

THE UNIVERSITY OF QUEENSLAND MEDICINE MAGAZINE

Ugmedicine summer Edition 2018/2019

Rebel with a cause

Dr Fiona Simpson's journey from smalltown Scotland to curing cancer

Students bring hope to Haiti Preserving history a Mayne priority Taking oncology to the country



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THE UNIVERSITY OF QUEENSLAND AUSTRALIA

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COVER IMAGE Dr Fiona Simpson – see article on page 2

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MESSAGE from the Executive Dean

In June of this year, I had the great privilege and pleasure to commence as the Executive Dean of the Faculty of Medicine.

Since its establishment in 1936, the Faculty has had a strong history of making an impact through its teaching, research and engagement. In the time since my arrival I have been warmly welcomed and already feel very much a part of this extraordinary enterprise.

I would like to acknowledge the critical role Professor Robyn Ward played in her two years as acting Executive Dean. She passed on a faculty with strong governance and a sense of a forward agenda. Central to this momentum was Robyn's stewardship of the Strategic Plan for the Faculty. This broad-ranging project has resulted in numerous important projects which are currently being implemented. As a part of this process, the Faculty derived a clear purpose and set of values.

I intend to work to this purpose and enact these values in my time as custodian of this influential faculty.

My first few months have been framed by a desire to understand the culture and people of the Faculty. What I have found is a group of outstanding staff and students dedicated to making a difference in the communities we serve. I see a very high level of performance in our learning, teaching and research pursuits, and evidence that we work well to the purpose and values described above.

I have also been impressed by our purposeful and meaningful engagement with our internal and external stakeholders. The Hospital and Health Services, Queensland Health, medical research institutes and primary care organisations are all supportive of a shared scholarly mission. There is also evidence of a strong and growing network of health research within The University of Queensland and with our external partners. This environment is a solid platform for growth and building opportunity. I have been impressed by the opportunities afforded by the Queensland Health Digital Health Strategic Vision, particularly the implementation of the electronic health record. The opportunities for partnership in the analysis and utilisation of the data that will come from five million health records are quite exceptional. This is, however, only one of many opportunities to grow current areas of strength or develop emerging <u>themes in health research</u>.

This also presents an opportunity to revise current learning and teaching programs and develop new ones. The Bachelor of Health Sciences and Doctor of Medicine programs will be the first to be revised. In addition, several new programs are in development. This activity will be undertaken by an excellent team of educators with a principle of co-creation with our students.

I have also been delighted by the strength of the donor support for the Faculty, which builds on the historical and important Mayne legacy. I am keen to acknowledge the contributions of Dr James Mayne and the ongoing support his family make in the day-to-day life of the Faculty. Their recognition continues in the upcoming renovation of the Mayne Medical Building at Herston, which in my opinion is one of the finest medical faculty buildings globally.

The publication you are currently reading, UQmedicine, is a wonderful way to communicate with you, our alumni and partners. This second edition for 2018 is filled with interesting and important subjects, including telehealth in the Torres Strait, Ochsner student rotations in Haiti, and outstanding alumni creating change in the world around them.

I commend this edition to you and thank you for your ongoing support of the Faculty.

Professor Geoff McColl

Executive Dean Faculty of Medicine



Our purpose

Through the education we provide and the research we conduct, the Faculty's medical, biomedical and public health endeavours save lives and improve human health in material and lasting ways.

Our values

Pursuit of excellence Creativity and independent thinking Mutual respect and diversity Honesty and accountability Inclusiveness and wellbeing





\$25 million in philanthropic gifts and pledges.

65% of our workforce is female

PhD and MPhil students

66 NHMRC, ARC and Advance **Queensland Fellows conduct** their research here

Features



REBEL WITH A CAUSE How outsmarting cancer became Dr Fiona Simpson's obsession



PRESERVING HISTORY Plans for The Mayne Medical Building's next chapter



BRINGING HOPE TO HAITI The Ochsner student placement program helping remote communities



DOCTOR DREAMING James Tronc's journey from paramedic to doctor

Rebel with a cause

Born in Adelaide but raised in northern Scotland, Dr Fiona Simpson joined the workforce at the tender age of 12.

"After my father died, my mother was left to raise four daughters on a widow's pension," Dr Simpson explains.

"It was a struggle, so I started working in petrol stations, washing dishes and cleaning out fishing boats full of fish guts and diesel."

It wasn't glamorous, but it paid the bills and taught Dr Simpson resilience – a quality that has proven useful throughout her career.

Hoping to tame her rebellious nature and harness her academic potential, one of Dr Simpson's teachers arranged a job for her with a local vet. The plan proved successful and Simpson fell in love with science.

