

Summary of Discovery Projects Proposals for Funding to Commence in 2010

Victoria

Deakin University

DP1095998 Mr H Chen; Prof W Duan

Approved Project Title **Functionalisation of boron nitride nanotubes: preparation, underlying mechanism and potential sensor applications**

2010 : \$ 100,000

2011 : \$ 90,000

2012 : \$ 90,000

Primary RFCD 2918 INTERDISCIPLINARY ENGINEERING

APD Mr H Chen

Administering Organisation Deakin University

Project Summary

Building on Australian expertise in synthesis and characterisations of nanomaterials, this project will carry out comprehensive and systematic research in functionalisation of boron nitride nanotubes and explore their potential applications. The success of this project will enhance Australian international reputation in nanotechnology development and ensure our leading position in this highly competitive area. The outcome of this project will promote the potentially functional applications of boron nitride nanotubes in various nanodevices and nanosensors. It will also offer trainings for Australia's future scientists and will further strengthen international scientific collaboration in these fields.

DP1095744 Dr SA Hemphill; Prof JW Toumbourou; Dr PJ Kremer

Approved Project Title **Antisocial behaviour in young Australian adults: Social and economic influences**

2010 : \$ 189,201

2011 : \$ 192,374

2012 : \$ 290,000

Primary RFCD 3801 PSYCHOLOGY

Administering Organisation Deakin University

Project Summary

Antisocial behaviour is prevalent in Australia and imposes large social and economic costs. Currently, much of the crime prevention research has been conducted overseas. The findings of this study will provide important insights into the development of antisocial behaviour from childhood and adolescence through into young adulthood in the Australian context. By better understanding how factors such as unemployment, alcohol-related entertainment, and sporting participation influence antisocial behaviour in young adulthood, prevention and early intervention programs can be developed to target specific subgroups. In this way spending on criminal justice systems can be reduced and a safer, more harmonious community can be fostered.

DP1094418 Prof WS Logan; Prof JE Beaumont; A/Prof A Witcomb; Dr B Ziino

Approved Project Title **Australian Heritage Abroad: Managing Australia's Extraterritorial War Heritage**

2010 : \$ 80,000

2011 : \$ 60,000

2012 : \$ 40,000

Primary RFCD 3101 ARCHITECTURE AND URBAN ENVIRONMENT

Administering Organisation Deakin University

Project Summary

This project is groundbreaking in its focus on the implications of interpreting and managing sites of significance in Australia's experience of war beyond Australian territory. Addressing the problems of extraterritorial heritage in this study will open a new and rich field of inquiry in heritage studies, and help to place Australia at the forefront of debates about international heritage management. In seeking to understand the multiple stories that surround those sites, from Australian, local, and international perspectives, this project exposes the potential for enriched understanding, interpretation and preservation of these crucial sites in Australia's cultural heritage and in the heritage of our neighbours.

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DP1095121 Prof WS Logan; Dr CD Long
Approved Project Title **Vietnam: heritage of a nation**
2010 : \$ 32,000
2011 : \$ 31,000
Primary RFCD 3101 ARCHITECTURE AND URBAN ENVIRONMENT
Administering Organisation Deakin University

Project Summary

This project will contribute to our understanding of Vietnam's cultural history and to protection of Vietnamese cultural heritage. The findings will be relevant to the work of the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and national industry bodies and to professional organizations such as the International Council on Monuments and Sites (ICOMOS). The project may lead to the addition of new items to UNESCO and Vietnamese heritage registers (both tangible and intangible) for the benefit of the global community at large. The project will enhance Australia's reputation in the region as a producer of innovative approaches to heritage conservation and will strengthen the 'Asia literacy' of Australian heritage professionals. The project fits the ARC's research priority goal 'Understanding Our Region'.

