

# Best of **QUT** health



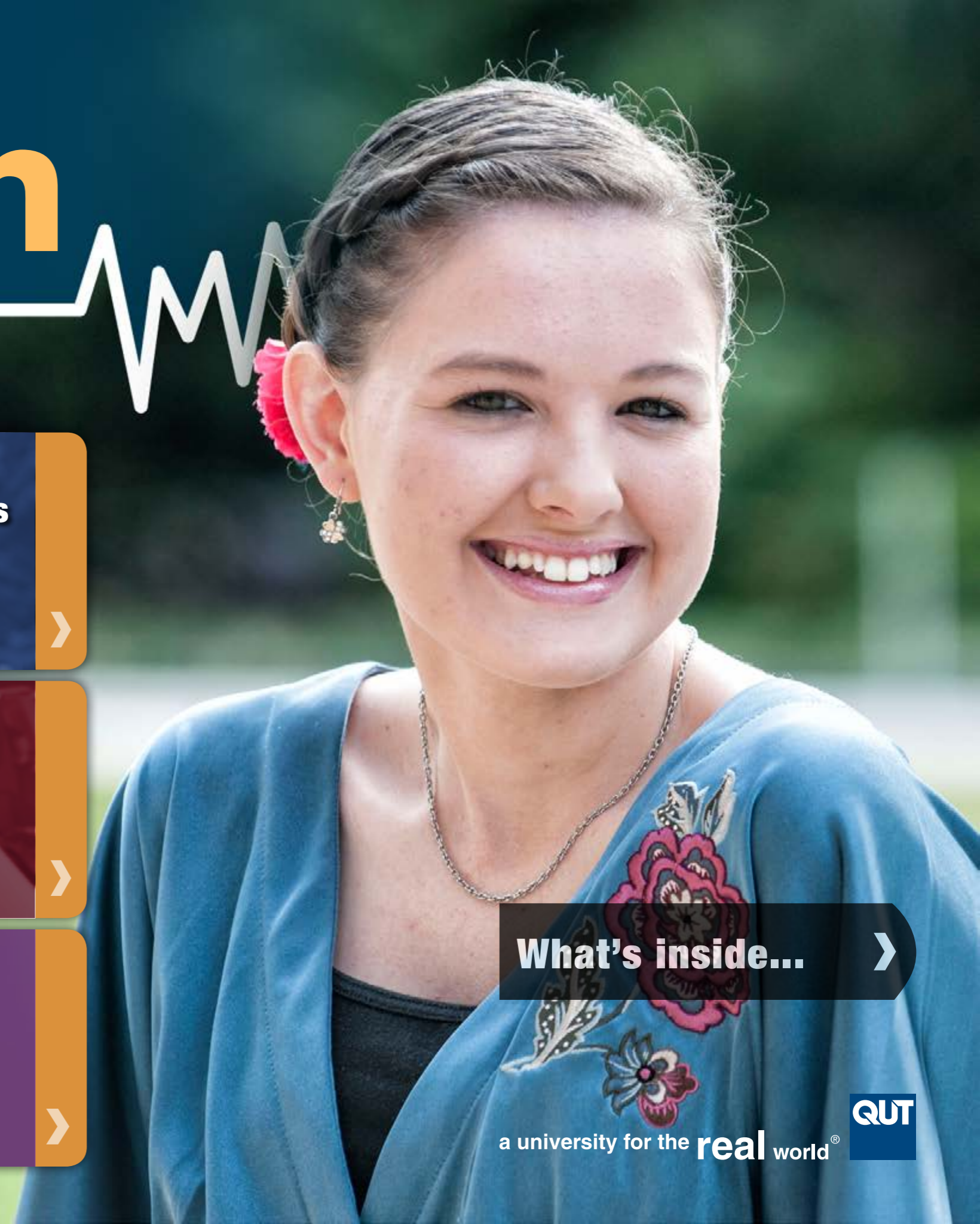
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**QUT optometry and Guide Dogs Queensland join forces**



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# From the Executive Dean's desk

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As a university of technology, technology itself is a vital element of our research, teaching and service activities.

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In this Best of Health technology takes a front seat. This issue includes the novel use of data to answer important questions related to social media and the surveillance of disease as epidemics emerge or to examine the longer term implications of climate change on mental health. Our use of technology also extends to new diagnostics and treatments for ovarian cancer, the development of biological scaffolds to treat age related macular degeneration and an application development to reduce cyclist injury. We also extend beyond our use of technology to delivering better health outcomes within our local communities, including work with Guide Dogs Queensland and the use of dance to enhance the movement of those with Parkinson's disease.

In addition you can catch up with our global reach in emergency and disaster management in Nepal and improving road safety in China. I trust that you find our commitment to using technology to enhance health, to advancing the health of local communities and those elsewhere in our region informative.

### **Professor Ross Young PhD**

Executive Dean  
Faculty of Health

#### **Academic profile**



**Professor Ross Young**  
Faculty of Health

# App enhances safety of cyclists

With the push to enhance the safety of cyclists on Queensland's roads, QUT is developing innovative technology to allow cars to talk to bikes.

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Dr Sebastien Demmel from the QUT School of Psychology and Counselling's Centre for Accident Research and Road Safety - Queensland (CARRS-Q) is working on a smart app device that can warn a cyclist and driver of an impending crash.

The app will use GPS, WiFi and Bluetooth systems to locate, track, connect and communicate between devices and warn both rider and driver if there's a reasonable chance of collision.

"The idea is based on using existing GPS, WiFi and Bluetooth systems to allow the 'sharing' of information between road users," Dr Demmel said.

"For example, if a cyclist and driver are both approaching an intersection at speed, the app will be able to predict impending danger and warn both to slow down."

Dr Demmel said with an average of 35 cyclists dying on Australian roads each year and more than 2500 others seriously injured, crashes involving cars and bicycles were too common.

"Research has shown that most cyclist fatalities involve a collision with a motor vehicle and these typically occur because of human error, or one not seeing the other," he said.

"What our research is aiming to do is use technology to help prevent injury and improve cyclist safety on our roads."

Dr Demmel presented *How mobile phone technology can be used to keep cyclists safe* at the inaugural Queensland Injury Prevention Network (QIPN) event in March.

He said the smartphone-based app, SafeCycle, was possible due to advanced sensing and computing capabilities in the current smartphone technology.

"Smartphones have a large market penetration, with 8.7 million Australians owning a smartphone in 2012," Dr Demmel said.

