# Position Details

## Research Projects- CSOF4

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| The following information is for applicants |
| Advertised Job Title | Molecular/Synthetic Biologist |
| Job Reference | 93908 |
| Tenure | Specified Term of 3 years, Full-time |
| Salary Range | AU$89,680 - AU$101,459 per annum (pro-rata for part-time)plus up to 15.4% superannuation |
| Location(s) | Black Mountain, 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 Resident, with an existing valid visa and unrestricted work rights for the duration of the 3-year term
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| Position reports to the | Team Leader |
| Client Focus – Internal | 100% |
| Client Focus – External | 0% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Andrew Warden via email at Andrew.warden@csiro.au or phone +61 2 62464137 |
| 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. |

**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 Projects staff in CSIRO is to collaborate in scientific and technological activities with other research staff usually by assisting with detailed planning, undertaking or assisting with experimental, observational or technology development work, and in carrying out the more practical aspects of the work.

The field of engineering biology has advanced rapidly in the last 5 years both in Australia and globally. At CSIRO in the Advanced Engineering Biology Future Science Platform (AEB FSP), we are focused on transformational science and capability development. As a result, we are very forward looking with a keen eye on what the future might look like in 5 to 15 years’ time in this fast-paced science domain.

This position will reside in the Data-Driven Molecular Design Theme of the AEB FSP. In this Theme, we are developers and expert users of advanced computational tools for designing bespoke, engineered biological solutions to global-scale problems in agriculture, health, environment and biomanufacturing.

We are also using the latest artificial intelligence (AI) and machine learning (ML) approaches to greatly accelerate our biodiscovery and biological design efforts. An integral and necessary part of our solution workflow is empirical validation, which requires high-level skills in Protein Biochemistry including microbial transformations, protein expression and purification, and biochemical assay development for new enzymes.

### Duties and Key Result Areas

* Design of vectors for protein expression and purification of proteins, development of enzyme assays, biophysical characterisation of proteins, and other laboratory work relating to engineering biology.
* Develop expertise in new protein characterisation methods as required.
* Under general direction, contribute to research and/or technology through the development of original and adapted experimental methods, equipment or software.
* Undertake a wide variety of tasks or tasks with a high degree of specialisation.
* Show initiative to seek new approaches to meet experimental or technological needs when encountering new problems where methods are not defined.
* Liaise with clients to determine their needs and take personal responsibility for their satisfaction.
* Address problems promptly and in a constructive manner.
* Participate in planning projects and accept responsibility for scheduling and completion of major parts of the project, including evaluation of options, experimental design, data collection and analysis, user and customer research, user experience and/or software design, implementation and delivery,
* Make significant contributions to the interpretation and communication of research or technological results and may collaborate on drafting presentations to, and/or detailed written reports for, clients and the scientific and/or technology community.
* 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, 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 and diversity initiatives.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. A bachelor’s degree with experience, or a Master's or PhD in Molecular Biology/Biotechnology/Synthetic Biology.
2. Proficiency in PC2 molecular biology lab techniques, such as transformations, protein expression and purification, PCR, electrophoresis, biochemical assay development, the ability to troubleshoot protein expression problems and general problem-solving skills.
3. Proficiency in the design and construction of expression vectors for use in heterologous expression organisms such as *E. coli* and/or yeast.
4. Experience in statistical analysis and interpretation of experimental results. Familiarity with software tools like Excel, Prism, Python/R for statistical analysis, or bioinformatics tools.
5. Excellent workplace skills, including maintaining a sterile and tidy work area, attention to detail and a strong record and attitude towards safety.
6. The ability to work as part of a cohesive, multidisciplinary team.
7. Excellent written and verbal communication skills.

## **Desirable**

1. Experience with analytical techniques such as NMR, HPLC, LCMS and/or GCMS.
2. Experience working with filamentous fungal cultures.

## **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 response by adapting/creating and testing alternative solutions.
* **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **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.

Special Requirements

Appointment to this role is subject to provision of a pre-employment background check and may be subject to other security/medical/character clearance requirements.

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [Environment Business Unit - CSIRO](https://www.csiro.au/en/about/people/business-units/Environment) 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