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MESSAGE FROM THE VICE-CHANCELLOR

The Federal Minister for Education, Science and Training, Julie Bishop, has invited submissions on how Australia should respond to the Bologna Process. Bologna aims for “an integrated European higher education area by 2010”, with greater consistency in degree structures, credit transfer and quality assurance systems, and the overall objective of increased graduate mobility and qualification portability.

A national debate about Bologna, and also about the model being developed by the University of Melbourne, is most welcome.

However, there are signals – including the low rate of adherence to the Bologna Process by the European signatories themselves – that UQ should approach both models with caution.

Importantly, our students enjoy significant advantages under UQ’s current degree structures and practices. UQ students now have more choice of enrolment modes than under the Bologna proposal of a three-cycle degree structure (a bachelor degree, followed by a masters degree and a doctoral degree).

Further, most students in the popular dual professional degree programs – such as Bachelor of Commerce/Law, Bachelor of Arts/Medicine and Bachelor of Science/Engineering – have Commonwealth support throughout their programs.

Also, requiring all students to defer a professional degree program until they earned an undergraduate degree would block a popular pathway offered at UQ.

Arguably the most significant rationale for Bologna lies in its aim of improved international recognition of degrees. However, the North American, Indian and Chinese models (either actual or envisaged) will be at least as important for Australia as those of Bologna.

One opportunity for serious discussion at UQ comes through the Bologna proposal for a two-year masters degree as the pathway to doctoral degrees. In most Australian universities, the tradition is the honours degree – either a three-plus-one or a four-year model with “in-course” honours.

At UQ, more Bachelor of Arts and Bachelor of Science students now prefer a four or five year dual degree program over a three-plus-one honours program. So it could be asked: is it appropriate to continue requiring a year of additional specialist study for honours in some programs, rather than offering a separate one (or even two) year research-oriented masters program? Should three-year as well as four-year bachelor degrees offer in-course honours, rather than requiring an additional year? Is there a need to clarify the meaning of the “degree with honours”? Ultimately, the real benefits to UQ of the Bologna Process may lie in the debates it raises, rather than those it settles.

Professor John Hay, AC
Lucerne ready to make hay

Further advances in genetics and research have the potential to increase the Australian lucerne production area 20-fold, according to 2006 Farrer Memorial Medal recipient, UQ Professor John Irwin.

Professor Irwin, who delivered his Farrer Medal oration at the University on September 21, said the breeding of superior lucerne varieties, combined with a greater knowledge of diseases which affected the forage legume, had already led to increased production levels across eastern Australia.

The leading agricultural scientist and academic gave his oration after receiving the prestigious medal from NSW Department of Primary Industries Director-General and Farrer Memorial Trust Chairman, Barry Buffier.

“Lucerne is Australia’s most important perennial forage legume with over 200,000 hectares grown for hay production, and 3.5 million hectares used in ley farming operations,” Professor Irwin said.

“But modelling indicates the potential area that could be sown to lucerne in Australia could be around 81 million hectares.”

Professor Irwin said yield stagnation had been an issue worldwide as no advances had been made in yield, largely due to the current methodologies for breeding lucerne remaining unchanged for the past 60 years.

Most of the increases made so far have come from the incorporation of disease and pest-resistance.

But Professor Irwin said recent advancements in hybridising lucerne with another species Medicago arborea had the potential to lead to significant yield increases.

Hybrids made with yellow flowered Medicago falcata also showed good yield increases at Gatton, and resistance to Stagonospora crown rot would greatly benefit lucerne in southern Australia.

“Up until 1977, the Hunter River variety comprised more than 95 percent of the lucerne area in Australia,” Professor Irwin said.

“But since then, cultivars with multiple disease and pest resistance have been bred in Australia and this has resulted in at least 20 to 30 percent higher irrigated hay yields on average across the country.”

The Farrer Memorial Medal is awarded annually to a person who has provided distinguished service in agricultural science in the areas of research, education, extension or administration.

Mr Buffier said the medal recognised the significant contribution Professor Irwin had made to the field of agricultural research, particularly in reducing risk of disease in tropical plants.
The University is gearing up to build Queensland’s first health research centre focused on improving patient care. Construction is due to begin next month for the $60 million UQ Centre for Clinical Research, which is funded by The Atlantic Philanthropies, the Queensland Government and UQ.

“The UQ Centre for Clinical Research will house about 320 researchers and become part of a world-class cluster of UQ research facilities that are advancing human health, assisting industry, and building a critical mass of internationally-respected scientists in south-east Queensland,” UQ Vice-Chancellor Professor John Hay, AC, said.

“The high-quality research to be conducted by this centre will link directly to better care and results for patients.

“It will also improve disease prevention, and guide health policies in Australia and internationally.

“Evidence-based research, such as that to be conducted at the UQ Centre for Clinical Research, should set the direction for advanced health policy in the future.”

The seven-storey building will be alongside Bowen Bridge Road at the Royal Brisbane and Women’s Hospital, Herston, and is scheduled to be complete in late 2007.

Professor Hay said the architectural design aimed for an adaptable, modern work environment to encourage collaboration between researchers.

“‘The UQ Centre for Clinical Research will house about 320 researchers and become part of a world-class cluster of UQ research facilities’

THE CARE OF HOSPITAL PATIENTS AND HEALTH POLICY DEVELOPMENT WILL BENEFIT FROM A NEW UQ RESEARCH CENTRE AT HERSTON IN BRISBANE.

HEALTH RESEARCH
in the best of health

The main fundraising event for the University’s sporting scholarship program, the UQ-ANZ Race Day, is on October 28.

The scholarship program, a joint venture with the Alumni Association and UQ SPORT, supports elite student athletes pursuing sporting and academic excellence.

The UQ-ANZ Race Day starts the Spring Racing Carnival with Cox Plate Day at Doomben.

The proceeds of each $2 racetrack entrance ticket, purchased from UQ SPORT venues until Friday 27 October, goes towards the scholarships.

UQ will also host a formal event under a marquee with a trackside buffet, beverages and entertainment.

For more information regarding tickets, contact Andrea Walters on 07 3346 7242.

Scholarship applications for 2007 close on October 23.

LAW DINNER

The inaugural Sir Harry Gibbs’ Law Dinner was held at Emmanuel College, St Lucia, on August 25.

The dinner was named in honour of the late Sir Harry Gibbs, a student at Emmanuel during the 1930s who continued his connection through being a Fellow and Patron of the Emmanuel College Foundation.

Sir Harry agreed to a dinner and scholarship in his name.

“The Sir Harry Gibbs scholarship was launched on the evening by College Principal Dr Stewart Gill and will be awarded to an outstanding law student to study at Emmanuel College while enrolled at UQ.

Among those at the event were Justice Margaret Wilson and Judge John McGill.

UQ Secretary and Registrar Douglas Porter represented the University. The speaker was eminent legal academic, barrister, Queen’s Counsel and Judge, Justice Bruce McPherson, CBE, whose subject was Why Have Law At All?

inbrief

RACE FOR FUNDS

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The next generation of solar cells made out of plastics and microscopic crystals instead of silicon is taking shape at UQ.

UQ Master of Philosophy student Michael Deceglie is working on improving the stability and overall efficiency of solar cells.

Mr Deceglie is testing two new ways of making solar cells out of a dye-sensitized solar cell and a combined nanocrystal polymer solar cell.

The dye-sensitized cells use dye molecules to inject electrons into a thin titanium dioxide film, while the polymer cell is a thin film of plastic mixed with microscopic crystals that channel the charge through the cell.

Mr Deceglie said both methods could produce solar cells that had similar efficiencies to current silicon technology but were cheaper, more flexible, easier to produce and more environmentally friendly.

"Since electrons don't move well in the polymers, we incorporate nanocrystals with the polymer to provide a pathway along which electrons can move to generate electrical current," Mr Deceglie said.

"The dye-sensitized device works in a manner similar to photosynthesis in plants."

