

June 2020

LATEST NEWS FROM THE UNIVERSITY OF QUEENSLAND

TOP STORIES

UQ and CEPI partner with CSL to advance COVID-19 vaccine

A landmark partnership will help to <u>accelerate</u> the future development, manufacture and distribution of a University of Queensland COVID-19 vaccine.

UQ holds strong in world top 50 rankings

The University of Queensland has <u>increased</u> its standing in the QS World University Rankings for 2021, coming in at number 46 worldwide and taking out the top spot for Queensland once again.

National honours shine a spotlight on UQ scientists

Members of The University of Queensland community have been <u>recognised</u> in the 2020 Queen's Birthday Honours.

STUDENTS' ACHIEVEMENTS AND TEACHING & LEARNING

- The School of Law's Willem C. Vis International Commercial Arbitration Moot team <u>placed equal third</u> <u>out</u> of 260 teams in the first-ever virtual competition – the best result for UQ in the oral rounds since winning in 2000 and placing second in 2002.
- ilab alumna Ashley Baxter and her team secured significant <u>funding</u> from investors to manufacture for advanced composting technology, <u>Monty</u>.
- The School of Economics launched its <u>Borderless competition</u> an interuniversity economic competition series that invites students to work together via digital platforms to address global economic problems.
- UQ medical PhD student Cody Frear won the <u>2020 national FameLab® championships</u> with a research presentation on treating children's burns.
- UQ alumna Leonie Bowles was awarded a <u>Gates Cambridge Scholarship</u> to study a Master of Philosophy in Conservation Leadership at the University of Cambridge, UK.
- The Institute of Continuing & TESOL Education (ICTE) created a <u>fly through virtual 360° tour</u> that allows prospective students to explore its unique learning environment and facilities.
- The Institute of Continuing & TESOL Education moves to <u>online delivery</u> to enable offshore students to reach their English language goals.
- The <u>Australian Indigenous Mentoring Experience</u> (AIME) is available to UQ Indigenous students to support them through university, into employment and further education.
- UQ Law alumna Mia Williams was recognised in the 2020 Women Lawyers Association of Queensland Inspo List.



RESEARCH, DISCOVERY AND PARTNERED INNOVATION

Grants and Funding

- The Federal Government <u>announced</u> \$12.8 million for 26 UQ research projects in the ARC Linkage Grants scheme, the largest investment for any Australian university.
- Two UQ <u>research projects</u> to develop early and improved diagnostic tests to lift ovarian cancer survival rates have been made possible with grants totalling more than \$3 million combined under the Federal Government's Medical Research Future Fund (MRFF).
- Australian Institute for Bioengineering and Nanotechnology (AIBN) researchers have secured new <u>funding</u> to help the design of new nanomedicines, diagnostics and to strengthen collaborative industrypartnered research projects.
- AIBN's Professor Debra Bernhardt and Dr Baris Demir secured <u>funding</u> from the Foundation for Australia-Japan Studies (FAJS) for a joint research project with colleagues in Japan.
- Professor Massimo Hilliard and Professor Geoffrey Goodhill received National Health and Medical Research Council Investigator grants to continue their research to help shed light on brain and neurodevelopmental disorders.
- An Institute for Molecular Bioscience mission to reprogram innate immunity to combat inflammatory and infectious diseases has been <u>supported</u> by a National Health and Medical Research Council (NHMRC) Investigator grant.
- Professor Tamara Walsh and colleagues from the School of Law received a Medical Research Future Fund (MRFF) Genomics Project Grant for their project on genomics and disability.
- Associate Professor John Asafu-Adjaye from the School of Economics received an additional \$70,000 in funding for his research collaboration with the Papua New Guinea National Research Institute.
- Dr Rebecca Ananian-Welsh and Professor Peter Greste received further funding of \$100,000 for their project, 'Journalistic Freedom in Australia'.
- UQ Business School's Professor Andrew Burton-Jones was awarded a five-year research grant for \$3.08
 million with the Digital Health CRC to assist the digital transformation of health care in Queensland
 through discovery and capacity building. The program will also support several PhD students and a
 postdoctoral position.
- Associate Professor Rain Liivoja was awarded a grant from the Branco Weiss Fellowship Collaborative Grants Program for the research project, 'Autonomy and Reciprocity: Ethical Perspectives in Human Neurosciences and Beyond'.

