

## POSITION DESCRIPTION

<b>Position Title:</b>	Radiochemist
<b>Cluster / Business Unit / Division</b>	Nuclear Science & Technology and Landmark Infrastructure / Research Infrastructure
<b>Section or Unit:</b>	Biosciences – Radiochemistry
<b>Classification:</b>	Band 5
<b>Position Description Number:</b>	PD-0890
<b>Work Contract Type:</b>	Science

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### POSITION PURPOSE

The Radiochemist provides expert contribution to the Radiochemistry capabilities of the Biosciences platform, by undertaking research and development to enable the delivery of new radiotracers for research and commercial users. The position contributes to the development and enhancement of the Biosciences platform capabilities in synthetic chemistry, radiolabelling with PET and SPECT radioisotopes and radioanalytical measurements and separations.

### ORGANISATIONAL ENVIRONMENT

ANSTO is the national organisation for nuclear science and technology. We focus on undertaking leading edge research, delivering innovative scientific services and providing specialised advice to government, industry, academia and other research organisations.

Nuclear Science & Technology and Landmark Infrastructure (NSTLI) incorporates ANSTO's research, innovation, landmark research infrastructure and associated platforms and capabilities. NSTLI 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.

Biosciences is a Research Infrastructure platform which includes facilities and capabilities organised into four groups – Radiochemistry, Irradiations, Cyclotron Operations and Biology & Preclinical Imaging. The platform partners with pharmaceutical companies to bring new products and methods to market, collaborates with the NSTLI 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 radiotracers capability area operates a number of dedicated radioisotopes laboratories and works in close cooperation and collaboration with internal radiotracer and radioisotopes teams to deliver a diverse range of PET and SPECT radiotracers, in licenced facilities capable of handling small to large quantities.

### ACCOUNTABILITIES & RESPONSIBILITIES

#### Key Accountabilities

- Review, conduct, interpret and develop new radiopharmaceutical and radiochemical production procedures to improve preclinical and clinical studies;
  - Propose, evaluate, interpret and validate new radiolabelling procedures with radioisotopes for routine supply to user communities;
  - Participate in all aspects of synthetic chemistry and chemical analysis using NMR, Mass Spectroscopy, HPLC, FTIR, UV, HPLC and others;
  - Contribute to the routine production of PET and SPECT radiotracers;
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- Work within a team of platform scientists, laboratory professional officers & laboratory technicians and other internal and external scientists/researchers to both facilitate and contribute to research and commercial outcomes in response to user needs.
- Prepare experimental work, undertake analysis and interpretation of experimental results, and prepare reports and papers for peer-reviewed publication and presentation at national and international fora. Write technical reports and development procedures for equipment usage, experimental practice and validation records and protocols.
- Utilise expertise and knowledge to support users to conduct experiments and train, coach or mentor research, professional and technical staff, users and students to build capabilities and skills of others.
- Contribute and at times lead the management of facilities and equipment through an asset management framework and assist with the capital development program to ensure the availability and productivity of capabilities and adherence to operational safety, security, legislative, regulatory and applicable standards compliance.
- Write work instructions, procedures, and safety documentation and ensure accurate records are made and maintained, in accordance with quality, compliance and regulatory requirements.
- Build and interact with internal and external user networks and develop collaborative and partnership relationships, sharing knowledge and experience.
- Contribute to the conception and implementation of platform development projects to improve and expand capabilities.
- Undertake additional duties as required and during period of leave of other staff.

#### **Decision Making**

- The ANSTO values, organisational corporate plan, organisational excellence program, NSTLI strategy, Biosciences business plan, and operational objectives provide the context for the position.
- The position works within a highly constrained framework of legislation, policies, professional standards, and resource parameters.
- Determine key work priorities within the context of agreed work plans and consult with line manager on issues that have a significant impact on the group. The position has independence in deciding on methods and approaches to achieve performance objectives.
- The position is fully accountable for the accuracy, integrity and quality of the advice provided and for decisions being based on sound evidence.
- 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**

- Building professional networks within NSTLI and with other groups within ANSTO and external radiochemistry laboratories.
  - Keeping abreast of recent developments in radiochemistry, laboratory management, quality systems and ANSTO radiation safety processes.
  - Balancing operational and strategic demands in a complex and dynamic environment to ensure successful delivery of agreed objectives.
  - Understanding and meeting the different expectations from a variety of users, including collaborator, partner and client communities.
  - Carrying out multiple tasks, working on multiple projects and adjusting plans to suit changing priorities and achieve results within tight deadlines.
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## KEY RELATIONSHIPS

