



## PhD Scholarship:

### Novel Lignin-Based Formulations From Lignocellulosic Waste

A fully funded PhD scholarship is available in the field of novel functionalised lignin-based nanomaterials and formulations from lignocellulosic waste. We invite passionate and forward-thinking individuals to join a collaborative project that delves into the valorisation of lignocellulosic waste through pioneering methodologies in advanced materials science and engineering and the chemistry of (bio)materials.

#### Project Overview:

This research is a pivotal part of the '*Waste to Treasure: Using Novel Chemistry to Valorise Residual Plant Materials*' program, an Endeavour Program funded by the Ministry of Business, Innovation and Employment (MBIE), New Zealand, and a collaborative venture between the University of Auckland and Scion (<https://waste2treasure.co.nz/>).

In this PhD project, we aim to harness the potential of lignocellulosic waste as we explore novel approaches in the synthesis of lignin-based core-shell structured (nano)materials for various applications. This visionary research project merges cutting-edge techniques in functional (bio)materials, biopolymers, nanotechnology, and organic chemistry, offering a unique intersection of expertise.

#### Candidate Profile:

The applicant is expected to have an MSc, BSc(hons) or an alternative master's degree in a field relevant to the research.

We seek candidates preferably with experience in (bio)polymer science and engineering, antimicrobial nanomaterials or lignocellulosic waste valorisation and laboratory skills in bioactive materials isolation, chemical modification/functionalisation, characterisation and formulation.

Your passion for innovation and sustainability will drive the success of this transformative initiative.

#### Supervision team:

The student will be registered at the University of Auckland under the supervision of Professor Paul Kilmartin (The Faculty of Science) and co-supervised by Dr. Tripti Singh and Dr. Ayyoob Arpanaei, Senior Scientists and Project Leaders at Scion, Rotorua. The student will be based primarily at Scion, Rotorua.

#### Scholarship Details:

The scholarship is valued at NZ\$33,000 (tax-free) per year and in addition, covers tuition fees for 3.5 years.

#### Application Process:

If you are ready to embark on this exciting journey, express your interest by sending an email to Prof. Paul Kilmartin at [p.kilmartin@auckland.ac.nz](mailto:p.kilmartin@auckland.ac.nz). Include your CV, academic transcripts, and a concise cover letter (max 1 page). Please note that this is a readvertisement of position first advertised on LinkedIn in April 2024; we ask that those who previously applied for this position not to resend an application.

**Applications will be assessed as they are received and continue until the position is filled.**