

# Summary of Linkage Infrastructure, Equipment and Facilities Proposals

## New South Wales

### University of Wollongong

**LE0989077** Prof NE Dixon; Prof G Otting; Prof PM Curmi; Prof MJ Walker; Dr JL Beck; A/Prof MA Ranson; Dr JA Aquilina; Prof MR Wilson; Dr MG Casarotto; Dr C Freeman; Prof CR Parish

**Approved Project Title** **Regional Facility for Real Time Analysis of Molecular Interactions**

**2009 :** \$ 225,600

**Primary RFCD** 2701 BIOCHEMISTRY AND CELL BIOLOGY

#### Partner Organisations & Collaborating Organisations

University of Wollongong  
The Australian National University  
The University of New South Wales

**Administering Organisation** University of Wollongong

#### Project Summary

The ARC Facility for the Analysis of Biomacromolecular Interactions at the University of Wollongong and ANU serves many research groups working at the interface of chemistry and biology with the ultimate aim of drug target identification and drug development. New state-of-the-art instrumentation will enhance their capabilities and enable new activities. Specifically, the new instruments will facilitate characterization of macromolecular complexes and enable rapid and precise study in real time of the rates at which molecules interact, under many different experimental conditions. It will strengthen existing collaborations among the partner institutions and provide essential infrastructure for drug development projects.

**LE0989078** Dr TW Mitchell; Dr SJ Blanksby; Dr JL Beck; Prof X Huang; A/Prof PL McLennan; Prof W Jessup; Dr K Gaus; Prof MD Willcox; Prof RJ Truscott; Prof LH Storlien; Prof ID Caterson

**Approved Project Title** **Unique, state-of-the-art lipidomics infrastructure**

**2009 :** \$ 400,000

**Primary RFCD** 2701 BIOCHEMISTRY AND CELL BIOLOGY

#### Partner Organisations & Collaborating Organisations

University of Wollongong  
The University of New South Wales  
The University of Sydney

**Administering Organisation** University of Wollongong

#### Project Summary

The new technologies provided through this grant will significantly enhance our understanding of lipids and their role in normal cell biology and disease. These new insights will be vital in improving our understanding of lipid-related disorders such as obesity, type 2 diabetes and cardiovascular disease and helping to improve their treatment and prevention.

**LE0989492** Prof E Pereloma; Dr MR Barnett; Prof HK Liu; Prof PD Hodgson; Dr AI Minett; Prof KA Tieu; Prof J Norrish; Prof RJ Dippenaar; Prof BN Indraratna; Dr D Wexler; Dr FJ Barbaro; Dr KK Konstantinov; A/Prof ZY Jiang; A/Prof G Wang; Prof DP Dunne; Dr N Stanford; Dr A Calka; Dr H Beladi; Dr ZP Guo; Dr AA Gazder; Dr DJ Phelan; Dr BF Rolfe

**Approved Project Title** **Dynamic Texture Measurement Facility**

**2009 :** \$ 350,000

**Primary RFCD** 2499 OTHER PHYSICAL SCIENCES

#### Partner Organisations & Collaborating Organisations

University of Wollongong  
Deakin University  
BlueScope Steel Limited

**Administering Organisation** University of Wollongong

#### Project Summary

A texture goniometer is an advanced tool for texture characterisation of steels, light alloys, nanomaterials, superconductors and minerals. The ability to conduct dynamic texture measurements will significantly enhance the effectiveness of four material-based research institutes at the University of Wollongong and at Deakin University, as well as collaborative research with BlueScope Steel. The research is directly aligned to the National Research Priority of Frontier Technologies for Building and Transforming Australian Industry. The equipment will provide a valuable resource for industries in the Illawarra region of NSW and in regional South-West Victoria.

## Summary of Linkage Infrastructure, Equipment and Facilities Proposals

**LE0989804** Prof KA Tieu; Prof GM Spinks; Prof HR Brown; Prof E Pereloma; Prof PK Yarlagadda; A/Prof ZY Jiang; A/Prof G Alici; Dr D Li; Dr C Yan; A/Prof FG De Boer; Dr J Chen; Dr ZP Guo; Dr KK Konstantinov; Prof DJ Hargreaves; Dr T Vodenitcharova; Dr Y Zhao; Dr S Zhou; Dr W Li; Dr C Lu; Dr PB Kosasih; Dr H Zhu

**Approved Project Title** **A Universal Nano Tribometer for Surface and Thin Film Characterisation**

**2009 :** \$ 150,000

**Primary RFCD** 2914 MATERIALS ENGINEERING

### **Partner Organisations & Collaborating Organisations**

University of Wollongong

Queensland University of Technology

The University of New South Wales

Charles Darwin University

**Administering Organisation** University of Wollongong

### **Project Summary**

The proposed infrastructure will be of major benefit to a large number of ARC funded research projects involving characterisation of materials at four universities UOW, QUT, UNSW and CDU. The project will extend the research capability of the participating researchers and facilitate innovative projects and new research direction in advanced materials processing in the nano/micro scale. This in turn will lead to improved international competitiveness of Australian industry.