Mr Deceglie joined UQ’s Soft Condensed Matter Physics Group in July as one of 14 Americans granted a Fulbright postgraduate award scholarship. He is studying under Group leader Dr Paul Meredith on the $30,000 scholarship, which includes his study and travel allowance.

"I chose to work with Dr Meredith's group because they were doing work that I found very interesting and Dr Meredith was very enthusiastic about having me," he said.

"By travelling to Australia on this Fulbright, I am hoping to highlight the importance of transnational cooperation to meeting our energy needs in a sustainable way."

Fellow UQ physics PhD students Paul Schwenn and David Blake are also helping with the solar cell project.

Mr Deceglie

UQ scientist Devon Biggerstaff is investigating ways to manipulate light in a process that will help shape future supercomputers and communication.

These future supercomputers, called quantum computers, which will surpass conventional desktop machines in some processing tasks, could encode information as photons or minute particles of light.

These photons need to be entangled as twins that are linked in time and space but physically separate.

But creating these entangled photons using current methods is expensive and inefficient.

The 22-year-old is working with UQ’s Centre for Quantum Computing Technology under Professor Andrew White.

He is one of 14 Americans granted a Fulbright postgraduate award scholarship in Australia.

Mr Biggerstaff

SHINING LIGHT
in quantum computing

Mr Biggerstaff is about to experiment with different entangled photon production methods using engineered crystals, mirrors, lenses and beam splitters.

"Scientists need good sources of entangled photons but one can’t simply press a button and create them," Mr Biggerstaff said.

He said entangled photons could be used as a study tool to show the potential of quantum computing and allowing completely secure messaging through unbreakable quantum encryption.

Information could be sent via single photons replacing signals sent in groups of photons or pulses along fibre optic cable.

"A quantum computer, which is for now a theoretical and far-off device, would be able to factor very large numbers or search large databases in a much more efficient manner than any classical computer," Mr Biggerstaff said.
A 33-year-old Thai woman battling Thailand’s national government and corporate sector over human rights and journalistic freedom has been recognised by UQ.

The General Secretary of the Thai media advocacy group Campaign for Popular Media Reform (CPMR), Supinya Klangnarong, received the inaugural Communication and Social Change Award at School of Journalism and Communication anniversary celebrations.

Head of School Professor Jan Servaes said Ms Klangnarong was an outstanding advocate of the right to the freedom of expression and public access to the broadcast media in Thailand.

In recent months, Ms Klangnarong fought and won a defamation case brought by Thai telecommunications giant Shin Corp, seeking US $10 million.

Shin Corp was founded by Thailand’s recently deposed Prime Minister Thaksin Shinawatra and owned by his family. In early 2006, the family sold its 49 percent share in the company to Singapore’s Temasek Holdings.

The defamation suit followed comments made by Ms Klangnarong and published in the Thai Post newspaper that Shin Corp profits had soared after the Prime Minister’s election.

The comments questioned the relationship between Thai politics and commercial interests.

“At great personal risk, Ms Klangnarong has pursued freedom of expression,” Professor Servaes said.

“She is courageously leading a national campaign for broadcast regulation reform and to bring the benefits of broadcasting, especially community radio, to the Thai people.”

Ms Klangnarong said Thailand had a very diversified, rural and poor population.

She said this meant it was vital for broadcasting to be available to, controlled by, and for the benefit of all the people.
**AUSCERT COUP**

An agreement between AusCERT (Australian Computer Emergency Response Team) and the Federal Government will further secure national information technology systems from threats.

Federal Attorney General Philip Ruddock announced the agreement on September 14.

AusCERT, Australia’s National CERT, is based at UQ and provides information on computer threats and vulnerabilities to its subscribers.

The Government’s AusCERT subscription followed a recent Memorandum of Understanding between the Government and AusCERT to protect information infrastructure from cyber incidents.

**COOK CONSERVATION**

A delegation of senior coastal environment managers from the Cook Islands visited Queensland to learn the keys to successful marine conservation during major tourism growth.

The group also studied sustainable economic development policy first-hand from some of the world’s leading researchers.

The delegation was hosted by the Global Coral Reef Targeted Research and Capacity Building for Management (CRTR) Project’s Australasian Centre of Excellence, based at UQ.

**EDNA PROGRAM**

UQ’s new Edna Program will provide women staff members with guidance and help in their quest for career advancement.

The program is dedicated to the memory of Emeritus Professor Edna Chamberlain.

Its key aim is to provide female staff an opportunity to consult with academic and other general staff who can share their expertise and provide guidance and encouragement.

The program is an initiative of the Gender Equality Subcommittee in collaboration with the Equity Office.

**Historian looks to the future**

A POSTGRADUATE RENAL RESEARCH SCHOLARSHIP FUNDED BY DR ROSAMOND SIEMON WILL SUPPORT VITAL STUDIES INTO KIDNEY DISEASES

A historian who chronicled one of Brisbane’s most intriguing families in The Mayne Inheritance will leave a legacy which offers hope for families afflicted by a genetic kidney disease.

Dr Rosamond Siemon has turned her focus from the past to the future by supporting kidney research at the University, through a generous bequest and a scholarship, which begins next year.

Dr Siemon’s aim is to aid Professor Melissa Little and her team from UQ’s Institute for Molecular Bioscience (IMB) in researching polycystic kidney disease – an inherited condition affecting more than 60,000 Australians.

Dr Siemon’s son-in-law had the disease, which made him dialysis-dependent for most of his adult life and caused his premature death.

“I could not look my grandchildren or great grandchildren in the eye if I did not do something, and that is why I’ve established the scholarship now,” Dr Siemon said.

“I have had a wonderful life and being able to put something back in my lifetime is very important to me.”

UQ Vice-Chancellor Professor John Hay, AC, praised Dr Siemon’s foresight.

He said she is setting a fine example by supporting research with the potential to benefit generations of families afflicted with polycystic kidney disease.

“Having published a book about leading UQ benefactors the Mayne family, this UQ graduate and former staff member is now a philanthropist in her own right,” Professor Hay said.

Professor Little said polycystic kidney disease was the most common genetic cause of chronic renal disease. Thirteen thousand of Australia’s 60,000 patients have reached end-stage renal disease, which occurs when the kidney filtration rate falls below 10 percent.

“Our laboratory focuses on gaining a greater understanding of the processes involved in normal kidney development, as well as chronic renal disease,” Professor Little said.

“Like other forms of chronic renal disease, polycystic kidney disease can currently only be treated via organ transplantation or dialysis.

“Only one-in-four end-stage renal failure patients will receive a kidney transplant, so new ways of treating the disease are urgently needed, especially as the number of Australians with the condition is rising at around eight percent per annum.”

“Our long-term aim is to use our knowledge to develop therapies for treating renal disease, an aim which will be greatly furthered by Dr Siemon’s generosity.”

The Dr Rosamond Siemon Postgraduate Renal Research Scholarship will be available to any UQ, or other suitably qualified postgraduate student, undertaking multidisciplinary, collaborative research into renal disease, repair and regeneration.


Dr Siemon completed her PhD in history at UQ and was the University’s Alumni Officer for 11 years.

“I could not look my grandchildren or great grandchildren in the eye if I did not do something, and that is why I’ve established the scholarship now”
A UQ researcher has uncovered the oldest known fossilised eye capsules from jawed fishes.

Palaeontologist Dr Carole Burrow, from UQ’s School of Integrative Biology, discovered the 410 million-year-old specimens in central New South Wales, and her research is shedding new light on the evolution of eyes in early vertebrates.

“Even though they probably have no modern descendants, placoderms were the most primitive group of jawed fish, and their eyeballs give us an insight into what came before modern fish,” Dr Burrow said.

Dr Burrow’s research was also the first to use X-ray microtomography to investigate the structure of small vertebrate fossils in 3-D.

Previous work on the few other fossil eye capsules known have been based on visual examinations or fractured sections.

