# Position Description

## College/Division:
ANU College of Health and Medicine

## Faculty/School/Centre:
The John Curtin School of Medical Research

## Department/Unit:
Biomolecular Resource Facility

## Position Title:
Senior Genomics Technician

## Classification:
ANU Officer Grade 6 (Technical)

## Position No:
TBC

## Responsible to:
Team Leader (Genotyping)

## Number of positions that report to this role:
0

## Delegation(s) Assigned:
0

## PURPOSE STATEMENT:

ANU has an international reputation for research and education relevant to the health and well-being of the population of Australia, as well as that of the developing world. This is achieved through discovery research, applied research in health service settings, research-led teaching in health and medical sciences, and the translation of research findings into practice and policy. The ANU College of Health and Medicine comprises the Research School of Psychology, the ANU Medical School, the John Curtin School of Medical Research and the Research School of Population Health. These schools work together to deliver world-class research and education across the spectrum of medicine and health-related fields, working in partnership with the health sector at local, national and international levels.

The John Curtin School of Medical Research (JCSMR) is a leading centre of research in Australia. The Biomolecular Resource Facility (BRF) is a core service facility at JCSMR supporting Canberra based researchers, with Genotyping as one of the genomics services provided by the (BRF). The Genotyping Service provides accurate high-throughput genotyping and assay design for genetically modified mice for academic research. This service supports ANU and other Australian researchers to produce high quality internationally recognized research.

## KEY ACCOUNTABILITY AREAS:

### Position Dimension & Relationships:
The Senior Genomics Technician works under the direction and supervision of the Team Leader (Genotyping). The Senior Genomics Technician is responsible for assisting the Team Leader (Genotyping) with the complex tasks of the facility including implementation of new genomic technologies, such as Next Generation DNA sequencing method for genotyping mouse strains, design, optimize and troubleshoot assays, maintaining quality standards and contributing to routine genotyping within a small team. They will liaise with animal services staff, Biomolecular Resource Facility staff, Australian Phenomics Facility IT staff, ANU Bioinformatics Consultancy staff as well as other internal and external stakeholders.

### Role Statement:

Under the broad direction of the Team Leader (Genotyping), the Senior Genomics Technician will:

- Work in a multidisciplinary team in developing and implementing an amplicon based Next Generation DNA sequencing (NGS) method for genotyping genetically modified mice housed at the APF.
- Design, optimize and troubleshoot new complex technologies and assays, and implement standard operating procedures.
- Assist with the high throughput genetic typing of mice including: performing PCR analysis, gel electrophoresis and fluorometric analysis of samples.
- Take responsibility for the maintenance, running, diagnosis and problem solving of relevant equipment and systems.
- Develop new protocols and SWPs and other compliance documentation as requested in a suitable format to ensure high standards and quality outcomes.
- Provide training and appropriate advice to genotyping staff in complex protocols and use of advanced

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equipment.

- Maintain accurate records and assay designs using a sophisticated database tracking system and be responsible for timely stocktaking and ordering consumables required for the genotyping service.
- Support the Team Leader (Genotyping) in the organization of sample preparation, quantitation, quality assessment and storage of DNA from mouse tissues and assist with sample processing, analysis, interpretation of quality assessments and documentation of associated metadata.
- Liaise with academics, staff and other users both within and external to the ANU to facilitate desired project outcomes.
- Comply with all ANU policies and procedures, and in particular those relating to work health and safety and equal opportunity.
- Undertake other duties as required consistent with the classification of the position.

**SELECTION CRITERIA:**

1. A Degree with subsequent relevant experience in molecular biology or genetics, or extensive experience and specialist expertise with equivalent combinations of relevant experience and/or education/training, with the capacity and willingness to learn new skills and technologies.

2. Demonstrated experience with some of the following:
   - Genetics and conditional mouse models such as Cre/lox or CRISPR is required.
   - Next Generation Sequencing (NGS) library construction preferably with genotype by sequencing or amplicon based projects. Experience with robotics platforms or computational data management skills would be desirable.
   - Genomics techniques with complex molecular procedures including DNA preparation from tissue samples, PCR amplification and gel electrophoresis.
   - Primer design and interpretation, optimization and troubleshooting of PCR assays.
   - Setting up new complex projects or leading projects.
   - Client Management/LIMS systems to organize and collate data and results.

3. Demonstrated ability to work independently to interpret data, troubleshoot and perform quality assessments of highly technical molecular procedures.

4. Excellent oral and written communication skills including the ability to interact effectively with a diverse range of people and a willingness and ability to train others in the use of new technologies and procedures.

5. Demonstrated ability to work effectively both independently and in a team environment, prioritising workflow to achieve operational outcomes and meet deadlines.


7. A demonstrated general knowledge and understanding of equal opportunity principles as they relate to employment.

*The ANU conducts background checks on potential employees, and employment in this position is conditional on satisfactory results in accordance with the Background Checking Procedure which sets out the types of checks required by each type of position.*

<table>
<thead>
<tr>
<th>Supervisor/Delegate Name:</th>
<th>Simone Kuelzer</th>
<th>Date:</th>
<th>7/05/2021</th>
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**References:**

[General Staff Classification Descriptors](#)
**Position Details**

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<td><strong>Classification</strong></td>
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In accordance with the Occupational Health and Safety Act 1991 the University has a duty of care to provide a safe workplace for all staff.

- This form must be completed by the supervisor of the advertised position and forwarded with the job requisition to Appointments and Promotions Branch, Human Resources Division. Without this form jobs cannot be advertised.
- This form is used to advise potential applicants of work environment issues prior to application.
- Once an applicant has been selected for the position consideration should be given to their inclusion on the University’s Health Surveillance Program where appropriate – see . [http://info.anu.edu.au/hr/OHS/___Health_Surveillance_Program/index.asp](http://info.anu.edu.au/hr/OHS/___Health_Surveillance_Program/index.asp) Enrolment on relevant OHS training courses should also be arranged – see [http://info.anu.edu.au/hr/Training_and_Development/OHS_Training/index.asp](http://info.anu.edu.au/hr/Training_and_Development/OHS_Training/index.asp)

**Potential Hazards**

- Please indicate whether the duties associated with appointment will result in exposure to any of the following potential hazards, either as a **regular** or **occasional** part of the duties.

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**OTHER POTENTIAL HAZARDS (please specify):**

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**Supervisor’s Signature:**

**Print Name:** Simone Kuelzer

**Date:** 7/05/21

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