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“Schizophrenia is a devastating brain disorder that affects up to 1 per cent of the population worldwide…” is a frequently used statistic in publications on schizophrenia research. Whereas worldwide seems far away, it is a fact for our community; over 2,000 people in Wollongong alone have schizophrenia. Schizophrenia is a chronic psychiatric disease, which has its onset mostly in the late teens or early twenties. It significantly impairs normal brain function; the neurodevelopmental hypothesis of schizophrenia assumes that it is a consequence of disrupted brain development in early-life.

Clinically, schizophrenia is divided into positive, negative and cognitive symptoms. What this means for patients is paranoia, hallucinations, a retreat from reality; total social isolation is often the result. The emotional burden on sufferers, families and friends is considerable, and the disease is estimated to cost the Australian community $2 billion every year.

There is currently no cure for schizophrenia; and though there are antipsychotic drugs, they are insufficient. Patients are medicated at high doses over their entire lifetime and the drugs cause serious immediate and long term side effects.

For these reasons and more, research into schizophrenia and better treatments is critical.

At UOW, several centres and researchers from various scientific fields are engaged in cooperative research on schizophrenia. Many of the basic and clinical researchers are found under the roof of the Illawarra Health and Medical Research Institute (IHMRI) and are associated with the Schizophrenia Research Institute (SRI). The Centre for Translational Neuroscience (CTN) has a special focus on schizophrenia. Under the lead of Professor Xu-Feng Huang and based at IHMRI, the majority of the 30 research fellows and research students are working to uncover the neurochemical and genetic underpinnings of schizophrenia as well as neurophysiological consequences of antipsychotic drug treatment.

Studying samples from patients in Australia and China, human post-mortem brain tissue and rodent models, we use sophisticated state-of-the-art biochemical, genetic and intracranial techniques to explore neurochemical mechanisms of the disease in vitro and in vivo.

For example, the NHMRC-funded research team of Professor Xu-Feng Huang, Dr Kelly Newell and Dr Teresa Du Bois examines the glutamatergic NMDA receptor, since it is highly relevant for adequate neurodevelopment. Our second neurodevelopmental target and studied in its interaction with the NMDA receptor is the neuronal growth factor Neuregulin-1, which was identified in human genetic population studies as a major candidate for schizophrenia risk.

In a NHMRC-funded linkage project, Dr Mei Han and Dr Francesca Fernandez are screening schizophrenia patients in Beijing for mutations in this gene in correlation with symptomatology and neurochemistry. By comparing this to a Neuregulin-1 model at UOW, my SRI-funded research team is making discoveries in the novel field of neuroimmunology, which has only recently been unravelled for its aetiological relevance for schizophrenia.

The severe side effects of antipsychotic drugs are also being investigated at the CTN. Currently available drugs have limited efficacy and are associated with a range of side effects. The NHMRC-funded research team of Professor Xu-Feng Huang investigates antipsychotic action on neurochemistry in relation to side effects like weight gain and metabolic disorders. The NHMRC-funded research team led by Dr Chao Deng is studying the functional selectivity of antipsychotics in treating schizophrenia. These projects are expected to lead to better treatments for schizophrenia patients with reduced side effects.

The schizophrenia research projects underway at our centre complement and collaborate with many others at the University. Working with researchers from IHMRI, the School’s of Health Sciences, Psychology and Nursing, the Graduate School of Medicine, the Illawarra Institute for
Mental Health (iIMH) and the Brain and Behaviour Research Institute (BBRI), we further our understanding of disease development and treatment through combined approaches.

We have close collaborations with the School of Psychology, where Dr Nadja Solowij, Dr Emma Barkus and several collaborators have attracted major funding for their research on the role of cannabis in the risk for schizophrenia. In a new collaborative project, an Illawarra schizophrenia patient cohort has been established. Patients will be studied by clinical and basic researchers from several schools and centres from a psychiatric, psychological, drug-compliance, dietetic, genetic, lipidomic, neurochemical and neuroimmune perspective. This will not only be a unique project due to its inter-disciplinary approach, but has the potential to directly feedback to patients and carers in the Illawarra community. Determining factors that predict a good treatment response as well as indicators for side effects of drug treatment will allow us to improve the choice of drugs used as well as to better monitor indicators for, and therefore potentially prevent, deleterious side effects in our patients.

Linking as well with researchers from the School of Chemistry and Intelligent Polymer Research Institute (IPRI), and having access to their highly developed tools, gives us the opportunity to explore novel ways to target discovery, drug development and drug application. This is additionally supported by our cooperations with pharmaceutical companies.

Our investment into schizophrenia does not end at the lab bench. In addition to our scientific investigations, our researchers also engage in community awareness and education around schizophrenia. With the support of IHRMI and SRI, our researchers and students have organised and contributed to a Schizophrenia Awareness Event and Mental Health Expo; and the Illawarra Mental Health Round Table which brings together major stakeholders of schizophrenia research and care in the Illawarra.

Schizophrenia is a devastating disease, but many researchers at UOW are working actively together to improve prevention, diagnosis and treatment of schizophrenia, and finally help patients and carers lead a better life.

More information:
www.uow.edu.au/health/healthsciences/ctn/
www.schizophreniaresearch.org.au

Slnet General Meeting - Social Innovation & Your Research

Slnet held their first General Meeting for 2011, “Social Innovation & Your Research”, on 24th February, attracting 30 attendees. Two interesting presentations by Slnet members, Eduardo Pol from Economics and Ping Yu from Information Systems and Technology. Eduardo talked about “Social Innovation and Business Innovation: Antonymous or Synonymous”, while Ping discussed “Experiences in Collaboration and Cross-disciplinary Research Initiatives”. Slnet Executive Director, Heather Yeatman outlined Slnet activities for the year, including an upcoming seminar on 11th April at the Innovation campus on Interdisciplinary Research and participants explored How can Slnet influence your research?

More events specifically involving Slnet hdr student members are planned for 2011, and interested students should contact Slnet Research Assistant, Limin Tan email: limin@uow.edu.au

From left: Heather Yeatman, Eduardo Pol, Ping Yu, Helen Hasan
A Geological Excursion to the Shakey Isles and an Account of the Christchurch Earthquake

Written by Solomon Buckman, 27th February 2011

Last week 11 students and staff from the School of Earth & Environmental Sciences (SEES) returned from a geological fieldtrip to the South Island of New Zealand to investigate active tectonic processes including the fault rupture from the magnitude 7.0 earthquake in Christchurch last September. Little did we know that a second large earthquake (magnitude 6.3) would devastate much of Christchurch only 5 days after our return highlighting the unpredictability associated with seismic hazards.

The fieldtrip was organised by two SEES PhD students, Steph Kermode and Nathan Jankowski, who head up the student social group – GROUNDSWELL and was supported by SEES staff Brian Jones and Solomon Buckman. The students included a mix of postgraduates and undergraduates from all levels. The purpose of the trip was to observe active tectonic and glacial processes that have sculpted the landscape in New Zealand that are not readily observable in the relatively stable Australian continent. The long-term aim is to run this fieldtrip each year as an intensive field-based summer subject in which students can get first-hand experience of active geological processes including volcanoes, geothermal power stations, glaciers and faults associated with active mountain building.

