TOP GEAR
UQ team races for success
You’re invited to be part of the experience of Open Day at The University of Queensland.

St Lucia  Sunday 3 August, 9am – 3pm
Ipswich  Wednesday 20 August, 3.30pm – 7.30pm
Gatton  Sunday 24 August, 9.30am – 3pm

Visit uq.edu.au/opendays
Countless UQ staff and students have valuable relationships with people all over the world. The challenge is for UQ organisations – schools, faculties, institutes and the University at large – to make way for personal initiative, grasp the potential of individuals’ connections, and build friendships into international partnerships.

A case in point is unfolding between UQ and the University of Washington (UW) on its west coast. We have much in common including status as leading research-intensive state universities with strong industry linkages. We are both intrinsic to our regional research and development communities, have horizons over the Pacific Ocean, and work well with state governments that invest seriously in science and technology.

For some time, UQ and UW have shared endeavours in several fields. One example is led by Professor Matt Trau, a Federation Fellow in UQ’s Australian Institute for Bioengineering and Nanotechnology, whose collaborators include staff of UW and other Seattle institutes. Matt’s chemistry with his peers served as a foundation for a relationship which we formalised in 2006 by signing a memorandum for cultural, educational and scientific cooperation that complements an agreement between our state governments.

At about the same time, Dr Krassen Dimitrov, a talented scientist-entrepreneur, came from UW to the AIBN while continuing productive associations with former UW workmates such as Dr Daniel T Schwartz and Dr Karl Boehringer.

Last month these “nano” collaborations acquired a new scale. I joined a number of UQ colleagues in Seattle where, among other things, we launched a new exchange program known as the Trans-Pacific Fellowships. UQ and UW are together contributing up to $450,000 for the initial three years of the fellowships, which begin in 2009 and are open to final-year undergraduates, Doctor of Philosophy and Master of Philosophy candidates, and postdoctoral and senior professorial researchers.

Our joint aim is to fund exchanges that lead to lasting associations, while pooling expertise and resources to derive better teaching and research results. Expressions of interest for these funds will be called for shortly.

A few days later, Premier Anna Bligh announced that Krassen and his UW partners had won Smart State funds to proceed with a $1.8 million project centered on “nano-barcodes”. This could have global ramifications, as their early target is new diagnostic tools for dengue fever and malaria, to be followed by wider applications in medicine, biosecurity, pharmaceuticals and agriculture.

UQ’s scope for institutional marriages is by no means limited to UW. Relationships with other distinguished universities in the Northern Hemisphere are being consolidated. What the UW case shows is that individuals can stimulate developments that support not only their students, colleagues and collaborators, but also the outcomes of high-impact research. This is one reason I am always interested in learning about the international engagements of UQ staff and students.

Professor Paul Greenfield AO
A needle-free future

Professor Mark Kendall has been awarded the 2008 Amgen Medical Research Award for his work developing needle-free delivery devices. The national award is presented annually by the Australian Society for Medical Research as part of Medical Research Week.

Professor Kendall leads a team at the Australian Institute for Bioengineering and Nanotechnology (AIBN) developing new delivery methods of vaccines targeting the skin.

“Our research is focused on practical needle-free devices accurately targeting key skin cells, with the goal of clinical application of better vaccines in both the developed and developing world,” Professor Kendall said.

“To help optimise our delivery devices, we are performing fundamental research into the mechanical and biological properties of the skin, together with vaccine delivery studies in key disease areas.”

Professor Kendall joined UQ in 2006 as a joint appointment by AIBN, the Diamantina Institute for Cancer, Immunology and Metabolic Medicine and the Faculty of Health Sciences. Prior to this he was the Associate Director of the PowderJect Centre for Gene and Drug Delivery at Oxford University, UK.

Diamantina Director Professor Ian Frazer said Professor Kendall’s work allowed important collaboration between the institutes.

“This project offers great hope in reducing the estimated 14 million deaths caused each year by infectious diseases and, due to its robustness and efficiency, could be of particular benefit in developing countries,” Professor Frazer said.

Managing memory loss

In an exciting discovery, Queensland Brain Institute (QBI) neuroscientists have found a new way to reduce neuronal loss in the brain of a person with Alzheimer’s disease.

Memory loss in Alzheimer’s patients can be attributed to several factors including a build-up of the neuro-toxin Amyloid beta, and corresponding degeneration of nerve cells in the forebrain.

QBI’s Dr Elizabeth Coulson (pictured) said research published in the Journal of Neuroscience had established that the molecule known as p75 neurotrophin receptor was necessary for the neuro-toxin to activate.

During her research, Dr Coulson’s team found – both in cultured cells and in an animal model of Alzheimer’s disease – that it was possible to completely prevent Amyloid beta toxicity by removing the p75 cell death receptor.

“Discovering how Amyloid beta triggers neuronal degeneration has been a question bugging neuroscientists for decades, and we have identified an important piece of the puzzle,” she said.

Dr Coulson has already patented molecules that can block p75 and is ready to begin testing them in animal models.

“If such therapy is successful, it probably wouldn’t cure this multifaceted disease,” Dr Coulson said.

“But it would be a significant improvement on what is currently available for Alzheimer’s disease patients.”

The World Health Organisation predicts that by 2040, neurodegenerative conditions will become the world’s leading cause of death, overtaking cancer.

A needle-free future

A 4.5kg sunflower grown by Boonah State School has taken out a popular UQ competition and broken records in the process.

More than 30 schools and 200 secondary students from Queensland and Northern New South Wales competed in the annual event, which was held at the Gatton Campus in June.

The rules for the UQ School of Land, Crop and Food Sciences’ Sunflower Competition are simple – use the Hyoleic 41 Elite seed (provided by Pacific Seeds) to grow the biggest sunflower in a pot or container no larger than 11kg in volume.

“Staff from UQ and the sponsoring organisations, which included Pacific Seeds, The Australian Sunflower Association and the Grains Research Association, provided a range of guidelines and agronomy guides to help the students to grow the best possible sunflowers,” competition organiser and lecturer Dr Doug George said.

“The teachers involved in the competition were also fantastic, helping to turn a simple exercise into an exciting journey into plant science and agriculture through their delivery of the competition in their classrooms.”

The participating students were also given tours of the Gatton campus and advice on future job opportunities.

“The level of interest in the competition is heartening for an industry which is struggling to attract technical, marketing and management staff at the moment,” Dr Hall said.

“It is also a good indication that students are starting to hear the message about the great range of careers in the agricultural industries.”

Super-sized sunflowers

A NEEDLE-FREE FUTURE

SHORTCUTS

SUPER-SIZED SUNFLOWERS

MANAGING MEMORY LOSS

A NEEDLE-FREE FUTURE

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MANAGING MEMORY LOSS
A team of researchers from UQ and Rio Tinto Alcan has recently been recognised for research into a common problem faced by the aluminium industry. Aluminium extrusions are the final product of a process of heating aluminium alloys, pushing the aluminium through a frame or “die” and cooling the metal in its new form.

Professor Arne Dahle, from UQ’s School of Engineering, said during this process, streaking occurred on the surface of the extrusion. “While the problems of streaking are purely aesthetic, if the team can identify the cause of these problems, it will increase productivity and provide Rio Tinto Alcan with a competitive edge in the aluminium production market,” Professor Dahle said.

During a three-year collaborative project, funded by an Australian Research Council Linkage grant, the team aims to discover what causes streaks in the appearance of extruded aluminium products, such as window frames. Researchers are currently analysing a range of extruded products and conducting extrusion trials at Rio Tinto’s Pacific Technology Centre in Thomastown, Victoria.

The findings of such research are already impressing an international audience, with the team receiving the best paper award at the 9th Aluminium Extrusion Technology Seminar and Exposition held in Illinois last month.

With building and construction proving to be one of the biggest uses for aluminium extrusions, any future advances made by such research could prove to be extremely influential in both the domestic and international aluminium markets as well as Australia’s architectural and building industries.

Mr Gageler will commence his term as Australia’s next Solicitor-General in September, with his experience in constitutional law providing great insight for his conference address “The Federal Balance: cases and judicial attitudes in the High Court of Australia”.

In addition to Mr Gageler, the organising committee has assembled a distinguished panel of experts who will discuss a range of topics including the Rudd government’s vision for the future of Australian federalism and papers focusing on the distribution of powers and fiscal arrangements in Australia.

