

# GAME CHANGERS



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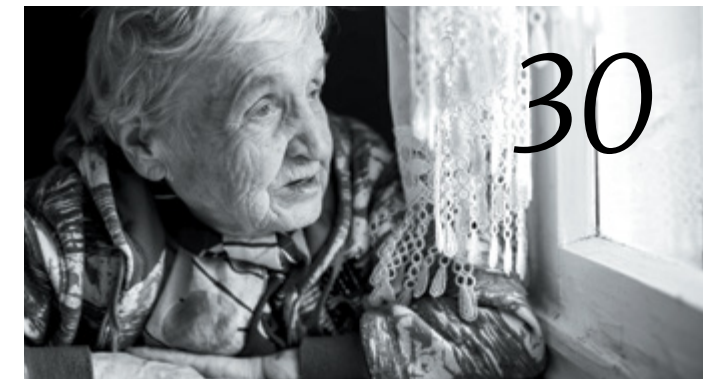
Health and Behavioural Sciences

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**UQ Healthy Living**  
first of its kind for over 50s  
**Interprofessional healthcare**  
a collaborative approach  
**Southern Queensland  
Rural Health**  
solving the rural health crisis





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## Welcome to the third edition of *Game Changers*

Throughout the last 12 months we have made great strides in advancing our interprofessional education and practice and our interdisciplinary research here in the Faculty of Health and Behavioural Sciences.

Educationally, our focus has always been to train current and future professionals in clinical and allied healthcare in a way that enables them to work effectively in teams to generate health, social, and cost benefits both for individuals and for the economy. Similarly, in research, our focus has been to foster research that crosses traditional disciplinary boundaries to produce integrated solutions to some of the many complex problems in the health sciences. This last year has seen a significant embodiment of this purpose, with the successful realisation of a number of interprofessional education and interdisciplinary research initiatives.

I am proud to share these with you here in the third edition of our annual magazine, *Game Changers*:

- Professor Sarah Roberts-Thomson is leading the implementation of interprofessional education and practice at UQ, with an innovative strategy encompassing knowledge and experience for both students and staff.
- Incorporating student practitioners from dietetics, exercise and sports science, clinical exercise physiology, nursing, pharmacy, physiotherapy, and psychology, the new UQ Healthy Living clinic is offering Brisbane's over 50s a fresh approach to healthy ageing.
- A Professor of Periodontology at UQ's School of Dentistry, Sašo Ivanovski has brought together some of the world's leading researchers in the fields of periodontics, materials science, biology, and medical engineering to explore tissue regeneration using 3D printing technology.
- Southern Queensland Rural Health (SQRH) is a newly formed partnership between UQ, the University of Southern Queensland, and Darling Downs and Southwest Hospital and Health Services to address the workforce maldistribution of allied health, nursing and midwifery professionals in rural and remote parts of southern Queensland.
- A group of researchers, led by Professor Catherine Haslam, has drawn on their combined expertise across the fields of social, clinical, health, organisational and neuro-psychology to develop a program to help people who are vulnerable to social isolation and disconnection.

I hope you enjoy these, and many more stories about the Faculty's achievements, in this issue of *Game Changers*.

Best wishes,



**Professor Bruce Abernethy**  
Executive Dean  
Faculty of Health and Behavioural Sciences  
The University of Queensland





WRITTEN BY DANI NASH

# A new frontier for regenerative dentistry

A Professor of Periodontology at UQ's School of Dentistry, Sašo Ivanovski is a clinician-scientist with a focus on the clinical and biological aspects of orofacial reconstruction and regeneration.

Periodontology or periodontics is a field of dentistry that specialises in the supporting structures of teeth and the treatment of gum disease.

His recently established research group at the Oral Health Centre in Herston, brings together some of the world's leading researchers in the fields of periodontics, materials science, biology, and medical engineering.

Together they are exploring tissue regeneration using three-dimensional (3D) printing technology.

Although 3D printing itself is not new, tissue engineering implants made using the technology have not yet reached clinical use.

"The regeneration of bone defects and orofacial tissues has been notoriously difficult due to past technological limitations, but advances in tissue engineering technology are pointing to a promising future," Professor Ivanovski said.

"By taking advantage of the versatility of 3D printing, which allows for the production of fully customised shapes, we can print biodegradable implants to improve long-term patient health and wellbeing."

Facial and dental disorders caused by trauma, tumours, chronic infections, tooth loss, or congenital conditions such as cleft lip and palate, have a major impact on a person's

quality of life, negatively affecting communication, function, and appearance.

These conditions also place a significant burden on healthcare services. For example, the gum disease periodontitis affects approximately 50 per cent of Australians over 40 years of age, with over 12 per cent of these cases being severe.

Periodontitis results in the gradual breakdown of the tissues that support the teeth, leading to impaired function and aesthetics, and sometimes to tooth loss. Left untreated, this can result in significantly reduced masticatory function and aesthetic impairment.

Due to their complex structure, there has previously been no predictable ways to regenerate the lost periodontal tissues.

"We are finding ways to repair this tissue damage using new 3D bio-printing technology to print periodontal tissue construct incorporating live cells," Professor Ivanovski said.

"Our research will advance craniofacial and orodental regeneration and reconstruction, as well as contribute to the expansion of the field of regenerative medicine.

"The development of these world-leading innovations will have a real impact on patient outcomes and healthcare provision." ☺

*"By taking advantage of the versatility of 3D printing, which allows for the production of fully customised shapes, we can print biodegradable implants to improve long-term patient health and wellbeing."*

PROFESSOR  
SAŠO IVANOVSKI



## Philanthropy makes more possible

Professor Ivanovski and his research team have already achieved considerable progress in improving 3D printing and the subsequent production of custom multi-material implants. They are currently establishing the production workflow required to translate their recent research breakthroughs into transformative clinical outcomes for patients.

However, additional funding is needed to enhance the infrastructure and personnel to deliver these technologies. With the unique expertise of the team, the aim is to provide real clinical solutions to patients within five years. Your support is vital in making this happen.

To find out more, visit UQ's Not If, When, campaign to Create Change - [uq.edu.au/giving](http://uq.edu.au/giving). The campaign aims to change lives within our community and around the world by encouraging support for research such as the work being undertaken by Professor Ivanovski and his team.



## About Professor Sašo Ivanovski

Professor Ivanovski graduated with a Bachelor of Dental Science in 1993, PhD in 2000 and Master of Dental Science in Periodontology in 2002, all from The University of Queensland.

He is the former federal president of the Australian Society of Periodontology (ASP) and the Australasian Osseointegration Society (AOS), and is a fellow of the International Team of Implantology, the Academy of Dentistry International and the International College of Dentists.

Some of his career highlights include an NHMRC training postdoctoral fellowship at UQ's Institute of Molecular Biosciences, a fellowship at the University College of London's Eastman Dental Institute and a recent position as foundation Chair and Professor of Periodontology at the Griffith University School of Dentistry and Oral Health, where he led the specialist training program in periodontology and was discipline lead of dental implantology.



WRITTEN BY CAROLINE DAY

# Young researcher taking motherhood in her stride

Juggling the demands of a research career and motherhood is no easy feat, but it is a challenge Dr Shelley Keating is taking in her stride.



“No one gives you a roadmap to navigate this journey, but it is really about finding a good balance so my family and work both get the attention and dedication they deserve,” she explains.

Dr Keating’s research explores the role that exercise plays in the management of obesity and obesity-related chronic disease, with a focus on non-alcoholic fatty liver disease (NAFLD).

With the support of Diabetes Australia, Exercise and Sports Science Australia and an NHMRC Early Career Fellowship, Dr Keating is currently leading a study which is investigating if high intensity interval training (HIIT) can improve insulin sensitivity, fitness and other cardiovascular disease risk factors.

“Other than weight loss, there is no accepted therapy for improving non-alcoholic steatohepatitis (NASH)—a progressive and aggressive form of NAFLD—which is strongly linked to type 2 diabetes and cardiovascular disease.”

As part of the study, participants undertake short, intense bursts of exercise of around four minutes on a treadmill or exercise bike at near maximum capacity, interspersed with more moderate exercise.

