

South Australian Multiomics Framework Initiative

Supported by Bioplatforms Australia

Expressions of interest due 5 pm Friday 31 May 2024 (AEDT)



Background

We are in the omics era: hundred-dollar whole genome sequencing, million cell transcriptomics, high-resolution spatial transcriptomics, high-plex proteomics and many other enabling technologies that can be combined to tackle research questions in novel ways. The integration of data generated via different and complementary 'omics technologies has the potential to reveal new insights into biological mechanisms and pathways not detectable with single-method approaches. Multiomics analysis and data integration, however, is not without its many technological hurdles and cost barriers. Fortunately, South Australia has a comprehensive set of advanced omics infrastructure and capabilities to enable world class research across various omics areas, such as: genomics, proteomics, metabolomics, lipidomics and bioinformatics. Projects that combine different approaches and form collaborations across platforms will generate more impactful research and create new capabilities than is possible by single research groups or disciplines.

The South Australian Multiomics Framework Initiative aims to:

- Support the innovative application of multi-omics technologies to tackle important new research questions.
- Build capability and expertise in multi-omics data integration and analysis.
- Foster collaborations between SAGC partner institutes and across BPA platforms in SA.



SOUTH AUSTRALIAN GENOMICS CENTRE



Objective

Bioplatforms Australia (BPA) and the South Australian Genomics Centre (SAGC) are seeking **expressions of interest** (EOIs) from South Australian researchers who wish to conduct innovative multi-omics projects through a BPA-supported Framework Initiative. The focus of this Framework Initiative is to promote collaboration and capacity building across SAGC partner institutes (SAHMRI, AWRI, and the 3 SA Universities) and BPA-supported omics facilities in SA that leads to high-quality multi-omics research and/or datasets of national/international significance. The successful projects will develop novel ways of combining data generated using different omics technologies and will have significant potential to drive new discoveries in the fields of biology, agri-food, the environment, or biomedicine. Examples of previous or currently BPA-supported Framework Initiatives can be found here <https://bioplatforms.com/projects/>

FUNDING AVAILABLE

Successful EOIs will be eligible for up to \$150,000 AUD, plus in-kind support from the SAGC, which will contribute up to \$20K in FTE support from its genomics and/or bioinformatics teams as part of the collaboration. A total of 3-5 projects are anticipated to be selected for funding support. The majority of the budget must be spent on accessing SAGC genomics services and the services of at least one other BPA-supported facility in South Australia (see below).

Total Amount Available (AUD): \$500,000.00

Estimated Project Value (AUD): From \$100,000.00 to \$150,000.00

ELIGIBILITY

1. Each application **must be led** by co-investigators from at least **TWO** of the SAGC partner institutes (i.e. SAHMRI, AWRI, Flinders University, UniSA, University of Adelaide).
2. Additional investigators/collaborators from non-SAGC partner institutes (e.g. industry partners, government agencies) can form part of the proposed team but cannot lead an application.
3. Each application **must** propose to use SAGC genomics services and at least ONE other BPA-supported facility in South Australia (e.g. Genomics and Metabolomics).
4. Projects that additionally use other NCRIS-supported capabilities will be viewed favourably.
5. Co-funding support (cash) for the project from host institutions or other sources will be viewed favourably but must be new, not existing funding.
6. Timeline: planned project start date should be within 3 months from the approval date and be completed within 18 months.

Other BPA-supported omics platform in SA:

These facilities include the Metabolomics Australia node at the Australian Wine Research Institute (AWRI) and the Mass Spec & Proteomics Facility at UniSA.

Genomics and Bioinformatics	South Australian Genomics Centre (SAGC)	https://sa-genomics.com.au/
Proteomics	Mass Spectrometry & Proteomics (MSP)	https://www.unisa.edu.au/research/mass-spectrometry-and-proteomics/
Metabolomics	Australian Wine Research Institute (AWRI)	https://metabolomics.awri.com.au/

Submitting a Project Proposal

Project submissions should be made through the following link
[\(CLICK HERE\)](#) **by 5 pm Friday 31 May.**



Selection Process

A joint committee consisting of members from **BPA**, the **SAGC** Steering Committee & Scientific Advisory Board, Proteomics **UniSA** and **AWRI** will be established to review all applications.

For Further Inquiries

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