INFO ➔ For a complete program and speakers’ list, visit www.fedcon2008.net

SEA SECRETS

UQ research has found fishermen’s expertise contributes to better designed marine reserves.

Researchers from UQ’s Centre for Applied Environmental Decision Analysis said while the research was conducted in relation to marine planning in California, it could have Australian applications as well.

The team used a conservation planning tool called Marxan, developed by Dr Ian Ball and UQ’s Professor Hugh Possingham, to design marine reserves that met habitat protection targets while minimising socioeconomic impacts.

“We found the networks designed by fishermen were most efficient at meeting the initiative’s habitat objectives with the lowest impact on fisheries,” lead author Carissa Klein said.

“The findings highlight the tangible benefits both of including fishermen’s local knowledge in the marine protection process and of utilising an optimisation tool like Marxan in support of the actual design.”

DINOSAUR LINK DISCOVERED

Australia’s links to South America have just become a bit closer after UQ palaeontologist Dr Steve Salisbury helped identify a fossil that had previously only been found in South America.

Dr Salisbury said an upper arm bone found at Dinosaur Cove in southern Victoria shared a suite of unique features with a medium-sized predatory dinosaur from Argentina called Megaraptor.

He said it was the first time a dinosaur with unquestionable affinities to animals from other southern hemisphere continents had been recognised in Australia.

“Throughout much of the Age of Dinosaurs, Australia formed part of the southern super-continent of Gondwana,” Dr Salisbury said.

“As a result, there has long been an expectation that our dinosaur fauna would show similarities to similarly aged faunas from adjoining Gondwanan landmasses, in particular Antarctica, New Zealand and South America.

“This discovery indicates that we might need to rethink the longstanding claims of the Northern Hemisphere affinities for many Australian dinosaurs, and of geographic and/or climatic isolation of Australian dinosaur faunas.”
STAND OUT SERVICE

Several people from the UQ community were featured in the Queen’s Birthday honours list announced last month. The University has been notified of the following awardees.

COMPANION (AC) IN THE GENERAL DIVISION OF THE ORDER OF AUSTRALIA

• Australian media entrepreneur Dr Reg Grundy, OBE, for service to the entertainment and television industry and to the community. Dr Grundy was awarded an honorary UQ Doctor of Philosophy degree in 2004.

OFFICER (AO) IN THE GENERAL DIVISION OF THE ORDER OF AUSTRALIA

• Former UQ Senator (1992-2005) and Catholic Archbishop of Brisbane since 1992 The Most Reverend Dr John Bathersby, DD. Dr Bathersby holds an honorary Doctorate of Letters from UQ.

• Queensland Institute of Medical Research Director and Conjoint Professor in the School of Population Health, Michael Good, for service to medical research and contributions to education.

MEMBER (AM) IN THE GENERAL DIVISION OF THE ORDER OF AUSTRALIA

• Foundation Professor of Nursing in the School of Nursing and Midwifery at UQ, Professor Elizabeth Davies, for service to nursing, education and to the community.

• Emeritus Professor David Doddrell, who headed the Centre for Magnetic Resonance at UQ from 1986 until 2006, for service to science as an academic and researcher.

• Former UQ tutor in orthodontics Dr Robert Greenhill RFD, for service to public sector dentistry.

• UQ graduate and research fellow Dr Janet Hammill, for health services work with Indigenous women and children and research into the effects of foetal alcohol syndrome.

• UQ graduate Ms Carmel Hattch, for services to paediatric and outreach nursing, the welfare of Indigenous children in the Northern Territory, and as a foster parent.

• Honorary Professor since 2006, Professor Patrick O’Keefe, for service to cultural property and heritage, and to legal education.

• Former Head, Department of Anatomy, Professor Anthony (Tony) Parker, for service to sports medicine and education.

• Principal of Cromwell College (1973-1975), Dr John Roulston, for service to education, particularly through independent schools.

• UQ graduate, former Senator (1999-2001) and staff member Dr Marie Siganto, for service to the arts and education.

• Professor of Clinical Surgery, Royal Brisbane and Women’s Hospital and discipline of Surgery Head. UQ Professor Russell Stitz RFD, for service to medicine and surgical education.

MEDAL (OAM) IN THE GENERAL DIVISION OF THE ORDER OF AUSTRALIA

• The late Dr Grahame Brown, for service to dentistry and gemmology. Dr Brown founded the School of Dentistry’s Postgraduate Endodontics Program and was Head of Endodontics from the late 1950s to 1998.

Sustainable research benefits the nation

Innovative projects engaging industry and local communities have helped UQ share in $22.2 million worth of Australian Research Council Linkage grants.

The projects vary from creating the next generation of biofuels to farming one of Queensland’s favourite crustaceans – the Moreton Bay bug.

UQ has received funding of almost $8.1 million from the ARC, with the remainder to be met by pledged partner organisation contributions.

Associate Professor Ian Godwin, from UQ’s School of Land, Food and Crop Sciences, will lead the largest project ($1.77 million) in collaboration with Pacific Seeds to develop a new breed of sorghum bred specifically to be a biofuel.

Dr Godwin said sorghum was an ideal crop to be grown for biofuels in Australia.

“Sorghum is a water-efficient plant that grows well in the hotter, drier areas of Australia,” he said.

“By identifying and manipulating the genes that control gender and fertility in this lobster species will allow development of technologies to exploit desired commercial traits.

“Such technologies will facilitate rapid uptake of commercial culture of this high-value species in Australia and establishment of international markets.”

UQ was the leading Queensland institution in terms of funding ($22.2 million including partner contributions) and second in the nation behind the University of New South Wales ($32.5 million including partner contributions).

The ARC Linkage Projects scheme funds collaborative projects that encourage and develop long-term strategic research alliances between universities and other organisations to obtain national economic, social or cultural benefits.

INFO ➔ www.arc.gov.au/ncgp

Innovation at work: Dr Bernie Degnan (top) and Associate Professor Ian Godwin
Standing 1.8 metres tall and reaching up to 3.5 metres in length, the Diprotodon was a huge beast that lived more than 100,000 years ago, and despite being one of the most celebrated examples of Australia's Pleistocene "megafauna", there is very little known about it. That is about to change, thanks to work by Dr Gilbert Price, from UQ's Centre for Microscopy and Microanalysis, who has turned conventional wisdom on its head by discovering there was only one species of the massive animal.

"Traditionally it was thought that as many as eight species existed," Dr Price said. "Even though Diprotodon occurred from literally creek to coast, spread from as far south as King Island in Bass Strait to Far North Queensland to Western Australia and everywhere in between, they were all the same species."

Dr Price, who started his research into Diprotodon while a postgraduate student at Queensland University of Technology, said most of the confusion stemmed from the fact the animal came in two distinct sizes – large and extra large.

"The problem was compounded because many early descriptions were based on fragmentary fossil remains," he said. "So most of my research was based on going to museums such as the British Museum of Natural History, trawling through drawer after drawer of fossils and examining every specimen."

"This led me to conclude that while the Diprotodon can be extremely variable in size and shape, they were all of the same species."

He said the two distinct sizes were also easily explained.

"Just like many modern animals, the difference in size comes down to sex," he said. "This one is just much more pronounced with females almost two-thirds the size of the males."

Despite having just a pile of broken bones to work with, the new study also revealed significant insights into the lifestyle of the Diprotodon.

"Most living marsupials and mega-mammals that exhibit sexually-related size class differences have polygynous breeding systems, and the males tend to be loners in the populations," he said. "It's likely that Diprotodon also exhibited a similar breeding strategy."

"The fossil evidence is also beginning to show that there was some gender segregation too, with most fossil populations examined being dominated by females, with the males probably off doing their own things."

Dr Price said the jury was still out on the possible timing and causes of the extinction of the Diprotodon and other megafauna such as enormous super-goannas, gigantic birds and 2.5-metre-tall kangaroos.

"Most researchers are content to agree that natural climate change, or the first human colonisers, contributed to the extinction of Diprotodon sometime in the past 50,000 years," he said. "But realistically, we need more data – more fossils and more dates – before we can come up with firm conclusions concerning the processes involved in megafauna extinction."

Dr Price’s research was published recently in the Zoological Journal of the Linnean Society, and was supported by The University of Queensland, Queensland University of Technology and the Australian Research Council.
UQ researchers are SMART FELLOWS

Researchers from UQ working on better cancer drugs, more efficient sewage treatment and vitamin D deficiency have shared in $1.8 million of funding in the latest round of Smart State Innovation Funding.