“If our hypotheses are confirmed, our findings will assist in establishing high intensity exercise as a safe, feasible and effective therapy for improving insulin resistance and other cardiometabolic risk factors in patients with NASH. This would reduce the risk of developing type 2 diabetes and cardiovascular disease.”

Dr Keating believes exercise is a potent ‘polypill’ for obesity, NAFLD and type 2 diabetes.

“We just need to learn ways to get more people taking it and to maintain it long-term so that the health benefits can be sustained,” she said.

The liver is a common denominator of Dr Keating’s research. She is also leading the exercise component of a collaborative study headed by Dr Ingrid Hickman assessing the feasibility of a 12-week cardio-protective lifestyle initiative for liver transplant recipients via telehealth-to-home.

“Obesity and cardio-metabolic complications present challenges to post-transplant care. Liver transplant recipients are a geographically dispersed group (30 per cent live in regional areas) at high risk of obesity and cardiometabolic complications,” she said.

“Patients often have low levels of lean muscle mass at the time of transplantation and exercise therapy may offer musculoskeletal and cardio-protective benefits.

*“I remind myself daily that I need to keep my expectations realistic and remember that it is ok to adapt what I’m doing when needed.”*

DR SHELLEY KEATING

“However, most liver transplant recipients receive little to no service, with no formal exercise prescription or support.

“Innovative telehealth services can offer equity of access to specialist state-wide post-transplant care including exercise intervention.

“If successful we hope to expand this work into other chronic conditions.”

Talking to Dr Keating it is clear how determined she is to successfully navigate motherhood alongside her goal to be an international leader in her field of research.

As the doting new mum of baby Edward, born in July 2018, she has already recognised that being flexible is paramount.

“I remind myself daily that I need to keep my expectations realistic and remember that it is okay to adapt what I’m doing when needed.

“I have quickly learnt that my plans to do a solid four – five hours of work while my newborn baby slept actually relied on having a baby who did in fact sleep!”

The ambitious young researcher believes there are distinct similarities between the skills required for being a mum, and the skills required for being a researcher.

“Effective time management and organisational skills are crucial in both cases, as is realising that even the best laid plans don’t always (or almost never!) go according to expectations.”

As an accredited exercise physiologist, Dr Keating is also well aware of the importance of self-care in these early stages of motherhood.

“Staying active and eating well allows me to optimise my energy to care for my newborn, as well as maintain the brain power required for my research. Pushing a pram up and down hills is also really good interval training,” she laughs.

Dr Keating is an inspiration to women in science, demonstrating that it is possible to simultaneously maintain a career and a family.

“While I’m still in the early stages of my academic career, I hope that I will one day be able to support and mentor other young researchers wanting to pursue a research career and motherhood.”

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School of Human Movement  
and Nutrition Sciences  
[hmns.uq.edu.au](http://hmns.uq.edu.au)



WRITTEN BY ALICE GRAHAM

# Writing the narrative of Indigenous health

 Dr Chelsea Bond is an Aboriginal (Munanjahli) and South Sea Islander Australian and an ARC DECRA Research Fellow in UQ's Poche Centre for Indigenous Health.

Through her research she strives for measurable change in the collective health of Indigenous communities.

Born and raised in Brisbane, Dr Bond is the first of her family to attend university. She studied Applied Health Sciences at UQ, proudly part of the first graduating cohort from UQ's Indigenous Health Program, led by Emeritus Professor Cindy Shannon.

She had an early desire to explore a career in health as articulated in the first National Aboriginal Health Strategy in 1989: health is "a matter of determining all aspects of their life, including control over their physical environment, of dignity, of community self-esteem, and of justice. It is not merely a matter of the provision of doctors, hospitals, medicines or the absence of disease and incapacity."

This overarching view of health was the means by which Dr Bond thought she could make a positive difference within her own community, describing her own interest in Indigenous health as relating to health "in its broadest sense".

She points out that an integral aspect of effective health systems within Indigenous communities extends from the narratives of Indigeneity by which they are informed; and a lot of her current work hinges on addressing this key issue.

"I was always fascinated by the text produced about us as Indigenous peoples, in terms of the stories they tell about who we are," Dr Bond said.

"Often they don't align with our lived experiences and understandings of ourselves, yet they remain the authoritative account of us, which inform policies and practices that are imposed upon us, and which we are required to perform to.


"These narratives are important to contest, not simply because they are false, but because they contain a logic that maintains and even rationalises the persisting health inequalities we experience."

In an effort to change the narrative, Dr Bond advocates for strength-based health promotion practice.

"In engaging a strength-based approach we take as our starting point possibilities rather than problems," she said.

"It does not mean that we romanticise Indigenous peoples, communities and cultures, rather it means being open to the possibility that Indigenous people might possess some knowledge, skills and capacity to address the complex issues we face and/or maybe our knowledge, skills and capacity may be brought to bear for other reasons than solving a problem that we experience."

The current study of the critical success factors for enabling Indigenous leadership across the health system could be a way forward. The subjects of the retrospective study of career trajectories, led by Dr Bond, are those who graduated from the Indigenous Health Program as her peers.

"Indigenous people working in the health system, wherever they are situated, the administrative officer, the health worker, the clinician, the specialist, the researcher, all are game changers." 

*"Indigenous people working in the health system, wherever they are situated, the administrative officer, the health worker, the clinician, the specialist, the researcher, all are game changers."*

DR CHELSEA BOND

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Poche Centre for  
Indigenous Health  
[poche.centre.uq.edu.au](http://poche.centre.uq.edu.au)







# First of its kind facility for over 50s comes of age

WRITTEN BY SOPHIA MCMEEKIN

UQ Healthy Living offers Brisbane's over 50s  
a fresh approach to healthy ageing.

The first of its kind in Brisbane, and fully resourced by UQ student practitioners, the Toowong-based community clinic is an age-inclusive facility that takes a combined professional approach to preventing age-related health issues.

Born from a need for an accessible service for Brisbane's ageing adult population that offered an integrated model of care, UQ Healthy Living Clinical Director, Simon Whitehart said the establishment of this unique facility represents a win for client care, while offering students an invaluable interprofessional learning opportunity.

"The combined professional approach of the facility means the clinic caters not just to the physical aspects of ageing, but to the emotional, and social aspects as well," Mr Whitehart said.

Incorporating practitioners from dietetics, exercise and sports science, clinical exercise physiology, nursing, pharmacy, physiotherapy, and psychology, the clinic offers a range of preventive health services under one roof, including individual and group activities designed to meet the specific needs of this population. Services are available to over 50s from the general public with no active ailments as well as those living with chronic disease.

Student practitioners work collaboratively to design individualised programs for clients, in consultation with their fully qualified clinical educators, some of whom are leading the field of healthy ageing. Exercise is a central component of all the programs, with the clinic also offering educational sessions through six eight-week rolling programs. Programs are offered for clients with diabetes, cardiopulmonary conditions, and for those currently receiving and following cancer treatments.

Mr Whitehart said one of the key features of the clinic is its age-inclusivity, offering over 50s a space they can take ownership of and feel comfortable exercising in – a real concern for this age bracket, with limited opportunities to exercise on age-appropriate equipment in the community, and the majority of such equipment only accessible via residential aged care facilities.

Catering to all levels of fitness, from the very frail to the physically robust, the facility offers a uniquely inclusive experience for over 50s looking to improve their quality of life through fitness, with state-of-the-art strength and aerobic exercise equipment designed specifically for seniors, and proactive supervision of exercise classes.



*"One of the key benefits we've seen so far has been the positive impact of the cross-generational environment on all involved."*

SIMON WHITEHART

"Here we have a fantastic opportunity for people to access age-appropriate exercise equipment, which, when used to increase strength as part of an integrated program, can increase the length of time people can stay living in their homes and avoid aged care," he said.

"The equipment has been designed specifically for this age bracket, and is fully age-inclusive. For example, the strength equipment has a starting load of 100g, and can be increased in 100g increments. If we compare that to standard pin-loaded weight resistance machines, often the lowest starting load for those machines is too heavy for one to lift."

The facility also caters for more robust over 50s who are looking to maintain physical fitness, offering squat racks and equipment for dead lifts.

And the facility's clients aren't the only group to benefit from this unique approach. The facility offers UQ students a vital interprofessional learning opportunity, with the first student placements welcomed in May of this year.