She said the X-ray microtomography analysis allowed her and her colleagues to see amazing detail of the inner and outer structure.

“We were able to prove these fish had an extra muscle attachment to the eye,” she said.

“It has been assumed six muscles were the norm for all vertebrates (from lampreys to humans) and we can only speculate on the functional ‘need’ for seven muscles.

“I think one possibility is that the extra eye muscle is related to these fish having an eye stalk attaching the eyeball to the braincase.”

Dr Burrow said even to find such intact fossils was exciting, as each eye is only about half-a-centimetre in diameter.

“Out in the field my collecting is highly speculative, basically picking up likely-looking lumps of limestone,” she said. “It’s only when I’ve gone back to the lab, dissolved the samples in acetic acid, and sifted through the dirt and residues under the microscope that I find these small bone fragments, so it was great to uncover such complete specimens.”

Dr Burrow’s work was published in the scientific journal Micron.

FOSSILISED EYE CAPSULES ARE PROVIDING AN INSIGHT INTO THE SIGHT OF FISH ANCESTORS

“...of a 410 million-year-old eye or two”
UQ WOMEN SMARTEST IN THE STATE

UQ’s annual Research Week from September 18 to 22 highlighted the range and scope of the University’s achievements, facilities and cutting-edge technology. It included seminars and workshops and awards recognising and rewarding the work of a number of promising early career scientists.

RESEARCH WEEK 2006

UQ women won almost one-third of all 2006 Queensland Government Smart Women – Smart State Awards.

Professor Melissa Little of UQ’s Institute for Molecular Bioscience, and UQ students Naomi Diplock and Bronwyn Galletly won three of the 10 awards.

The awards worth $2500 each were presented on September 20 by Minister for Women Linda Lavarch at Parliament House.

UQ Vice-Chancellor Professor John Hay, AC, said the awards encouraged more women to choose careers in science.

“Statistics show women are underrepresented in science careers including information technology, engineering and physical sciences,” he said.

The Smart Women – Smart State Awards are run by the Queensland Government’s Office for Women and showcase Queensland women working in or studying science, engineering, or information and communication technology.

The UQ winners were:

- Research Scientist Award: Professor Melissa Little, who established the Renal Regeneration Consortium, a national collaborative and multidisciplinary research team. Professor Little has defined six possible long-term therapies that may be pursued to treat renal disease. The award was sponsored by the Department of Primary Industries and Fisheries.

- Postgraduate Student Award: Naomi Diplock, who is investigating the use of a naturally occurring fungus as a potential biological control agent for Parkinsonia, with promising results. The award was sponsored by UQ.

- Student Encouragement Award: Bronwyn Galletly whose project will help understand whether marine animals can evolve in response to environmental pollutants commonly found in coastal regions. The award was sponsored by Queensland Treasury.

UQ WOMEN SMARTEST IN THE STATE

(From left) Prof Alan Lawson, Ms Galletly, Professor Little and Lin Fielding (mother of Naomi Diplock, accepting the award)

“Statistics show women are underrepresented in science careers including information technology, engineering and physical sciences”
One of the world’s most powerful magnetic instruments has been officially commissioned at UQ, helping pave the way for research and development into the next wave of life-saving drugs.

Queensland Premier Peter Beattie launched the instrument, a 900MHz nuclear magnetic resonance (NMR) high-resolution spectrometer, at UQ.

“It is the largest machine of its kind in the southern hemisphere, and is the centrepiece of the $17 million Queensland Nuclear Magnetic Resonance Network (QNN), based at UQ.

“This new facility will help make the Smart State a key centre for biodiscovery and drug design,” Mr Beattie said.

“Nuclear magnetic resonance is a key technology for determining the structure of molecules and for visualising the anatomy of living tissue and microscopic structure. It has helped revolutionise chemistry, physics, diagnostic medicine and structural biology.

“It will enable scientists in Queensland and across our region to pioneer pharmaceuticals requiring a detailed understanding of large molecules and target diseases such as cancer and heart disease.”

The government contributed $5 million towards the QNN. UQ Vice-Chancellor Professor John Hay, AC, thanked the Premier for his investments in infrastructure and research.

“UQ has Australia’s best NMR technology. Along with other world-class research infrastructure at UQ, it helps attract leading international scientists to pursue their research goals in Australia,” Professor Hay said.

The government funding has helped purchase three systems: the

900MHz high-resolution machine at UQ’s Institute for Molecular Bioscience (IMB); a 700MHz wide-bore micro-imaging system at the Centre for Magnetic Resonance for research by the Queensland Brain Institute; and a 600MHz system for use in biodiscovery at the IMB.

and is driven by questions about the evolution of the human mind.

He maintains an extremely high rate of publication in excellent journals, and his work has been recognised as making a major contribution to psychological research through a number of national and international awards. Along with Dr Mark Nielsen and Dr Virginia Slaughter, Dr Suddendorf established the successful Early Cognitive Development Unit in the School of Psychology.

He is an effective mentor and supervisor, with an excellent track record of current and completed Honours, Masters and PhD students, as well as one previous and one current postdoctoral fellow.

• Commercialisation Award: Dr Mary McMahon (Lecturer, School of Education) whose research focuses on the career development of children and adolescents and the application of the Systems Theory Framework (STF) of career development, as a career assessment and research tool. Developed by Dr McMahon during her Master of Education (Research), STF has been widely acclaimed.

After a four-year, three-stage trialling process in two countries, My System of Career Influences: A reflection process and Facilitators Guide, was published by the Australian Council for Educational Research in 2005 and is already used in schools in Australia and has generated significant international interest.

Dr McMahon will extend her work to a younger age group and develop research methods based on the theory.

UQ’s Queensland Brain Institute (QBI) and Carl Zeiss Australasia are combining to develop advanced imaging technology at the University.

An agreement was signed between Carl Zeiss Australasia and the QBI in September that will ensure the continued development of high-end microscopy at UQ.

Advanced imaging, which includes microscopy and magnetic resonance imaging, is at the forefront of molecular research in the biomedical sciences.

With neuroscience experiencing an era of accelerated discovery driven by the development of new molecular, genetic and imaging technologies, such advances will allow greater understanding of the regulation and function of the nervous system.

The agreement paves the way for a Zeiss-equipped Advanced Imaging Centre valued at more than $1.5 million at QBI’s new neuroscience facilities due for completion in 2007.

QBI Director Professor Perry Bartlett said the new centre would enable QBI to become the focus for the development and application of new imaging technology in the Asia-Pacific region.

“It is also a pleasing recognition by a leading international scientific company of Australia’s central role in the burgeoning scientific development in the region,” Professor Bartlett said.

The Vice-President and General Manager of Carl Zeiss MicroImaging GmbH, Dr Stefan Friedrichowki, said UQ’s fantastic research facilities were ideal to develop advanced imaging technology in the region.

“UQ’s enthusiastic scientists and modern infrastructure had brought about a ‘win-win’ opportunity for QBI and Carl Zeiss,” he said.
The eight recipients of this year’s UQ Foundation Research Excellence Awards are exploring the boundaries of knowledge in areas as diverse as breast cancer treatment, the durability of light metals and the ethics of terrorism. The annual award scheme was introduced in 1999 and promotes the work of exceptional early career researchers. The 2006 winners received a total of $552,000.

NEW IDEAS

BREAST CANCER Targeted

Research by a UQ academic could lead to a treatment for breast cancer.

Dr Greg Monteith, from UQ’s School of Pharmacy, received a $67,000 UQ Foundation Research Excellence Award for his research on calcium transportation and breast cancer.

Calcium exists in the body as a mineral for healthy teeth and bones, but also as a freely movable form inside cells.

Dr Monteith’s research focuses on intracellular calcium and the transportation of this calcium in the breast.

Intracellular calcium is transported through the body via different transporters, and there are a number of different transporters in the breast.

Dr Monteith’s research aims to control the transporters pharmacologically and is examining different transporters as potential drug targets.