Dr Norelle Daly from UQ’s Institute for Molecular Bioscience was awarded her Smart State Fellowship to develop new anti-cancer drugs.

Dr Daly and her research team will investigate using peptides, the building blocks of proteins, to form the basis of a new generation of cancer therapeutics.

“Until recently the use of peptides as therapeutic drugs has been considered to be non-viable because of problems with their stability and delivery within the body,” Dr Daly said.

“My project will focus on fusing peptides to a circular protein framework that will overcome these problems, and result in a drug with far fewer side effects than existing anti-cancer drugs.”

Dr Phillip Bond from UQ’s Advanced Water Management Centre received his fellowship to develop new wastewater treatment technology.

Dr Bond and his colleagues are developing a sludge made up of bacteria to replace conventional treatment of wastewater, which would be cheaper and more efficient than current methods.

“Granular systems may require only 25 percent of the land used by conventional treatment systems with savings in capital estimated between 15 and 30 percent, and possible savings on operating costs,” he said.

Meanwhile, Dr Xiaoying Cui from UQ’s Queensland Brain Institute will see if vitamin D deficiency during pregnancy has an impact on dopamine function in adulthood.

Dr Daly and her research team will investigate if vitamin D deficiency during pregnancy has an impact on dopamine function in adulthood.

The fellowships are part of the Queensland Government’s $300 million Smart State Innovation Funding Program, which aims to build world-class research facilities, attract top-quality scientists to Queensland and stimulate cutting-edge research projects.

UQ-US team targets faster Alzheimer’s detection

Early detection of Alzheimer’s disease is in the sights of UQ scientists who have secured $1.6 million for new research.

The UQ experts will work with peers at the Medical University of South Carolina to develop urgently needed methods for early diagnosis of Alzheimer’s disease, which is the main form of dementia and afflicts more than 26 million people.

Queensland Premier Anna Bligh announced $808,000 from the National and International Research Alliances Program to support the three-year project, which has $1.6 million in cash from the two universities.

Welcoming the June 18 announcement, UQ Vice-Chancellor Professor Paul Greenfield said the team would aim to develop Magnetic Resonance Imaging (MRI) biomarkers of Alzheimer’s disease.

“Alzheimer’s disease is known to be the most common cause of dementia, yet only about 60 percent of cases are diagnosed,” Professor Greenfield said.

“The new Korea-Australia Bio-Product Alliance will aim to assist the USD $1.5 trillion chemical industry to switch its dependence from fossil fuels to renewable biomass.

Queensland Premier Anna Bligh clinched the $5.4 million partnership on June 18 by committing $1.4 million from the National and International Research Alliances Program.

With a specific focus on sugarcane as the raw material for biorefineries (which feed on renewable biomass instead of fossil fuels), it is the world’s first alliance to target development of sucrose-based biorefinery technology.

UQ Vice-Chancellor Professor Paul Greenfield said the technical goal included technology to produce cost-effective, sustainable butanol for chemical manufacturing.

“Butanol was the world’s second-largest industrial biotechnology product until World War II, but then advances in petrochemical technology made it uneconomical,” he said.

“The research follows the signing of a KAIST-UQ agreement in South Korea in May 2007 (which was witnessed by then Queensland Premier, Peter Beattie).”

“It is bolstered by a cash commitment of $2.7 million from KAIST and $500,000 from CRC SIIB.”

“Having CSR on the team gives a direct route to commercialisation of the research outcomes.”

Green harvest

The Australian sugar industry, UQ and a Korean research force have teamed up with the goal of “greening” the global chemical industry.

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“Butanol was the world’s second-largest industrial biotechnology product until World War II, but then advances in petrochemical technology made it uneconomical,” he said.

“The alliance will use modern metabolic engineering to develop new cost-effective, sustainable processes for use of butanol in chemical production.”

Korea Advanced Institute of Science and Technology (KAIST) researchers will work with experts from UQ’s Australian Institute for Bioengineering and Nanotechnology, the UQ-based Cooperative Research Centre for Sugar Industry Innovation through Biotechnology (CRC SIIB), and CSR.

“The three-year project is made possible by the Queensland Government’s support for a robust partnership between KAIST and UQ and is enhanced by the involvement of CRC SIIB and CSR,” UQ Deputy Vice-Chancellor (Research) Professor David Siddle said.

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“Alzheimer’s disease is known to be the most common cause of dementia, yet only about 60 percent of cases are diagnosed,” Professor Greenfield said.

“The new method will be non-invasive and will enable early diagnosis as well as safer monitoring of progression of the illness.”

Deputy Vice-Chancellor (Research) Professor David Siddle said early detection would have other important implications for Alzheimer’s patients, their families and carers.
Renewable energy materials

**BREAKTHROUGH**

**UQ researchers have made a ground-breaking discovery that produces highly efficient miniature crystals that could revolutionise the way we harvest and use solar energy.**

Professor Max Lu, from UQ’s Australian Institute for Bioengineering and Nanotechnology (AIBN), said his team’s discovery brought it one step closer to the holy grail of cost-effective solar energy.

“We have grown the world’s first titanium oxide single crystals with large amounts of reactive surfaces, something that was predicted as almost impossible,” Professor Lu said.

“Highly active surfaces in such crystals allow high reactivity and efficiency in devices used for solar energy conversion and hydrogen production.”

“Titania nano-crystals are promising materials for cost-effective solar cells, hydrogen production from splitting water and solar decontamination of pollutants.”

“The beauty of our technique is that it is very simple and cheap to make such materials at mild conditions.

“Now that the research has elucidated the conditions required, the method is like cooking in an oven and the crystals can be applied like paints.”

Professor Lu, who was recently awarded a second prestigious Australian Research Council Federation Fellowship, said it wasn’t just renewable energy where this research could be applied.

“These crystals are also fantastic for purifying air and water,” he said.

“The same principle for such materials to convert sunlight to electricity is also working to break down pollutants in water and air.

“One could paint these crystals onto a window or a wall to purify the air in a room.

“The potential of applications of this technology in water purification and recycling are huge.”

Professor Lu said it would be about five years before the water and air pollution applications were commercially available, and about five to 10 years for solar energy conversion using such crystals.

He said the breakthrough technology was a great example of a cross-discipline collaboration with Professor Sean Smith’s AIBN Computational Molecular Science group, who helped the researchers focus on specific surface modification elements for control of the crystal morphology.

“First-principle computational chemistry is a powerful tool in aiding the design and synthetic realisation of novel nanomaterials, and this work is a beautiful example of the synergy,” Professor Smith said.

Professor Lu said the work was also the result of an international collaboration with Professor Huiming Cheng’s group from the Chinese Academy of Sciences, an institution with which UQ has many research partnerships.

The research, which was produced with colleagues Huagui Yang, Chenghua Sun, Shizhang Qiao, Gang Liu and Jin Zou, has been published in the latest edition of scientific journal Nature.

— ANDREW DUNNE
ONLINE LEARNING LEADER APPOINTED

UQ has snared an international e-learning leader to lead its new centre of educational innovation.

Dr Phil Long, currently at Massachusetts Institute of Technology (MIT), will be the first chair and director of UQ’s Centre for Educational Innovation and Technology (CEIT), where he will make the latest research on technology-assisted teaching and learning freely available.

Dr Long was Director of Learning Outreach for MIT’s iCampus, which received USD $25 million from Microsoft Research Laboratories. He is currently Associate Director of MIT’s Office of Education Innovation and Technology and will hold a visiting researcher position there after he begins at UQ in October.

UQ Deputy Vice-Chancellor (Teaching and Learning), Professor Deborah Terry, said Professor Long will bring to the role new levels of awareness of how information and communications technology can benefit the community.

“Professor Long’s approach is anchored in one of the first principles of the web, that access to knowledge should be open and free,” she said.

“UQ is delighted that he has accepted the appointment at the new centre, because he will uphold the University’s objective of giving all communities the benefits of knowledge derived from rigorous research.” Professor Long said he looked forward to collaborating with students and staff throughout UQ, in Queensland, nationally and globally.

Tiny barcodes
SCAN FOR DISEASE

A new technology with applications including the early detection of disease has been invented and developed by UQ researchers.