Discoveries

Australian researchers begin clinical trials of a <u>potential treatment</u> for COVID-19 – using two existing drugs.



- UQ researchers co-lead an international study which has <u>revealed</u> the critically endangered night parrot's visual system is not as well-adapted to life in the dark as would be expected for a nocturnal bird.
- UQ researchers have <u>developed</u> a new way to produce nanoparticles that carry much higher drug concentrations.
- UQ researchers <u>discovered</u> that hard nanoparticles can enter human cells, including cancer cells, much more easily than soft 'squishy' nanoparticles.
- Sensing movements in the water is critical to the behaviour and survival of fish and amphibians QBI have now <u>described</u> the brain networks that allow fish to detect water flow.
- UQ researchers <u>revealed</u> regional sex differences in the hippocampus an area of the brain important for memory, learning and emotions.
- Australians have seen a huge <u>increase</u> in telehealth consults since the outbreak of COVID-19.
- According to a <u>working paper</u> released by UQ's Institute for Social Science Research, Australia's COVIDSafe app needs to be faster and have higher uptake rates to be effective as the nation's digital contact tracing solution.
- UQ researchers <u>discovered</u> why only 34 per cent of mothers exclusively breastfeed to six months, despite the global push to increase rates to 50 per cent.
- An international study <u>revealed</u> the proportion of Australians with bad cholesterol levels has dropped significantly, while Asian and Pacific countries recorded a sharp rise.
- UQ research <u>discovers</u> targeting large clones of skin cells caused by ultraviolet irradiation (UV) may help reduce skin cancers.
- UQ research into sheep faeces could hold the key to <u>developing</u> the next generation of antiparasitic treatments that could protect Australian livestock.
- UQ researchers may have found a way to <u>improve</u> treatment of triple-negative breast cancer.
- Common non-antibiotic medications like anti-inflammatories and a lipid-lowering cholesterol drug can accelerate the spread of antibiotic resistance, <u>according</u> to UQ research.
- Queensland Brain Institute researchers <u>discovered</u> that a small change in the timing of gene activity may have triggered the evolution of our brain's corpus callosum.
- An international study <u>discovered</u> that deep oceans are warming at a slower rate than the surface, but it's still not good news for deep-sea creatures.
- UQ-led research <u>revealed</u> three quarters of migratory birds are being threatened by widespread and unsustainable hunting across the Asia-Pacific region.
- UQ researchers <u>discovered</u> saliva could be humanity's best friend in fighting the COVID-19 pandemic.
- Testing <u>revealed</u> nearly two million antibody tests imported into Australia are not much better than flipping a coin.
- UQ research revealed cats are twice as likely to survive a venomous snakebite than dogs.
- Dr Stan Steindl co-lead an international consortium of researchers <u>exploring</u> COVID-19's psychological effects in 18 countries, and how compassion can help reduce pandemic-related stress.



