

# Summary of Discovery Projects Proposals for Funding to Commence in 2010

## South Australia

### The Flinders University of South Australia

**DP1093210** Prof N Brewer; Dr N Weber; Prof DS Lindsay

**Approved Project Title** Identifying the bad guy with deadlined confidence judgments

**2010 :** \$ 84,000

**2011 :** \$ 118,000

**2012 :** \$ 142,000

**2013 :** \$ 80,000

**Primary RFCD** 3801 PSYCHOLOGY

**Administering Organisation** The Flinders University of South Australia

#### Project Summary

There is major interest in the successful conduct of criminal investigations. Identity tests are commonly used in such investigations, but eyewitness decision accuracy is still unacceptably low. While eyewitness memory research has already contributed significantly to the development of procedures that improve the diagnosticity of identification decisions, our proposal offers radical new alternatives that can significantly improve diagnosticity. In refining and evaluating these alternatives we will boost the profile of Australian science research and provide rich international training environments for young Australian and overseas scientists.

**DP1094894** Prof CM Bull; Prof JF Roddick; Prof A Sih

**Approved Project Title** Behavioural syndromes and social networks in sleepy lizards

**2010 :** \$ 125,000

**2011 :** \$ 125,000

**2012 :** \$ 125,000

**Primary RFCD** 2707 ECOLOGY AND EVOLUTION

**Administering Organisation** The Flinders University of South Australia

#### Project Summary

Fauna in Australian ecosystems are threatened by habitat fragmentation, changing environments and the spread of exotic pathogens. To manage these threats we need to understand the behavioural flexibility of wildlife populations. This project focuses on how individual behavioural differences can influence social networks and consequently pathogen transmission. It will help to protect our fauna from invasive diseases and contribute to sustaining biodiversity. With better knowledge of how diseases spread we can develop more effective controls of those diseases, thereby protecting wildlife species, animal populations and Australian ecosystems.

**DP1096658** A/Prof JG Mitchell; Prof A Ball; Prof R Lal; Prof Dr BE Logan; Prof R Stocker

**Approved Project Title** Motility as a means to understand prokaryotic function in the biosphere

**2010 :** \$ 75,000

**2011 :** \$ 75,000

**2012 :** \$ 75,000

**Primary RFCD** 2703 MICROBIOLOGY

**Administering Organisation** The Flinders University of South Australia

#### Project Summary

Bacterial processes are crucial to the environment, industry and technology of Australia. This work will open a new area of research to expand our understanding of how bacteria behave and function. This will lay the foundation for improved environmental management and resource utilisation in the critical areas of groundwater purification, coral infections, fisheries yields, petroleum remediation and bioenergy generation. This proposal will train over a dozen new scientists in these crucial areas and bring leading international scientists to Australia in the areas of bioenergy production, microfluidics, advanced microscopy and bioengineering.

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**DP1093238** Dr F Reith; Prof A Ball; Dr SA Wakelin; Prof J Fein; Prof G Southam

**Approved Project Title** **The geomicrobiology and (bio)geochemistry of platinum, palladium and rhodium**

**2010 :** \$ 170,000

**2011 :** \$ 170,000

**2012 :** \$ 160,000

**2013 :** \$ 70,000

**2014 :** \$ 70,000

**Primary RFCD** 2603 GEOCHEMISTRY

**ARF** Dr F Reith

**Administering Organisation** The Flinders University of South Australia

### Project Summary

Few economic (Platinum) Pt, (Palladium) Pd or (Rhodium) Rh deposits are known in Australia despite an abundance of potential host rock. By improving onshore exploration techniques this project will ensure the supply of these strategic metals to the Australian economy. By integrating geochemical, molecular microbial and microanalyses (e.g., synchrotron) techniques this project will also: (i) enhance Australia's status in the breakthrough science of Geomicrobiology; (ii) secure a leading role for Australian science in the assessment of anthropogenic Pt, Pd and Rh pollution; (iii) access expertise developed overseas by fostering international collaborations; and (iv) explore the transformational capabilities of microbiota for ore-processing of and nano-particle production.

**DP1096888** Prof SL Roach Anleu; Prof K Mack

**Approved Project Title** **Courts, the Judiciary and Social Change**

**2010 :** \$ 129,000

**2011 :** \$ 121,000

**2012 :** \$ 120,000

**Primary RFCD** 3701 SOCIOLOGY

**Administering Organisation** The Flinders University of South Australia

### Project Summary

While few Australians have direct experience of courts, nearly all agree that courts are important to the community, though public confidence is low. Social changes and the ambiguous position of courts in relation to change are part of this tension. This project will undertake a concrete examination of one aspect of social change and the courts: the increasing number of women in the judiciary. The focus on how gender interacts with judicial work and the wider roles of courts will produce new and valuable understandings of gender and judging, gender and work, and courts and social change. Better knowledge about these complex relationships will strengthen Australian society and its legal integrity.