



## **Next Generation Sequencing (NGS) Specialist**

### **About SAGC**

The South Australian Genomics Centre (SAGC) is a multi-institutional, national genomics and bioinformatics facility that is supported by Bioplatforms Australia (BPA) through the Australian Government's National Collaborative Research Infrastructure Strategy (NCRIS). The SAGC has consolidated genomics and bioinformatics expertise in the state, with a group of more than 10 genomics and bioinformatics staff working side-by-side to deliver innovative genomics and bioinformatics solutions across all areas of genomics research, including agriculture, healthcare and ecology. The SAGC is headquartered in the iconic South Australian Health and Medical Research Institute (SAHMRI) building in the Adelaide CBD.

### **About the Role**

An exciting opportunity now exists for an NGS specialist to join the SAGC genomics team where you have direct access to various cutting-edge technologies including short-read sequencing (platforms such as Illumina, MGI), long-read sequencing (e.g. Oxford Nanopore, PacBio), single-cell genomics (e.g. 10x Genomics, Fluidigm) and spatial transcriptomics (e.g. Xenium, Visium, CytAssist) .

This role is primarily responsible for conducting laboratory-based genomics services for SAGC users. You will have a varied and interesting workload across projects in different biological disciplines. To flourish in this role, you will need to be able to work across multiple different projects and to possess excellent organisational and time-management skills.

There are significant opportunities for professional growth and development through exposure to different cutting-edge genomics technologies. Staff are expected to enable research by carrying out projects under the National Association of Testing Authorities (NATA) guidelines. Your career development will be supported and you will be encouraged to participate conferences and seminars to keep up with the up-to-date technologies.



### Key Responsibilities

- Carrying out complex laboratory procedures required for the generation of genomics data as required by users of the SAGC.
- Assisting in the design and execution of complex experimental methods for users.
- Maintaining accurate written records of all experiments undertaken, following the SAGC Platform Quality Management System (PQMS).
- Day to day running of the facility including ordering laboratory supplies, generating standard operating procedures (in liaison with the PQMS Manager), and maintaining safe laboratory practices through work health and safety measures.
- Interacting as part of a team, coordinate and process data and assist in the preparation of research data for publication.
- Any other responsibilities in line with the level of the role as assigned by the SAGC Manager.

### Essential Criteria

- Bachelor degree with Honours or equivalent in a relevant laboratory based field (e.g. BSc, B.HlthSci, B.Biotech B.MedSci) with relevant work related experience.
- Demonstrated experience with molecular biology techniques including handling of nucleic acids.
- High standard of laboratory skills.
- Effective interpersonal skills with a demonstrated ability to network and liaise with stakeholders and staff.
- Demonstrated ability to take initiative in problem solving with excellent attention to detail.
- Ability to work in an organised, methodical way and to manage multiple ongoing projects
- Ability to work unsupervised for periods of time.
- Have a broad understanding of at least two of the following areas and hands-on experience in at least one:
  - **Sample Receipt:** documenting, handling and storage for DNA/RNA samples
  - **Sample QC:** sample quantification and qualification
  - **Library generation:** library generation with various sample types (e.g. bulk RNA, whole-genome DNA, amplicon, single cell)
  - **Library preparation:** pooling, denaturation and loading flowcells before sequencing



- **Sequencing:** platforms operation and maintenance such as Illumina Nextseq, Illumina Miseq, MGI-G400, Chromium Controller, Nanopore PromethION 2

**Desirable Criteria**

- Prior experience with or knowledge of single-cell RNA-seq and spatial transcriptomics technologies
- Prior experience with DNA/RNA extraction
- Prior working experience in NATA-accredited laboratories