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An Update on Regulatory and Clinical Efforts in Route to Commercialization of Cyclotron-Produced Tc-99m

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ABSTRACT

ARTMS Products, Inc. holds the global commercialization rights to technology created by a consortium of research organizations including; TRIUMF, BC Cancer Agency, Lawson Health Research Institute (LHRI) and the Centre for Probe Development and Commercialization, for producing the world's most-used diagnostic imaging isotope, technetium-99m (Tc-99m), using local, hospital-based medical cyclotrons.

This presentation will provide an overview of the technology, along with the work toward full cost recovery implementation of a reliable, commercial scale (TBq) production process for cyclotron-produced Tc-99m. Proton irradiation of ¹⁰⁰Mo coated tantalum plates has been demonstrated on various cyclotrons at energies up to 24 MeV, culminating in an approach that has been approved by Health Canada for human use. Clinical trials are underway in Vancouver, British Columbia and London, Ontario en route to a request for full market approval.