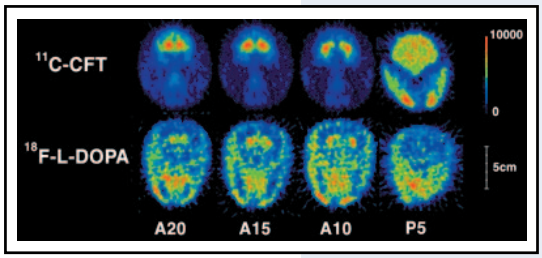
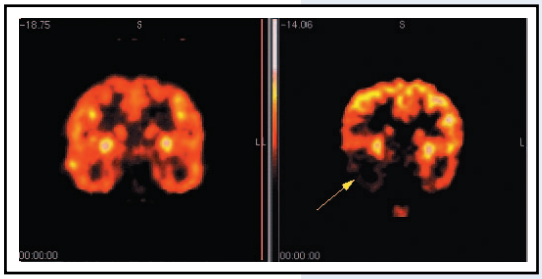
USIC
United States Industry Coalition, Inc.

IPP
Initiatives for Proliferation Prevention
National Nuclear Security Administration

Accelerator Production of Ge-68

- Positron Emission Tomography (PET) is a subspecialty of nuclear medicine that uses radionuclides that emit positrons. Positrons create images using PET cameras that create images of organs to help physicians diagnose cancer, neurological disorders, Alzheimer's disease and coronary artery disease





- Ge-68 performs calibration studies on PET cameras. PET cameras undergo two types of calibration using these Ge-68 sources
- PET market is growing vastly in the U.S., and in markets around the world. Growth requires new sources of Ge-68, such as the Institute of Nuclear Physics of the National Nuclear Center (INP) in Almaty, Kazakhstan
- Ge-68 is ideal isotope for calibration and transmission sources because:
  - Long half-life of 271 days
  - Lack of significant photon emissions
- Project goal is technology for cost-effective production of Ge-68 in commercially significant quantities

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MEDICAL INNOVATIONS FOR THE WORLD MARKET

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