“We are looking at not only how calcium gets into milk and what transporters are involved, but also how important the transporter is in breast cancer development, and whether it is a drug target,” he said.

“There’s something that goes on in breast cancer that makes cells adopt a very abnormal form inside cells.

We found that these calcium transporters are altered, so we are trying to understand them better.”

Dr Monteith is collaborating with US universities including Johns Hopkins University and the Lawrence Berkley National Laboratory.

COMMUNICATING SCIENCE

A UQ academic is studying the growth in professional science communicators specialising in explaining sometimes complicated research to the public.

Dr Joan Leach, from UQ’s School of English, Media Studies and Art History, said scientists not only have to make sure their research is accurate, but to trust another person to widely communicate it.

She has won a $55,000 UQ Foundation Research Excellence Award.

“An estimated 25,000 people around the world identify themselves as science communicators, with 900 in Australia,” Dr Leach said.

“With fewer media outlets having specialised science writers, these communicators hold powerful positions as knowledge brokers for scientists and scientific institutions.”

Dr Leach said Australia was a leader in the field of science communication, with the profession emerging from the CSIRO.

“Scientists and governments worry about negative representations of science and that the public will reject science and technology,” she said.

“Governments have assumed that if people know more about science and technology they will accept it more.

“All the research to date suggests that, at best, this is only partly true. We need a different framework if science communicators are going to do their work properly.”

PIG AND POULTRY PATHOGEN

A new UQ study aims to improve understanding of a remarkable organism that is an important cause of diarrhoea in animals and humans.

Dr Darren Trott, a lecturer in UQ’s School of Veterinary Science, has received a $55,000 UQ Foundation Research Excellence Award to study the intestinal spirochaete Brachyspira pilosicoli.

“This organism has consistently been identified as one of the major disease-causing agents (pathogens) leading to colitis in pigs and poultry,” Dr Trott said.

“In the past, antibiotics were used to control these pathogens. However, the use of these agents is being phased out in many countries due to concerns over the transfer of antibiotic resistance to human pathogens.

“Alternative strategies to antibiotics must be investigated, and I hope that this research project may lead to new methods of control.

“For example, vaccines based on novel surface proteins found in the organisms could be an applied outcome of this research.”

He said if scientists could understand the way the organism attached itself to the surface of the intestine and how its proteins were involved in this process, it might be possible to control it.

Dr Trott said B. pilosicoli also was common in developing countries and among immuno-suppressed humans. Its significance for causing disease in human patients was receiving further recognition.

CHANGING FACE OF TERRORISM

Terrorism hasn’t always taken the forms that are manifesting in today’s society.

UQ Foundation Research Excellence Award winner Dr Alex Bellamy won $75,000 to write a book about the ethics of terrorism for Oxford University Press.

Dr Bellamy, a senior lecturer at UQ’s Australian Centre for Peace and Conflict Studies, will explore the motivations and justifications behind terrorism, a term first used during the French Revolution.

Dr Bellamy said during the Cold War, terrorism was often used by those seeking to right what they regarded as political wrongs, to liberate a country or to free people seen as being oppressed.

He said there was now less terrorism than ever before because of increased revulsion towards the killing of civilians.

“Until very recently, the most deadly terrorists were states,” Dr Bellamy said.

“Terrorism came to be seen as illegal and illegitimate after the Geneva Conventions, although the great powers retained the right and ability to resort to it in emergencies, in the form of nuclear deterrence.”

Dr Bellamy said an example of state-driven terrorism to suppress internal dissent were the massacres of Greeks by Turkey, while the Holocaust was an example of terrorism to eliminate ethnic or religious groups.

Stalin’s Russia was an example of terrorism to impose an ideology and British rule in Kenya an example of terrorism used to maintain order in a colony.
GOOD BUGS FIGHT URINARY INFECTION

Analysing urine is not a glamorous job but UQ’s Dr Mark Schembri is hoping it will lead to better treatment of urinary tract infections (UTIs).

For the past year, Dr Schembri and his team of scientists has stockpiled more than 1000 bacteria from urine samples at Brisbane’s Princess Alexandra Hospital.

Dr Schembri hopes to identify “good” bacteria that will prevent harmful bacteria from causing UTIs. He has already isolated several strains of “good” bacteria.

UTIs can lead to kidney failure and can only be treated by antibiotics, which aren’t always effective. About 250,000 Australians develop a UTI annually.

The UQ School of Molecular and Microbial Science senior lecturer said these “good” bacteria could outgrow harmful bacteria in the bladder.

He will study the genome sequence of one of the good bacterial strains in collaboration with scientists from the Technical University of Denmark.

Dr Schembri said having bacteria in the urinary tract was unavoidable for some patients.

“These people might have long-term urinary catheters, such as women on chemotherapy, among men – as well as areas such as longevity – women on average live a lot longer,” he said.

Dr Schembri’s UQ Foundation Research Excellence Award is worth $75,000 and is also supported by the National Health and Medical Research Council.

LIGHT METALS REVOLUTION

Novel surface modification methods being developed by a UQ researcher will result in the replacement of steel parts with lighter metals in future fuel-efficient vehicles, aircraft and spacecraft.

Dr Mingxing Zhang, an Australian Research Council (ARC) Australian Research Fellow and senior lecturer with UQ’s division of Materials within the School of Engineering, has been awarded a $65,000 UQ Foundation Research Excellence Award.

Dr Zhang said lighter alloys, magnesium alloys in particular, had to date been problematic for wider applications in the automotive and aeronautics industries because of their softness and poor corrosion resistance.

“Lighter vehicles are cheaper to run as they consume far less fuel. For example, a 10 percent weight reduction in a car can save 0.7 litres of fuel every 100 kilometres,” he said.

Dr Zhang said Australia had strategic long-term interests in the production, processing and application of light metals and had become a world leader in the development of alloy.

Dr Zhang’s laboratory is evolving and trialling different routes as well as two methods of treating the surface of light metals to vastly increase their strengths and corrosion resistance, but not their weights or densities.

His research group is one of few worldwide developing methods to open the floodgates to replacing the parts now made of steel in car, truck and aircraft with lighter alloys.

CLEANING UP COAL

UQ researchers are working on a process that could make the theory of clean coal a reality.

Dr Joe da Costa’s research group, from the division of Chemical Engineering in the School of Engineering, have developed unique hollow fibre technology that can separate oxygen from air, making the process of capturing environmentally harmful CO₂ gases in coal-fired power stations much easier.

Dr da Costa’s work has been recognised with an $80,000 UQ Foundation Research Excellence Award.

Dr da Costa said much current research was focusing on separating the CO₂ at the end of the cycle, which is currently expensive.

“Our process happens at the start, before the coal is even burnt, which reduces the cost of removing oxygen as well as making the capture of CO₂ easier,” Dr da Costa said.

The secret of the process rested in the technology of producing ceramic hollow fibres efficient at removing oxygen from the air.

Dr da Costa said the fibres were woven in a novel process that combined nanotechnology and ceramic powder technology.

He said the next stage of the research would target reducing the temperature at which the process happened so as to make it cost effective on a large industrial scale.

“The process now takes place at 800 degrees but we need to get it to 500 degrees to make it commercially viable,” he said.

SWOTTING UP ON SEX DIFFERENCES

A UQ Foundation Research Excellence Award winner is investigating how genetic triggers produce key differences between males and females such as longevity and particular disease rates.

Dr Steve Chenoweth, an Australian Research Council (ARC) Australian Research Fellow and senior lecturer with UQ’s School of Integrative Biology, is using a native species of fruit fly, Drosophila serrata, to understand how genomes are able to produce males and females.

“Differences between males and females make up a substantial component of diversity in the biological world, with the sexes often differing in size, shape and colour,” said Dr Chenoweth, who won an $80,000 UQ Foundation Research Excellence Award.

“The catch from a genetic standpoint is that the male and female sexes share almost all of their genes. Because of this, many genes that benefit one sex may actually be harmful to the other.”