"The cyclist or driver can download the app onto their smartphone and select whether they are an active user being a cyclist or driver, or a passive user which is a pedestrian."

"The app then immediately starts tracking movements with GPS and accelerometer and starts looking for peers using the WiFi direct. When a peer is detected, the WiFi exchange starts to track and project each other's movements.

"When reasonable change of collision is detected within a 30-second window, an alert is displayed on screen to warn the cyclist and the driver."

## Academic profile



### Dr Sebastien Demmel

Faculty of Health,  
School - Psychology and Counselling,  
Research - CARRSQ

Visit the  
CARRS-Q website

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# Fighting Parkinson's with the power of dance

Brisbane researchers are measuring the power of dance for a special group of Queenslanders.

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Dance and health academics from QUT and The University of Queensland are working with Queensland Ballet and Parkinson's Queensland on a pilot program that aims to improve both the health and wellbeing of people affected by the neurological disease.

Queensland Ballet's Dance for Parkinson's pilot program offers free dance workshops in its West End studios for people with Parkinson's disease and their carers, facilitated by Dance for Parkinson's specialist, Erica Rose Jeffrey.

But it's much more than just an exercise class.

"Dance for Parkinson's welcomes people affected by Parkinson's into the Queensland Ballet family – they're in the studios interacting with the professional dancers, learning parts of the company's repertoire, watching the professionals' daily ballet classes, seeing the dress rehearsals," said Associate Professor Gene Moyle (pictured), head of QUT Creative Industries' dance discipline.

"That strong social interaction with the Queensland Ballet community is a really important factor in promoting long-term happiness and emotional fulfilment in a group of people who are managing the burden of a degenerative condition.

"One of the effects of Parkinson's is a steady reduction in brain function, which can lead to depression, lethargy and apathy.

"The strong bonds Dance for Parkinson's participants forge within this supportive community can make all the difference to their mental health – and learning to express themselves creatively can be a fantastic mood enhancer."

Queensland Ballet CEO, Anna Marsden, said her company was passionate about celebrating the health and fitness benefits of ballet with the community and was proud to introduce Dance for Parkinson's to Queensland.

"This innovative program – the first Dance for Parkinson's program offered by a professional dance company in Australia – is a great example of how arts and science can work together to improve the lives of those affected by Parkinson's."





Queensland Ballet's pilot program is based on a similar New York program developed by David Leventhal and the Mark Morris Dance Group.

Prior international research suggests that, as well as positive impacts on quality of life, dance can also improve cognitive performance and reaction times, making it a useful means of alleviating symptoms for a number of conditions including arthritis, dementia, depression and Parkinson's.

The Queensland researchers will rigorously assess the physical health, social, emotional and psychological benefits of Queensland Ballet's program.

The research is voluntary among participants and care givers, and involves clinical measurements, questionnaires, personal interviews, observational filming and journal reflections.

Neuroscientist with QUT's School of Exercise and Nutrition Sciences and member of the Institute of Health and Biomedical Innovation, Professor Graham Kerr (pictured), said combining cardio exercise with strategy, coordination and rhythm may be particularly helpful for people with Parkinson's whose neural pathways have degenerated, making it increasingly difficult for the brain to transmit signals to the body.

"Parkinson's has a profound effect on movement so anything we can do to improve their flexibility, balance and coordination will be beneficial," said Professor Kerr, who is also the Vice President of Parkinson's Queensland.

"People with Parkinson's typically become quite stiff and rigid. The risk of falling over and being severely injured is high. Fractured skulls and hips are quite common.

"Our study will measure exactly how much the exercise delivered through Dance for Parkinson's improves balance, walking and coordination as well as quality of life and well being."

The findings of the research are expected to be released later this year.

The Dance for Parkinson's pilot has been enabled by a generous gift from the John T Reid Charitable Trusts, and the research is part of the Queensland Ballet and QUT's Dance Industry Partnership.

## Academic profile



### Professor Graham Kerr

Faculty of Health,  
School - Exercise and Nutrition Sciences



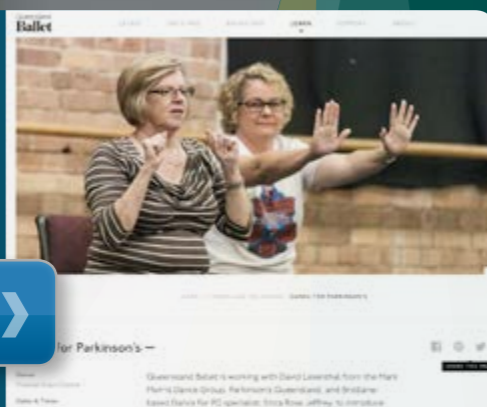
### Associate Professor Gene Moyle


Creative Industries Faculty,  
School of Media, Entertainment,  
Creative Arts, Dance

Visit the  
Dance for  
Parkinson's  
website



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# Novel research has sights set on helping people with eye disease

The future is looking much brighter for people with macular degeneration, thanks to a new treatment option being led by QUT.

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Macular degeneration is a leading cause of blindness in Australia and affects one in seven people over the age of 50.

Associate Professor Damien Harkin (pictured), from QUT's School of Biomedical Sciences, has spent the last seven years developing innovative ways to repair the eye in collaboration with scientists and clinicians at the Queensland Eye Institute (QEI).

He has been awarded one of only two national awards (totaling \$600,000) from the Macular Disease Foundation Australia for his research into the use of proteins found in silk as materials on which to grow and transplant new eye tissue.

The new tissue will replace the damaged tissue that eventually leads to permanent loss of sight for people with macular degeneration to help maintain or restore their vision.

"The ultimate goal of our research is to develop an effective, affordable and accessible treatment for patients afflicted with age-related macular degeneration (AMD)," Associate Professor Harkin said.

"The novelty of our study is that we will use a protein extracted from silk as a form of scaffold on which to grow new retinal tissue, with the view to replacing the damaged tissue that eventually leads to permanent loss of sight in AMD patients.

"The use of stem cells in conjunction with silk proteins is just one of many good ideas worth investigating."

Having successfully applied this concept to corneal stem cells, Associate Professor Harkin and his QEI-based team have now turned their attention to the challenge of treating diseases of the retina – and in particular macular degeneration.

QUT students past and present have played a vital role in Associate Professor Harkin’s important research – including Dr Laura Bray, who was awarded the inaugural Prime Minister’s Queen Elizabeth II Diamond Jubilee Award in 2012 to continue her studies of corneal tissue engineering using silk proteins in Dresden, Germany.

