# Position Details

## Research Projects- CSOF3

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| The following information is for applicants | |
| Advertised Job Title | Research Project Officer in Plant Molecular Biology and Genetics |
| Job Reference | 97015 |
| Tenure | Specified Term of up to 2 years  Full-time |
| Salary Range | AU$70k to AU$90k pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Black Mountain Science and Innovation Park, 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 * Australian Temporary Residents with an existing valid visa and unrestricted work rights for the duration of the 2-year term |
| Position reports to the | Team Leader |
| Client Focus – Internal | 0% |
| Client Focus – External | 100% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Zhi Zheng via email at [zhi.zheng@csiro.au](mailto:zhi.zheng@csiro.au) |
| 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 area 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).

### Role Overview

The role of Research Projects staff in CSIRO is to participate in scientific and technological activities with other research staff usually by assisting with experimental, observational or technology development work, and in carrying out the more practical aspects of the work.

This role will be part of CSIRO’s Agriculture and Food Business Unit, in the crops program seeking to solve important agricultural problems for the economy of Australia.

The position will be associated first with a GRDC-funded project on crown rot resistance led by Dr Zhi Zheng and later to other strategic projects led by scientists in the Pests and Diseases Group who work towards genetic solutions to devastating cereal and legume pathogens/pests.

The position will work on various aspects of genetic resistance and application of techniques to uncover novel genetic resources and make those available to the crop industry.

The successful candidate will examine the use of disease resistance genes and modifications in various crop genotypes. Activities undertaken by the research officer will involve cutting edge techniques in molecular biology and genetics, data analysis, statistics and skills in plant maintenance.

### Duties and Key Result Areas

* Apply contemporary molecular biology techniques (e.g., gel electrophoresis, media preparation, PCR, vector design and construction, mutagenesis, gene editing)
* Sample preparations of DNA and RNA material for sequencing and downstream analysis (e.g., RNAseq)
* Acquisition of genotypic (e.g., KASP molecular markers, SNPs) and phenotypic data (disease resistance).
* Operation of robots and large equipment in PC2 laboratory settings
* Maintain large plant populations in glasshouse and growth cabinets at a meticulous standard.
* Prepare and conduct seasonal field work at multiple sites.
* Maintain accurate experimental records.
* Present results in written and oral communications with the team.
* Maintain confidentiality when working with commercially sensitive information.
* Communicate openly, effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Work collaboratively as part of a multi-disciplinary 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:** Proactively seeks and considers the ideas and opinions of others from within and outside the team to help form decisions, plans or actions.
* **Influence and Communication:** Puts forward ideas by presenting factual information supported by data, definitions, examples, illustrations or other aids, which will assist in conveying meaning.
* **Resource Management/Leadership:** Provides instruction and assists other staff to complete allocated tasks and activities.
* **Judgement and Problem Solving:** Identifies and considers the implications of a range of available alternatives in order to select the most appropriate response to problems of a familiar or recurring nature.
* **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **Adaptability:**Willingness to change ideas or perceptions based on new information, contrary evidence or other people's points of view. Prepared to try out different approaches.

## **Selection Criteria**

#### Essential

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

1. Relevant degree or equivalent relevant work experience in plant molecular biology and genetics, or other related science discipline.
2. Demonstrated knowledge of plant maintenance and contemporary techniques in molecular biology (e.g., gel electrophoresis, media preparation, vector design and construction, mutagenesis, gene editing)
3. Manipulation and handling microbes and/or plants under controlled environmental conditions.
4. Basic knowledge on statistical analyses and processing of DNA/RNA sequencing, genotypic and phenotypic data.
5. Familiar with working on plant growth facilities.
6. Excellent record keeping and experience on electronic laboratory notebooks.
7. Excellent oral and written communication skills and willingness to present results to a team/group
8. The ability to work collaboratively within a team to achieve results.
9. Demonstrated ability to manage multiple priorities whilst meeting tight time frames and organisational goals.
10. Ability and willingness to learn new laboratory skills and techniques and adhere to safety requirements.

## **Desirable**

1. Experience in developing various types of molecular markers and crop field trials.
2. Experience in fungal disease inoculation and insect handling.
3. Experience in planta DON detoxification assay.
4. Experience in establishing genetics crosses for crop improvement.
5. Experience in RNAi silencing, and gene editing.

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.

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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 [Agriculture and Food](https://www.csiro.au/en/Research/AF)