# Position Details

## Research Scientist/Engineer- CSOF5

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| The following information is for applicants | |
| Advertised Job Title | Research Scientist - Genome Engineering |
| Job Reference | 90151 |
| 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) | Black Mountain Laboratories, Canberra |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All Candidates that include:   * Australian/New Zealand Citizens * Australian Permanent Residents * Australian Temporary Residents * Overseas candidates requiring VISA sponsorship by CSIRO |
| Position reports to the | Group/ Team Leader |
| Client Focus – Internal | 50% |
| Client Focus – External | 50% |
| Number of Direct Reports | TBC |
| Enquire about this job | Contact Tanja Strive via email at tanja.strive@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 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).

### Role Overview

The role of Research Scientist/Engineer staff is to conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. The Research Scientist/Engineer may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. The Research Scientist/Engineer 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.

### This exciting opportunity is in the field of reproductive biology and genome engineering in mammals. The broad aim of the project is to develop novel genetic biocontrol strategies for the more humane and effective population control of rabbits, as a more humane alternative to classical viral biocontrol systems.

### As a Research Scientist at CSIRO’s Health and Biosecurity, the role will require the design and implement genetic strategies for controlling populations, for example by skewing the sex ratio of offspring towards one sex or generating offspring where one sex is infertile. There will be the opportunity to interact with other groups across CSIRO with genome engineering capability for animal agriculture and aquaculture applications as well as infectious disease studies. Close collaborative links also exist with leading researchers in genetic biocontrol at the University of Adelaide and Macquarie.

### Duties and Key Result Areas

* Undertaking genetic and genomic analysis of the rabbit genome to identify targets for genetic biocontrol strategies
* Using knowledge of developmental biology and gametes formation to define potential gene targets for sex/fertility control strategies. Undertaking genomic analyses on mammalian samples to validate those candidate targets.
* Exploring validated targets using in vitro assays and animal models
* Carrying out innovative, impactful research of strategic importance to CSIRO that will, where possible, lead to novel and important scientific outcomes.
* Liaising with stakeholders and customers to identify opportunities to apply genome engineering capability in the pest species control context
* Extend and develop CSIRO IP in genome engineering applications for the control of invasive pests.
* Developing new funded projects within the newly formed genetic biocontrol Team
* Supervise PDFs and post-grad students to develop new genome engineering opportunities.
* Participate in regular team meetings and discussions with the supervisor to set and monitor progress and milestones.
* Produce high-quality scientific papers suitable for publication in quality journals, for client reports and for granting of patents.
* Accurately record experimental results in approved Laboratory Notebooks and maintain computer databases.
* Prepare appropriate conference papers and present those at conferences as agreed with your supervisor.
* Make a contribution to the effective functioning of the research team and help deliver CSIRO’s organisational objectives and plans.
* Work collaboratively with colleagues within your team, the business unit and across CSIRO.
* Communicate effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Adhere to the spirit and practice of CSIRO’s Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Undertake an appropriate training and development program developed by CSIRO.
* 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 discipline areas, such as genome engineering, biotechnology, molecular biology or cell biology.
2. Demonstrated high-level skills in molecular biology in particular genome engineering tools such as CRISPR and mammalian cell culture.
3. A strong knowledge of animal genetics (both molecular genetics and genomics)
4. Experience and knowledge with the application of genetic technologies in a range of different animal species, in particular oviparous species.
5. Ability to work effectively as part of a multi-disciplinary, regionally dispersed research team, plus the motivation and discipline to carry out autonomous research.
6. High-level written and oral communication skills with the ability to represent the research team effectively internally and externally, including at national and international conferences.
7. A record of scientific innovation and creativity, plus the ability & willingness to incorporate novel ideas and approaches into scientific investigations.

## **Desirable**

1. Research experience to complement Essential Criteria 1, either with genome engineering techniques or biotechnology.
2. Experience with teaching and supervision of students.

## **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/) for more information.

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

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

Find out more about CSIRO [Health and Biosecurity](https://www.csiro.au/en/about/people/business-units/Health-and-Biosecurity)