

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

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

**Triad Isotopes, Inc. Perspectives on Nuclear Pharmacy's Role in the  
use of Non-HEU Mo-99 for Tc-99m Compounded Patient Preparations**

Fred Gattas, Pharm.D., BCNP, FAPhA Director, Quality and Safety  
Triad Isotopes, Inc. 4205 Vineland Rd., Ste. L1, Orlando, FL 32811 – USA

**ABSTRACT**

The American Medical Isotope Production Act was enacted to promote the production of non- highly enriched uranium (non-HEU) Molybdenum-99 in the United States. The nuclear pharmacy has a very important role in this by dispensing radiopharmaceutical preparations that have been compounded using ingredients exclusively from non-HEU Mo-99; specifically, the daughter isotope Tc-99m, which the nuclear pharmacist binds to various pharmaceutical ligands for use in a myriad of patient diagnostic scans.

A variety of logistical problem-solving challenges arise during the period of transition from use of HEU to non-HEU products, specifically: procuring an ample supply of non-HEU Mo-99/Tc-99m generators; tracking the Tc-99m elutions from those generators; tracking the compounded Tc-99m kits prepared from those elutions; and tracking and ensuring that individual patient doses from those kits are properly labeled. Ensuring that efficient and economical use of non-HEU inventory is balanced with demand from the nuclear medicine community is important as well.