



Position Description

Position Title:	Research Fellow (Multi-modal microscopy)
Position Classification:	Level B
Position Number:	319048
Faculty/Office:	Office of Deputy Vice-Chancellor (Research)
School/Division:	
Centre/Section:	Centre for Microscopy, Characterisation and Analysis
Supervisor Title:	Associate Professor
Supervisor Position Number:	301412

Your work area

The Centre for Microscopy, Characterisation and Analysis (CMCA) comprises ~30 academic, research, technical and administrative staff supporting a diverse range of instrument platforms from electron and optical microscopy to ion probes and MRI. The CMCA's mission is to enable research excellence by providing access to world-class scientific infrastructure and expertise in characterisation to researchers and industry.

The Centre is home to the WA node of Microscopy Australia, a national consortium of advanced microscopy facilities that receives funding through the Federal Government's National Collaborative Research Infrastructure Strategy (NCRIS). The node incorporates several instrument platforms including electron microscopy and microanalysis, optical microscopy (including super-resolution optical platforms), secondary ion mass spectrometry (SIMS), X-ray microscopy, scanned probe microscopy, X-ray diffraction, and nuclear magnetic resonance. New investment will shortly see the node expand to include a cryo electron microscopy suite including both cryo scanning electron microscopy (cryoSEM) and cryo transmission electron microscopy (cryoTEM). The facilities support a large and diverse research community that extends across the physical, biological and biomedical sciences, geoscience, and engineering.

Reporting structure

Reports to: Associate Professor

Your role

As an expert in microscopy techniques and their applications, the appointee will, under broad direction, build collaborative research activities with users of the Microscopy Australia facilities at UWA that bridge multiple imaging and/or analytical modalities available within the node, e.g. combining optical and electron microscopy, SIMS and electron microscopy, etc. The position will have a particular emphasis on developing multi-modal projects that have one of the node's key NCRIS-supported platforms (cryoEM or SIMS) at its core.

With a strong research background in one or more of the techniques available at the WA node, you will work closely with expert staff supporting the individual platforms to identify opportunities and build collaborations making use of multiple platforms, leading to high impact outcomes that solve problems critical to WA researchers. This could involve, but would not be limited to, the development of novel hardware or software solutions to facilitate multi-modal analyses across platforms, and/or the design of novel sample preparation/transfer protocols that permit the correlative application of multiple techniques.

Your key responsibilities

Initiate and engage in collaborative research projects within the University and across the wider research community leading to high quality, high impact research outcomes

Work with other CMCA staff to identify opportunities for multi-modal research applications of the platforms that they lead

Design and develop hardware, software, and/or sample preparation/transfer solutions to facilitate multi-modal and correlative applications of microscopy and analytical tools

Contribute as required to user training and support

Other duties as directed

Your specific work capabilities (selection criteria)

PhD in Physical Science, Bioscience, Geoscience or related discipline with a significant microscopy-related component

Knowledge and experience in one or more microscopy and/or analytical techniques relevant to the WA node of Microscopy Australia in a research setting

Demonstrated experience in developing and applying microscopy techniques, including at least one of hardware development, software development, and/or sample preparation protocol development

Demonstrated ability to engage in and support diverse research programs utilising microscopy techniques

Excellent written and verbal communication skills

Demonstrated ability to work both independently and effectively as part of a dynamic and multidisciplinary team

Excellent organisational skills and demonstrated ability to set priorities to meet deadlines

Special Requirements (selection criteria)

Occasional interstate and overseas travel may be required

After hours and weekend work may be required

Compliance

Workplace Health & Safety

All supervising staff are required to undertake effective measures to ensure compliance with the Occupational Safety and Health Act 1984 and related University requirements (including Safety, Health and Wellbeing Objectives and Targets).

All staff must comply with requirements of the Occupational Safety and Health Act and all reasonable directives given in relation to health and safety at work, to ensure compliance with University and Legislative health and safety requirements. Details of the safety obligations can be accessed at <http://www.safety.uwa.edu.au>

Inclusion & Diversity

All staff members are required to comply with the University's Code of Ethics, Code of Conduct and Inclusion and Diversity principles. Details of the University policies on these can be accessed at <http://www.hr.uwa.edu.au/policies/policies/conduct/code>, <http://www.web.uwa.edu.au/inclusion-diversity>.