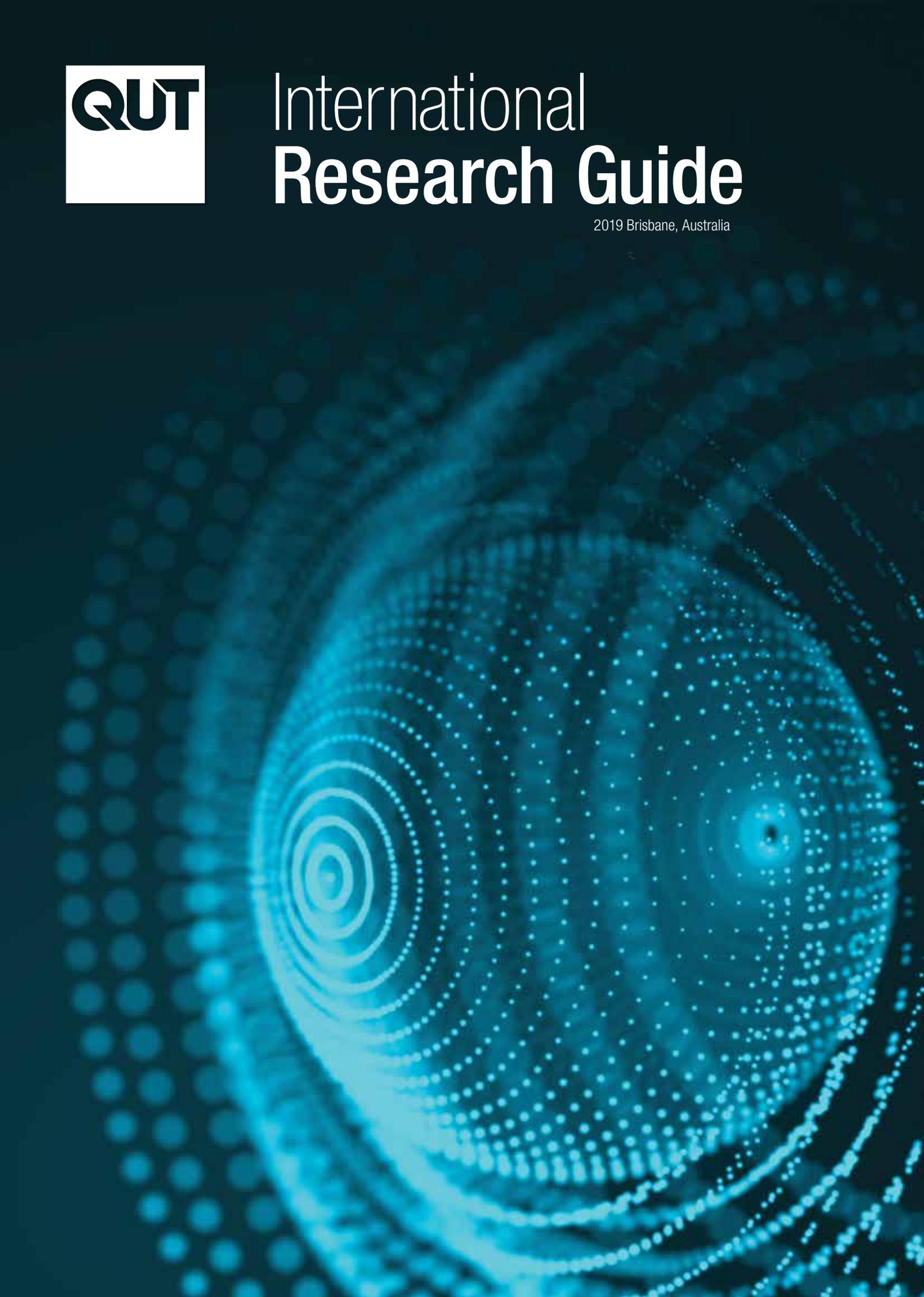




# International Research Guide

2019 Brisbane, Australia



# Research expertise

## BILL AND MELINDA GATES FOUNDATION

In 2005, Distinguished Professor James Dale from QUT's Centre for Tropical Crops and Biocommodities gained the support of the Bill and Melinda Gates Foundation (BMGF) to grow genetically modified bananas to address Vitamin A deficiencies in East Africa. It is one of the most significant biofortification projects in the world today.

