

Domestic Isotope Producers Selected

On January 25 GE Hitachi (GEH) Nuclear Energy (Wilmington, NC) and the Babcock & Wilcox Technical Services Group, Inc. (Lynchburg, VA) announced in separate press releases their selection by the U.S. Department of Energy National Nuclear Security Administration (NNSA) to develop a reliable U.S. supply of ^{99}Mo . Although both commercial entities will produce ^{99}Mo without the use of highly enriched uranium (HEU), the technologies they will bring to this effort are different. “NNSA is committed to supporting technology that offers a new path forward for the creation of a reliable, domestic supply of ^{99}Mo without the use of HEU,” said NNSA Administrator Thomas D’Agostino. “This pragmatic approach addresses a critical U.S. medical community need while supporting President Obama’s goal of reducing the risk posed by global use of HEU.” The announcement came at a time of continued shortages resulting from shutdowns and repairs that have hampered shipments from the 5 nuclear reactors outside the United States that now supply the radionuclide.

The statement issued by GE indicated that deployment of their planned isotope production technology could “potentially meet at least 50% of the U.S. projected supply needs for $^{99\text{m}}\text{Mo}/^{99\text{m}}\text{Tc}$.” The initial \$2.25 million grant would fund research and development to confirm this technology at commercial scales and to determine the infrastructure and logistics needed to support routine commercial operation. The technology could be deployed in existing reactors. “We are seeking some short-term solutions that have long-term potential, and the GEH technical solution provides a path forward that is quite attractive to meet both these needs,” said Robert Atcher, MD, PhD, past president of SNM, who evaluated the company’s technology.

Babcock & Wilcox was awarded approximately \$9 million under a cooperative agreement with Covidien (Dublin, Ireland) for further development of patented reactor technology for medical isotope production using low-enriched uranium. The statement issued by Babcock & Wilcox indicated that this
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MOLECULAR IMAGING UPDATE

Neuroimaging Symposium Planned at NIH

The SNM Molecular Imaging Center of Excellence is sponsoring a 2-d Molecular Neuroimaging Symposium on May 6 and 7 at the National Institutes of Health (NIH). The symposium will bring together molecular imaging professionals from multiple scientific disciplines—including chemistry, materials science and engineering, biophysics, molecular and cellular biology, cellular neurophysiology, molecular/developmental neurobiology, and cellular, metabolic, and genetic imaging sciences—with the goal of promoting the emerging field of translational molecular neuroimaging. This meeting is being organized as a follow-up to a similar conference held at NIH in 2009 that focused on cardiovascular molecular imaging. Both programs were designed to attract individuals from the basic science and clinical communities, with an emphasis on clinical translation. Momentum from the successful 2009 meeting should help us continue to stimulate interest in the promising field of translational molecular neuroimaging. To encourage the broad participation of scientists in this new field, the meeting will include a poster abstract session, to be held during a reception, and a dinner for abstract award winners on Thursday evening.

Session topics will include: molecular imaging techniques: intraoperative and preclinical imaging application; nanotechnology for central nervous system (CNS) diagnostics/therapeutics; overcoming the blood-brain barrier: imaging agent delivery to the CNS; stem cell therapeutics and adoptive immunotherapies of brain tumors; molecular imaging advances in the evaluation of primary brain tumors; imaging biomarkers for detection and monitoring progression of neurodegenerative disorders/dementia; and psychiatric/neurobehavioral research. Keynote speakers and their topics will include William M. Pardridge, MD, University of California, Los Angeles (UCLA): Re-engineering biopharmaceuticals
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patients with ^{18}F -DOPA and 11 with ^{18}F -FDG. Eight of these patients had the same numbers of positive lesions with each tracer. Maximum standard uptake values were higher for ^{18}F -FDG PET than ^{18}F -DOPA. Calcitonin was higher in PET-positive than PET-

negative patients, with no significant differences in results between the 2 tracers. The authors concluded that in MTC patients with rapidly increasing calcitonin levels during follow-up, ^{18}F -DOPA has a good sensitivity and a complementary role with ^{18}F -

FDG PET/CT in detecting metastatic deposits." In the experience of these researchers, the sensitivity of the combined tracer approach was greater than that of conventional imaging.

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program also has the potential to supply more than 50% of the U.S. demand for ^{99}Mo . "U.S. government support of this work is highly beneficial in helping the nation establish a more secure domestic source of medical isotopes without using HEU," said S. Robert Cochran, Babcock & Wilcox president. In January 2009, an agreement was announced combining Covidien's expertise in radiopharmaceutical production and global

regulatory approvals with Babcock & Wilcox's patented liquid phase nuclear technology.

SNM leaders congratulated the 2 companies and praised the NNSA for this proactive stance on domestic radioisotope supply. "We are pleased by this development," said Michael M. Graham, PhD, MD, president of SNM. "The ongoing worldwide isotope shortage has long been a critical problem affecting the U.S. We are encouraged by the progress that has been made to date by the NNSA on this issue. ✧

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for delivery to brain with molecular Trojan horses; Nora Volkow, MD, NIH/National Institute on Drug Abuse: PET and functional MR imaging of addiction; Michael Phelps, PhD, UCLA: Translating metabolic assays into molecular imaging diagnostics; Edward Neuwelt, MD, Oregon Health and Science University: Strategies to overcome the blood-brain barrier for treatment of brain tumors; and Jeffrey R. Petrella, MD, Duke University Medical Center: Imaging genetics of brain longevity and mental wellness.

Please consider joining us for this 2-d agenda addressing breakthrough advances and developments in

this exciting field. You may wish to also pass this information along to colleagues who might be interested in attending this symposium. For more information on the program and the meeting, see www.snm.org/brain2010.

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