"Students have the opportunity to learn from other professions, and understand each other's scope of practice and the different skills that each profession can offer, significantly improving cross-professional referring, which is of real benefit to the client," he said.

A graduate of both UQ physiotherapy and human movement programs himself, Mr Whitehart has experienced first-hand the benefits of a cross-disciplinary education, and is excited by the interprofessional learning opportunities and the implications for improved client experience this model of care offers.

"One of the key benefits we've seen so far has been the positive impact of the cross-generational environment on all involved.

"It's a unique environment, and we've found it's highly valued by both the over 50s and the students. It's an experience for the students that's both enjoyable and educational, while the older generations also see social and emotional benefits from dealing with the younger generation in this setting."

Mr Whitehart said one of the facility's unexpected benefits has been the developing sense of community among the attendees.

"Alongside the physical benefits, this opportunity to see new and developing social connections forming is something I'm very proud of. You can't underestimate the health benefits of social connection."

One of the programs planned to be offered by the clinic is the Bereavement Program. This program will offer group exercise and education sessions on everything from anxiety and depression, to exercise and mood, and cooking for one.

"When someone loses a loved one, they can stop socially interacting, stop eating, and stop exercising. For some, time heals and they do gradually improve. But for others, it can reach the point where they can't come out of that bereaved state by themselves.

"We have the opportunity for our psychologists, clinical exercise physiologists, and dieticians to provide education and support through this new life stage.

"We're also looking to introduce occupational therapists in 2019, to assist these clients with their adjustment to a new role in life," he said.

Despite still being in its early days, the clinic has already seen significant public interest, with some classes nearing capacity, primarily through word-of-mouth referrals.

"We're receiving strong feedback from clients on the thoroughness of the assessments, the level of supervision they experience on the gym floor, and that clients appreciate the opportunity to attend these specifically designed education sessions." ☺

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UQ Healthy Living  
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WRITTEN BY KIRSTEN O'LEARY

# A collaborative approach to healthcare

Globally, the healthcare system is under increasing pressure due to rising health issues, increased healthcare costs and shortages of healthcare professionals.

The World Health Organization (WHO) has identified interprofessional collaboration in education and practice as an innovative strategy that plays an important role in mitigating some of these challenges.

Interprofessional education (IPE) is when students from two or more professions in health and social care learn together in their professional training to cultivate collaborative practice to provide patient-centred care. UQ's Faculty of Health and Behavioural Sciences Associate Dean (Academic) Professor Sarah Roberts-Thomson is leading the implementation of interprofessional education and practice at UQ.

"Embedding in our students an understanding and appreciation of the value of interprofessional practice is fundamental to educating the next generation of health leaders. At UQ, we are lucky to have the largest offering of health courses in Queensland, which provides the opportunity

for students to work collaboratively with over 20 health disciplines including physiotherapy, nursing, clinical exercise physiology, dental science, pharmacy and psychology," Professor Roberts-Thomson said.

As a concept, interprofessional practice (IPP) is introduced to all health students in their first year via core course, 'HLTH1000 – Professions, People and Healthcare'. The course is offered using a 'flipped format' so students independently engage with online learning resources and meet face-to-face with peers and teaching staff in weekly tutorials that are purposely structured to enable students from different professional backgrounds to learn together.

Course Coordinator Dr Norman Ng said the collaborative format encourages conversations about what students learn in their programs and what their roles as future health professionals will entail.

*"Embedding in our students an understanding and appreciation of the value of interprofessional practice is fundamental to educating the next generation of health leaders."*

PROFESSOR SARAH ROBERTS-THOMSON



"In its second iteration, the feedback we have had on HLTH1000 has been overwhelmingly positive from both students and teaching staff. Tutors have said the course is by far one of the most interesting for them to teach and facilitate. I personally agree and have gained so much from the rich discussions within the classroom and also within my weekly tutorial preparation meetings," Dr Ng said.

"We role model IPP as much as we can as a teaching team. With 24 other tutors from a diverse range of clinical fields and backgrounds, everyone brings something valuable to the team each time we meet."

Health students continue to build on their IPP knowledge and experience during their subsequent years in their placement and with practical opportunities such as the HealthFusion Team Challenge. This competitive and collaborative learning experience requires students to work together across multi-professional teams to solve problems on a complex patient care case.

"UQ is currently the four-time successive national titleholder of the challenge! Past competitors have found the experience equipped them with what's required to work in multi-professional teams to solve problems collaboratively when on placements and when they enter the health workforce," Professor Roberts-Thomson said.

For an interprofessional education and practice model to really make a difference to health outcomes, Professor Roberts-Thomson emphasised the importance of university partnerships with hospitals and health partners.

"We recognised early on that we needed the expertise of global leaders in interprofessional education to assist in the development at UQ, so we partnered with the University of Toronto's Centre for Interprofessional Education. The Centre's academic team was engaged to conduct workshops for academics and clinical leaders from local hospitals," Professor Roberts-Thomson said.

"These workshops sparked interest within our local hospitals to establish a partnership to further develop IPE and IPP. A group of 14 academics and clinicians travelled to Toronto earlier this year to attend internationally recognised course 'Advancing the Future of Healthcare Through Interprofessional Learning'.

"The group now meets and communicates regularly to talk about interprofessional education and practice. Ideas for new IPE activities have been tabled that will eventuate into innovative experiences for our students."

A major pillar of the IPE strategy at UQ is to strengthen the IPP knowledge and skills within the Faculty in hospital partners. Adjunct Associate Professor Lynne Sinclair, from the Centre for Interprofessional Education, spent several months in Brisbane in early 2018 visiting with academic and clinical partners and providing customised workshops and strategic advice. Then in late November, the Faculty once again hosted the Centre for Interprofessional Education to facilitate three workshops in Brisbane, Toowoomba and Roma to provide education to numerous other academics and clinicians.

Another significant partnership that was recently formed was with Metro North Hospital and Health Service (MNHHS) to trial a placement for students to experience IPP at an MNHHS site. The trial will begin in Semester 1 of 2019. With IPE initiatives rapidly gaining momentum, an academic Director for Interprofessional Education was appointed to the faculty and will begin in January 2019.

"Associate Professor Neil Cottrell brings a wealth of valuable experience and knowledge to the role. His vision to lead and nurture current and future IPE initiatives will strengthen UQ's role in equipping students with a solid grounding in IPP," Professor Roberts-Thomson said.

UQ's Associate Professor Cottrell worked as a clinical pharmacist in hospitals in the UK and Australia where he led the development of clinical pharmacy services and participated in a number of multidisciplinary teams, and more recently he led the curriculum design, implementation and evaluation of the IPE curriculum at the UQ Greenslopes Clinical School.

"My aim is to implement a series of IPE learning activities that graduating students can have in their ePortfolio mapped to IPE competencies (including role clarification, team functioning, value and ethics, conflict resolution and collaborative leadership) with clear links into the students' home programs. In parallel with these activities, I would like to see a suite of training programs for IPE facilitation within UQ and at placement sites so that we build capacity in our IPE teachers," Associate Professor Cottrell said.

Currently in Australia there are pockets of successful interprofessional practice models in areas like rehabilitation but they aren't widespread. With over 20 disciplines in the Faculty, UQ health students will have the confidence to collaborate with health professionals across the spectrum, to succeed as effective team members, break down barriers and lead interprofessional healthcare teams to ultimately help transform patient care globally. 🌐





WRITTEN BY KIRSTEN O'LEARY



## with researchers from the Queensland Alliance for Environmental Health Sciences (QAEHS)

Micro and nano plastics are small pieces of plastic that are known to pollute the environment but little is known about human exposure. Researchers from QAEHS are working on developing methods to quantify human exposure via air, food and water.

### Elvis Dartey Okoffo

#### What is your background?

I am from Ghana. I completed my undergraduate studies in environmental science at the University for Development Studies in Ghana, followed by postgraduate studies in environmental science at the University of Ghana.

#### What are your research interests and what is your PhD focus?

Plastic debris is accumulating in the natural environment due to its limited recovery and durability. The breadth and scope of how plastics may be introduced into soil systems is not yet fully researched or understood, however it has been recognised worldwide that they can be introduced into soils through the common practice of applying biosolids (treated sludge) to agricultural land.