More recently, the group’s studies of the retina have been driven by the efforts of Ms Audra Shadforth, who is exploring the use of silk proteins as a scaffold for retinal pigment epithelial (RPE) cells.

Ms Shadforth recently received a National Health and Medical Research Council grant to continue her research.

Associate Professor Harkin’s team has moved to a purpose-built eye research facility within the new Queensland Eye Institute at 140 Melbourne Street, South Brisbane.

The new location will enable substantial expansion of the group and its valuable sight saving research.

## Academic profile



### Associate Professor Damien Harkin

Faculty of Health,  
School - Biomedical Sciences

Visit the  
Queensland Eye  
Institute website

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# Prestigious award recognises contribution to road safety in China

QUT Faculty of Health professor, Barry Watson, has been recognised for his contribution to improving road safety in China with a prestigious award from the Zhejiang government.

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Professor Watson, director of the Centre for Accident Research and Road Safety – Queensland (CARRS-Q), travelled to Hangzhou, China to receive one of 34 West Lake Friendship Awards for Foreign Experts in recognition of the ongoing relationship and collaborative research between QUT and the Zhejiang government.

The awards program was established by the Zhejiang government, with an aim of honouring foreign experts who have made a considerable contribution to the Province in the areas of education, science research, publishing or culture.

Professor Watson said he was deeply honoured to receive the award as it recognised the contribution QUT and CARRS-Q was making to improving road safety in China.

“Over the last decade or so, China has been experiencing very rapid motorisation as a result of its strong economic development,” he said.

“While this has opened up many opportunities in the country, it has also led to a dramatic increase in their road fatalities and injuries.

“Given Australia and Queensland’s strong record in reducing road fatalities, CARRS-Q is well placed to assist provinces like Zhejiang to tackle this problem.

“Receiving the Friendship Award acknowledges how we have been able to build strong professional links with road safety practitioners in Zhejiang, thus enhancing their own capacity to address their road safety challenges.”

CARRS-Q has been working with the Zhejiang Provincial Government since 2006, with several senior CARRS-Q staff visiting the police college and presenting at various international symposiums on road safety and traffic management.

The college also hosted QUT postdoctoral research fellow, Dr Judy Fleiter, for two years to work collaboratively on better understanding issues such as speeding and drink driving management in China.

In addition, CARRS-Q has hosted several teaching staff from the college so that they can enhance their knowledge of road safety management in Australia as well as build their capacity to conduct research in this area when they return to China.

A delegation of undergraduate police students from the college visited CARRS-Q last year for an international study tour to learn more about the criminal justice system and road safety management issues as well as police recruitment and training in Queensland. Another delegation is planned for later this year.

“Through ongoing CARRS-Q involvement with the World Health Organization in China, the college has been asked to undertake some preliminary research into better understanding the risks associated with riding electronic bikes (known as e-bikes),” Professor Watson said.

“These vehicles are popular in many Chinese cities and are an emerging safety concern.

“Dr Fleiter is assisting college staff with this pilot research project and has been assisting hospital staff in Hangzhou to examine their medical records to better understand the level of injury caused by these vehicles.”

CARRS-Q is also building linkages with other academic and government institutions in China with a view to establishing a broader collaborative network of road safety researchers and practitioners.

“Our efforts in this area are a key way that we are contributing to the United Nations Decade of Action for Road Safety, which was launched in 2011 and has the ambitious goal of reducing global road fatalities by 50 per cent,” Professor Watson said.

Professor Watson also received an honorary professor’s appointment with the Zhejiang Police College.

As part of this appointment, Professor Watson will give advice and support to the staff and students of the college – particularly those involved in the Traffic Safety and Management Department – through guest lectures, mentoring early and mid-career staff, and hosting visits.

## Academic profile



### Professor Barry Watson

Faculty of Health,  
School - Psychology and Counselling,  
Research - CARRSQ

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# Health researchers trying to block enzymes that make ovarian cancer chemo-resistant

QUT scientists are making significant inroads into our understanding of the deadliest form of ovarian cancer after identifying two enzymes that make it resistant to chemotherapy.

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# Don't judge older drivers by age

Encouraging older drivers to self-regulate their driving rather than revoking their licence based on age has the potential to improve their safety and maintain their independence, a QUT Faculty of Health study has found.

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# UV exposure found to lower folate levels in young women

Women who are pregnant or trying to fall pregnant and taking a folic acid supplement may be at risk of reducing their folate benefit through sun exposure, a new QUT Faculty of Health study has warned.

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In a paper titled *Exposure to solar ultraviolet radiation is associated with decreased folate status in women of childbearing age* published in the *Journal of Photochemistry and Photobiology B: Biology*, public health researchers found UV exposure significantly depleted folate levels.

Professor Michael Kimlin and Dr David Borradale, from the AusSun Research Lab, said the study of 45 young healthy women in Brisbane aged 18 to 47 showed high rates of sun exposure accounted for up to a 20 per cent reduction in folate levels.

“This is concerning as the benefits of folic acid are well known, with health professionals urging young women to take a folic acid supplement prior to and during pregnancy,” Professor Kimlin said.

“Folate has been found to reduce miscarriage and neural tube defects such as spina bifida in unborn babies. The National Health and Medical Research Council recommends pregnant women or those planning a pregnancy take 500 micrograms a day.”

Professor Kimlin said the study, which was the first to investigate the effects of sun exposure on folate levels in women of childbearing age, found women who had high levels of sun exposure had folate levels below those recommended for women considering pregnancy.

“The women at risk were those who were outside during the most UV intense time of the day – between 10am and 3pm – with little sun protection,” Professor Kimlin said.

“These were the women who had the highest levels of sun exposure and the lowest levels of folate. Whilst not deficient in folate, they were on the lower side of normal.”

Dr Borradale said in showing the link between UV exposure and folate depletion, further research including a controlled clinical trial was needed.

“We’d suggest women talk to their doctor about their folate levels and the importance of folate in their diet, especially those who are planning a pregnancy,” Dr Borradale said.

## What is folate and how can I get it?

Folic acid is a B vitamin that is very important for pregnant women and those planning a baby. Folate is found in foods such as green leafy vegetables like spinach, citrus fruits, legumes, whole grains and Vegemite. Folic acid is also added to many foods such as breads, flours and pastas. Folic acid can also be taken as a pill.



### Academic profile



#### Professor Michael Kimlin

Faculty of Health,  
School - Public Health and Social Work  
Research - Public Health



#### Mr David Borradale

Faculty of Health,  
School - Public Health and Social Work,  
Research - Public Health

Visit the  
AusSun Research  
Lab website




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# How clean are our hospitals?

