

Summary of Linkage Projects Applications for Funding to Commence in 2006

Tasmania

University of Tasmania

LP0668904 Dr DE Evans; Dr JK Eglinton; Dr LH Robinson; Dr D Stewart

Approved Project Title Investigation of the impact of malt haze active proteins to improve brewing efficiency and beer quality

2006 : \$12,325

2007 : \$24,650

2008 : \$27,325

2009 : \$15,000

Primary RFCD 3002 CROP AND PASTURE PRODUCTION

APA(I) Award(s): 1

Partner Organisation(s)

Lion Nathan Ltd.

Joe White Maltings Pty. Ltd.

Administering Institution University of Tasmania

Project Summary

Australia is a major world exporter of malting barley (~2 million t/pa) and malt (600,000 t/pa), primarily to the rapidly expanding Asian economic development region. An additional 200,000 t/pa of malt is provided to the Australian domestic brewing industry. By improving the quality of Australian malting barley and optimising the cost of brewery colloidal stabilisation measures, we expect higher demand and prices for Australian malting barley and malt. This will help support the viability of rural communities and the value adding involved in the malting and brewing of their produce in Australia.

LP0669302 Prof PR Haddad; Dr GW Dicoski; Dr EF Hilder; Dr MC Breadmore; Dr RA Shellie; Dr PE Jackson; Dr CJ Lennard

Approved Project Title Pre-blast screening of improvised explosive devices - a National counter-terrorism initiative

2006 : \$125,000

2007 : \$195,000

2008 : \$140,000

2009 : \$70,000

Primary RFCD 2504 ANALYTICAL CHEMISTRY

APA(I) Award(s): 1

Partner Organisation(s)

Dionex Pty Ltd

Australian Federal Police

National Institute for Forensic Science

Australian Customs Service

Forensic Science South Australia

Victoria Police

Department of Transport and Regional Services (DOTARS)

Tasmania Police

Qantas

Administering Institution University of Tasmania

Project Summary

The proposed research is focused on the specific needs of Australian counter-terrorism interests, including those of border protection, the customs service, transport authorities, forensic laboratories, etc. The support of this proposal will ensure that Australia, and its States and Territories are protected against terrorist threats. The support provided by the collaborating organisations from the various Federal and State police and forensic agencies, and the customs service, etc, highlights the importance of this project to the nation. Finally, a PhD student and a research assistant will be involved with the project and will gain specialised skills positioning them to make strong contributions to Australia's counter-terrorism measures.

Summary of Linkage Projects Applications for Funding to Commence in 2006

LP0669245 Dr MA Kashem; Dr V Karri; A/Prof M Negnevitsky

Approved Project Title **Hybrid Remote Area Power Systems with Hydrogen Energy Storage for Isolated and Regional Communities**

2006 : \$56,000

2007 : \$106,000

2008 : \$100,000

2009 : \$50,000

Primary RFCD 2909 ELECTRICAL AND ELECTRONIC ENGINEERING

APA(I) Award(s): 2

Partner Organisation(s)

Hydro Tasmania

Administering Institution University of Tasmania

Project Summary

The distances and difficulties of transporting diesel to remote areas substantially add to the cost of electricity - making it many times the cost of supplies available from the grid. Consistency of electricity supply is dependent on reliable transport access and substantial storage for fuel on site. This project will reduce emissions in energy generation and provide the opportunity for mainly renewable, high-quality electricity supplies at reduced cost for remote and isolated communities. This will make communities more self-sufficient, enhance the quality of life and provide opportunities for initiatives, including economic and employment generating activities, to benefit the communities.

LP0669742 Dr CL Mohammed; Miss A Smith; Dr CL Beadle; Dr JM O'Reilly-Wapstra; Dr NW Davies; Dr TJ Wardlaw; Dr AJ Carnegie; Prof P Bonello; Dr S Woodward

Approved Project Title **Linking environmental stress in pine plantations to bark stripping by browsers and fungal attack: developing novel options for management**

2006 : \$38,120

2007 : \$76,240

2008 : \$75,790

2009 : \$37,670

Primary RFCD 3006 FORESTRY SCIENCES

APDI Miss A Smith

Partner Organisation(s)

Forestry Tasmania

NSW DPI

Hosking Forestry Ltd.

Rayonier Tasmania

Softwood Tasmania Operator Ltd (trading as Taswood Growers)

Norske-Skog

Administering Institution University of Tasmania

Project Summary

The Australian forest industry, under the pressure of certification requirements, is moving towards a more integrated, reduced chemical, environmentally sustainable approach to protecting forest. Novel insights into the stress biology of pine will provide valuable information that will underpin efforts to reduce risk e.g. the matching of specific genotypes to site so that pest resistance can be maintained even under environmental stress conditions. By understanding the 'attraction' factor of stressed pine to wallabies we will develop and test an urgently and nationally required diversionary feed for this browser. Lethal control involving poison is becoming increasingly restricted.

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LP0669503 Dr CJ Spurr; Dr JL Weller; Dr PH Brown; Dr AJ Gracie; Mr RG Driessen; Mr A Baelde

Approved Project Title **Molecular tools for understanding, predicting and managing flowering and reproductive development in Brassica oleracea**

2006 : \$22,500

2007 : \$45,000

2008 : \$50,000

2009 : \$27,500

Primary RFCD 3003 HORTICULTURE

APA(I) Award(s): 1

Partner Organisation(s)

Rijk Zwaan Australia Pty Ltd

Administering Institution University of Tasmania

Project Summary

This project integrates basic research with application to a significant horticultural industry, building on Australia's position as a leader in world research on molecular and genetic regulation of flowering. The project will strengthen Australia's research reputation in this field, provide new tools for cultivar screening in and management of B. oleracea seed crops. The project will deliver training for 3 PhD students at the interface between basic and applied research. A shortage of skilled scientists with ability to link understanding of plant development at the molecular/genetic level with improved crop management practices has been identified by the horticultural sector as a major challenge.

LP0669106 Dr JM Watson; Dr RA Callingham; Mrs SP Kong; Mr W Finzer; Mr AP Harradine

Approved Project Title **Longitudinal change for teachers and students in relation to professional learning in statistics education**

2006 : \$50,000

2007 : \$100,000

2008 : \$100,000

2009 : \$50,000

Primary RFCD 3302 CURRICULUM STUDIES

APA(I) Award(s): 2

Partner Organisation(s)

Australian Bureau of Statistics

Key Curriculum Press

Noel Baker Centre for School Mathematics, Prince Alfred College

Administering Institution University of Tasmania

Project Summary

There is a growing need in Australia's information society for statistically literate citizens, and for more young people to choose to continue their study of statistics past school. The evidence-based research outcomes for both teachers and students in this study, based on an innovative professional learning program catering for individual requirements of teachers, will provide a model for industries and education systems to follow in reaching these goals. Further, each of the three collaborating industries will participate in research-based investigations into the benefits of its contributions to enhancing teacher and student outcomes in relation to statistics at the school level.