In a few short years she went from scrubbing out lambing sheds to completing a bachelor's degree in biochemistry in Edinburgh. A PhD at Cambridge University followed, then a Wellcome Trust Postdoctoral Fellowship at the Scripps Institute in California.

In 2000, Dr Simpson moved to Brisbane for a research job at UQ, where 10 years later she encountered Professor Ian Frazer, the co-creator of cervical cancer vaccine Gardasil. Professor Frazer offered Dr Simpson her own lab undertaking immune cell biology research and investigating cancer – the only condition being that she focus on developing 'bench to bedside' applications.

For us it is all about the patients."

Dr Simpson's crusade to improve treatments for cancer patients was deeply personal – she had lost her mother Isabel to cancer in 1999. Her team set out to determine why around 85 per cent of patients with head and neck cancers didn't respond to antibody treatments.

"We know that to be effective, cancer drugs such as cetuximab have to bind to a cell's target receptors to produce an immune response that then fights the cancer," Dr Simpson says.

"We tested a hypothesis that involved changing cell patterns using Stemetil (prochlorperazine), a drug used for nausea, and it worked!"

The discovery was just the beginning. The next step for Dr Simpson and her team was trialling whether the combination of Stemetil and cetuximab would reduce or eliminate tumours.

After undertaking preclinical work and a proof of mechanism trial dubbed 'CESTEM', the results were conclusive – the drug combination could move the target in patients.

Dr Simpson and her team are now in the final stages of a Phase IB trial testing dose escalation and efficacy in volunteer patients. If all goes to plan, CESTEM will move into a Phase II clinical trial in 2019, followed by a Phase III trial to test whether it is better than current treatments.

A positive result could revolutionise treatment for patients with head, neck and breast cancers, as well as those suffering with adenoid cystic carcinomas.

While the road ahead is bound to be bumpy – Dr Simpson's lab has been on the verge of shutting down four times due to lack of funding – the rebel in her refuses to give up. You could call it resilience, but Simpson herself prefers 'sheer bloody-mindedness'.

"My team and I were told time and time again that we were wrong, but we kept going because our data was reproducible every single time. Our experiments didn't lie. A lot of it has now proven correct.

"So we could give up now – struggling to keep everything funded and pushing to Phase II – but we won't and we can't. For us it is all about the patients."

The Faculty of Medicine acknowledges The PA Research Foundation, National Breast Cancer Foundation, Cancer Council Queensland and Rotary International (Nundah) for generously supporting improved care for cancer patients. ●

Leading the fight against superbugs

The fight against antibiotic-resistant superbugs is happening right here, right now.

A growing threat to global health, resistant bacterial bloodstream infections are causing high morbidity, mortality and significant financial costs to the health system.

Infectious disease physician and medical microbiologist Dr Patrick Harris is leading the charge on reducing the burden of these infections, alongside researchers from UQ's Centre for Clinical Research (UQCCR).

Dr Harris and his team recently concluded a landmark trial assessing the effectiveness of commonly used antibiotics in treating superbugs – *E. coli* or *Klebsiella pneumoniae*. These superbugs are increasingly treatment-resistant to broad-spectrum antibiotics (such as ceftriaxone).

Ceftriaxone-resistant strains cause approximately 50 million significant infections annually worldwide. The most serious manifestations, bloodstream infections, account for 6 million of those infections and have a 15 per cent fatality rate.

In the international, multi-centre MERINO Trial, researchers compared the effect on survival of two antibiotics in patients with bloodstream infections. The trial involved patients with infections caused by strains that were resistant to multiple types of antibiotics. "We intentionally re-examined antibiotics already in use so that treatment practices could be updated immediately without having to wait for new drugs to be approved – a process that can take years," Dr Harris explains.

"We were surprised to find a greater 30-day mortality in patients treated with piperacillin-tazobactam (12.3 per cent), compared to those treated with meropenem (3.7 per cent).

"Previous studies, which were not randomised trials, had suggested that these drugs would be equally effective, but the MERINO Trial did not support this idea.

"The results have significant implications for how clinicians choose treatment for these serious infections. If the results are applied on a global scale, we estimate that tens of thousands of lives would be saved each year."

Preserving history a *Mayne priority*

At 82 years young, the Mayne Medical Building in Herston is having an injection of new life. Her refurbishment will provide alumni and the wider Queensland medical community with an opportunity to reconnect with one of Brisbane's most iconic buildings.

For nearly 13,000 graduates, this grand old building has been the scene of early-morning lectures and late-night study sessions. It's where months have been spent studying pathology pots and poring over textbooks. It's also been home to some life lessons that you won't find in any textbook.

And while the use of the building has changed over the years, its connection with alumni and their pride in her has never strayed.

