

Western Australia

Curtin University of Technology

LP0883460 A/Prof SM Aoun; A/Prof MC Oldham; Prof LJ Kristjanson

Approved Project Title **To implement and evaluate flexible models of palliative care service delivery for terminally ill people living alone at home.**

2008 : \$ 26,976

2009 : \$ 53,130

2010 : \$ 26,154

Primary RFCD 3212 PUBLIC HEALTH AND HEALTH SERVICES

Collaborating/Partner Organisation(s)

Silver Chain Hospice Care Service

Administering Organisation Curtin University of Technology

Project Summary

Provision of evaluated services for this growing population group will lead to better planning and implementation of care being delivered at home, improved quality of life, increased capacity to die at home, and a reduction in hospitalisations and other health care costs.

LP0884027 Dr RL Mancera; A/Prof GJ Bryant; Prof AE Mark; Dr SR Turner; Dr P Che; Dr E Bunn

Approved Project Title **Development of cryopreservation for high value provenance collections of recalcitrant plant species used in post-mining restoration**

2008 : \$ 75,000

2009 : \$ 150,000

2010 : \$ 150,000

2011 : \$ 75,000

Primary RFCD 2499 OTHER PHYSICAL SCIENCES

APA(I) Award(s): 1

Collaborating/Partner Organisation(s)

Alcoa World Alumina Australia

Worsley Alumina Pty Ltd

Botanic Gardens and Parks Authority

Administering Organisation Curtin University of Technology

Project Summary

This project will develop new and innovative ways to store highly valued native plant germplasm at ultra cold temperatures (-196 °C, in liquid nitrogen) as a means to ensure that elite genotypes used in minesite restoration and critically endangered species are not lost forever to extinction. This project will be the first of its type in Australia utilising a multidisciplinary approach to answer key storage questions and will provide significant national benefits to conservation programs and landcare groups, providing these with additional resources to ensure the long-term survival of native plant germplasm collections.

Summary of Linkage Projects Proposals for Funding to Commence in 2008

LP0883877 Dr BJ Mullins; Mr W Heikamp; Prof G Kasper

Approved Project Title **Increasing the operational lifetime and optimising the design of crankcase oil-mist filters**

2008 : \$ 40,000

2009 : \$ 60,000

2010 : \$ 40,000

2011 : \$ 20,000

Primary RFCD 2906 CHEMICAL ENGINEERING

APA(I) Award(s): 1

Collaborating/Partner Organisation(s)

MANN+HUMMEL GmbH

Administering Organisation Curtin University of Technology

Project Summary

Australia is one of the largest (per capita) users worldwide of heavy diesel engines, within sectors such as transport, mining, construction, shipping and power generation (usage of many of the above is concentrated in regional communities e.g. mining). This work will minimise emissions from such industries, as well as reduce lubricant oil usage - thereby maximising waste oil recovery and reuse (approx 5500 tonnes p.a.). Oil mists can be regarded as volatile organic compounds (VOCs) for the purposes of CO2 equivalent emissions, so therefore, the efficient capture of oil mists will reduce carbon emissions from the above industries in Australia.

LP0883956 Dr B Rasmussen; Dr B Krapez; Prof A Bekker

Approved Project Title **Tectonothermal and mineralization history of banded iron formations of the north Pilbara Craton**

2008 : \$ 82,500

2009 : \$ 162,500

2010 : \$ 80,000

Primary RFCD 2601 GEOLOGY

Collaborating/Partner Organisation(s)

BHP Billiton Iron Ore Pty Ltd

Administering Organisation Curtin University of Technology

Project Summary

Iron ore is Australia's largest single export commodity, accounting for 8% (\$12.8 billion) of total merchandise exports in 2006. Most of that value comes from the Pilbara region of Australia. Discovery rates of new deposits have declined over the past two decades, while many mines are nearing the end of production. Exploration expenditure has also declined. There is therefore an urgent need to reinvigorate exploration to maintain an industry that underpins much of Australia's regional wealth. Outcomes of the project will provide exploration with improved geological tools with which to develop superior exploration models and thereby better direct exploration strategies.

Summary of Linkage Projects Proposals for Funding to Commence in 2008

LP0883347 Prof S Venkatesh; Dr MM Lazarescu; Dr T Tan; Dr D Pham; Dr W Liu

Approved Project Title **Intelligent Security in Urban Spaces**

2008 : \$ 65,000

2009 : \$ 120,000

2010 : \$ 105,000

2011 : \$ 50,000

Primary RFCD 2802 ARTIFICIAL INTELLIGENCE AND SIGNAL AND IMAGE PROCESSING

Collaborating/Partner Organisation(s)

DTI Group Ltd

Western Australia Police

Public Transport Authority

Administering Organisation Curtin University of Technology

Project Summary

Successful completion of this work will contribute greatly to Safeguarding Australia, Priority Area 4, and lead to further commercial exploitation on the national and international stages. In particular, we are responding to increasing demand from our partners for sophisticated surveillance systems for infrastructure and public transport. The adoption of these technologies by DTI, with international contracts for video surveillance, positions Australia to gain the leading edge in this niche industry. Additionally we deliver solutions to our end user partners, PTA and WA Police, to facilitate enhanced community security. We will also build research capacity for surveillance technologies through advanced training of research staff.

LP0883359 Prof S Venkatesh; Dr DQ Phung; Dr BD Adams; Prof GA West; Prof TL Packer

Approved Project Title **Smart technologies for people with vision impairment and blindness**

2008 : \$ 78,197

2009 : \$ 158,740

2010 : \$ 163,502

2011 : \$ 82,959

Primary RFCD 2802 ARTIFICIAL INTELLIGENCE AND SIGNAL AND IMAGE PROCESSING

Collaborating/Partner Organisation(s)

Lions Eye Institute Limited

Association for the Blind of WA

Administering Organisation Curtin University of Technology

Project Summary

Our technological solutions for early detection of disease provide the best opportunity for effective treatment, and provision of strategies capable of assisting individuals. It aims to empower primary care providers and will lead to more effective screening methods and improved efficiencies in redirecting resources towards those whose eye disease is treatable. It will further improve and enable access to specialist eye care for those living in rural, regional and remote locations. The assistive technologies for the blind will greatly enhance the quality of life of the visually impaired, enhancing their quality of life and removing several risk factors. The net annual savings to the Government from these projects would be considerable.