

Postdoctoral Fellow in Computational Transcriptomics with Professor Barry Scott, Massey University, New Zealand

We are looking for a computational biologist with the necessary academic training and competency to analyse a large transcriptome data set generated from endophyte infected grass tissue. The project is collaborative with Professor Christopher Schardl at the University of Kentucky and Professor Murray Cox at Massey University. We are interested in identifying genes that are differentially expressed during the onset of stromata (sexual stage) development on the grass host. We have isolated RNA from different tissues of three different fungal-grass associations. We have gene models for the fungal components of all three associations but gene models for just one host. The post doc will be expected to develop their own hypotheses in analyzing this very large data set and work with a wider group working on the genomics, transcriptomics and functional analysis of fungal-grass associations. The analytical position requires solid quantitative and computational skills, with the ability to develop and apply new bioinformatics applications to the analyses. At a minimum, some confidence in bioinformatics and a programming language is required. Training in fungal biology or genomics can be provided as needed, and candidates from non-standard research backgrounds with a clear fit to the position are encouraged to apply.

Funding is available for just one year from a research sub-contract with the Bioprotection Research Centre to Massey University. Salaries are competitive starting at \$69,841 for step 1 of the post-doctoral scale.

The position will be based with Professor Barry Scott at Massey University in the city of Palmerston North.

Please email if you have any further questions: d.b.scott@massey.ac.nz

To submit an application, please provide:

1. A brief statement of research interests and experience, focusing on short to medium term career goals and your fit for this position
2. Curriculum vitae, including qualifications and scientific publications
3. The names and contact details of three referees willing to provide a confidential letter of recommendation upon request

Closing Date: to be readvertised

JOB DESCRIPTION

Purpose Statement: To carry out individual and team-based research on changes in gene expression associated with the onset of endophyte sexual development on grass hosts.

Responsible To: The Head of the Institute of Fundamental Sciences through Professor Barry Scott

Key Accountability Areas:

The Fellow is required to:

- Undertake computational research on fungal transcriptomics
- Undertake other relevant duties as specified and approved by the Principal Investigator
- Maintain accurate and orderly records of experiments, procedures and code, and store these records and data in the laboratory group archive.
- Report weekly to the Principal Investigator summarizing research progress and planned future research, with a focus on work towards research publications
- Publish at least one peer-reviewed publication in an international scientific journal
- Be familiar with Institute guidelines and rules for safety and approved practices in experimental work
- Maintain an organised and safe working environment
- Be familiar with Institute guidelines and safety rules.
- Participate fully in the academic activities of the Institute and the University
- Provide two monthly written reports to the project leader that summarise research progress and planned future experiments with a focus on publications
- Devote themselves full-time to University duties
- Diligently and faithfully serve the University and use their best endeavours to promote and protect the interests of the University
- Maintain confidentiality both during and after the appointment as Postdoctoral Fellow

Qualifications: A PhD in bioinformatics, computational biology, or otherwise applicable field (interpreted broadly)

Experience:

Minimum Qualifications

- Able to conduct independent cutting-edge research
- Proven research experience, including evidence of a publication record
- Quantitative skills, including some background in statistics and programming

Preferred Qualifications

- Candidates will be conversant in at least one programming language (broadly defined)
- Additional bioinformatics, computational and/or statistical experience would be an advantage
- Candidates with a background in biology together with applied mathematics, physics or computer science are encouraged to apply
- Some knowledge of biological systems

Attributes and Skills:

- good quantitative skills
- experimental and intellectual creativity
- initiative and enthusiasm
- proven ability to write, and potential to take the lead on scientific publications
- commitment to quality improvement, up-skilling and personal development
- ability to organize and maintain quality records
- integrity and confidentiality
- good time-management skills

- ability to work as a member of a team