

Institute for Molecular Bioscience

Where the next cure begins

In two decades, UQ's Institute for Molecular Bioscience (IMB) has become one of the world's most influential and innovative research institutes. In Australia, we are the nation's number one research institute for research outputs, and the top research institute for commercialisation activity.

It started 20 years ago with funding from the Queensland Government, philanthropists Chuck and Helga Feeny, and the University of Queensland. The vision was bold and innovative: to position Queensland as a global epicentre for drug discovery.

Whether it be for common diseases such as COVID-19, chronic pain, cancer and stroke, or for diseases in agriculture, IMB is where the next cure begins.

To start a conversation about the IMB and to change the world, please contact

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At IMB we have a vision: **to create a world with a cure for every disease.** Our approach to drug discovery and agricultural innovation is unique and world-renowned. We harness our knowledge of nature to create sustainable cures for diseases that plague people, animals, and plants.

Our researchers use **Australian venoms, plants, and soils** to stop superbugs in their tracks, to create better cancer treatments, to ensure patients survive strokes and heart attacks, to solve inflammatory diseases such as Parkinson's and Alzheimer's, and to develop environmentally friendly and effective pesticides. We strive to make treatments more affordable, and accessible to regional and remote communities across the globe. Our research outputs and global partnerships have made Queensland a global destination for drug discovery and development and positioned the University of Queensland in the **world's top 50** universities.

Our entrepreneurial culture and collaborative approach also set us apart. Our research has led to **12 spin-out companies**, which have had an impact internationally, and brought considerable wealth and investment to Queensland. International and national pharmaceutical, biotech and agricultural companies



#1
Australian research
institute



>400
staff and students



12
spin-out companies



>20% of patent families
at UQ are derived from
IMB research



1454
international collaborators
from 48 countries

preferentially partner with us, delivering Australia's largest-ever biotech deal, a Nasdaq listed company, and 50% of the University of Queensland's patent income.

IMB is a crucial player in the local economy, providing **over 400 jobs and training places.** We are a cornerstone for delivering the highly-skilled, **STEM-educated, entrepreneurial workforce** of tomorrow. Connecting Queensland to our world, our alumni are entrepreneurial leaders in Australia, executive leaders in multinational companies, policy makers in international organisations, and highly sought-after opinion leaders.

At IMB we dare to discover a healthy and sustainable economic future for Brisbane and Queensland.

The future of health begins at IMB

UQ's Institute for Molecular Bioscience (IMB) is Australia's leading drug discovery institute: generating 50% of UQ's investment in IP and its IP income, 268 industry partners, \$500m in research collaboration income and 12 biomedical spin-out companies.

Spin-out company will help millions of Australians

IMB and Trinity College spin-out, Inflazome, is developing treatments for cardiovascular disease (Australia's number one killer), arthritis, Alzheimer's, MND, Parkinson's and other inflammatory diseases that impact over a third of Australian¹ and cost the economy billions every year.

In fact, there is hope for the 100,000 Australians² and 10 million globally³ living with Parkinson's. A new treatment in clinical trials at IMB is designed to halt the disease rather than treat the symptoms, which is the current treatment approach.

Delivering new treatments

New peptide-based drugs designed to treat rare blood disorders and gastrointestinal diseases are being developed by IMB spin out, Protagonist Therapeutics Inc, which has a long-term research-partnership with IMB. Protagonist currently has five drug-candidates undergoing clinical trials in several diverse diseases.

