

Position Description

Date: October 2026

Ref: 2096

Position | Tūranga: Internship – Spinning a New Yarn: Turning Waste Protein into Sustainable Textile Fibres

Responsible to Tō kaiwhakahaere:	Science Team Leader, Stewart Collie, Research Priority Champion and Research Engineer, Paul Middlewood, and Senior Scientist, Sonya Scott
Group Tari:	Smart Foods and Bioproducts
Function Wāhanga:	Bioproduct & Fibre Technology
Team Tīma:	Bioproduct & Fibre Technology
Location Wāhi:	Tuhiraki, Lincoln
Employment Type Momo Mahi:	Fixed Term – 12 weeks
Korn Ferry Grade Taumata Korn Ferry:	12

Organisational context

The Bioeconomy Science Institute Maiangi Taiao is New Zealand's newest public research organisation, formed through the merger of AgResearch, Plant & Food Research, Manaaki Whenua - Landcare Research, Scion, and the New Zealand Food Innovation Network. Our purpose is to drive innovation and commercial outcomes in the bioeconomy, using research and technology to support enduring economic growth and resilience, a healthy environment and beneficial social outcomes for New Zealand. We pursue opportunities to lift innovation, commercial outcomes, and adoption of advanced technology to drive economic growth across New Zealand. Through world-leading science, we drive innovation across agriculture, horticulture, forestry, aquaculture, biotechnology, and manufacturing. We protect and enhance ecosystems, strengthen biosecurity and climate resilience, and develop cutting-edge bio-based products and technologies.

We honour Te Tiriti o Waitangi and embed te ao Māori throughout our transformation journey. As we come together, we are committed to learning and growing together through inclusive, equitable, and culturally responsiveness ways of working. All roles contribute, in ways relevant to their work, to giving effect to our Te Tiriti commitments through partnership, participation, protection and equity.

Role purpose | Te Take o te Tūranga

This internship will investigate the preparation of fibres derived from protein-rich waste materials using fibre wet-spinning and crosslinking technologies.

The project aims to explore how biological waste streams can be transformed into valuable fibre-based materials through the application of innovative processing techniques. The successful candidate will contribute to literature reviews, laboratory experimentation, fibre production and fibre characterisation, while working alongside a multidisciplinary research team.

The internship provides an opportunity to develop research skills in sustainable materials science, laboratory methods, data analysis and scientific reporting.

Accountabilities | Ngā whakaritenga

Research and Technical Activities

- Conduct literature reviews relating to protein-derived fibres, fibre wet-spinning technologies and crosslinking methodologies.
- Assist with experimental design and preparation of materials for laboratory trials.
- Produce fibres from structural proteins and natural polymers using fibre wet-spinning techniques.
- Undertake laboratory testing and fibre characterisation activities.
- Record experimental observations and results accurately and consistently.
- Analyse and interpret experimental data with support from project supervisors.
- Maintain laboratory equipment and workspaces in accordance with laboratory procedures.

Reporting and Communication

- Prepare summaries of scientific literature and research findings.
- Contribute to project documentation and reporting.
- Deliver a final presentation outlining project outcomes and recommendations.
- Present results and findings to the research team.

Team Contribution

- Work collaboratively with scientists, technicians and other students.
- Participate in team meetings and project discussions.
- Contribute positively to a safe and inclusive research environment.

About you | Ō Pūmanawa

We are seeking a motivated student who:

Essential

- Currently enrolled in, or recently completed, an undergraduate degree in materials science, chemistry, chemical engineering, food technology, biotechnology, biological sciences or a related field.
- Strong interest in scientific research and sustainable materials.
- Good organisational skills and attention to detail.
- Ability to follow laboratory procedures and protocols.
- Effective written and verbal communication skills.
- Ability to work both independently and as part of a team.

Desirable

- Previous laboratory experience.
- Knowledge of polymers, biomaterials or materials characterisation techniques.
- Experience working with scientific data and reporting results.

Information And Records Management | Te Whakahaere | Ngā Mōhiotanga Me Ngā Putu Raraunga

- Ensure that information and records are maintained, created, and disposed of in compliance with relevant statutory, regulatory, and Institute policy requirements, documenting business transactions and activities securely and following established policies and procedures.

Health, Safety, And Wellbeing | Hauora, Haumaru Me Te Oranga

- Contribute to a positive health, safety and wellbeing culture by taking reasonable care for their own health, safety and wellbeing and that of others; complying with legislative requirements, organisational policies and standard operating procedures; reporting hazards, incidents, near misses, and safety observations; and promoting psychological wellbeing through open communication and the early recognition of stress, fatigue, and mental health concerns.

Organisational objectives | Ngā Whāinga Tōpūtanga Katoa

- Actively develops and applies the cultural capability relevant to their role and contributes to giving effect to the organisation's Te Tiriti o Waitangi Framework
- Ensures that all information created or received during your work is managed as per the Institute's Information Management policy. This includes naming, storing, classifying, and ensuring it is available to other employees.
- Actively participates in the Bioeconomy Science Institute Maiangi Taiao performance process, including setting objectives and having a robust development plan. Proactively and constructively contributes to performance conversations and personal development.
- Takes responsibility to understand and apply Institute policy, processes, systems, and procedures daily.
- Commits to accurate and timely information sharing and recordkeeping as per set organisational standards.
- The accountabilities set out above are not exhaustive. Therefore, it may be necessary for you to undertake other reasonable accountabilities as required, which are within your abilities.