

# Radioisotope provision

A diverse set of radioisotopes is available for a variety of applications and fundamental research.

These radioisotopes are obtained from:

- our Radioisotope R&D program using the OPAL reactor and 18 MeV Camperdown Cyclotron irradiation products,
- ANSTO Health
- national partner cyclotrons
- commercial radioisotopes providers.

We are working to extend this range through international reactor and cyclotron partnerships. The availability of these materials will differ significantly depending on reactor and cyclotron scheduling and demand for non-routine custom irradiated products.

Fundamental to this capability, ANSTO provides well equipped, licensed facilities and well- trained staff to deal with SPECT, PET and other tracing radionuclides.

Please confirm the availability of your selected radioisotope with your ANSTO contact before submitting your proposal.

## Capability selections

- Medical radioisotopes
- Environmental and industrial radioisotopes

For further information please contact:

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Radioisotope	Half life	Emission type	Application
Carbon-11	20.3 minutes	$\beta^+$	PET Imaging
Fluorine-18	1.83 hours	$\beta^+$	PET Imaging
Gallium-68	68.3 minutes	$\beta^+$	PET Imaging
Yttrium-86	14.74 hours	$\beta^+$	PET Imaging
Zirconium-89	3.3 days	$\beta^+$	PET Imaging
Iodine-124	4.2 days	$\beta^+$	PET Imaging
Copper-64	12.7 hours	$\beta^+ \beta^-$	PET Imaging
Lutetium-177	6.65 days	$\beta^- \gamma$	SPECT Imaging/Therapy
Samarium-153	46.3 hours	$\beta^- \gamma$	Therapy
Iodine-131	8.02 days	$\beta^- \gamma$	Therapy
Holium-166	26.8 hours	$\beta^- \gamma$	Therapy
Chromim-51	27.7 days	$\gamma$	Tracing
Technetium-99m	6.01 hours	$\gamma$	SPECT Imaging
Iodine-125	60 days	$\gamma$	Tracing
Cobalt-57	271.8 days	(EC), $\gamma$	Tracing
Gallium-67	3.26 days	(EC), $\gamma$	SPECT Imaging
Indium-111	2.8 days	(EC), $\gamma$	SPECT Imaging
Iodine-123	13.2 hours	EC), $\gamma$	SPECT Imaging