

POSITION DESCRIPTION

Title of Position: Postdoctoral Research Fellow – Metabolomics
(1 Year Fixed Term Contract - Maternity Leave replacement)

Reporting to: Manager Metabolomics SA

Overview: As part of the National Collaborative Research Infrastructure Strategy (NCRIS), this role is focused on delivering high-quality metabolomics services, to support applied research, industry, SMEs, and the broader research community.

The Postdoctoral Research Fellow will work collaboratively on a range of metabolomics projects and provide professional services in metabolomics to the Australian scientific community and clients from industry, across a broad range of applications and fields. The successful candidate will also contribute to the development of metabolomics methods and support the operation of Metabolomics South Australia at the Australian Wine Research Institute (AWRI).

Qualifications: A BSc (Hons) degree and PhD in chemistry and analytical chemistry with a focus on metabolomics, bioinformatics, analytical chemistry or a related field.

Required experience:

- At least three years' experience in a research environment
- Experience with mass spectrometry platforms (GC/MS and/or LC/MS) and related data processing software
- Experience in analytical chemistry related to the study of volatiles and non-volatiles in food, beverages, plant or other biological matrices
- Strong background in analytical chemistry, including: method development; validation; troubleshooting; and identification, and quantification of trace volatiles and non-volatiles in complex biological matrices.

Corner of Hartley Grove and Paratoo Road, Urrbrae
Correspondence:
PO Box 46
Glenside SA 5065
Australia

Desired experience:

- Experience with NMR and other analytical platforms
- Experience with statistical and computational approaches to metabolomics
- Proficiency in at least one data processing or scripting language (e.g., R, Python)

Principal Accountabilities:

1. Conduct experimental design, sample preparation, method development, chemical analysis (MS or NMR analysis), data analysis, and reporting for service delivery and collaborative projects.
2. 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.
3. Actively engage with clients to ensure a high level of customer service and the achievement of quality scientific outcomes.
4. Assist in the development of services and the client base of Metabolomics SA.
5. Actively contribute to the planning, execution and completion of research projects and service provision projects within designated project parameters.
6. Actively contribute to the reporting and dissemination of outcomes through regular reports, refereed and industry publications, seminars and workshops to a standard expected of AWRI presentations and publications.
7. Regularly search, review and report on emerging literature relating to developments in metabolomics that could be of benefit to the facility.
8. Monitor and report on emerging trends and opportunities in metabolomics, bioinformatics and multi-omics research.
9. Support the broader operations of Metabolomics SA, 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, 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.