Who	Purpose
<b>Internal</b>	
Manager, Radiochemistry (Line Manager)	<ul style="list-style-type: none"> <li>• Receive guidance, direction and advice</li> <li>• Receive performance requirements consistent with business plans &amp; goals</li> <li>• Report on compliance of a facility</li> <li>• Report on facility compliance, recommend and gain approval for facility modifications, enhancements and improvements and process/procedure changes or improvements</li> <li>• Escalate issues and propose solutions</li> <li>• Provide regular updates on key tasks, issues and priorities</li> </ul>
Radioisotopes & Radiotracers Team (work area team members)	<ul style="list-style-type: none"> <li>• Receive guidance, direction and advice</li> <li>• Provide expert advice and analysis</li> <li>• Contribute to group decision-making regarding processes, plans and goals</li> <li>• Provide support and work collaboratively to contribute to achieving platform and research theme outcomes</li> <li>• Collaborate and share accountability</li> <li>• Identify, negotiate and resolve conflicts</li> </ul>
NSTLI platforms and research themes	<ul style="list-style-type: none"> <li>• Collaborate and develop plans for new radiochemistry capabilities</li> <li>• Maximise user experience</li> <li>• Provide advice and analysis</li> <li>• Collaborate and contribute to research projects</li> </ul>
Internal Facility Users	<ul style="list-style-type: none"> <li>• Understand user requirements and desired outcomes</li> <li>• Provide expert advice, analysis, training, guidance and supervision</li> <li>• Ensure compliance with safety and quality systems and applicable legislation and regulations</li> </ul>
ANSTO Business Dvlpmnt	<ul style="list-style-type: none"> <li>• Identify and pursue commercial opportunities</li> </ul>
<b>External</b>	
Facility users from universities, industry, national and international research organisations.	<ul style="list-style-type: none"> <li>• Understand user requirements and desired outcomes</li> <li>• Provide expert advice, analysis, training, guidance and supervision</li> <li>• Ensure compliance with safety and quality systems and applicable legislation and regulations</li> <li>• Build and maintain relationships</li> </ul>

## POSITION DIMENSIONS

<b>Staff Data</b>	
Reporting Line	Reports to the Manager, Radiochemistry
Direct Reports	Nil
<b>Special / Physical Requirements</b>	
Location:	Lucas Heights and/or Camperdown Working in different areas of designated site/campus as needed
Travel:	Operational needs may require temporary assignments at collaborative partner facilities within Australia or training assignments either nationally or internationally
Physical:	Office based physical requirements (sitting, standing, manual handling, movement around office and site, extended hours working at computer) Laboratory environment physical requirements (sitting, standing for long periods, manual handling, operating laboratory equipment) Wearing PPE for the handling of hazardous and/or radioactive materials

Radiation areas:	Perform duties in an area where radioactive materials are handled under tightly controlled safety and regulatory conditions Perform duties with and in an area where hazardous chemicals or materials are handled under tightly controlled safety and regulatory 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>AG-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 while supervising others within a laboratory.
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### ORGANISATIONAL CHART

Refer to published Organisational Chart.

### KNOWLEDGE, SKILLS AND EXPERIENCE

1. Higher degree (PhD) in radiochemistry, synthetic or medicinal chemistry, pharmaceutical sciences or other relevant discipline. [Essential]
2. Demonstrated ability to produce scientific and research outcomes, develop platform capabilities and undertake scientific analysis. [Essential]
3. Knowledge and demonstrated experience in synthetic chemistry. [Essential]
4. Sound knowledge and prior experience in chemical analytical techniques, especially NMR, HPLC and mass spectrometry. [Essential]
5. Proven ability to plan, setup and undertake experiments including collecting and presenting data based on required outcomes.
6. Demonstrated problem solving skills and analytical ability including obtaining and interpreting information and making specific recommendations and conclusions.
7. Demonstrated track record of publications in chemical research.
8. Ability to develop and maintain productive working relationship with a wide variety of staff, facility users and regulators.
9. Demonstrated experience providing advice and support to facility users and ability to communicate effectively with a co-operative disposition and a genuine desire to support and facilitate researchers and facility users in meeting their research objectives.

### 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:	Ivan Greguric	Name:	John Bennett
Title:	Manager, Radiochemistry	Title:	Leader, Biosciences
Signature:		Signature:	
Date:		Date:	