Hospitals are presumed to be squeaky clean, but new research will find out which techniques work best to reduce the spread of infection.

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QUT Adjunct Professor and The Wesley Research Institute CEO, Professor Christian Gericke, said the Researching Effective Approaches to Cleaning in Hospitals (REACH) program would determine whether a new “bundled” approach to hospital cleaning – including education, training and empowerment for cleaning staff – is a cost-effective way to reduce the transmission of infections via surfaces in hospitals.

“This is an exciting and truly innovative research project,” Professor Gericke said.

“Hospital cleaning is usually taken for granted but it is invaluable in preventing hospital-acquired infections. Therefore trialling the best way to clean a hospital is as valuable as trialling new medical technologies.”

QUT senior research fellow, Dr Lisa Hall, said there are 200 000 healthcare-associated infections in Australian acute healthcare facilities each year, the most common complication affecting patients in hospital. Dr Hall said that cutting the rate of infection would save millions of dollars in healthcare every year, and free up more hospital beds.

“We really don’t know what the best way to clean a hospital is, “ she said.

“There is a lot of documentation and literature out there which shows some things work and some don’t, and literature including recommendations in the national guidelines for cleaning. But how to translate that information into getting cleaner hospitals and fewer infections is still unknown.

“So instead of saying to cleaners, ‘Here’s 40 pages of guidelines, go clean’, we will be able to say, ‘Here’s five or six things, these are the core principles’. It will bring it back to basics.”

Hospitals involved in the REACH project will have their cleaning methods analysed. A training program will then be tailored for each site, and the new cleaning methods monitored to gauge effectiveness, including costs.

A pilot program began in May 2014 at Logan Hospital, where this environmental cleaning bundle – a small set of key interventions – will be trialled.

“These interventions are core principles that are evidence based, but by ensuring that they are all

done together, the outcome is greater than the sum of its parts,” Dr Hall said.

“It works in the same way as wearing sunscreen, a hat and sitting in the shade gives better results at reducing skin cancer than each intervention occurring on their own.

“Cleaners play such an important role in hospitals, and we see this project as empowering them with more knowledge.”

Conducted through The Centre of Research Excellence in Reducing Healthcare Associated Infections, the project is funded by \$646,817 from the National Health and Medical Research Council (NHMRC). The Wesley Research Institute is a major partner on the grant.

The February allocation of the NHMRC grants also included scholarships for five postgraduate students dedicated to improving health outcomes.

## NHRMC scholarship recipients:

### Audra Shadforth

**Development of a cultured tissue substitute to repair the ageing retina**

*School of Biomedical Sciences. Principal Supervisor: Associate Professor Damien Harkin, Associate Supervisors: Adjunct Professor Traian Chirila, Dr Neil Richardson*

Age-related macular degeneration (AMD) is the leading cause of blindness in the western world in people over the age of 50, and is characterised by significant structural changes that occur in the outer retina. Currently there is no curative treatment available to repair these changes, however substantial amounts of work has been done to develop a cell-based transplant – a therapy that has been proposed by leading ophthalmologists worldwide. A major component of the outer retina affected by ageing is Bruch’s membrane. Bruch’s membrane is an extracellular matrix structure, which supports the polarity and function of the retinal pigment epithelium (RPE). The functions performed by the RPE cells are vital for the maintenance and health of the photoreceptor cells necessary for vision. Age-related changes to Bruch’s membrane induce negative changes in the RPE and the photoreceptors, ultimately leading to blindness.

Replacing the aged Bruch’s membrane will be an important component of the proposed cell-based therapy. Many biomaterials that could be used as a replacement have been evaluated, however there has not been one that “ticks all the boxes” to date. A biomaterial that shows great potential is fibroin. This structural protein is easily isolated from the cocoon of the silkworm, *Bombyx mori*, and already has a long history in the biomedical field being used for silk sutures. Fibroin is mechanically strong and immunologically inert, and when made into an ultrathin film resembles Bruch’s membrane. Ms Shadforth was the first researcher to show that these films have the ability to act as an appropriate support substrate for the culture of RPE cells. Her PhD uses this previous work as a foundation to evaluate the functionality of RPE cells grown on fibroin, further customise the ultrathin fibroin films and create a cell-based therapy suitable for transplantation.

### Katherine Cullerton

**Understanding the influence and strategies of lobbyists on federal health policy, particularly public health nutrition policy, in Australia**

*School of Exercise and Nutrition Sciences. Principal Supervisor: Associate Professor Danielle Gallegos, Associate Supervisor: Professor Amanda Lee, External Supervisor: Associate Professor Damien Harkin*

The important role of nutrition in the increasing prevalence of chronic disease and the associated rising costs to society are well known. There exists a range of effective, comprehensive strategies that can be undertaken to help address these diet-related issues and provide savings to the healthcare system – both globally and in Australia. Despite this, very little federal money is directed to public health nutrition in Australia. To understand why nutrition is not addressed more fully in public policy in Australia, the policy process needs to be better understood, including how it is influenced and by whom, in order for stakeholders to more effectively leverage for political change. This thesis will investigate the power and influence of interest groups on nutrition policy making in Australia, which will in turn lead to a determination of the key elements and routes of influence that can be utilised by those in the public health nutrition sector to influence policy change.

## Gilles Forget

**Being a father in my new society: understanding the impact of migration on the mental health and wellbeing of fathers from refugee backgrounds**

*School of Public Health and Social Work. Principal Supervisor: Dr Ignacio Correa-Velez, Associate Supervisor: Dr Michael Dee*

The intersection between fathering, migration and mental health has not been greatly investigated. Research shows that being a father can benefit men's own health and wellbeing and also be a risk factor. Becoming a father can induce depression symptoms in up to a third of men, with fathers who are separated and divorced having a high risk of depression and suicide. We know that fathers from refugee backgrounds understand mental illness differently and are not accessing services in the same way other Australian fathers do. Research suggests a strong relationship between the cultural changes that accompany migration and mental health issues among immigrants and refugees. These issues include stress following immigration that can lead to post-traumatic stress disorder and suicidal behaviour. Using a qualitative approach, this research will investigate the impact of forced migration and resettlement on fathers from refugee backgrounds from different ethnic communities living in Brisbane. Results of this research will contribute to a better understanding of the mental health of fathers from refugee backgrounds, barriers to their access to services, and their inclusion in Australian society and their perceptions of father involvement. It will raise awareness on fathering issues and challenges and help build culturally sensitive practices. It will also inform policies to better support fathers from refugee backgrounds and their families.

