

Summary of Linkage Projects Proposals for Funding to Commence in 2008

Victoria

Monash University

LP0882735 Prof DA Abramson; Dr M Lackmann; Dr M Haase; Dr IS Harper; Dr S Scheck

Approved Project Title **A high throughput Grid based environment for real time bio-medical imaging**

2008 : \$ 190,000

2009 : \$ 190,000

2010 : \$ 190,000

Primary RFCD 2803 COMPUTER SOFTWARE

APA(I) Award(s): 2

Collaborating/Partner Organisation(s)

Leica Microsystems

Administering Organisation Monash University

Project Summary

Together with Leica, we will build a virtual microscope facility that will provide substantial functionality not currently available in Australia. This facility will have major national and international impact on bio-medical imaging. The software solutions and infrastructure, developed as part of this program will have considerable commercial and strategic value in their own right. One guaranteed avenue for exploitation of the software will clearly be through our industry partner, Leica. Importantly, our proposal consolidates a critical mass of expertise connecting biomedical with computer science, thereby addressing a well-recognised constraint that to date has limited their national and international impact.

LP0882000 Dr PG Betts; Prof D Giles; Dr G Baines; Mr M Fairclough; Dr BF Schaefer

Approved Project Title **Unearthing the Marginal Terranes of the South Australian Craton: Keystone of Proterozoic Australia**

2008 : \$ 140,000

2009 : \$ 200,000

2010 : \$ 90,000

Primary RFCD 2601 GEOLOGY

APDI Dr G Baines

Collaborating/Partner Organisation(s)

Primary Industry and Resources South Australia

Administering Organisation Monash University

Project Summary

This project will investigate the buried geology of vast regions of northern South Australia that is likely to be compatible with rocks that host enormous mineral wealth including the giant Broken Hill and Olympic Dam deposits. We will access these buried rocks using a program of on-shore scientific drilling that will provide the ground truth for multi-million dollar federal and state government funded geophysical data acquisition. Results will help identify prospective mineral belts and determine the processes responsible for their formation.

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LP0882083 Dr MJ Dempsey; Prof RW Faff; A/Prof PR Lajbcygier; A/Prof M Veeraraghavan; Dr LS Irlicht; Mr L de Bever

Approved Project Title **An Empirical Examination of Non-Market Capitalisation Weighted Indices in Australia**

2008 : \$ 55,000

2009 : \$ 55,000

2010 : \$ 55,000

Primary RFCD 3503 BANKING, FINANCE AND INVESTMENT

APA(I) Award(s): 1

Collaborating/Partner Organisation(s)

Victorian Funds Management Corporation

Administering Organisation Monash University

Project Summary

If Australian fund managers switched from capital weighted indices to fundamental weighted indices, due to their greater efficiency, millions of Australians may have more money at retirement and thus reduce the burden on government to supplement their retirement income. Also, providing practical industry directed research, and PhD graduates in portfolio management will enhance both finance academia and industry and improve the quality and breadth of finance practice and research in Australia.

LP0882533 Dr D Liew; Prof MJ Dooley; Prof J Wilson

Approved Project Title **COst-effectiveness analyses of improved adherence to Management PLans among AUstrALIANS (COMPLIANS)**

2008 : \$ 95,000

2009 : \$ 102,190

2010 : \$ 109,787

Primary RFCD 3212 PUBLIC HEALTH AND HEALTH SERVICES

APA(I) Award(s): 1

Collaborating/Partner Organisation(s)

Bayside Health

Roche Products Pty Limited

Administering Organisation Monash University

Project Summary

Chronic diseases are the leading cause of disability in the community and over \$34billion is spent each year on health services in Australia treating these diseases. It is hoped that the project will lead to identification of opportunities for cost-effective prevention and treatment of lung and other chronic diseases and that this will lead to more cost-effective deployment of healthcare resources. Improvements in the management and treatment of these diseases will result in an improvement in the quality of life of Australian patients, and their active and productive participation in society for as long as possible.

