

**New South Wales**

**University of Western Sydney**

**DP0988201** Prof DK Burnham; Dr T Kuratate; Prof C McBride-Chang; Dr K Mattock

**Approved Project Title** **Making speech three-dimensional: Adding tone to consonant- and vowel-based speech perception and language acquisition research, quantification and theory**

**2009 :** \$ 140,000

**2010 :** \$ 80,000

**2011 :** \$ 135,000

**Primary RFCD** 3801 PSYCHOLOGY

**Administering Organisation** University of Western Sydney

**Project Summary**

Children learn the intricacies of human language in just a few years because they tune into their native language well before they start to speak. We now have a good understanding of this process and how it might affect learning difficulties but only for a limited number of European languages. Here we will investigate face-to-face speech and language learning for components used across the world's languages, most particularly lexical tone used in many Asian languages, with significant implications for language acquisition, language learning difficulties, machines that speak, learning foreign languages, aids for the Deaf and hearing impaired, and multilingualism.

**DP0988136** Prof RG Craven; Prof I Wilson; Dr AS Yeung

**Approved Project Title** **Keeping Pace: A Critical Longitudinal Analysis of the Psychosocial Determinants of Seeding Success in Educating Home-Grown Doctors for Regional Communities**

**2009 :** \$ 85,000

**2010 :** \$ 80,000

**2011 :** \$ 80,000

**Primary RFCD** 3301 EDUCATION STUDIES

**Administering Organisation** University of Western Sydney

**Project Summary**

Australia currently has a medical workforce situation which, if unchecked, will see a deepening of the shortage of doctors in rural & regional communities. Elucidating the impact of psychosocial drivers on medical education outcomes will identify potent practical strategies that seed success. The outcomes of this research have the potential to 'break the cycle' of doctor shortages in underserved areas by generating new solutions to: improve Australia's capacity to strengthen home-grown medical education; address doctor shortages regionally; and build capacity at community and individual levels. This research has important implications for the future of home-grown medical education nationally and internationally.

**DP0987674** Prof BL Hesketh; Dr BN Griffin

**Approved Project Title** **Retirement transition: a longitudinal P-E fit approach within a 'life expectancy' time framework**

**2009 :** \$ 85,000

**2010 :** \$ 60,000

**2011 :** \$ 60,000

**2012 :** \$ 35,500

**Primary RFCD** 3801 PSYCHOLOGY

**Administering Organisation** University of Western Sydney

**Project Summary**

Retirement is an important career milestone, heralding the onset of potentially significant changes in health, finance, and activity. Australia's largest birth cohort, the baby boomers, is ageing and beginning the transition into retirement and yet little is known about how the shifts in culture and attitude will affect their ability to adjust. This research will identify the dominant needs of this group, the resources required to fulfil them, and the factors associated with successful adjustment behaviours. Greater understanding on how self-rated longevity, health, finance and values interact to affect decision-making will have important implications for public policy and individual planning.

## Summary of Discovery Projects Proposals for Funding to Commence in 2009

**DP0984530** A/Prof C Martinez-Fernandez; Dr S Fol; Prof E Deakin; Prof Dr T Wiechmann; Dr I Audirac; Prof H YAHAGI

**Approved Project Title** **Achieving urban vitality: skills & employment development in shrinking cities**

**2009 :** \$ 97,000  
**2010 :** \$ 110,000  
**2011 :** \$ 119,000

**Primary RFCD** 3101 ARCHITECTURE AND URBAN ENVIRONMENT

**Administering Organisation** University of Western Sydney

### Project Summary

The study will provide a conceptual framework for understanding the dynamics of shrinking cities, its typology, and the trajectories of these cities in Australia, Europe, USA and Japan. The study questions traditional paradigms of growth and decline and demographic change.

At a policy and strategic level, the project will provide a review and assessment of policies, programs and regeneration strategies in areas in decline in Australia as well as a database of best practices in terms of skills and employment programs in shrinking cities as per the typology developed in the study. The study will provide an international environment for research students to participate in a highly innovative transnational debate.

**DP0988187** Dr G Morgan; Dr G Noble

**Approved Project Title** **The Just-in-Time Self: Young Men, Skill and Narratives of Aspiration in the New Economy**

**2009 :** \$ 62,000  
**2010 :** \$ 60,000  
**2011 :** \$ 26,000

**Primary RFCD** 4203 CULTURAL STUDIES

**Administering Organisation** University of Western Sydney

### Project Summary

Employers and policy-makers frequently lament the 'skills gap': the shortage of workers with the skills required to perform the available jobs. This cannot be solved simply by funding more vocational training courses. To improve participation in training it is important to understand how vocational aspirations are formed. This research will demonstrate how, through their involvement in collective creative projects, young men from poor backgrounds, develop skills and inclinations that might move them beyond the traditional model of manual labour to develop the flexibility required of workers in the 'new economy'.

**DP0988547** A/Prof BM Neilson; Prof M Ang; Dr N Rossiter; Prof ME Morris; Prof R Samaddar; Prof H Wang; Prof S Mezzadra

**Approved Project Title** **Culture in Transition: Creative Labour and Social Mobilities in the Asian Century**

**2009 :** \$ 159,000  
**2010 :** \$ 100,000  
**2011 :** \$ 110,000

**Primary RFCD** 4203 CULTURAL STUDIES

**Administering Organisation** University of Western Sydney

### Project Summary

Australia's role in the Asian region is changing with the rise of China and India. This Project will benefit Australian communities by increasing knowledge about how the emergence of these nations impacts upon economic growth and innovation, intercultural relations and efforts of social inclusion. The Project will develop new media strategies to inform citizens about how labour relations and mobilities are shifting in this regional context. It will also increase public awareness of the changing forms of global urbanism in Chinese and Indian cities and reposition Australian cultural research and policy in ways adequate to the economic and social challenges posed by the so-called Asian century.