## Leanne Brown

**Evaluating patient-centred decision making for end of life care in end stage kidney disease: A randomised controlled trial**

*School of Nursing. Principal Supervisor: Professor Glenn Gardener, Associate Supervisor: Professor Ann Bonner*

Chronic kidney disease (CKD) is the most common chronic disease in Australia and in 2007-08 contributed to 10% of all deaths and over 1 million hospitalisations. When kidney disease reaches end stage (ESKD) one in two cases are treated with dialysis or transplantation compared with conservative management. The rate of people with ESKD commencing dialysis increased by 167% between 1989 to 2009, with the majority of this increase occurring in people over 65 years of age. If dialysis is not undertaken in ESKD then death will occur. There is scant research information on patients' approach to decision making in management of ESKD, nor is there good quality research evidence of the relative outcomes in terms of clinical health and quality of life, of renal replacement and conservative therapies for elderly patients with ESKD. This study will test a patient-centred decision-making tool developed from best available evidence and evaluate the relative outcomes of treatment options for the growing population of elderly patients with ESKD.

## Benjamin Drescher

**The development of chronic cough in children following presentation to a tertiary paediatric emergency department with acute respiratory illness**

*School of Public Health and Social Work. Principal Supervisor: Dr Kerry-Ann O'Grady, Associate Supervisor: Adjunct Professor Anne Chang*

Acute respiratory illness and associated cough in children is one of the most common reasons for medical encounters both in Australia and internationally. In some children acute cough progresses to chronic cough, impacting on morbidity, decreasing quality of life and accounting for significant direct and indirect costs to families, the healthcare sector and third-party payers. This study aims to comprehensively describe the burden and outcomes of cough during and after acute respiratory illness in children. The primary objectives include to determine the prevalence and predictors of chronic cough, determine the total average costs of acute and chronic cough, and to identify parental quality of life outcomes over cough illness duration. These results will inform studies for evidence-based guidelines to improve the early detection, prevention and management of chronic cough in children during and after acute respiratory illness.



# Early warning: internet surveillance predicts disease outbreak

In a study published in *Lancet Infectious Diseases*, internet-based surveillance has been found to detect infectious diseases such as Dengue Fever and Influenza up to two weeks earlier than traditional surveillance methods.



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# Fairfax scholarships help regional students reach education goals

Nursing student and Australian Rules football goal umpire, Stephanie Moller, is one of 24 inspiring young people to be awarded QUT's inaugural Tim Fairfax AC Learning Potential Fund Scholarships for regional and rural students.

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The scholarships, worth \$5000 each, were presented to the students by Mr Fairfax AC in early May of this year at Old Government House on QUT's Gardens Point campus in Brisbane.

Stephanie, 17, from Childers, this year embarked on a nursing degree and hopes to also study paramedic science.

She combines her studies with part-time work as an Australian Rules umpire in the North East Australian Football League (NEAFL) and the Queensland Australian Football League (QAFL).

Her ultimate sports dream is to be a national league umpire and to umpire an AFL grand final with her role model, QUT journalism graduate, Chelsea Roffey. In 2012 Ms Roffey became the first woman to be an umpire at an AFL grand final.

Stephanie hopes her people skills and an ability to handle pressure will serve her well as she pursues dual careers in sport and health.

"I'm very much into high-intensity, on-the-spot decision making," she said. "I think that's why paramedic science and umpiring appeal so much."

Stephanie said receiving the scholarship had made a big difference to her life and that she was very grateful to Mr Fairfax AC for his generosity.

"It's amazing. Receiving the scholarship has been a blessing," she said.

"Moving from a quiet little bush town to the city is a big adjustment in itself. My family isn't wealthy and getting the scholarship meant I can breathe a little easier. Going to university would have been a lot harder and a lot more stressful without it."

Stephanie has three younger brothers who play Aussie Rules and her parents also both umpire local games.

The former gymnast and netballer gave up her own playing career after a series of injuries.

Stephanie's proud parents, Sharon and Matthew Moller, drove to Brisbane from Childers to attend the scholarship presentation ceremony at Old Government House.

Guests included Mrs Gina Fairfax and Dame Quentin Bryce, who recently relocated to a QUT office space after finishing her term as Australian Governor-General.

The Mr Tim Fairfax AC Learning Potential Fund Scholarships have been established thanks to a very significant donation to the QUT Learning Potential Fund by the pastoralist and philanthropist.

Mr Fairfax is a strong supporter of education and is the QUT Chancellor – an honorary position as the formal head of the university.

The scholarships which bear his name are open to disadvantaged and low-income students from regional and remote areas in Queensland or the Northern Territory who want to study at QUT.

Applications for the 2015 scholarships will open in early October.

The scholarships are awarded through QUT’s Learning Potential Fund – the university’s flagship equity program – which has provided more than 15,000 scholarships and bursaries to low-income students since 1999.

Mr Fairfax AC is also president of the Queensland Art Gallery Foundation, a member of the Philanthropy Australia Board and the National Gallery of Australia Board, a councillor of the Royal National Agricultural and Industrial Association of Queensland, and chairman of the Salvation Army Brisbane Advisory Board, the Vincent Fairfax Family Foundation and the Tim Fairfax Family Foundation.



Find out how you can support QUT students like Stephanie

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# Climate change linked to increase in Australia's suicide rates

A public health researcher is predicting suicide rates will rise as a result of climate change after finding a link between high and varied temperatures and people taking their own life.

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# Parents urged to be safer with baby slings

With three deaths in Australia associated with baby slings and a new QUT health study finding almost one in 20 infants have been injured or narrowly avoided injury in slings, researchers are working with the Office of Fair Trading Queensland to develop an education campaign to promote baby sling safety.

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Dr Kirsten Vallmuur, from the School of Psychology and Counselling's Centre for Accident Research and Road Safety - Queensland (CARRS-Q), said since 2010 there had been three deaths in Australia as a result of suffocation in a baby sling and at least 14 deaths in the USA over the past two decades.

"Baby slings are a popular choice among parents, however they are unregulated and there is no Australian standard in place for them," Dr Vallmuur said.

To better understand parents' views of the risks and benefits of baby slings and how parents use them, CARRS-Q and the Office of Fair Trading surveyed almost 800 parents across Australia.

"We found there is a lot of information about baby slings though parents don't always know which sources are credible and how to use slings safely," she said.

"Of the 95 per cent of parents surveyed who said they used or intended to use a baby sling, the majority considered it safe to use the sling from when the baby is a newborn.