After a decade long research backed with close to \$17.5 million from the Bill & Melinda Gates Foundation and the UK Government's Department for International Development, Distinguished Professor James Dale, has developed a genetic modification process resulting in a banana filled with pro-vitamin A and iron which can improve the health of thousands of people especially in Uganda, where bananas are the major staple food in their daily diet.

Professor Dale's work with bananas has been extended to India, with an enhanced focus on disease resistance.

For more information on QUT's research partnerships: [www.qut.edu.au/research/whyqut/expertise](http://www.qut.edu.au/research/whyqut/expertise)



**100%**   
OF OUR SUBMITTED  
**RESEARCH**  
WAS RANKED WORLD STANDARD  
OR ABOVE IN THE  
2015 EXCELLENCE IN RESEARCH  
FOR AUSTRALIAN ASSESSMENT

QUT's Distinguished Professor  
Dietmar W Huttmacher

# A university for the real world

Our research is focused on progress, pushing the boundaries and developing new ideas through transdisciplinary thinking.

Choose QUT if you're after a research university that's breaking new ground, working with true experts, learning and discovering in cutting-edge facilities, and funding the future of research innovation in Australia.

We've identified and invested in areas of research identified as priorities for the world, the nation and the state. In each of these areas we're continuing to build on the strength and experience of our experts.

Be a part of a more progressive, collaborative approach to research. Be an agent of change.



**QUT RANKED**   
**3rd** IN AUSTRALIA  
AND  
**18th**   
IN THE WORLD IN  
QS TOP 50 UNDER 50  
2018



WE WERE RANKED IN THE



**TOP 300 UNIVERSITIES**

GLOBALY BY THE 2017 ACADEMIC RANKING OF WORLD UNIVERSITIES (SHANGHAI JIAO TONG)

**2nd**  IN AUSTRALIA  
AND **31st** IN THE WORLD

for communication and media studies in the QS World University Ranking by Subject, 2018

**2nd** QUT IS RANKED IN AUSTRALIA  
AND  
**35th** GLOBALLY

for Employer-Student Connections in the QS Graduate Employability Rankings (2018)



Professor Jean Burgess, Director, Digital Media Research Centre

IN RECENT YEARS MORE THAN  
**\$500 MILLION** 

SPENT ON ENHANCED LECTURE THEATRES, STUDIOS, LABORATORIES AND COMMUNAL SPACES FOR IDEA SHARING AND NETWORKING

## WORLD LEADERS IN DIGITAL MEDIA RESEARCH

The Digital Media Research Centre (DMRC) is a leading Australian centre for media and communication research, areas in which QUT has achieved the highest possible rankings in ERA, the national research quality assessment exercise.

Based in the School of Communication, we collaborate across disciplines to address the challenges of digital media for journalism, public communication and democracy; the dynamics and regulatory challenges of emerging digital media economies; and the embedding of digital media technologies into everyday life.

WE'RE RANKED  
**6th**  IN AUSTRALIA  
AND **36th** IN THE WORLD  
for nursing (QS World University Ranking by Subject, 2018)

**4th**  IN AUSTRALIA  
FOR COMPUTER SCIENCE  
in the Times Higher World University Rankings by subject 2018

# Research degrees

Our Doctor of Philosophy, Professional Doctorate and Master of Philosophy students are entrepreneurial agents of change, developing potential as leaders and innovators who are able to respond to world problems. Whether you are just beginning your research studies or continuing at a higher level, our degrees offer a unique and enriching research experience.

## PhDs

### Academic entry requirements

To qualify for entry to a PhD, you usually need to have achieved one of the following:

- successfully completed a research masters degree
- begun a research masters, and progress to the PhD program after 12 months
- graduated from an honours degree with a First Class or 2A Honours.

English language requirements: IELTS 6.5 Overall (with no sub-score below 6)

A PhD course allows you to develop new theories, methodologies and models that will progress the future of your profession or discipline. This course is ideal for you if you want to make a significant original contribution to your field and plan to pursue a career in industry, community, government or academia.

**PhD**- Four years maximum (milestones are set to support completion within a three year expected completion date)

## PROFESSIONAL DOCTORATE

If you are seeking career development through high level applied research, a professional doctorate course is tailored for you. You will combine your research with your professional practice to resolve current industry problems and find real solutions.

