

# Summary of Discovery Projects Applications for Funding to Commence in 2006

## Victoria

### Deakin University

**DP0664167** Dr JP Arnould; Dr D Costa; Prof MA Fedak

**Approved Project Title** **The cost of a meal: life-history consequences of foraging mode in fur seals and sea lions**

**2006 :** \$79,000

**2007 :** \$70,000

**2008 :** \$70,000

**Primary RFCD** 2707 ECOLOGY AND EVOLUTION

**Administering Institution** Deakin University

#### Project Summary

Australia's two fur seal species are currently experiencing population increases throughout their range as they recover from the over-exploitation of the commercial sealing era (18-19th centuries) whereas the Australian sea lion population is decreasing (or stable but low) throughout its range and is considered vulnerable. Understanding the mechanisms which determine foraging efficiency in fur seals and sea lions will have implications for the management of these species, which are likely to experience increasing interactions with fisheries activities. The results of this research will assist in the development of policies to ensure the environmentally sustainable use of marine resources.

**DP0665242** Dr K Ball

**Approved Project Title** **Understanding environmental drivers of socioeconomic inequalities in food consumption**

**2006 :** \$104,515

**2007 :** \$65,000

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

**Administering Institution** Deakin University

#### Project Summary

The health, economic and social costs of poor nutrition are substantial. The national partnership, the Strategic Inter-governmental Nutrition Alliance, has proposed a strategy, Eat Well Australia, which aims to improve the well-being of Australians through better nutrition. Improving Australians' diet will cut health care costs, improve quality of life, and promote physical, mental and social functioning. In order to improve diet, particularly among those who are disadvantaged, a better understanding of the environmental drivers of inequalities in food consumption is required. Findings will inform the development of policies to increase the availability and accessibility of foodstuffs to supply an adequate and affordable diet for all.

**DP0663845** A/Prof DM Cahill; Prof BA Kunz; Dr PM Schenk; Dr DF Klessig

**Approved Project Title** **A novel link between plant pathogen defence and DNA repair capability**

**2006 :** \$124,000

**2007 :** \$110,000

**2008 :** \$110,000

**Primary RFCD** 2704 BOTANY

**Administering Institution** Deakin University

#### Project Summary

Plants and plant-based industries are essential for the provision of food, clothing and building materials and underpin the economies of rural communities. Plant yield and quality and the biodiversity of natural systems are dramatically reduced by disease. The fundamental knowledge gained from our research will enable manipulation of the factors that enhance disease resistance resulting in a significant benefit to Australian agriculture and protection of our natural resources. The current reliance for disease control on chemicals that damage the environment will be reduced and our research will contribute directly to the provision of cheaper, simpler and more effective methods of control.

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**DP0665047** Dr S Datta; Dr DJ Beynon

**Approved Project Title** **The influence of Indian Antecedents on the geometry of Southeast Asian temples**

**2006 :** \$45,000

**2007 :** \$20,000

**2008 :** \$35,000

**Primary RFCD** 3101 ARCHITECTURE AND URBAN ENVIRONMENT

**Administering Institution** Deakin University

### Project Summary

Australia is an emerging player in the field of heritage and conservation in the Asia-Pacific region. This project will greatly improve the ability of Australian cultural heritage institutions to address the preservation and conservation initiatives in the region.

A successful Australian heritage export industry will foster improved diplomatic relations with Asia. It will provide momentum to a vital and expanding national industry, broadening the scope of Australian trade in cultural heritage and allied professional services and enhancing the nation's image in Asia. This corresponds with the key objectives of the Australian government's foreign affairs and trade portfolios.

**DP0662950** Prof TD Evans; Ms M Pearson; Dr PD Macauley

**Approved Project Title** **Research capacity-building: the development of Australian PhD programs in national and emerging global contexts.**

**2006 :** \$90,000

**2007 :** \$65,000

**2008 :** \$70,000

**Primary RFCD** 3399 OTHER EDUCATION

**Administering Institution** Deakin University

### Project Summary

PhD programs in universities are the principal means by which new researchers are prepared for work in the knowledge economy. This project develops a comprehensive coded database of every PhD awarded in Australia since the first programs in the 1940s. It will study fourteen different PhD programs that have developed during this period in four universities. The project focuses on how these programs develop research capacity within disciplines and how these are related to the changing social, cultural and economic needs of Australia. The project will assist in planning future PhD programs and research capacity development.