Malaria and dengue fever will be the early targets of new trans-Pacific research using minuscule “barcodes”.

The University of Queensland and the University of Washington (UW) are poised to launch the research after Queensland Premier Anna Bligh announced $650,000 in funding from the National and International Research Alliances Program on June 18.

“Detection of the pathogens of two debilitating mosquito-borne diseases, malaria and dengue fever, is just the first target of this research,” UQ Vice-Chancellor Professor Paul Greenfield said as he welcomed the funding.

“The researchers are pioneers of ‘nano-barcodes’, from which they take electronic read-outs of information about targeted molecules.

“The outcome is a diagnostic tool that is cheaper, more sensitive, more accurate and easier to use than established techniques.”

The research team comprises Dr Krassen Dimitrov from UQ’s Australian Institute for Bioengineering and Nanotechnology who was formerly at UW, Seattle, along with Dr Daniel T Schwartz and Dr Karl Boehringer, both of UW.

UQ Deputy Vice-Chancellor (Research) Professor David Siddle thanked UW for its partnership in the two-year, $1.8 million project.

“We signed an agreement for cultural, educational and scientific cooperation in 2006 and we launched the $450,000 Trans-Pacific Fellowships last month,” he said.

The prestigious journal Nature Biotechnology published a paper on Dr Dimitrov’s barcode work in May.

DNA vaccine developed

UQ researchers have made a giant leap forward in the race to develop a vaccine for the potentially debilitating West Nile virus.

Associate Professor Alex Khromykh, from UQ’s School of Molecular and Microbial Sciences, and colleagues have found a way to generate immune response levels comparable to a live virus vaccine, which could also help sufferers of other diseases, such as dengue fever and Japanese encephalitis.

“What this means is that our prototype vaccine has the potential to not only be safer but just as effective as live vaccines,” Professor Khromykh said.

Dr Khromykh said West Nile virus was an emerging virus causing outbreaks of viral encephalitis in Europe and the USA.

“West Nile virus caused more than 27,000 cases of reported infection and more than 1000 deaths in the USA alone since its emergence in 1999,” he said.

“A vaccine is desperately needed and, while a number of vaccine candidates are currently in development, none have yet been approved for human use. Following this research we hope to move on to pre-clinical and clinical trials of the vaccine.”

He said the vaccine they were developing – called pKUNdC/C – was what is known as a DNA vaccine, which is safer, purer and more stable than other vaccines prepared using traditional approaches, such as attenuated live virus vaccines.

“Live virus vaccines are usually more potent though and provoke a greater response from the immune system,” he said.

“The results we are getting show that pKUNdC/C not only has the benefits of a DNA vaccine but combines the potency of a live virus vaccine as well.

“These findings are important, not only for the vaccine development against West Nile virus, but also against other highly pathogenic viruses from the same virus genus.”

Dr Khromykh’s colleagues include Associate Professor Roy Hall, from UQ’s School of Molecular & Microbial Sciences, Professor Christopher Politit from UQ’s School of Veterinary Sciences and Associate Professor Andreas Suhbier from the Queensland Institute of Medical Research, with the research recently published in the scientific journal Nature Biotechnology.

From left: Dr Alex Khromykh and Dr Roy Hall from UQ’s School of Molecular and Microbial Sciences
UQ Racing, the University’s student team in charge of building, managing and racing a Formula-style race car, is accelerating towards a big finish in the 2008 racing season.

The team is gearing up for a strong performance in Melbourne in November, when they will compete against rival outfits from around 30 Australian and international universities in an annual competition called Formula SAE.

Run by the Australasian Branch of the Society of Automotive Engineers, the three-day event will see the students push their 610cc cars to speeds of more than 110 km/h and compete in different disciplines including design, costing, acceleration, autocross and endurance.

UQ Racing Team Leader, Mechanical Engineering student Mitch Timms, said the group, comprised of around 30 engineering and business students, was on track to advance in the competition rankings, thanks to record industry sponsorship.

“The extra funds we’ve received have enabled us to design and build a stronger, faster, more lightweight car than in previous years,” Mr Timms said.

“Motor sport of any type is inherently expensive and the generosity of our industry sponsors has helped us to create the best possible race car by enabling us to purchase quality materials and components, and to test our designs and ideas.

The competition offers us a great opportunity to gain practical skills and experience. For me it’s hard to picture University without Formula SAE.”

The competition provides opportunities for students to work with industry members, which has resulted in several past UQ Racing students gaining employment with sponsor companies.

Head of the Division of Mechanical Engineering, Associate Professor David Mee, said both students and industry participants benefited from the knowledge, experience and hands-on skills and training provided by the competition.

“Students are excited and motivated by the prospect of building and racing a high-performance car of their own design, and putting their engineering and management skills into practice,” he said.

“In return for their support, sponsors gain contact with these very high quality students who have developed technical, project management and team work skills.

“It is definitely a win-win situation.”

UQ Racing will be focused on testing and improving their car in the lead-up to November, when they aim to finish in the top 10 and build on this result in 2009.

UQ’s best result to date was achieved in 2005, when the team finished second overall in Australia before competing in Germany, where they placed fourth.

INFO To find out more about UQ Racing, visit www.uq.edu.au/fsae/ – KIM JENSEN

THE REBUILT UQ RACING TEAM IS REVVING UP FOR SUCCESS AT THIS YEAR’S NATIONAL TITLES.
Wotif.com co-founder, philanthropist and University of Queensland alumnus Graeme Wood has been named the 2008 Queenslander of the Year, while a UQ student and Afghan refugee is Young Queenslander of the Year.

Mr Wood and student Homa Forotan were presented with their awards by Premier Anna Bligh at a ceremony held at Parliament House in June. In accepting his award, Mr Wood said Queensland was the ideal location to launch a global business like Wotif.com and encouraged Queenslanders to give back to their communities.

“I hope this becomes an example to people who have the capacity to give more back to Queensland, Australia and the world in general,” Mr Wood said.

In 2000 Mr Wood, who holds a Bachelor of Economics and Master of Information Systems from UQ, founded Wotif.com with fellow UQ graduate Andrew Brice. Wotif.com has grown into Australia and New Zealand’s leading accommodation website, attracting 3.2 million visits a month. Wotif.com was listed on the Australian stock exchange in June 2006 and, in October 2007, Mr Wood retired from his role as CEO and Managing Director of Wotif.com, giving him more time to dedicate to his philanthropic activities, such as the Graeme Wood Foundation and The University of Queensland Endowment Fund (UQef).

Mr Wood’s win is the third time in as many years the award has been given to a UQ staff member or alumnus. Founder of the popular Triple P Parenting Program, Professor Matt Sanders, was named Queenslander of the Year in 2007, with Professor Ian Frazer, co-creator of the cervical cancer vaccine Gardasil, awarded for his achievements in 2006.

In further success, UQ Bachelor of Science student Ms Forotan was named the 2008 Young Queenslander of the Year.

Ms Forotan arrived in Australia in 2005 as an Afghan refugee, achieved an OP1 and was awarded a Group of Eight scholarship. She is active in the UQ Muslim Student Association and radio 4EB ethnic broadcasting for Afghans, and said she was keen to do her part to promote harmony between cultures and a positive image of refugees and the Islamic faith.

Ultimately, Ms Forotan hopes to practice medicine in all three of her “homelands”: Afghanistan, Australia and Pakistan, where she and her family stayed before moving to Brisbane.

She said she was “truly humbled” to have won the Young Queenslander of the Year award. “I’d like to take this opportunity to convey my deep thanks to the Queensland Government, who considered me for this prestigious award regardless of my faith, cultural background and other differences,” Ms Forotan said.

Ms Pickwick has previously managed large employment projects for private and government organisations and said she hoped to develop UQ as a corporate leader and employer of choice for Indigenous people over the next three years.

“UQ staff are interested and want to play their part, and that’s where I can come to educate them and say, ‘well this is what you can do’,” she said.

Ms Pickwick is a proud member of the Brisbane Aboriginal and Torres Strait Islander community; her mother’s heritage is from the Mulunjial tribe (Beaudesert) and father’s heritage is from the Gooreng Gooreng tribe (Bundaberg).

She is the secretary of a new UQ committee overseeing Aboriginal and Torres Strait Islander Employment, which includes Deputy Vice-Chancellor (Academic) Professor Michael Keniger, Director of the Aboriginal and Torres Strait Islander Studies Unit Michael Williams, UQ Senator Dr Mary Mahoney, Director of Human Resources Shard Lorenzo, Equity Office Director Dr Ann Stewart and local Indigenous elders.

