

UNIVERSITY OF OTAGO
Te Whare Wananga o Otago

JOB DESCRIPTION

JOB TITLE: Electron Microscopy Technician
DEPARTMENT: Anatomy and Structural Biology (Otago Centre for Electron Microscopy)
DIVISION: Health Sciences

PRIME FUNCTION

Through the Otago Centre for Electron Microscopy (OCEM), participate in the provision of a professional, high quality electron microscopy service to researchers and teachers at the University of Otago.

MAIN OBJECTIVES

- Participate in the provision of a comprehensive and high quality conventional scanning electron microscopy (SEM) service to users of the OCEM.
- Develop and implement correlative light and electron microscopy techniques and promote for use in teaching and research.
- Participate in the provision of a comprehensive and high quality conventional transmission electron microscopy (TEM) service to users of the OCEM.
- Contribute to the overall efficient functioning of the OCEM.

KEY TASKS

1. Participate in the provision of a comprehensive and high quality conventional scanning electron microscopy (SEM) service to users of the OCEM.

- Provide technical support to researchers and students wishing to use conventional SEM preparation and operational techniques.
- Train new researchers and students in all aspects of conventional SEM preparation and operational techniques.
- Provide first level problem solving advice to researchers and students.
- Participate in the running of undergraduate practical classes including the preparation of material for the class, demonstration of procedures to groups of students and supervision of students using equipment.
- Participate in the routine maintenance and housekeeping programme for the SEM Section.
- Manage the image archives for the SEM Section.
- Provide back-up support for the Senior Scanning Electron Microscopist.

2. Develop and implement correlative light and electron microscopy techniques and promote for use in teaching and research.

- To become familiar with the application and technical aspects of correlative microscopy techniques, in particular high-resolution immunofluorescence (IFM), correlative fluorescence-electron microscopy (CFEM) and array tomography.
- Develop and implement correlative microscopy techniques.
- Promote correlative microscopy techniques.
- Provide technical support to researchers and students wishing to use correlative microscopy techniques.

3. Participate in the provision of a comprehensive and high quality conventional transmission electron microscopy (TEM) service to users of the OCEM.

- Provide technical support to researchers and students wishing to use conventional TEM preparation and operational techniques.
- Train new researchers and students in all aspects of conventional TEM preparation and operational techniques.
- Participate in the running of undergraduate practical classes including the preparation of material for the class, demonstration of procedures to groups of students and supervision of students using equipment.
- Provide first level problem solving advice to researchers and students.
- Provide back-up support for the staff of the TEM section, as required.

4. Contribute to the overall efficient functioning of the OCEM.

- Help maintain the OCEM as a safe working environment.
- Provide problem solving advice and assistance to researchers and students where able.
- Participate in the routine maintenance and housekeeping programme of OCEM.
- Supervise the OCEM library.
- Involvement in OCEM staff meetings and contribute to discussions.
- Participate in the OCEM seminar programme, workshops and training courses.
- Participate in the OCEM public relations and promotional exercises.
- Assist other OCEM technical staff as required.

RELATIONSHIPS

Directly responsible to:	Overall responsibility to Technical Manager - OCEM. Responsible to the Senior Scanning Electron Microscopist when in the SEM area.
Supervision of:	N/A
	- Do you assist in staff recruitment? No
	- Do you personally address staff performance issues? No
	- Do you do staff performance development reviews? No
	- Do you allocate tasks to staff? No
Functional relationships with:	Other staff of the OCEM. OCCM Technical Manager. All staff (academic and technical) and students (undergraduate and postgraduate) using the OCEM. Non-university researchers requiring to use the facilities in OCEM. Electron microscopists from other EM Centres within New Zealand and internationally. Sales and service representatives of the equipment manufacturers and consumable supply companies. All staff (academic and general) of the Department of Anatomy and Structural Biology.

BUDGETARY RESPONSIBILITY

- Able to authorise expenditure on correlative microscopy techniques without reference to the Technical Manager (generally around \$800 per order).
- Delegated authority from researchers to charge project costs to identified account codes within agreed budget limits.
- Maintain accurate records of work done for the purpose of cost recovery.

EXPECTED OUTCOMES

- Technical support to researchers and training of new users is carried out in a professional manner and is of a high standard. Researchers are very satisfied with the service and support they receive.

- Researchers are monitored so that problems are identified and dealt with appropriately and before excessive client time is lost (and client cost incurred) or equipment damage occurs.
- Accurate records of costs incurred while supporting research projects and undergraduate practical classes are accurately recorded for cost recovery purposes.
- OCEM is maintained as a safe working environment.
- Active contribution and participation in OCEM activities.
- A professional working relationship is maintained with both staff and users of OCEM.
- Correlative microscopy is developed and promoted to the point that it becomes a core technique for OCEM.
- Keep up-to-date with the scientific literature and be aware of world trends. Identify and inform researchers whose projects may benefit from particular new developments.
- Continually working towards the ongoing upgrading and improving of the quality of the support provided.
- The OCEM is well promoted.
- All key tasks are achieved efficiently and effectively.

PERSON SPECIFICATION

- Enthusiasm for electron microscopy with good supporting theoretical knowledge is essential.
- Previous experience in scanning electron microscopy very desirable.
- Previous experience in transmission electron microscopy very desirable
- Previous experience in immunofluorescence and/or immunocytochemistry techniques is desirable.
- BSc in a Biomedical discipline.
- Commitment to a culture of service and facilitation to students and researchers.
- High level of integrity.
- High standard of work ethic.
- Commitment to health and safety.
- Patience, degree of dexterity and attention to detail.
- Be able to work as part of a team, with good interpersonal skills.
- Awareness and commitment to safety.
- Ability to learn new skills.
- Good time management skills.

SALARY RANGE AND LEVEL

This position is evaluated at Level 5, on the University of Otago General Staff salary scale, the full salary range for this level being \$45,768 to \$55,120 per annum. The University operates an eight level salary structure applicable to most General Staff, with Level 1 being the lowest and Level 8 being the highest.

INITIAL SALARY ON APPOINTMENT

The expectation is that initial appointment will normally be made within the range \$46,423 to \$50,352 per annum.

ANNUAL SALARY REVIEW

Placement of staff within salary ranges is reviewed annually. The salary review is carried out as part of the annual Performance and Development Review process between August and October of each year, with any resulting increases taking effect from 1 February of the following year. Staff must have been employed on or before 1 August in the year of the review to be eligible for advancement the following February.

CONTACT PERSON

For further information, please contact Mr Allan Mitchell, Manager of the Otago Centre for Electron Microscopy, Tel 03 479 5642, Fax 03 479 7254, Email allan.mitchell@stonebow.otago.ac.nz

OFFER OF THE POSITION

Should the University wish to offer you the position, a formal, written letter of offer will follow any verbal discussions that might be held with you. It is recommended that you do not resign from your current employment until you have received our written offer. The contents of this formal letter of offer and its attachments will constitute the entire agreement between the employee and the employer, and will supersede all previous representations, negotiations, commitments and communications, either written or oral between the parties. Any agreements will only be binding on the employer where they have been formally offered by the Human Resources Division and accepted by the employee.

APPLICATIONS

Applications quoting reference number G10/593 close with the Recruitment Consultant, Human Resources Division on Wednesday 17 November 2010. With each application you must include an application form, an EEO Information Statement, a covering letter, contact details for three referees and one copy of your full curriculum vitae.

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