## Summary of Discovery Projects Proposals for Funding to Commence in 2009

**DP0988108** Prof M Singh; Dr J Han

**Approved Project Title** **Extending the capabilities of argumentative Chinese students: Enhancing Australia's pedagogical capacity for engaging China through internationalising research education**

**2009 :** \$ 70,000

**2010 :** \$ 40,000

**2011 :** \$ 50,000

**Primary RFCD** 3303 PROFESSIONAL DEVELOPMENT OF TEACHERS

**Administering Organisation** University of Western Sydney

### Project Summary

In 2007, 90,000 students from China were studying in Australia. This represents 23% of Australia's international students. This project will improve Australia's capacity for engaging China by producing an innovative framework for teaching mainland Chinese research students. It will explore the educational value of engaging these students' Chinese intellectual heritage; their communicative abilities in English and Chinese, and the knowledge they access via digital technologies. Australia's knowledge about the internationalisation of its research education and developmental, cooperative approaches to research will be increased. This will enhance Australia's capacity for research-based engagement with the educational culture of China.

**DP0986394** A/Prof CJ Stevens; Dr B Tillmann; Dr PE Keller

**Approved Project Title** **Expecting the Unexpected: Learning Complex Temporal and Rhythmic Relations**

**2009 :** \$ 61,000

**2010 :** \$ 62,000

**2011 :** \$ 63,000

**Primary RFCD** 3801 PSYCHOLOGY

**Administering Organisation** University of Western Sydney

### Project Summary

Music is one of the most accessible routes to experience, and to learn about, cultures other than our own. A new implicit method for learning complex rhythm and underlying metre promotes inter-group understanding and communication. We hypothesize that implicit learning (IL) of unfamiliar complex metres through music generalizes to spoken language built on similar metres; IL facilitates segmentation of previously unfamiliar spoken language and enhances recognition of English spoken with the stress pattern of a 'foreign' metre. Future intervention programs based on implicit learning of temporal relations will benefit people with reading difficulties or timing problems characteristic of cerebellar and basal ganglia patients.

**DP0984913** Prof JM Ussher; Dr J Perz; Dr E Weisberg

**Approved Project Title** **Evaluation of the relative efficacy and mechanisms of a couple-based intervention for Premenstrual Syndrome through a randomised control trial using mixed methods**

**2009 :** \$ 150,000

**2010 :** \$ 160,000

**2011 :** \$ 110,000

**Primary RFCD** 3801 PSYCHOLOGY

**Administering Organisation** University of Western Sydney

### Project Summary

Of 9,689 Australian women recently surveyed nationally, 33% reported moderate or severe premenstrual symptoms (PMS). Whilst relationships have been identified as a significant factor in the experience of premenstrual distress, to date there has been no systematic description or evaluation of couple-based PMS interventions. This research study will do this, helping health-care providers understand the experience and treatment of PMS in the context of family relationships, thereby reducing PMS, and the physical and psychological distress associated with it. This will lead to improved psychological wellbeing and quality of life for women and their families.

## Summary of Discovery Projects Proposals for Funding to Commence in 2009

**DP0988750** Dr D Zhang; Prof Y Zhang; Prof N Foo; Prof M Thielscher

**Approved Project Title** **Logical Foundation and Implementation Technology for Automated Negotiation**

**2009 :** \$ 95,000

**2010 :** \$ 65,000

**2011 :** \$ 65,000

**Primary RFCD** 2802 ARTIFICIAL INTELLIGENCE AND SIGNAL AND IMAGE PROCESSING

**Administering Organisation** University of Western Sydney

### Project Summary

The logic of bargaining is fundamental to understanding human negotiation and multiagent interaction. This project provides a new paradigm of negotiation with the integration of qualitative and quantitative analysis of bargaining processes and enhancement of implementation technologies for negotiation automation and trading agent design. The theoretic approach can be applied to a wide range of areas for the analysis of economic, political and social phenomena. The techniques, algorithms and possible patents generated by the project can be directly used by the Australian IT industry for the development of efficient e-trading systems, allowing Australian business to take advantage of new e-market territories.

**DP0988396** Prof Y Zhang

**Approved Project Title** **Model Update with Localisation, Constraints and Abstraction**

**2009 :** \$ 80,000

**2010 :** \$ 75,000

**2011 :** \$ 70,000

**Primary RFCD** 2802 ARTIFICIAL INTELLIGENCE AND SIGNAL AND IMAGE PROCESSING

**Administering Organisation** University of Western Sydney

### Project Summary

This project will fundamentally provide a new paradigm and a system prototype for advanced computer aided system modification. It will significantly enhance Australia's leading role in the cutting edge research in computer aided system development. By applying the new methodology and technology, Australian IT industry will significantly improve its capacity for developing highly complex hardware and software systems for various applications. With a strong research program across different areas such as knowledge system update, model checking and software development, and a collaborative research training environment, this project will strengthen Australia's international reputation as a leader in computing and IT research.