

POSITION DESCRIPTION

Title of Position: Postdoctoral Research Scientist –
Metabolomics and 'Omics Outreach

Reporting to: Manager Metabolomics SA

Overview:

As part of the National Collaborative Research Infrastructure Strategy (NCRIS), this role is focused on delivering high-quality analytical services, supporting applied research, and translating omics technologies into practical outcomes for industry, SMEs, and the broader research community.

The Postdoctoral Research Scientist will play a key role as part of a dedicated team of professional research scientists in delivering high-impact bespoke analytical services and enabling 'Omics translation through Metabolomics SA and the 'Omics Accelerator, based at the Australian Wine Research Institute (AWRI), located at the Waite Precinct in Adelaide, South Australia.

The Postdoctoral Research Scientist will work collaboratively across a range of metabolomics and multi-omics projects, contributing to analytical innovation, method development and client service delivery. The role will help grow South Australia's omics ecosystem by fostering partnerships with academia, government, and industry partners.

The Postdoctoral Research Scientist will support strategic outreach, capability-building, and the establishment of a dedicated omics translation team.

Qualifications: A BSc (Hons), PhD, in chemistry or biology, with a focus on analytical chemistry, metabolomics, genomics, bioinformatics or related fields.

Required experience:

- Minimum three years' experience in a research environment
- Experience with mass spectrometry (GC/MS and/or LC/MS) platforms including data processing software
- Strong background in analytical chemistry, including method development, validation, trouble-shooting and identification,

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and quantification of trace volatiles and non-volatiles in complex biological matrices

- Demonstrated experience in scientific outreach, client engagement, or stakeholder communication
- Familiarity with 'omics approaches, bioinformatics tools for metabolomics and genomics, and their integration into multi-omics projects
- Experience with statistical and computational approaches to metabolomics
- Proficiency in at least one data processing or scripting language (e.g., R, Python)

Desired experience:

- Experience with NMR and other analytical platforms
- Working knowledge of other omics disciplines, molecular biology, genomics, and/or genetics and their applications in biological research or diagnostics
- Experience with development of diagnostic methods, multi-omics platforms, and/or translational science projects

Principal Accountabilities:

1. Engage directly with clients and collaborators to identify, scope, co-design, and deliver tailored service solutions and quality scientific outcomes.
2. Conduct experimental design, sample preparation, method development, chemical analysis (MS or NMR analysis), data analysis, and reporting for service delivery and collaborative projects.
3. Take responsibility for the adoption, development, validation, application and review of established and new metabolite profiling and targeted metabolite analytical methods, as directed by the Manager Metabolomics SA.
4. Assist in the development of services and the client base of Metabolomics SA and the 'Omics Accelerator.
5. Actively contribute to strategic outreach and communication activities for Metabolomics SA and the 'Omics Accelerator, including workshops, symposia, online content, and collaborative training with clients and other researchers.
6. Actively contribute to the reporting and dissemination of outcomes through regular reports, refereed and industry publications, seminars and workshops for both scientific and industry audiences.
7. Monitor and report on emerging trends and opportunities in metabolomics, bioinformatics and multi-omics research.
8. Regularly search, review and report on emerging literature relating to developments in 'Omics discipline that could be of benefit to the facility.
9. Support the broader operations of Metabolomics SA and the 'Omics Accelerator, including:

- a. Collaboration with other Metabolomics Australia nodes, AWRI teams, and national research infrastructure
 - b. Internal review of data generated and methods for quality control
 - c. Coordination and mentoring of students, junior staff, or visitors
 - d. Business development and support for building client base
10. Identify opportunities for continuous improvement, new services and other business development.
11. Contribute to the efficient, effective and safe operation of research laboratories.
12. Maintain accurate, daily records of all experimental work, outcomes of data processing and interpretation in accordance with the Quality Management System (QMS) and ISO 9001 Standard requirements.
13. Contribute to the maintenance and continuous improvement of the QMS, including documentation updates and corrective actions where necessary.
14. Undertake other duties as directed by the Manager Metabolomics SA, Research Manager – Molecular Biology, Director of Research or the Managing Director.
15. Accept that all intellectual property, patents and discovery arising during the course of employment at the AWRI remain the property of the AWRI.
16. Promote the general well-being of the AWRI by ensuring that all contact with clients, staff or the public is performed in a professional and confidential manner.

Person Specification:

1. Practical understanding of and experience in scientific research.
2. Ability to work and communicate successfully within a multi-disciplinary environment and across research and industry groups.
3. Ability to maintain effective working relationships and contribute positively in a team environment.
4. Superior oral and written communication skills.

Workplace Health and Safety Responsibilities:

Employees and students must take reasonable care to protect their own health and safety, and have responsibilities to:

1. Ensure that they do not increase the risk to the health, safety or welfare of others through any act or omission.
2. Obey reasonable instructions that are designed to protect their health, safety and welfare.
3. Use, in the appropriate manner, equipment or services that is provided to protect their health, safety or welfare.
4. Not wilfully interfere with, or misuse, items or facilities provided in the interest of health, safety or welfare of employees.
5. Ensure that they are not affected by alcohol or any other drug to such an extent that they endanger themselves or others.
6. Report promptly, any hazards, incidents or injuries to their Manager/Team Leader.