# Position Details

## Research Projects- CSOF5

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| The following information is for applicants |
| Advertised Job Title | Transmission Electron Microscopy (TEM) Specialist |
| Job Reference | 70494 |
| Tenure | Specified Term of 3 years |
| Salary Range | AU$98 735 to AU$106 848 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Melbourne (Clayton) VIC |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian/New Zealand Citizens and Australian Permanent Residents
* Australian temporary residents currently residing in Australia with full work rights for the length of the term without the need for sponsorship by CSIRO. This does not include bridging and other visas which are dependent on the successful approval of future visas.
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| Position reports to the | Team Leader, Microscopy |
| Client Focus – Internal | 70% |
| Client Focus – External | 30% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Malisja de Vries via email at Malisja.Devries@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 or call 1300 984 220. |

### Role Overview

The role of Research Projects staff in CSIRO is to collaborate in scientific and technological activities with other staff usually by assisting with detailed planning, undertaking or assisting with experimental, observational or technology development work, and in carrying out the more practical aspects of the work.

### The TEM Specialist will be part of a team based in the Microscopy Facility in the Manufacturing Business Unit based in Clayton. The role will support the operation including oversight and maintenance of the TEM. The TEM Specialist will prepare and process samples for analysis using TEM (including cryo TEM), the interpretation of images and analytical results for various applications such as slow drug release to material identification/properties. The role will also include liaising with the SEM facility in the same team. The TEM Specialist will be required to collaborate with external facilities to develop/expand capabilities to significantly increase the TEM advantage for CSIRO. CSIRO has access to externally based FIB SEMs required for lamellae production of specialised samples for TEM analysis.

### The Facility is focused on characterisation of samples for research projects within CSIRO and externally. Samples vary significantly in atomic mass, from hard to soft materials as well as biological specimens.

### Duties and Key Result Areas

* Plan, operate and maintain the TEM and associated infrastructure.
* Vet samples and problem solve in the preparation and presentation of complex or bespoke samples for subsequent high-resolution imaging and compositional analysis.
* Develop expertise in the instruments and techniques by remaining abreast of advances in the field to strengthen the facility's proficiency and advising leadership on emerging instrumentation needs. Explore new capabilities to increase applications and material types analysed.
* Facility administration including account reporting and utilisation, organising equipment repair/maintenance and liaising with manufacturers.
* Develop and adhere to standard operating procedures and training programs along with supporting technical, operational, training and OHS documentation.
* Maintain confidentiality when dealing with commercially sensitive information.
* Design, develop and adapt experimental methods and systems and/or software requiring high levels of initiative, ingenuity and skills (some of which are outside a single discipline).
* Collaborate with staff from other teams in meeting their objectives as required.
* Initiate and maintain collaborative relationships with external researchers and experts, manage contracts and transfer technology to industry.
* Liaise with clients to determine their needs and take personal responsibility for best possible outcomes.
* Address problems promptly and in a constructive manner.
* Play a significant role in communicating research or technological results in internal and external forums and, where applicable, contribute to and/or generate scientific papers.
* 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, regionally dispersed 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 Making Safety Personal goals.
* Other duties as directed.

## **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 team 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:** 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:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response 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 changes.

## **Selection Criteria**

#### Essential

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

1. Relevant tertiary qualifications or equivalent relevant work experience in physics, material science or biology.
2. Highly proficient in the operation of TEM and associated preparatory techniques, including FIB SEM, with in-depth experience concerning the interrogation of samples to define structural and chemical/physical properties.
3. Demonstrated knowledge concerning the software required to operate and assess output from imaging and analytical techniques.
4. Effective stakeholder management and delivery of high-quality analytical outcomes in an autonomous and timely manner.
5. Preparation of research outcomes for reports, publications and/or presentations which has resulted in the continuation of research.
6. Demonstrated ability to develop standard operating procedures and training programs along with supporting technical, operational, training and OHS documentation.

## **Desirable**

1. Experience at the interface of biological/chemical sciences in a translational research environment which has contributed to the overall success of a project.
2. Experience in cryo-techniques or ultramicrotomy.
3. An understanding in obtaining 3D data sets using advanced electron microscopy methods: image processing algorithms and particle structure modelling.
4. An emerging list of authorship and/or acknowledgements in relevant publications and/or internal reports.
5. Experience concerning the daily operation of an infrastructure focused research platform, with compliance to quality assurance protocols.

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.

* The successful candidate will be asked to obtain and provide evidence of a National Police Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* The successful candidate may be required to undertake domestic travel.

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	2. Further Together
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