

Summary of Linkage Infrastructure, Equipment and Facilities Proposals

Victoria

Monash University

LE0883019 Dr U Bach; Dr MJ Byrnes; Prof DR MacFarlane; Prof Y Cheng; Prof GG Wallace; Prof DL Officer; A/Prof PC Innis; Dr AJ Mozer; Dr JM Pringle

Approved Project Title **Organic Solar Cells Fabrication and Characterisation Facility**

2008 : \$ 150,000

Primary RFCD 2404 OPTICAL PHYSICS

Partner Organisations & Collaborating Organisations

Monash University

University of Wollongong

Administering Organisation Monash University

Project Summary

This application aims to provide key support to ongoing research projects in the area of organic solar cells, which will result in (1) an increase in quality and quantity of research publications and patents (2) a vital support that will establish the grounds for future industries in Australia and (3) a national contribution to the global fight against climate change.

LE0882821 Dr N Birbilis; Prof BC Muddle; Dr J Etheridge; A/Prof CH Davies; Dr PR Miller; Prof YS Estrin; Prof M Forsyth; Prof DG McCulloch; A/Prof SP Russo; Prof PD Hodgson

Approved Project Title **Ion Beam Nanofabrication and Characterisation Facility for Advanced Materials Research**

2008 : \$ 750,000

Primary RFCD 2499 OTHER PHYSICAL SCIENCES

Partner Organisations & Collaborating Organisations

Monash University

RMIT University

Deakin University

Administering Organisation Monash University

Project Summary

The requested instrumentation is essential to advance a range of activities at the cutting-edge of materials research and in order to maintain world class research activities in Victoria. The instrumentation requested will build on collaborative links and cultivate enhanced usage of existing facilities between partner organisations. The facility will enhance progress in nanotechnology, biotechnology and materials sciences, not only training the next generation of researchers to drive these critical areas, but maintaining Australia's track record as an innovator and developer of advanced materials.

LE0882979 Dr A Buckle; Dr JC Whisstock; A/Prof MC Wilce; Prof IA Smith; Dr SP Bottomley; Prof DA Abramson; Prof GI Webb; A/Prof MJ Garcia de la Banda; Prof WF Appelbe; Prof RL Coppel

Approved Project Title **Australian High Performance Computational Structural Biology Facility**

2008 : \$ 400,000

Primary RFCD 2701 BIOCHEMISTRY AND CELL BIOLOGY

Partner Organisations & Collaborating Organisations

Monash University

VPAC

Administering Organisation Monash University

Project Summary

This work will have major outcomes for structural biology research at a national and international level. For structure determination, the ability to perform massively parallel calculations will afford a timesaving of weeks to months. Further, significant insights will be gained into the use of high-performance grid computing in protein structure determination by X-ray crystallography. This knowledge has considerable impact on our ability to undertake high quality structural biology research - a key area in the majority of biological research programs. Software developed will be made available to academic researchers free of charge.

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LE0883081 Prof PJ Hertzog; Prof B Williams; Prof J Rossjohn; Prof B Adler; Prof AO Trounson; Prof PM Sexton; Prof MC Berndt

Approved Project Title **High Content Cell Signaling Discovery and Screening Facility**

2008 : \$ 350,000

Primary RFCD 2701 BIOCHEMISTRY AND CELL BIOLOGY

Partner Organisations & Collaborating Organisations

Monash University

Victorian Infectious Diseases Research Laboratories

Administering Organisation Monash University

Project Summary

The national benefits of this facility will be an increase in basic knowledge of how cells transmit signals to determine their behaviour in normal or stressed situations. There will be high impact publications in learned journals, new IP developed, enhanced education and training in cutting edge technologies. The discoveries from this work will provide candidates for development by the Biotechnology industry in Australia. All of this will promote an innovation culture and economy. The work done in this facility addresses several National Research Priority areas including Promoting and maintaining good health, Frontier technologies for transforming industry and Safeguarding Australia.

LE0882977 Prof SJ Langford; Prof RT Brownlee; Dr C Boskovic; Prof L Spiccia; A/Prof AB Hughes; Prof PC Junk; Prof C Jones; Prof F Separovic; A/Prof M Aguilar; A/Prof MC Wilce; Dr PC Andrews; Dr SR Batten; Dr AJ Robinson; Dr KL Tuck; Dr JA Wilce; Dr BM Abbott; Dr SV Bhosale; Prof MT Hearn

Approved Project Title **Enhanced NMR Research, Characterisation and Analysis Facility**

2008 : \$ 600,000

Primary RFCD 2501 PHYSICAL CHEMISTRY (INCL. STRUCTURAL)

Partner Organisations & Collaborating Organisations

Monash University

La Trobe University

The University of Melbourne

Administering Organisation Monash University

Project Summary

Studying molecular species is at the heart of chemistry and biochemistry and fundamental to improving our understanding of molecular mechanisms and interactions. This becomes important for elucidating aspects of biological function, medicinal and pharmaceutical chemistry, materials science and synthetic methodology, which all underpin health and technology advances in Australia. The infrastructure will support projects involving fundamental and strategic research spanning nanotechnology and the biological and materials sciences to industry-oriented projects.