He believes that while the genes for sex differences may be shared, the trigger for their development or suppression might be located on sex chromosomes.

“Once we understand where these sex-specific triggers are and how they work, there is potential for developing intervention methods to control sex differences in the development of conditions such as heart disease – much higher among men – as well as areas such as longevity – women on average live a lot longer,” he said.
Chimpanzees and two-year-old children are as clever as each other but dogs are not as smart as previously thought, according to a UQ study.

Recent School of Psychology PhD graduate Dr Emma Collier-Baker added tighter controls to a famous logic experiment in which a desired object – food or a toy – is transferred from a small container into one of three boxes. Subjects then try to identify the box containing the object by pointing at it or walking over to it. This invisible displacement task, devised by developmental psychologist Jean Piaget in the 1930s, tests the ability to “think” about an object that is not visible.

Several decades of research have revealed that great apes (including chimpanzees) performed the task as well as two-year-old children while other animals such as monkeys, dolphins and cats consistently failed the task.

“Dogs were a surprising exception, repeatedly passing the task in several studies in the 1990s. However, our study – involving 35 dogs of various breeds – showed they were using other simple cues to find the object and not ‘thinking’ or using logic after all,” Dr Collier-Baker said.

“By introducing a range of more stringent controls to the experiment, we showed dogs had effectively been ‘cheating’ to pass the test and were simply going to the box closest to the small container.

“In contrast, 21 two-year-old children, tested with identical apparatus to the dogs, were able to pass the task no matter what the proximity of the small container to the target box.”

This finding threatened the validity of studies with other species which also lacked these control conditions. Therefore, Dr Collier-Baker went on to test two chimpanzees sourced from Rockhampton Botanical Gardens and Zoo, four gibbons (siamangs) from Adelaide Zoo, and a spider monkey from Alma Park Zoo.

The desired object was food such as grapes or dried pawpaw for the apes, siamangs and monkeys, a tennis ball for the dogs and a small toy ball for the toddlers.

Unlike dogs, chimpanzees continued to find the hidden object under all control conditions, performing like two-year-old children on the task. The spider monkey failed the task, while the performance of siamangs was mixed and Dr Collier-Baker is currently following this up.

Her findings on dogs were published in an article in the prestigious *Journal of Comparative Psychology* with her colleagues Joanne Davis and Dr Thomas Suddendorf, also her thesis supervisor and School of Psychology Associate Professor.

The article was awarded the 2004 Frank A. Beach Comparative Psychology Award by the Division 6 Awards Committee of the American Psychological Association for the best paper published in the journal that year.

The chimpanzee study was published in *Animal Cognition* with her colleagues Joanne Davis, Dr Mark Nielsen, and Dr Thomas Suddendorf. Following on from this study, Dr Collier-Baker and Dr Suddendorf tested chimpanzees and children on a more complex invisible displacement task which they had been unable to solve in previous studies. Dr Collier-Baker designed a novel testing format for the task which found chimpanzees and children passing the task.

These results complement a growing body of evidence for shared representational capacities in great apes and two-year-old children. The study has also contributed new testing methodology to the literature.

Dr Collier-Baker, now a postdoctoral research fellow at UQ, said she was continuing her research on gibbons.

“Gibbons are lesser apes and these primates have been surprisingly under-studied despite their value for reconstructing the evolution of primate cognition,” she said.

“Almost nothing is known about the cognition of these apes so my PhD and ongoing studies with Dr Thomas Suddendorf are important inroads to gaining knowledge about them.”

Her PhD findings will also contribute to the development of enrichment objects and devices to improve the quality of life for captive primates as well as reinforce the importance of global conservation efforts of apes.
Mr Lam (left) and Mr Roberts.

CONDUCT MOST BECOMING

DAANE LAM HAS ALREADY WORKED WITH SOME OF AUSTRALIA'S MOST HIGHLY-REGARDED ORCHESTRAS AND HIS BATON IS NOW FIRMLY POINTED OVERSEAS.

Electric is an apt description of conductor and UQ Music School student Dane Lam’s career to date.

Aged just 20, he already has a string of achievements in the music world including conducting UQ’s Symphony before he even started University, conducting the Sydney Symphony at the Opera House, and attending a renowned Siena Summer School for young conductors three times.

On top of all of this, he conducted the Melbourne Symphony on September 20 for a concert broadcast live on ABC Radio.

The former Mansfield High School student graduates with his Bachelor of Music with honours from UQ in December this year and will pursue postdoctoral studies overseas in 2007.

He has auditions lined up with a “Who’s Who” of music schools – the Juilliard School in New York, the Royal College of Music in Stockholm and the Sibelius Academy in Helsinki.

Mr Lam said he was drawn to conducting after growing up in a house where classical music was constantly played, in particular the scores to famous ballets. His mother and grandmother both played amateur piano.

“It’s fantastic being able to get 120 musicians to speak as one,” Mr Lam said.

“I cannot narrow down my favourite composer. I love Mozart, Brahms, Beethoven and Mahler, but Beethoven symphonies are my favourite to conduct as they’re very human and gutsy.”

According to UQ School of Music senior lecturer and the head of its conducting program, Gwyn Roberts, Mr Lam is one of a small yet highly talented band of Australian conductors aged in their 20s and 30s on track to fill the void left by the likes of the late Stuart Challender.

At present, overseas born and trained conductors head every state orchestra in Australia and Mr Lam said he would dearly love to return to Australia as a conductor down the track.

“We’ll be in Canada, on the west coast of the US and in Europe,” Mr Lam said.

“While at UQ, Dane has worked on the wide variety of music skills that a conductor needs to develop, and has conducted the University Symphony Orchestra in rehearsals and performances, particularly the Opera Workshop Project in 2005.”

Mr Lam said he chose UQ after discussions with Mr Roberts who visited Mr Lam’s high school toward the end of Year 12.

“I received offers of places at both the Conservatorium of Music and UQ and chose UQ because of its excellent conducting program andaural studies training – ‘hearing’ music is an obvious foundation skill for conducting,” Mr Lam said.

Conducting was an all-consuming career for the West End resident who has financed his studies by working in retail and as a piano teacher, and now needs at least $12,000 a year to study overseas.

Mr Lam said a turning point had been his meeting and working with one of the world’s greatest conductors and Sydney Symphony Orchestra chief conductor, Gianluigi Gelmetti.

Not only did he get to work as the maestro’s assistant and share conducting duties on the 2004 Sydney Symphony Regional Tour, he studied with Gelmetti at Siena’s prestigious Accademia Musicale Chigiana from 2003–2005.

Mr Roberts said prizes Mr Lam had won, including the 2004 Boris Christoff Prize and the 2005 Pellegrino Scholarship, were further testament to his considerable talent.

FIVE STAR DOUBLE

The Graduate Management Association of Australia (GMAA) has awarded UQ Business School’s MBA program its highest rating of five stars for the second year running.

The GMAA is the nationally recognised professional association for graduates of MBA, DBA, and other postgraduate business management qualifications in Australia.

National President of the GMAA Robert Weller said the rating was based on material supplied by the institutions and by the Federal Department of Education, Science, and Training.

JKTECH TURNS 20

UQ Vice-Chancellor Professor John Hay, AC, joined in celebrating the 20th anniversary of minerals processing technology leader, JKTech.

JKTech founders, directors, employees, colleagues and clients celebrated the milestone on August 22.

Managing Director Dr Geoff Gault credited JKTech’s success to the enduring strength of its relationship with the Julius Kruttschnitt Mineral Research Centre.

BEST IN SHOWS

Seven UQ students have won Coca Cola Amatil scholarships for dedication to their local show society.

They were Kelly Boorman (Vet Science, Gympie and District Show Society); Anita McNamara (Vet Science, Hughenden); Karl Enchelmaier (Applied Science, Woodford); Janet Harris, (Vet Science, Pioneer Valley); Louise Mollenhagen (Applied Science, Caboolture); Daniel Brown (Agricultural Science, Maleny); and Rachel Hoolihan (Applied Science, Longreach),
Cranes, trades vehicles, hard-hatted and steel-capped workers and the sounds of construction all point to an array of new facilities being built at UQ as well as upgrades and renovations to existing buildings.

