Research Fellow

Postdoctoral bioinformatic researcher in systems immunology of infectious diseases
Australian Institute of Tropical Health and Medicine (AITHM)

AITHM at James Cook University is seeking an inspired and talented researcher to join the team. This position is based at the JCU Nguma-bada campus in Cairns, the gateway to the Great Barrier Reef and Daintree Rainforest.

The Role

We are using cutting-edge systems immunology to investigate the fundamental question of why humans respond differently to pathogen infection. It is not known why some individuals are asymptomatic, others exhibit mild or severe disease, and others die when exposed to a disease-causing pathogen. Nor why vaccines provide high level of protection to some individuals but fail to protect others. This project will apply systems immunology approaches, which integrate bioinformatics, computational sciences and immunology in order to understand the immune response to different infectious diseases and identify immunological signatures predictive of infection or disease status.

A particular focus will be on controlled human infection models of malaria but will expand to other priority diseases. You will work in a multi-disciplinary team using molecular immunology, transcriptomics, and quantitative proteomics to perform deep immune profiling by analysing and integrating large multi-omic datasets This project will use innovative bioinformatics approaches to identify host factors associated with response to disease, ultimately identifying immune signatures that can predict how an individual will respond to pathogen infection or vaccination.

Applicant Profile

With a PhD or equivalent in the field of computational science (such as bioinformatics or computational biology) or biomedical science (such as immunology or cell biology), you will have expertise in bioinformatic analysis using R and other specialist software is required. A background in systems immunology, molecular immunology, single cell analyses, or infectious diseases is advantageous. Excellent computer, communication, and organisational skills are essential. Forward thinking, innovation and creativity are highly encouraged.

Appointment Details

- Full time - 36.25 hours per week
- Two-year fixed term contract, with a possibility of renewal
- Academic Level A – C $85,349 - $133,913 commensurate with experience and qualifications
- Up to 17% superannuation
- 5 weeks annual leave

How to Apply

Please visit the careers at JCU website, vacancy reference 17691

For further information, please contact
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