO and the Australian Greenhouse Office establishes a team that is internationally competitive. It will enhance local expertise and local model development to ensure national policy development is underpinned by world-class science.

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

**LP0774980** A/Prof JJ Rodwell; Prof PD Steane; Dr AJ Noblet; Prof S Osborne

**Approved Project Title** **Investigating the Impact of Work Design on Productive Wellbeing in Mercy Health: The Modernising Third Sector**

**2007 :** \$ 54,085

**2008 :** \$ 80,069

**2009 :** \$ 84,127

**Primary RFCD** 3602 POLICY AND ADMINISTRATION

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

Mercy Health & Aged Care Inc.

**Administering Organisation** Macquarie University

### **Project Summary**

Around the world the Third Sector (TS) of the economy is coming under pressure to modernise their management. The typical approaches to modern management being imposed overseas may not be appropriate for TS organisations and therefore they need to be critically examined, especially for their impact on employees. In Australia the TS is a large (approx. \$15billion), yet low-profile set of organisations, of which the health industry is central. This project will investigate the issues that make workplaces in a TS health organisation a healthier and more productive place to work. The results could directly help improve workplaces covering more than 150,000 employees.

**LP0775230** Prof JI Roe; Prof N Jose; Dr DW McCooey

**Approved Project Title** **The Macquarie PEN Anthology of Australian Literature**

**2007 :** \$ 98,753

**2008 :** \$ 108,026

**2009 :** \$ 35,026

**Primary RFCD** 4202 LITERATURE STUDIES

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

Allen & Unwin

**Administering Organisation** Macquarie University

### **Project Summary**

The anthology will be a major scholarly work. Its publication will stimulate scholarship in the Humanities. The project will also renew mainstream interest in the scope and sophistication of Australian literature. Many new works will be introduced to Australian readers, to education systems and to literary scholarship. The stand-alone anthology of Indigenous literature will enhance the public profile of Indigenous writers and will provide a vehicle for the representation of Indigenous culture and history to non-Indigenous Australians, who are often unable to access such knowledge and voices in print. New critical perspectives will ensure a valuable public resource, and understandings of Australian society will be enriched.