"This is concerning because product safety experts don't recommend baby slings for premature or low birth weight babies."

Dr Vallmuur said there were risks with using baby slings with the main concern being babies placed in a C-like position which restricts their ability to breathe and could even cause suffocation.

She said the most common non-fatal injuries involved the baby slipping out of the sling and falling, the parent falling, and the baby being injured while being positioned or removed from the carrier.



"Although there are risks with using baby slings, if used safely and correctly there are benefits such as ease of breastfeeding, forming attachments to the infant, and also providing a practical, comfortable and convenient way of carrying the baby."

Dr Vallmuur said the survey also found most parents purchased their baby slings online and 50 per cent turned to the internet for advice on how to use them.

"The internet provides a wealth of information but many parents admitted they were uncertain about the credibility of the resources they were using and were looking for an authoritative body to inform them about safe baby sling use," she said.

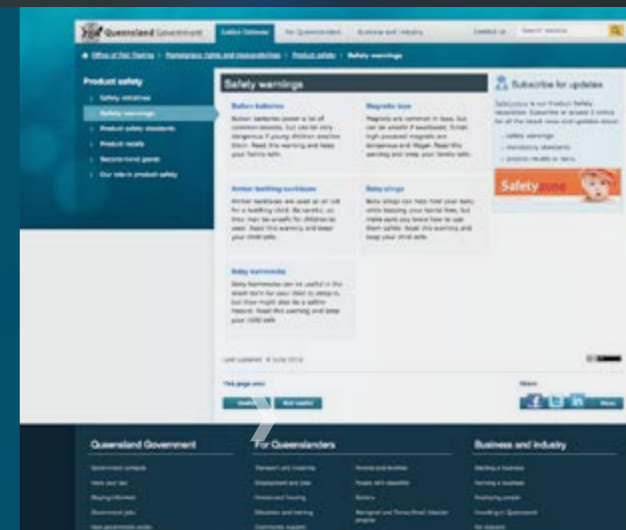
"This is why we are now developing an educational resource – a place where parents can go to better understand how to use baby slings safely."

## Simple steps for parents to keep their children safe in slings:

- Keep your child's face and especially nose and mouth uncovered at all times.
- Avoid your child being curled into the 'C' position where your child's chin touches the chest and blocks the airways.
- Show caution and seek medical advice for using baby sling carriers for premature infants, if your child has a cold or a low birth weight.
- Regularly check your child to ensure they have not slipped into the pouch (if the sling is a pouch type) covering your child's nose and mouth.
- Reposition your child after breast feeding to keep their nose and mouth clear.
- Acknowledge that some slings may be a safer option than others such as those that carry your child in the vertical position.

Visit the Queensland Office of Fair Trading, Product Safety website for more info

 [View online](#) 



### Academic profile



#### **Dr Kirsten Vallmur**

Faculty of Health,  
School - Psychology and Counselling,  
Research - CARRSQ



# QUT optometry and Guide Dogs Queensland join forces

The QUT Health Clinics Optometry Clinic has joined forces with Guide Dogs Queensland to provide the vision impaired in the Brisbane community with a free low vision clinic at the Guide Dogs Queensland head office once a month.

[Read more...](#)



This unique model will provide optometry students with an opportunity to utilise their skills in an essential community outreach partnership.

The clinic will provide a full optometry assessment plus other mobility aspects for those with blindness or low vision.

Dr Stephen Vincent, from QUT's School of Optometry and Vision Science, said the low vision clinic at Guide Dogs Queensland will provide students with valuable experience in the assessment and management of blind or vision impaired patients.

"This clinic will complement their clinical training at the vision rehabilitation clinic within QUT Health Clinics," he said.

"It will also add another dimension to the wide range of free services provided by Guide Dogs Queensland which include orientation and mobility training, counselling services and low vision support groups."

Final-year optometry student, Lucy Cochrane, said the new clinic provided an opportunity to learn more about diseases that aren't seen in day-to-day clinical practice.

"It gave us remarkable insight into the problems that people with low vision can have with day-to-day living and the often simple solutions that we can provide to help assist them with these tasks."

Rehabilitation services manager at Guide Dogs Queensland, Bashir Ebrahim (OAM), said there are community outreach clinics for those with low vision across Queensland but this is the first in Brisbane.

"QUT Health Clinics and Guide Dogs Queensland are establishing a new joint partnership which will serve and benefit the vision impaired community," he said.

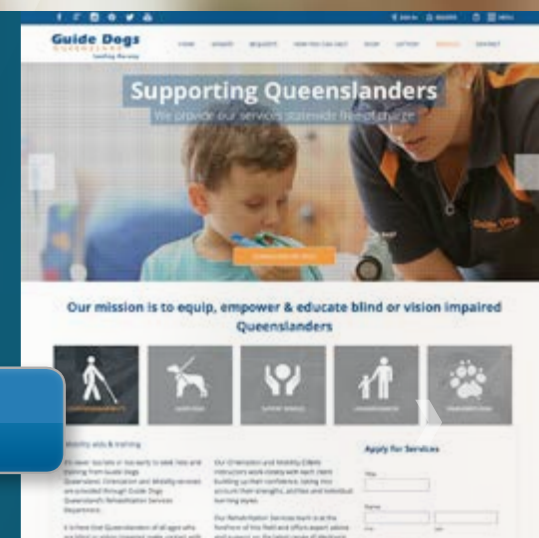
"At the low vision clinic we will have a range of services from canes, dogs, equipment and mobility and also a fully equipped area for the optometry staff and students to assess low vision patients.

"The association with the QUT Health Clinics has been established for many years and it is a mutually beneficial relationship with a focus on a positive outcome for patients."

Guide Dogs Queensland is located at Bald Hills and appointments can be made by phoning 07 3500 9060.

