

# Nature Bank



## Novel Cures from Natural Products

Access to novel chemical entities ("NCE") is crucial for the development of drugs with a new mechanism of action that can affect biochemical pathways so far not accessible for drug treatment. Historically, many drugs have been derived from natural products. However, many companies have opted to use synthetic chemical libraries in their search for new NCEs, in part due to the perceived difficulty of isolating compounds from complex extracts and the complexity of the active compounds identified.

Griffith University's Nature Bank overcomes these issues. It provides highly purified drug-like natural compounds.

### The Technology

At the Eskitis Institute for Drug Discovery (www.griffith.edu.au/eskitis) we have established a collection of 45,000 biota samples derived from plants and marine invertebrates from Australia, Papua New Guinea and Southern China. We developed a proprietary method to prepare over 200,000 highly purified natural product fractions, the "Nature Bank".

These screen-ready fractions are prepared to enhance their drug-like characteristics according to Lipinski's Rules, and each fraction contains up to 5 compounds, making isolation of compounds quick and efficient.

Eskitis operates multiple high-throughput screening lines to successfully deliver outcomes to customers including Pfizer, Actelion, Creative Antibiotics, Medicines for Malaria Venture (MMV) and the Drugs for Neglected Diseases Initiative (DNDi).



**Griffith Enterprise** 

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We develop, establish and conduct cell-based and cell-free assays and employ a wide range of detection technologies, including high content screening.

#### The Team

Professor Ronald J Quinn AM leads the research team at Griffith University's Eskitis Institute. As the Foundation Director of the Institute, he built and led a AUD100 million natural product drug discovery partnership with AstraZeneca AB that has given rise to a Nature Bank.

#### Intellectual Property and Biodiversity

Since the end of the Astra Zeneca partnership in 2008, Griffith University owns the Nature Bank resource and has full freedom to operate, with the exemption of compounds already licensed to Astra Zeneca and other partners.

The University has all necessary agreements in place to comply with Queensland's Biodiscovery legislation. Partners are not required to enter into formal benefit sharing agreements with the Queensland Government.

#### The Offer

Griffith University is seeking partners interested in drug discovery projects. We offer flexible collaborations and partnership models including:

- Supply of Nature Bank fractions for screening on your HTS equipment or inhouse assay, with follow-up isolation chemistry at Eskitis;
- Screening of Nature Bank fractions against your drug target at Eskitis;
- Bioaffinity screening of fragments or enhanced extracts against an unmodified protein target; and,
- Processing of your biota into Nature Bank fractions to create an assay-ready screening set.

Please refer to the Nature Bank website for more information (www.nature-bank.com.au).

#### Point of Contact

Interested parties are encouraged to contact Dr Stuart Newman, Strategic Development Manager, Griffith Enterprise:

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Griffith Enterprise is the commercialisation and technology transfer office of Griffith University. We help organisations to access the specialist expertise, research capabilities, inventions and knowledge based products and services of Griffith University. Our staff have commercial experience and understand the needs of industry and government partners. We offer flexible and tailored engagement terms, and a professional approach to doing business with the University. From lawyers and designers to engineers and scientists, we have it covered.