The landscapes and mountains of New Zealand are incredibly young with most of the relief having formed in only the last 5 million years. This is in stark contrast to the Australian continent that has not experienced any major mountain building activity for the past 200 million years and subsequently been eroded down to a vast, flat continent. Despite the contrast, Australia and New Zealand share a common geological origin as they were joined together 85 million years ago as a part of the supercontinent Gondwana. Between 85-45 million years ago New Zealand rifted away from Australia creating the Tasman Sea that now separates the two continents. New Zealand is situated directly on the boundary between the Australian and Pacific plates making it a particularly active in terms of volcanic and seismic activity. In the North Island the Pacific Plate is moving to the east and subducting (sinking) beneath the North Island resulting in the development of an active volcanic arc and a deep sea trench to the east which extends all the way to Tonga. To the south subduction has flipped with the Australian Plate subducting beneath the South Island to form the Macquarie Ridge and Southern Alps. In between the North and South Islands is an intense zone of faulting where the New Zealand continent is being wrenched apart by the Alpine Fault. This is a major transform (strike-slip) plate boundary and has been active for the past 25 million years. The Alpine Fault consists of many subsidiary fault splays along its length. The big surprise with the Christchurch earthquakes has been the fact that Christchurch has not experienced large or regular earthquakes in historic times and that the fault line has not been identified due to it being buried by thick sequences of river sediment that has been eroded off the Southern Alps. Christchurch is also quite a distance from the Alpine Fault which may have built a collectively false sense of security. New Zealand is referred to as the Shakey Isles for good reason. It sits on the Pacific Rim of fire and is subject to regular, intense seismic activity as the tectonic plates jostle and collide with each other.

It was clearly evident when we visited Christchurch that it was still rebuilding from the September 3, 2010 magnitude 7.0 earthquake that struck 45 km west of the city in the rural outskirts of Rolleston. It is important to realize that the Richter scale used to measure the magnitude of earthquakes is a base-ten logarithmic scale so an earthquake measuring 5.0 has a shaking amplitude ten times that of an earthquake of magnitude 4.0. However, the total energy released is 33.3 times the amount for a difference of 1. Put simply a difference of 2 on the Richter scale results in about 1000 times the amount of total energy released. Most movement on faults is accommodated by large earthquakes. Unfortunately earthquakes remain difficult to predict in the short time-scales useful to people due to the numerous variables - build up of stress, time since last rupture, water saturation of the fault plane and most importantly the fact that earthquakes generally occur 10’s to 100’s km below the surface where we cannot make direct observations of the physical conditions. Geologists rely solely on geophysical and seismic data to interpret conditions and structures deep in the lithosphere.

We visited the fault rupture and although the roads had been repaired the 4 m offset of roads, fences, hedges and canals was clear to see as well as numerous cracks and compressional mounds along the fault trace. It was also evident that many of the locals weren’t happy with the attention they were getting from passersby like us who wanted to stop and view the fault. There was a real sense amongst Canebrrians that they were lucky to get away without any loss of life after the first earthquake. Unfortunately that was not the case with the recent earthquake in which the death toll has just passed 100 and there are still over 200 people missing.
The epicenter of the February 21, 2011 magnitude 6.3 earthquake was only 5 km from the centre of Christchurch with the epicenter centred on Lettelton. Because of proximity to the epicenter and the shallow depth (5 km) of the hypocentre, ground shaking in Christchurch was much more severe for this latest earthquake than for the larger magnitude 7 event in September. Ground accelerations were unusually high for this event, probably due to the shallow depth of the earthquake hypocenter and the thick unconsolidated substrate of wet mud and sand that much of Christchurch is built on. Compared to solid rock, sands and muds have the effect of slowing and amplifying seismic waves as they travel through the earth resulting in greater shaking. Wet sediments are also prone to liquefaction when shaken which means they suddenly change from behaving as a solid during normal conditions to a liquid during an earthquake. During an earthquake liquid sand or mud can spew out of cracks in the ground and flow down roads and collect in depressions and drainage networks. Heavy buildings and structures will tend to sink and become unstable during liquefaction if they do not have adequately engineered foundations. Typically ground shaking is in the order of 25%g for a magnitude 6.3 earthquake but the Christchurch earthquake produced shaking of up to 188%g. To put this in perspective, any shaking above 100%g is enough to overcome the acceleration of gravity and start throwing objects up in the air! Although New Zealand has a very strong and strictly enforced earthquake building code, this level of shaking resulted in severe and widespread damage. The Modified Mercalli Intensity scale (I-XII) is used to measure damage based on observations and interviews. Levels of IX to X were recorded around the epicenter which means intense to violent damage of well-built structures and damage or destruction of some well-built wooden structures. Most houses are built of wood in New Zealand because it is much more flexible and resistant to earthquakes than brittle brick structures. Unfortunately, aftershocks can occur for many months after an event creating dangerous conditions in already weakened structures. The other aspect is that where stress is released by an earthquake it can result in increased stress along other fault segments resulting in an “unzipping” effect as stress in the crust is redistributed and comes to a new equilibrium. This appears to be the case with this second magnitude 6.3 earthquake following the magnitude 7.0 earthquake last year some 45 km further west.

Part of my research involves investigating evidence of ancient earthquakes (Paleoseismology) in areas of Australia that are prone to seismic activity and I have a PhD student – Chulantha Jayawardena, investigating active faults in the Adelaide region. Although Australia is relatively stable compared to New Zealand it is still affected by earthquakes as evident by the magnitude 5.6 Newcastle earthquake in 1989 and the magnitude 5.4 Adelaide earthquake in 1954. Earthquakes in Australia are referred to as intraplate earthquakes as they do not occur on plate boundaries and are much less understood and certainly less predictable in terms of their distribution. The danger with these intraplate earthquakes is that they may have long recurrence intervals of 100’s or 1000’s of years before the crustal stresses build up enough to rupture and generate an earthquake and they can strike areas that are underprepared for such events. We are investigating active faults along the margins of the Mount Lofty and Flinders ranges in South Australia by way of trenching, mapping and using ground penetrating radar to identify previous ruptures. Some of these faults have rupture lengths and offsets of single events that suggest magnitudes in the order of 5-7 on the richter scale. Part of our research involves dating these paleoseismic events by sampling the sediments that have accumulated adjacent to the fault rupture using luminescence dating techniques (OSL) to further constrain the timing of past earthquakes. Identifying hidden fault lines and constraining the timing of past seismic events is of fundamental importance in understanding how mountains such as the Flinders Ranges form in intraplate settings and of course it has important practical implications in terms of planning and implementing appropriate building codes in earthquake prone regions of Australia.

Earthquakes are a global hazard that knows no political boundaries. Earthquake response and rescue efforts are often globally assisted and require the expertise of many disciplines including engineers, geologists, planners, medics, police and emergency response personnel. Earthquake mitigation is an ongoing process from the initial identification of faults and historic seismic activity, through to developing appropriate building codes, to the rescue efforts when these hazards strike through to planning for the next event. The tectonic processes so evident in New Zealand provide an important modern-day analogue in terms of understanding how older continents like Australia have been shaped and formed in the past.

For further information please contact Dr. Solomon Buckman solomon@uow.edu.au in the School of Earth & Environmental Sciences.
Do social media influence our travel decisions?

Written by Associate ProfessorUlrike Gretzel
The Institute for Innovation in Business and Social Research (IIBSoR)
Faculty of Commerce

From the success of social networking sites to the explosion in user-generated content, we have seen a dramatic shift in how consumers interact with the internet and with each other. Social media have transformed the way people communicate, search for information, make decisions, socialise, learn, and share experiences. This also applies to consumer behaviour in travel and tourism. Growing numbers of travellers search and consume travel information created by other travellers for their travel planning and then share their experiences when they return from their trips. Given the experiential nature of tourism, the information created by other travellers is even more important and influential in the search and decision-making process than when considering other types of purchases.

