

**Mo-99 2015 TOPICAL MEETING ON
MOLYBDENUM-99 TECHNOLOGICAL DEVELOPMENT**

**AUGUST 31-SEPTEMBER 3, 2015
HILTON BOSTON BACK BAY
BOSTON, MASSACHUSETTS**

Robust Medical Isotope Production System

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ABSTRACT

A concept design for a medical isotope production system employing fissile solution fuel has been developed which would provide sufficient quantities of Mo-99 to meet national needs. Development and operational costs are consistent with a full cost recovery business model. The design is meets export control and non-proliferation objectives to provide accessibility to regional facilities in developing countries world-wide. The design is based on proven technology, utilizes readily procured hardware and avoids the need for a supply chain of uranium targets as is required by traditional reactor based systems. It represents a relatively low cost, low risk technology to produce large quantities of important radioisotopes.