

POSITION DESCRIPTION

Position Title:	Senior Preclinical Imaging Scientist
Cluster / Business Unit / Division	Nuclear Science & Technology – Research Infrastructure
Section or Unit:	Biosciences
Classification:	Band 6
Job Family:	Research
Position Description Number:	PD-2221
Work Contract Type:	Research and Science
STEMM/NON-STEMM:	STEMM

POSITION PURPOSE

The position provides subject matter expertise and leadership in the field of preclinical imaging within the Biology and Preclinical Imaging group of the Biosciences Platform. The purpose is to work within a high-performance, multidisciplinary team for the development, evaluation and translation of radiopharmaceuticals. The position is responsible for developing and enhancing state-of-the-art preclinical imaging capabilities to maximise the user experience, providing best practice operations, and enabling and undertaking excellent research. The position holder uses advanced expertise and extensive experience to build and utilise national and international networks that lead to the delivery of high impact outcomes, contributing to ANSTO's strategic imperatives.

ORGANISATIONAL ENVIRONMENT

ANSTO leverages great science to deliver big outcomes. We partner with scientists and engineers and apply new technologies to provide real-world benefits. Our work improves human health, saves lives, builds our industries and protects the environment. ANSTO is the home of Australia's most significant landmark and national infrastructure for research. Thousands of scientists from industry and academia benefit from gaining access to state-of-the-art instruments every year.

Nuclear Science & Technology (NST) incorporates ANSTO's research, innovation, landmark research infrastructure and associated platforms and capabilities. NST conducts research and development in relation to nuclear science and technology and connects people, transfers knowledge and provides nuclear-based products and services for the benefit of Australia.

The Research Infrastructure portfolio consists of platforms established on scientific infrastructure and capabilities, with a number of the platforms categorised as landmark infrastructure. This includes a range of scientific assets, infrastructure, capability development and delivery for multi-decadal, multi-disciplinary, multi-user platforms for a collaborative user community and for internal research and development endeavours.

Biosciences is a Research Infrastructure platform which includes facilities and capabilities organised into three groups – Radiochemistry, Irradiations, and Biology & Preclinical Imaging. The platform partners with pharmaceutical, biomedical and medical devices companies to bring new products and methods to market. It collaborates with the NST Human Health research theme to develop greater understanding of disease states, diagnosis and treatment, assists in optimising ANSTO Nuclear Business production methods and develops new and improved methods of deploying landmark infrastructure and nuclear methods for the benefit of partners, collaborators and customers.

The Biology and Preclinical Imaging group provides a wide range of capabilities to enable biological research in radiopharmaceutical evaluation and translation, radiation biology and radiotracer studies. The group assesses radiopharmaceuticals by measuring affinity, selectivity, stability and metabolism, cellular uptake, cellular response or bio-distribution using in vitro and ex vivo techniques. A variety of quantitative

imaging and counting based methods provide either kinetic or endpoint measurement of biological processes of interest. Preclinical imaging modalities (PET/CT and SPECT/CT scanners) enable non-invasive in vivo measurement and tracking of radiotracers in preclinical small animal models.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities

- Provide scientific leadership and expert knowledge to ensure the effective development and deployment of preclinical imaging capabilities for the measurement, quantification and understanding of key biological processes and disease states.
- Lead the development of animal disease models and apply them to preclinical animal imaging studies, biodistribution studies, in vivo pharmacokinetics and data analysis.
- Lead the development of state-of-the-art preclinical animal imaging capabilities and provide the relevant training to the team and users.
- Formulate and lead collaborative research programs and projects using the capabilities in preclinical imaging to deliver high impact outcomes in alignment with ANSTO's strategic imperatives.
- Build extensive professional networks nationally and internationally to identify and secure collaborative research opportunities with strategic partners including universities, medical research institutes and industry.
- Operate effectively within a multidisciplinary team environment to achieve shared goals.
- Lead the preparation and publication of journal papers, reports, patents and abstracts, presenting results in national and international forums.
- Undertake additional duties as required and during period of leave of other staff.

Decision Making

- The ANSTO values, organisational corporate plan, integrated business planning process, the NST strategic plan and the Biosciences business plan provide the context for the position.
- Determine key work priorities and methods for the team within the context of agreed work plans and in consultation with the Manager, Biology and Preclinical Imaging.
- The position is fully accountable for the accuracy, integrity and quality of advice provided, ensuring that decisions are based on sound evidence, but at times may be required to make effective judgements under pressure or in the absence of complete information or expert advice
- The position works within a framework of legislation, policies, professional standards and resource parameters
- The levels of authority delegated to this position are those approved and issued by the Chief Executive Officer. All delegations will be in line with the ANSTO Delegation Manual AS-1682 (as amended or replaced).

Key Challenges

- Balancing operational and strategic demands in a complex and dynamic environment to ensure successful delivery of agreed objectives.
- Understanding and balancing expectations from a variety of users, collaborators, partners and user communities, ensuring alignment with ANSTO's strategic imperatives.
- Working in a complex environment on parallel projects and influencing multidisciplinary teams to deliver high impact outcomes without having line management reports.
- Championing the renewal of the high value capital equipment fleet through the Biosciences Asset Management Plan to ensure the sustainability of preclinical imaging capabilities, in a competitive and resource-constrained environment.

