## **Australia-German Science and Innovation Day**

QUT was proud to host the 3rd Australian-German Science and Innovation Day (2 October) as part of Brisbane German week.



German Science and Innovation Day

The event was jointly organised by the German Honorary Consulate together with the University of Queensland (UQ) and the University of Southern Queensland (USQ) and attracted more than 100 participants.

The event showcased scientific collaborations between Australian and German universities, including current research projects; highlighted the differences and similarities of PhD students in Australia and Germany; and provided first hand insights into the support available from organisations such the ARC, NH & MRC, DAAD, Humboldt Foundation and GOstralia!

The day also included the launch of the DAAD exhibition 'Research in Germany'.

### **QUT Research Strengths and Priorities**

- Biomedical engineering and health technologies
- Biomolecular science
- Business of technology
- Chronic disease intervention
- Data science
- Digital media
- Education for better outcomes
- Health systems
- Injury prevention and management
- Plant and industrial biotechnology
- Robotics and computer
- Technology regulation

# **Success for QUT** and German partners

QUT is pleased to celebrate with German partners success in gaining funding for three projects under the Australia-Germany Joint Research Cooperation Scheme (an initiative of the Deutscher Akademischer Austauschdienst (DAAD) and Universities Australia) announced on 9 November 2018:

- Institute of Medical Biotechnology. Friedrich Alexander-University, Erlangen-Nürnberg, Erlangen on 'Industry 4.0 – Convergence of Robophotonics and Systems Engineering into Advanced Additive Biomanufacturing Technologies';
- Freidrich Schiller University, Jena on 'Who is coming? The development of expectations about person identity: MEG and fMRI studies of identity specific predictions'; and
- Technical University of Munich on 'Patient specific 3D printed bone implant designs for tissue regeneration'.

### **QUT Alumni in Germany**

Over 20 QUT Alumni and Exchange students met for a networking reception at the residence of Richard Leather, Consul General for Europe and General Manager, Australian Trade and Investment Commission (Austrade) on 18 September.



Alumni Dr. Mohit Chhaya and Dr. Jeremy Baldwin with Mr Richard

This was the first time a QUT Alumni in Germany function had been held. The level of interest was high and it is hoped that the group will find ways to continue to grow and meet.



Patrina Poh holds a PhD in Regenerative Medicine from QUT. Dr. Poh's PhD thesis was focused on the design and manufacturing of bioactive glass-embedded composite naterials for bone tissue engineering - undertaken in collaboration with Imperial College UK.

Following her PhD, Patrina received a prestigious Bavarian Post-Doctoral Research Fellowship at the Technical University of Munich (TUM) which allowed her to develop an entirely novel methodology for designing internal architecture of scaffolds for tissue engineering with patterned distribution of mathematically defined curved minimal surface unit cells.

Patrina currently holds the position of a Postdoctoral Researcher at the Charité – Universitätsmedizin Berlin, where she has assembled an international network of academics as well as industry partners - working on how to combine omics analytical approach with additive manufacturing principles to deliver personalised bone regeneration therapy into the clinical routine.

**QUT Alumni in Germany** are encouraged to keep their contact details up to date with the QUT Alumni office in Brisbane, Australia, Please send details to: alumni@qut.edu.au

QUT Alumni in Germany can also join colleagues at QUT Alumni Europe LinkedIn.

# **Honorary Consul**



Professor Michael Rosemann is the Executive Director of QUT Corporate Engagement. He is also the Honorary Consul for Germany in Brisbane and in this role, Chair of the Annual Australian-German Science and Innovation Seminar. He is a strong advocate for QUT in developing partnerships with German universities and corporations including Siemens, BMW and SAP.

#### For enquiries, please contact:

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# **Berlin to Brisbane**



Vice-Chancellor and President, Professor Margaret Sheil AO, was pleased to welcome the President of the German Bundesrat and the Governing Mayor of Berlin, Mr Michael Müller, and a delegation of German government and university officials together with the German Ambassador to Australia, H.E. Dr. Anna Prinz to QUT on 12 October 2018.



President Müller and Vice-Chancellor and President Professor Sheil AO.



President Müller and Gary Rasmussen, QUT Precincts set off fireworks on ChemWorld at the Cube.

While in Queensland, Mr Müller signed a Joint Declaration of Intent with Queensland Premier The Honourable Annastacia Palaszczuk.



President Müller and Premier Palaszczuk.

