



Position Description

POSITION TITLE:	Spectral micro-CT Research Scientist
LOCATION:	SAHMRI, North Terrace
REPORTS TO:	Research Imaging Program Manager, Clinical and Research Imaging Centre (CRIC)
DEPARTMENT:	Clinical & Research Imaging, Clinical and Research Imaging Centre (CRIC)

PURPOSE AND SCOPE OF THE POSITION

At the South Australian Health and Medical Research Institute (SAHMRI), we are committed to achieving innovative, ground-breaking research that fundamentally improves the quality of life for all people.

The Clinical and Research Imaging Centre (CRIC) at SAHMRI is one of Australia's most advanced imaging research facilities including the Australian Centre for Photon-Counting CT, equipped with both Siemens Naeotom Alpha clinical PCCT and a TESCOAN preclinical microCT with photon-counting spectral detection system being installed in 2026. The centre has a master research agreement with Siemens Healthineers, spectral CT research partnership with TESCOAN and is supported by the National Imaging Facility (NIF).

The micro-CT Research Scientist is part of an innovative team providing access to imaging and expertise that supports a vibrant research community that spans biomedical, material and plant science. You will provide expertise to academic, health and industrial users of dynamic, spectral and structural micro-CT at all stages of project development involving experimental design, protocols, delivery of imaging, support of data management, processing and development of analysis methods for preclinical research. The position has a specific focus on comparative methods and the development of new spectral applications and will work closely with a dedicated photon-counting CT physicist.

Providing independence within the supports of an experienced research infrastructure team, vendor partnerships and a newly installed instrument, the role will suit a candidate with experience in micro-CT methods seeking to evolve their skills, research and leadership.

This is a Commonwealth supported role and there is a strong expectation to engage in national activities across a range of internal and external stakeholders including researchers, industry, clinicians, technical staff and regulators.

The position working directly with the TESCOAN micro-CT program with potential to be combined with additional multimodal preclinical imaging or broader CT physics research support.



KEY RESPONSIBILITIES

The specific duties include:

- Operating TESCAN CoreTOM spectral micro-CT imaging equipment to research level
- Assist with facility management
- Provide expert knowledge in micro-CT and imaging technologies to researchers throughout Australia
- Support user collaborations and projects with impact through scientific publication or changes in practice.
- Support research data and processing pipelines for timely analysis and reporting
- Develop new post-processing pipelines for research data, experiment analysis and report development
- Lead research into new acquisition and analysis methods in conjunction with Siemens and TESCAN
- Report to project managers and scientific committees
- Contribute to competitive funding applications, scientific publications and reporting of research activity
- Participate in special projects to continuously improve processes and systems and organisation
- Represent the SA node of the National Imaging Facility (NIF) locally and nationally
- Participate in special projects to continuously improve processes, tools, systems and organisation.
- Take reasonable care to protect own health, safety and welfare at work and avoid affecting the health and safety of any other person at work.
- Participate in the implementation of the Institute's Work, Health and Safety Management System and related laws, regulations and guidelines.
- Ensure that duties are performed in keeping with the principles outlined in SAHMRI's Vision, Mission and Values and the Code of Conduct Policy.

SPECIAL REQUIREMENTS

- Some out of hours work may be required.
- DCSI Employment Screening and Police Checks may be required.
- Eligibility to work in South Australia



Person Specification

QUALIFICATIONS

- Higher Degree in relevant field that could include Engineering, Computer Science, Physics, or similar field with focus on computed tomography methods, or equivalent experience
- Eligibility to operate closed system ionising imaging apparatus.

EXPERIENCE, KNOWLEDGE AND SKILLS

- Experience working in the field of preclinical imaging or micro-CT
- Strong mathematical and computational skills, with demonstrated expertise in medical imaging
- Strong understanding of x-ray CT reconstruction and experimentation
- Proficient in image processing, manipulation, and analysis tools
- Track record of undertaking or supporting productive research and publications
- Strong analytical and problem-solving skills.
- Excellent communication, engagement and presentation skills.
- Ability to work independently under project pressure with timeframes and budget.
- Skills in report writing, grant writing and presentations.
- Project management skills including timely delivery of outputs, monitoring and resolving issues.
- Desire to contribute to a common purpose with willingness to learn new skills and take on new challenges.
- Demonstrated ability to work independently and be self-motivated.
- At least a basic knowledge of machine learning software frameworks will be advantageous.
- Previous experience with clinical or pre-clinical photon counting CT will be advantageous.
- Support SAHMRI's commitment to reconciliation and acknowledge the importance of working in partnership with Aboriginal and Torres Strait Islander People
- Able to demonstrate the following SAHMRI Values and Culture:
 - **Excellence** – Bold, Driven, Dynamic
 - **Innovation** – Persistent and Focused
 - **Courage** – Collaborative and Enabling
 - **Integrity** – Embrace Diversity, Demand Equity
 - **Teamwork** – Friendly, Fast, Flexible, Fun

LICENCES

- Current Driver's Licence