# Position Details

## Research Scientist/Engineer- CSOF5

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| The following information is for applicants | |
| Advertised Job Title | Research Scientist - Translational Genomics |
| Job Reference | 76777 |
| Tenure | Specified Term of 3 years |
| Salary Range | AU$100k to AU$108k pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Brisbane (Dutton Park) QLD |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian/New Zealand Citizens and Australian Permanent Residents * Australian Temporary Residents who are currently residing in Australia with full work rights for the duration of the term (without the requirement for sponsorship by CSIRO). This does not include bridging and other visas which are dependent on the successful approval of future visas. |
| Position reports to the | Team Leader: USDA-ARS Australian Biological Control Laboratory |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Matt Purcell via email at [Matt.Purcell@csiro.au](mailto:Matt.Purcell@csiro.au) or [Michelle.Rafter@csiro.au](mailto:Michelle.Rafter@csiro.au)  *Please do not email your application directly to Matt Purcell or Michelle Rafter. Applications received via this method will not be considered.* |
| How to apply | Apply online at <https://jobs.csiro.au/>  Internal applicants please apply via **Jobs Central**  If you experience difficulties when applying, please email [careers.online@csiro.au](mailto:careers.online@csiro.au) or call 1300 984 220. |

### Role Overview

The role of Research Scientist Staff in CSIRO is to conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. You may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. You will have the opportunity to build and maintain networks, play a lead role in securing project funds, provide scientific leadership and pursue new ideas and approaches that create new concepts.

The Research Scientist – Translational Genomics role will be part of the *Managing Invasive Species and Diseases* Program in the Health and Biosecurity Business Unit of CSIRO. This multi-disciplinary program undertakes research to reduce the actual and potential economic, environmental, and social impacts of national priority pests, weeds and diseases of agriculture and the environment. The position will contribute to ongoing research conducted by the USDA Biological Control and Tropical Weeds teams based in Brisbane. The position will also play an integral role in CSIROs biosecurity strategy which aims to safeguard Australian agriculture from exotic pests and diseases thus lowering costs for our producers and maintaining critical access to domestic and international markets.

The position will use genetics/genomics skills to translate fundamental proof-of-concept research to develop novel applied tools and technologies to enable responses to agricultural and environmental biosecurity threats. This role will work collaboratively with industry, regulators, and scientists from diverse disciplines, including working closely with ecologists, geneticists, bioinformaticians and modellers across CSIRO. Research will include population genomics/phylogeographic research of pests, weeds and biological control agents, molecular diagnostics, functional genomics of plant-insect systems, and contributing to the design and implementation of relevant empirical studies.

### Duties and Key Result Areas

* Under the supervision of more senior researchers, assist in the planning and preparation of research proposals, negotiate and secure externally funded projects, and carry out research investigations, requiring originality, creativity and innovation.
* Devise strategy and assume overall scientific responsibility for research and interpreting results to deliver on project-related outputs.
* Develop molecular tools/resources for population and functional genomics of plant-insect interactions to help the agricultural and environmental sectors in support of biosecurity outcomes. This will include contributing to the design and implementation of relevant empirical studies that are informed by genomics research.
* Maintain a focus on translation of R&D, incorporating novel approaches to scientific study by adapting and/or developing original concepts and ideas into existing and future research.
* Develop active collaborations with scientists from other disciplines that are working within Health & Biosecurity, CSIRO and external stakeholders.
* Produce scientific papers suitable for publication in high quality international journals and presentation at national and international conferences, and present or write reports for clients and the scientific and/or technology community.
* Conduct field research in remote and regional areas for extended periods, this may include international surveys.
* Under general direction participate in planning projects and accept responsibility for the scheduling and completion of major parts of projects, including allocating and directing tasks where appropriate.
* Provide coaching, mentoring and on-the-job training to post-doctoral fellows, technical staff and students to ensure high quality research results.
* Maintain confidentiality when working with commercially sensitive information.
* Communicate openly, effectively and respectfully with all staff, collaborators and customers to build productive relationships and collaborations regionally, nationally and internationally, to enhance impact of the science or create new business opportunities.
* Work collaboratively as part of a multi-disciplinary, regionally dispersed research team to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

## **Required Competencies**

* **Teamwork and Collaboration:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams as well as industry colleagues.
* **Influence and Communication:** Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others reactions.
* **Resource Management/Leadership:** Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate responses by adapting/creating and testing alternative solutions.
* **Independence:** Plans, sets and works to meet challenging standards and goals for self and/or others. Recognises where endeavours will make the most impact or difference, decides on desired outcome and sets realistic goals to reach this target.
* **Adaptability:**Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of change.

## **Selection Criteria**

#### Essential

*Under CSIRO policy only those who meet all essential criteria can be appointed.*

1. A PhD (or an equivalent combination of qualifications and research experience) in a relevant field such as molecular ecology, population genetics, functional genomics, evolutionary ecology.
2. Relevant postdoctoral or industrial research experience including demonstrated theoretical, conceptual and practical knowledge relevant to molecular ecology.
3. Strong quantitative analytical and statistical skills relevant to sampling design and marker development, combined with a strong empirical experience needed to help guide supporting experimental research.
4. High level skills in genetic laboratory methods (e.g., standard and quantitative PCR and DNA extraction), population genetic analysis (i.e., microsatellite development, RAD sequence or GBS) or transcriptome analysis (mRNA, microRNA); and the ability to optimise and troubleshoot in the laboratory environment and to use contextually appropriate analyses for different research questions.
5. High level skills in scientific computing languages and software (such as R or Python) relevant to the bioinformatic data generated by genomics research.
6. Demonstrated ability to develop and lead projects or components of large multi-disciplinary projects, and carry out independent individual research, to achieve project goals.
7. A record of science and/or technological innovation and creativity, including the ability and willingness to incorporate novel ideas and lateral thinking into scientific investigations to develop appropriate solutions to research challenges.
8. Excellent communication skills, both written and spoken, to make research accessible to diverse audiences in constrained time frames and the demonstrated ability to publish impactful research, to write reports and deliver scientific presentations to audiences with scientific and non-scientific backgrounds.
9. An ability to, under guidance, identify and secure new strategically-aligned R&D opportunities through engagement with stakeholders and collaborators.
10. A current and valid driver’s licence.

## **Desirable**

1. Demonstrated research experience in biosecurity.
2. Relevant technical skills such as experience with coding, handling “big data”, and an ability to build software tools.
3. Track record in developing science-based solutions for industry through to adoption.
4. Demonstrated ability and willingness to supervise students, technical staff and post-doctoral fellows.
5. A track record in developing proposals and obtaining funding.

Special Requirements

Appointment to this role may be subject to conditions including provision of a national police check as well as other security/medical/character clearance requirements.

* The successful candidate will be asked to obtain and provide evidence of a National Police Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* Travel: The willingness and ability to travel throughout Australia and internationally, which will require occasional extended trips away from home and occasional weekend work.

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. To find out more visit us [online](http://www.csiro.au/)!

CSIRO is a values-based organisation.  In your application and at interview you will need to demonstrate behaviours aligned to our values of:

* 1. People First
  2. Further Together
  3. Making it Real
  4. Trusted

Find out more about CSIRO [Health and Biosecurity](https://www.csiro.au/en/Research/BF)