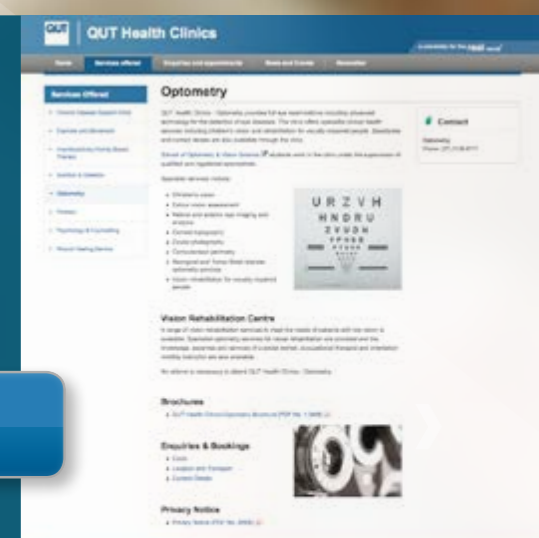
Visit the Guide Dogs Queensland website

 View online



Visit the QUT Health Clinics, Optometry Clinic website

 View online



# AUSTRALIAN ALUMNI EXCELLENCE AWARDS

KATHMANDU, NEPAL  
20 JANUARY 2014

## Top honours for QUT adjunct professor

An outstanding contribution to disaster management and good governance in Nepal has secured QUT Adjunct Professor Dr Meen Chhetri the 2014 Australian Education International Endeavour Australian Alumni Excellence Award.

[Read more...](#)



Professor Chhetri has been an Adjunct Professor at QUT since 2009, is the President of Nepal Centre for Disaster Management, Chairman of Paper Review Committee of The International Emergency Management Society, Vice-Chairman of Himalaya Conservation Group-Nepal and Vice-President of Nepal Association of Humphrey Fellows.

He has consulted on a number of projects and programs related to disaster risk reduction in Nepal, as well as contributed significantly in formulating and implementing disaster management policy and legislation. He has also been involved in preparing district disaster management plans in a number of districts of Nepal.

He received the “Best Paper Award” for his paper titled *Significance of Cooperation and Coordination in International Disaster Management System* which he presented at the 20th Annual Conference of The International Emergency Management Society held last year in France.

Professor Chhetri first came to Australia in 2008 on an emergency and disaster management program for people from Nepal and Maldives. He returned in 2011 to finish his postdoctoral research at QUT, completing *Disaster Risk*

*Reduction: Policy Implications for Nepal, Australia and Beyond.*

“QUT is one of the best academic institutions where teaching and learning never ceases,” Professor Chhetri said.

“The campus, faculty, students, world-class facilities and infrastructure are the contributing factors for a quality education at QUT.

“The university also has very strong links with international researchers and research institutions with a global outlook, making QUT a true university for the real world.”

Professor Chhetri earned his doctorate degree in economics from the University of Vienna, Austria in 1995, and also holds a Master of Arts and a law degree.

Specialising in policy formulation and implementation, disaster/emergency management, and collaboration and coordinating with national and international agencies particularly in relation to disaster/emergency management, Professor Chhetri is widely published and has authored two books – *Mitigation and Management of Floods in Nepal* and *Analysis of Nepalese Agriculture.*

He has been awarded a number of prestigious medals including the Dirgha Sewa Padak, Janpad Sewa Padak, Mahendra Vidhya Bhusan Padak, Prabal Gorkha Dakshin Bahu, Gaddi Arohan Rajat Padak and Daibi Prakopoddar Padak.

Professor Gerry FitzGerald, Director of the Centre for Emergency and Disaster Management in the QUT School of Public Health and Social Work, congratulated Professor Chhetri on the Alumni Excellence Award and his ongoing involvement in disaster management in Nepal.

“Professor Chhetri has made an exceptional contribution to disaster management in Nepal over many years and we have been fortunate indeed that he has agreed to contribute some of his extensive experience to our disaster management programs here at QUT,” Professor Fitzgerald said.

“It is not until you travel to Nepal and see for yourself the challenges that country faces that you see how much still needs to be done.

“You also get to see the incredible respect in which Professor Chhetri is held by his fellow citizens – a respect which is shared by all who know him.”



# High achievers shine at annual awards ceremony

More than 90 high-achieving students have been celebrated and recognised for their academic achievements during the Faculty of Health's annual awards ceremonies.

[Read more...](#)



The students received prizes totalling an impressive \$67,500 which was made possible by the generous support of many sponsors.

Over 2300 students graduate from the Faculty of Health each year and go on to build successful careers in the areas of biomedical sciences, pharmacy, radiation, medical sciences, paramedic science, podiatry, exercise sciences, nursing, nutrition and dietetics, optometry, psychology and counselling, public health, and social work.

Executive Dean, Professor Ross Young, said these ceremonies are an important annual event and QUT was proud to acknowledge the achievements of these meritorious students.

“This recognition of our outstanding students would not be possible without the generosity of our sponsors, and their support and encouragement is very much appreciated,” Professor Young said.

“I would like to acknowledge the dedication of our academic, clinical and professional staff who create a stimulating learning environment that encourages our students to strive and succeed.

“We are proud of our focus on developing the knowledge, skills and attitudes needed to make a contribution in the real world.”

If you would like to become a sponsor for the Faculty of Health awards, prizes and scholarships, please contact Faculty of Health Events Officer, Anne-Marie Lacaze, via email at [annemarie.lacaze@qut.edu.au](mailto:annemarie.lacaze@qut.edu.au) or phone 3138 0066.

## Danielle Cox

A number of new prize donors and special awards were introduced to the ceremony this year, including the Ron Macnamara Rural Nursing Scholarship which was awarded to masters student, Danielle Cox.

Danielle was selected by a committee on the basis of her intention to work in rural and remote areas of Australia, her academic merit and financial need. Danielle currently works in Broome providing healthcare programs to remote Indigenous communities.

The \$10,000 scholarship aims to foster the further education of advanced practice nurses and nurse practitioners, with a view to making a difference to the future of rural Australia.

It was established by Dr Laurie Cowled in honour of her late husband who had interests in medicine, the Royal Flying Doctor Service and rural health issues.



## Natasha Powell

It was all smiles for Bachelor of Medical Imaging Science student, Natasha Powell, when she received the Siemens Australia Medical Imaging Award for the highest aggregate percentage in the subjects Computed Tomography Imaging and Magnetic Resonance Imaging.

The prize will allow Natasha to participate in professional development at the Siemens Life Education Centre in Sydney. This experience gives Natasha the rare opportunity as a first-year graduate to network with leaders in the industry at one of the most advanced facilities in Australia.



## Anita Harriman

Oceania Oncology sponsored the inaugural Carmel Garry Memorial prize, awarded for the 2013 academic year to radiation therapy student, Anita Harriman.

The prize is in honour of Carmel Garry, a radiation therapy student who passed away during her second-year of study. Carmel worked with Oceania Oncology and was a dedicated student with a genuine, caring nature that is ideally suited to the profession.




# Higher degree highlights...

See what studies our most recent research students have completed.



Professor Ross Young  
talks about QUT's health  
research facilities

Read more... 