The agreement will lead to the exchange of expertise, information and experience and will ensure Berlin and Queensland are at the forefront of healthcare innovation and the biomedical industries of the future.

A group of Queensland and Berlin experts in science, higher education, research, industry and healthcare will develop a process to inform the future of healthcare, medical science and innovation, and medical education and training.

# **QUT International visit to Germany**

Deputy Vice-Chancellor and Vice-President (International and Development), Professor Scott Sheppard, and Director of QUT Global, Ian McFadden joined QUT European representative, Shelagh Whittleston on a visit to some of QUT's key partners in Germany.

The team visited the Karlsruhe University of Applied Sciences (HsKA) to discuss the QUT/HsKA/SAP partnership which enables QUT students to have the experience of an internship at SAP World Headquarters as well as studying at HsKA. The first year has been a great success with students developing a start-up which they will take back to Brisbane, and a commitment to additional opportunities in 2019.



After discussing student exchange numbers at **Karlsruhe Institute of Technology (KIT)** and the innovative Minternships offered to Masters' students, the delegation took the opportunity to visit the KIT Institute of Anthropomatics and Robotics.

Both KIT and QUT are world leaders in this space. QUT hosts the Australian Centre for Robotic Vision and is navigating the challenge of applying robotics to the real world. KIT is developing humanoid robotic systems and speech technologies to provide assistance to humans in household and industrial tasks.



KIT chef robot

The team also visited the **University of Stuttgart Industry 4.0 ARENA2036 campus** and met with
Professor Thomas Ertl, Vice Rector for Research and
Advanced Graduate Education.

QUT Adjunct Professor Frank Wagner, Strategic R&D at the **Fraunhofer Institute for Industrial Engineering (Fraunhofer IAO)** briefed the team on opportunities for further collaboration in joint areas of strength: in automation and clean manufacturing; and bio-manufacturing.

The delegation also made a quick visit to **Eberhard Karls University of Tuebingen (EKUT)**. Significant collaboration has arisen out of the QUT Health visit in March 2018 and QUT was pleased to welcome Professor Stephan Zipfel and Professor Bernhard Hirt to QUT from 19-23 October.



Professor Stephan Zipfel, Professor Ross Young and Professor Bernhard Hirt at QUT.

EKUT will be one of the first German universities to offer nursing degrees and research programs and QUT is delighted that QUT Distinguished Professor of Nursing, Patsy Yates, has been made a Visiting Fellow.

QUT and **Technical University of Munich (TUM)** have an active collaboration relationship and the international delegation took the opportunity to discuss further opportunities for joint research activities and staff exchange including institutional scholarships and awards as well as joint DAAD/ Universities Australia programs.

QUT looks forward to visits in both directions over the next 12 months.

Professor Sheppard and lan McFadden also visited BMW Research and Development facilities and BMW Open World in Munich with QUT Adjunct Professor and BMW Senior Vice-President Volker Richter to discuss continuing internship and research opportunities.



QUT values its ongoing relationship with the **German Australian Business Council (GABC)** who invited Professor Sheppard to speak at a breakfast on the theme, 'QUT in Germany'.

Professor Sheppard outlined QUT international activities in Germany and highlighted the large number of German academics and post-doctoral researchers, currently 24, at QUT.

# Research collaborations



Professor Ross Young, QUT Health and Professor Oliver Friedrich, Friedrich-Alexander University Erlangen-Nuremberg (FAU) recently signed an agreement for a joint PhD in 3D Tumor Model Engineering.

**Dr. Soniya Yambem**, a device physicist at QUT, is undertaking research on organic optoelectronic devices and bio-interface electronic devices for applications in bionics and sensors.



She uses highly specialised nanomaterials designed by her **collaborator Professor Roland Marschall, University of Bayreuth**, in the development of bio-interface electronic devices.

Through a UA/DAAD grant, both Dr. Yambem and Professor Marschall had the opportunity to spend time in each others' labs and to share knowledge and technical expertise, which has led to further collaborative projects.



As part of a UA/DAAD collaboration grant, QUT's Dr. Kathleen Mullen will be visiting Professor Max von Delius and his research group at the Institute of Organic Chemistry and Advanced Materials, University of Ulm this November.

Dr Mullen's research into the reversible assembly of supramolecular architectures on surfaces will be continued in Germany, looking into using orthoester exchange to functionalise surfaces with potential implications in the areas of catalysis, sensing, combinatorial or systems chemistry and photovoltaics.

PhD students from both institutions have also had research exchange opportunities as part of this two year collaboration program.