The refurbishment project will commence in early 2019 and see first-class event spaces open on levels three and four of the building. Complementing the existing teaching spaces, the new centre will feature a function space with city views and capacity for 120 seated guests, an onsite kitchen, as well as five new meeting rooms. These new spaces will supplement the 120-seat ES Meyers Lecture Theatre on level four, as well as the 150-seat Auditorium and seminar rooms in the Oral Health Centre, making UQ's Herston campus a top-class destination for Brisbane events.

The Faculty hopes the new event centre, scheduled to open in early 2020, will become the preferred function and conference space for Queensland's medical community. It will be available to alumni, friends of the Faculty and the wider community.

Our Office of Medical Education and the Marks-Hirschfeld Museum will continue to call the building home. The UQ Medical Society will join the Faculty Executive on level 2 of the building, allowing the class of 2018 and beyond the chance to build their own memories in Mayne.

To learn more about the refurbishment and enquire about bookings, visit medicine.uq.edu.au/mayne-refurb.

Providing a hand up, *not a handout*

UQ-Ochsner Clinical School's Dr Yvens Laborde loves a good quote, but it's one by Irish playwright George Bernard Shaw that he really takes to heart.

"The worst sin towards our fellow creatures is not to hate them, but to be indifferent to them: that's the essence of inhumanity."

Shaw's famous commentary on the nature of being human is a concept that Dr Laborde is teaching to UQ-Ochsner Clinical School students first-hand as they accompany him on medical rotations in the tiny Caribbean nation of Haiti.

Frequently beset by hurricanes, Haiti straddles a tectonic fault line, and extensive deforestation has left the country vulnerable to landslides and flooding. Add in a lack of infrastructure and government funds, and the challenge of providing reliable, quality and accessible medical care in Haiti can seem overwhelming. Originally from Haiti's capital, Port-au-Prince, Dr Laborde's medical career has been driven by an acute sense of duty to serve those who are less fortunate.

His efforts to provide medical care to Haitians began in earnest in the wake of the devastating 7.0 magnitude earthquake in 2010, which left an estimated 250,000 people dead, 300,000 injured and more than 1.5 million homeless.

Dr Laborde led Ochsner Health's initial relief effort on the ground in Haiti and afterwards sought out a way to continue the work long-term.



"The clinics are one of the most personally and professionally satisfying aspects of my life and career."

"I thought coupling our academic mission to our humanitarian work in Haiti would be an excellent way to create a relationship that could be mutually beneficial," Dr Laborde recalls.

In the eight years since, Dr Laborde's efforts have evolved into a dedicated program that sees six to eight medical students participating in an annual eight-week rotation involving extensive preparation and training. This is followed by an intensive twoweek clinical experience.

The students are based at self-sustained medical clinics in regional towns, supervised by board certified physicians and local staff seeing up to 100 patients a day – in stark contrast to the 15–20 patient average in an American clinical setting.

The goal is to provide safe, high quality and culturally sensitive care in a challenging and resource-poor setting.

"The program provides great benefit to Ochsner students by giving them invaluable clinical experience while really making a difference in the lives of people who are in great need.



"Students learn cultural sensitivity, resiliency and how to conquer the challenges of practising medicine in an under-resourced area."

The philosophy behind this innovative program is a shared desire to improve access to healthcare for all.

"We fundamentally believe in Article 25 of the United Nations Declaration of Human Rights, which states that health care and access to care is a basic human right," Dr Laborde explains.

"We want to establish long-term, sustainable relationships with a focus on education, access to water, nutrition, children and women's rights.

"The clinics are one of the most personally and professionally satisfying aspects of my life and career.

"It is the thing that I am truly most proud of – second only to my beautiful wife and two sons." \bullet



To see more, visit medicine.uq.edu.au/magazine.



Mobilised for success

With her office deserted now flu season is over, Medicine alumnus Dr Kirsten Baulch smiles nostalgically and muses about how far she's come since her days of running an office of just one.



"People often have great ideas that they're passionate about that don't always work out as businesses," she starts.

"So I feel I've been incredibly lucky to have been successful on my first try. I don't think even Richard Branson dreamed of all his success from his first home in a little houseboat on the Thames!"

The GP, mother and entrepreneur has provided a literal shot in the arm for workplaces through her business, Medimobile.

Over three months each year, the Brisbane-based company administers more than 220,000 flu vaccinations in workplaces across Australia and New Zealand.

The idea for this 'clinic on wheels', which has twice appeared on the Business Review Weekly's 100 fastest-growing companies list, came while Dr Baulch was working as a GP registrar in Brisbane.

"Lots of my patients were time-poor executives who complained about waiting times and often asked if I could come to them," Dr Baulch explains.

"So I cold-called about 40 businesses to understand whether a mobile medical service was of interest. They asked for flu shots and within a few weeks we were operating in Brisbane and interstate."

