THE UNIVERSITY OF WESTERN AUSTRALIA

POSITION DESCRIPTION

Position Title	Senior Research Fellow
Classification	Level C
School/Division	Office of the Deputy Vice-Chancellor (Research)
Centre/Section	Centre for Microscopy, Characterisation and Analysis (CMCA)
Supervisor Title	Proteomics Facility UWA Lead
Supervisor Position Number	319482
Position Number	NEW

Your work area

The WA Proteomics Facility is a node of Bioplatforms Australia based at UWA which operates as a research infrastructure platform from CMCA. It provides services to WA researchers including protein analysis by mass spectrometry and other means, data analysis and consulting. Services are delivered through a joint venture between The University of Western Australia and Proteomics International. The Facility's goal is to use its expertise and equipment to fuel cutting-edge research in WA and to deliver high-throughput proteomic services for current and future Industry clients.

Reporting structure

Reports to: Proteomics Facility UWA Lead

Your role

As the appointee you will develop and undertake research projects, and initiate innovative approaches in protein identification, quantitation and flux analysis to enable new services aimed at publication in international research journals. You will build new partnerships and develop innovative ways to utilize machine learning, based off the facility's technical capabilities, to generate value for academic and industry clients and collaborators.

You will report to the Proteomics Facility UWA Lead, collaborate closely with the other staff of the facility in WA, build relationships and collaborations with proteomics experts in facilities and research groups in Australia and the Proteomics Australia network and play a key role in both technology development and student supervision at UWA.

Your key responsibilities

Designs, develops, executes and analyses research on novel approaches to understanding protein turnover through application of stable-isotope labelling and mass spectrometry

Designs, executes and analyses research on approaches for quantitative proteomics and mass spectrometry

Develops mass spectrometry and data analysis approaches for service and/or research collaboration

Writes research articles for publication in leading international journals

Designs reliable and reproducible experimental systems and aids collaborators in development of such experiments

Designs and implements laboratory automation including robotics, MS analysis, data analysis and QCs

Builds databases, informatics pipelines and machine learning models related to mass spectral data and its biological interpretation

Keeps records and follows procedures required by the rules of the Facility's funding agencies.

Takes a lead in maintenance and troubleshooting of a mass spectrometry facility in collaboration with other researchers and manufacturers.

Teaches new researchers and postgraduate students in the use and development of biological mass spectrometry through courses delivered by WAP and/or coordinated by Schools at UWA.

Travels for research meetings and for research collaboration visits.

Other duties as directed.

Your specific work capabilities (selection criteria)

PhD in protein chemistry, biochemistry or molecular biology, or related discipline

High level experience in development and execution of stable-isotope labelled mass spectrometry data analysis and processing

High level experience in development of bioinformatic pipelines and machine learning models from proteomics data

Good interpersonal skills to work independently and in a team

Experience in project management

High level computing and data management skills

Experience in preparing manuscripts for publication

Special requirements (selection criteria)

Occasional interstate travel may be required

Occasional travel within the state may be required

Some after-hours work may be required

Compliance

Ensure you are aware of and comply with legislation and University policy relevant to the duties undertaken, including:

To learn more about the Code of Conduct, see Code of Conduct.

To learn more about Diversity, Equity and Inclusion, see Diversity, Equity and Inclusion.

To learn more about Safety, Health and Wellbeing, see Safety, Health and Wellbeing.