THE UNIVERSITY OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Research helps to uncover a remedy from the rainforest

A collaboration between an Australian biotech company EcoBiotics and The University of Queensland is seeking to develop a homegrown cure for cancer

Researching Rainforests

While The University of Queensland (UQ) might seem a long way from Australia's tropical rainforests, the two are closely linked through a revolutionary research project. Working with Australian biotechnology company EcoBiotics, Dr Craig Williams from UQ's School of Chemistry and Molecular Biosciences has been helping to research a range of new bioactive products for a variety of customers and industries.

Professor Craig Williams, Associate Professor in Organic Chemistry and an Australian Research Council Future Fellow at UQ, has been involved with EcoBiotics for some 10 years. With his expertise in synthesis of very complex natural products, Professor Williams and his research team have played an integral role in supporting EcoBiotics in their request to develop new medical therapies discovered from ancient rainforest species.

Professor Williams has been helping to examine the chemical compositions and structures of plan extracts supplied by EcoBiotics, and finding ways to synthesise these very complex natural products in the lab.

EcoBiotics was originally attracted to UQ by the consulting and contract research resources offered through UQ and its ability to provide access to world-class experts and collaborative multi-disciplinary research.

Professor Williams has been chemically characterising natural compounds from plant extracts provided by EcoBiotics and developing ways to synthetically make promising compounds since 2004. The potential users for the new bioactive products include human and veterinary pharmaceuticals, nutraceuticals and cosmetic ingredients.

Meeting Industry Needs

EcoBiotics' commercial focus is a compound called EBC-46 which is being developed for the local treatment of solid tumours in humans and animals.

In 2011, EcoBiotics raised $10 million to fund trials of its anticancer lead compound EBC-46. These trials will make EBC-46 the first Australian rainforest-derived drug to enter human clinical trials. The capital raising also extended the research contract with Professor Williams and UQ for a number of years.

Between 2004 and 2014, EcoBiotics funded over $4 million of research in Professor Williams' lab, but it's not all about the money.

For Professor Williams, the research has been a career highlight. "Working with EcoBiotics has been one of the most rewarding experiences in my career so far" said Professor Williams. "As well as being involved personally with the development of potential new treatments for cancer, I have been able to broaden the scope of my scholarly activities with relevant case studies, collaborate with other researchers and publish high-impact and industry-collaborative research."

THE ECOBIOTICS JOURNEY SO FAR

EcoBiotics Limited is an Australian biotechnology company established in 2000 to discover and develop new medical therapies from Australia's tropical rainforest.

Since 2004, EcoBiotics has contracted The University of Queensland to access the expertise of Professor Williams and his research team to identify and characterise natural compounds from rainforest plant extracts and synthesise some which have demonstrated potential benefits.

In 2011, EcoBiotics raised $10 million to further its research in Professor Williams' lab and fund trials of its anticancer lead compound EBC-46.

EcoBiotics has funded over $4 million of research in Professor Williams' lab from 2004 to 2014.

This partnership is the perfect demonstration of UQ's capability to capitalise on the synergy between the client's needs, the researcher's expertise and the University's support for sharing resources.

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