Dr Baulch says innovative IT has been a major factor in Medimobile's success.

"I've spent lots on software development as it helps us to systematically and reliably vaccinate a large number of patients in a matter of weeks, without compromising on customer service, quality or safety. "It's important to keep innovating, so for Medimobile that means relevant, customised apps for patients and staff, and a contemporary website."

Another innovative touch was Dr Baulch's decision to make philanthropy a core component of Medimobile from its inception.

"We decided to build giving and generosity into our business model, rather than wait until Medimobile was successful to become philanthropic. We donate \$1 of our profit from every vaccination to World Vision health projects.

"Lots of these projects have involved educating healthcare workers and providing vaccinations and other basic health necessities to children and their families. I'll admit it was quite hard to give away \$1 per vaccination in the early years before I was getting a salary from the business!"

The Medimobile modus operandi seems to revolve around these dual themes of fostering human wellbeing and innovation.

Medimobile resembles a close-knit family unit, from safety reminder stickers on sharps disposal bins to having a team of GPs available to take calls from staff and patients.

"The best advice I've received has been to look after your staff as you would your best customer. I try to create a work environment and conditions that make working for us a pleasure, employ the best people I can and empower them to do their job.

"Anything that can help our staff have a better experience at work, or help our patients feel good and stay well, is definitely worth pursuing."

Doctor dreaming

Simultaneously starting a medical degree and a family takes courage and determination.

Fortunately, James Tronc has both in abundance. The Indigenous health bursary recipient has always dreamt of being a doctor. And after eight years as a paramedic, he's used to dealing with emergencies.

"I always wanted to have a career in health," reflects Tronc.

"I just wanted to help people. I originally thought about nursing, but the lights and sirens of the ambulance seemed more exciting."

Tronc worked for 10 years with the Queensland Ambulance Service – eight of those as a paramedic – mostly in Townsville. He completed a bachelor's and ultimately a master's degree in paramedicine.

Tronc says he's motivated by his Indigenous heritage and a desire to improve Indigenous health.

"My Mum worked in mental health, and my Aunties were Aboriginal health workers and nurses. So Indigenous health was always something I pictured myself doing. But, as a paramedic, there's only so much you can do. It's chronic disease prevention and management that's the big issue."

Tronc says the thought of being a doctor was always at the back of his mind.

"As a paramedic, you work closely with doctors. You admire what they do. I always dreamt of being a doctor, but thought it would be too hard. But then after a few years of clinical exposure, after I completed my master's, I started to think – maybe I could do medicine."

Tronc has just completed his second year of medicine. He says the MD is challenging and extending him in many new ways, while building on his existing qualifications and experience.



Tronc was awarded the Dr Alan Van Tran and Minh-Ha Tran Indigenous Health Education Bursary, which is open to Aboriginal and Torres Strait Islander students in the Faculty of Medicine and Health and Behavioural Sciences. He says it couldn't have come at a better time.

"I applied for the bursary in my first year. I came into this knowing things would be tight. I'd been doing overtime and saving, but then there was day care, and then my laptop died. I still work casually as a paramedic sometimes, but the 12-hour shifts are tricky. We know where every dollar and every hour will be spent.

"Receiving the bursary covered my textbooks and contributed to a new laptop. It was a blessing and a great encouragement. We're lucky to have people like the Trans. They're good people and they're proud of our achievements."

Both Tronc and his wife Megan – a physiotherapist and UQ graduate – are from Chinchilla. They're keen to one day return to a rural community.

"Ultimately we'd like to settle in a small town and become part of the community. I'd like to be a rural generalist. That'll enable me to focus on Indigenous health issues and continue emergency medicine."

Tronc says their greatest challenge and motivation is their son, Charlie – who seems keen to follow in his father's footsteps.

"Studying with a toddler is a constant challenge. Charlie was 14 months when I started. He's three in November. I can't keep him out of the study. He steals my stethoscope. He's into firetrucks – he wants to be a 'fireman-doctor'. So I gave him a toy doctor's kit. He likes to check my ears." ●

"

"I originally thought about nursing, but the lights and sirens of the ambulance seemed more exciting."



In photos

Donor appreciation

Helene Shephard, Dr Hanna Sidjabat and Alison Dargan attended the Faculty's annual major donor and staff donor appreciation event. Donors were celebrated for their partnership and support of everything from life-changing clinical trials and research, to scholarships for deserving students.

Riverfire ception

Damian Topp, CEO PA Research Foundation, and Dr Bena Cartmill joined UQ supporters to celebrate philanthropy and watch the fireworks from Customs House's spectacular vantage point.



SIM lab tour

Cynthia Burnett (right in above image), generous donor and Co-Director of the Ford Burnett Foundation, toured the Francis Baron Burnett Simulation Centre and observed Greenslopes clinical school students practicing their skills on the Centre's mannequin.

