Australian Government

ANSTO
Science. Ingenuity. Sustainability.

POSITION DESCRIPTION

Position Title:	CAS Science Group Lead
Cluster / Business Unit / Division	NST
Section or Unit:	CAS - Science
Classification:	Band 8
Job Family:	Science / Research
Position Description Number:	PD-2517
Work Contract Type:	Manager
STEMM/NON-STEMM:	STEMM

POSITION PURPOSE

The Science Group Lead is science leader of a collective group of scientists and accelerator science capabilities within the Centre for Accelerator Science (CAS). The role has oversight for the staffing, operation, and development for CAS accelerator science capabilities and the CAS science user program, as well as research, industry engagement and outreach activities. The role is central to ensuring effective interactions and resourcing across the Science group, as well as excellent engagement with other teams in CAS. The role will be required to understand the requirements, abilities and capabilities of the staff, techniques and instruments within the Science group and apply expert knowledge to enable the best possible scientific outcomes. The role has significant input into scientific development at CAS through strategic planning and coordinating the planning for new beamlines and accelerator science applications.

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.

The Nuclear Science & Technology (NST) division 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 Centre for Accelerator Science (CAS) is a multi-disciplinary team of scientists, technicians and engineers supporting academic and industry users across Australia and the world with a suite of accelerator instrumentation for ultra-sensitive measurement, analysis and irradiation applications. As a user facility open to all, supported by the National Collaborative Research Infrastructure Strategy (NCRIS), CAS informs policy, provides critical services for IAEA, and enables discovery and innovation in areas such as environment, climate and health sciences, space technologies, advanced materials for energy and quantum, and cultural heritage.

CAS operates four tandem particle accelerators and a wide range of advanced (and often bespoke, in-house designed) engineering systems, scientific instrumentation, equipment, and technologies across twelve beamlines for accelerator science applications and twelve chemistry laboratories for specialised sample processing. CAS offers accelerator mass spectrometry, sample preparation, ion beam analysis, ion beam implantation, and ion beam irradiation - together in one centre - backed by decades of accumulated experience in accelerator science and operations.

The Science Group provides world-class user service and expertise to users of the Centre for Accelerator Science, including academic-based researchers, commercial and industry clients. This includes ensuring

delivery of support to users through a range of services and support for access to CAS capabilities. Members of the Science Group collaborate to maintain world-class beamlines and to develop new capabilities and applications. They achieve high impact research outcomes in line with ANSTO's research mission and through collaborations with the Centre for Accelerator Science user community. Science Group members also deliver highly effective outreach and training outcomes to promote the capabilities and achievements of the facility.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities

- Lead and manage the Science Group to deliver high-quality, cost-effective user-service, research, and industry outcomes.
- Monitor and report on the science, research, and operations activities of the Science Group according to overall research strategies and relevant performance metrics including material for NCRIS, NST and other ANSTO-focused operational reports as required.
- Foster a culture of high performance that encourages innovation, improves productivity, and promotes teamwork and collaboration. Model appropriate and professional behaviour in the workplace and manage people matters proactively.
- Lead and manage safe working practices, policies, and processes across the Science Group, across the whole facility, and within ANSTO to ensure that users, staff, and visitors are working in a safe environment. Lead improvements to ANSTO's safety culture.
- Assign specific responsibilities to designated group members as required.
- Undertake additional duties as required and during period of leave of other staff.

People Management

- Manage, coach and mentor the Science Group staff (including students and postdoctoral fellows) to achieve personal career, and other organisational objectives, and foster a culture of high performance that encourages innovation, improves productivity, and promotes teamwork and collaboration.
- Manage staff processes including recruitment, training, mentoring, performance management and review, workforce and succession planning, recognition, and talent management.

Budget Management & Reporting

- Undertake budget planning and reporting process.
- Manage the Science Group expenditure in support of operations, maintenance and developments, research, and professional activities to ensure correct allocation of funds in support of world-class operational and research outcomes, in-line with ANSTO's policies and procedures.

Instrument Operation & Maintenance

- Manage and coordinate the deployment of staffing, operational funds and resources in support of world-class user operations and scientific research.
- Manage day to day operation of CAS accelerator experimental facilities , ensuring beamlines operate and are maintained to appropriate standards and plans. Provide expert and detailed knowledge to facilitate the Asset Management Plan, which includes maintenance, calibration, and documentation.

Instrument Development

- Maintain and apply knowledge of industry best practice and technological developments to ensure CAS accelerator science capabilities are improved and upgraded and kept at state of the art to remain internationally competitive.
- Coordinate capability development activities and projects to improve and expand capabilities for research and industrial applications including alternative sources of funding for development activities.

- Contribute to the development of plans and processes for the installation of new beamlines, facilities, and capabilities.

User Programme/Support

- Ensure that world-class user support is delivered to academic, industrial, and commercial clients.
- Ensure that technical feasibility and safety reviews of proposals are completed and ensure that administrative tasks related to the user programme are satisfactorily completed.
- Work with members of the Science Group to provide expert knowledge to support the development of the user community through the ANSTO Research Portal proposal process, capability access, data analysis processes, and user training.

Research

- Initiate and conduct leading-edge research of international standard which increases capability demand and standing.
- Use networks to collaborate with national and international scientists/engineers to produce world-class research outcomes captured in leading international journals. Participate in grant applications with collaborators and partners.
- Coordinate research activities that lead to scientific capability development.
- Apply expert knowledge in order to facilitate contributions from across the Science Group to ANSTO / NST-led mission-based research programmes.