- A UQ <u>study</u> called for an end to solitary confinement in Queensland prisons because of the impact on the mental and physical health of prisoners.
- Queensland researchers lead a worldwide clinical study using AI to <u>examine</u> COVID-19 patient data from intensive care units to provide insight for health professionals to determine the best treatments for the disease.
- Few financiers of international infrastructure program, the Belt and Road Initiative (BRI), are requiring biodiversity safeguards, <u>according</u> to UQ research.
- UQ researchers have <u>developed</u> a set of recommendations to manage the mental health of frontline medical workers during viral outbreaks, such as COVID-19.
- A new mathematical framework that <u>mimics</u> the spread of a virus using mobile phone technology could lead to safer and more effective easing of social distancing.
- According to an international research collaboration <u>investigating</u> Australia's historical and contemporary land-use, logging of native forests increases the risk and severity of fire and likely had a profound effect on the recent Australian bushfires.
- UQ Diamantina Institute researchers <u>discovered</u> growth hormones played a key role in reducing inflammation and increasing survival rates following liver surgery.
- A study of deforestation in Colombia by UQ researchers has <u>revealed</u> some valuable insights which could be used to help slow deforestation in areas around the globe.
- UQ research has <u>found</u> speech pathologists lack a consistent approach to communicating post-stroke recovery information to patients.
- According to a UQ <u>study</u>, developers may struggle to find enough land to offset the biodiversity impacts of future development.
- A UQ study <u>revealed</u> that people with mental disorders are many times more likely to develop other health conditions, highlighting the need to provide them with better medical care.
- According to UQ research, <u>practising</u> self-compassion during distressing moments can have positive effects on the brain and body.
- UQ researchers say a new tool to measure the quality of life of people with dementia will <u>result</u> in better targeted care for those living with the condition.
- UQ <u>research</u> uses old photos from Mount Morgan's sealed off 'Dino Cave' to shed light onto new and unusual Aussie dinosaur behaviours.
- A UQ study finds positive signs for the domestic tourism industry as national data <u>reveals</u> Australians are keen to travel close to home when COVID-19 restrictions are lifted.
- Populations of Australia's threatened mammals have declined by 38 per cent on average in 20 years, yet collaborative research <u>shows</u> conservation efforts have led to significant recoveries.
- An international team of scientists has <u>found</u> a combination of two different approaches to protecting biodiversity could achieve the best results.
- UQ researchers <u>discover</u> molecules in tarantula venom could be used to potentially relieve chronic pain as an alternative to opioid pain killers.
- A study has <u>revealed</u> eating the traditional 'three-vegies' regularly before pregnancy lowers the risk of a premature birth.



- An international research team, involving UQ scientist Professor Luke Guddat, has tested more than 10,000 compounds to <u>identify</u> six drug candidates that may help treat COVID-19.
- UQ's Research Computing Centre (RCC) has <u>created</u> a powerful new computer called Delena, housed at the Australian Institute for Bioengineering and Nanotechnology (AIBN).
- According to UQ research, freeways have <u>failed</u> to solve traffic congestion, but transport planners globally are hesitant to remove or rethink them.
- Researchers have <u>uncovered</u> how shifting light patterns help protect fish from predators on the Great Barrier Reef.
- UQ research <u>discovers</u> genetic variations in the skin can create a natural sunscreen.
- A UQ study has <u>found</u> many components of marine ecosystems could be rebuilt if the cause of their decline are addressed.
- A UQ study has <u>revealed</u> that carbon capture and storage (CCS) could be a real option for Queensland.
- The world's animal distribution map will need to be redrawn and textbooks updated, after researchers discovered the existence of 'Australian' species on Christmas Island.