**Prof Docs**- Four years maximum (milestones are set to support completion within a three year expected completion date)

## MASTER OF PHILOSOPHY

### Academic entry requirements

To qualify for entry to the Master of Philosophy, you usually need to have:

- a proposed research project that the faculty has the resources to supervise and support

either:

- a completed bachelor degree (AQF Level 7) or equivalent in a relevant discipline, with a minimum grade point average of 5 (on a 7 point scale) and relevant professional or research experience
- a completed bachelor honours degree (AQF Level 8) in a relevant discipline.

English language requirements: IELTS 6.5 Overall (with no sub-score below 6)

Designed to keep pace with a changing world, this course gives students the opportunity to complete an internationally-recognised graduate research degree. With optional training opportunities and experiences, and distinct cohort models, our Master of Philosophy is a unique research degree that provides the ideal stepping-stone to a PhD or a smooth transition to industry sectors.

**Master of Philosophy** -Two years maximum (milestones are set to support completion within an 18 month expected completion date )

## INTERNATIONAL EXPERIENCE

QUT offers Joint PhDs with some leading global research universities. For outstanding students, this represents a unique opportunity to study across two countries and two universities with a view to graduating from both institutions. If you are interested in a Joint PhD, please talk to your potential supervisor about available opportunities.

QUT welcomes students currently enrolled in research studies at quality overseas universities, to research at QUT. Opportunities for exchange will depend on the research topic and QUT's capacity to provide research expertise and resources to support the work. If you are interested in research on exchange, please contact a potential supervisor or faculty research office about available opportunities.

## RESEARCH AREAS

Within each research area there are many topics to explore. Here is a snapshot:

## Business

- Accountability, regulation and governance
- Consumers, markets and stakeholders
- Economics and finance

## Creative Industries and Innovation

- Digital media, communication and culture
- Innovation in the performing and digital arts
- Sustainability and innovation in design

## Education

- Childhood in changing contexts
- STEM education
- Literacies, culture, digital media

## Health and Biomedical Innovation

- Behavioural neuroscience and mental health
- Healthy lifestyles, ageing and environments
- Chronic conditions, including cancer

## Law and Justice

- Commercial and property law
- Crime and justice
- Health law

## Science and Engineering

- Chemistry, physics and mechanical engineering
- Civil engineering and the built environment
- Earth, environmental and biological Sciences

For more information:

[www.qut.edu.au/research/study-with-us](http://www.qut.edu.au/research/study-with-us)



# Research with impact



We aspire to be a globally leading university through high-impact, transdisciplinary research, strong partnerships, and a unique focus on technology and innovation.

Our culture values high performance and agility, and encourages entrepreneurship in students, staff and alumni, to drive economic activity in the real world.

Our research is user-inspired with an applied focus, with transdisciplinary collaboration facilitated through our two flagship institutes: Institute for Future Environments (IFE) and Institute for Health and Biomedical Innovation.

For more information on QUT's research experts visit: [www.qut.edu.au/research/whyqut/expertise](http://www.qut.edu.au/research/whyqut/expertise)

## COTSBOT

Dr Feras Dayoub and Dr Matthew Dunbabin are the team behind COTSbot. This robot seeks out and controls the Great Barrier Reef's crown-of-thorns starfish (COTS) which are responsible for 40 per cent of the reef's total decline in coral cover. COTSbot has been developed as a first responder for ongoing eradication programs – deployed to eliminate the bulk of COTS in any area, with divers following a few days later to hit the remaining COTS. QUT roboticists successfully trialled COTSbot on the Great Barrier Reef, verifying each COTS identification the robot made before the robot was allowed to inject it. The roboticists have begun to scale up the manufacturing and deployment of the COTSbot.

## 3D TECHNOLOGIES ADD ANOTHER DIMENSION TO HEALTHCARE

The rise of biofabrication is revolutionising modern medicine.

QUT's Distinguished Professor Dietmar W Hutmacher is leading a multidisciplinary team which is developing biomaterial (bioink) software and hardware. The patient-specific 3D printed implants containing anti-cancer chemotherapy will deliver life-saving treatment for breast cancer patients.

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*"The chemotherapy drugs on the surface of the scaffold allow drugs to be delivered to the cancer site instead of the whole body as is the current practice," Professor Hutmacher said.*

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This development follows QUT's partnership with Metro North Hospital and Health Services to establish the Herston Biofabrication Institute – the first of its kind in Australia dedicated to 3D technologies for the hospitals of the future.



