



JAMES COOK  
UNIVERSITY  
AUSTRALIA



# Opening Doors To Opportunity



JCU Division of  
**Research &  
Innovation**

[jcuconnect.com](http://jcuconnect.com)



*JCU Connect is the front door through which you can engage with the breadth and depth of JCU's research and commercial expertise and resources. We are the connection between industry and university - opening doors for opportunity.*



## JCU Connect

JCU Connect can assist with research, projects and bringing ideas to life for your organisational challenges.

JCU Connect opens doors across our campuses in Australia and Singapore, making it easy for you to connect with the right expertise, facilities and advice.

JCU Connect provides leadership, support and advice on partnering in all areas of research, development and commercialisation.

### How can we help you?

We can work with you in a range of ways to help you achieve your organisation's goals or overcome challenges.

*JCU Connect links JCU expertise with industry needs. We listen to our partners, large and small, and tailor solutions to meet challenges and needs.*







## Paragen Bio: Northern Queensland biotech company targeting autoimmune diseases with Hook Worms

Paragen Bio, first biotech startup from James Cook University (JCU) is focused on treating autoimmune diseases, a range of diseases. Paragen's technology is based on research with parasitic hookworms which was conducted at JCU's Australian Institute of Tropical Health and Medicine (AITHM) by Professor Alex Loukas and team.

The technology was developed at JCU with support from the Australian Research Council, Queensland Government, and National Health and Medical Research Council (NHMRC).

Hookworms are blood-sucking parasites that frequently infect humans in tropical regions. Access to anti-worm therapies is decreasing hookworm infections. This lack of infection is linked to a rise in the incidence of autoimmune diseases such as rheumatoid arthritis, inflammatory bowel disease (IBD), asthma, and allergic diseases globally.

In clinical trials, Paragen researchers infected human subjects with hookworms and found they can protect against the onset of autoimmune diseases. Proteins extracted from hookworm saliva can prevent the development of symptoms associated with a range of inflammatory diseases. Paragen Bio is working with AbbVie Ventures, Brandon Capital and OneVentures, to make the critical step from research towards its first stage of development and eventually trialling a potential treatment.

### Partner

JCU Connect can assist with developing strategic partnerships - connecting you with diverse expertise and resources from across JCU and our global networks. We support:

- Research and Development (R&D) Partnerships
- Professional and Consulting Services
- Access to facilities, expertise and networks
- Access to government grants and tenders to support projects and problem solving
- Innovative thinking and commercialisation of great ideas
- Access to student talent - our research students can spend time in your organisation to help with a problem.

### Innovate

JCU is passionate about innovation and making sure great ideas and inventions get to market.

JCU Connect provides a simple pathway to engage with highly skilled researchers who are driving innovative outcomes for our communities.

We can also link you with our technologies for licensing or forming spin-out companies.

New technology opportunities can be found on our website.

*JCU has a strong track record in the delivery of high quality research which delivers outcomes for our industry and community partners.*

### Engage

JCU partners with a wide range of businesses, government departments and community organisations to ensure research is translated and achieves practical outcomes.

JCU Connect can help you build collaborative outcome-oriented partnerships with our researchers - establishing productive links between researchers, infrastructure, government and industry.

#### Why JCU?

We are a recognised leader in transdisciplinary research. Uniquely placed in the tropics we focus on issues and opportunities related to

- Tropical Eco Systems and Environment
- Industries and Economies in the Tropics
- Peoples and Societies in the Tropics
- Tropical Health, Medicine and Biosecurity



## Digital Homestead: Precision Agriculture for on farm profitability, security and sustainability

Australia's farmers are unique and have a unique set of problems associated with managing vast properties as we have, across northern Australia. To keep up-to-date with everything on their properties requires enormous man power, and even then, information for farmers is limiting. However, technologies such as new types of low-cost sensors and long-range, low power wireless networks, combined with remotely sensed data (satellite and manned/UAV aircraft) and data analytics means farmers can be better informed and farms run more efficiently.

JCU and CSIRO are working with farmers to provide a simple interface, a data dashboard, that presents the farmer with a wide range of information such as on farm sensors (tank levels, location of cattle, cattle activity and weight), remotely sensed data, weather forecasts, and market pricing.

This dashboard is a key decision support tool, enabling better informed management of properties. Ultimately this allows farmers to trace and track beef from paddock to plate, to build secure supply chains, and increase consumer confidence and prices for producers.

## Access

JCU Connect can assist you to access government tenders and R&D funding for entrepreneurs and start-ups, investors, small and large businesses, and researchers.

Our team is expert in securing grants which support problem solving, joint projects, and innovation.

JCU Connect can also assist you to access our world class research and innovation facilities and research stations and a wide range of testing services to our partners.

## Aquaculture: James Cook University in Singapore

Tropical regions of the world face unprecedented challenges due to population growth and an associated demand for high-quality seafood. This population expansion continues to pressure wild fisheries resources and dictate ever higher efficiencies from aquaculture production.

Capitalising on its location right in the middle of Asia, James Cook University in Singapore (JCUS) has research expertise that specialises in the sustainable production of tropical aquaculture species. With world-class experts in aquaculture genetics, nutrition, hatchery production, husbandry and aquatic animal health, researchers are ready to partner with commercial industry, government institutions, universities, polytechnics and other stakeholders, to conduct high-quality scientific R&D.





## Discover

*JCU is a world-class, research intensive institution boasting an extensive network of testing and research facilities in globally unique locations. Our facilities help researchers and the business community accelerate their journey and give them the intellectual stimulation to produce their best*

*work. We welcome visits and stays from researchers, student groups and the business community.*

*Our testing services cover sample preparation, analysis and reporting as well as training.*

*Contact JCU Connect and explore the full range of our capabilities.*

## Go further

Experience James Cook University's research environments



### Orpheus Island Research Station

#### Classroom on the reef

Ready access to the great Barrier Reef from a pristine island.



### Daintree Rainforest Observatory

#### Classroom in the Rainforest

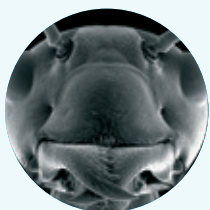
Eco-monitoring site in World Heritage listed Queensland rainforest.



### Fletcherview Research Station

#### Classroom in the Outback

Working cattle property near Townsville, Queensland.



### ADVANCED ANALYTICAL CENTRE



### BOATING AND DIVING



### eRESEARCH CENTRE



### MARINE AND AQUACULTURE RESEARCH FACILITY





JAMES COOK  
UNIVERSITY  
AUSTRALIA

JCU  **CONNECT**

## Find us

We welcome questions and enquiries whether you're interested in collaborating or have an idea and need to understand your next step! There are many ways to contact us. You can visit us at the Townsville or Cairns Campus.

**Phone:** 07 4781 5011    **Email:** [jcuconnect@jcu.edu.au](mailto:jcuconnect@jcu.edu.au)    **Office Hours:** Monday – Friday 830am – 430pm

**Locations:** JCU Townsville, Level 3 The Science Place, Douglas Campus    JCU Cairns, Building E2, Smithfield Campus