Celebration of Giving





Medicine graduates of 1968 enjoyed a grand celebration for their 50th graduation anniversary, attended by Executive Dean Professor Geoff McColl (back, third from right). The group made a class donation to support infectious diseases research at UQCCR.

Reunions

The Medicine class of 1998 celebrated their 20 year reunion with a night of food, entertainment and reminiscing (pictured above). They also came together to support future students by contributing a philanthropic class gift to the Medicine Scholarship Endowment fund.



Support for teaching and learning

Dr Julie Ayre (right) presented a plaque to Mr Ken Madsen MBE and Mrs Pixie Annat in recognition of the Order of the British Empire's donation to UQ's Integrated Pathology Learning Centre. This 21st century facility holds a collection of over 3500 pathology specimens.





10 cheers for 10 years

UQ Centre for Clinical Research celebrated a decade of bench to bedside research.

From left to right: Professor Geoff McColl, Executive Dean, Faculty of Medicine, Professor Bronwyn Harch, Vice-Chancellor (Research), Professor David Paterson, UQCCR Director and The Honourable Dr Steven Miles MP, Minister for Health and Ambulance Services.



Health Matters Lecture

Faculty supporters Emeritus Professor Mary Mahoney AO. Pictured from left to right: David Henderson, Judith Henderson and Dr Patrick Mahoney enjoyed the sold out public lecture, *Back to bacteria: the good, the bad and the superbugs.*

McCallum Founders Lecture in Dermatology

The annual presentation, funded by Professor Richard McCallum and his family, honours the memory of Dr McCallum's father, Dr Norman McCallum, a pioneering Queensland dermatologist.

Pictured from left to right: Professor H. Peter Soyer, Professor Richard McCallum, Associate Professor Chris Baker, Sue Roberts (nee McCallum), Dr Amanda Godbolt and Executive Dean Professor Geoff McColl.





Spinal research

Students joined Perry Cross, founder and Executive President of the Perry Cross Spinal Research Foundation (front centre), and Professor Kaye Basford (front right) for a tour of AIBN and School of Biomedical Sciences' research facilities. The Foundation funds Dr Marc Ruitenberg's (back right) spinal cord injury research.



Tuning in to local learnings

With a background in nursing, education and project management, Christine Howard of UQ's Centre for Online Health is passionate about empowering local communities.

Howard is Project Manager of DREAMT, which employs Indigenous health workers in remote Aboriginal and Torres Strait communities to use telehealth to assist in the early identification of dementia.

UQmedicine caught up with Howard to discuss the DREAMT project and her work connecting Indigenous communities with geriatricians in Brisbane and Cairns.

"I have witnessed and experienced some of the adversities that people living in rural and remote locations face, and it drives me to create change."



You've spent a lot of time on Badu in the Torres Strait recently. Tell us about implementing DREAMT in that community. Is it typical of other communities you've visited? It's been like walking up a very steep mountain. I've learnt that there is no such thing as 'typical'. Badu is one of seven communities we're working with in the Torres Strait and South West Queensland. Each community has something unique and special about it. Whether it be the environment or the people, they are all different.

How do you engage with local Elders and Indigenous health workers to ensure that programs like DREAMT will be successful and useful for years to come?

By taking the time to ask advice from local health services and residents, we find out what the community's needs are, how they believe the service should run and how we can work together to achieve the best outcomes. Setting up the administrative process and identifying key stakeholders has taken a good deal of time and expertise, but there have been no set rules because everything has needed to be tailored for each community.

Where does your passion to create change in remote communities come from?

The people and communities themselves are what drive me. I have witnessed and experienced some of the adversities that people living in rural and remote locations face, and it drives me to create change.

During my time on Badu, I have been fortunate to have been welcomed by the community. I've come to understand that family and community are everything, that Country is more than just a piece of land, and that spirituality is both strong and powerful. But the biggest lessons I've learnt so far have come from witnessing how things are often out of the control of the local people. Things such as the difficulty of getting services up and running, or finding meaningful work opportunities that allow people to remain in their communities and close to family.

How can programs like DREAMT empower communities and provide better outcomes for patients?

DREAMT does this by giving ownership over how the project is implemented to the communities and their local health services. In saying that, DREAMT is definitely a collaborative effort. The local health services work with Elders and other members of the community to identify people with dementia and refer them for telehealth consults with specialists at the Princess Alexandra Hospital Telehealth Centre and Cairns Base Hospital. So even though ownership sits with the communities, DREAMT needs to be a strong partnership to get the best outcomes for everyone involved.

Has working on a project that spans incredibly remote and diverse communities challenged you to adapt and work differently?