KEY RELATIONSHIPS

Who	Purpose
Internal	
Manager, Biology & Preclinical Imaging, Biosciences, NST	<ul style="list-style-type: none"> • Receive broad guidance and direction. • Receive performance requirements consistent with the business plan and objectives. • Report on compliance of the facility. • Provide advice on operational and capital budgetary requirements. • Recommend and gain approvals for facility modifications, enhancements, improvements, and process/procedure changes or improvements. • Escalate issues and propose solutions. • Provide regular updates on key tasks, issues and priorities. • Provide expert, authoritative and evidence-based advice.
Biology & Preclinical Imaging team members	<ul style="list-style-type: none"> • Determine work priorities. • Maximise the user experience. • Deliver to the business plan. • Lead team members and work collaboratively to contribute to the delivery of high impact outputs. • Provide expert scientific advice, analysis, and leadership. • Influence and shape group decision making processes, planning and goals. • Collaborate and share accountability. • Identify and negotiate solutions to conflicting demands on resources.
Facility Users - internal	<ul style="list-style-type: none"> • Collaborate and share knowledge. • Provide expert advice, analysis, and leadership. • Maximise the user experience. • Monitor trends and progress against agreed project plans and develop and implement strategies to ensure project delivery. • Provide user training and supervision and ensure safety, regulatory and quality compliance.
External	
Facility Contractors	<ul style="list-style-type: none"> • Oversee and direct service technicians and contractors undertaking maintenance or repair works within the facility.
Facility Users	<ul style="list-style-type: none"> • Provide expert advice, analysis and leadership • Maximise user experience • Ensure safety and regulatory compliance. • Provide training and supervision. • Build and utilise effective and productive networks, nationally and internationally.

POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to the Manager, Biology & Preclinical Imaging
Direct Reports	Nil
Indirect Reports	Nil

Financial Data (2021/2022)	
Revenue / Grants	N/A
Operating Budget	N/A
Staffing Budget	N/A
Capital Budget	N/A
Assets	N/A

Special / Physical Requirements	
Location:	Lucas Heights Working in different areas of designated site/campus as needed.
Travel:	Operational needs may require temporary and/or periodic assignments at collaborative partner facilities within Australia or training assignments both nationally and internationally.
Physical:	Office based physical requirements (sitting, standing, minimal manual handling, movement around office and site, extended hours working at computer) Labour intensive physical requirements (sitting, standing, frequent manual handling) Standing for long periods Wearing personal protective equipment for the handling of hazardous and/or radioactive materials Working in confined space environment including wearing respiratory equipment
Radiation areas:	May be required to work in radiation areas under tightly regulated conditions Perform duties in an area where radioactive materials are handled under tightly controlled safety conditions Perform duties with and in an area where hazardous chemicals or materials are handled under tightly controlled safety conditions
Hours:	Willingness to work extended and varied hours based on operational requirements
Clearance requirements:	Satisfy ANSTO Security and Medical clearance requirements

Workplace Health & Safety	
Specific role/s as specified in <u>AP- 2362</u> of the ANSTO WHS Management System	All Workers Other specialised roles identified within the guideline a position holder may be allocated to in the course of their duties

ORGANISATIONAL CHART

Refer to published Organisational Chart.

KNOWLEDGE, SKILLS AND EXPERIENCE

1. PhD in pharmacology, pathophysiology, biomedical sciences or related field. (Essential)
2. Expert knowledge and at least 10 years experience in developing animal disease models and studying physiology and/or pathology with in-vivo preclinical imaging techniques such as PET, SPECT and CT, including experimental design, data analysis and biological modelling. (Essential)
3. Expert knowledge and at least 10 years experience in developing and using quantitative methods and multi-modality imaging technologies for the physiological/pathological evaluation of radiopharmaceuticals. (Essential)
4. Proven experience in formulating and leading research projects effectively, including the co-ordination of small multidisciplinary teams, to deliver high quality outputs. (Essential)

5. Demonstrated scientific leadership capabilities resulting in a strong publication track record in the preclinical imaging field. (Essential)
6. Significant experience in building and using extensive networks to initiate and develop project collaborations and successfully attract grants and industry revenue.
7. Demonstrated ability to develop and maintain productive working relationship with a wide variety of staff, facility users and regulators e.g. government regulators, bioethics committees, animal care and ethics committees, safety committees.
8. Demonstrated high level of interpersonal, teamworking and communication skills.

VERIFICATION

This section verifies that the line manager and appropriate senior manager/executive confirm that this is a true and accurate reflection of the position.

Line Manager		Delegated Authority	
Name:	Loan Le	Name:	John Bennett
Title:	Manager, Biology & Preclinical Imaging	Title:	Leader, Biosciences
Signature:		Signature:	
Date:		Date:	

Appendix 1

ANSTO Job Families
Accounting & Finance
Administration
Communications & Marketing
Compliance & Regulation
Engineering and Technical
Human Resources
ICT & Digital Solutions
Information & Knowledge Management
Legal
Manufacturing
Monitoring & Audit
Operations
Organisational Leadership
Project & Program
Research
Science
Security & Intelligence
Senior Executive
Service Delivery
Strategic Policy
Trades & Labour