She holds a Bachelor of Leisure Management majoring in community development – receiving an acknowledgement award for her achievements from the Governor of Queensland in 2001 – and is planning to pursue an MBA at UQ in the near future.

Ms Pickwick encourages those interested in finding out more about UQ employment opportunities to contact her at t.pickwick@uq.edu.au
More than 800 people gathered in the spirit of reconciliation when the University held its recent Journey of Healing (previously Sorry Day) dinner at the UQ Centre.

The May 30 event, which was hosted by the Aboriginal and Torres Strait Islander Studies Unit, Goorie Berrimpa Student Collective and UQ Union, was the University’s largest Sorry Day event to date.

Guests included Queensland Governor and Governor-General designate Her Excellency Ms Quentin Bryce, along with Indigenous staff members, students and elders.

Attendees were entertained by Indigenous dancers and musicians Getano Bann and Angus Rabbit and his Band.

To find out about future Aboriginal and Torres Strait Islander Studies Unit news, events and activities, visit www.uq.edu.au/atsis
New media technologies require a significant overhaul of traditional notions of the working day and time off, according to UQ researcher Dr Melissa Gregg.

Based at UQ’s Centre for Critical and Cultural Studies (CCCS), Dr Gregg is currently investigating the use and impact of new media technologies on work and home life for a three-year, $233,553 Australian Research Council (ARC) project.

She said mobile phones, PDAs, laptops and other wireless devices were often marketed as liberating people from the workplace, but in reality this portability came at a price.

“The mobility of these new technologies means that you can take work with you anywhere you go. It gives people the freedom to work wherever they want,” Dr Gregg said.

“But just because you can work anywhere doesn’t mean you should work anywhere.”

There were smiles on the faces of many students at UQ Ipswich recently when the campus hosted its 2008 Scholarship and Prize Ceremony.

More than 30 students received scholarships and prizes valued at more than $50,000.

The new recipients joined their friends, families and supporters at the annual ceremony, which is designed to officially congratulate the students and acknowledge the support of the many scholarship and prize donors.

Pro-Vice-Chancellor (Academic) Professor Alan Rix said many of the donors were from the Ipswich region and the awards included the donation of annual scholarship totalling $5000 each.

He said such funding was testament to the generosity of local organisations which continued to support the campus and its students.

“These scholarships and prizes not only provide a financial reward, but also recognise the hard work, dedication and achievement of our students,” he said.

“The campus is indeed appreciative of the support by local businesses, organisations and individuals in allowing us to be able to provide such recognition.”

The 2008 ceremony marked the first year the Children First Learning Centre Scholarship was awarded to a student in the Bachelor of Education (Middle Years of Schooling). The scholarship is awarded on the basis of residency in Ipswich, academic merit and personal qualities, including contribution to the Ipswich community.

Other scholarships were provided by Bendigo Bank, Ipswich Alumni Chapter, Ipswich City Council, Ipswich RSLA Sub Branch, Ipswich Women’s Development Network, Rotary Club of Ipswich City, Walter and Eliza Hall Trust, and The University’s Faculty of Business, Economics and Law.
A multi-skilled scholar

A UQ Emmanuel College student and academic and sporting all-rounder has become the first recipient of a scholarship honouring former High Court Chief Justice Sir Harry Gibbs.

Head of the TC Beirne School of Law Professor Ross Grantham presented the inaugural Sir Harry Gibbs’ Law Scholarship to Simon LaBlack at a special dinner in May.

Sir Harry was an Emmanuel collegian in the 1930s and was appointed Chief Justice of the High Court of Australia in 1981. He served in this position until his retirement in 1987 and passed away in 2005.

The scholarship covers Mr LaBlack’s residential fees at Emmanuel College while he studies law and journalism at UQ.

Mr LaBlack said he was surprised and proud to be the first winner of the award.

“I love staying here at Emmanuel College. There’s so much to do, so many opportunities,” he said.

“It’s an honour for them to say ‘here, be an ambassador for the college’.

“Sir Harry Gibbs lived here and what he did as an ambassador for the college was inspirational, it’s an honour to receive a scholarship in his name.”

The idea of establishing a law scholarship for an Emmanuel student arose from discussions between Sir Harry and Emmanuel College Principal Adjunct Professor Stewart Gill shortly before Sir Harry’s death.

“Simon is a very worthy first recipient of the Sir Harry Gibbs Law Scholarship and he has contributed a great deal to college life since he first arrived from Bundaberg in 2006,” Professor Gill said.

Mr LaBlack is in his third year of a dual Bachelor of Journalism/Bachelor of Laws degree and is an active student, editing a student newsletter, playing bass, tenor and side drum in the college pipe band and competing in AFL, soccer, rowing and distance running.

“Award achievement, intellectual creativity, community spirit and teamwork are all valued at Emmanuel and Simon scores highly in all of these areas," Dr Gill said.

“Emmanuel College strives for excellence in providing a rich collegiate experience for students of the University.”

IMPROVE HEARING

UQ audiology researchers are seeking volunteers for a study on hearing rehabilitation decision making.

Participants will receive a free hearing screening and discussion of their hearing needs with an audiologist, who will help participants decide what they may need to do to improve their hearing.

Participation in the study involves two meetings at St Lucia with each lasting for about 1.5 hours.

Participants must be 50 years of age or older and thinking of doing something about their hearing for the first time.

INFO → Ariane Laplante-Levesque (07 3346 7453 or ariane@uq.edu.au).

ENVIRONMENT IN FOCUS

UQ students passionate about the environment will have their voices heard when they attend the upcoming Students of Sustainability (SoS) conference in Newcastle.

UQ Union Environment Officer Kristy Walters said SoS was the largest and longest running student environmental conference in Australia and played an instrumental role in informing participants on a variety of environmental and social justice issues.

Funds to help cover registration costs for UQ participants have been provided by UQ’s Vice-Chancellor, Professor Paul Greenfield.

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THE INSTITUTE OF MODERN LANGUAGES
Time is running out to devote more resources to research the effects of climate change on ocean environments.

This is according to a paper published last month in *Science* by researchers from UQ and CSIRO’s Climate Adaptation National Research Flagship.

“Marine ecosystems are undoubtedly under-resourced, overlooked and under threat and our collective knowledge of impacts on marine life is a mere drop in the ocean,” wrote Dr Anthony Richardson, from The University of Queensland and CSIRO, and his co-author, Dr Elvira Poloczanska from CSIRO in Hobart.

“There is an overwhelming bias toward land-surface studies which arise in part because investigating the ocean realm is generally difficult, resource-intensive and expensive.”

The disparity in focus on land-based compared to marine impacts was highlighted in the Intergovernmental Panel on Climate Change’s (IPCC’s) Fourth Assessment Report (2007), which included 28,500 significant biological changes in terrestrial systems but only 85 in marine systems.

The paper argues that the collection of marine environment data over 20 years or more – a requirement for inclusion in IPCC assessments – suffered in the mid-1980s due to government funding cutbacks for international marine science research, just as ocean warming began accelerating.

The authors advocate change in the existing IPCC process to better assess the impacts.

“Climate change is affecting ocean temperatures, the supply of nutrients from the land, ocean chemistry, food chains, shifts in wind systems, ocean currents and extreme events such as cyclones,” Dr Poloczanska said.

“All of these in turn affect the distribution, abundance, breeding cycles and migrations of marine plants and animals, which millions of people rely on for food and income.”

“Development of the Integrated Marine Observing System, announced in 2006, is an important step forward but securing data over the time scales relevant for climate assessment will not occur until near 2030.”

Dr Richardson said the situation was made more urgent as emerging evidence suggested marine organisms may be responding faster to climate change than land-based plants and animals.

“As the climate is warming, marine plants and animals are shifting towards the poles and their timing of peak abundance is occurring earlier in the year,” he said.

“While understanding impacts of climate change in the oceans is important, ultimately we need to develop adaptation options as the knowledge-base expands.

“The slower dynamics of the ocean also means that some changes such as ocean acidification will be irreversible this century.”
THE WORLD’S LARGEST FISH, THE WHALE SHARK, NOW HAS A CHAMPION IN THE FORM OF UQ PHD STUDENT SIMON PIERCE, WHO HAS MADE IT HIS MISSION TO PROTECT THE SPECIES FROM EXTINCTION.

