



THE UNIVERSITY OF WESTERN AUSTRALIA

Position Title:	Senior Lecturer
Position Classification:	Level C
Position Number:	102275
Faculty/Office:	Faculty of Science
School/Division:	Chemistry & Biochemistry/Centre for Microscopy, Characterisation and Analysis
Supervisor Title:	Director
Supervisor Position Number:	307221

About the University

The University of Western Australia has an international reputation for excellence and enterprise and has been rated as one of the best comprehensive universities in Australia. It is one of the country's leading research institutions and is the only WA member of the prestigious "Group of Eight" research universities. In 2012 UWA joined the ranks of the World's top 100 universities, being ranked 96 in the Shanghai Jiao Tong University's Academic Rankings.

The University has a student enrolment of 24,500 and employs 3,700 full time equivalent (FTE) staff.

Vision and Values

The University of Western Australia vision is achieving international excellence.

Its core values underpinning our activities are a commitment to:

- A high performance culture designed to achieve international excellence
- Academic freedom to encourage staff and students to engage in the open exchange of ideas and thought
- Continuous improvement through self-examination and external review
- Fostering the values of openness, honesty, tolerance, fairness, trust and responsibility in social, moral and academic matters
- Transparency in decision making and accountability
- Equity and merit as the fundamental principles for the achievement of the full potential of all staff and students

All staff are expected to comply with the Code of Ethics and the University's Code of Conduct and demonstrate a commitment to its Equity and Diversity and Safety principles and the General Capabilities of personal effectiveness, working collaboratively and demonstrating a focus on results. Details of the University policies on these can be accessed at http://www.hr.uwa.edu.au/publications/code_of_ethics, <http://www.equity.uwa.edu.au> and <http://www.safety.uwa.edu.au/policies>.

All Staff are to complete a Professional Development Review Annually. Details of the University policies on Professional Development Review can be accessed at http://www.hr.uwa.edu.au/policy/toc/performance_management_of_staff/professional_development_review

A Commencing Professional Development Review should be completed within six months of commencement please discuss with your supervisor who is responsible for undertaking the review.