1 <https://stories.uq.edu.au/imb/the-edge/inflammation/common-inflammatory-diseases/index.html>

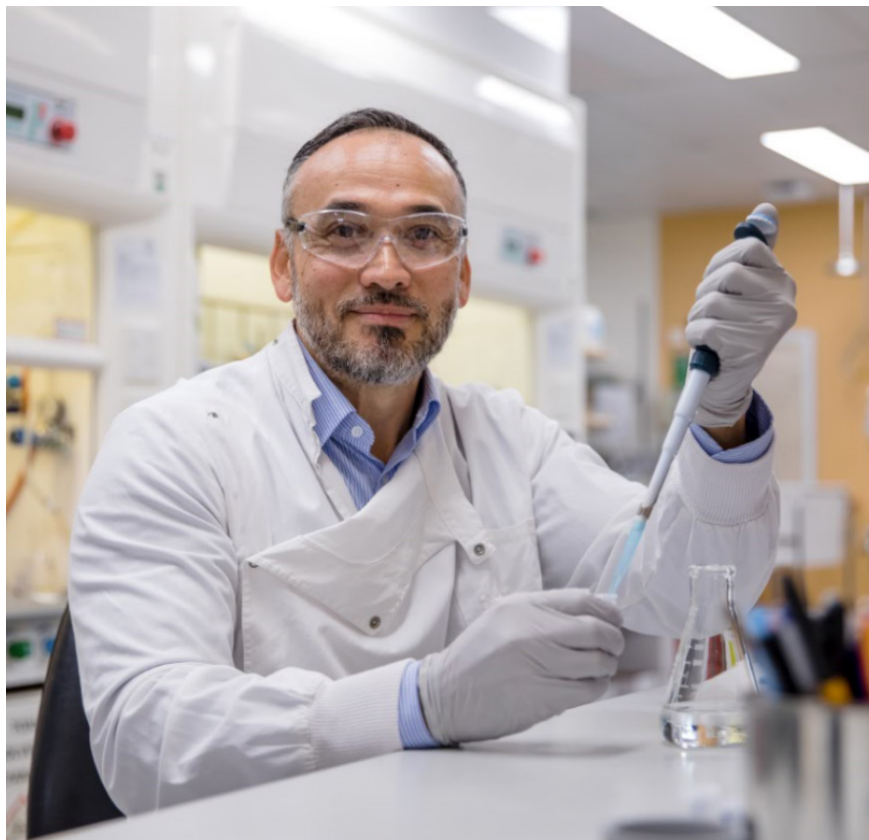
2 <https://www.parkinsons.org.au/about-parkinsons>

3 <https://www.parkinson.org/Understanding-Parkinsons/Statistics/Notable-Figures-with-Parkinsons>

4 <https://www.who.int/news-room/fact-sheets/detail/antimicrobial-resistance>

5 <https://carb-x.org/carb-x-news/carb-x-is-funding-the-university-of-queensland-to-develop-a-new-drug-targeted-to-low-and-middle-income-countries-that-would-breathe-new-life-into-existing-readily-available-antibiotics-in-the-fight-a/>

6 <https://brainfoundation.org.au/disorders/stroke/>



Dr Karl Hansford who is focused on applying medicinal chemistry to the discovery of translation solutions to antimicrobial resistance (AMR).

Leading the global fight to stop deadly superbugs killing 10 million per year

Superbugs threaten to remove the effectiveness of antibiotics, plunging the world back into the pre-antibiotic era⁴. IMB researchers are developing preventative therapies, biomarkers and next-generation drugs to foil these elusive microbial assassins, with proven success in Queensland and UK hospitals. Such is the impact of our work, we are the first Australian organisation funded by Combating Antibiotic-Resistant Bacteria Biopharmaceutical Accelerator (CARB-X)⁵ supported by organisations including the Bill and Melinda Gates Foundation and The Wellcome Trust, as well as the UK and German Governments.

Increasing stroke survival rates and future quality of life for patients

Thousands of Queenslanders in regional communities will benefit from life-saving stroke treatment, developed by researchers at IMB using the venom from funnel web spiders unique to Fraser Island. Currently, stroke victims need to get to a hospital, be scanned and have drugs administered by specialists within four and a half hours to access treatment⁶. The new drug, about to go into clinical trials, will be administered by first responders, reducing the time to treat patients, a significant determinate of survival and future quality of life.