# Position Details

## Research Projects- CSOF5

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| The following information is for applicants |
| Advertised Job Title | Quantitative Biosecurity Scientist |
| Job Reference | 72904 |
| Tenure | Specified Term of 3 years  |
| Salary Range | AU$98,735 to AU$106,848 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Brisbane, QLD or Canberra, ACT |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/New Zealand Citizens and Australian Permanent Residents, or 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) |
| Position reports to the | Group Leader (Pest Management Systems) |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Rieks Van Klinken via email at Rieks.vanklinken@csiro.au *Please do not email your application directly to Rieks Van Klinken. 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 or call 1300 984 220. |

### Role Overview

This position is an exciting opportunity for an early career, highly motivated research scientist with skills in quantitative analysis and modelling as it relates to biosecurity to join the Program *Managing Invasive Species and Diseases* of 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 also play an integral role in CSIROs newly formed *Trusted Agrifood Exports Mission* which aims to boost global export earnings of Australian grown food through tools and technologies that verify our quality, safety and clean and green credentials. Market-access (both domestic and international) is a key constraint for Australian agricultural growth. Pests and diseases remain a major barrier to market access, both in terms of demonstrating produce is pest-free and meeting maximum residue limits for chemicals used in pest management. Industry is therefore increasingly assessing research based on its ability to grow exports.

The role of a Research Scientist in CSIRO is to lead projects that conduct innovative research leading to scientific achievements that are aligned with CSIRO's strategies. In this role you will be using your quantitative and empirical skills to develop and test new approaches to both support market access and help responses to agricultural biosecurity threats entering Australia. This will involve working collaboratively with industry, regulators and scientists from diverse disciplines, including working closely with data analysts and modellers in Data61. Research will include developing and conducting risk analytics to support the development of phytosanitary systems approaches for market access, optimising pest surveillance and “track and trace” methodologies, and guiding the design and implementation of relevant empirical studies.

Career development will require broadening your research portfolio by identifying new opportunities and securing new funding for projects that deliver on CSIRO’s strategy. You will have the opportunity to build and maintain networks, develop new business, provide scientific leadership and pursue new ideas and approaches that create new concepts and beneficial impacts.

### Duties and Key Result Areas:

* Devise strategy and assume overall scientific responsibility for research and interpreting results to deliver on project-related outputs.
* Initiate and undertake through to adoption analyses and modelling to help the agricultural sector develop and maintain market access, and to support biosecurity incursion responses. This will include guiding empirical studies to inform and test modelling activities.
* Maintain a focus on adoption of R&D
* Incorporate novel approaches to scientific study by adapting and/or developing original concepts and ideas into existing and future research.
* Under the guidance of senior colleagues, develop and contribute to new, multi-disciplinary research projects, including negotiation and securing of external funding requirements.
* Anticipate industry and/or community needs and market direction through client liaison/networking; identifying changes quickly and adapting as needed.
* Act as a trusted advisor for industry.
* Develop active collaborations with scientists from other disciplines that are working within the Trusted Agrifood Exports Mission.
* Produce scientific papers suitable for publication in high quality international journals and for presentation at national and international conferences, and present or write reports for, clients and the scientific and/or technology community.
* 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.
* 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, often regionally dispersed research team, and business unit to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s 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:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response 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 changes.

## **Selection Criteria**

#### Essential

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

1. **Education/Qualifications:** A doctorate and/or equivalent research experience in a relevant discipline, such as quantitative ecology, modelling, ecological entomology or plant pathology, integrated pest or disease management, invasion biology or biosecurity.
2. Relevant postdoctoral research experience including demonstrated theoretical, conceptual and practical knowledge relevant to biosecurity.
3. Strong quantitative analytical and statistical skills relevant to surveillance design, phenological modelling, population and dispersal modelling, combined with a strong empirical experience needed to help guide supporting experimental research.
4. High level skills in scientific computing languages and software (such as R or Python) relevant to the domain questions and data.
5. Demonstrated ability to lead projects or components of large multi-disciplinary projects, and carry out independent individual research, to achieve project goals.
6. 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.
7. Excellent communication skills, both written and spoken, needed to make research accessible to diverse audiences in constrained time frames. This includes a demonstrated ability to publish impactful research and to write reports and make scientific presentations to audiences with scientific and non-scientific backgrounds.
8. An ability to, under guidance, identify and secure new strategically-aligned R&D opportunities through engagement with stakeholders and collaborators

## **Desirable:**

1. Demonstrated research experience in biosecurity.
2. Relevant technical skills such as experience with Bayesian networks, 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.
* Licence: A current and valid driver’s licence.

## **About CSIRO:**

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

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