Without a doubt! We recently held dementia education workshops on Badu, Kubin, St Pauls and Mabuiag in collaboration with Dementia Australia. The experience taught me to take everything I have learnt previously about promoting and running a workshop, and throw it out the window! What might work in Brisbane simply doesn't work in rural and remote communities. Here, community social media sites and word-of-mouth have been the best promotional tools.



To read the full interview, view this article online at medicine.uq.edu.au/magazine.

Bringing medical care closer to home

Medicine alumnus Dr Hayden Christie is a medical oncologist with the Wide Bay Hospital and Health Service. As the region's first permanent oncologist, Dr Christie says he feels a valued member of the local community. And, unsurprisingly, he loves the lifestyle.

Dr Hayden Christie graduated from the School of Medicine in 2007, completing his internship and residency with the Gold Coast University Hospital. It was there that he began pursuing an interest in oncology.

"I'd been interested in genetics and oncology since my undergraduate days," Dr Christie recalls.

"Genetics is heavily embedded within oncology and cancer research. I had a great mentor on the Gold Coast in Oncology Director Dr Jasotha Sanmugarajah, who really furthered my interest in the field."

Dr Christie says his appointment in 2016 as Wide Bay's first permanent medical oncologist is indicative of the growing opportunities for medical practitioners in rural areas.

"There's been a dramatic change in the short time I've been here. There's now a second oncologist and considerable uptake in cancer care. Bringing effective medical care closer to home is something I've always been passionate about – it's vital to the community and very rewarding as a practitioner."

As Dr Christie explains, distance can be a real barrier to medical treatment.

"Accessing cancer treatments in rural areas is not always straightforward. For many people, travelling for medical treatment can be extremely difficult. If you can take that issue out of the equation, it's a huge weight off their mind – they can concentrate on their health and quality of life."

Dr Christie didn't need to be sold on the benefits of life outside the big smoke. His early years were spent on a farm in New Zealand, before his family relocated to Australia, ultimately settling at the southern end of the Gold Coast. "I much prefer rural communities to big cities. I find it more satisfying – in work as well as daily life. For a medical practitioner, there's more of a generalist approach – you have to deal with whatever comes through the door. And you're a valued member of the local community."

Wide Bay is also home to one of UQ's Regional Training Hubs, making it a great environment for medical teaching and learning as well.

"As a student in a place like this, you're much more hands-on. You're part of the team, not just tagging along. You don't get that in a big city hospital. I think that makes you better prepared for your intern year – you're more confident and experienced."

Dr Christie says more and more students who experience rural practice are choosing to return after they graduate.

"In recent years, we're not only seeing more students choosing to learn here, but also choosing to stay. I think they come away valuing the many pluses of rural practice. There are great learning opportunities and great outcomes within local hospitals and the regional health system. It's no longer the case that you have to be in a bigger centre to be a specialist."

Two years on, the specialist oncologist is adjusting well to life in Wide Bay.

"It's not a hard part of the world to live in! My wife is from Bauple, so she's a local. We have two young kids. It's great for them. The schools are good. It's a tightknit community and a great lifestyle. And that makes all the difference in your daily work as a medical practitioner." ● "

"Bringing effective medical care closer to home is something I've always been passionate about – it's vital to the community and very rewarding as a practitioner." DR HAYDEN CHRISTIE



Yarning towards strength and resilience

As a proud Anaiwan woman, UQ PhD candidate Hayley Williams understands the value of culturally sensitive healthcare.

"I want to ensure families are supported throughout their experience and are able to recover well afterwards."

HAYLEY WILLIAMS

Williams is blending Indigenous and western methodologies to improve psychosocial support for Aboriginal and Torres Strait Islander children with burn injuries, their families and attending clinicians.

Her project is part of the Coolamon Study, a larger NHMRC-funded project run by the George Institute for Global Health in Sydney.

Williams was drawn to this project because of the high risk of psychological trauma and ongoing psychosocial implications for children with burn injuries.

"Improving health outcomes and services for Indigenous Australians by helping them to stay strong and resilient during such a difficult time is something I'm incredibly passionate about," Williams explains.

"I want to ensure families are supported throughout their experience and are able to recover well afterwards."

Williams is part of the Children's Burns and Trauma Research team at UQ's Child Health Research Centre. She works with the families of children treated at the Pegg Leditschke Children's Burns Centre at the Lady Cilento Children's Hospital.

Williams emphasises that burn injuries and treatment are distressing for both the child and caregivers.

"It's an awful thing for a parent to see their child in that state of pain. Burn injuries are described as one of the most painful and traumatising injuries a child can endure.

"If the psychosocial impact isn't addressed appropriately or in a timely manner, patients and family members can have ongoing emotional problems such as post-traumatic stress."