Over the past four years we have conducted a series of studies involving travellers with Internet access from around the world. We consistently find high levels of social media use for travel planning.

Online travel reviews, such as the hotel reviews posted on TripAdvisor, are particularly popular sources of information and those who use them indicate that these traveller opinions greatly influence their accommodation choices. Activity choices and restaurant decisions are also increasingly affected by the opinions of review writers while decisions on where to travel are typically made before reviews are consulted.

Other social media types such as videos and podcasts are generally less influential, although gender and age differences come into play when looking at the influence of specific social media categories.

Do travellers blindly trust the opinions of strangers?

Our research indicates that trust levels are very high and that a considerable number of people even prefer the opinions of unknown others over opinions of friends and relatives. However, many consumers are also aware of marketers posting reviews or paying professional review writers. They have therefore developed rather sophisticated strategies for evaluating whether they should take a posting into account or not.

In general, if comments are too negative or too positive, travellers become suspicious. They are looking for balance and details and take subtle cues such as spelling and tone of writing into account. Experimental studies we conducted have also shown that individuals are pretty good at detecting false reviews, and this ability increases with the length of the review.

So like in the offline world, liars will only be able to influence travellers if they are brief. We also find personality differences, with individuals who exhibit neurotic tendencies being less trusting of social media and thus less influenced by them.

Do tourism marketers have to worry?

Our studies find that a majority of travellers think that social media contents are more up-to-date, more fun to read, more interesting, more relevant, more comprehensive, more specific and more helpful in making decisions than information provided by tourism marketers. However, that does not mean that marketers do no longer provide an important function. The travellers we surveyed actually trust social media content more if it is provided on official destination marketing websites.

This is a counter-intuitive finding but makes sense if you consider that destination marketers probably subject social media contents to a basic editorial process, or would at least comment on a posting if it provided false information.

In general, our research shows that tourism marketers can no longer ignore social media and have to carefully think about how to take advantage of social media marketing in order to exercise influence on travellers.

Social media are here to stay but their specific forms will evolve. Twitter and location-based social media applications like Foursquare and Gowalla are still in their infancy and Facebook continuously adds functions and changes its policies. It is important to monitor their impact on travel planning and behaviours at destinations, so that those who try to encourage and/or manage tourism to particular places can adjust their strategies.
UOW undergraduate co-authors paper in Science journal

Research on nanomaterials carried out by an international team of researchers including George Stanton, an undergraduate student in the Nanotechnology Degree Program at UOW, has been published in the prestigious journal Science.

The research entitled “Two-dimensional nanosheets produced by liquid exfoliation of layered materials” appeared in this week’s edition of Science (volume 331, page 568). Science is the academic journal of the American Association for the Advancement of Science.

George contributed to this work during his 2009/2010 research work placement with Professor Jonathan Coleman at Trinity College Dublin in Ireland, which was facilitated by Professor in het Panhuis.

IIBSoR Seminar Strikes a Cord with Industry

The Institute for Innovation in Business and Social Research (IIBSoR) – in collaboration with industry partners Wollongong City Council, Regional Development Australia and the Illawarra Business Chamber – held a successful industry seminar in February to highlight the work some of its members have begun on creating an ‘analytical toolkit’ to support evidence-based decision making at the regional level.

A large audience, including many industry, government and community leaders, looked on intently as keynote speaker Dr Guy West*, gave a compelling demonstration of one such tool - the Illawarra Interregional Input-Output Model – and how it could be put to work on important economic and regional development issues.

Seminar convenor, Associate Professor Charles Harvie, welcomed the great turn out and said that it was not only a sign of how well regarded the University was within the community, but also reflected the fact that his team’s research was tapping into a critical regional industry need: “As a region, the Illawarra has long talked about the need for a more coordinated approach to economic development issues. A tool like the I-O model, as well as many other areas of research at UOW, can provide our region’s leaders with the toolkit to robustly analyse insightful and powerful ideas and develop evidence based policy recommendations that will advance the economic development of our region”.

Brad Braithwaite, Manager Applied Business Research at IIBSoR said the team is now following up on many conversations resulting from the seminar: “An encouraging number of industry and government attendees caught up with us afterwards to discuss possible projects. In fact, we are looking to work closely with our industry consulting partner IRIS, to provide a united effort on many of the research issues discussed as a result of the seminar” he said.

Projects the team are now following up on with relevant industry partners include:

• Contribution of Tourism to the Regional Economy (Tourism Wollongong)
• Simulating potential future economic impacts of Wollongong CBD land use (Wollongong City Council and others)
• Understanding the future economic significance of new green industries (RDA Illawarra)
• Extending the Illawarra Interregional I-O Model to the Shoalhaven (Shoalhaven Council & Business Chamber)
• Developing dynamic I-O modelling capability using historical data (IRIS)

*Dr West joined UOW as an Honorary Research Fellow in 2010, after a long and distinguished academic career that included many years at the University of Queensland.
Last December PhD student Luke Sweetman attended the 18th Royal Australian Chemical Institute R&D conference in Analytical and Environmental Chemistry. The conference was held at the University of Tasmania in Hobart. This was the 18th time this particular conference had been held, which is attended by over 100 delegates. Luke received an award, sponsored by Norske Skog, for giving the best talk on environmental chemistry at the conference. The title of his talk was “Characterisation of the Water Permeability of Carbon Nanotube Buckypapers: Towards Membrane Filtration Applications”.

HDR student, Karen Therese (MCA-R) has been awarded a Cultural Leadership grant from the Theatre Board of the Australia Council allowing her to spend 3 months in NYC working as an Associate Director at PS-122.


Dr Kwang-Suk Lee (ARC Postdoctoral Research Fellow) has recently returned from the USA where he gave a public lecture on 17 February entitled ‘A Broadband Heaven or Hyper-surveillant Nation? A Case of South Korea’ at the Focal Point Series entitled Reinventing East Asia: The Global Political Economy of Information.

This lecture series event was organised and co-sponsored by the Centre for East Asia and Pacific Studies, centre for Global Economy and Society, the school of Library & Information science at the University of Illinois at Urbana-Champaign. Details of the lecture series can be found at: http://digitaleastasia.org/

Dr Zhiming Cheng from the School of Economics in the Faculty of Commerce has received the 2011 Australia-China Joint Action Program Award (funded by Academy of the Social Sciences in Australia and Chinese Academy of Social Sciences) for his project entitled: “A Mixed Methods Study of the Second Generation Migrant Workers in China: Subjective Poverty, Horizontal Inequality and Urban Citizenship”.

The School of Economics in the Faculty of Commerce has hosted a Joint PhD Workshop in conjunction with the Department of Economics from Seoul National University on the 22nd February 2011. Five members from the Department of Economics travelled from Korea and several students and staff were involved from the School of Economics, presenting high quality papers.

Prof Sandra Wills (Executive Director, Learning and Teaching) has won a prestigious OLNet Fellowship to undertake research at the Open University in the UK. The fellowship, funded by the William and Flora Packard Foundation, provides airfares and living expenses for up to three months in the UK. The aim of OLNet is to gather evidence and methods about ways to learn in a more open world, particularly linked to Open Educational Resources. Sandra’s forthcoming fellowship research with colleagues at the OU’s Institute of Educational Technology builds on 20 years of tracking and interviewing designers of online role plays. This longitudinal research has culminated in the recent publication of her book The power of role-based e-learning (Wills, Leigh & Ip, 2011, Routledge, UK).

Do happy volunteers stay longer?