Industry

- Coordinate industry engagement activities across the Science Group to enable the delivery of optimal outcomes to industry and commercial clients to meet revenue targets whilst enhancing CAS reputation.
- Support the Science Group to promote techniques, capabilities and applications to industry and commercial clients to identify industry leads and convert them to opportunities and contracts.

Outreach

- Promote, develop, and manage outreach activities across the Science Group, and on behalf of CAS and ANSTO. Participate in professional forums, steering committees, and other professional associations. Highlight the impact and benefits of the facility to the scientific community, external stakeholders, and general audiences at the local and international level. Identify, attract, engage, and develop new users of the facility.

Decision Making

- The ANSTO values, corporate plan, business plan, and operational excellence program 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 will be provided with the parameters in which to manage and operate the group of beamlines including project planning, resource allocation and resolution of issues. The position has independence in determining the tasks and activities required to achieve day-to-day operational outcomes.
- The position is fully accountable for the accuracy, integrity, and quality of the content of advice, analysis and interpretation provided and is required to ensure that prescribed facilities and activities are compliant with regulations.
- Determines daily work priorities within the context of agreed work plans and schedules and will consult with their line manager on complex, sensitive and major issues that have a significant impact on the beamline or facility operations.

- 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 resources to ensure world-class user service, and beamline maintenance and development activities.
- Maintaining an active involvement as a researcher with development and research project/s.
- Appropriately balancing responsibilities as a manager of the Science Group and contributing as an accelerator research scientist.
- Ensuring timely completion of facility wide projects, given limited resources and tight deadlines for completion.
- Competing for key resources within the organisation given the need to deliver specific outcomes for projects and operational activities to tight deadlines for a disparate range of internal and external stakeholders.
- Through effective management and negotiation, facilitate the deployment of engineering, controls and computing, and technical resources when and where required.

KEY RELATIONSHIPS

Who	Purpose
Internal	
Director, CAS	• Receive guidance and direction • Provide expert, strategic and evidence-based advice • Staff engagement and quality recruitment • Negotiate, manage, and report on budgets and resources consistent with strategic and operational plans and goals • Recommend and gain endorsement for plans, goals, and other initiatives.
Science Group, Direct reports	• Provide expert advice and analysis on a full range of matters • Lead group decision-making processes, planning and goals • Coordinate, collaborate and share accountability • Negotiate and resolve conflicts. • Provide leadership, guidance, and support for members of the Science Group • Set performance requirements and manage performance and development • Engage to monitor trends, performance and progress against the business/operational plans and evaluate further support which may be required to ensure delivery against the plan.
CAS Management Team	• Communicate and collaborate to strengthen working interactions between the Chemistry Group, the Accelerator Systems and Development Group and Science Group. • Communicate and collaborate to enable effective operation of beamlines and capabilities and effective management of development projects and activities.
Other ANSTO enabling functions	• Engage and coordinate with Safety, Finance, Human Resources, IT, Industry Engagement, and the ANSTO User Office to effectively manage the activities of the Science Group in support of world-class research outcomes.
External	

Universities, Business, Industry, Scientific Institutions	• Develop and maintain collaborative user relationships • Provide expert, authoritative and evidence-based advice.
International research organisations	• Develop and maintain international linkages around scientific operations and research.
Suppliers and contractors	• To ensure effective development, project management and procurement requirements • Contractor supervision

POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to the Director – Centre for Accelerator Science
Direct Reports	7-14 Accelerator Science Officers, Accelerator Scientists, Senior Accelerator Scientists, Principal Accelerator Scientists
Indirect Reports	1-3 Post-Doctoral Fellows and students

Special / Physical Requirements	
Location:	Lucas Heights Working in different areas of designated site/campus as needed
Travel:	Moderate amount of travel to ANSTO sites within Australia Moderate amount of travel both nationally and internationally
Physical:	Office based physical requirements (sitting, standing, minimal manual handling, movement around office and site, extended hours working at computer) Public speaking Wearing personal protective equipment for the handling of hazardous and/or radioactive materials
Radiation areas:	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 After hours work may be required for short and infrequent periods
Clearance requirements:	Satisfy ANSTO Security and Medical clearance requirements Obtain and maintain appropriate federal government clearance

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

ORGANISATIONAL CHART

TBA

KNOWLEDGE, SKILLS AND EXPERIENCE

1. Masters or PhD in Science or Engineering discipline.

2. Technical understanding and experience, in execution and research applications of accelerator science.
3. Previous experience working on or operating an accelerator, a beamline, or equivalent, to undertake experiments, support users and/or provide data analysis.
4. Relevant experience to demonstrate ability to lead and manage staff.
5. The ability to choose appropriate management techniques and communication styles to maintain high levels of motivation and productivity, giving feedback for development purposes and providing support for improvement.
6. The demonstrated ability to work effectively as an integral team member and leader of a multi-disciplinary team and foster an environment in which there is a high level of cooperation within and between teams.
7. Demonstrated experience leading or delivering science operations, development or research projects including strategic planning, decision-making, managing budgets/expenditure, delivery timeframes, competing priorities, quality outcomes and resources.
8. Demonstrated commitment and engagement with a user or stakeholder community, providing expert knowledge, support, and advice to deliver world-class scientific outcomes.
9. Demonstrated experience and successful outcomes promoting scientific techniques and capabilities to engage with industry and commercial clients.
10. Demonstrated competency to effectively network, develop a portfolio of internal and external relationships and influence stakeholders leading to collaborative outcomes and results in science and technology.
11. Personal commitment to safety practices for all staff, contractors, and visitors to the workplace.
12. A history of professional and respectful behaviours and attitudes in a collaborative 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:	Ceri Brenner	Name:	Ceri Brenner
Title:	Director, CAS	Title:	Director, CAS
Signature:		Signature:	
Date:		Date:	