**Suhaila Abdul Hanan, PhD**

School of Psychology and Counselling  
(CARRS-Q)

Principal Supervisor: Dr Mark King

An application of an extended Theory of Planned Behaviour to understand drivers' compliance with the school zones speed limit in Australia and Malaysia

**Deanne Armstrong, PhD**

School of Psychology and Counselling

Principal Supervisor: Associate Professor Jane Shakespeare-Finch

Investigating well-being and mental health in Queensland fire-fighters

**Robin Armstrong, PhD**

School of Public Health and Social Work

Principal Supervisor: Professor Gavin Turrell

Socioeconomic position and mass media campaigns to prevent chronic disease

**Shahera Banu, PhD**

School of Public Health and Social Work

Principal Supervisor: Professor Shilu Tong

Examining the impact of climate change on dengue transmission in the Asia-Pacific region

**David Borradale, PhD**

School of Public Health and Social Work

Principal Supervisor: Professor Michael Kimlin

Investigating the association between sun exposure and folate degradation in the human body

**Mercia Brayley, PhD**

School of Psychology and Counselling

Principal Supervisor: Dr Patricia Obst

Modelling the salient factors influencing retired business professionals' participation in episodic skilled volunteering in rural settings

**Marisa Camastral, PhD**

School of Public Health and Social Work

Principal Supervisor: Dr Paul Barnes

Business continuity management in airports: Securing continuity in the face of crisis

**Raymond Chan, PhD**

School of Nursing

Principal Supervisor: Professor Patsy Yates

Self-management associated with fatigue in patients with advanced cancer: A prospective longitudinal study

**Anita Cochrane, PhD**

School of Exercise and Nutrition Sciences

Principal Supervisor: Professor Neil King

A multicomponent multidisciplinary approach to obesity management

**Wendell Cockshaw, PhD**

School of Psychology and Counselling

Principal Supervisor: Professor Ian Shochet

Developing a model of links between general and workplace belongingness and depressive symptoms

**Jason Edwards, PhD**

School of Psychology and Counselling

(CARRS-Q)

Principal Supervisor: Professor Jeremy Davey

Safety culture and the Australian heavy vehicle industry: A concept in chaos - an industry in need

**Anna Finnane, PhD**

School of Public Health and Social Work

Principal Supervisor: Associate Professor Sandra Hayes

Patient perspectives of the impact and long-term management of Lymphoedema

**Robyn Fox, PhD**

School of Nursing

Principal Supervisor: Dr Alan Barnard

The role and contribution of the Queensland public sector employed nurse educator: A grounded theory study

**Daniel Greenwood, PhD**

School of Exercise and Nutrition Sciences

Principal Supervisor: Dr Ian Renshaw

Informational constraints on performance of dynamic interceptive actions

**Shelley Hopkins, PhD**

School of Optometry and Vision Science

Principal Supervisor: Professor Joanne Wood

A visual profile of Queensland Indigenous and non-Indigenous school children, and the association between vision and reading

**Katy Horner, PhD**

School of Exercise and Nutrition Sciences

Principal Supervisor: Professor Neil King

Gastric emptying, appetite, energy intake and exercise in males

**Ya Ling Huang, PhD**

School of Nursing

Principal Supervisor: Professor Patsy Yates

Social ecological influences on preferences for care provided at the end-of-life amongst Taiwanese city-dwelling adults

**Rati Jani, PhD**

School of Biomedical Sciences

Principal Supervisor: Professor Lynne Daniels

Investigations into the significance of lysine residues in IGF-I

**Avinash Kollipara, PhD**

School of Biomedical Sciences

Principal Supervisor: Adjunct Professor Peter Timms

Investigation of genetic diversity and development of vaccine for Chlamydia pecorum infections in koala (*Phascolarctos cinereus*)

**Phung Le, PhD**

School of Public Health and Social Work

Principal Supervisor: Professor Gerard Fitzgerald

Evaluation of public hospital performance in Khanh Hoa Province - Vietnam in connection with patient and staff satisfaction surveys

**Su Lin Lim, PhD**

School of Exercise and Nutrition Sciences

Principal Supervisor: Professor Lynne Daniels

Malnutrition in hospitalised patients and clinical outcomes: A missed opportunity?

**Judith Locke, PhD**

School of Psychology and Counselling

Principal Supervisor: Professor David Kavanagh

Too much of a good thing? An investigation into overparenting

**Ibrahim Mahmoud, PhD**

School of Public Health and Social Work

Principal Supervisor: Associate Professor

Xiang-Yu Hou

Use of hospital emergency departments by immigrants from non-English speaking backgrounds in Queensland

**Mohammad Didare Alam Muhsin, PhD**

School of Clinical Sciences

Principal Supervisor: Dr Nazrul Islam

Preparation and in vitro evaluation of a polymer based controlled release dry powder inhaler formulation for pulmonary delivery

**Thi Thanh Huong Nguyen, PhD**

School of Nursing

Principal Supervisor: Professor Debra Anderson

Factors influencing health professionals' response to victims of domestic violence

### **Morgan Pokorny, PhD**

School of Biomedical Sciences

Principal Supervisor: Professor Colleen Nelson

The role of Y-box binding protein 1 in prostate cancer

### **Jerome Rachele, PhD**

School of Exercise and Nutrition Sciences

Principal Supervisor: Dr Thomas Cuddihy

School-based physical activity programs for adolescent wellness improvement: An investigation of the association between wellness and physical activity

### **Dale Steinhardt, PhD**

School of Psychology and Counselling  
(CARRS-Q)

Principal Supervisor: Emeritus Professor  
Mary Sheehan

Development of an evidence-based framework to guide injury prevention interventions for off-road motorcyclists

### **Rachel Thomson, PhD**

School of Biomedical Sciences

Principal Supervisor: Adjunct Associate Professor

Megan Hargreaves

Characteristics of nontuberculous mycobacteria from a municipal water distribution system and their relevance to human infections

### **Thuy Khanh Linh Tran, PhD**

School of Nursing

Principal Supervisor: Professor Helen Edwards

Fever management in children: Vietnamese parents' and paediatric nurses' knowledge, beliefs and practices

### **Helen Vidgen, PhD**

School of Exercise and Nutrition Sciences

Principal Supervisor: Associate Professor

Danielle Gallegos

Food literacy: What is it and does it influence what we eat?

### **Ides Wong, PhD**

School of Psychology and Counselling  
(CARRS-Q)

Principal Supervisor: Associate Professor  
Simon Smith

Sustaining safety and mobility amongst older adults: The multilevel older driver self-regulation model

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