**DP0665517** Mr JS Gillespie; Dr PK Taylor

**Approved Project Title** **Understanding regulatory networks: Assessing the relevance of the 'rule of law' to business regulation in Vietnam**

**2006 :** \$52,000

**2007 :** \$47,000

**2008 :** \$43,000

**Primary RFCD** 3703 ANTHROPOLOGY

**Administering Institution** Deakin University

### Project Summary

Consistent with Research Priority 4, the project will assist Australian policy makers and business investors/exporters to understand why market laws frequently produce fragmentation and instability in developing East Asia. It will also inform important theoretical debates about the relative influence of law, social norms, ethno-religious orientations and sentiment in forming regulatory networks that augment and rival state power. The project will strengthen linkages between Australian and Asian universities and research institutions and improve post-graduate research and teaching programs.

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**DP0666276** Prof WS Logan; Dr CD Long; Dr F Qian; Mr KJ Reeves

**Approved Project Title** **Remembering Places of Pain and Shame: Conservation of the Asia-Pacific Region's 'Difficult' Heritage of Imprisonment Sites**

**2006 :** \$79,000

**2007 :** \$59,000

**2008 :** \$62,000

**2009 :** \$55,755

**Primary RFCD** 3101 ARCHITECTURE AND URBAN ENVIRONMENT

APD Dr F Qian

**Administering Institution** Deakin University

### Project Summary

This project will contribute to theoretical and practical discourses relevant to Australia's cultural heritage industry. Its findings will have implications for the work of national and state industry bodies (Australian Heritage Council, Australian Dept of Environment and Heritage, Heritage Victoria) and professional organisations (Australia ICOMOS). The project findings may lead to concrete results such as the addition of new places to international, national and state heritage registers and their protection for the benefit of the community at large. The project will also provide Early Career Researcher training and enhance possibilities for future research collaboration with heritage and tourism industry partners.

**DP0667181** Dr PN Pathirana; Dr BF Rolfe; Dr A Wong

**Approved Project Title** **Nodal Power Saving for Disconnected Ad Hoc Sensor Networks**

**2006 :** \$80,000

**2007 :** \$85,000

**2008 :** \$85,000

**Primary RFCD** 2917 COMMUNICATIONS TECHNOLOGIES

**Administering Institution** Deakin University

### Project Summary

Bushfire, age care and farming is Australia's today and tomorrow.

A key aspect in bushfire control is early detection of ignitions by spreading miniature low power sensors in a large potential area in an ad hoc fashion and localizing. Response to panic alarm buttons by retirees in a retirement village where they are free to walk around while their location is monitored in real time using a wireless tag they carry to transmit data relating to their physical health(i.e blood pressure, ECG etc). Locating live stocks roaming around in the dairy industry using sensory transmission used for monitoring their statuses is vitals for the farmer for improving efficiency.

**DP0664206** Dr AF Timperio; Prof DA Crawford; Dr K Ball; Dr J Salmon

**Approved Project Title** **Understanding children's risk of obesity: contextual influences on changes in eating, physical activity and weight status**

**2006 :** \$105,000

**2007 :** \$74,000

**2008 :** \$100,000

**2009 :** \$30,000

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

**Administering Institution** Deakin University

### Project Summary

Overweight and obesity are significant public health issues in Australia. After tobacco, physical inactivity and obesity are leading modifiable contributors to the burden of disease. The economic cost of obesity was recently estimated at \$1.3 billion/year. Preventing further increases in childhood obesity is an urgent national priority, however there currently exists insufficient information to guide effective obesity prevention strategies. The findings of this study will inform efforts to prevent obesity at the population level by enhancing knowledge of contextual influences on obesity-risk behaviours and the selection of specific targets for intervention. As such, this study will help create a healthier generation of children.