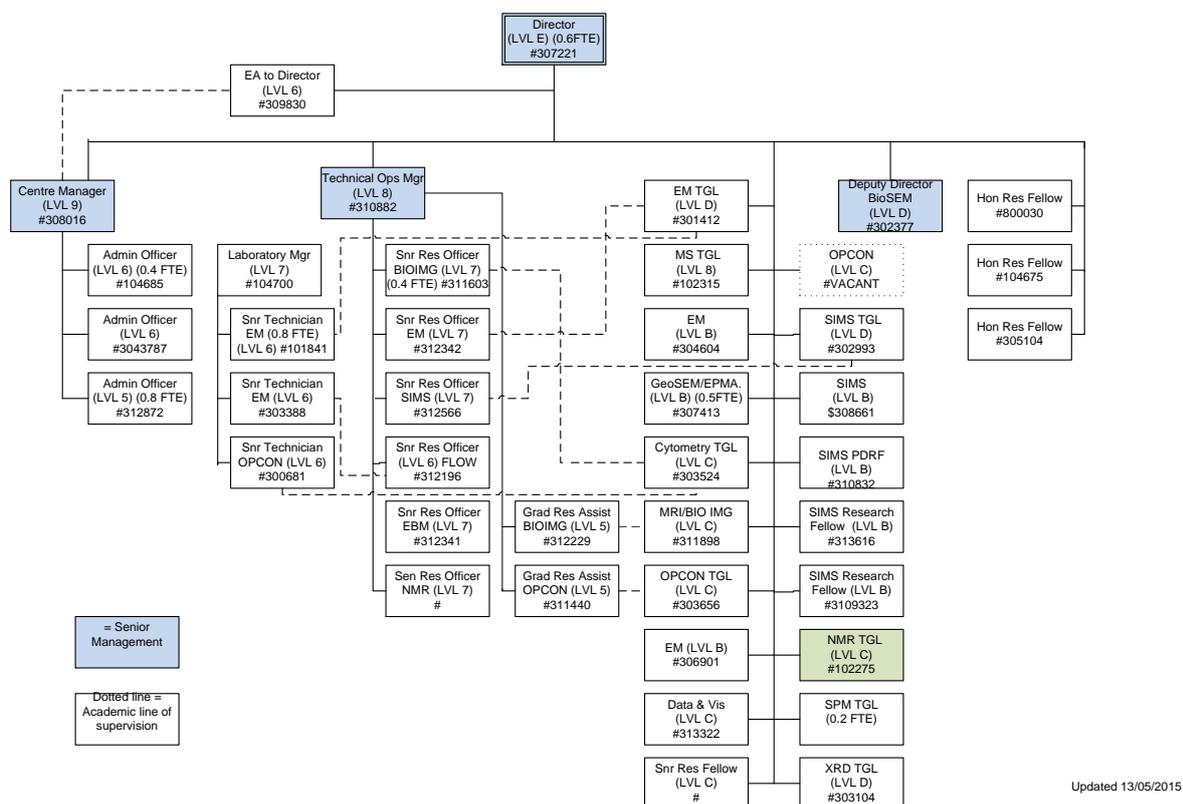
Your work area

The Centre for Microscopy, Characterisation and Analysis (CMCA) comprises 35 academic, research, technical and administrative staff supporting more than 40 instrument platforms including secondary ion mass spectrometry (SIMS), electron microscopy and microanalysis, optical, confocal, confocal Raman, and multiphoton microscopy, cytometry & cell sorting, NMR, powder, thin film and single-crystal X-ray diffraction, bio-organic mass spectrometry, small animal imaging, scanning probe microscopy, and micro-CT.

The Centre's Nuclear Magnetic Resonance facilities comprise four instruments ranging from 300 to 600MHz. The 600MHz spectrometer was upgraded to a Bruker Avance III HD system in December 2014 and a new Bruker Avance III HD 500MHz spectrometer will replace an existing 500MHz spectrometer in early 2015. In addition, the facility houses a Varian/Agilent 400MHz spectrometer equipped with solid state capabilities and a Varian/Agilent 300MHz spectrometer. The NMR facility is located in a specially designed laboratory within Bayliss building.

The CMCA's mission is to enable research excellence by providing world-class science infrastructure and expertise in characterisation to researchers and industry. Its strategy is to provide such excellence through a focus on world-class facilities matched with expertise and through a concept-to-publication User Pathway designed to meet the characterization requirements of researchers and industry through excellence in training, measurement and analysis. The User Pathway is a whole of project process that extends from concept to publication.

Organisation chart



Your role

The position manages the Nuclear Magnetic Resonance facility in the Bayliss Building. This extends from maintenance and operation of four NMR spectrometers and training users of the facility, to undertaking research projects involving NMR spectroscopy.

Key responsibilities

1. Specialist in Nuclear Magnetic Resonance Spectroscopy

- Provide expertise to academic staff and research students in all areas of NMR spectroscopy including spectrometer operation, data acquisition and analysis;
- Initiate and undertake interdisciplinary research projects utilising NMR spectroscopy across the School, Faculty, and wider University research community;

- Direct and supervise major undergraduate and postgraduate research projects;
- Engage in the teaching and demonstration of the principles of NMR spectroscopy to HDR, Honours, and undergraduate students – from first principles to advanced concepts;
- Provide high quality teaching in NMR spectroscopy and related areas, incorporating research, scholarship and/or professional practice into teaching activities; and
- Other duties as directed.

2. Management of the CMCA NMR Facilities

- Take responsibility for the maintenance, care, and security of four NMR spectrometers including cryogen maintenance, fault location and rectification;
- Train academic, research, and technical staff and research students in the use of high-field spectrometers and supervise the operation these spectrometers;
- Maintain current knowledge of developments in NMR spectroscopy, and engage in strategic planning regarding future upgrades;
- Implement new techniques and instrumentation;
- Monitor the scientific output and usage of the NMR facility; and
- Other duties as directed.

Specific work capabilities (selection criteria)

ESSENTIAL:

- PhD in chemistry or allied science;
- Demonstrated knowledge and experience in Nuclear Magnetic Resonance spectroscopy;
- Demonstrated ability to carry out independent research, and willingness to participate in collaborative research;
- Ability and willingness to direct and maintain a multi-user NMR facility;
- Ability to work in an interdisciplinary environment; and
- Good communication and interpersonal skills.

DESIRABLE:

- Experience with a wide range of multinuclear NMR experiments;
- Experience in solid-state NMR spectroscopy;
- Experience in the development and delivery of high quality teaching;
- Experience in computer programming and data management; and
- Experience working with teams of researchers from different fields (e.g. biology, chemistry, materials).

Special Requirements

There are no special requirements.