

cyclomedica technegas ultralute

12 October 2015

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# Australian company Cyclopharm launches world-first nuclear medicine technology

**Hamburg, Germany:** Australian nuclear medicine company Cyclopharm (ASX: CYC) today launched its patented technology Ultralute<sup>TM</sup> which significantly boosts the longevity of the most commonly used medical isotope worldwide.

The launch today at the European Association of Nuclear Medicine (EANM) Annual Congress in Hamburg Germany is expected to be followed by sales in Europe in the first half of calendar 2016.

Ultralute<sup>TM</sup> is a unique device that extends the useful life of Molybdenum-99 (Mo-99) generators by up to 50 per cent. When Mo-99, with a half-life of 2.75 days, decays it produces Technetium-99m (Tc-99m) that has a half-life of 6 hours.

The isotope Tc-99m is harvested from the Mo-99 generator and used in approximately 80% of all nuclear medicine diagnostic imaging procedures worldwide. In fact, Tc-99m is the isotope that both lends its name and is used in the production of our other world first, innovative technology, Technegas.

The challenge faced by nuclear medicine departments is the short half-life of the Mo-99 generator. This constantly decaying inventory means that there is a requirement to regularly purchase new Mo-99 generators to ensure that the Tc-99m activity and concentration harvested from the generator is sufficient to manufacture the radiopharmaceuticals used in numerous nuclear medicine procedures.

Cyclopharm CEO James McBrayer said that Ultralute<sup>™</sup> would be an incredibly productive tool for hospitals, clinics and nuclear pharmacies. "When I was a practising nuclear pharmacist I would have loved to have had the convenience this technology provides," Mr McBrayer said.

"Ultralute<sup>™</sup> can increase the useful life of one of these generators by several days. This technology will not only save hospitals time and money, through improved utilisation it will also benefit an industry that has often faced global Mo-99 production shortages."



Simply stated, Ultralute<sup>TM</sup> is a device that attaches to the Mo-99 generator and through an in-line extraction process, allows the nuclear medicine technician to harvest a more highly concentrated yield of Tc-99m.

The Ultralute<sup>TM</sup> patented technology was 3 years in development. It follows the success of Technegas, a nuclear imaging technology also invented by the company which is used in lung functional imaging across a number of disease states. Technegas is now sold in 55 countries and this existing global footprint is expected to assist us in the introduction of Ultralute<sup>TM</sup>.

Mr McBrayer said global industry interest in Ultralute<sup>™</sup> technology was strong. "We're very excited by the commercial prospects for Ultralute<sup>™</sup>," he said. "It's also very satisfying to see another Australian invention reach the commercial stage."

# For more information, please contact:

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### Background

#### Cyclopharm Limited

Cyclopharm is a radiopharmaceutical company servicing the global medical community. The Company's mission is to provide nuclear medicine and other clinicians with the ability to improve patient care outcomes.

Cyclopharm achieves this objective through the provision of radiopharmaceutical products, Technegas (for lung imaging) and Molecular Imaging (used in cancer, brain and cardiac imaging). Our customers are nuclear medicine departments located within hospitals and clinics.

#### Technegas

Technegas is a structured ultra-fine dispersion of radioactive labeled carbon. Technegas is produced by drying Technetium-99m, (the most commonly used isotope in nuclear medicine imaging), in a carbon crucible then heating the isotope for a few seconds at around 2,700°C in a Technegas Generator. The resultant gas-like substance is inhaled by the patient (referred to as lung ventilation) via our consumable product known as a Patient Administration Set (PAS).

The inhaled Technegas particles enables multiple views and tomography imaging under a gamma or single photon emission computed tomography (SPECT) camera for the superior functional ventilation imaging primarily used to diagnose pulmonary emboli (blood clots in the lungs).

## Ultralute<sup>™</sup>

Cyclopharm's Ultralute<sup>™</sup> technology extends the useful life of Molybdenum-99 (Mo-99) generators by up to an additional 50%. This technology potentially gives nuclear medicine departments the ability to dramatically improve their operating efficiencies, cost of materials and health outcomes for patients.