Research to answer this very question is now being undertaken in conjunction with the NSW SES. A recent Partnership Grant between the University of Wollongong and the State Emergency Service will work to uncover factors that may enable organisations to keep their volunteer staff for longer periods of time. “Volunteering appeals to younger volunteers for reasons which are different to those of older volunteers” states lead researcher Dr Michael Jones from the Faculty of Commerce. “Generation-Y volunteers work in organisations like the SES to gain experience and satisfy different needs. Individual values are changing, and we need to understand how these new values influence the engagement and commitment of younger workers”. Developing a better understanding of these values and needs, and how to fulfil them, may lead to better engagement of younger volunteer staff.

This research project will study volunteers in the SES across New South Wales over the next twelve months. Research will identify the differences between generations in the volunteer emergency sector. These differences will then lead enhanced recruitment and retention strategies in this sector.

Commerce Associate Professor and Student Publish in A* Leading Journal

Associate Professor Gary Tian, from the Chinese Commerce Research Centre in the School of Accounting and Finance co-authored with his PhD student, Xiaofei Pan and Dr Jerry Cao from Singapore Management University, their joint paper ‘Disproportional ownership structure and pay-performance relationship: evidence from China’s listed firms’, which will be published in a forthcoming issue in the Journal of Corporate Finance, (ERA A* publication), a leading finance journal in the world.

The journal paper makes substantial contribution to the field of corporate governance and executive compensation and further understanding institutional environment of China, Australia’s largest trading partner within the region.
News from the Grants Team

Funding Success

IERI member, Dr Valerie Harwood recently received a grant from the US Studies Centre to investigate the US Charter School Movement and the Issue of Educational Disadvantage. US charter schools are part of the public education system, and cater to numbers of students experiencing poverty. Charter schools support the creation of school modalities within a publicly funded system, with many schools supporting students from non-traditional backgrounds to gain access to higher education. Australia does not have a charter schools provision, but has a limited number of alternative schools. This study will investigate how US charter schools address educational disadvantage and pathways to higher education. The study will involve social mapping of the demographics of US charter schools and case studies of two schools that cater to children from disadvantaged groups/displaced from traditional schooling. IERI PhD student Nici Humhrthy will be working with Valerie on this project. The grant will fund Nici to travel to the US to conduct fieldwork in US Charter Schools. Valerie has been made a Research Associate of the US Studies Centre for the duration of the grant.

Upcoming Grant Opportunities

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External Grant Schemes

NHMRC Career Development Fellowships

This scheme aims to further develop Australian health and medical researchers early in their career. It will enable investigators to establish themselves as independent, self-directed researchers; expand capacity for biomedical, clinical, public health and health service delivery research, and for evidence-based policy development in Australian health systems; and encourage the translation of research outcomes into practice.


NHMRC Partnership Projects

This scheme is designed to encourage researchers and partner organisations to form alliances to define research questions, identify research projects, conduct research, interpret its findings and promote the use of those findings to influence the design and evaluation of health and health care policy and practice. This scheme supports connections that will improve the translation of research evidence into health policy and practice, with the aim of improving health services and processes.


NHMRC Early Career Fellowships

The purpose of NHMRC Training (Postdoctoral) Fellowships is to provide opportunities for Australian researchers to undertake research that is both of major importance in its field and of benefit to Australian health. Training (Postdoctoral) Fellowships provide a vehicle for training in basic research either in Australia or overseas (where appropriate), to enable Fellows to work on research projects with nominated advisers. Awards are offered to a limited number of persons of outstanding ability who wish to make research a significant component of their career.


ARC Linkage-Projects

ARC Linkage-Projects grants support collaborative research and development projects between higher education researchers and Partner Organisations which are undertaken to acquire new knowledge and involve risk or innovation. Proposals must contain a cash and in-kind contribution from a Partner Organisation.

Eligible Partner Organisations include private sector industry organisations; private non-profit organisations and government agencies.

Training for Researchers

Internal Grant Schemes

2011 Research Infrastructure Block Grants (Pool 2)
The objectives of this scheme are to meet project-related infrastructure costs associated with Australian Competitive Grants; remedy deficiencies in current research infrastructure; enhance support for areas of research strength; and ensure that areas of recognised research potential, in which institutions have taken steps to initiate high quality research activity, have access to the support necessary for development.

For further information regarding this scheme, please contact Danielle Annese on ext: 5874 or annese@uow.edu.au.

2011 URC Research Partnerships Scheme
The URC Research Partnership Scheme aims to support high quality industry related research projects of modest cost conducted by researchers of proven excellence in collaboration with partners who provide matching support. Researchers with projects supported under this scheme are expected to apply for external competitive funding in the following year. Funding up to a maximum of $20,000 for one year is available. In 2010 there will be two rounds of assessment: Round 1 – (TBA) May; Round 2 – (TBA) October.

For further information, please contact Tansie Jarrett on ext: 4522 or tansie@uow.edu.au.

Early Career Researcher Mentoring Program Success

In March 2010, PODS introduced 12 Early Career Researchers to 12 experienced senior UOW Researchers as part of the Early Career Researcher Mentoring Program. The Program was supported by training, networking sessions and newsletters to assist in maintaining the momentum of the partnership.

The aim of the Program was to increase mentees confidence and motivation as a researcher, assist them in gaining knowledge, expertise and skills from an experienced researcher and build a professional research network.

Twelve months later the Program has been a huge success for both mentees and mentors. Here are some comments from two of our mentees.

‘One of the most beneficial aspects of the program was having someone who was prepared to listen and share their knowledge about how a research career is built and how to manage the demands of the ECR role. During my time in the program, my mentor assisted me in focussing my research and writing activities and also, encouraged me to ‘give it a go’ even if I was ready to give up!’

Dr Sarah O’Shea, Faculty of Education.

‘I entered the program knowing I had ideas about research, but unable to perhaps objectively plan for success. This would involve seeking support through grants, being clear in the process of completing the research, and then the act of writing up. Following on from my recent completion of my PhD was quite daunting, as recognising my own abilities and gaining confidence through a listening ear and supportive constructive comments was very much needed and appreciated.’

Dr Noeline Weatherby-Fell, Faculty of Education.

The Program formally closed on 1st April with a Celebratory Lunch, which Prof. Judy Raper attended to personally congratulate the participants.

Professional & Organisational Development Services (PODS) would like to formally thank and acknowledge the support of the mentors in this Program, as without them such initiatives would not be possible. The mentors were: Prof Patrick Heaven, Prof Jacqui Ramage, A/Prof David Pask, Prof Lesley Head, Prof Willy Susilo, Dr Simon Moulton, Prof Geoff Spinks, Prof Kerry Dunne, Prof Lori Lockyer, Prof Nick Dixon and A/Prof Greg Schiemer.

Event Calendar

Did you know that Professional & Organisational Development Services (PODS) offers a wide range of professional development courses for researchers?

Upcoming programs remaining for 2011
• Creating the 7 Secrets of Successful HDR Students (for Supervisors)
• The Craft of HDR Supervision
• Developing Your Research Grant Writing Skills
• Writing for Publication
• Where To Publish
• Tips for tendering
• Presenting Your Research with Confidence
• Research Information Systems Training
• The Balanced Researcher

For more detailed information and to register for a course, please visit the staff development programs page on the PODS website and follow the links.

Three Minute Thesis Competition

The Three Minute Thesis UoW Finals Competition will be held, 29 June 2011. Each UoW Faculty will hold their own heats with each Faculty’s winner to compete in the UoW Finals (for further information regarding Faculty heats please contact your HDR Faculty Administrator). The Three Minute Thesis Competition is an exercise in developing academic and research communication skills in our Higher Degree Research Students (PhD and Masters Research). HDR students will have three minutes to present a compelling oration on their thesis topic and its significance in language appropriate to an intelligent but non-specialist audience. The competition will not be an exercise in trivialising research, but should engage the audience without reducing research to entertainment value alone. UoW Finals Prizes: 1st prize - $1000, 2nd Prize - $500, People’s Choice Award - $500.00.

