

POSITION DESCRIPTION

Position Title:	Post Doctoral Research Fellow
Cluster / Business Unit / Division	Nuclear Science & Technology
Section or Unit:	Health Research and Technology Group
Classification:	Band 5 Level 3 (Early Career Category: Post Doctoral Fellowship)
Job Family:	Research
Position Description Number:	PD-2667
Work Contract Type:	Research
STEMM/NON-STEMM:	STEMM

POSITION PURPOSE

The Post-Doctoral Research Fellow is responsible for performing research that contributes to ANSTO Projects by carrying out laboratory-based experimental work and writing reports or other forms of scientific publications.

ORGANISATIONAL ENVIRONMENT

ANSTO is a leading global nuclear science and technology organisation delivering world class research and expertise to benefit Australia and support a more sustainable future. Using nuclear science, we improve health, support industries, provide expert advice to government on nuclear technologies and help develop Australia's nuclear workforce.

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 Health Research and Technology Group (NST Health) develops nuclear medicine products and technologies, including advanced radiotherapies, to address areas of unmet clinical need. The group maintains core capabilities in radiochemistry, radiobiology, preclinical imaging and radiation physics. NST Health collaborates and partners with academia, the pharmaceutical industry, research clinicians, and hospitals.

The Post-Doctoral Research Fellow undertakes research that contributes to ANSTO Health Research and Technology Group projects through experimental, computational and/or analytical research activities. The position contributes to high-quality scientific outputs, including publications, reports and presentations, and works collaboratively with multidisciplinary research teams and external partners.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities

The key accountabilities for this position include:

- Initiate and conduct scientific research aligned with NST Health priorities and approved research projects..
- Take research activities from design through to analysis, interpretation and communication of outcomes.
- Undertake experimental, computational and/or analytical research activities and associated training required to deliver high-quality research outputs.
- Apply appropriate scientific methods, analyse research data and maintain accurate and reproducible research records.

- Work collaboratively with researchers and technical personnel across NST Health, and other ANSTO groups to deliver project outcomes.
- Collaborate with external research partners and contribute to joint research activities.
- Publish scientific results and communicate research outcomes through publications, reports, presentations and other appropriate forums.
- Develop professional networks with Australian and international researchers and research organisation.
- Contribute to research proposals and other activities supporting the development of NST Health research capability.
- Comply with relevant safety, research integrity, data management and ANSTO governance requirements; uphold ANSTO's code of conduct.
- Undertake additional duties as required and during period of leave of other staff.

Decision Making

- The ANSTO values, organisational corporate plan, business plan, operational excellence program, the NST Research strategy and Environment strategic plan provide the context for the position.
- The position works within a framework of legislation, policies, professional standards and resource parameters. Within this framework the position has limited independence in determining how to achieve objectives of the unit
- The position is fully accountable for the accuracy, integrity and quality of the content of advice provided, and is required to ensure that decisions are based on sound evidence.
- Determine own work priorities, methods and approaches within the context of agreed work plans and will consult with the line manager on issues that have an impact on the project or research theme.
- 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

The major challenges for this position include:

- Maintaining current knowledge of developments and emerging methods relevant to the position's area of research.
- Delivering high-quality and reproducible research within agreed project timelines.
- Managing competing research priorities and adapting methods as new evidence or project requirements emerge.
- Working effectively across multidisciplinary teams and research platforms
- Building productive research relationships and communicating scientific outcomes to different audiences.

KEY RELATIONSHIPS

Who	Purpose
Internal	
Manager/Executive	• Receive guidance and direction • Provide expert, authoritative and evidence based advice
Work area team members	• Provide advice and analysis on a full range of testing and analytical techniques • Contribute to group decision making processes, planning and goals • Collaborate and share accountability
Direct Reports	• No direct reports

NST Groups	• Work with peers to design and implement experimental plans under the scope of approved projects
External	
Industry	• Provide expert, authoritative and evidence based advice • Report on work outcomes, outputs and results and project contribution and status. • Build relationships, ensuring effective communication of commercial and research results and to allow collection of data and continued business.

POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to Director, Health Research and Technology Group
Direct Reports	Nil
Indirect Reports	Nil
Special / Physical Requirements	
Location:	Lucas Heights Working in different areas of designated site/campus as needed
Travel:	May be required travel to ANSTO sites from time to time Domestic and international travel may be required for experimental campaigns at collaborating facilities, research meetings, workshops and conferences.
Physical:	Office based physical requirements (sitting, standing, minimal manual handling, movement around office and site, extended hours working at computer) Standing for long periods Public speaking Wearing personal protective equipment for the handling of hazardous and/or radioactive materials Working in laboratory environments
Radiation areas:	Might be required to work in radiation areas under tightly regulated conditions Might 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 After hours work may be required for short and infrequent periods
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 Officer (definitions found in appendix 1 of AG-2362) Group Executive / General Manager Managers / Leaders / Supervisors

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 Medical Radiation Physics, Medical Physics, Nuclear Physics, Radiation Physics, Computational Physics, or a related discipline.
2. Experience in computational and/or experimental radiation physics, including radiation transport modelling and practical experience in neutron measurement, dosimetry, detector characterisation or related experimental techniques.
3. Experience in one or more of the following areas: neutron physics, Monte Carlo radiation transport, radiation dosimetry, radiation detector development or characterisation, particle therapy, neutron capture therapy, or computational medical physics.
4. Experience in scientific programming, data processing, quantitative analysis and interpretation of complex simulation and/or experimental datasets.
5. Demonstrated ability to undertake independent high-quality research, with a publication record commensurate with experience and opportunity.
6. Proven experience in developing and maintaining productive research relationships and working collaboratively within multidisciplinary research teams and networks.
7. Experience in and willingness to follow relevant policies, procedures and guidelines, including requirements relating to workplace health and safety, radiation safety, research integrity and data management.
8. Demonstrated initiative, scientific judgement, communication skills and ability to work effectively within a collaborative research environment.

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: Mitra Safavi-Naeini	Name: Mitra Safavi-Naeni
Title: Director, Health Research and Technology Group	Title: Director, Health Research and Technology Group
Signature:	Signature:
Date:	Date: