# Position Details

## Research Scientist/Engineer- CSOF5

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| The following information is for applicants | |
| Advertised Job Title | Research Scientist - Bioinformatician |
| Job Reference | 91647 |
| Tenure | Indefinite |
| Salary Range | AU$105,806 - AU$114,500 per annum (pro-rata for part-time)  plus up to 15.4% superannuation |
| Location(s) | ACDP, Geelong |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian / New Zealand Citizens  Australian Permanent Residents  Australian Temporary Residents with a valid working visa |
| Position reports to the | Team Leader |
| Client Focus – Internal | 80% |
| Client Focus – External | 20% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Petrus Jansen van Vuren via email at [petrus.jansenvanvuren@csiro.au](mailto:petrus.jansenvanvuren@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 a Research Scientist in CSIRO is to conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. A 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.

We are seeking a highly motivated bioinformatician/bioinformatics data analyst to join the Immunomics team, focused on investigating the immune system in infectious diseases. The successful candidate will be responsible for performing data analysis including NGS analysis and sequence analysis from experiments conducted in the lab. The focus of this role will be on vaccine design, transcriptomics, immune pathway analysis, identifying new potential diagnostic biomarkers as well as candidates for therapeutic intervention and vaccine design, data visualisation and analysis pipeline development.

### Duties and Key Result Areas

* Develop pipelines for data processing and vaccine design
* Conduct NGS analysis and sequence analysis on transcriptomic data
* Identify new potential diagnostic biomarkers and candidates for therapeutic intervention and vaccine design
* Develop custom bioinformatics scripts using programming languages such as Python
* Collaborate with lab members to design and execute experiments. Undertake activities focused on one or more elements of larger research projects.
* Draw on professional expertise, knowledge of other disciplines and research experience to recognise opportunities for innovation and generate new theoretical perspectives by pursuing new ideas and networking with scientific colleagues across a range of disciplines.
* 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.
* Address problems promptly and in a constructive manner.
* 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.
* Work collaboratively as part of a multi-disciplinary research team 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 procedures and policy, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. A PhD in a relevant field such as bioinformatics, computational biology, or a related field such as molecular biology if it included a significant focus on bioinformatics.Demonstrated ability to undertake original, creative and innovative research by generating and pursuing novel ideas and solutions to scientific research problems.
2. A demonstrated publication history of authorship on scientific papers in peer reviewed journals and/or reports, grant applications or inventorship on patent applications.
3. At least 3 years’ programming experience with at least one interpreted programming language (Python preferred)
4. Experience with NGS data analysis and transcriptomics
5. Strong analytical and problem-solving skills
6. Excellent communication and collaboration skills

## **Desirable**

1. Experience using other programming languages in addition to python (e.g. R/bash/SQL/ HTML/CSS/JS)
2. Experience using version control (e.g. GIT)
3. Experience using Linux/UNIX in a High-Performance Compute (HPC) environment for batch processing (e.g. SLURM)
4. Experience in data visualisation for large and complex datasets (e.g. NGS)
5. Experience in vaccinology

## **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.
* The successful candidate will be required to obtain and maintain a National Health Security Clearance.
* 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/)
* ACDP - Security Assessment and Microbiological Security Requirements for Personnel Working on the Australian Centre for Disease Preparedness (ACDP) Site.

**Security Assessment and Microbiological Security Requirements for Personnel Working on the Australian Centre for Disease Preparedness (ACDP) Site**

**To be eligible for this position you must be willing and able to:**

1. Certain positions including those working in the ACDP microbiological secure area will require security clearance at a level appropriate to duties of the position. Confirmation of the appointment is subject to obtaining that clearance.
2. It is essential that all work on exotic or emerging diseases carried out at ACDP is conducted in a safe manner to prevent the escape of the disease agents used, and to this end, all activities and personnel will be subject to appropriate microbiological security measures. Consequently, while working at ACDP, you may not reside on a property on which are kept any of the following animals: sheep, cattle, pigs, goats, horses, asses, mules and camelids, any other cloven-hoofed animal, fowls, turkeys, geese, domestic ducks, caged birds, emus or ostriches. Personnel working with diseases of aquatic animals may not keep aquarium fish at their place of residence and at times specific species may be excluded depending on the nature of the work conducted.
3. In addition, for a period of seven days after working in the microbiologically secure area of ACDP, personnel may not have close contact with any of the above animals, amphibians or birds or the actual places where these animals are held, or visit any aquatic animal farm or aquatic animal hatchery.
4. Working in the barrier maintained Small Animal Facility or the Werribee Animal Health Farm requires avoidance of additional animals such as mice, rats, guinea pigs, rabbits, ferrets and poultry of a minimum of 3 days prior to arrival.
5. Certain positions will require medical assessment and vaccinations against various agents which may include (where applicable) influenza, Hepatitis b, Rabies, Japanese encephalitis, Q Fever and SARS-CoV-2 or other agents if working with certain viruses. The successful candidate will be required to provide satisfactory evidence of vaccination against certain viruses / diseases prior to commencement and/or may be expected to be vaccinated against other viruses/diseases during the course of their employment.
6. Positions working at PC4 will also require a pre-employment psychological assessment (not applicable to all positions).
7. Given ACDP’s role in the International Regional Program, there may be a requirement for some personnel to travel internationally and if required for this work, suitable staff should be able to obtain a valid passport and obtain applicable vaccinations.
8. In the event of an emergency disease response, ACDP may be required to implement the Emergency Animal Disease Response Plan and personnel may be directed to work in areas other than their usual assignment in order to meet the needs of the response. This direction may include work outside usual working hours, and may require working onsite.
9. Personnel must abide by Occupational Health, Safety and Environment regulations. Safety signs and directives issued by CSIRO personnel must be complied with at all times.
10. Access restrictions apply to the Werribee Animal Health Facility (WAHF) site that is associated with, but remote from, the ACDP site.

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [Health and Biosecurity](https://www.csiro.au/en/Research/BF) 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
* Find out more about the CSIRO [Australian Centre for Disease Preparedness](https://www.csiro.au/en/Research/Facilities/AAHL)
* Find out more about CSIRO [Health and Biosecurity](https://www.csiro.au/en/Research/BF)