While working on the longitudinal aspects of the study, Williams noticed something lacking in paediatric burns care for Indigenous patients and their families.

"I realised they didn't want extra processes, such as best practice guidelines - they wanted people to make eye contact, ask how they were going and if they needed anything.

"So while their physical care was well looked after, their psychosocial needs remained largely unmet."

Williams's work begins when the child starts treatment. Once families grant permission, she sits in on their appointments and takes ethnographic observational notes.

The researcher then holds a 'thinking aloud session' where she asks each clinical staff member involved to reflect on each appointment.

"I ask questions like how they felt the family was coping, what they think went well and what they think could be improved.

"Once the child's treatment is complete, I sit down with their caregivers for a yarn. Yarning is a traditional method that provides caregivers with an opportunity to share their stories and experiences in a way that's guided by them."

As Williams explains, the focus is on the caregivers' experience from the time of their child's injury to the end of treatment - and the impact the injury and subsequent care have on their family.

"Yarning gives caregivers control over how much they would like to share, in what way and when. Everything is on the participants' terms, including the development of any resources or interventions at the end.

"It's incredibly important to me to make sure my project is doing these families justice and acknowledging their valuable understanding and expertise in this area.

"I firmly believe that if we can improve the physical and emotional health of our young ones, then we will set them up well for life."



Combating climate change, one step at a time



Associate Professor Linda Selvey's blood runs green. Born into a family of environmental activists, the former Greenpeace Australia Pacific CEO has been campaigning against climate change for decades.

"Fogging was not very effective at killing mosquitoes, but it killed many fish, frogs and birds," Dr Selvey recalls.

"Seeing my Dad's dedication to conservation and preserving the environment was my introduction to environmental health, and is something that helped shape my career."

Now Associate Professor at the School of Public Health, Dr Selvey's career started on a somewhat unusual path.

While studying medicine at UQ, she became enthralled with medical research and opted to pursue it alongside her conservation activities with the Rainforest Conservation Society of Queensland and The Wilderness Society.

As a fresh PhD graduate, Dr Selvey moved to Washington DC to work at the National Institutes of Health, and it was here that she began volunteering with a local community outreach program.

"I was creating exercise programs and support groups for grandmothers; working with them to find solutions to their social and economic circumstances. I found it far more interesting than the work I was doing in the lab. So I thought studying public health might be the right path for me."



Dr Selvey enrolled in a Master of Applied Epidemiology and was posted to Queensland Health to complete her degree. She ultimately became Executive Director of Population Health Queensland.

But the call towards conservation and environmental activism remained. After being trained by Al Gore to speak on climate change, and subsequently presenting about its health impacts, Dr Selvey was soon appointed CEO of Greenpeace Australia Pacific.

"Being part of a global organisation with all its arms trying to work together to deal with climate change was both extremely challenging and rewarding."

Though Dr Selvey has moved into academia at the School of Public Health, she is committed to spending more of her time fighting climate change.

"By stopping climate change, there's a real opportunity to build a better world. A lot of what's driving climate change is also driving other really bad things – like divisions in society, increasing gaps between the rich and poor, and racism.

"We won't tackle climate change until we address all of those other problems too."

Growing up in 1960s Darwin, Dr Selvey witnessed her father lead a successful campaign against fogging for mosquitoes using malathion and diesel.

From the playground to cyberspace, bullying among children and adolescents is a hot topic. To understand the impact, and evaluate potential interventions, we need to reliably define and measure the behaviour in its various forms. This is the focus of UQ postdoctoral researcher Dr Hannah Thomas.

Research tackles *bullying*

The psychology graduate completed her PhD on bullying and cyberbullying in adolescents with the Faculty of Medicine in 2017. Central to her recently published research, Dr Thomas developed a tool for measuring bullying – surveying more than 1200 adolescents from 10 secondary schools.

"How we study bullying and evaluate our interventions is based on how we measure and define it," Dr Thomas explains.

"The tool I developed seeks to aid that process and encourage young people to anonymously report the types of behaviours they experience. It's a cornerstone for being able to study and intervene on this issue."

The work draws on the researcher's combined interests in psychology and mental health.

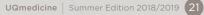
"We've demonstrated that being bullied uniquely contributes to the onset of depression and anxiety. If we can reduce the prevalence of bullying – building positive relationships and healthy social environments – perhaps we can reduce rates of mental illness."

Dr Thomas and her colleagues at the Queensland Centre for Mental Health Research have recently had bullying included as a risk factor for depression and anxiety in the Global Burden of Disease Study. The researcher says this will promote recognition of the impacts of bullying and foster support for intervention.

"The case for prevention has only become stronger. By having bullying established as something that unequivocally causes harm, we can inform and encourage policy-makers to take a whole-of-community approach to the issue.