The UOW winner will compete in the National/Trans-Tasman competition to be held at the University of Western Australia, 29 September 2011. Great prizes to be won. More details at: http://www.uow.edu.au/research/rsc/news/UOW074626.html

Enquiries please contact Kim Callaway - kroser@uow.edu.au

HDR Student Enrolment Checking for 2011

If you have a new offer for a Higher Degree Research (HDR) degree and have not received notification regarding your enrolment please contact the Research Student Centre 4221 5453 or contact June Toussis junet@uow.edu.au.

Once enrolled please ensure that your enrolment is correct for Autumn and Spring Sessions 2011 for example - part time, full time (THES912 is part time/THES924 is full time) or coursework subjects.

Re-enrolling

Autumn Session and Spring Session Enrolment Variations and re-enrolment for 2011 have begun and all HDR students are asked to check their enrolment details are correct. Please send any enrolment variations (leave of absence, change of status etc) to the Enrolment Officer, Research Student Centre, June Toussis, junet@uow.edu.au or 4221 5453, by the 31st March 2011.

2012 ENDEAVOUR AWARDS

Applications are now open

Applications are now open for the 2012 Endeavour Awards Program. Endeavour Awards offer a range of opportunities for international fellowships, sponsored study and professional development, particularly where the application demonstrates strategic international links.

It is an internationally competitive, merit-based scholarship program providing opportunities for citizens of the Asia-Pacific, Middle East, Europe and the Americas to undertake study, research and professional development in Australia. Awards are also available for Australians to undertake study, research and professional development abroad.

Applications close – 30th June 2011

Further information including eligibility, selection criteria and the application process please visit the website at www.endeavour.deewr.gov.au or contact Research student centre on Ext. 5672 or by emailing Christine Mason at cmason@uow.edu.au

Attention UOW Researchers:

The University is updating our database of experts. We want our researchers and academics to be quoted in news outlets around the world! Our current database is used regularly by journalists and media to identify people to give comment on media issues, and can be found at: http://www.skills.itc.com.au/index.asp

The media seeks comments about a huge range of topics so if you have expertise or specific knowledge in a particular area, please visit: http://media.uow.edu.au/expertise/index.html and fill in the form.
Commercial Research and Technology Transfer


Trailblazer Competition

The University of Wollongong’s annual Trailblazer competition was developed to reward innovative ideas and early-stage research that has the potential to benefit the community, industry or business, as well as generate a financial return. In 2011 the UOW, in collaboration with UniQuest, will host its 7th Trailblazer Competition. Applications for this competition will open in April and run until the 17th of June, all valid applications will go in the draw to win an iPad.

The University final, sponsored by Fisher Adams Kelly, will be held on the 4th of August where a total pool of $10,000 prize money will be awarded across a Student and Open Category.

In 2011 for the first time a grand final will now be held between all of the participating Universities. UOW will send a team, sponsored by Shelston IP, to compete in the grand final in Queensland on the 15th of August, where another $50,000 in prize money will be awarded.

For more information please visit http://itt.uow.edu.au/news/UOW009437.html or contact your Commercialisation Manager.

Research Commercialisation Workshop

UniQuest are running a Research Commercialisation Workshop devoted to helping you protect the intellectual assets of your research, leverage commercial research funding for publication opportunities, connect with industry and investors, broaden your career horizons, and even gain credit towards a UOW Graduate Certificate in Research Commercialisation. UniQuest is one of Australia’s leading university commercialisation companies, collaborating to generate benefits for UOW researchers, UOW and the wider community. Postgraduate students and research staff from all UOW faculties and academic disciplines are welcome.

Date: 21-22 July 2011
Venue: Radisson Resort Gold Coast
Application/Registration: Fully and partially subsidised places are available, with applications accepted as an Expression of Interest. Apply online at www.uniquest.com.au/workshop

Other News from Commercial Research and Technology Transfer

• The attention deficit disorder (ADD) neurofeedback training system, developed by A/P Stuart Johnstone and A/P Steven Roodenrys (School of Psychology) and licensed to Neuro Cognitive Software in 2009, has been further developed as part of an interactive gaming technology with a planned launch in April 2011. The game will represent a landmark in using “serious games” alongside a brain-computer interface device (including a Neurosky brain wave sensor) to assist skills acquisition in the 5% of young people who suffer from ADD. UOW will receive a royalty stream on system sales.

• ITT hosted first 2011 meeting of the S7 group of Sydney region commercialisation offices held its first meeting of 2011 at iC on February 21st. S7 comprises representatives of: University of Technology (Sydney), University of Western Sydney, University of Wollongong, Macquarie University, Sydnovate (the commercial arm of The University of Sydney), NSi (the commercial arm of University of NSW) and Newcastle Innovations (the commercial arm of Newcastle University). S7 aims to facilitate opportunities for collaboration and synergy among their various offices and to act as a forum for the discussion of pressing issues affecting commercialisation in the Greater Sydney region.

• In 2010 UoW was 1 of 4 Universities to win a $50,000 grant from NSW Government to jointly support the employment of a TechConnector to establish new industry – University research partnerships. This was based on a new grant program introduced by NSW Government as TechVouchers. Jeff Thom working within the faculty of informatics was employed to streamline applications, meet the obligations of UoW in its interfacing with the program, and support the relationships between researchers and Small-and-Medium Enterprises within NSW (SMEs).

TechVouchers a NSW Government initiative has been established to encourage and drive research collaborations with industry by providing seed funding for research programs. This is seed funding to start research programs and acting as a catalyst for the initial confidence between new industry partners and / or research groups. It is anticipated that a portion of these new partnerships will go on to more intensive research, ARC Linkage applications or consulting work based on the initial results and relationships formed. The grant applications are non-competitive and streamlined to enable a decision typically within a few weeks. The seed funding opened the door for UoW academics to engage with the diverse range and depth of industry experience found in SMEs.

To date 10 grant applications from industry have been approved by Industry & Investment NSW for UoW research programs, including the likes of partners – the Illawarra Dragons, the Illawarra Business Chamber, DataTrace, and 7 others. On the University side the research groups taking advantage of this program are diverse & representative of the full range of research skills and capabilities in the University.

• Recently Tony Enright attended the international meeting of the Association of University Technology Managers (AUTM). The AUTM meeting has a strong focus on creating commercial ventures for research and offers an opportunity to understand current international issues in transferring technology into industry.
Summon: Beyond the basics

Summon has some ‘fancy’ features designed to help you manage your citations, and make searching efficient and comprehensive:

• Email, print or export your saved search results in your preferred format (eg. Harvard, APA etc).
• Export search results to your Endnote, Refworks or Bibtex libraries.
• Set up an RSS feed to automatically receive new results matching your search criteria as they become available.

Use these feeds to find out when a book is reviewed, when your publications are cited, when a new book is added to the library, when your favourite author is mentioned, or when something on your specialty is published or added to Summon.

• Find results held beyond our Library’s collection, then request them through Document Delivery.

To learn more, click ‘What is Summon?’ on the Library homepage or make an appointment with a Liaison Librarian, phone ext 3548.

Why Research Online?