Partnered Innovation

- A <u>partnership</u> between UQ researchers and Gilmour Space will see new technologies for a nextgeneration hybrid rocket that will launch small satellites into low-Earth orbits from 2022 developed in Queensland.
- UQ bush food researchers are <u>working</u> with Indigenous communities in Arnhem Land to commercialise native green plums.
- Vaxxas, founded by UniQuest, will <u>partner</u> with global biotechnology company Merck (MSD) and German pharmaceutical manufacturer Harro Höfliger in two separate deals relating to the company's needle-free vaccine delivery technology.
- UQ has <u>partnered</u> on a new artificial intelligence (AI) centre to support businesses and attract worldleaders in technology innovation to the state.
- Dr Ben Schulz and PhD candidate Edward Kerr have <u>licensed</u> their wild yeast variety, hand-picked from a jacaranda tree at UQ, to Newstead Brewing Co with the help of UniQuest.
- A team of UQ researchers <u>collaborated</u> with university colleagues from the Group of Eight to contribute to the <u>Roadmap to Recovery report</u>.
- Thanks to a partnership between UQ and Metro South Hospital and Health Service (MSHHS), nursing students can <u>progress</u> their studies and enter the workforce sooner.
- UQ and Triple P International <u>launch</u> a COVID-19 online parenting resource to help parents cope more effectively with the unique challenges of the coronavirus pandemic.
- In <u>partnership</u> with UQ's Parenting and Family Support Centre and the Dermatology Service at the Queensland Children's Hospital, a UQ Triple P Positive Parenting Program will be trialled to help parents reduce the severity of their children's eczema.
- An <u>international collaborative research project</u> led by UQ's Professor Anna Koltunow, with support from the Bill & Melinda Gates Foundation, works to exploit quirks in plant reproduction to boost yields in two staple crops for crop farming communities in sub-Saharan Africa (SA).



ACHIEVEMENTS AND AWARDS

- UQ's <u>COVID-19 vaccine</u> passes an important milestone, showing the ability to raise high levels of antibodies that can neutralise the virus in early pre-clinical testing.
- Dr Danni Zheng from the UQ Business School's Tourism discipline was awarded the 2019 Rama Krishna Sastry Pappu Memorial Prize in Business.
- ARC Laureate Fellow Professor Sara Dolnicar from UQ Business School received the 2019 Charles R. Goeldner Article of Excellence Award by the Travel and Tourism Research Association for her research focused on helping to increase environmentally friendly practices in hotels. She is the only person to win this award three times.
- Members of the UQ community were <u>recognised</u> in the 2020 Queen's Birthday Honours.
- Pro Bono Centre Director Monica Taylor won the 2020 Queensland Law Society Award for Best Feature Article (Proctor).
- Professor Jolanda Jetten and Professor Alex Haslam, and other international experts, <u>collaborated</u> on *Together Apart: The Psychology of COVID-19*, using decades of insights from social psychology research to better understand events of recent months.
- UQ researchers have <u>launched</u> universal Therapeutic Drug Monitoring (TDM) guidelines to optimise the concentrations of antibiotic and antifungal medications.
- Two UQ professors join an international team of experts to outline ways to manage life during the COVID-19 pandemic, using existing research from the social and behavioural sciences.
- A special COVID-19 online parenting resource has been <u>launched</u> to help parents cope more effectively with the unique challenges of the coronavirus pandemic.
- Researchers <u>achieve</u> the first step in developing an early warning surveillance system to track COVID-19
 prevalence in the community through tracing the presence of the novel coronavirus gene in raw
 sewage.

ENTREPRENEURSHIP AND ENGAGEMENT

- The UQ Ventilator Design Hackathon <u>brought together</u> 200 bright engineers and their students to design a variety of ventilator components that could be manufactured locally within an emergency time frame.
- BEL communications staff and Law School staff collaborated on a new, weekly online series called <u>The</u> <u>Witness Box</u>, where Law students interview noteworthy guests working in the profession.
- To help individuals and businesses thrive during uncertain times, including the tourism industry, the UQ Business School launched a <u>community engagement campaign</u> for three online courses covering leadership, innovation, management and resilience-building across a range of industries via online learning platform edX.
- Entrepreneur in Residence Cameron Turner hosted a series of UQ Business School webinars with local entrepreneurs as guests (including Queensland Chief Entrepreneur Leanne Kemp), discussing the growth strategies entrepreneurs, corporates and investors are using to find product market fit to thrive through the Decade of Disruption.



• The Faculty of Business, Economics and Law (BEL) launched <u>UQ A2A (Alumni-to-Alumni)</u>, an online flash-mentoring platform which allows BEL alumni to build connections, ask questions and get advice from other alumni. UQ A2A will soon be rolled out to all UQ alumni.