Agricultural soils in Australia annually receive about 176,000 tonnes of biosolids as soil amendments. No detailed studies have been performed to characterise and estimate the amount of plastic particles that are in biosolids intended for agricultural land applications. For the first time my PhD research work hopes to provide useful insights into the level (composition and abundance) of plastic contamination in the soil environment through the application of biosolids as a soil improver in Australia.

#### What prompted you to apply for a PhD with UQ?

Equipped with state-of-the-art facilities and advanced technology, I knew UQ would offer abundant resources and a comfortable learning environment to an international student like myself. When I found Professor Kevin Thomas as a potential supervisor I knew I wanted to work with him. Professor Thomas is a leading researcher in environmental health science and this is where I aim to be in my research career in the future.

#### What inspired you to study this area?

Growing up in a rural community in a developing country, I saw farmers applying pesticides inappropriately and with no protective clothing. I watched them spray farms with pesticides without taking any precautions. This instigated my quest to study environmental science and in particular environmental health risks from exposure to contaminants of emerging concerns (CECs).

#### Can you share some of your highlights so far?

The last six months has been very rewarding academically and personally. The QAEHS community is wonderful and the atmosphere provided by my supervisors, fellow PhD students and the administration team has been so helpful. Currently, I am doing lots of work in the lab using the various instruments to work out the best methodology for my project. We are very lucky to have such high quality instruments and technicians available in the QAEHS facilities.



Image left to right: Elvis Dartey Okoffo, Stacey O'Brien, Francisca Ribeiro

### Francisca Ribeiro

#### What is your background?

I am from Porto in Portugal. I completed my undergraduate studies in aquatic sciences at the University of Porto, followed by postgraduate studies in marine biology at the University of Algarve in Portugal.

#### What are your research interests and what is your PhD focus?

Ecotoxicology has always been my main field of interest in the environmental sciences. I am interested in the effects of stressors across all levels of biological organisation, from the molecular to whole communities and ecosystems. I received a QUEx scholarship to complete a joint PhD program with UQ and the University of Exeter to investigate the risks of dietary exposure to micro plastics and associated chemicals. I am using seafood and in particular oysters to assess the risk of exposure to micro plastics through consumption.

So far, we have deployed oysters in several aquatic locations and left them for 14 days before collecting and analysing them. We are trying to develop the best techniques to quantify the micro plastics.

#### What prompted you to apply for a PhD with UQ?

My postgraduate studies gave me experience in this area, and I knew that the team and supervisors at UQ were highly regarded in the field.

#### What do you enjoy about studying at UQ and living in Brisbane?

It's such a friendly environment here at QAEHS. Everybody is really nice and we help each other. Brisbane is a great city, has good weather and the people are relaxed.

#### What advice would you give students thinking about a research career?

In my experience I found research to be quite testing. All of a sudden you realise what you're doing isn't working so you have to move in a different direction and sometimes it can be frustrating but you just have to keep going. You also need to love what you're doing and be passionate about it. If there is an opportunity to travel somewhere I would say go for it because it's an amazing experience.

### Stacey O'Brien

#### What is your background?

I'm from Brisbane originally but I relocated from the Sunshine Coast for this opportunity. I have completed a Bachelor of Business Management and Master of International Commercial Law at UQ.

#### What are your research interests and what is your Master of Philosophy focus?

I have a strong interest in caring for the environment and sustainability. The focus of my Master of Philosophy project is examining micro plastics in the environment. I have a strong interest in all elements of this emerging field with a particular interest in human and public health.

I would like to see if micro plastics are in our air, review their sources, how they behave, if we breathe them, what they do in our bodies, how we expel them, and understand whether they have any health implications.

#### What inspired you to study this area and apply for a Master of Philosophy with UQ?

I attended a seminar at the Brisbane Science Festival and was horrified by what I heard from the panel of speakers. I was inspired, and couldn't stop researching, reading and learning about micro plastics. After looking online for scholarships, I met QAEHS Director Professor Kevin Thomas and was thoroughly impressed.

#### Can you share some of your highlights so far?

I am loving every part of my studies so far. I am still in the formative stages so there is a lot of method development, learning to use the machines and trying different techniques. What's really exciting about investigating micro plastics in the air is that it can evolve into so many different avenues.

#### What advice would you give students thinking about pursuing research?

It's definitely rewarding. No two days are the same. Your brain explodes at how much you learn. ☺

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Queensland Alliance for  
Environmental Health Sciences  
[qaehs.centre.uq.edu.au](http://qaehs.centre.uq.edu.au)





WRITTEN BY ISOBEL WHITING-DAVIS

# Students help solve the rural health crisis



The mortality rate for Australians living in remote areas is 1.3 times higher than that of Australians living in major cities – one significant contributor to this is access to health services.

UQ aims to address the workforce maldistribution of health professionals in Queensland's Southwest with the establishment of [Southern Queensland Rural Health \(SQRH\)](#).

This Commonwealth-funded [University Department of Rural Health \(UDRH\)](#) is a newly formed partnership between The University of Queensland, the [University of Southern Queensland](#), and [Darling Downs](#) and [Southwest Hospital and Health Services](#).

SQRH is the first UDRH in Australia that has been established in formal collaboration with public health services. It covers half a million kilometres, roughly the size of Victoria and Tasmania put together.

There are 15 UDRHs across Australia that share a common goal of improving the [recruitment and retention of health professionals in regional and remote Australia](#) by providing students with learning experiences and placements unique to those found in the city.

SQRH Director, [Associate Professor Geoff Argus](#) said rural health practice often relies on a more generalist and interprofessional focus where students have the opportunity to learn from, with and about each other by working closely with other health professionals in a range of settings such as hospitals, [Aboriginal Medical Services](#), [Queensland Ambulance Service](#) and the [Royal Flying Doctor Service](#).

"We want students to think about going rural once they graduate because we know that there are jobs and particular lifestyle benefits of which many students may be unaware," Associate Professor Argus said.

SQRH is working with local Aboriginal Community Controlled Health Organisations to develop cultural immersion for students to help develop a deeper understanding of local issues facing Indigenous people.

"We want to broaden their awareness through actually working alongside Indigenous people rather than just learning about Indigenous people and Indigenous health by other means."

Accommodation can be a big barrier for students working on rural placement so SQRH have worked with local councils to secure housing options for students.

"Communities are committed to investing in a positive student experience because they see students as their emerging workforce and want students to come back as health professionals and work in the communities because it's absolutely important to them," Associate Professor Argus said.

"Alongside their placement experiences, SQRH focuses on student involvement in the community. Local councils are heavily involved in their local communities, each of which is unique in terms of the social fabric. There are experiences that students get to take part in such as rodeos, the [Melon Festival in Chinchilla](#) and [Charleville's Bilby Festival](#).

"There's good evidence that suggests that the longer a student spends in a rural community, as part of that community, the more likely they are to return. SQRH is about building students' connection with the rural communities.

"We want students to have a sense of the workforce maldistribution of health professionals in Australia, the issues these rural communities face, and that they as students can be part of the solution." ☺

find out  
more about →

Southern Queensland  
Rural Health  
[sqrh.com.au](#)

WRITTEN BY JO HICKMAN

# Making research common practice



Dr Chris Freeman and Associate Professor Neil Cottrell, Co-Directors of UQ's [Centre for Optimising Pharmacy Practice-based Excellence in Research \(COPPER\)](#), are on a mission to connect community-based pharmacists and provide them with opportunities to contribute to and participate in pharmacy research.

COPPER provides a platform for research collaboration between academics and community-based pharmacist networks, bringing together like-minded pharmacists, and providing access to peer support that enables exchange of ideas and information while supporting research training.

Dr Freeman said COPPER gives pharmacists a way to engage with and have input into developing research questions, research project design and results analysis.

"We want to foster a research culture in the pharmacy profession and encourage pharmacists to actively participate in current projects. COPPER provides pharmacists with professional development opportunities as well as allowing pharmacists who are interested in research to undertake projects within their own pharmacy environment."

Dr Cottrell explained that having access to partner pharmacies who have expressed an interest in research means that academics can call on those practices to conduct particular projects without being a burden.