UQ postgraduate student Simon Pierce is leading the fight to protect whale sharks – the world’s largest fish – from being fished out of its own African sanctuary.

The marine biologist is working for Eyes on The Horizon (EOTH), a non-profit organisation in Mozambique that helps manage the country’s fisheries and prosecutes illegal fishing.

Mozambique is a hotspot for endangered whale sharks and manta rays. The 15-kilometre coastline of Tofo Beach, along the southern tip of the country, is home to the world’s biggest population of manta rays and whale sharks.

Mr Pierce, who hopes to finish his PhD this year, has been studying whale shark behaviour, populations and their migration off this beach since 2005, when he jointly created the Manta and Whale Shark Research Centre with fellow UQ student Andrea Marshall.

Together they have been working with World Wildlife Fund (WWF) Mozambique to create the first marine park to protect whale sharks, manta rays, dolphins and turtles.

“Andrea and I are working closely with WWF and providing the data that is driving the project,” Mr Pierce said.

“WWF will handle the legislative side of things and we’ll work with local stakeholders to implement a practical and effective management regime.”

Whale sharks can reach up to 20 metres in length and weigh 35 tonnes, outsized only by blue and fin whales.

Unlike other sharks, whale sharks eat plankton – which is filtered through their large gills – and can live for more than 100 years.

“Whale sharks are now fully protected in quite a few countries, including Australia. They’re a unique shark, an iconic species and also a big, friendly and extremely photogenic animal,” Mr Pierce said.

“Unfortunately they’ve been targeted by fisheries in several countries and their populations have been reduced to the point where they’re now vulnerable to extinction.”

On his last trip to Mozambique in March, Mr Pierce identified the 1000th whale shark sighted worldwide – a 6.5-metre male.

“So far Mr Pierce has identified more than 300 whale sharks off Mozambique and is the largest contributor to the global whale shark library, which includes the shark’s details, movements and identification photos.

“Mr Pierce, along with many divers and tourists, have collected the sharks’ “fingerprints” by taking photos of the unique spots on their flanks, which allow them to be identified.

While working with a Swiss team in 2006 he helped show that whale sharks were making deep dives – some of the deepest on record. One shark made several dives of more than 1200 metres while crossing the Mozambique Channel.

“They’re diving on a fairly regular basis from the surface, where water temperatures are between 28 and 30 degrees, into depths where temperature is in the low single digits,” he said.

“There’s obviously some purpose to these dives – we just don’t know what it is.”

Whale sharks are placid compared to other sharks, as Mr Pierce learned on his first solo dive off Tofo Beach back in 2006.

He was 30 metres down installing an acoustic receiver for rays when he looked over his shoulder and saw a four-metre great white shark coming up close behind him.

“I stayed nice and still. It was just having a look. It had become a great story by the time I got to a bar that evening,” he said.

Experts have estimated the value of each whale shark at about $2.2 million in Belize (Central America) and international whale shark tourism was estimated at $51.6 million in 2004.

Mr Pierce, originally from New Zealand, had always been fascinated by sharks and stingrays before he decided to “get serious” and move to Australia to study a Bachelor of Science (Hons) with Associate Professor Mike Bennett.

“I had a great time that year and decided to stay at UQ for my PhD. My research actually focuses on stingrays: I’m researching their biology, ecology and conservation requirements within south-east Queensland,” he said.

— MIGUEL HOLLAND

“Whale sharks are now fully protected in quite a few countries, including Australia. They’re a unique shark, an iconic species and also a big, friendly and extremely photogenic animal”
GEN-Y WORKERS

Global youth organisation AIESEC, through its chapters at UQ, Griffith University and Queensland University of Technology, held its inaugural Youth Leadership Forum on April 16.

Supported by accounting body CPA, the forum allowed students, professionals and academics to examine “Youth Leadership and the Impact Young People Can Have in Business and Society”.

Panellists discussed a broad range of areas, including the issues involved in cross-generational leadership, positive organisational change being created by Generation Y, the role of Facebook in the breaking down of communication barriers, youth leadership and social responsibility.

The forum closed with a trivia competition put together by international interns working with organisations in Brisbane through AIESEC’s international internship program.

NEUROSCIENCE LECTURE

A free public lecture on breaking neuroscience research will be held as part of the 20th EJ Goddard Oration celebrations.

The Goddard Oration is held on August 20 at the Schonell Theatre and commemorates Professor Ernest James Goddard, who helped form the University’s Faculty of Dentistry and became its first Dean.

Director of the Queensland Brain Institute Professor Perry Bartlett will present an oration, entitled “The Self-Renewing Brain: How new nerve cells enhance learning and delay dementia”.

Oration host, the Australian Dental Association Queensland President Dr John Wills, said the event’s pre-eminence would continue with Professor Bartlett at the helm.

“This is an important event to celebrate the proud history of dentistry within Queensland,” Dr Wills said.

A free post-oration supper will be provided, when members of the public can meet Professor Bartlett.

INFO ➔ Please contact events@adaq.com.au to RSVP by August 12.

IN BRIEF

com.au to RSVP by August 12.

INFO ➔ Please contact events@adaq.com.au to RSVP by August 12.

Amazon trek for wildlife

Elisabeth Viggers

Bachelor of Music (Composition) graduate, former UQ Excellence Scholarship holder and exchange student to University of California Berkeley

I am raising money for the conservation of the Amazon forest through education of the local communities: why conservation is important and why poaching endangered animals is a lose-lose situation.

I have been chosen to be a member of the 2008 Girls On Top team, to raise funds for local volunteer-run charities.

The Andes to the Amazon trek is from August 10-September 11.

With five other non-mountaineering women from around Australia, I will be climbing one of the world’s most challenging mountain ranges – the high-altitude Huayhash region in Peru.

We will be traveling 200 kilometres at 5000 metres above sea level.

In terms of the South American community our fundraising will help; these are people with very little.

They are living in a floating slum and the project we are supporting brings them medical supplies and dressings for their afflictions.

The main problems are dengue fever, parasites, leprosy and open wounds caused by a variety of things from cancer, to diabetic wounds to falling over.

Hopefully our fundraising efforts will help to build a real clinic for the volunteers.

I am hoping to raise at least $5000. Girls on Top has raised more than $100,000 for charities and taken five teams over 100,000km.

I am interested in all people. I went to India, Thailand and Malaysia last year and these experiences helped me to realise wealthy countries like Australia really can afford to give a little more.

In general, I think giving begins at home. I have been doing volunteer work for years – in jails, detoxes, old people’s homes and hospitals, even just giving my friends an ear or being involved in a community choir or fun run.

It is important to have a sense of community at home before venturing out to help other communities.

The Amazon Animal Orphanage, which will benefit from the fundraising, looks after many endangered animals. Most of them are injured or orphaned through poaching.

Most poachers are just making ends meet in the only way they know – to sell animals, birds or their skins on the black market to tourists.

Some of these animals lose their habitat due to deforestation – the main reason for telling the Amazon is to make room for cattle farming.

The Animal Orphanage is setting up an education program, sponsored by Girls on Top, to teach young locals the importance of conservation.

The project has so far supplied water to eight Zimbabwean orphanages, funded farming and cultural projects in the remote Himalayas, supported the work of Zoo Peru and the Amazon Animal Rescue Centre, and will this year make a contribution to developing leadership and improving conditions for Aboriginal people in Australia.

I first heard about Girls On Top in 2007 from a Kathmandu (adventure equipment) store catalogue. I was mainly drawn to the words “South America”.

I wasn’t particularly interested in mountaineering but I liked the idea of conservation in the Amazon. It seemed different to your usual intrepid tour!

There was a scholarship running in 2007 that Kathmandu sponsored, and I applied.

Amazingly, I was one of five finalists out of more than 1000 women.

I didn’t win, but Girls on Top kept me in the loop for this year and asked me to apply again.

I applied at the same time as frantically getting ready to go on exchange to the USA.

I have just finished my last semester so for now I am fundraising, playing a few gigs and preparing for South America.

I just love writing music and will do what I can to continue that for as long as I live! Whether it is studying or teaching, as long as I have a roof and a full belly I am happy.