"Widespread uptake of strategies that reduce bullying will improve the mental health of the community."

To donate to mental health research, visit medicine.uq.edu.au/philanthropy.





The clock watcher

Dr Oliver Rawashdeh doesn't waste time. He's a chronobiologist – a specialist in periodic (cyclic) physiological phenomena, or the science of our inner clocks. The 40-year-old School of Biomedical Science lecturer speaks five languages, has lived in five countries and married his Argentian wife just six months after they first met. "Research shows that well before physiological changes start appearing in the brain, there's a disturbance to sleep patterns and other circadian rhythms." DR OLIVER RAWASHDEH



Born in Germany to a German mother and Jordanian father, Dr Rawashdeh moved to Jordan with his family when university scholarship obligations saw his father recalled home. Dr Rawashdeh, his four siblings and parents remained stranded in Irbid – Jordan's third largest city – for the duration of the first and second Gulf Wars.

Dr Rawashdeh recalls the experiences of growing up near an active warzone vividly.

"We were able to see the rockets being launched from neighbouring countries because they had to go over us in Jordan," he explains.

"It definitely was a 'highlight' of our time there.

"I can remember being issued with chemical warfare suits and looking at the chemical weapon antidote injections. To us, they seemed as thick as our thighs."

After letting go of his teenage dream of becoming a pilot for Lufthansa Airlines, Dr Rawashdeh undertook a bachelor's degree in biology at Jordan's Yarmouk University.

It was through his undergraduate supervisor's connections to a lab at the University of Houston that he was introduced to the field of chronobiology. "The Houston lab was the first to try linking the body clock with other fields, such as neuroscience, instead of just studying the clock's mechanisms.

"Adopting an interdisciplinary approach – in this case to investigate how the body clock affected memory – meant the lab was way ahead of others."

Dr Rawashdeh ultimately completed his master's and PhD at the University of Houston. Today at UQ, he studies how light regulates the body clock and physiology in general.

"We are working towards translating our research to help combat neurodegenerative diseases like Huntington's disease, Parkinson's disease and Alzheimer's disease.

"Research shows that well before physiological changes start appearing in the brain, there's a disturbance to sleep patterns and other circadian rhythms.

"We're now ready to investigate how a disrupted body clock can contribute to disease progression and exacerbation."

Aside from getting him hooked on chronobiology, Dr Rawashdeh has one more thing to thank his colleagues for.

"My Argentinian colleague in Houston had been trying to set me up with her friend for years.

"Although I took some convincing, I finally went to Argentina and swept my wife off her feet." •

The gift of a lifetime

With a career spanning four decades, multiple cities and many hours spent teaching medical students and registrars, Medicine alumnus and radiologist Dr Shane Thompson wants his legacy to reflect what initially attracted him to medicine.

"I was inspired to study medicine when I was 16 years old after I heard a lecture by UQ's Medical Dean at the time, Professor Eric Saint," Dr Thompson recalls.

"I vividly remember him saying that 'with medicine, the world is your oyster – you can go anywhere and do anything', and that really stuck with me."

As a young radiologist, Dr Thompson received a scholarship that enabled him to work overseas. He spent more than a year working at the Bristol Royal Infirmary in the UK and as a radiology research fellow at the Massachusetts General Hospital (the original and largest teaching hospital of the Harvard Medical School) in Boston, USA.

These invaluable experiences had a significant impact on Dr Thompson's career – such an impact that the now-retired radiologist has decided to leave a multimillion-dollar legacy gift to establish the Dr Shane Thompson Radiology Scholarship. The bequest scholarship will enable a senior radiology registrar or fellow to attend a leading radiology training facility overseas.

"The opportunity I was given in my early career was so rewarding; it broadened my mind and exposed me to different medical systems around the world. I learnt so much about the standards and contrast in quality of care in different countries and populations, which helped shape my career.

"I hope to create a similar opportunity to help someone else further their career in radiology, and a legacy gift seemed like the perfect way to do this. I want to give that gift to someone else."

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To create your legacy through a bequest gift, contact Advancement on +617 3365 5077 or email med.advancement@uq.edu.au.

"I vividly remember him saying that 'with medicine, the world is your oyster – you can go anywhere and do anything', and that really stuck with me." DR SHANE THOMPSON

Together, our greatest days lie ahead.

Kah Meng Lee, Dr Nickolas Lavidis and Erica Mu

Growing opportunities and improving health through generosity.

Neuroscientist Associate Professor Nick Lavidis believes in the power of education to change lives. To help students struggling with acute financial hardship, Dr Lavidis established the Anastasios and Evangelia Lavidis Grant in Aid fund at the School of Biomedical Sciences. The fund honours the memory of Dr Lavidis' parents by addressing a need he knows they would have been proud to support.

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