# Position Description

## Research Scientist/Engineer – CSOF5

The following information is for applicants

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| Advertised Job Title**:** | Research Scientist: Mouse Population Genomics |
| Job Reference: | 60885 |
| Relocation Assistance**:** | Will be provided to the successful candidate if required |
| Applications Are Open To: | Australian Citizens Only  Australian/New Zealand Citizens and Australian Permanent Residents Only   * All Candidates |
| Percentage of Client Focus - Internal: | 0% |
| Percentage of Client Focus - External: | 100% |
| Reports to the: | Dr Peter Brown (Team Leader, Invasive Animals: Rodents) |
| Number of Direct Reports: | 0 |
| Name and Contact Details For Applicant Enquiries | Dr Peter Brown ([Peter.Brown@csiro.au](mailto:Peter.Brown@csiro.au)) |
| Contact Details For Applying | Call 1300 984 220 or email [careers.online@csiro.au](mailto:careers.online@csiro.au). |
| How to Apply: | Please apply online at [jobs.csiro.au](https://jobs.csiro.au/) and enter the requisition number**.** Internal applicants please apply via ‘Jobs Central’ through the ‘People Hub’ icon |

## Role Overview:

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

In this role you will develop and apply genetic tools to understand genetic diversity, dispersal, gene flow and population structure of mouse populations (“landscape genomics”) to develop robust rodent management recommendations for the grains industry. This information will (1) lead to a better understanding of mouse movements (identify source and sink habitats to understand when and where to undertake management), (2) inform the design of mouse monitoring systems (spatial layout and timing of monitoring) and (3) improve our understanding of mouse ecology (where do mice live, how do they interact with crops, etc). This Research Scientist will connect these different components and generate an entirely new level of understanding of mouse populations and thereby contribute to improved management strategies.

## Duties and Key Result Areas:

* Design and carry out population genomics studies to better understand diversity, gene flow, population dynamics, and migration patterns of mice in Australian cropping systems.
* Assist with the experimental design and collection of genetic material. Assist with collection of genetic samples from the field and talking with end-users and stakeholders of this research (growers and the grains industry).
* Liaise with clients to determine their needs and take personal responsibility for client satisfaction.
* Under limited direction, assist in the planning and preparation of research proposals and carry out research investigations, requiring originality, creativity and innovation.
* Present results in a meaningful format, prepare reports for clients and/or write scientific papers for publication.
* Address problems promptly and in a constructive manner, selecting the most profitable lines of attack upon a problem, preparing detailed design proposals and experimental protocols.
* Undertake experimental and/or observational research activities, often requiring the supervision and/or training of others to ensure experiments are established in accordance with research design, or as required.
* Draw on professional expertise, knowledge of other disciplines and research experience, recognise opportunities for innovation and generate new theoretical perspectives by pursuing new ideas/approaches and networking with scientific colleagues across a range of disciplines.
* 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, 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 plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

## Competencies:

1. **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.**
2. **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.**
3. **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.**
4. **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
5. **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.**
6. **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.

## Pre-Requisites:

**Drivers Licence:** A current Australian manual drivers’ licence or the ability and eligibility to obtain an Australian manual drivers’ licence.

**Post mortems:** Willingness and ability to work with mice including the carrying out of post mortems.

## Selection Criteria:

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

1. A doctorate in a relevant discipline area, such as population genomics or equivalent experience.
2. Demonstrated expertise in carrying out impactful research in the area of evolutionary genetics/population genomics.
3. Demonstrated experience with analysis of genome sequencing data and high throughput sequencing population genomics data.
4. Demonstrated strong oral and written communications skills, especially in evolutionary genomics and population genomics in peer-reviewed publications and conference presentations.
5. Demonstrated ability to work as part of an interdisciplinary team, and carry out independent research to achieve project goals.
6. A record of science innovation and creativity, plus the ability and willingness to incorporate novel ideas and approaches into scientific investigations.

## Desirable Criteria:

1. Genomics skills that go beyond population genomics, e.g. re-sequencing and whole genomes, annotation.
2. Experience with supervising technical staff and/or students.

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