

Summary of Linkage Infrastructure, Equipment and Facilities Proposals

New South Wales

The University of Newcastle

LE0989105 Prof RJ Aitken; A/Prof A McCluskey; Dr MA Baker; Dr NM Verrills; A/Prof M Maeder; Dr X Zhou; Dr EA McLaughlin; Dr B Nixon; Dr SD Roman; Prof RJ Rose; A/Prof RH Dunstan; Prof CP Grof; Prof R Smith; Prof P Gibson; Prof AL Jones; Prof MB Calford; Prof KT Jones; Dr RF Thorne; Prof PR Dunkley; Prof PS Foster; Prof LK Ashman; Prof GF Burns; Dr PW Dickson; Prof JA Rostas; Prof RJ Scott; Dr PA Tooney; A/Prof PM Hansbro; A/Prof PA Moscato; A/Prof PC Dastoor; Dr PJ Lewis; Dr P Stanton; A/Prof DM Robertson

Approved Project Title **An Advanced Mass Spectrometry Facility for Applications in Proteomics and Organic Chemistry**

2009 : \$ 495,000

Primary RFCD 2701 BIOCHEMISTRY AND CELL BIOLOGY

Partner Organisations & Collaborating Organisations

The University of Newcastle
Hunter Medical Research Institute
Prince Henry's Medical Research Institute
ARC Centre of Excellence in Biotechnology and Development
Administering Organisation The University of Newcastle

Project Summary

Biomolecular research and research training, in which proteomics is core, has become a critical component of post-industrial development in the Hunter region. Development of a cutting edge proteomics facility will benefit a research community comprising over 50 researchers and 150 undergraduate students significantly enhancing their research productivity and translation of outcomes in areas of national importance. These include understanding the impact of the environment on plant and animal development, pest animal control, development of new biotechnology tools, new drugs and new methods for the detection of narcotics and explosives.

LE0989084 Prof KT Jones; Dr EA McLaughlin; Prof RJ Aitken; Prof RJ Rose; Em/Prof JW Patrick; Adj/Prof CE Offler; A/Prof DW McCurdy; Prof LK Ashman; Prof GF Burns; A/Prof DF van Helden; Dr NM Verrills; Dr B Nixon; Dr SD Roman; A/Prof Y Ruan; Dr RF Thorne; Prof MB Calford

Approved Project Title **Confocal Laser Scanning Microscopy for Live Cell Imaging**

2009 : \$ 275,000

Primary RFCD 2701 BIOCHEMISTRY AND CELL BIOLOGY

Partner Organisations & Collaborating Organisations

The University of Newcastle
Administering Organisation The University of Newcastle

Project Summary

The University of Newcastle has invested heavily in its biological and life sciences to create a research nexus focusing on national research priorities in biotechnology and environmental protection. The Live Cell Imaging platform will be utilized by scientists researching such strategically important areas including developmental biology, intracellular signalling cascades, cell cycle dynamics, plant development and microbiology. Moreover, this component of the University's research portfolio plays a major role in the postgraduate training of young Australian scientists who will, in turn, fuel future developments in both the life sciences and biotechnology industries.

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LE0989861 Prof EH Kisi; Dr SW Donne; Dr VJ Keast; A/Prof AM Brichta; Prof RE Melchers; Adj/Prof CE Offler; Prof J O'Connor; Prof SO Moheimani; Em/Prof JW Patrick; A/Prof DF van Helden; A/Prof BV King; Prof GM Evans; A/Prof RH Dunstan; Dr GR MacFarlane; A/Prof Y Ruan; Dr SM Roselli; Dr M Lin; Prof CP Grof; Dr S Frisia; Dr R Lim; Dr HO Sugo; Dr JS Forrester; Dr OP Buzzi; Dr AJ Fleming; A/Prof EJ Wanless; Dr CI Holdsworth; Dr RN Drysdale; A/Prof SG Fityus; A/Prof DW McCurdy; Dr D Zhu; Dr CJ Fell; Prof B Moghtaderi; Dr AJ McFarlane; Dr PJ Lewis

Approved **Electron Microscopes for Nanometer-Scale Imaging/Microanalysis in the Materials,**
Project Title **Biological, Physical, Engineering and Chemical Sciences**

2009 : \$ 650,000

Primary RFCD 2914 MATERIALS ENGINEERING

Partner Organisations & Collaborating Organisations

The University of Newcastle
BHP Billiton - Newcastle Technology Centre
CSIRO - Energy Technology
Nyrstar

Administering Organisation The University of Newcastle

Project Summary

Electron microscopes have contributed to many of the most significant discoveries and technological advances of the last 6 decades. High resolution transmission and scanning electron microscopes have become essential research infrastructure in internationally competitive materials science, biology, bio-medical science, physics, chemistry and a broad range of engineering disciplines. This capability is not currently available in the Newcastle, Hunter, Central and Lower North Coast and New England regions. This proposal is aimed at satisfying the considerable demand for high resolution microscopy in these areas leading to high quality research outcomes across 3 National Research Priorities and a strong contribution to research training.