The University’s open access repository of research publications - Research Online (ro.uow.edu.au) - recently passed its 2 millionth full text download since 2006 - evidence of its success in promoting UOW research outputs. With more than 70% of the research, teaching and learning community not having access to password protected library databases, open access sites such as Research Online are vital in making research publications accessible and in promoting scholarly communication. Repositories can also improve citation rates by up to 50%.

If you would like further information, or assistance in making your archive of publications available on Research Online - whether it be articles, conference papers, books, book chapters or associated a/v material - please contact Michael Organ, Manager Repository Services, Library (morgan@uow.edu.au) on ext 3801.

Expansion of online resources

Researchers and academics are constantly requesting access to new and different online resources including databases, specific journals, standards and many other types of information. We aim to support all researchers and all requests are taken seriously. Some significant recent additions to the Library collection are:

• ASTM Standards: provides access to the 12,000 active standards of the American Society of Testing and Materials.
• IBISWORLD: provides industry research reports on over 500 Australian industries, including emerging industries.
• Nature Archive 1987-1997
• Passport GMID: Global Market Information database containing industry data, country reports and company profiles.
• Royal Society Excellence in Science Collection: includes the eight leading science journals published by the Royal Society and the archive back to 1665.

The Library’s ebook collection now spans some 60,000 titles. Some significant series gained were:

• SPIE ebook collection: 155 ebooks published 1989+ in the subject area of optics and photonics by the Society of Photo-Optical Instrumentation Engineers (SPIE).
• IEEE ebook collection: 400 ebooks in subject areas including electrical engineering, bioengineering, power, energy and communication technologies. The collection includes handbooks, introductory and advanced texts, as well as reference works and professional books.
New Research Staff

Paul Scully
Chief Operating Officer, AILM
Paul Scully recently started in the role of Chief Operating Officer of the AILM Facility at the Innovation Campus.
A graduate of the University of Wollongong, for more than a decade Paul has worked at both state and federal government levels as an economist and policy and parliamentary advisor. His most recent roles included Chief of Staff to the Federal Minister for Ageing and Chief of Staff to the Federal Parliamentary Secretary for Trade.

Anna Donaldson
Research Development Coordinator, IHMRI
Anna Donaldson has recently joined the Research Development team at IHMRI from Queen Mary University of London. Anna has a strong medical research background, having worked in laboratories in London in the areas of cancer research, infectious disease research and gene therapy research. She has also been a Clinical Trials Coordinator in Phase I and II oncology trials which are currently being run in the UK and the EU. Anna has a Masters in Immunology/Microbiology from the University of Otago.

As Research Development Coordinator for IHMRI, Anna’s role will foster and consolidate translational and collaborative projects across medical research between UOW researchers, local health network clinicians and health professionals, researchers from other organisations and allied health professionals. She will facilitate research theme meetings and strategy, assist the development of cross-organisational grant proposals, and support innovative collaborative partnerships. Contact Anna on donaldsa@uow.edu.au

Ben Cornwall
Research Information Systems Manager, RSO
Ben commenced work with UOW last year as Research Systems Manager. In this role he is responsible for overseeing the development and ongoing maintenance of RIS and HDR student systems and contributing to e-Research initiatives of the Research Services Office.
Ben has worked in the IT industry for over 10 years, and has worked in a range technical and project management roles with public and private organisations, including the Experian, State Government of Victoria, St George Bank, & Infosys. He has holds degrees from the University of Wollongong (B. Information Technology) and Charles Sturt University (Master of Management, Information Technology). Ben also holds Microsoft Certified Professional Developer (Enterprise Application Developer) and Microsoft Certified Technology Specialist (SQL Server) qualifications and is working toward a PMI Project Management Professional certification.

Dip Guha
Business Development Manager Commercial Research and Innovation & Technology Transfer
Dip Guha has recently been appointed as Business Development Manager, Commercial Research and Innovation & Technology Transfer. The overall goal of his role is to increase strategic research partnership business for UOW by leveraging expertise and deploying systems that will allow this to continue within the university without intervention.
Dip is an electronics engineer and has seven years’ experience in electronics design, IT systems, computer engineering and telecommunications R&D, through which he gained extensive intellectual property commercialization and research business development experience across major high-tech markets in North and South East Asia. He has a keen interest in entrepreneurship, innovation management, business strategy, technology policy and intellectual property portfolio monetization.

Dip is the co-founder of a group of SMEs that offer a diversified portfolio of management consulting services in the domains of IT, engineering design, oil & gas, financial derivatives, marketing analytics and intellectual property strategy. He received a B.Eng. (First Class Honours) degree in Electronics and Telecommunications Engineering from Jadavpur University, Calcutta, India, in 2000, a M.Eng. Degree in Electrical Engineering from Cornell University, New York, USA, in 2004, and a MBA degree from Melbourne Business School, University of Melbourne, in 2011. He is a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE) and a Certified Management Consultant (CMC). Since 2004, he has published six papers in peer-reviewed international journals, conferences and book chapters, two invention disclosures and five internet engineering standard drafts. Dip has been a winner of the 2003 Chevening Scholarship, a US National Science Foundation award for one of the best student paper authors at the IEEE Real-Time and Embedded Technology and Applications Symposium 2004, and a semi-finalist at the MIT Enterprise Forum Arab Business Plan Competition 2011.

Nadia Zainuddin
School of Management and Marketing, Faculty of Commerce
Nadia has recently commenced work as a Lecturer in Marketing at the School of Management and Marketing in the Faculty of Commerce. Her research area is in the field of Social Marketing, with a special interest in Consumer Behaviour and Services Marketing. Nadia’s research incorporates a focuses on understanding consumer value, value co-creation, and S-D logic. Her most recent industry collaborator was Queensland Health, where she worked with their cancer screening services unit, BreastScreen Queensland in understanding consumer experiences with preventative health services. This was based on Nadia’s PhD research, which was undertaken at the Queensland University of Technology.

**Ross Gordon**
Centre for Health Initiatives

Ross Gordon joined the Centre for Health Initiatives as a Research Fellow in November 2010. Ross studied for his PhD in Marketing at the University of Stirling. He has extensive experience managing and conducting research using mixed methodologies, on a range of topics, and with various groups including disadvantaged, and young people. His expertise lies in social marketing, marketing communications, and critical marketing. His main research interests include social marketing theory and practice, upstream social marketing and policy, the impact of commercial marketing on society, sustainable marketing, and critical marketing. Ross is also a specialist on the topic of alcohol marketing.

**Professor Sue Turnbull**
Faculty of Arts

Professor Turnbull recently took up a position in Communication and Media Studies at Wollongong with particular responsibility for managing the new Bachelor of Communication and Media Studies degree. She has been involved in curriculum development in media and screen studies since the mid seventies when she worked with the education arm of the British Film Institute co-ordinating programs of study for schools across East Anglia.

The topic of media education and associated curriculum development has been a constant dimension of Professor Turnbull’s university work, her research and her ongoing involvement with the media education from primary through to tertiary and postgraduate levels. She is currently Chair of an Australian Teachers of Media (ATOM) committee organising an international media summit, entitled Screen Futures, to be held in Melbourne this July.

Professor Turnbull’s other research interests have embraced television studies, including Teen TV.

**Dr Teodor (Ted) Mitew**
Faculty of Arts

Dr Mitew’s research specialisation is in actor network theory and the proliferation of ambient socio-digital systems. In particular, he is interested in emergent socio-digital phenomena such as the internet of things and cloud computing, and the implications of these developments for human subjectivity and memory. His interest stems from his background in actor network theory, and its semiotics-grounded understanding of sociality and agency, which lends itself quite nicely for analysing hybrid socio-technical assemblages.

