

Masters by Research /PhD Scholarship opportunity: Identifying antimicrobial and anti-biofilm properties of traditional medicinal plants in northern Australia

An exciting Higher Degrees by Research scholarship opportunity working with a national team of scientists is available now: *Identifying antimicrobial and anti-biofilm properties of traditional medicinal plants in northern Australia*

Applications Close: 31st October 2018.

The Research Project:

Charles Darwin University

Applications are invited for the following scholarship leading to the degree of Masters by Research or PhD.

Identifying antimicrobial and anti-biofilm properties of traditional medicinal plants in northern Australia

Traditional Australian medicinal plants remain an underdeveloped biological, cultural and economic resource, despite the global popularity of traditional and natural medicines from other parts of the world (worth an estimated US\$83 billion). With Australian natural healthcare and agriproducts enjoying an international reputation for their high quality and clean image, enabling the development of a local industry represents opportunities in areas such as Indigenous workforce development, sustainable regional development in Northern Australia, and export of unique Australian products.

The overall aim of this program is to identify a selected number of traditional medicinal plants with antimicrobial, anti-inflammatory and/or anti-biofilm activity. Chemical characterisation of key extracts will be used to identify major active constituents. Selected active extracts that are proven to be safe-for-use will be submitted for low level registration with the Therapeutics Goods Administration. This registration will be applied to the prototype topical anti-microbial and/or anti-inflammatory products developed in this pilot study. The data thus generated will provide insights into commercially sustainable and viable products that will then feed back into the supply chain and provide an initial focus and validation of the agribusiness model.

The Masters by Research/PhD student will play in integral part in this project by using various microbiological methodologies to test a range of medicinal plant extracts for antimicrobial and anti-biofilm activity against a range of clinically important pathogens. In addition, the student will have the opportunity to play a role in the broader project, including anti-inflammatory testing, chemical characterisation, or qualitative aspects.

Eligibility: Applicants must be Australian Citizens or permanent residents of Australia who are enrolled in or satisfy the admission requirements for Masters by Research or PhD at Charles Darwin University. Students with a background in microbiology are strongly encouraged to apply.

Scholarship: Must be eligible to apply for (Research Training Program) RTP scholarship through Charles Darwin University. For further information and to apply visit

<https://www.cdu.edu.au/research/ori/admissions>

For further information about scholarship applications: Please contact Jasmina Sesar jasmina.sesar@menzies.edu.au or phone 08 8946 8420.

For further information about the project: Please visit www.menzies.edu.au or contact Associate Professor Heidi Smith-Vaughan. Telephone: 08 8946 8580 or 0428 199 502; or email: Heidi.smith-vaughan@menzies.edu.au

Closing date: 31st October 2018 (for commencement in Semester 1 of 2019).