### UNLOCKING KEYHOLE SURGERY INNOVATION

Keyhole surgery is a complex process, even for the most experienced surgeons. But that is all about to change with QUT developing a new class of medical robotics that can see soft tissue and be tracked by surgeons in real-time.

Project leader and renowned orthopaedic surgeon, Professor Ross Crawford, said the new system combining state-of-the-art miniaturised stereo cameras, 4D ultrasound sensing, and artificial intelligence can see the position of soft tissue like tendons and ligaments, as well as bone and medical tools.

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*“Working with a dynamic 3D model rather than a flat image on a screen is a real game changer in terms of accuracy in keyhole surgeries.”*  
*Professor Crawford said.*

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### DROUGHT RESISTANT CROPS COMBAT CLIMATE CHANGE

QUT scientists have joined an international consortium of researchers in an effort to future-proof crops against the impacts of global climate change. The consortium have studied the ‘resurrection plant’, *Xerophyta viscosa*, which can ‘rise from the dead’ due to its unique ability to survive complete drying. The researchers hope their results will support the development of food crops that are able to withstand the impact of global climate change.

Research leader Henk Hilhorst said climate change is causing more extreme periods of drought and at the same time the demand for food production is on the rise. Together with QUT research leader Professor Sagadevan Mundree they are exploring new areas of research to address this.

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*“Resurrection species like *Xerophyta viscosa* may serve as ideal models for the ultimate design of crops with enhanced drought tolerance.”*

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### 2017 YOUNG TALL POPPY SCIENCE AWARD WINNER

One of QUT’s top young researchers Dr Prasadam was awarded Queensland’s Young Tall Poppy Science award for her research into cartilage disorders. This award highlights intellectual and scientific excellence and encourages young Australians to pursue a career in science.

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*“My team’s research is currently focused on identifying risk factors of osteoarthritis, evaluating new ways of imaging osteoarthritis, and working towards designing and testing new treatments that help to repair osteoarthritic joints. For me, the real inspiration for my work comes whenever I meet a patient who is suffering with this condition. I feel the real value of my work is the responsibility I have to help them.”*  
*Dr Indira Prasadam*

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# Scholarships and How to apply

Whether you are just beginning your studies or continuing at a higher level, QUT offers a supportive community and world-class facilities where you can develop your research.

## Scholarships

You may be able to apply for a scholarship to support your study.

### Possible benefits may include:

- tuition fee sponsorship
- living allowance indexed at \$27 082\* per year up to 3 years for doctoral students (2018 rates).
- single provision for overseas health cover

Scholarships usually offered through QUT's Annual Scholarship Round (in September each year) to international students, are the Australian Government Research Training Program (RTP) Stipend (International) and the QUT Postgraduate Research Award. Check our scholarships at [www.qut.edu.au/research/study-with-us/funding-your-research-degree](http://www.qut.edu.au/research/study-with-us/funding-your-research-degree)

### What happens next?

Depending on which research degree you choose to study, there are different key dates (application deadlines, scholarships and

teaching periods).

We will contact you to let you know we have received your application and to request any further information if necessary. It usually takes QUT eight weeks to process applications. If we cannot process your application within this timeframe, we will contact you to let you know.

If you apply during our annual scholarship round (in September), we will let you know the outcome of your application by early December, when we know the results of the scholarship round.

### Ready to apply?

#### You will need to:

1. Confirm you meet entry requirements.
2. Explore research areas.
3. Explore supervision and project topic.
4. Check your scholarship eligibility.
5. Write your research proposal.
6. Gather your supporting documents and check if you need agent assistance (including proof of meeting English language requirements).

7. Submit your application.

For more information on applying, visit [www.qut.edu.au/research-applications](http://www.qut.edu.au/research-applications). This includes information on determining whether or not you need to use a QUT official representative to submit your application.

### Real support

QUT provides a high level of support to its research students through project supervision, world-class facilities and technology, the Graduate Research Education and Development framework, and career preparation under the themes of Advance, Lead and Engage. Our Research Students Centre provides advice on orientation, admission, enrolment, scholarships, training, candidature, and examinations.

Our International Student Services (ISS) team assists International Higher Degree Research (IHDR) students with a range of support services including time management, language assistance, and dealing with stress.

For more information on support for your research journey, including student support and support after graduation, visit [www.qut.edu.au/research/study-with-us/research-support](http://www.qut.edu.au/research/study-with-us/research-support)



## For enquiries:

[www.qut.edu.au/international/enquire](http://www.qut.edu.au/international/enquire)

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