DP1094114 Prof DM Lowe; Prof JA Walter
Approved Project Title **Australian politicians and the uses of history: from Federation to the present**
2010 : \$ 51,000
2011 : \$ 49,000
2012 : \$ 50,000
Primary RFCD 4301 HISTORICAL STUDIES
Administering Organisation Deakin University

Project Summary

While competing interpretations of Australian history occasionally attract controversy, there is a need for a comprehensive analysis, over time, of the significance of histories and history-making for Australian politicians. In taking the longer view of Australian political speech and thought since the Federation, this study will provide a stronger foundation for both political engagement with historical themes and public appreciation of the continuing role of history in contemporary policy debates. It will add depth to public understanding of political dialogue and how it is informed by national and international histories.

DP1095595 Dr SA McNaughton; Prof DA Crawford; A/Prof K Ball; A/Prof J Salmon
Approved Project Title **Understanding personal, social and environmental influences on nutrition and physical activity among older adults living in urban and rural areas**
2010 : \$ 90,000
2011 : \$ 60,000
2012 : \$ 60,000
Primary RFCD 3212 PUBLIC HEALTH AND HEALTH SERVICES
Administering Organisation Deakin University

Project Summary

There are negative impacts of obesity, poor diet and physical inactivity on physical, psychological and social wellbeing and national economic costs associated with these burdens are substantial. Obesity and its associated illnesses are estimated to cost Australian health services \$1.2 billion a year. An understanding of the modifiable determinants of nutrition and physical activity behaviours is required in order to develop effective interventions to promote health and well-being. Promoting physical activity and a healthy diet thus has the potential to substantially reduce the burden of disease in Australia and improve quality of life.

Summary of Discovery Projects Proposals for Funding to Commence in 2010

DP1092722 Dr MA Parris; Dr UD Jogulu

Approved Project Title **Career aspirations of Australia's immigrant managers from the Asia-Pacific region: Developing a cross-cultural framework**

2010 : \$ 31,000

2011 : \$ 20,000

2012 : \$ 25,000

Primary RFCD 3502 BUSINESS AND MANAGEMENT

Administering Organisation Deakin University

Project Summary

For over a decade, Asian migration has dominated Australia's expanding skilled migration intake. However, there has been little appreciation of cross-cultural influences on career management, which have implications for employees' personal fulfilment and job satisfaction. This project, in advancing understanding of the interplays of cultural background and managerial career aspirations of the newcomers, will assist Australian organisations in developing culturally-sensitive policies and programs in the workplace. It will aid both organisations and government authorities in furthering their goals of promoting regional economic partnerships through increased understanding and engagement with our Asia-Pacific neighbours.

DP1095509 Prof MB Powell; Dr JA Lum; Dr PC Snow

Approved Project Title **Understanding the relationship between child maltreatment and language competence: An evidential interviewing perspective.**

2010 : \$ 40,000

2011 : \$ 40,000

2012 : \$ 26,000

Primary RFCD 3801 PSYCHOLOGY

Administering Organisation Deakin University

Project Summary

This research aims to develop the first comprehensive and controlled examination of the oral language profiles of maltreated children and how these impact performance in an investigative interview paradigm. This examination is essential for developing strategies for improving the elicitation of evidence from child abuse witnesses. By improving child witness evidence, this research will improve the prosecution and conviction rates of child abuse offences, which will have a deterrent effect on potential offenders. Finally, this research will reduce the stress of witnesses involved in the legal process and provide better screening of children in need of specialised language intervention.

DP1094661 Dr AM Renzaho; Prof BA Swinburn; Prof SK Lo; A/Prof DJ Mellor; Dr JB Green

Approved Project Title **African youth and obesity: The role of the intergenerational acculturation gap**

2010 : \$ 100,000

2011 : \$ 82,000

2012 : \$ 70,000

2013 : \$ 42,000

Primary RFCD 3212 PUBLIC HEALTH AND HEALTH SERVICES

Administering Organisation Deakin University

Project Summary

The financial cost of obesity to the Australian community is estimated to be \$21.9 billion when the costs borne by individuals are taken into account. Understanding and addressing factors that extenuate health inequalities and reduce obesity will lead to a reduction in the burden of diseases and healthier ageing population. Our study will be the first to apply acculturation theories to examine the family environment and family dynamics that predispose adolescents from one of the fastest growing immigrant populations, Africans, to obesity, and to produce culturally competent and tested models to inform large scale, population-level obesity prevention programs and policies.