Some of the major projects about to start or already under way around UQ campuses include:

- **UQ Centre for Clinical Research**: Construction will begin this month on the $60 million facility funded by The Atlantic Philanthropies, the Queensland Government and UQ. The seven-storey building will be alongside Bowen Bridge Road at the Royal Brisbane and Women’s Hospital, Herston. (Full story on page 5).

- **Bus station servicing the Eleanor Schonell Bridge spanning UQ and Dutton Park**: Located between the small lake and the Alumni Teaching Gardens, the station, due to begin construction this month, will form a cul-de-sac, allowing buses to turn around and return, via the new, $56.5 million bridge to Dutton Park.

- **General Purpose North 4 (GPN4) building**: Due for completion by the end of 2007, GPN4 will house the Institute for Continuing and TESOL Education. The V-shaped building will consist of five levels on the south wing and six levels on the north wing with a large, covered courtyard connecting the two wings.

- **Ipswich Activity Centre**: Expected to be finished this month, the centre is designed to provide space for a range of campus and community-based activities, and is expected to be used by students, staff and external groups. It features an open setting with views to Flinders Peak. The centre was designed by award-winning architectural firm Wilson Architects, and built by the Ipswich firm Bloq Construction.

- **Biological Sciences Library**: A refurbishment is nearing completion with the library expected to re-open in early December 2006. More than 800sqm of space will be added to the four-level building to accommodate the library’s growing collection of print and electronic resources, and to ensure better service delivery.

- **Queensland Brain Institute (QBI)**: The level four concrete slab for this $60 million facility has been poured while level four formwork is underway. It is due for completion in July next year.

- **Australian Institute for Bioengineering and Nanotechnology (AIBN)**: The $70 million, six-level facility will be opened by Queensland Premier Peter Beattie on October 23. It was funded by the Queensland Government and The Atlantic Philanthropies. After just over two years’ construction, the building, with a gross floor area of 15,689sqm, will house up to 365 staff and research students.

- **The Regional Collaborative Learning Centre (R-CLC) at UQ Gatton**: This $2.8 million facility equipped with the latest audio-visual teaching is expected to be completed by the end of the year.

### Campus Construction at a Glance

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Construction started</th>
<th>Due for completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>UQ Centre for Clinical Research</td>
<td>Bowen Bridge Road, Herston</td>
<td>October 2006</td>
<td>Late 2007</td>
</tr>
<tr>
<td>Bus station</td>
<td>Between small lake and Alumni Teaching Gardens, UQ St Lucia</td>
<td>October 2006</td>
<td>Early 2007</td>
</tr>
<tr>
<td>General Purpose North 4 (GPN4) building</td>
<td>Campbell Road, UQ St Lucia</td>
<td>June 2006</td>
<td>End of 2007</td>
</tr>
<tr>
<td>Ipswich Activity Centre</td>
<td>UQ Ipswich</td>
<td>March 2006</td>
<td>October 2006</td>
</tr>
<tr>
<td>Biological Sciences Library</td>
<td>Adjacent to Chancellor’s Place, UQ St Lucia</td>
<td>September 2005</td>
<td>October 2006</td>
</tr>
<tr>
<td>Queensland Brain Institute (QBI)</td>
<td>UQ St Lucia</td>
<td>November 2005</td>
<td>July 2007</td>
</tr>
<tr>
<td>Australian Institute for Bioengineering and Nanotechnology (AIBN)</td>
<td>Corner of Cooper and College roads, UQ St Lucia</td>
<td>November 2004</td>
<td>October 2006</td>
</tr>
<tr>
<td>Regional Collaborative Learning Centre (R-CLC)</td>
<td>UQ Gatton</td>
<td>July 2006</td>
<td>End of 2006</td>
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</tbody>
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UQ scientists will use a $3.3 million grant to build a new generation of robots that can learn about their physical spaces based on animal navigation skills.

The UQ-led team received one of three Federal Government Thinking Systems grants.

The team will study the navigation skills of bees, rodents and humans as a way of understanding the function of the hippocampus, the part of the brain that controls navigation.

“One thing that makes us special as humans is that we might be using this part of the brain not just to map physical space, which we do very effectively, but also to map the space of ideas,” Team leader and UQ cognitive scientist Professor Janet Wiles said.

Professor Wiles said the results would then be transferred into computer models to map ideas.

“Suppose you want Hansard records — you’ve got gigabytes of information and what you want is a summary of who spoke on which issue in a particular debate.

“You can either spend three months reading the document or you can create a map of who spoke and the relationships between it.”

She said her team would use the models to make a thinking robot that could find its way to a given point and navigate back again.

The research will also generate new insights into how the brain works, assisting in the diagnosis and treatment of mental dysfunctions.

Professor David Siddle, UQ’s Deputy Vice-Chancellor (Research), said he was delighted such an imaginative program of research had been funded.

“The work represented in this proposal is truly inter-disciplinary and this is where significant scientific advances are now being made,” Professor Siddle said.

Professor Wiles is from the Division of Complex and Intelligent Systems with the School of Information Technology and Electrical Engineering. Queensland Brain Institute senior scientists Professor Perry Bartlett, Professor Jason Mattingley, Professor Pankaj Sah and Associate Professor Geoffrey Goodhill are also working on the project.

Mr Milford, 24, won the Cartridge World Science and Technology Award for his important contributions to the research field of biologically-inspired robotics and artificial intelligence.

His most recent research will be presented at the International Conference on Intelligent Robots and Systems later this year.

Mr Milford was awarded a $2000 savings account from the Heritage Building Society.

“I am really grateful for the award and hope I can encourage many more young people to pursue a career in science and technology,” Mr Milford said.

As well as studying for his PhD, Mr Milford is also publishing educational textbooks for school children.

He recently finished the Complete School package, which is on sale at Dymocks bookshops.

The high school educational resource, which includes textbooks and DVDs, covers the entire school Mathematics and English curriculum.

“I like to challenge myself. I wanted to do something that nobody had come close to trying before so I came up with the idea of an ultimate educational resource for high school students,” he said.

“I wanted to create, in one package, something that would cover not only all of high school English and Mathematics but also skills a modern student needs such as researching using the Internet.”

Mr Milford’s PhD research looks at how rats function in their environment and applying this to robotics with the aim of creating a robot that can move around its environment intelligently.

“Specifically, we are looking at getting a robot to explore an unknown environment autonomously, create a map of that environment so it can navigate from A to B, and getting it to adapt to changes in its environment,” he said.

Mr Milford, who graduated with a Bachelor of Engineering with first class honours in 2002, has already had success with his first two textbooks Not a C Minus and Painless Physics, which have sold more than 5000 copies.

The Queensland Young Achiever Award winners were announced at a presentation evening on September 16, at the Carlton Crest Hotel in Brisbane.
An insider’s view of a Chinese prison is not everyone’s cup of tea, but it was a highlight of the inter-semester break for two UQ students at a July Summer School in Hong Kong.

Arts/Law students Anna Kloeden and Jessica Howley represented the University at the Universitas 21 (U21) Summer Institute, hosted by Hong Kong University from July 3-23.

They joined about 40 students from other U21 universities in lectures and field trips in Hong Kong and mainland China.

While tours of the Great Wall and the Forbidden City proved memorable, it was a visit to a prison in Tianhe, China, that set the students apart from the millions of other visitors to the country.

“This was the first time a Western group had been permitted to tour the prison,” Ms Kloeden said.

“It was interesting to see the image which China wishes to project to the world in terms of human rights protection.”

The students agreed the course delivered intellectual, professional and personal development.

“Not only did I have my eyes opened to the potential of, and challenges facing, Asia, but I also made some great and lasting friendships with students from across the world,” Ms Howley said.

