

Postgraduate opportunities

Do you want to use your science to help New Zealand industry?

MSc scholarship available!

**Nanomaterials from Waste**

In this MSc thesis project you will have the opportunity to explore proteins as building blocks to create new nanostructures with interesting molecular architectures. The proteins will be derived from waste products of the New Zealand meat industry, so while focus of the research is fundamental biochemistry, you will also get the opportunity to interact with NZ companies who are looking to find cool new uses for their low value by-products and who may be able to use your results down the track to expand their product range.

The research will require you to learn skills such as protein purification, controlling protein aggregation and characterisation of protein nanostructures using electron microscopy. There may also be an opportunity to explore how your protein nanostructures might one day be used for applications in bionanotechnology, for example as self-healing materials; drug delivery vehicles or nanowire templates. Interaction with a local company may also help you understand how your research translates into the real world.



The successful candidate should have a lot of enthusiasm, a BSc Honours degree or equivalent in chemistry or biochemistry, a keen interest in protein science, and a desire to work in a multi-institutional, multi-disciplinary, collaborative environment. The location for the research is flexible and the candidate may either base at the University in Auckland or at the Callaghan Innovation campus in Lower Hutt (in easy reach of Wellington, NZ’s capital city <http://www.lonelyplanet.com/usa/new-york-city/travel-tips-and-articles/76165>). The supervisors for the project are Professor Juliet Gerrard (University of Auckland) and Dr Leonardo Negron (Callaghan Innovation).

**Interested? Send a cv and some enthusiasm to Juliet: j.gerrard@auckland.ac.nz**