# Position Details

## Research Scientist/Engineer- CSOF5

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| The following information is for applicants | |
| Advertised Job Title | Research Scientist Metagenomics |
| Job Reference | 87495 |
| Tenure | Specified Term of 3 years  Full-time |
| Salary Range | AU$102,724 to AU$111,165 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Black Mountain, ACT (Brisbane, QLD or Hobart TAS will also be considered) |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All candidates |
| Position reports to the | Team Leader of Environmental Systems Biology |
| Client Focus – Internal | 90% |
| Client Focus – External | 10% |
| Number of Direct Reports | 0 |
| Enquire about this job | Tom.walsh@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.

The role of Research Scientist Metagenomics will be part of the Environmental Systems Biology team, which sits within the Future Science Platforms (FSPs), Land & Water group.

The Environomics FSP will contribute to developing metagenomic pipelines to not only characterise communities in complex populations but also to identify genes and pathways that may be used to develop novel processes and deliver low impact industrial outcomes.

The Future Science Platforms (FSPs) are an investment in science that underpins innovation and has the potential to help reinvent and create new industries for Australia. They are hubs that support world class, creative research teams which integrate science and delivery over the long term, looking to the future science needs of CSIRO and our partners with a 5 to 10 year vision. FSPs are both impact and science focussed.

The Environomics Future Science Platform is using genomics and other ‘omics technologies’ to revolutionise environmental science and natural resource management. The Environomics FSP maintains a varied portfolio of projects that aim to gather more information, more quickly and accurately from the environment using cutting-edge genomic technologies. Projects bring together advances in DNA sequencing, evolutionary biology, big-data, and environmental monitoring. Environmental genomics allows us to see beyond the Australian landscape to the genescape, transforming our ability to manage our biodiversity and make use of the genetic resources in nature.

### Duties and Key Result Areas

* Coordinating and liaising with the Australian Microbiome Initiative to develop new datasets and to contribute to existing data analysis.
* Apply and develop novel bioinformatic pipelines to metagenomic datasets.
* Work closely with the team to identify appropriate samples for developing novel datasets.
* Consult widely for candidate genes and proteins to look for in the metagenomic datasets.
* Explore the possibility of pre-sequencing approaches to enriching rare or difficult-to-identify DNA fragments.
* Under the supervision of more senior researchers, 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.
* Undertake experimental and/or observational research activities and supervise/train others to ensure experiments are established in accordance with research design.
* Provide supervision and coaching to students and technical staff.
* 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.
* 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 microbiology, bioinformatics, biochemistry or functional microbial biology.
2. Experience with microbial gene discovery/microbiomes and assembly methods for metagenomic samples.
3. Demonstrated ability to undertake original, creative and innovative research by generating and pursuing novel ideas and solutions to scientific research problems.
4. Excellent written and oral communication skills, including the presentation of research outcomes at national and international conferences.
5. The 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. A sound history of publication in peer-reviewed journals and/or authorship of scientific papers, scientific reports, grant applications or patents.

## **Desirable**

1. Experience with a variety of biological samples including soil would be useful as well as a background in areas such as biochemistry, analytical chemistry and synthetic biology, will also be taken into consideration.
2. Significant and demonstrable experience in dealing with data acquisition, analysis protocols and associated software. Experience with computer programming (e.g., R or Python) and multivariate statistics would be highly advantageous but is not essential as training is available.
3. A current driver’s licence.
4. Remain productive, positive and resilient in complex, ambiguous and/or uncertain environments.

## **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

* 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.
* 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/) Find out more about CSIRO [Land and Water](https://www.csiro.au/en/Research/LWF)

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