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Australian Nuclear Science and Technology Organisation

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Australia to supply nuclear medicine to US

Australia's centre of nuclear expertise ANSTO¹ has announced an arrangement with United States (US) company Lantheus Medical Imaging, Inc. – a world leader in medical imaging – to supply the medical isotope molybdenum-99 (Mo-99), once Australian regulatory processes for production are finalised. The deal is expected to assist in alleviating the world's current nuclear medicine shortage.

Australia will be one of the only countries in the world to produce Mo-99 from low-enriched uranium (LEU) targets and the arrangement will position Lantheus as the first company to supply the nuclear medicine Technetium-99m (Tc-99m) derived from LEU Mo-99 to the US market. Tc-99m is used in approximately 80 percent of all nuclear medicine procedures.

The arrangement marks another step to address the limited and fragile global Mo-99 supply chain, as evidenced by the indefinite shutdown of the Chalk River reactor in Canada which produces one third of the global nuclear medicine market. It also meets the US non-proliferation goal to move all commercial use of high enriched uranium to LEU.

ANSTO's radiopharmaceuticals General Manager Ian Turner said Australia was more than happy to help.

"We are happy to be working with Lantheus Medical Imaging because of its unparalleled reputation in the nuclear medicine industry for quality, reliability and superior technology. This relationship builds on our core complementary skills and helps provide a reliable Mo-99 supply using LEU in the US and Canada."

Don Kiepert, president and CEO of Lantheus Medical Imaging, Inc said the supply arrangement marks a significant step in the advancement of medical imaging.

"For the first time in industry history, we will be able to offer the nuclear medicine community in North America a LEU-derived Mo-99 through our TechneLite[®] generator line," said. "We have been actively exploring new options for securing Mo-99 produced using LEU, and in ANSTO we have found the ideal partner with which to achieve that strategic goal."

"The efforts of ANSTO are more important now than ever before as our industry navigates through the challenges created by the outage of the Chalk River reactor over the next several months. We are pleased to be working with the team from ANSTO to bring their LEU based Mo-99 into the global supply chain during this time of critical medical isotope need for patient care."

ANSTO is working closely with nuclear safety and health regulators, both domestically and overseas, to expedite all necessary approvals to allow long-term production and export of medical isotopes. Lantheus Medical Imaging, together with ANSTO, is working closely with the FDA and Health Canada to achieve the necessary LEU Mo-99 approvals for the US and Canadian markets.

The world nuclear medicine shortage is being caused by the forced shutdown of the Chalk River reactor at in Ontario, Canada. The 50 year old Canadian reactor was shut down for an indeterminate period on May 15 as a result of corrosion on the outside wall of the reactor vessel which resulted in a heavy water leak.

For more information please contact ANSTO Media and Community Relations Manager, Sharon Kelly (02) 9717 9575 or 0400 394 085

¹ The Australian Nuclear Science and Technology Organisation