In a broader context Dr Mitew’s interests also include gaming, copyright, open source software, locative media, and process philosophy. Currently he is working on a book exploring the application of actor network theory to the study of mobile socio-technical assemblages, under the working title Durable Affinities: the politics of actor networks.

Before coming to UOW, Dr Mitew worked in the Department of Internet Studies at Curtin University of Technology in Perth, Western Australia, where he was teaching subjects in digital media, communications, web publishing and gaming. His PhD is in the area of internet studies and explores actor network theory from the perspective internet research. He also have a Diploma in Computer Science and a Masters degree in History.

**Dr Tanja Dreher**
Faculty of Arts

Dr Dreher recently joined the Faculty of Arts. Her research increasingly focuses on political ‘listening’ in contexts where strategies for change have more commonly focused on ‘voice’ or ‘speaking’ – such as in thinking about media and multiculturalism or media and democracy. Research and policy on media and cultural diversity routinely emphasise speaking or ‘voice’, whether in mainstream, community or diaspora media. Her current research extends these discussions to focus on questions of ‘listening’. Drawing on recent work in postcolonial feminism and political theory, the research explores ‘listening across difference’ in media studies and media advocacy work. Case studies of ‘listening interventions’ include community media ‘listening spaces’, Living Libraries, ‘eavesdropping with permission’ and media practices beyond media as examples of the transformative potential of political listening for developing multicultural media.

Dr Dreher is also currently working on an ARC Linkage project with partners The Australia Council, Arts NSW and ICE (Information Cultural Exchange), an innovative new media and community arts organisation in Western Sydney. Her research examines the patterns of recognition and uneven ‘listening’ generated by community arts and digital storytelling projects, focusing on ‘going public’ at launch and screening events and the shifting nature of community media in culturally diverse communities.
John R. Rossiter, from the Institute for Innovation in Social and Business Research (IIBSoR) recently had his new book published, *Measurement for the Social Sciences*. The 2011 book is now available from Springer publishers worldwide. Intended as an essentially supplementary text for masters level and doctoral level research courses specifically covering measure design, the new book argues comprehensively for the author’s content-validity-based, non-statistical, C-OAR-SE approach, after detailing the fatal problems with the conventional psychometric approach.

Suitable for research students in sociology, psychology, organisational behaviour, management, and marketing, the book features examples of highly content-valid measures for all the major constructs in the social sciences. There are also end-of-chapter questions to provide researchers with practice in applying the new C-OAR-SE method.

The book is available in hardcover through the Publisher’s web site, online retailers such as Amazon.com, and to students through Springer’s eBooks and paperback MyCopy programs (via SpringerLink, through participating libraries and institutions). Visit www.springer.com for more information.

In May 2011, Dr Peter Siminski and Professor Simon Ville from the Faculty of Commerce will have a paper published in the world’s leading economics journal: the *American Economic Review*. The paper, ‘Long-Run Mortality Effects of Vietnam-Era Army Service: Evidence from Australia’s Conscription Lotteries’, is drawn from their ARC-funded project, which explores the effects of army service on various economic and social outcomes.

**Travel Tale**

Have you been travelling around Australia or internationally lately as part of your research? Send us your Travel Tale and snaps for the next ‘Travel Tale’ section – and inspire others to travel as part of their research!

For information on International Funding Opportunities visit https://intranet.uow.edu.au/raid/internationalfunding/index.html

**A Kingdom and a Place of Exile** was launched on Monday 21 February by Vice Chancellor Professor Gerard Sutton and Professor Deirdre Coleman, Robert Wallace Chair of English at the University of Melbourne.

**A Kingdom and a Place of Exile** is a rich commentary on postcolonial women’s writing by leading literary scholar Dorothy Jones. The collection of essays concentrates on writers from countries such as Australia, New Zealand, India, Canada and the Carribean. Themes throughout the essays include the textile arts and how they are intricately woven into the fabric of culture, the gardens women write and the part food plays in people’s lives. “Dorothy’s writing is imbued with an extraordinary knowledge of the imaginative possibilities of myth”, said editor Dr Melissa Boyde. “This critical celebration of writing will be enjoyed by lovers of books and reading.”

Distinguished literary scholar Professor Deirdre Coleman, Robert Wallace Chair of English at the University of Melbourne, was a guest speaker at the launch of the book. Lecturing at UOW in the early 1990s Professor Coleman was inspired by Dorothy’s work and regards her as “one of Australia’s finest literary critics”.

The book is now on sale at the University Bookshop. For more information, please email Dr Melissa Boyde (boyde@uow.edu.au).
Researchers unveil MASK initiative

MASK, a collaborative research initiative, was officially unveiled on the 11th February at the UOW Innovation Campus. The project brings together UOW researchers and a team of international collaborators to investigate novel sensing technologies based on nanostructured materials.

The team aims to develop sophisticated sensing materials using nanotechnology to uncover a more accurate and cost effective means of complex chemical and biological measurement. The sensors are expected to find widespread application in environmental, energy and biomedical monitoring.

Led by the Intelligent Polymer Research Institute (IPRI) at UOW, researchers from two other Australian institutions (Monash University and University of Tasmania) will form the integrated global network with scientists from Dublin City University (Ireland), Abo Turku (Finland) and CNMP (France).

One of the first projects underway is the development of WANDA, an autonomous sensing unit based on a model fish. The fish will be propelled by artificial muscle technologies developed by IPRI and equipped with lightweight, low-power sensing systems developed by Dublin City University.

Director of IPRI at the University of Wollongong, Professor Gordon Wallace, said the fish was an exciting innovation.

“Using a low-cost, low-power, off-the-shelf wireless video camera, the fish will be programmed to swim around a particular route, and send images back wirelessly of what it sees,” Professor Wallace said.

According to Professor Wallace, simple sensors on WANDA will change colour in response to the local chemistry of the water. The fish is also capable of transmitting data about local environmental conditions to warn of any changes that may require action.

A Processing and Fabrication Facility soon to be established at the Innovation Campus will enable researchers to turn laboratory prototypes into similar practical devices.

The brave new world of medical bionics

Science fiction has long imagined a time when those who have lost limbs are able to regrow nerve and muscle cells into their prosthetic device, controlling it with their brain as though it were simply an extension of their body.

Combining nanotechnology with new organic materials that conduct electricity, Australian and Japanese researchers have been able to guide the regrowth of nerve and muscle cells after damage. These new materials show promise in the repair of damaged nerve cells after injury and in the development of “smarter” medical devices that can better interact with the body.

So does this mean we’re now at the edge of having a proper Bionic Man? What are the limits to what we can do already and just what will medical bionics be capable of in just a few years’ time?

In a first for the Australian and Japanese Science Media Centres a joint online briefing was recently held out of the Nanotech Expo 2011 in Tokyo. Available simultaneously in Japanese and English, the briefing provided an update on the latest developments in medical bionics. Speakers were the Executive Director of the ARC Centre of Excellence for Electromaterials Science and the Intelligent Polymer Research Institute at UOW, Professor Gordon Wallace; and the Chief Researcher and Group Leader of the Molecular Biological Systems Research Group at Nippon Telegraph and Telephone, Professor Keiichi Torimitsu.

The Australia-Japan Science Media Centre collaboration was supported by the Commonwealth through the Australia-Japan Foundation which is part of the Department of Foreign Affairs and Trade.

