

Priority Focus Areas and ANSTO Points of Contact

ANSTO's strategic research objectives are described broadly in the Corporate Plan [https://www.ansto.gov.au/sites/default/files/2018-08/ANSTO-Corp_Plan-2018-web.pdf]. Priority focus areas and some ANSTO points of contact for further discussion regarding projects and ANSTO supervisors include:

Radiopharmaceuticals

Projects seeking to develop radiopharmaceuticals and their application [Info: Dr Ivan Greguric – ivg@ansto.gov.au or Dr Tim Boyle – tim.boyle@ansto.gov.au]

Human Health

Impact of low to therapeutic dose radiation on biological systems relating to mitochondrial response, gut microbiome and bio-sensors [Info: Dr Ryan Middleton – ryan.middleton@ansto.gov.au]

Advancing nuclear technology to deliver better health: enhanced performance radiotracers, total-body PET imaging, multi-modal imaging, heavy ion/proton therapy dose quantification) [Info: Dr Ben Fraser – ben.fraser@ansto.gov.au]

Nuclear and isotopic techniques to improve food quality and design to contribute to better health (food structure and function, authenticity, manipulation of food and the influence on the immune system) [Info: [Dr Katie Sizeland](mailto:Dr_Katie_Sizeland@ansto.gov.au) – katie.sizeland@ansto.gov.au]

Defence Industry

Contracted research and industrial engagement projects in the defence industry area that aim to deliver real solutions to enhance Australia's defence capability via collaborative partnerships. [Info: Professor Andrew Peele – andrew.peele@ansto.gov.au]

The Environment

The use of nuclear techniques in Environmental Change (Climate Change, Landscape processes or Human Impacts) [Info: Dr Krystyna Saunders - krystyna.saunders@ansto.gov.au]

The use of nuclear techniques in Sustainable Water Resources (Aquatic Ecosystems, Groundwater and Natural Variability) [Infor: Dr Cath Hughes – cath.hughes@ansto.gov.au]

The use of nuclear techniques in Contaminant Science (Atmospheric pollution/transport, radionuclides in the biosphere and contaminated sites) [Info: Dr Scott Chambers - scott.chambers@ansto.gov.au]

Nuclear Fuel Cycle

Nuclear fuel resources & systems (processing of U and Th; atomistic simulation of fuel properties; fuel-cladding interaction) [Info: Dr MengJun Qin – MengJun.Qin@ansto.gov.au]

Nuclear reactor systems (safety of reactor systems; behaviour of nuclear materials under extreme conditions) [Info: Dr Ondrej Muransky – Ondrej.Muransky@ansto.gov.au]

Spent nuclear fuel management (solutions for long term storage of nuclear waste to ensure safety, security and non-proliferation) [Info: Dr Yingjie Zhang – Yingjie.Zhang@ansto.gov.au]

Fusion

Fusion research that aligns with ANSTO and ITER activities following the signing of a cooperation agreement that joins Australia with a consortium of countries that will lend expertise on the ground-breaking ITER fusion project in southern France. [Info: Dr Richard Garrett – richard.garrett@ansto.gov.au]

Capability Development – research infrastructure

Research that enhances or showcases any of the other Priority Focus Areas through the development of National Research Infrastructure at ANSTO such as the Australian Centre for Neutron Scattering, the Australian Synchrotron, the Centre for Accelerator Science, the National Deuterium Facility and other ANSTO platforms including Nuclear Materials, Development and Characterisation, Isotope Tracing in Natural Systems and Biosciences. [Info: Dr Miles Apperley – miles.apperley@ansto.gov.au]