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DP1094546 A/Prof LA Ricciardelli; A/Prof DJ Mellor; Prof MP McCabe; A/Prof AJ Mussap

Approved Project Title **Promoting fit bodies, healthy eating and physical activity among Indigenous Australian men**

2010 : \$ 83,000
2011 : \$ 75,000
2012 : \$ 75,000

Primary RFCD 3801 PSYCHOLOGY

Administering Organisation Deakin University

Project Summary

Overall, the physical and emotional health of our Indigenous people is the worst in Australia. A major contributing factor is the significant lifestyle changes that have eroded traditional ways of life. These include the adoption of diets that are high in fat, sugar and salt, and a decline of physical activity. As these determinants of poor health are preventable, we will work with Indigenous men and their communities to target cultural factors and develop health promotion strategies that can be used to improve their health.

DP1092804 Dr H Skouteris; Prof MP McCabe; A/Prof LA Ricciardelli; Prof J Milgrom; Prof LA Baur

Approved Project Title **How do parenting and parent-child interactions impact on preschool children's eating, physical activity habits, and subsequent patterns of weight gain?**

2010 : \$ 50,000
2011 : \$ 50,000
2012 : \$ 50,000

Primary RFCD 3801 PSYCHOLOGY

Administering Organisation Deakin University

Project Summary

The cost to society of obesity is high from both a financial and psychosocial perspective. Australian researchers can take a lead in the prevention of obesity during the formative preschool years, when models of risk factors are examined systematically and rigorously. This research will be the first prospective study to evaluate the impact of parental cognitions and behaviours, parent-child interactions, family/demographic characteristics and child characteristics on child risk factors (dietary intake, physical activity, sedentary behaviours) during the preschool years. The findings will assist in developing evidence-based intervention strategies for maintenance of healthy weight gain in preschool children.

DP1093570 Dr GM Turchini; Prof AJ Sinclair; A/Prof ML Ackland

Approved Project Title **Triggering the dormant capacity of fish to make omega 3 fatty acids**

2010 : \$ 80,000
2011 : \$ 80,000
2012 : \$ 80,000
2013 : \$ 50,283
2014 : \$ 50,283

Primary RFCD 3007 FISHERIES SCIENCES

ARF Dr GM Turchini

Administering Organisation Deakin University

Project Summary

Marine fisheries cannot expand further, leaving aquaculture (fish farming) with the challenge of meeting the growing demand for fish, whose consumption is known to enhance human health. Fish oil is an essential component of the feed used in aquaculture, but there is a decreasing global supply of this commodity. This innovative nutritional biochemistry project boosts the capacity of fish to produce their own fish oil from vegetable oils in their diet. Therefore, this project will enable the expansion of aquaculture as an economically and environmentally sustainable means to produce the highest quality, nourishing fish for human consumption.

Summary of Discovery Projects Proposals for Funding to Commence in 2010

DP1094979 Prof X Wang; Dr T Tsuzuki; Dr SV Smith; Prof D Kaplan

Approved Project Title **Protein Fibre Powders: Production, Characterisation and Applications**

2010 : \$ 140,000

2011 : \$ 150,000

2012 : \$ 160,000

Primary RFCD 2914 MATERIALS ENGINEERING

Administering Organisation Deakin University

Project Summary

Australia leads the world in the production of protein fibres such as wool. Traditionally, these fibres are used primarily for textile related applications, which have been increasingly relying on the much cheaper synthetic fibres. The outcome from this research will be very significant in that it will underpin the future development of a sustainable protein fibre industry, through value-added and high-end applications. It will further strengthen our world leading position in the production, characterisation and application of protein powder materials.