# Position Details

## Research Projects- CSOF4

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| The following information is for applicants |
| Advertised Job Title | Molecular Diagnostic Scientist: High Throughput Sequencing and Bioinformatics– International Program |
| Job Reference | 94074 |
| Tenure | Specified term to 30 June 2027 |
| Salary Range | AU$89,680 - AU$101,459 per annum (pro-rata for part-time)plus up to 15.4% superannuation |
| Location(s) | Geelong, Australian Centre for Disease Preparedness |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/ New Zealand Citizens only. |
| Position reports to the | Project Manager – International Program |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | 0 |
| Enquire about this job | Frank Wong at frank.wong@csiro.au or phone +61 3 5227 5056 |
| 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).

**Child Safety**

CSIRO is committed to the safety and wellbeing of all children and young people involved in our activities and programs. View our [Child Safe Policy](https://www.csiro.au/en/about/policies/child-safe-policy).

### Role Overview

We seek to appoint an experienced molecular diagnostic scientist in high-throughput sequencing and bioinformatics within the International Program, which is a part of the Diagnosis Surveillance and Response (DSR) Program at the Australian Centre for Disease Preparedness (ACDP). The DSR program provides diagnostics and research capability required to investigate and respond to new and emerging diseases affecting livestock and other animals. The ACDP International Program (ACDP-IP), partners with multiple organisations including government, non-government and specialised agencies across the Asia-Pacific to build laboratory capacity and capability in the region.

The role will involve working in and providing high-throughput sequencing (HTS) or next-generation sequencing (NGS) wet-lab and related bioinformatics (dry-lab) training in animal diseases to laboratories in the Asia-Pacific region, either in person or virtually, across the breadth of the ACDP-IP portfolio. You will also contribute to the design of bioinformatics training material and coordinate the delivery of ACDP-IP bioinformatics activities to ensure they are consistent across the program. Overseas work will only be undertaken once the required competency standards are met and will involve regular travel (every 1-2 months) of 1-2 weeks duration, potentially up to 3 weeks, in countries primarily in the Asia-Pacific region.

The role will involve maintaining competency within the bioinformatics and sequencing laboratory at ACDP, ensuring delivery of training in the region is aligned with ACDP procedures and providing surge capacity in the event of emergency animal disease responses. This may include performing diagnostic laboratory capacity building work such as conduct of diagnostic high-throughput (HTS) or next-generation sequencing (NGS) of microbiological samples, bioinformatics analyses including assembly and annotation of raw sequence data, sequence identification and phylogenetic analyses, general sample processing and other associated laboratory housekeeping activities. The successful candidate will work in high biocontainment (BSL3) laboratories and contribute to the delivery of outputs across a range of quality assured laboratory diagnostic services.

The aim of the ACDP-IP is to strengthen laboratory capacity, improve quality of laboratory diagnostic services, and laboratory biosafety and biosecurity. The work undertaken is fundamental for the improvement of capability and capacity in the region for prevention, control and eradication of high-impact emerging and/or transboundary animal and zoonotic diseases that pose a significant threat to animal and public health. The program provides diagnostic expertise and training to animal health laboratories in the Indo-Pacific region, enhancing the region’s capacity for disease diagnosis and emergency outbreak response and building ongoing technical partnerships, all within a framework of Australian standards of biosafety and biosecurity.

A requirement of this role is the ability to meet ACDP microbiological security and security assessment requirements.

### Duties and Key Result Areas

* Plan, coordinate and deliver high-throughput (HTS) or next-generation sequencing (NGS) and related bioinformatics training in support of ACDP-IP laboratory capacity building projects in the Asia-Pacific region. This will include providing structured training on different HTS/NGS platforms and wet-lab protocols, and bioinformatics (dry-lab) assembly and analyses of sequence data, either in overseas laboratories or hosting visiting scientists and collaborators from overseas institutions at ACDP.
* Contribute to the development of harmonised training material to support delivery of structured training in bioinformatics standards and protocols to the Asia-Pacific region.
* Contribute to delivery of individual projects within the ACDP-IP portfolio, including collection of monitoring and evaluation data and project reporting.
* Liaise with project partners to determine their needs and ensure delivery of activities in alignment with agreed project objectives and outcomes.
* Contribute to the effective functioning of the ACDP-IP and delivery of the program’s strategic objectives. This includes participation in team meetings, Recall Weeks and review of project activities and the ACDP-IP strategy.
* Develop and maintain competency to work in BSL3, and possibly BSL4 laboratories, to perform bioinformatics and sequencing under NATA/ISO 17025 accreditation for routine and emergency disease investigation.
* Contribute to the interpretation and communication of research and technical results including drafting presentations or detailed written reports for clients and the scientific research community.
* Willingness to travel and work in countries across the Asia-Pacific on a regular basis and enthusiasm to build laboratory capacity in low resource environments.
* Maintain confidentiality when accessing personal and commercially sensitive information.
* 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 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 policies, 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. Bachelor of Science degree or equivalent relevant experience in Biological Sciences or a related discipline.
2. High level experience in conducting and coordinating laboratory-based bioinformatics tests with ability to train others both at the ACDP and overseas laboratories.
3. Previous sequencing laboratory and HTS/NGS sequence data bioinformatics experience in particular working with infectious agents.
4. Demonstrated ability to support projects, including independently planning, implementing and completing the required project activities and objectives to clients’ expectations.
5. Demonstrated ability to work both independently and co-operatively as a member of a larger project team and to form and maintain effective and respectful relationships with a range of colleagues and collaborators.
6. High level interpersonal and written and verbal communication skills including the ability to document results and communicate effectively with colleagues and clients from various cultural backgrounds in order to meet project goals and timelines.
7. Willingness and ability to regularly travel overseas (every 1-2 months) for periods of between 1-2 weeks (potentially 3 weeks), to deliver project work and to provide structured training for overseas collaborators.

## **Desirable**

1. Postgraduate degree in molecular microbiology, sequencing or a related discipline.
2. Previous experience working overseas, particularly in developing countries.
3. Prior experience working at physical containment level 3 laboratories or higher.

## **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 response by adapting/creating and testing alternative solutions.
* **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **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.

Special Requirements

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

**ACDP Special Conditions that staff must comply with:**

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 such as influenza, rabies, hepatitis B, Japanese encephalitis or other agents as specified if required for the role performed.
6. Positions working at PC4 will also require a pre-employment psychological assessment.
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. Should an emergency response situation arise, ACDP may be required to implement the Emergency Animal Disease Response Plan and personnel may need to contribute to response requirements, including after-hours work.
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.

**The successful candidate will be required 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.
* Undertake a National Health Security Check (to be arranged post-commencement).
* Obtain and maintain a security clearance at the Negative Vetting Level 1 (to be arranged post-commencement).

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [Australian Centre for Disease Preparedness](https://www.csiro.au/en/about/facilities-collections/acdp) 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