

Summary of Linkage Infrastructure, Equipment and Facilities Proposals by State and Organisation

New South Wales

University of Wollongong

LE100100087 A/Prof Jennifer L Beck, Dr Stephen J Blanksby, Dr John A Aquilina, Prof Mark J Walker, Prof Martin G Banwell, Dr Malcolm D McLeod, Prof Mark G Humphrey, A/Prof Paul A Keller, Dr Todd W Mitchell, Dr Heath W Ecroyd, Prof Stephen G Pyne, Prof Nicholas E Dixon, Prof Xu-Feng Huang, Dr Michael J Higgins, Prof Lewis N Mander, Prof David L Officer, A/Prof Michael S Sherburn, Prof Christopher J Easton, Prof David L Ollis, Prof Mark R Wilson, Dr Michael J Kelso

Approved Project Title **Regional Facility for Molecular Characterisation and Mapping**

2010 \$450,000.00

Primary FoR 0305 ORGANIC CHEMISTRY

Partner/Collaborating Organisation(s)

The Australian National University

Administering Organisation University of Wollongong

Project Summary

Researchers at the Schools of Chemistry at The Australian National University and University of Wollongong are involved in a range of projects where new molecules are synthesised or discovered in natural products such as rainforest plants and marine organisms. Some of the molecules have already shown promise against diseases such as Alzheimer's and cardiovascular disease. In order to fully characterise these molecules, two complementary mass spectrometers, replacing ageing instrumentation will be commissioned at each site. In addition, researchers in Wollongong will acquire a MALDI mass spectrometer capable of imaging the distribution of molecules on tissues that may be pathologically important.

LE100100081 Prof Shi Xue Dou, Dr Germanas Peleckis, Prof Anatoly B Rozenfeld, A/Prof Gursel Alici, Prof Mark J Walker, Dr Rongkun Zheng, Prof Simon P Ringer, Dr Sean S Li, A/Prof It-Meng (Jim) Low, A/Prof Mohan V Jacob, Prof Elena Pereloma, Prof Janusz Nowotny, Prof Hua Kun Liu, Prof Catherine M Stampfl, A/Prof Rodica Ramer, Dr Marc P in het Panhuis, Prof Roger A Lewis, A/Prof Alexey V Pan, Prof Min Gu, Prof Ying I Chen, Prof Dr Xiaolin Wang, Prof Robert L Stamps, Dr Shane J Kennedy, Dr Frank Klose, Dr Suzanne V Smith, Prof Gordon G Wallace

Approved Project Title **Combined scanning tunnelling microscope system for materials characterisation and manipulation at nano scale**

2010 \$600,000.00

Primary FoR 0204 CONDENSED MATTER PHYSICS

Partner/Collaborating Organisation(s)

Australian Nuclear Science and Technology Organisation

Curtin University of Technology, Deakin University, James Cook University, Swinburne University of Technology, The University of New South Wales, The University of Sydney, The University of Western Australia, University of Western Sydney

Administering Organisation University of Wollongong

Project Summary

The proposed facility is unique in Australia and will substantially enhance national research capabilities in nano-materials, nanotechnology and biotechnology. The proposed infrastructure project will bring more than 20 leading Australian research groups from 10 institutions together to create an outstanding platform to underpin close collaborations among members in a broad field. The proposed facility will provide significant benefits to Australian researchers in drug design and delivery, nano-material design and characterisation at nano scale for advanced materials, and promotion of renewable energy. This represents a great opportunity to make discoveries and breakthroughs in frontier science and technology in Australia.