Topics covered in lectures included the emergence of an East Asian community, the Asian economic boom, human rights in Asia and non-traditional security threats.

“The course was an excellent opportunity to gain more insight into the various political, economic and cultural factors which influence business in Asia today,” Ms Kloeden said.

The UQ School of Political Science and International Studies, and the School of Languages and Comparative Cultural Studies, sponsored the students.

“Not only did I have my eyes opened to the potential of, and challenges facing, Asia, but I also made some great and lasting friendships with students from across the world”
Green growth

The second stage of an environmental precinct with dual research and education roles has opened at the UQ Gatton campus.

The project, jointly funded by the University and Greening Lockyer, provides a 10-hectare bushland park, including Lake Galletly.

The park has animal shelters, bird-watching hides and re-vegetated native forest for students studying the environment and migratory birds.

Campus Manager Janelle Zahmel said the area would be both a conservation park for native plants and wildlife and an educational resource for students enrolled in environmental programs at Gatton.

“The park will also prove popular with birdwatchers, with Lake Galletly already a destination for thousands of local and migrating birds including magpie geese, egrets, Latham’s snipe (from Japan) or Asia’s marsh sandpiper,” Ms Zahmel said.

Work on the project began in November 2004 with more than 50 nesting boxes placed around the precinct for native animals and birds.

“The precinct now has 800 metres of walkways and over 1000 trees.

It is a joint effort, with a team of scientists led by Dr Greg Baxter, from the School of Natural and Rural Systems Management, staff from UQ’s Properties and Facilities division and employment opportunities for local residents,” Powerlink Queensland Chair Else Shepherd said.

The second stage of the park was opened by Professor Roger Swift, Executive Dean of the Faculty of Natural Resources, Agriculture and Veterinary Science.

Seeing red for Xmas

U Q plant scientists are searching canola collections to find varieties that use less water but still produce well.

Canola, which is mainly used in margarines, cooking oils and salad dressings, is one of Australia’s most important oilseed crops with 1.4 million hectares sown annually worth about $660 million.

“Greening Lockyer is aimed at enhancing the environment of the Lockyer Valley, minimising the impact of electricity infrastructure and creating training and employment opportunities for local residents,” Powerlink Queensland Chair Else Shepherd said.

The project is funded by the Australian Research Council and Australia’s biggest hybrid seed company Pacific Seeds in Toowoomba.

Mr Hossain (left) and Dr Lambrides

Project leader and CNF researcher Dr Margaret Johnston said the commercialisation of an Australian native species wasn’t always as straightforward as collecting plants from the wild and growing them in pots.

“It’s a long and arduous process involving a degree of trial and error,” Dr Johnston said.

Once we have successfully reproduced the plants, the next step is to trial their performance in the field.”

With early trials proving successful, the flowers have been market tested in Sydney, Melbourne and Japan with excellent feedback regarding potential demand for Christmas, Valentine’s Day and Chinese New Year.

Councillor Graeme Lehman, Greening Lockyer, Professor Swift and Ms Shepherd
Four UQ students have been selected to undertake a prestigious eight-week internship in Washington DC. Selected as part of the Uni-Capitol Washington Internship program, the students will leave in late December.

Former US Senior Congressional Advisor Eric Federing developed the pro bono program which aims to give 12 outstanding Australian students each year the opportunity to observe and assist a specific roster of US Congressional offices.

The program has been recognised on many occasions in the US Congressional Record and this year in Canberra in both the House and Senate Hansard. For the 2007 program, a record 65 applications, drawn from eight partner universities, were submitted. After a rigorous selection process, four UQ students were chosen along with eight other students.

The students selected are Anna Keenan (BScience/BArts), Emmanuel Rohan (BCommerce/BLaws), Charis Tierney (BArts(Political Science)/BLaws) and Jennifer Grant (BLaws).

For further information on the Professional Internship Program (PIP) please contact the Institute of Continuing & TESOL Education (ICTE-UQ) by email pip@ict.e.uq.edu.au or visit www.ict.e.uq.edu.au

INSTITUTE OF CONTINUING & TESOL EDUCATION (ICTE-UQ)

Local is not always better when it comes to using personality tests to hire or upskill workers in Asia, particularly China.

Personality tests are used mostly to predict the work performance and character of potential staff. Some Chinese researchers have criticised Western-developed personality tests, used in China and throughout Asia, because they may have “blind-spots” which do not account for cultural differences such as face, family-orientation and harmony.

But research by UQ-trained psychologist Dr Graham Tyler has shown translated tests from Western countries predicted performance, but locally-developed Chinese tests did not.

“Local researchers claimed a blind-spot in Western tests that would threaten their validity in China and other parts of Asia,” Dr Tyler said. “Even if that blind-spot exists, our research indicates that a lot of work needs to be carried out to make local tests both reliable and valid in the local context.”

Dr Tyler said his research showed that country-specific personality tests may have no advantage, provided the wording and cultural concepts were accurately translated in Western-developed tests that are based on a well researched and validated model.

His research involved 1040 workers and students throughout Asia and Australia, working in nine organisations, including universities, a private hospital, transport companies and a luxury hotel.

Additionally, pre-existing data from thousands of test respondents in Australia, New Zealand and the UK were analysed. After participants sat the Western-developed personality tests and the local Chinese version test, Dr Tyler compared and analysed the results between 2002 and 2005.

He said his research had global implications given the large numbers of Asians who are emigrating.
THE UNIVERSITY OF QUEENSLAND PRESS
NEW RELEASES: OCTOBER 2006

PATRIOTS: DEFENDING AUSTRALIA’S NATURAL HERITAGE 1946-2004
by William John Lines
$34.95
For more than 60 years, a small group of dedicated people have been fighting to defend Australia’s unique wildlife. Those conservationists battle indifference and hostility from government and developers, whose actions are responsible for the decimation of spectacular natural beauty.

Although much has been lost, the conservation movement has won great victories and secured the preservation of some of the world’s most pristine and ecologically important landscapes.

Patriots is the powerful and provocative account of this nation-defining struggle. William J Lines charts the emergence of a national movement whose campaigners and members are forging a new Australian identity enmeshed in nature and committed to its survival.

ANY GURU WILL DO
by Phil Brown
$23.95
Phil Brown’s life has been one long existential crisis. His path to enlightenment has been uphill – think of climbing Everest with a colonic irrigation or two along the way.

After trying doggedly to discover God through poetry, Phil dips his toes into a variety of experiences, including a doomed “holiday” at a health farm – which he runs away from – mail-order Catholicism, a ritual Egyptian dance workshop, analysis, psychic surgery and an ill-fated group therapy session.

With a cast of curious characters, including the saffron-turbaned Dadaji, the poet Les Murray and the priest who stopped taking his calls – not to mention Phil himself – this hilarious book will have readers doubled up with laughter.

Settle yourself into the lotus position, grab a cup of peppermint tea and enjoy the ride.

Peace Angel of World War I: Dissent of Margaret Thorp
by UQ PhD student Hilary N Summy was recently published by the University’s Australian Centre for Peace and Conflict Studies (ACPACS).

Margaret Thorp played a pivotal role in campaigning against conscription in Queensland in the lead-up to a 1916 referendum on the issue.

The book focuses on the early life of Ms Thorp – a Quaker dedicated to Christian pacifism and Christian socialism.

ACPACS Director Professor Kevin Clements said conscription debates in Queensland at the time often erupted into physical violence.

“Margaret Thorp had the unique ability to relate to people who held different social and political views. Her empathy and listening skills, as well as her dynamic public speaking, enabled her to reach out to others and create positive relations.

“At the same time, her great passion for peace and justice gave her the courage to stand against the tide of popular opinion.”

Both the 1916 and 1917 conscription referendums were extremely divisive and narrowly defeated – 1,087,557 in favour, 1,160,033 against in 1916, and the following year the count came in at 1,015,159 in favour and 1,181,747 against.

