

Humble Bee Bio

Vacancy: Senior Biomaterial Scientist/ Research Engineer



Reports to: Ryan Graves, CTO

Hours of work: Full-time (40 hours per week) permanent position

Primary location of work: The company's major research partnership is at Geelong, Victoria, Australia, and the company's head office is in Wellington, New Zealand. There is flexibility depending on the location of the successful applicant.

Inquiries and Submissions: info@humblebee.co.nz

ABOUT

Humble Bee Bio is an emerging biotech company on a mission to replace unsustainable petrochemical-based plastics with a new advanced material inspired by the nesting material of a solitary bee. Using the power of synthetic biology, the novel biomaterial has the potential to replace the use of existing plastics and chemicals used in the textiles sector and other industries. We have a new opportunity to join us to help develop this cutting-edge biomaterial.

WHY WORK FOR US?

We exist to create nature-inspired materials that improve global health. Our team is Curious, Relentless, and Passionate about building a better future.

We provide opportunities for our team to match their skills to their values. We are a fast-paced, energetic, and inspiring organisation. Our team is ambitious and curious, chasing down solutions to the world's biggest problems with their passion for cutting-edge technologies and science. We value their views and challenge them to do their best. Our team feels they are part of the solution, contributing to a future that inspires optimism.

Humble Bee Bio values diversity, embraces different and nurtures a connected, safe and respectful culture. We strongly encourage applications from Māori, Pacific, Aboriginal and Torres Strait Islander people and people of all cultures, abilities and genders.

POSITION PURPOSE

In this role you'll be applying your scientific skill and commercial knowledge to developing new technology, and helping disrupt the global plastics industry. You'll be working within a fast-growing New Zealand biotech with a small highly motivated team and collaborating with a world-class University, and commercial partners.

The Biomaterial Scientist (BMS) will be responsible for driving the development of this novel biomaterial, with support internally from the protein engineers, molecular biologists and bioinformatician teammates. Externally, we work with world-class advisory groups and collaborative contract research organisations.

POSITION CONTEXT

The position sits within the R&D team at Humble Bee Bio, with a major collaboration with the Institute for Frontier Materials (IFM) based at the Geelong Waurun Ponds Campus and Melbourne Burwood Campus. IFM is at the forefront of innovation in materials design and engineering research. Its key research areas fall under three main pillars: circular economy, functional materials and nature's materials. They are a key strategic partner for Humble Bee Bio.

The position directly reports to the CTO of Humble Bee Bio but will also have a visiting research position within the Institute for Frontier Materials and other research partners as required. The position involves contact with academic, professional and

administrative staff within IFM, and the Humble Bee Bio team, and will require extensive contact with industry.

While a major part of this R&D will be based at the Deakin Waurin Ponds campus, there will be work with other research organisations in Australia, New Zealand, or elsewhere that the successful applicant will have the opportunity to work with at a senior level.

Some of the R&D programmes are co-funded by Innovative Manufacturing CRC and Sustainability Victoria.

This is a new permanent, full-time position.

PRINCIPAL RESPONSIBILITIES

The purpose of the roles is to:

- γ Advance the ambitious R&D programme and support the growth of Humble Bee Bio.
- γ Work collaboratively within the Humble Bee Bio team, and with collaborators at IFM, other CROs and stakeholders (commercial, industry and academic) to successfully achieve milestones set out in our R&D programme.
- γ Constructively contribute to a vibrant team, including participating with colleagues in developing and maintaining links and partnerships with industry and the wider community.
- γ Liaising with industry, particularly relating to industry needs and the characterisation outcomes of the R&D programme.
- γ Ensure the implementation of all company and University policies that relate to the areas for which the position is responsible, in particular, those relating to equal opportunity, occupational health and safety, and risk management.
- γ To work autonomously and independently with frequent consultation with team members

and in collaboration with researchers at Deakin IFM and other CROs.

