# Position Details

## Research Scientist/Engineer- CSOF6

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| The following information is for applicants |
| Advertised Job Title | Senior Electron Microscopist |
| Job Reference | 72250 |
| Tenure | Indefinite, full-time |
| Salary Range | AU$115k - AU$135k per annum, plus up to 15.4% superannuation |
| Location(s) | Australian Centre for Disease Preparedness (ACDP), Geelong, Victoria |
| Relocation Assistance | Will be provided to the successful candidate if required (within Australia) |
| Applications are open to | Australian Citizens and Permanent Residents only |
| Position reports to the | Pathology and Pathogen Biology Team Leader |
| Client Focus – Internal | 70% |
| Client Focus – External | 30% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Dr John Bingham via email John.Bingham@csiro.au or telephone +61 (0)3 5227 5008 |
| 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. |

### Role Overview

Research Scientists in CSIRO conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. The Senior Electron Microscopist applies transmission electron microscopy to identify viruses and elucidate the mechanisms by which they cause disease. The position is part of a multi-disciplinary team whose focus is to investigate the pathogenesis of infectious disease in animal (including ex vivo) systems and to participate in the diagnostic investigation of pathogen (principally viral) outbreaks.

The role includes responsibility for the day-to-day operations of the electron microscopy facility at the Australian Centre for Disease Preparedness (ACDP), as well as leading and mentoring staff in TEM techniques. The Senior Electron Microscopist will plan and execute impactful research projects of all sizes, as well as contributing to elements of larger projects. Working with trusted collaborator networks and drawing on expertise in electron microscopy, these research projects will involve the design and application of innovative techniques to the investigation of viral disease pathogenesis. The role will require the production of scientific papers suitable for publication in quality journals and at conferences, and facilitate the communication of research results, including diagnostic reports, to clients and the scientific community.

The position is based in the high containment facility at ACDP and requires adherence to microsecurity regulations. The ACDP microscopy facility comprises a JEM1400 120KV at physical containment 3 (PC3) and a recently-acquired JEMF200 200KV at PC2. The new JEOL F200 TEM, equipped with a Gatan RIO camera, is supported by cryo- and room temperature sample preparation procedures and instrumentation, including a Gatan CP3 plunge freezer, high pressure freezer, freeze substitution, and cryo- and room temperature microtomes.

### Duties and Key Result Areas

* Take responsibility for the day-to-day operations of the electron microscopy facility at ACDP, including the supervision of technical staff.
* Lead innovative, impactful research of strategic importance to CSIRO that will result in novel and important scientific outcomes.
* Using professional expertise, knowledge of other disciplines, and research experience, develop challenging but realistic research plans, negotiate resource requirements with research managers or clients, and lead research projects of all sizes.
* Be responsible for executing elements of larger projects within and/or across Business Units.
* Produce high quality scientific papers suitable for publication in quality journals and at conferences.
* Communicate research results, including diagnostic reports, to clients and the scientific community.
* Demonstrate a considerable degree of originality, creativity and innovation in solving problems and introduce new directions and approaches.
* Conduct relevant technical procedures, including tissue and culture preparation for electron microscopic examination and interpretation.
* Take responsibility for the safe management of toxic materials, including radio-active compounds, related to transmission electron microscopy.
* Examine and interpret biological specimens using transmission electron microscopy and compile informative written reports for customers and collaborators.
* Maintain confidentiality with respect to sensitive commercial or diagnostic information.
* Take responsibility for the quality of data produced by the facility and oversee quality control procedures in the acquisition, processing and interpretation of data.
* Build collaborative networks within national and international institutes.
* Through client liaison and networking, be aware of global innovation trends and anticipate industry uptake of new technology.
* Provide scientific and technical expertise and advice for projects.
* Provide coaching, on-the-job training and instruction pertaining to electron microscopy to colleagues and collaborators.
* 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 Values, 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 (or an equivalent combination of qualifications and research experience) in a relevant discipline of science such as zoology or biomedical science.
2. Demonstrated ability to undertake original, creative and innovative research by generating and pursuing novel ideas and solutions to scientific research problems.
3. A solid publication history of authorship on scientific papers in peer reviewed journals, client reports and conference abstracts, as well as a demonstrated ability to deliver presentations to both scientific and non-scientific audiences.
4. Extensive experience in transmission electron microscopy, including in the preparation and interpretation of biological samples and in techniques such as cryo-electron tomography and CLEM.
5. Experience in the leadership and day-to-day management of electron microscopy facilities, including maintenance of microscopes, timely resolution of technical problems, leading technical teams and mentoring students and early career scientists.
6. Some knowledge of, and the ability and willingness to develop expertise in, the detection and classification of viruses by electron microscopy.
7. Proven ability to work effectively as part of a multi-disciplinary research team and to build positive interactions with stakeholders and customers.

## **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:** Identifies critical stakeholders and influences them via an influential third party, for example through an established network, to gain support for sometimes contentious proposals/ideas.
* **Resource Management/Leadership:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
* **Judgement and Problem Solving:** Anticipates and manages problems in ambiguous situations. Develops and selects an appropriate course of action and provides for contingencies. Evaluates, interprets and integrates complex bodies of information and draws logical conclusions, synthesises proposals and defends options with reasoned arguments.
* **Independence:** Assesses the risk and opportunity of identified strategies, options and actions. Overcomes problems and setbacks in achieving goals. Invariably includes consideration of value-added future impact on bottom line when determining the optimal and efficient use of resources.
* **Adaptability:**Demonstrates flexibility in thinking and adapts to, and manages, the increasing rate of organisational change by adjusting strategies, goal and priorities.

Special Requirements

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

**ACDP Special Conditions:**

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

* Adhere to CSIRO ACDP microbiological security requirements, other Australian Security requirements applicable to the position and HSE policies.
* Be vaccinated against influenza, rabies, hepatitis B, Japanese encephalitis or other agents as specified if required for the role performed.

**Security Assessment and Microbiological Security Requirements for Personnel Working on the ACDP Site**

The nature of our work requires that each person working on site must comply with the conditions described below.

* The appointee is required to pass a security clearance at a level appropriate to duties of the position.  Confirmation of the appointment is subject to obtaining that clearance.
* 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 and mules, any other cloven-hoofed animal, fowls, turkeys, geese, domestic ducks, caged birds, emus or ostriches. Personnel working with diseases of aquatic animals additionally may not keep aquarium fish at their place of residence and personnel working with cane toad material must also avoid contact with amphibians.
* 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.
* Working in the barrier maintained Small Animal Facility requires avoidance of contact with additional animals such as mice, rats, guinea pigs, rabbits and poultry 3 days prior to arrival.
* Personnel must abide by Occupational Health, Safety and Environment regulations. Safety signs and directives issued by CSIRO personnel must always be complied with.

**The successful candidate will be required to:**

* Obtain and maintain a security clearance at the Negative Vetting Level 1
* Undertake a pre-employment medical with audio and psychological assessment
* Undertake a National Health Security Check

## **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/Showcase/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