# Position Details

## Research Scientist/Engineer- CSOF5

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| The following information is for applicants | |
| Advertised Job Title | Bioinformatics Research Scientist in Plant Health |
| Job Reference | 91891 |
| Tenure | Specified Term of 3 years  Full-time |
| Salary Range | AU$105,806 - AU$114,500 per annum (pro-rata for part-time)  plus, up to 15.4% superannuation |
| Location(s) | Canberra, ACT preferred, other locations negotiable |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/ New Zealand Citizens  Australian Permanent residents  Australian temporary residents with a valid working visa |
| Position reports to the | Research Team Leader – Plant Health Molecular Diagnostics |
| Client Focus – Internal | 70% |
| Client Focus – External | 30% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Dr. Gavin Hunter via email at gavin.hunter@csiro.au or phone +61 2 6218 3658 |
| 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. |

**Acknowledgement of Country**

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the areas that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our [vision towards reconciliation](https://www.csiro.au/en/about/Indigenous-engagement/Reconciliation-Action-Plan).

**Child Safety**

CSIRO is committed to the safety and wellbeing of all children and young people involved in our activities and programs. View our [Child Safe Policy](https://www.csiro.au/en/about/policies/child-safe-policy)

### Role Overview

The role of Research Scientist staff is to conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. The Research Scientist may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. The Research Scientist 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 Bioinformatics Research Scientist will join a multidisciplinary and regionally dispersed team that identifies and develops innovative molecular diagnostic biomarkers and platforms that identify pathogens and pests which pose a biosecurity threat to Australian agriculture and natural environment. As part of the Plant Health Molecular Diagnostic team the successful candidate will use and adapt in-house bioinformatic workflows, develop novel bioinformatic methodologies and pipelines, to identify informative biomarkers for plant diseases caused by pathogens and pests. The successful candidate will work closely with several multi-disciplinary scientists to optimise workflows and methodologies so that experimental results can feed in to bioinformatic pipelines producing informative bioinformatic analyses and results.

### Duties and Key Result Areas

* Adapt in-house bioinformatic pipelines to a plant health context using appropriate bioinformatic and programming expertise.
* Liaise with collaborating bioinformaticians across the business unit and organisation to adapt existing bioinformatic pipelines and develop novel pipelines specific for biosecurity and plant health diagnostics.
* Develop tools for automation of bioinformatic data analysis, interpretations, and visualisation.
* Collaborate with colleagues to publish high impact scientific journal articles.
* In collaboration with team members, assist in the planning, preparation, and submission of research funding proposals which address the needs of Australian biosecurity and plant health stakeholders.
* Undertake original, creative, and innovative bioinformatics research.
* Participate in identification of further opportunities which arise from research and initiate new lines of innovative research.
* Undertake research activities focused on one or more elements of larger research projects.
* Address problems promptly and in a constructive manner.
* Undertake experimental and/or observational research activities and supervise/train others to ensure experiments are established in accordance with research design.
* Communicate openly, effectively, and respectfully with all staff, stakeholders, customers, and suppliers in the interests of good business practice, collaboration, and enhancement of CSIRO’s reputation.
* 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 Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

## **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 bioinformatics, plant pathology, molecular biology, or microbiology.
2. Demonstrated experience and high proficiency in one or more coding language (e.g., Python or R).
3. Demonstrated experience in the analyses and interpretation of next generation sequence data and analysis of large, complex DNA and / or RNA sequence datasets.
4. Previous experience in developing and optimising bioinformatic workflows and pipelines for genomic and transcriptomic data analysis.
5. Familiarity with High Performance Computing (HPC) and command line tools.
6. Demonstrated ability to undertake original, creative, and innovative research by generating and pursuing novel ideas and solutions to scientific research problems.
7. A demonstrated publication history of authorship on scientific papers in peer reviewed journals and/or reports, grant applications or inventorship on patent applications.

## **Desirable**

1. Experience in microRNA research and bioinformatics.
2. Experience with bioinformatics as it pertains to plant pathology and plant health.

## **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.

Special Requirements

* The successful candidate will be asked to obtain and provide evidence of a National Police Clearance or equivalent. Please note that individuals with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* If the successful candidate is not an Australian Citizen or Permanent Resident, they may be required to undergo additional security clearances, which may include medical examinations and an international standardised test of English language proficiency (i.e. IELTS test- https://ielts.com.au/)*.*

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [Health and Biosecurity](https://www.csiro.au/en/about/people/business-units/health-and-biosecurity) for more information.

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

* People First
* Further Together
* Making it Real
* Trusted