# Position Details

## Research Scientist/Engineer- CSOF5

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| The following information is for applicants |
| Advertised Job Title | Research Scientist – Soil Microbiology |
| Job Reference | 91790 |
| Tenure | Specified Term of four 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) | Waite Campus, Adelaide SA  |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * All Candidates
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| Position reports to the | Gupta Vadakattu |
| Client Focus – Internal | 30% |
| Client Focus – External | 70% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Gupta Vadakattu via email at Gupta.Vadakattu@csiro.au or phone +61 8 8303 8579 |
| 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).

### 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 Functional Soil biology (FSB) team as part of CSIRO Systems Program has a long-standing reputation in microbiology research in production systems that incorporates cutting edge microbiology and molecular biology tools to investigate key functional groups and opportunities for improved function in a systems context. Current research extends into leading research in molecular microbiology, microbial ecology and host-microbe interactions with national and international collaboration. The FSB team works in partnership with multiple rural industries, communities, and governments in bringing novel biological solutions. Our existing scientific and leadership capacity is under ever increasing demand and is expected to grow with the desire by the growers, industry and among the top priority goals of government and society.

This scientist would bring the skills necessary to identify opportunities to manage soil biota and biological functions, optimising plant host genetics-microbe interactions to increase agricultural productivity, inform decision making and improve soil ecosystem function in the face of climate change. The scientist would engage directly with industry in the creation of biological innovations and farming system interventions, while maintaining CSIROs focus on high value, cutting edge science.

The position will join the Systems program at the Waite Campus with an objective of developing a long-term capability in soil biology for national and international impact, contributing to project teams in Systems and Sustainability programs across multiple locations. Initially, this scientist will be appointed on a 4-year term to work with microbiology researchers in Ag&F, across other CSIRO BUs and contribute to Microbiomes for One System Health-Future Science Platform.

### Duties and Key Result Areas

* Develop novel scientific approaches to investigate original concepts and innovations for new and current microbiology research as applied to dryland and irrigated cropping farming systems in Australia.
* Decipher associations between soil microbiomes and functions for plant nutrition, growth and health responses and overall soil health.
* Carry out innovative, impactful research of strategic importance to CSIRO that will, where possible, lead to novel and important scientific outcomes.
* Recognise and exploit opportunities for innovation and the generation of new theoretical perspectives, and progress opportunities for the further development or creation of new lines of research
* Develop, negotiate and lead new research projects that bring together skills across CSIRO, external partners and funding organisations.
* Manage research projects or significant components of projects, including responsibility for project planning, effective communication of research outcomes to partners and clients to facilitate implementation of findings and delivery of impact to Industry and publication of scientific papers in leading International journals.
* Adhere to the spirit and practice of CSIRO’s Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Work effectively as an integral member or leader of a multi-disciplinary, often regionally dispersed research team, with recognition and implementation of workplace Inclusion and Diversity.
* Work collaboratively with internal and external colleagues and partners, including growers and grower groups, to develop and progress challenging but realistic research plans for a range of research projects.
* Lead, coach and supervise staff within project team/Groups where required to achieve project goals, within agreed timelines and budget.
* 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 soil microbiology and biological functions
2. Demonstrated ability to undertake original, creative and innovative research by generating and pursuing novel ideas and solutions to scientific research problems.
3. A demonstrated publication history of authorship on scientific papers in peer reviewed journals and/or reports, grant applications or inventorship on patent applications.
4. Experience in soil biology ideally with focus on the rhizosphere, host plant interactions and plant growth promotion.
5. Demonstrated knowledge and/or practical understanding of structure and function relationships of microbiomes using genomics and biochemical techniques across soil ecosystems.
6. Experience in data sciences and statistical skills, particularly with regard to experimental design and statistical modelling.
7. Demonstrated capacity to work in multi-disciplinary teams including with industry
8. High level communication skills for scientific and industry levels.

## **Desirable**

1. Understanding of farming systems and biological interactions in soil-plant systems.
2. Evidence of good data management practices.
3. Demonstrated ability to work with agile methodologies.
4. Strong collaboration skills and potential to develop opportunities and lead research

## **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 CSIRO [Environment](https://www.csiro.au/en/research/natural-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