"Pharmacists are extremely busy on a day-to-day basis so conducting research tasks and hosting students can be disrupting when you're trying to deliver optimum services to patients. Pharmacists who work in a hospital setting have research-based tasks included in their role and have access to support networks to assist them in carrying out those tasks. In community-based pharmacies this is often not the case so we want to connect with our colleagues in the community who are keen to take up research and provide them with the expertise to do it."

COPPER aims to support growth in research, education and training so that community pharmacists can become independent to run their own research projects. Pharmacies registered with COPPER are connected via a Facebook group where they can communicate with one another and share ideas and information.

Similarly, students [studying pharmacy](#) at UQ have access to an invaluable and diverse network of pharmacies across a range of socioeconomic suburbs where they can go and collect data and carry out their research within an engaged practice.

"Our online training modules allow pharmacists to upskill and keep up to date with current approaches to practice research. Similarly, by engaging current students during their studies, we hope to create a natural pathway for alumni to continue to contribute to and engage in research long after graduation."

COPPER has been selected as the preferred provider of research and training by the Brisbane South Primary Health Network, recognition of its ability to facilitate large, complex research projects across a broad data set while providing support and funding to the research teams. A current study is analysing the medicine-taking behaviour of more than 300 patients, which wouldn't be possible without COPPER. ☺



find out  
more about →

COPPER  
[pharmacy.uq.edu.au/copper](#)



WRITTEN BY DANI NASH

# Groups 4 Health: unlocking the social cure

Loneliness and isolation are linked to poor physical and mental health. Indeed, being lonely is a stronger predictor of premature death than physical inactivity or obesity.

Research has shown that relationships with groups, such as family, friends, community, arts-based, sporting and other interest groups, can influence a person's health – both positively and negatively.

Although there is a wealth of evidence which shows that losing valued group memberships can have detrimental effects on a person's health, practitioners have not had a clear set of guidelines to deal with the adverse health effects of social isolation.

Until now.

A group of researchers, led by UQ's Professor Catherine Haslam, has drawn on their combined expertise across the fields of social, clinical, health, organisational and neuropsychology to develop a program to help people who are vulnerable to social isolation and disconnection.

Groups 4 Health (G4H) is an evidence-based intervention that directly targets the psychological distress that results from loneliness and social isolation. It provides people with the knowledge, skills, and confidence to increase their social connectedness, and in particular, their group-based social identifications.

"G4H works on two pathways that are related to positive health outcomes following major life changes associated with such things as illness, trauma or retirement," Professor Haslam explains.

"One of these pathways centres on how best to harness existing group memberships, while the other focuses on acquiring new positive groups to join. The aim of the program is to put people in the driver's seat and give them agency to understand how best to engage and manage the groups in their lives in ways that support their health and wellbeing," Professor Haslam said.

"The key point is that when life throws up challenges, a sense of social identification with others is one of the main things that helps us to tackle them. Sometimes this

identification is associated with groups that we have been members of for a long time, like our family or friendship groups, but sometimes it is associated with groups that we have only just joined, for example, as a consequence of our shared experience of becoming a parent, surviving trauma, transitioning to retirement, or moving into care.

"In all of this, the more positive and compatible groups that a person is a member of, the more likely it is that they will succeed in navigating a new or difficult period of their life."

Professor Haslam and her team, including Dr Tegan Cruwys, Dr Genevieve Dingle, Professor Alex Haslam, Professor Jolanda Jetten, and PhD candidates Sarah Bentley and Melissa Chang, first developed G4H at the St Lucia campus in Brisbane, Australia, in 2014.

As she is quick to point out: "We practice what we preach! We are a diverse group who have developed this program together and we rely on each other for support and energy."

The first G4H program training workshop was held in 2014 and is now being run annually in Australia with training extended internationally to the UK, Germany and Switzerland. As a result, the program is now being implemented across the globe in a range of conditions and contexts.

"G4H was first piloted with adults experiencing social isolation and psychological distress, demonstrating a marked improvement in depression, social anxiety, and loneliness both after the program and then six months later," Professor Haslam said.

"It has since been trialled and compared with treatment-as-usual and this has confirmed its effectiveness in reducing loneliness, social anxiety and depression. In collaboration with Rotary Mental Health and Headspace, a randomised controlled trial is now being run to find out if the program can reduce depression relapse in young people."

Groups 4 Health can be beneficial across the lifespan. "One of the biggest G4H adaptations has been for retirees.



Image left to right: Professor Catherine Haslam, Professor Jolanda Jetten, Dr Tegan Cruwys, Dr Genevieve Dingle, Professor Alex Haslam.

Groups 4 Health: Retirement, is an online program developed to help retirees engage in social planning as they transition out of work and support adjustment during what can be a period of great social upheaval," she said.

"We've also developed Groups 4 Health: Going Home, working with people in Redcliffe over the age of 50 who have been socially disconnected from their contacts after long-term hospitalisation. We're using this program as a basis to transition them back into the community, so that they can reconnect and use their social resources as best as possible.

"Groups 4 Education, led by Sarah Bentley, is helping students transition to tertiary education and tackle the challenges of instability and mental health vulnerability that starting at university can create. We're trialling the program at UQ, the University of Melbourne, the University of Exeter, Nottingham Trent University and Edinburgh University. Further adaptations of G4H for different life changing contexts are in development.

"In a lot of these cases, Groups 4 Health is not necessarily a stand-alone health treatment and it can be an adjunct to other programs that people are already taking part in. Our main goal is to add to the resources we can give to people to help them work through difficult times and come out the other side."

*"We practice what we preach!  
We are a diverse group who have  
developed this program together  
and we rely on each other for  
support and energy."*

PROFESSOR CATHERINE HASLAM

**There are five key elements of the G4H program that participants typically work through:**

- 1 Schooling:**  
Raising awareness of the value of groups for health and of ways to harness this.
- 2 Scoping:**  
Mapping one's social world to identify existing group connections and areas for social growth.
- 3 Sourcing:**  
Developing skills to maintain and utilise existing networks and reconnect with valued groups.
- 4 Scaffolding:**  
Using the group as a platform for new social connections and to grow confidence.
- 5 Sustaining:**  
Identifying strategies to ensure social group ties endure and learning how to deal with ongoing group issues.

find out  
more about →

School of Psychology  
psychology.uq.edu.au



WRITTEN BY JO HICKMAN

# Speaking up for aphasia

Approximately 120,000 Australians suffer from aphasia, a chronic language and communication disorder which affects talking, understanding, reading and writing.

Aphasia occurs in around one third of all stroke survivors, and can also be caused by brain tumours or traumatic brain injury. Aphasia is often a lifelong disability associated with reduced quality of life and increased risk of depression and social isolation.

Professors [Linda Worrall](#) and [David Copland](#) have worked with UQ colleagues over the last 10 years developing and testing an aphasia-specific therapy program called [LIFT \(Language Impairment Functioning Therapy\)](#). LIFT cohorts undertake three days of therapy per week for eight weeks, focusing on individual goals and working on improving communication in a combination of individual sessions, group work and computer-based treatment.

Professor Worrall explained that LIFT culminates in a challenge day where participants complete a particular goal or task which they have struggled with for a long time, in front of their family and friends.

"Challenge day is an opportunity for participants to address a particular issue or goal that they identify with us on joining LIFT, and is a great way for them and their loved ones to come together with the rest of their cohort to see the progress everyone has made," Professor Worrall said.

"Typically, people with aphasia commence the LIFT program between four and 18 months post-stroke and undertake group work, computer therapy and one-to-one sessions with a speech pathologist before tackling challenge day which has featured goals such as participants reading to their children and sharing stories with the group of their life before stroke."

In June 2018, aphasia research at UQ was bolstered by an [anonymous donation](#) of \$500,000 which will contribute to the establishment of Australia's first dedicated aphasia rehabilitation and research centre, the Queensland Aphasia Rehabilitation Centre (QARC).

"The donation was a dream come true and not only will this dedicated centre allow us to facilitate the LIFT program year round, it will also provide a hub of support for aphasia patients and their families," Professor Worrall said.

Operating in partnership with Metro North Hospital and Health Service, QARC will be based at the new \$340 million Surgical, Treatment, and Rehabilitation Service (STARS) facility at UQ's Herston campus.

Professor David Copland said QARC's priorities and activities will be driven by the needs of people with aphasia, and developed in collaboration with aphasia patients and their families and clinicians.

