

Summary of Linkage Projects Applications for Funding to Commence in 2006

New South Wales

Macquarie University

LP0669471 Prof S Crain; Dr R Thornton; Prof H Kado; Prof M Coltheart

Approved Project Title **An MEG (brain imaging) system to study cognitive processing in children**

2006 : \$80,000

2007 : \$95,000

2008 : \$30,000

2009 : \$15,000

Primary RFCD 3803 COGNITIVE SCIENCE

Partner Organisation(s)

Yokowaga Electric Corporation

Administering Institution Macquarie University

Project Summary

This project introduces the world's first brain imaging system to study cognitive processing in children, using magnetoencephalography (MEG). MEG offers precise measurement of brain activities using a non-invasive, non-contact method. MEG is an ideal brain imaging device for use with children and with special clinical populations. It promises to be valuable (a) for the identification of cortical functions of the human brain prior to surgery, (b) for the diagnosis of loci for developmental and acquired brain disorders, (c) in determining pharmaceutical effects on children, and (d) in the assessment of recovery of sensory and cognitive functions following brain injury.

LP0669725 Dr V Strezov; Prof PF Nelson; Dr TJ Evans

Approved Project Title **Mercury emissions from direct iron smelting technology**

2006 : \$50,000

2007 : \$95,000

2008 : \$85,000

2009 : \$40,000

Primary RFCD 2911 ENVIRONMENTAL ENGINEERING

Partner Organisation(s)

HIsmelt Corporation

Administering Institution Macquarie University

Project Summary

The proposed research will enhance the environmental performance of the first Australian direct ironmaking industry. This industry will maintain the commitment to environmental responsibility offering cleaner technologies and production. The project will enhance the social acceptability of this metallurgical operation within the regional and global communities. Optimisation of emission reduction technologies will ensure improved environmental standards and awareness of the industry's commitment to improved environmental performance among the local communities. The proposed work will also ensure Australia remains at the forefront of energy and ore utilisation technology, ensuring sustainable resource and environmental management control.