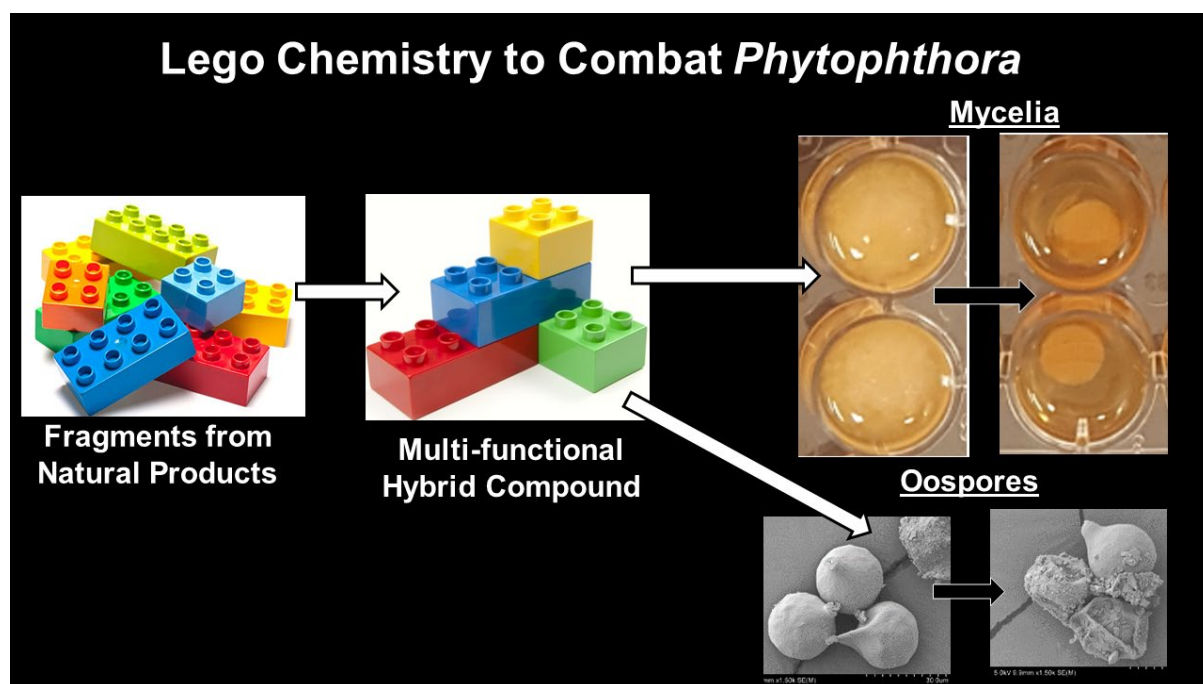


PhD Scholarship in Chemistry

Sequentially knock out *Phytophthora* life stages: An effective solution to protect plants



A PhD scholarship is offered for research to develop novel anti-*Phytophthora* molecules through combining organic chemistry and peptide synthesis. We are investigating a novel approach for plant disease control through the interfacing of traditional knowledge (Mātauranga Māori) with contemporary biochemical science. The research programme targets the synthesis of novel environmentally benign molecules for replacing currently used chemical pesticides and control agents like phosphite. The research includes developing sustainable synthetic methods for small molecules and conjugation chemistry to build multi-functional hybrid compounds with activity against different life stages of *Phytophthora*. A range of techniques including nuclear magnetic resonance spectroscopy (NMR), high-resolution mass spectrometry (HRMS), electron microscopy (EM) and dynamic light scattering (DLS) will be used for compound characterization. The activity of the compounds against *Phytophthora* will be evaluated in the laboratory. Selected compounds will be developed into field-suitable forms through formulation chemistry.

We are seeking a highly motivated person with an excellent academic record and experienced in sustainable organic synthesis methods and techniques.

The successful candidate will be funded under a MBIE Smart Ideas research project and enrolled at the University of Auckland, New Zealand. The scholarship provides a generous non-taxed living allowance of NZ\$28,500 per annum plus the PhD tuition fee for three years.

The successful candidate will be based in the School of Chemical Sciences at The University of Auckland and supervised by A/Prof. Viji Sarojini. During the PhD research, there will be interactions with our multi-disciplinary (ecosystem science, plant pathology, Mātauranga Māori

and health sciences) advisory team and national and international collaborators as well as the opportunity to attend national conferences.

Applicants must have completed a significant research project, dissertation or thesis, at the postgraduate level and have good organisation and communication skills. In addition, applicants need to have completed a BSc(honours) or a Masters degree in Chemistry. Applicants should satisfy the requirements for admission as a PhD candidate at The University of Auckland.

Link: <https://www.auckland.ac.nz/en/study/applications-and-admissions/entry-requirements/postgraduate-entry-requirements/doctoral-entry-requirements.html>

Applicants must be physically in New Zealand to be able to undertake this research

Application Details

Please send a resume, academic record, and the names and contact details of two Referees to: v.sarojini@auckland.ac.nz with “*PhD, anti-Phytophthora Research*” in the subject line by **30th November, 2021**. Please note that only short-listed candidates will be notified.