INFO ➔ To donate, visit www.lisviggers.com and click on the Girls on Top link or email cherrylissy@gmail.com
Frock Swap, a fundraising fashion parade recently held at St Lucia campus, helped Brisbane’s homeless women while showcasing a series of winter fashions from local labels.

Held by postgraduate students of UQ’s School of Journalism and Communication last month, the event raised more than $1300 in support of Pindari Women’s Service, a Salvation Army crisis accommodation centre for women in Brisbane.

Guests also donated hundreds of kilograms of secondhand clothing to the shelter.

Pindari Women’s Service manager Christine Tuohy was thrilled at the sold-out event, the support from which will help ease the tight budget constraints over Pindari Women’s Service.

“Pindari operates at a deficit of about $30,000 a year,” Ms Tuohy said.

“The proceeds raised by the generous support of all people who contributed to Frock Swap will go towards a very important cause. Many of the women who come to us have been facing a number of serious challenges in their lives, such as domestic violence, physical disability and mental illness.”

Ms Tuohy estimated more than 4000 people were homeless in Brisbane every night.

She said the centre was under great pressure with insufficient accommodation due to the rising number of displaced women in the community.

“The waiting list for Department of Housing accommodation in this area is something like 10 years,” Ms Tuohy said.

Frock Swap collaborated with local designers Maiocchi and Nelson Molloy, Sydney-based fashion retailer Freez Clothing, Marie Claire magazine and SoScentual, a natural health product manufacturer.

Funds to support the shelter were raised through ticket sales and raffles on the night.

Audience members received goodie bags and had the chance to win clothing vouchers from fashion labels, a magazine subscription, books and tickets to events at the Brisbane Powerhouse.

Queensland Brain Institute (QBI) neuroscientists have discovered a fundamental component of the process that regulates memory formation.

QBI Director Professor Perry Bartlett said the discovery explained for the first time how new nerve cells formed in an area of the brain associated with learning and memory that was known to deteriorate in people with stroke and dementia.

“The hippocampus is the region of the brain involved in important brain functions, such as learning and memory, and loss of neuronal production in the hippocampus is associated with a range of neurodegenerative conditions, and is particularly evident in ageing dementia,” Professor Bartlett said.

“Surprisingly, however, studies have so far failed to identify a resident stem cell population in the hippocampus that’s capable of providing the renewable source of these essential nerve cells.”

Research by Professor Bartlett and his QBI colleague Dr Tara Walker – which featured on the front cover of a May edition of the Journal of Neuroscience – has identified the resident stem cell in the hippocampus.

Even more importantly, the study discovered how the stem cell can be activated to produce new neurons.

According to Dr Walker, an understanding of the activation process should enable researchers to develop new therapeutic techniques that could stimulate the production of new neurons and reverse or prevent the cognitive decline that occurred during ageing dementia.

“These significant advances in determining the molecular regulation of nerve production will also have a major impact on our understanding of more complex areas, such as behaviour, cognition, neurological disease and mental illness,” she said.
Indigenous knowledge base grows

It was the first of its kind, and now *Gunyah, Goondie + Wurley* is receiving international attention for its unique study of Aboriginal Australian architecture.

Published by The University of Queensland Press (UQP) last year, the book began life in the 1970s when Professor Paul Memmott started postgraduate research with various Indigenous communities in north-west Queensland.

Including much of his work in the field since then, *Gunyah, Goondie + Wurley* took out the reference and scholarly book section at the recent National Book Design Awards.

“When I started research nobody was interested in Australian vernacular architecture, let alone Aboriginal gunyahs and goondies,” Professor Memmott said.

“The international interest in the book signifies how scholarly and popular interests have changed,” he said. He hoped other Australian scholars would now take up new research questions in the discipline and engage in stronger dialogue with international peers in the area.

Professor Memmott’s future research plans include a manuscript addressing the role of artefacts in traditional Aboriginal society and a textbook on Indigenous people-environment relations.

The success of *Gunyah, Goondie + Wurley* capped off a big night for UQP titles at the design awards, with *Bronco, Fi, Maddie and Me* winning Best Children’s Fiction Cover and best overall Children’s Book Cover. Four other UQP titles were finalists.

General Manager Greg Bain said the number of shortlisted and winning works was the highest of all publishers compared to titles submitted, and it was notable that UQP “stole the show.”

Other recent wins for UQP authors include the Kenneth Slessor Prize for Poetry for Kathryn Lomer’s *Two Kinds of Silence* and the Ethel Turner Prize for James Roy’s *Town* – both at the New South Wales Premier’s Literary Awards.

After securing a six-figure US rights deal in December, Karen Foxlee’s *The Anatomy of Wings* continues to impress, being named the Best First Book in the 2008 Commonwealth Writers Prize (South-East Asia/Pacific) and shortlisted in the inaugural Barbara Jefferis Award.
Contemplative pieces from graduating students from UQ’s Master of Mental Health (Art Therapy) program are on display at Brisbane’s Mater Hospital.

The works form the inaugural exhibition for the Kids in Mind Art Gallery at the Mater Community Services Building in South Brisbane.

The exhibition showcases the artwork of the students, who are in the final year of their program, and will graduate at a UQ Health Sciences Faculty ceremony this month.

The exhibition, which is open to the public, will continue until July 18 at the Kids in Mind Gallery, level two, Mater Community Services Building, Annerley Road, on weekdays from 10am to 3pm.

Artworks represent individual interpretations and responses by the research students conducted in areas of personal interest.

For example, Jane Griffin based her artwork on research into how art therapy enhanced a refugee youth’s well-being and reduced behavioural trauma symptoms; Tabitha Ford studied at-risk adolescents, including those affected by poverty, grief and loss, and behavioural issues; and Jannie Olsen Leach worked with mothers of children with autism.

Consultant psychotherapist, Mater Child and Youth Mental Health Services (CYMHS) and Senior Lecturer, Master of Mental Health (Art Therapy) at UQ, Tom O’Brien said attendees could expect a very high quality of art at the exhibition.

“The exhibition includes stimulating and thought-provoking works from seasoned exhibiting artists, as well as less experienced artists, who employ a variety of mediums including painting and sculpture,” Mr O’Brien said.

The artists will graduate at a ceremony on July 16 at the UQ Centre at St Lucia at 11am and become art therapists for children, adults and the elderly.

“Seventeen percent of young people have mental health difficulties in Australia,” Mr O’Brien said.

“Art therapy is a form of expressive therapy that uses art mediums such as drawing, painting and sculpture to improve or maintain mental health and well-being, and an increasing body of evidence indicates it is a highly effective tool to help combat this issue.”

Art therapists are trained to recognise the nonverbal symbols and metaphors that are communicated within the creative process, and symbols and metaphors that might be difficult to express in words or in other ways.

The UQ Master of Mental Health (Art Therapy) program is the only postgraduate art therapy program offered in Queensland.

Clockwise from top left: Master of Mental Health (Art Therapy) students Jane Griffin and Suzanne Staal, and other artworks on display as part of the exhibition
SPORT

Fresh faces win great race

This year’s Great Court Race has seen the names of new champions earn a place as the University’s fastest.

Based on the Cambridge University Race from the film Chariots of Fire, the annual event pits the swift of foot among UQ students against each other in a 636-metre dash around the sandstone Cloister of the St Lucia campus’ Great Court.

This year the mantle beckoned a new champion in both the men’s and women’s fields, with the 2007 winners completing their studies last year.

UQ Athletics Club member Kate Van Homrigh took out first place in the women’s race with a time of 1.49.85, despite having a season plagued by injury.

“The only thing I had been worried about before the race was my injury, but I was very happy with my result,” Ms Van Homrigh said.

She was followed by Lucy Kennedy at 1.51.40, with Cassandra Brown placing third.

The men’s final was extremely close, with winner Lee Berry (1.30.90) holding out Robert Mewing (1.31.06) by just 0.15 of a second.

Mr Berry said he was so tired that he had no idea how close he came to being beaten.

“By the end of the race I was exhausted and actually had no idea how close the finish was,” he said.

“It feels really good to have won, as my coach warned me that the level of competition for this event is very high, so as a first-year student it is a great feeling.”

Gerry Collins of the ABC added to the atmosphere of the event as MC.

The Great Court Race festivities were not limited to elite athletes, with several races preceding the main event.

Teams from UQ’s colleges fought for Inter-College Competition Relay honours, with The Women’s College and St Leo’s College taking first place in their respective relays.

