

Summary of Linkage Projects Proposals for Funding to Commence in 2009

New South Wales

University of Technology, Sydney

LP0990911 Prof Dr LY Behrendt

Approved Project Title Investigation of factors that render Indigenous communities in NSW less prone to crime

2009 : \$ 38,000

2010 : \$ 77,000

2011 : \$ 39,000

Primary RFCD 3904 LAW ENFORCEMENT

Collaborating/Partner Organisation(s)

NSW Department of Attorney General

Administering Organisation University of Technology, Sydney

Project Summary

Aboriginal and Torres Strait Islander people are over-represented at all stages of the criminal justice system, with significant negative ramifications for the health and well-being of Indigenous families and communities. This study seeks to better understand the dynamics of communities experiencing higher and lower crime rates, and factors that might assist in not only lowering crime rates in Indigenous communities, but in improving health and well-being more generally. Enabling Indigenous individuals, families and communities to be able to participate and make choices that lead to healthy, productive and fulfilling lives will undoubtedly also contribute to Australian society as a whole.

LP0991643 Dr B Fatahi; Dr H Khabbaz

Approved Project Title Enhanced Analysis of Time Dependent Viscous Behaviour of Soft Clay

2009 : \$ 26,140

2010 : \$ 52,280

2011 : \$ 52,280

2012 : \$ 26,140

Primary RFCD 2908 CIVIL ENGINEERING

APA(I) Award(s): 2

Collaborating/Partner Organisation(s)

Austress Menard Pty Ltd (Sustainable Technology)

Administering Organisation University of Technology, Sydney

Project Summary

Often post construction settlements of structures overlying clayey soils have been observed to be more than those predicted, or the predicted rate of settlement is not correct. The main benefit of this research is providing an accurate but simplified approach, which can be used by practicing engineers to predict the post construction settlement of structures in the design phase of construction projects. The community can considerably benefit from the findings of this project including safer structures, significant reduction in the future maintenance costs and enhancing the performance of bridges, buildings, roads, railways and dams with less cracks and differential settlement.

Summary of Linkage Projects Proposals for Funding to Commence in 2009

LP0990750 Dr DH Goldbaum; Prof JJ Louviere

Approved Project Title Experiments in the Dynamics of Preference and Choice in an Evolving Social Network

2009 : \$ 72,500

2010 : \$ 113,500

2011 : \$ 73,500

2012 : \$ 32,500

Primary RFCD 3502 BUSINESS AND MANAGEMENT

Collaborating/Partner Organisation(s)

PureProfile

Administering Organisation University of Technology, Sydney

Project Summary

This project offers revolutionary insight into the process by which social leaders emerge and leadership evolves over time. The project improves the understanding of how decisions are made individually and at group levels with important implications for commerce, marketing, and policy. Project results foster managing network development and evolution, allowing firms and government agencies to understand how they can use networks to disseminate information to consumers and individual citizens. The results will also inform the development of regulations targeting reductions in herding where such behaviour can cause harmful market disruptions.

LP0990949 A/Prof EJ Harry; A/Prof CB Whitchurch; A/Prof DA Carter; Dr L Turnbull; Dr R Schlothauer

Approved Project Title Investigating the Ability of Honey to Inhibit Bacterial Biofilms Found in Chronic Wounds

2009 : \$ 52,500

2010 : \$ 105,000

2011 : \$ 105,000

2012 : \$ 52,500

Primary RFCD 2703 MICROBIOLOGY

Collaborating/Partner Organisation(s)

COMVITA NEW ZEALAND LTD

Administering Organisation University of Technology, Sydney

Project Summary

Chronic (non-healing) wounds are a serious health problem in Australia. One quarter of our institutionalized aged population have pressure ulcers. The difficulty in treating these wounds is that most contain communities of bacteria, called biofilms, that are not killed by conventional antibiotics. Special honeys from Australia and NZ that are effective in chronic wound treatment can eradicate these biofilms. This project will identify the components in honey that do this and determine how they do it, to provide a more effective chronic wound treatment. It will decrease the prevalence of these wounds in Australia and the associated personal trauma and health costs.

LP0991027 Dr PJ Maynard; Prof CP Roux; Dr AM McDonagh; Dr KP Kirkbride

Approved Project Title Near Infrared (IR) Laser Dyes for Latent Fingermark Detection

2009 : \$ 15,000

2010 : \$ 39,000

2011 : \$ 38,500

2012 : \$ 14,500

Primary RFCD 3904 LAW ENFORCEMENT

APA(I) Award(s): 1

Collaborating/Partner Organisation(s)

Australian Federal Police

Administering Organisation University of Technology, Sydney

Project Summary

This project will enable Australian law enforcement agencies to recover latent fingerprints from difficult surfaces through the use of near infrared dyes. The project will allow the recovery of fingerprints from a scene which would otherwise be lost to an investigation. We will provide new fingerprint development techniques and imaging methods to law enforcement agencies, enhancing their ability to identify a perpetrator and thereby reducing crime rates.

Summary of Linkage Projects Proposals for Funding to Commence in 2009

LP0991544 Dr HK Shon; Dr AM McDonagh; Prof HJ Kim

Approved Project Title **Photodesorption Phenomena and Photoreactive Nanosorbent Materials for Water and Wastewater Purification**

2009 : \$ 30,000

2010 : \$ 60,000

2011 : \$ 60,000

2012 : \$ 30,000

Primary RFCD 2911 ENVIRONMENTAL ENGINEERING

APA(I) Award(s): 1

Collaborating/Partner Organisation(s)

Photo & Environmental Technology Co. Ltd.

Administering Organisation University of Technology, Sydney

Project Summary

Introducing more efficient production of drinking water and wastewater treatment methods for reuse is important to address increasing water scarcity in Australia. The proposed project will develop a water purification technology to remove pollutants using a recently discovered process. This process offers simple and affordable operation that is clean, robust and requires minimal attention. The technology is particularly suitable for small-scale applications in rural and remote areas, and has significant export potential. The project will strengthen established links between Australian and Korean research centres through the production of improved nanomaterials, and the development of the novel water purification technology

LP0990217 Prof D Slade; Prof RA Iedema; Prof E Manias; Prof P Barach; Prof PR Della; Em/Prof M Battersby; Prof LE Farrell; A/Prof HB Scheeres; Prof WP Chaboyer; Dr R Sorensen; Dr BM Watson; Adj/Prof DA Jones; Dr J Wakefield; Ms JS Gray; Ms A Jones; Dr JN Jureidini

Approved Project Title **Effective clinical handover communication: improving patient safety, experience and outcomes**

2009 : \$ 55,000

2010 : \$ 80,000

2011 : \$ 70,000

2012 : \$ 45,000

Primary RFCD 3212 PUBLIC HEALTH AND HEALTH SERVICES

APA(I) Award(s): 1

Collaborating/Partner Organisation(s)

Department of Health, Western Australia

NSW Department of Health

ACT Health

Queensland Health

SA Health (Public Health & Clinical Coordination)

Administering Organisation University of Technology, Sydney

Project Summary

Improving written and spoken communication in clinical handover will significantly reduce critical incidents in hospitals. The link between communication and critical incidents in hospitals is well documented. One third of the \$2 billion p.a. direct financial costs to Australia of critical incidents, is attributed to poor communication between clinicians. National and international governments and health agencies have targeted clinical handover as critical in safe, effective health care. This project will generate new knowledge of handover to significantly improve patient safety and enable health professionals to enhance their communicative practices, thereby improving the quality of the patient journey through the hospital system.