Professor Wallace was also a keynote speaker at the Nanotech Expo. Professor Wallace and Mr Chris Gilby (Director of Strategic Development for ACES) were part of a NSW Trade and Investment Mission with Professor Wallace’s visit supported financially by the Australia-Japan Foundation. In addition to the symposium, Professor Wallace presented ACE’s research at RIKEN’s Advanced Science Institute (ASI) and at Sekesui. Professor Wallace held discussions with Dr Yoshi Osada and his team from ASI, which is integral to RIKEN’s strategic formation of new research fields and ultimately core research areas. The Australian Ambassador to Japan, Mr Murray McLean, hosted a dinner with Professor Wallace and leading scientists and industrialists in Tokyo.
‘Understanding the obesity epidemic’ Seminar

Professor Margaret Morris, Chair and Head of Pharmacology, School of Medical Sciences, UNSW

Wednesday 20th April, 4.45pm
IHMRI Lecture Theatre 32.G01

Obesity is a rapidly increasing medical problem. This seminar will address the endocrine and metabolic consequences of consumption, and ask the question: How does provision of a varied, energy rich diet usurp the regulatory control mechanisms that should maintain body weight? What is the impact of maternal (and paternal) obesity – might this contribute to the growing obesity epidemic?

Professor Morris will also address the profound effects of stress on appetite in both animals and humans, and perturbations in hypothalamic-pituitary-adrenal axis regulation implicated in obesity. Research in the Morris lab has shown that palatable high fat diet can ameliorate the behavioral effects of early life stress; notably voluntary exercise had similar benefits (Psychoneuroendocrinology 2010). RSVP by 17 April to Elizabeth Phillips (tel: 4221 4126; eliza@uow.edu.au)

Research Strength Showcase Series 2011

This URC lecture series will provide an opportunity to showcase some of UOW’s Research Strengths, and introduce the researchers involved to the general campus and community.

Thank you to Vera Mackie, who presented at the March event on Human Rights in the Asia-Pacific Region.

Current Schedule

<table>
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<tr>
<th>Session One</th>
<th>Session Two</th>
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<tr>
<td>Wednesday 18th May</td>
<td>A/Prof. Clive Schofield Institut for Transnational and Maritime Security</td>
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<td></td>
<td>Professor Song-Ping Zhu, Dr Aidan Sims and Dr Natalie Thamwattana Institute for Mathematics and its Applications</td>
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<tr>
<td>Wednesday 7th September</td>
<td>Prof. David Ayre Institute for Conservation Biology and Environmental Management</td>
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<tr>
<td>Wednesday 19th October</td>
<td>Prof. Sara Dolnicar and Dr Melanie Randle Institute for Innovation in Business and Social Research</td>
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| **All Presentations will be held at lunchtime (12.30-1.30pm)** Building 20, Lecture Theatre 2 | **Uni in the Brewery 2011**

We hope you can come along and enjoy a beer or wine at the Five Island Brewery, while listening to presentations about some interesting UOW research. All staff, students and the general public are welcome and encouraged to contribute in discussion.

Thank you to Dr Stephen Blanksby and Dr Phil Barker, who gave the first Uni in the Brewery presentation for 2011. The presentation can be viewed at http://www.uow.edu.au/research/unibrewery/UOW094095.html

Presentations scheduled for this year:

| 25th May                          | Dr Simon Moulton Nanobionics Presentation |
| 17th August                      | Dr Clare Murphy and Prof. David Griffith Environmental Research Presentation |
| 2nd November                    | Siobhan McHugh Faculty of Creative Arts |


CHI Research Seminar Series

A new initiative of CHI in 2010 saw a number of research seminars presented to the university community. Each seminar represented a key area of the centre’s research activities. The monthly CHI Research Seminar Series will continue in 2011 at lunch time (12.30-1.30pm) on the following dates:

7th April - Dr Keryn Johnson and Melinda Williams
12th May - Lyn Phillipson
9th June - Dr Ross Gordon

A delicious lunch is also provided, so come along!

For further information or to RSVP, contact Christine Cairns: christine_cairns@uow.edu.au

Schedule updates at:
The 8th SME’s in a Global Economy Conference 2011: 9th to 11th November 2011

Once again, members of the Centre for Small Business and Regional Research (CSBRR) in the Faculty of Commerce will be involved in the 8th SMEs in a Global Economy Conference 2011: “Rising to the Global Challenge: Entrepreneurship and SMEs development in Asia” will be held at Khon Kaen University, Nong Khai Campus, Nong Khai, Thailand during 9-11 November 2011.

The SMEs in a Global Economy Conference was initiated in 2002 by CSBRR. The aim of the conference is to bring together entrepreneurs, SME owners, policy-makers, financial institutions, government agencies, consultants, practitioners and scholars from all over the world to provide a platform where entrepreneurs, practitioners, academicians and policy makers can discuss and analyse the prospects and challenges faced by regional SMEs in the wake of globalization.

For further information regarding the call for papers, please visit: http://www.nkc.kku.ac.th/smesconference2011/index.php?page=content&id=11

Interdisciplinary Collaboration - Practical Insights

Sinet is organising our first public forum for 2011, “Interdisciplinary Collaboration-Practical Insights”, on 11th April 2011, 5:30pm at The Ocean Room, Innovation Campus.

Many people are encouraged to undertake ‘interdisciplinary collaboration’ (aka partnering with others) but are not sure what it is, what advantages it can offer their work and research, and how to start. This forum will cover this, and more!!

The University of Wollongong has always been strongly committed to inter-disciplinary research, believing it to be a major driver for innovation. Professor Judy Raper, Deputy Vice-Chancellor (Research) of University of Wollongong will address the concern of balancing ‘interdisciplinary’ with ‘discipline-based’ research. The current Excellence in Research for Australia (ERA) initiative of the Australian Research Council is very discipline focused and could be considered to offer little incentive or reward for inter-disciplinary work. So how do we get the balance right?

Professor Kathy Eagar, Director of Centre for Health Service Development, and Natalie Burroughs & Nicky Sloan, CEO & Project Manager of Regional Development Australia, Illawarra will share their experiences and tips on collaborations. Kathy has successfully tackled health services research challenges through working with a range of academic disciplines and professional groups, while Natalie & Nicky will share some of her experiences in forming partnerships to address local economic and environment issues facing Illawarra communities.

Date & Time: Mon, 11th April 2011, from 5pm. Refreshments will be provided
Location: Innovation campus, The Ocean Room (upstairs, Southern Building)
Please RSVP to SInet Research Assistant, Limin Tan limin@uow.edu.au if you are attending this event.

Ethics

<table>
<thead>
<tr>
<th>Agenda Deadlines and Meeting Dates 2011 for your Diary</th>
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<tbody>
<tr>
<td>Human Research Ethics Committee (HREC) Health and Medical</td>
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<tr>
<td>Next meeting 10th May (agenda deadline 20th April)</td>
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<tr>
<td>Human Research Ethics Committee (HREC) Humanities, Social Sciences and Behavioral</td>
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<tr>
<td>Next meeting 14th April Following meeting 19th May (agenda deadline 4th May)</td>
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<tr>
<td>Animal Ethics Committee</td>
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<td>Next meeting 12th May (agenda deadline 21st April)</td>
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<tr>
<td>Gene Technology Review Committee</td>
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<tr>
<td>Next meeting 1st June (agenda deadline 18th May)</td>
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<td>More information at: <a href="http://www.uow.edu.au/research/rso/ethics">www.uow.edu.au/research/rso/ethics</a></td>
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Schizophrenia: from the street to the striatum

Sir Robin Murray
Professor of Psychiatry, Kings College, London
6pm, Tuesday 17 May 2011
IHMRI Lecture Theatre (Bldg 32, G.01), University of Wollongong
RSVP Essential
T: 02 4221 4333
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