"The aphasia centre will translate research discoveries and new treatments such as LIFT into clinical practice. Innovative approaches to be tested include new technologies such as advanced brain imaging, telerehabilitation, and smart phone applications to improve assessment and recovery in aphasia," he said.

"QARC will be a unique space for people with aphasia to connect with each other and to gain support. This space will provide opportunities to try new approaches to therapy and to gain technical support for using computer-based treatments. We are thrilled to have this once-in-a-lifetime opportunity to develop a service that transforms the lives of people with aphasia." 🗣️

*"We are thrilled to have this once-in-a-lifetime opportunity to develop a service that transforms the lives of people with aphasia."*

PROFESSOR DAVID COPLAND



*find out  
more about →*

School of Health and  
Rehabilitation Sciences  
[shrs.uq.edu.au](https://shrs.uq.edu.au)

## Professor Worrall steps down after 40-year career

As a North Queensland girl, Linda knew nothing about aphasia or losing the ability to communicate after a stroke.

In Year 12, Linda visited the Princess Alexandra Hospital in Brisbane as part of her high school studies and met a patient in the speech therapy department who had suffered a stroke and couldn't talk. From then on she was fascinated with aphasia and enrolled in UQ's speech pathology program.

After university Linda was practising as a speech therapist in Melbourne working predominantly with aphasia patients before spending some time working in the Stroke Research Unit at the Queen's Medical Centre in Nottingham, UK, where she completed her PhD. Linda returned to Brisbane and UQ in 1987, and initiated the first speech therapy clinics for aphasia patients in 1992.

In 2000, it became clear that more work was needed in aphasia research, so the Australian Aphasia Association (AAA) was formed with Linda as the founding chairperson. In 2009, Linda became Director of the NHMRC Centre for Clinical Research Excellence in Aphasia Rehabilitation, leading a network of aphasia researchers across Australia for five years. This collaborative approach was a turning point for aphasia research and has been a catalyst for the establishment of QARC.

Linda attributes her enormous [contributions to speech therapy](#) over her 40-year career to her patients and clients.

"I have always tried to stay close to people with aphasia so that I can be connected to my research emotionally. I am always learning from them and it motivates me to keep them at the centre of my work. It is crucial to continue to engage with aphasia patients, to hear their stories and see the impact our research is having in their lives." Linda Worrall. 🗣️





WRITTEN BY KIRSTEN O'LEARY

# UQ researcher key adviser for global cannabis policies

With a global push to legalise the medicinal use of cannabis, UQ's Professor Wayne Hall has been in high demand to deliver presentations and contribute his expert comment to shape key policy documents.

"The topic of cannabis is one that everyone wants to talk about at the moment for understandable reasons. I have had a lot of interest in medicinal cannabis as well as the adverse effects of cannabis, particularly the mental health effects," Professor Hall said.

"Currently I'm writing a briefing document for European policymakers on what we know about medicinal cannabis, the evidence on its effectiveness and what the advantages and disadvantages of different ways of allowing patients to use medicinal cannabis are.

"This year I have travelled to the UK to advise the government on their decisions to give patients access to cannabis in exceptional circumstances and to The Netherlands to present on global trends in cannabis policies and the repercussions they might have on the Dutch policies."

*"It's important that we get the correct information out there about the effects of cannabis use and that more trials are done to assess the safety and efficacy of various medicinal uses of cannabis."*

PROFESSOR WAYNE HALL

As one of the world's most highly cited social scientists and after three decades in the addiction research field, it is understandable why Professor Hall is a key adviser for governments worldwide on cannabis policies. Since 2012 Professor Hall has published more than 250 papers, book chapters, editorials, commentaries and other works and has given more than 80 invited presentations and lectures to leading conferences and research groups in the USA, UK, Canada, Europe, Singapore and New Zealand.

Before Professor Hall made the career change to researching addiction he was a senior lecturer in the School of Psychiatry at the University of New South Wales (UNSW).

"There was very limited academic interest in the addictions field in Australia among psychiatrists at that time. The move was seen by some of my very senior colleagues as the end of my career and as a really dumb thing to be doing," Professor Hall said.

Professor Hall was recognised by the British Society Study of Addiction (SSA) when he was invited to give a guest lecture and was featured in a video interview with SSA Director Professor John Stang published online. In the video Professor Stang said: "I think many of us are really pleased you did that dumb thing of moving into the field."

The career accolades Professor Hall has achieved in the fields of addiction, mental health and public health have been significant and exceptional. In Australia the impact Professor Hall has had on addiction policy was recognised when he was appointed to the Australian Advisory Council on the Medicinal Use of Cannabis.

"What started out in 1992 as a request by the Australian Government for a quick review on the adverse health effects of cannabis turned into a 100,000 word monograph. It's a topic which I've been dragged back to repeatedly," Professor Hall said.

"Because of the review I was invited to speak at a conference on cannabis in New Zealand in 1993 and this led to an invitation to participate in a World Health Organization (WHO) update of a 1983 report on the health effects of cannabis.

"I was later invited to write a review for The Lancet and since then I have received regular invitations to speak or write on this topic. I was also invited to participate in the most recent WHO update about the adverse health effects of cannabis.

"I would have to say the invitations to be an Honorary Professor at the Institute of Psychiatry, Psychology and Neuroscience in the King's College of London and the London School of Hygiene and Tropical Medicine at University College London, were pinnacle career moments for me. Both institutions are global leaders in drug and addiction research, so it was an honour to be asked to contribute to their research activities."

Cannabis legalisation for medicinal and non-medicinal use has always been a controversial topic with public opinions shifting over time. Professor Hall has avoided taking strong views for or against medicinal or recreational use but the perception of his views has changed with shifting community views.

"In the past I have been criticised as being a closet drug legaliser and now I find myself characterised by the cannabis legalisation lobby group as an 'anti-cannabis campaigner', although my views have not changed radically," Professor Hall said.

"I used to be criticised for saying that 'cannabis wasn't as dangerous as alcohol' because this was regarded as advocating for legalisation. Now I'm saying that though this is the case, cannabis use isn't harmless and there is a downside to legalisation.

"The shift has been surprisingly rapid. Five or six years ago there wasn't a lot of public support but this has changed since the legalisation of medicinal use of cannabis in Colorado and the Washington State in 2014 and Canada in October this year. There is a lot of discussion about how these policies will develop and if legalisation will spread beyond the US and Canada and into Europe and Australasia.

"It's important that we get the correct information out there about the effects of cannabis use and that more trials are done to assess the safety and efficacy of various medicinal uses of cannabis."

Between UNSW and UQ where Professor Hall has been a Professor for the Centre for Youth Substance Abuse Research and served as Inaugural Director (2014-16), he has supervised 20 research students.

"I really enjoy working with bright young people who are interested in the addiction field. They have all been really productive and happy to take on suggestions and pursue areas further. Ten students I have worked with have become full professors."

When asked for what advice he would give young students and researchers Professor Hall said 'share your research with a broader audience than one's peers by learning how to write in an accessible way'.

"I have also found it useful to read widely, especially in adjacent fields, in search of new ideas and research methods, and when entering new fields it is essential to collaborate with people who know more than you do about the field."

*find out  
more about →*

Centre for Youth  
Substance Abuse Research  
[cysar.health.uq.edu.au](http://cysar.health.uq.edu.au)



WRITTEN BY JO HICKMAN

# Finding systematic solutions to healthcare challenges

Effective and economical healthcare systems should be business as usual.

On average in Australia in 2015, each doctor had 29 per cent less patients to care for than in 2000.

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD)



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more about →

Centre for the Business  
and Economics of Health  
[cbeh.centre.uq.edu.au](http://cbeh.centre.uq.edu.au)



Professor Stephen Birch, Director of UQ's Centre for the Business and Economics of Health (CBEH) is working to create a unique and dynamic environment in which a combined approach to healthcare systems can be explored.

CBEH is a joint initiative of UQ's Faculty of Health and Behavioural Sciences, the Faculty of Business, Economics and Law, and the Mater Research Institute. It provides customised economic analyses of complex problems faced by Australia's leading healthcare authorities.

Originally hailing from Rochdale in the United Kingdom and later moving to Canada to undertake a professorial position at McMaster University in Hamilton where he remained for 30 years, Professor Birch is relatively new to Australian soil having arrived in Brisbane in February this year.