LP0882953 Dr HJ Netter; Prof EJ Gowans

Approved Project Title **Antiviral compounds to inhibit the replicase of hepatitis C virus.**

2008 : \$ 25,627

2009 : \$ 25,627

2010 : \$ 25,627

Primary RFCD 3299 OTHER MEDICAL AND HEALTH SCIENCES

APA(I) Award(s): 1

Collaborating/Partner Organisation(s)

Avexa

Administering Organisation Monash University

Project Summary

Hepatitis C virus is a major public health problem. There are currently 200,000 infected individuals in Australia and 16,000 new infections every year. There is no specific treatment and current therapy treats a small percentage of patients only, which consists of interferon-alpha and ribavirin. This results in side effects and only a 50% cure rate. This study's outcomes are expected to lead to greater access to treatment and improved therapy resulting in higher cure rates and in a dramatic reduction in the cost of treating patients. A novel therapy will provide considerable benefits for the national biotechnology industry.

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LP0882311 Dr AM Walmsley; Prof BC Finnin; Prof JD Hamill; Prof EN Meeusen; A/Prof GD Sanson; Dr SR Webb

Approved Project Title **Plant Cells for Improved Oral Delivery of Vaccines**

2008 : \$ 147,561

2009 : \$ 147,561

2010 : \$ 147,561

Primary RFCD 2708 BIOTECHNOLOGY

APA(I) Award(s): 1

Collaborating/Partner Organisation(s)

Dow AgroSciences LLC

Administering Organisation Monash University

Project Summary

The pharmaceutical industry is ever assessing methods of improved delivery of their valuable vaccines, pharmaceuticals and nutraceuticals. The oral route increases ease of delivery, is less expensive, and has increased patient compliance. It may also allow vaccination of free-ranging animal populations that may otherwise go untreated. Optimizing oral delivery of plant-made, valuable proteins will therefore have broad ramifications to animal and human health industries, enhancing use of existing valuable compounds and creating opportunities for new compounds and user groups including wild and domesticated animals.

LP0882127 Dr PA Webley; Dr GM Forde; Prof X Chen; Dr AF Hoadley; Dr N Moheimani

Approved Project Title **Renewable energy from carbon dioxide: Process engineering to obtain bio-oil from algae.**

2008 : \$ 243,044

2009 : \$ 213,673

2010 : \$ 226,000

Primary RFCD 2901 INDUSTRIAL BIOTECHNOLOGY AND FOOD SCIENCES

Collaborating/Partner Organisation(s)

Energetix (Biofuels Pty Ltd)

Administering Organisation Monash University

Project Summary

The Stern Report (2007)[1] has called for a CO₂ REDUCTION BY MORE THAN 80% in 10-20 years to prevent profound changes in the climate over coming centuries. The proposed project will capture CO₂ using algae then off-set the capital investment and on-going expenses of the CO₂ capture technology by creating high value products from algae (i.e. bio-diesel, livestock feed and purified water). This process aims to be independently profitable regardless of future carbon taxes or carbon trading systems. This project also investigates water purification methods and new livestock feed additives which can help reduce the effects of drought on food producers in rural and regional areas.

LP0882906 A/Prof JC Zhu; Prof H De Cieri; Dr K Hutchings; Prof CT Nyland; Dr J Shen

Approved Project Title **Constructing a Chinese International Human Resource Management System in Regional Australia: The Case of CHALCO (The Aluminum Company of China)**

2008 : \$ 80,000

2009 : \$ 78,000

2010 : \$ 55,000

Primary RFCD 3502 BUSINESS AND MANAGEMENT

Collaborating/Partner Organisation(s)

Aluminium Corporation of China Limited

Administering Organisation Monash University

Project Summary

Australians will benefit from the project for it will: 1) increase the nation's resource base; 2) improve the balance of payments; 3) increase regional development, income and employment; 4) motivate other Chinese firms to invest in Australia; 5) contain social disputation and ensure the interests of multiple stakeholders will benefit from CHALCO's investment; 6) help generate a good industrial relations climate in the region where the refinery is to be sited; and 9) induce the construction of improved regional social infrastructure. It will also enable Australia scholars to become world leaders in the study of Chinese MNC's policies and practices.