The Great Court Handicapped Sprint Race was also a feature, with competitors starting from different points according to their abilities. This year saw Lisa Anthony and Duncan Short crowned new champions in the event.

— STEPHEN DANCKERT

GOOD TRI FOR UQ ATHLETES

Clem Jones Sporting Scholar Josh Amberger narrowly missed out on a medal at the recent Triathlon World Championships in Canada.

Mr Amberger finished fourth in the Under 19 category and had a good chance of medalling, were it not for a lack of feeling in his fingers during transition, Australian Assistant Coach Shaun Stephens said.

“The water temperature for the swim was measured at 12.2 degrees and the outside air temperature was just seven degrees which was the coldest June day in Vancouver for over 40 years,” Mr Stephens said.

“After coming off the bike with two other athletes with a one minute 10 second lead, his hands were so numb he wasted a valuable 25 seconds trying in vain to unclip his helmet which cost him a certain bronze medal and potentially silver.”

 Fellow UQ squad members Adam Carlton finished 32nd in the Under 23 field, James Seear finished 15th and Olympic incumbent Emma Moffatt came fifth in the Elite Women category, one second ahead of Felicity Abram.

CAMPUS HOSTS BEST YOUNG CRICKETERS

Some of the world’s most promising young cricketers will visit the University when it hosts four matches of the 2008 Emerging Players Tournament in July.

Held by the Cricket Australia Centre of Excellence (CA COE), the tournament showcases international talent in Twenty20 and 50-over matches.

The Australian Institute of Sport team is aiming to win the title for the first time but will have to play their best to defeat teams from India, New Zealand and South Africa.

CA COE Manager Belinda Clark said the Emerging Players Tournament had showcased some of the world’s best young cricket talent.

“The Emerging Players Tournament provides a fantastic competition for our scholars to put their training program into match practice,” Ms Clark said.

“For the first time the tournament will be contested by the best young talent selected by their respective boards from South Africa, India, New Zealand and Australia and we expect some excellent cricket to be played.”

A state team from India won the inaugural tournament trophy in 2005, while South Africa has claimed the honours for the past two years.

International cricket players Adam Voges, Ben Hilfenhaus, Jacob Oram and Shane Bond all competed in the Emerging Players Tournament early in their careers.
EVENTS

- **Thursday, July 17**
  UQ Secretaries’ and Office Professionals’ Association AGM (5.15pm-6pm, followed by optional dinner with Senior UQ Women, Staff and Graduates Club, St Lucia campus). Cost: AGM free, dinner $35 for members; $40 for non-members. Information: k.hendrickson@uq.edu.au or 07 3346 7754.
- **Thursday, October 23**
  UQ Secretaries’ and Office Professionals’ Association Annual Conference: “Completely Organised!” (8:30am-4pm, SMI Auditorium, Level 4, Sir James Foots Building 47A, St Lucia campus) Cost: UQOPA members free; non-members $80. Information: k.hendrickson@uq.edu.au or 07 3346 7754.

**UQNEWS DEADLINES 08**

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Library hours are available at www.library.uq.edu.au

**BOOKS WANTED:** A book stall will be held at Moorooka State School Fete in July to raise funds for a new hall and other resources after the arson fire of 2007. Books, CDs, and videos in good condition welcome (please no encyclopedia sets). Information: r.esposto@uq.edu.au

**HOUSE SITTER:** Looking for a house sitter for up to a year? Mature couple living in St Lucia wish to move out of riverfront unit during construction of an apartment building on adjoining land. Contact: Helen 07 3870 9004 or PO Box 4047, St Lucia South, 4067.

**TO RENT:** Toowong: Ideal location, spacious 2bd f/ furnished unit on 10th floor overlooking river. Available October-December 2008. $500/wk. Contact: k.hendrickson@uq.edu.au or 07 3346 7754.

**WANTED TO BUY OR RENT:** Three-bedroom house in West End, Highgate Hill, Dutton Park area required as soon as possible. Contact: Helen 07 3286 9206 after 6pm or h.hall@library.uq.edu.au

**HOUSE SITTER:** Looking for a house sitter for up to a year? Mature couple living in St Lucia wish to move out of riverfront unit during construction of an apartment building on adjoining land. Contact: Helen 07 3870 9004 or PO Box 4047, St Lucia South, 4067.

**TO RENT:** Toowong: Ideal location, spacious 2bd f/ furnished unit on 10th floor overlooking river. Available October-December 2008. $500/wk. Contact: k.hendrickson@uq.edu.au or 07 3346 7754.

**GUITAR TUITION:** Learn from a friendly, experienced professional. Beginner to advanced. Centrally located in Milton. Contact: Slade 0408 778 429 or info@sladegibson.com

**ELECTION TO THE ACADEMIC BOARD**

**Professors & Non-Professors**

Elections will be held to appoint members to the Academic Board as follows:

- **By and from the Professors of the University**
  - 7 for 2009 – 2011
  - Nomination date: 4pm Thursday, 21 August 2008
  - Election date: 9am Wednesday, 8 October 2008
- **By and from the non-professorial teaching or research staff of the University**
  - 7 for 2009 – 2011
  - Nomination date: 4pm Thursday, 21 August 2008
  - Election date: 9am Monday, 6 October 2008

Any person entitled to vote for any of the classes of elected members to be appointed to the Academic Board is entitled to nominate a professorial or a non-professorial candidate. Nomination forms are available from Mrs Tina Ferguson, Academic Administration (ext. 53360).

Voting will be by postal ballot. Nomination forms and ballot papers must be received in Academic Administration, Room 503, JD Story Building by the nomination and election dates shown above.

Douglas Porter
Secretary and Registrar

**ELECTION TO THE ACADEMIC BOARD**

**Student Members**

Elections will be held to appoint student members of the Academic Board for 2009 as follows:

- 3 Undergraduate Students
- 1 Postgraduate Research Student
- 1 Postgraduate Non-Research Student

Nomination week: Monday, 18 August – 4pm on Friday, 22 August 2008

Voting week: Monday, 6 October – 4pm on Friday, 10 October 2008

Any person entitled to vote in an election for any of the categories of elected student members to be appointed to the Academic Board is entitled to nominate a student candidate. Nominations forms will be available from Monday, August 18 and can be downloaded from the Academic Board website at www.uq.edu.au/academic-board/. Nomination forms will also be available from the Student Centres at St Lucia, Gatton or Ipswich, or can be obtained from the University Elections Officer by telephoning (07) 3365 3360. Further information regarding arrangements for voting week will be made available to students closer to the time.

Douglas Porter
Secretary and Registrar
A series of unique works by Sidney Nolan – The Slates – appears at the UQ Art Museum until July 13, and was made possible by a generous donation from the graduating class of 1955 and the Peter Stuyvesant Cultural Foundation.

Museum Director Nick Mitzevich said the Nolan show was the latest in a packed program that had seen attendance jump by 100 percent since the start of 2008.

"The gallery runs 18 exhibitions a year so it's a very changeable and dynamic program which hopefully responds and keeps an audience enthused about art," Mr Mitzevich said.

"Our aim is to provide a platform for UQ's eminent collection in Australian art but also to bring to Brisbane really innovative and exciting things that you see nowhere else."

Mr Mitzevich led the Newcastle Region Art Gallery for six years before taking up the director's post in September last year, and said he was committed to showcasing the best of local and international talent.

He said the University owned an impressive and eclectic mix of works that included everything from contemporary Indigenous art to Chinese antiquities and the country's only collection of artists' self-portraits.

"The collection has been put together through the University's investment but more significantly by people who have had a link to UQ."

"The Nolan pieces were purchased with the generous assistance of graduates from 1955, who made a donation in 1980 as a 25th anniversary gift to the University."

The Slates comprise 18 roof tiles Nolan decorated with images of lovers, boats and angels from 1941-42, only a few years before his iconic Ned Kelly series grabbed international attention.

The pieces also complement a major Nolan retrospective on show at the Queensland Art Gallery – the first since the artist's death in 1992.

"The strength of the art collection is completely defined by the generosity of people who have had a connection with UQ since the 1940s, which is when the collection really began," Mr Mitzevich said.

The Slates will be followed by the ambitious Neo-Goth exhibition, which takes over both floors of the building on July 25.

INFO ➔ The UQ Art Museum is located at the St Lucia campus, and is open free to the public between 10am-4pm daily.

– CAMERON PEGG