"Relocating to Queensland to join UQ and lead CBEH was a wonderful opportunity. My wife and I moved here early this year, leaving our two grown-up children behind in Canada. Of course, there's less snow here but life in Australia wasn't entirely new to me as I undertook a one year sabbatical in Sydney back in 1996. My son completed his first year of school in Australia, and fondly remembers commuting to school by ferry.

"Part of my role at CBEH is to consolidate the work already being done in health economics at UQ and feed that into a cohesive product that will inform policy and make a lasting impact on Australia's healthcare system," he said.

Professor Birch believes there is no simple solution to something as complex as healthcare and that fostering unique collaboration between clinicians, economists and business experts is what is required to ensure that our healthcare system meets the demands of a changing population.

"Similar centres around the world tend to be based in medical facilities whereas we are taking a business-first approach while working alongside our partner, the Mater Research Institute.

"Awareness of health economics in Australia is growing and the community of experts in the field is thriving. The challenge is that we need to maintain what we're doing well while improving in the areas where we aren't doing so well. A great example of this is the ageing population: people are living longer so the average 65-year-old today is healthier than an average 65-year-old 25 years ago, but healthcare providers don't always recognise that.

"Our healthcare system is based on a world that's standing still but we need to build beyond that model and adapt as the health of the population adapts."

Professor Birch said that healthcare systems are driven by current supply rather than the needs of the population and that if supply continues to grow, the surplus finds something else to do, and so the problem continues to snowball.

"Between 1960 and 1970 we saw massive improvements in children's oral health which was partly the result of more kids brushing their teeth and the addition of fluoride in toothpaste. The need for dentistry services in the population fell but instead of adjusting the amount of dentists being trained, a surplus was created in the profession which meant that dentists needed more to do – cue new specialised areas such as orthodontics."

Professor Birch explained the need to ensure that money and resources are used effectively to achieve the best outcome for the population of Queensland and Australia.

"In Australia, a lot of money goes into healthcare so here at CBEH we want to help make sure that money is being spent wisely and isn't focussing on low-need problems while exhausting resources for high-need problems. While having a healthcare system that doesn't discriminate or become out of reach for low socioeconomic groups, we also need a system that is sustainable, accessible, adaptable to change, and designed to meet the needs of its patients and populations." ☺

*The Centre for the Business and Economics of Health was brought to life with the aid of the Taylor family donation. Fidelity Worldwide Investments' Head of Australian Equities Paul Taylor and his wife Sue donated \$1.25 million to allow UQ to begin conducting this important research. Both Paul and Sue are alumni of UQ; Sue a psychology graduate, and Paul a commerce graduate.*



# Undergoing

# rehabilitation at home is changing lives

WRITTEN BY PROFESSOR DEBORAH THEODOROS

At the [RECOVER Injury Research Centre](#), Professor Deborah Theodoros and colleagues are changing the way in which services to people with brain injury are being delivered. Professor Theodoros is a speech pathologist and the Director of the RECOVER Injury Research Centre where she leads a program of research aimed at improving the delivery and availability of evidenced-based rehabilitation services. This research focuses on [telerehabilitation](#) – the use of telecommunications and information technology to deliver rehabilitation services.

The focus on telerehabilitation at RECOVER is underpinned by over 16 years of research by myself and colleagues in the development and validation of service delivery via telecommunications. Our team has been instrumental in spearheading research in the use of technology to assess and treat people with communication disorders in their own home.

The difficulties encountered by people who suffer a brain injury and are unable to communicate effectively are profound. Difficulties in being understood due to slurred and distorted speech, and problems with understanding what is being said and responding appropriately, lead to relationship breakdowns, social isolation, and reduced job opportunities.

Access to intensive speech therapy is crucial in their rehabilitation and this is not always possible for many people who live outside metropolitan areas. However, access to services is equally problematic for those who require assistance to attend a centre-based clinic in a metropolitan area. You could live down the street from a clinic but find it difficult to get there due to physical and transport issues.

Telerehabilitation offers an alternate service delivery method which allows the person to be treated in the comfort of their own home, in their own community.

Our research has shown that most services delivered via telerehabilitation are as good as seeing a therapist in person.

Here at RECOVER we are continuing to develop and evaluate telerehabilitation applications to deliver a variety of services to people with brain injuries so that access is no longer a barrier to rehabilitation.

Our team is engaged in telerehabilitation projects to deliver intensive speech treatment, cognitive-communication training, and an outreach service to people with brain injuries and their families across Queensland.



**Be Clear Online project**  
Dr Brooke-Mai Whelan, a post-doctoral researcher in RECOVER, is investigating the feasibility and validity of delivering an online platform called Be Clear Online, an intensive speech treatment program to people with slurred and distorted speech (dysarthria) following brain injury. Using a UQ-developed telerehabilitation platform called eHAB, participants receive therapy in their own home one hour per day four days per week for four weeks.

**IMPACT (Intervention for Metacognition and Social Participation an Acquired Cognitive-communication Disorder Treatment) project**  
This project, led by Dr Anna Copley in the School of Health and Rehabilitation Sciences, in collaboration with Dr Louise Cahill at RECOVER, is investigating the delivery of an intensive treatment program for cognitive-communication disorders in people following brain injury. This program involves both individual and group therapy sessions which will be conducted online in the person's home.

**Community-based Rehabilitation via Telerehabilitation Project**  
RECOVER researchers are collaborating with the Acquired Brain Injury Outreach Service (ABIOS) in the Division of Rehabilitation within Metro South Hospital and Health service. This project is led by Professor Tamara Ownsworth at Griffith University. The project will evaluate the implementation of telerehabilitation into this outreach service to enable a wider reach of support to people with brain injury across Queensland.

WRITTEN BY KIRSTEN O'LEARY

# STARS to lead innovation in care, training and research

The new \$340 million specialist public health facility at Herston Quarter is taking shape with completion anticipated in late 2020.

Last month, the fifth floor slab of the front structure of the facility was poured and the built form continues to change the landscape along Herston Road.

Recently announced as the Surgical, Treatment and Rehabilitation Service (STARS), the facility is the centrepiece of the [partnership between Metro North Hospital and Health Service \(MNHHS\) and UQ](#).

The 184-bed public health facility will be one of the largest tertiary specialist rehabilitation centres in the southern hemisphere, accommodating around 100 nursing and allied health students.

STARS will have seven operating theatres, three endoscopy procedure rooms and consultation spaces for a range of specialties.

UQ Vice-Chancellor and President Professor Peter Høj said a key feature of STARS was the innovative model of clinical care and embedded research.

"Research will be driven by the needs of the patients and clinicians, and will provide continual opportunities to improve clinical practices and procedures," Professor Høj said.

"A broad range of clinical placements will be available for UQ students in nursing, occupational therapy, physiotherapy, speech pathology, audiology, nutrition and dietetics, clinical psychology, social work and rehabilitation medicine.

"From 2021, 60 UQ nursing students will be placed within the facility each year, with an expected 1200 nurses to complete placements over the course of the partnership."

MNHHS Chief Executive Shaun Drummond said STARS will provide a high level of care much needed in Queensland and the combination of specialist rehabilitation and elective surgery will complement the quality care for patients.

"STARS will have a positive impact on the healthcare system and achieving better outcomes for patients," Mr Drummond said.

"STARS will provide a range of specialist surgical and complex rehabilitation services and will be delivered in a patient-centric model of care to put the patients' needs first and foremost.

"One hundred of the 184 beds in STARS will be dedicated to specialist rehabilitation and more people will have access to quality specialist care."

The state-of-the-art facility to be operated by MNHHS is being delivered as part of the \$1.1 billion Herston Quarter redevelopment in partnership with master developer Australian Unity.

Artist's impression courtesy of Australian Unity



WRITTEN BY DANI NASH

# Weathering the storm:

## homelessness in later life

Older single women are the fastest growing section of the Australian population experiencing homelessness.



Working to understand the pathways into homelessness for older women is UQ's [Dr Maree Petersen](#), a leading researcher on homelessness among seniors.

Dr Petersen's program of research over the past six years has comprised three projects concerned with understanding older people's homelessness in Australia, addressing the housing and support needs of older women experiencing homelessness, and advocating for the intersection of housing, homelessness and aged care policies.