Critics have already acclaimed Ms Summy’s book, which has been described as innovative and well-researched, “a fascinating read”, and “casting new light upon the Australian struggle over participation in World War I.”

THE UNIVERSITY OF QUEENSLAND BOOKSHOP
CURRENT BESTSELLERS

1. Australia’s Mangroves
   (Duke N) UQ Centre for Marine Studies $55
   Non-fiction
2. Inconvenient Truth
   (Gore A) Bloomsbury $35
   Non-fiction
3. Metro (Duncan A)
   Univ. of Qld Press $23.95
   Australian fiction
4. We are the Weather Makers (Flannery T)
   $19.95 Penguin
   Non-fiction
5. One Good Turn
   (Atkinson K) Random $32.95 Fiction
6. Best Australian Poetry
   (Beveridge J) UQP $24.95
   Poetry
7. Searching for the Secret River (Grenville J)
   Text Publishing $32.95
   Biography
8. On the Jellicoe Road
   (Marchetta M) Viking $24.95 Fiction
9. Mathematics of Love
   (Darwin E) Headline $32.95
   Fiction
10. Devil Wears Prada
    (Weisberger L) Harper Collins $22.99
    Fiction

The University of Queensland Press

NEW RELEASES: OCTOBER 2006

“PEACE ANGEL”
TAKES FLIGHT

BYRIA.COM/BOOKS

One Book Many Brisbanes

Write a story about Brisbane and
you could WIN $6000

Entries close Monday
11 December 2006

Brisbane is a city of many stories... why not enter yours in Council’s One Book Many Brisbane story competition?

Ten winning authors will receive $600 each and be published in the 2007 One Book Many Brisbane anthology.

For more information about the competition:
- pick up an entry form at your local Council library
- visit www.brisbane.qld.gov.au/libraries
- phone Council on (07) 3403 8888.

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UQNEWS, OCTOBER 2006
The University of Queensland Rugby Academy’s High Performance Player Development program (HPPD) is proving its worth only a year after its establishment.

Two HPPD players have been chosen for the world champion Australian U19s, six for the Queensland U19s for 2006, and at least one player has been accepted into the Queensland Reds Academy for 2007.

The HPPD program started in November 2005 and is targeted at players seeking either a professional career, or who want to improve their rugby skill and ability.

The aim of the program is to provide an alternative pathway for players that miss out on selection in the elite Provincial Academies.

The UQ Academy is now recruiting for the second intake of players to start in either November 2006 or January 2007 for the 11-month program.

The program draws on the knowledge and experience of professional coaching staff and extensive research into athlete development from the University’s School of Human Movement Studies.

UQ Rugby Academy head coach Nick Leah said players had responded well in the inaugural year.

“The program has evolved over the past 12 months into something which is comparable in quality to the Provincial Academies,” Mr Leah said.

“It’s easy for clubs to say they have an academy, but to provide a program of this standard requires extensive infrastructure to adequately support on-field delivery.”

The HPPD program includes psychological and physical assessment, tailored strength and conditioning programs, core, unit and position specific skills training, diet analysis and design, continuous monitoring and feedback.

“At the end of 11 months, if we’re losing players to the Reds College or any other professional player development program – we know it’s a job well done,” Mr Leah said.

Admission into program is based on a minimum ability level, assessed on a case-by-case basis.
study ligand-receptor interactions in single living cells, Prof Stephen Hill (1-2pm, Room 305, Skerman Building).

• Tuesday, November 21
  QADREC, SmokeCheck: training healthworkers to deliver an Indigenous tobacco brief intervention, Pele Bennet (10am-12noon, Room 113, Population Health, Herston).

• Tuesday, November 21
  ACPACS, Conflict transformation ceremonies, Dr Polly Walker and Dr Mary Ann Hunter (12noon-2pm, Room 232, Connell Building). Details: acpacs@uq.edu.au.

• Friday, November 24
  Biomedical Sciences, Alzheimer’s disease: insight from transgenic mice and tissue culture models, Prof Juergen Goetz (1-2pm, Room 305, Skerman Building).

CONCERTS
• Thursday, October 12
  Free lunchtime concert, Anna McPherson’s masters violin recital (12.30pm, Nickson Room).

• Saturday, October 14
  Free showcase concert, UQ major ensembles (7.30pm, Exhibition Hall, UQ Centre).

• Sunday, October 15
  Free organ concert, Christopher Wrench (3pm, Mayne Centre).

• Thursday, October 19
  Free lunchtime concert, violinist Louise Blackburn (12.30pm, Nickson Room).

• Thursday, October 26
  Free lunchtime concert, Alice Buckingham, masters viola recital (12.30pm, Nickson Room).

• Sunday, October 29
  Sundays at Customs House, free, vocal quartet Guido’s Hand (11.30am, The Long Room).

• Monday, October 30
  Free recital, Masters tenor Mirko Ruckels (6pm, Nickson Room).

• Thursday, November 2
  Free lunchtime concert, Cellist Courtenay Lind (12.30pm, Nickson Room).

• Thursday, November 2
  Free recital, soprano Cherylone Liew (6pm, Nickson Room).

• Sunday, November 26
  Sundays at Customs House, free, UQ Big Band plays swing (11.30am, The Long Room).

conference call

READING
Readers and Reading: Australian Studies Centre Masterclass: October 28-29, Dudgeon College, The University of Queensland.

This two-day intensive masterclass will look at ideas that have informed our understanding of readers and reading in the past and present. The study is one of the most significant, emerging fields across a number of areas of literature, book history and print culture. Information: Dr Roger Osborne, r.osborne@uq.edu.au or 07 3346 9804.

PRINT MEDIA
Australasian Magazines and Modernity: Australian Studies Centre: December 8-9, GP North, St Lucia campus, The University of Queensland.

This conference seeks to explore the ways in which print culture networks can help to answer questions about the dissemination of modernity and regional engagement with innovation and tradition throughout the world. Information: Dr Roger Osborne, r.osborne@uq.edu.au or 07 3346 9804.

LOGIC
The Logic Summer School: December 4-15, Australian National University.

A two-week course of pure and applied logic consisting of short courses on a range of topics taught by local and international experts. The level is advanced introductory and will be awarded for the best essay on a topic in the field of Australian exploration and history. Well-presented honours theses will be considered. Worth: $430. Closing: November 17. Information: 07 3365 2620.

UQnews deadlines 2006

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prizes

• Dr Helen Rowe–Zonta International Memorial Prize: for people affiliated with UQ in a research role or a student or staff member. Awarded for the best essay, published work, proposed research plan or outline of an activity which promotes the treatment or prevention of mental health problems. Worth: $1000. Closing: October 31. Information: 07 3365 5278.

• Claudia and Kate Delpratt Memorial Scholarship: open to Indigenous peoples who are enrolled, or seeking to enrol, in the MBBS program, or in a program taken as a precursor to the MBBS. Awarded on previous academic results at secondary school and, if applicable, tertiary level; and social or economic need. Worth: approx. $7400 per annum. Closing: November 10. Information: www.som.uq.edu.au/som/current_students/prizes.htm or 07 3365 5481.

• The Thomas Morrow Prize: for an undergraduate who, as part of a course of study, writes the best essay on a topic in the field of Australian exploration and history. Well-presented honours theses will be considered. Worth: $215, designated as books. Closing: November 17. Entries to: UQ Scholarships and Prizes, JD Story Building, The University of Queensland, 4072. Information: 07 3365 1984.

• Queensland Freemasons’ Scholarships: three scholarships are available to full-time students enrolled in the 4th or subsequent year of an undergraduate program. Awarded on academic merit with preference given to Freemasons, and sons and daughters of Freemasons of at least five years good standing of the United Grand Lodge of Qld. Worth: $1000. Closing: February 28, 2007. Information: www.uq.edu.au/som/advisor/other-scholarships-and-bursaries or ugscholarships@uq.edu.au or 07 3365 1984.
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