• The BEL communications staff created <u>eCorner</u> and <u>The Hub</u> for Economics and Law students respectively. These online platforms contain information on scholarships, news, programs and virtual events, all collated in one place in a digestible format to help students through this challenging time.

APPOINTMENTS

- The Australian Academy of Science has <u>elected</u> Professor Justin Marshall and Professor Alan Rowan as Fellows for their sustained contributions to research and scientific endeavour.
- Associate Professor Paul Harpur became a member of the editorial board for the new *International Journal of Disability & Social Justice*.
- Professor Paula Jarzabkowski from the UQ Business School was elected a Fellow of the Academy of Management, a professional association for management and organisational scholars.
- Faculty of Humanities and Social Sciences Executive Dean Professor Heather Zwicker has joined UQ's Ally Network as an Executive Champion in 2020.

OTHER ITEMS OF INTEREST

- Dr Helen Marshall's novel, *The Migration*, has been optioned by multi-award-winning television production company Clerkenwell Films to be <u>developed</u> into a television series.
- University of Queensland Press launched their <u>new website</u>, e-commerce platform, UQP membership program and UQ Bookclub.
- Professor Luke Connelly participated in an <u>online expert panel</u> organised by QUT and the Queensland Academy of Arts and Sciences on how data science can provide insights into COVID-19.
- UQ's installation of the state's largest behind-the-meter battery has saved almost \$74,000 in electricity costs in three months.
- School of Law staff participated in LawRight's 2020 Queensland Legal Walk during Law Week.
- Professor Kate Schroder on working from home the superpower to defeating COVID-19.
- Professor Ian Henderson and Dr Larisa Labzin <u>discuss</u> COVID-19 immunity, vaccine development, epidemiology and what we do and don't know.
- A UQ <u>creativity project</u> let young Queenslanders have the chance to submit a postcard from a hopeful, post-COVID future.
- Stuck together in isolation, three UQ scientists <u>started</u> an online challenge to get people more acquainted with our (very) local wildlife.
- Professor Ryan Ko writes on how people can <u>prevent</u> the spread of COVID-19 misinformation online.
- UQ awarded 50 <u>UQ Sporting Scholarships</u> to <u>51 student-athletes</u>, with Olympic, Paralympic and Australian representatives among the group of 2020 beneficiaries.



- <u>UQ won the women's division</u> at the <u>2020 UniSport Nationals Triathlon</u> event, held at the Mooloolaba Triathlon on 15 March.
- UQ Sport launched its <u>Stay Active and Keep Connected</u> digital media campaign in April, providing the UQ community with access to online workouts, as well as health and fitness resources.

<u>VALE</u>

- **Dr Ira Poon**, passed away 14 May 2020. Dr Poon was a current student in the Doctor of Medicine, Paediatrics and Child Health program.
- **Dr Robert (Bob) Day**, passed away 30 May 2020. Dr Day was a science alumnus of UQ (Geology and Mineralogy), a former Director-General of the Department of Mines and Energy, and donated \$700,000 to UQ between 2011-2019 through the Robert Day Postdoctoral Research Fellowship in Palaeontology and Stratigraphy
- Emeritus Professor Kenneth Scott, passed away 8 April 2020. Emeritus Professor Scott was a Former UQ Senate Member from 1987 to 2007.
- Emeritus Professor Alan Fogg, passed away 14 April 2020. Emeritus Professor Fogg was a graduate and former Professor of the UQ School of Law who specialised in Planning and Environmental Law.
- Mr Matthew Hamilton, passed away 17 April 2020. Mr Hamilton was a current fourth-year Doctor of Medicine student.
- Mrs Elva Emmerson, passed away 6 June 2020. Mrs Emmerson was a donor to UQ. She gave \$100,000 in 2019 to create the Professor Bryan Emmerson Medical Scholarship Endowment in honour of her late husband.
- Mr Hamlin Cox, passed away 10 June 2020. Mr Cox was a current Bachelor of Architectural Design student.