"There is currently strong attention to the ageing of the population worldwide, but that's only part of the story here," she explains.

"It's like a perfect storm – along with the increasing numbers of baby boomers coming up we have a real issue with unaffordable housing in this country. There's been a decline in government expenditure on social housing and decreasing rates of home ownership. Less and less people own their own homes and the number of older people that applies to is increasing.

"In addition, the aged pension assumes that you own your home and you're not paying rent. So for older people that are on a pension, a fixed low income, to pay over \$300 per week in rent means they do without food, they do without medication, it means they don't go out, they don't put on a fan because they can't afford the electricity; it's the combination of all these factors.

"Housing is central to health. If you don't have secure housing it impacts your health. As a society we need to be thinking about this issue in terms of our health priorities and in terms of aged care, it's all linked together."

Dr Petersen is part of The National Older Women's Housing and Homelessness Working Group, which consists of housing and homelessness policy leaders, researchers and practitioners from universities around the country and organisations such as the Mercy Foundation, Micah Projects, the YWCA, among others.

Together they examine national policies that need change and advocate for more effective strategies so that older women can access affordable, safe, secure and appropriate housing and enjoy good health as they age.

In August 2018 the group launched a report at Parliament House Canberra that argues for the creation of a national agenda for action to address issues of financial and housing insecurity for women aged 50 years and over.

"Australian women aged over 50 are at greater risk of financial and housing insecurity than older men. Women in this age group did not benefit from compulsory superannuation at the beginning of their working lives, they were more likely to have been paid at a lower rate than their male counterparts and were likely to have taken time out of the paid workforce to have children and fulfil caring roles. In fact, many of these women were required to leave their jobs when they married or started a family.

"Most older women who are homeless have not been homeless before. They are largely people who have lived conventional lives in terms of having worked and raised families, but they've not had a mortgage or had capital in a home, they've been privately renting. Myriads of factors have contributed to the situation they now face in later life, from levels of education, life choices, access to resources, support networks, and more.

"Many older women without stable housing often don't think of themselves as "homeless", as they're not sleeping rough, but instead they move between family members, stay with friends, sleep in cars – anything that will keep them off the streets. Homeless women generally move from place to place often in a downhill trajectory in terms of mental and physical health as their situation becomes untenable.

"The long term view now needs to focus on prevention and early intervention, to ensure that women at risk of homelessness have affordable housing and support to be healthy, safe and secure in their own homes as they grow older."



# The Very Best of Health

The Faculty of Health and Behavioural Sciences is at the forefront of innovation in health education and research and comprises six schools and six centres:

- School of Dentistry
- School of Health and Rehabilitation Sciences
- School of Human Movement and Nutrition Sciences
- School of Nursing, Midwifery and Social Work
- School of Pharmacy
- School of Psychology
- Centre for the Business and Economics of Health (CBEH)
- Centre for Youth Substance Abuse Research (CYSAR)
- Poche Centre for Indigenous Health
- Queensland Alliance for Environmental Health Sciences (QAEHS)
- RECOVER Injury Research Centre
- Southern Queensland Rural Health (SQRH).

Our state-of-the-art teaching and learning facilities include:

- Oral Health Centre at Herston – our \$134 million purpose-built Oral Health Centre is Australia's largest and most advanced tertiary oral health facility and based at the Herston campus.
- Pharmacy Australia Centre of Excellence (PACE) on the PA Hospital campus – \$100 million specialist facility with particular focus on pharmacy and pharmaceutical science and also housing QAEHS and CBEH.
- Whitty Building at the Mater Hospital – \$30 million redevelopment transforming a heritage listed building into a modern educational health precinct for nursing, midwifery and medical students.
- Upland Road precinct – new clinic space on the St Lucia campus for the School of Psychology plus space for CYSAR and the Poche Centre for Indigenous Health.
- UQ Healthy Living – an innovative, student-led community health clinic at Toowong providing supervised activity and health advice for older people.

### Excellence in teaching

Many of our academic staff have received teaching awards at the faculty, university, national and international level, meaning our students are learning from some of Australia's best and most highly-regarded teachers. Students across the globe take advantage of our teaching excellence through our partnership with edX, the world's leading consortium of massive open online courses (MOOCs) developed by Harvard and MIT.

The faculty-wide focus on interprofessional care and education has developed further over the past 12 months with a team of representatives from partner institutions and schools within the Faculty attending the University of Toronto to engage in a program providing certificated training in interprofessional education. In addition, and in conjunction with Southern Queensland Rural Health and the University of Toronto Centre for Interprofessional Education, a series of workshops have been conducted in Brisbane, Toowoomba and Roma on Advancing the Future of Healthcare through Interprofessional Learning for our staff and partner institutions. The faculty-wide course (HLTH1000) developed to ensure our students are taught the fundamentals of interprofessional care within the context of the Australian Health Care system is well established and further opportunities are being explored with the appointment of a full-time Director of Interprofessional Education to commence in 2019.

### Excellence in research

By comparison with the Group of 8 Australia universities, and with local comparator universities, UQ has the strongest Excellence in Research for Australia (ERA) results across the broad scope of health sciences. When ERA was last conducted in 2015, UQ's health and behavioural sciences research achieved the top score of 5 (well above world standard) for clinical sciences.

The Faculty leads three National Health and Medical Research Council (NHMRC) Centres of Research Excellence

- The NHMRC Centre of Clinical Research Excellence in Spinal Pain, Injury and Health
- The NHMRC Centre of Clinical Research Excellence in Aphasia Rehabilitation
- The NHMRC Centre of Clinical Research Excellence in Recovery Following Road Traffic Injuries

plus participates in a number of others.

### Industry partnerships

We collaborate closely with government, not-for-profit organisations, international and national organisations, the private sector and the community to ensure our research addresses the 'big picture' issues.

Our partners include:

- Australian Maritime Safety Authority
- Australian Paralympic Committee
- Australian Red Cross Blood Service
- beyondblue
- Boeing Research and Technology Australia
- Brisbane Broncos
- Children's Health Queensland
- Darling Downs Hospital and Health Service
- Defence Science and Technology Organisation
- Federal Police
- Great Barrier Reef Marine Park Authority
- Headspace
- Lives Lived Well
- Metro North Hospital and Health Service
- Metro South Hospital and Health Service
- Motor Accident Insurance Commission
- National Institute of Forensic Sciences Australia
- Queensland Firebirds
- Queensland Health
- South West Hospital and Health Service
- West Moreton Hospital and Health Service.



## Fast Facts

- 3 Universitas 21 Teaching Awards
- 6 National Teaching Awards
- **Higher Education Academy:** 1 Principal Fellow, 9 Senior Fellows, 5 Fellows
- **Australian Research Council:** 17 Fellowships, 2 Laureate Fellows, 8 Future Fellows, 7 Discovery Early Career Research Awards
- **National Health and Medical Research Council:** 14 Fellowships, 2 Research Fellows, 1 Practitioner Fellow, 1 Career Development Fellow, 10 Early Career Fellows

## Students

- OVER 5560 undergraduate students
- OVER 1558 postgraduate students
- OVER 600 Higher Degree by Research students
- OVER 1047 international students
- from 52 different countries

More than \$20 million in research income (2017)

#3 in the world for sports-related subjects in the 2018 QS World University Rankings.

find out more at [habs.uq.edu.au](https://habs.uq.edu.au)





# UQ Health Clinics

Our clinics provide healthcare and rehabilitation services to the general public, including children and seniors, in:

- Audiology
- Children's Specialities
- Dental
- Exercise and Healthy Brain Ageing
- Exercise for Men and Women with Previous Diagnosis of Cancer
- Exercise for the Treatment and Prevention of Musculoskeletal Conditions
- Healthy Ageing
- Occupational Therapy
- Physiotherapy
- Psychology
- Speech Pathology
- Telerehabilitation

As one of Australia's leading universities, many of our supervising specialists are leaders in their fields ensuring clients receive the best possible assessment, care and treatment from our student practitioners.

Visit our clinics online to find out more and request an appointment:

[habs.uq.edu.au/health-clinics](https://habs.uq.edu.au/health-clinics)



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## GAME CHANGERS

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