KEY DUTIES

- γ Plan, conduct, and analyse experimental results arising from relevant research projects, including, but not limited to the production and testing of finishings, films, adhesives, yarns, and fibres.
- γ Perform administrative tasks commensurate with position responsibilities and follow project management and communication processes that enable effective project management including reporting to and meeting with staff at Deakin IFM and the CTO and CEO of Humble Bee Bio.
- γ Prepare, and if necessary present oral and written reports for, the CTO and Board of Directors.
- γ Participate in regular internal project meetings and external advisory meetings.
- γ Research and maintain an understanding of relevant research literature and use Mendeley to store and organise for collaboration and documentation.
- γ Participate in the development and/or maintenance of links and partnerships with industry and relevant professional bodies and the community.
- γ Any other duties as directed which are commensurate with the scope and classification of the position.
- γ Some domestic and international travel as required (including to other research partners, and staff engagement days).

PROBLEM SOLVING AND JUDGEMENT

The candidate is expected to exercise judgement on work methods and prioritisation of task sequences within standard practices and procedures and to seek expert advice for work methods that fall outside the standard practices or expertise.

The capacity to work independently, to use initiative and to work well within a team setting is crucial.

OCCUPATIONAL HEALTH AND SAFETY

The role involves engagement across multiple research facilities. At each facility the candidate will be briefed and trained for that site.

The candidate will be responsible for:

- γ Following safe work procedures and instructions at each facility.
- γ Safely operate, and develop safe working protocols as required.
- γ Taking reasonable care for the safety of self and others.
- γ Ensuring that any hazardous conditions, near misses and injuries are reported immediately following the policy of the facility.
- γ Participating in meetings, training and other health and safety activities.

ABOUT YOU

To be successful at Humble Bee Bio you are a person who is ambitious for the success of Humble Bee Bio and optimistic about its future. You will display diligence, have great resolve and a focus on producing results.

SELECTION CRITERIA – ESSENTIAL

A biomaterial scientist or research engineer with expertise in developing structural proteins into functional biomaterials for commercial products.

Required Skills and experience:

- γ PhD in biomaterial sciences, biofabrication techniques, chemistry, or similar training.
- γ This is a senior position – 10+ years of work experience preferred. Must have worked in a space developing novel biomaterials.
- γ Proficiency with techniques and expertise in turning structural proteins into biopolymers and other biomaterials with industrial utility for commercial products. This includes biomaterial formulations, materials processing and characterisation.
- γ An interest in synthetic biology and the power to ‘tune’ biomaterials at the atomic level. A high-level understanding of genetic code, the structure/function relationship of proteins and biomaterials, coupled with data science.
- γ Ability to imagine and engineer functionality into biomaterials using a variety of techniques.
- γ Proven track record of delivering to milestones on industry research projects.
- γ Experience in the development of successful commercial products, including patent development and managing intellectual property.
- γ Experience in planning and conducting high-quality research and development, in a reproducible and robust manner.
- γ Exceptional stakeholder relationship management – liaising with scientific colleagues, commercial product development clients, patent attorneys, regulatory agencies, media and other stakeholders.
- γ Self-driven with the ability to work autonomously with minimal supervision
- γ Strong curiosity for, and comfort working in, areas of material

science, biology, biotech & business previously unknown to you. Ability to problem-solve and think laterally and ask the right questions of our R&D team, industry partners, and advisory boards.

- γ Excellent interpersonal skills, including the ability to interact well with research and technical staff and students, and excellent oral, written communication and presentation skills.

Desired Skills and experience:

- γ Some experience with regulatory affairs, particularly in environmental compliance (e.g. EPA or similar) would be an advantage.
- γ A broad range of commercial interests with a focus on textiles, but knowledge in medical devices, biocomposites, bioadhesives, electronics and other domains

Please note: It is not the intention of the position description to limit the scope or accountabilities of the position but to highlight the most important aspects of the position. The aspects mentioned above may be altered in accordance with the changing requirements of the role.

We recognise that not all candidates may meet the entire list of desired skills & experience – we encourage those who meet at least three-quarters of the criteria to apply.

To apply, please send us

- γ A cover letter describing a little about yourself, your prior work, your career goals, and what makes you interested in joining our team.
- γ A résumé or curriculum vitae.