Senate Passes Isotope Production Act

On November 17, the U.S. Senate passed S 99, the American Medical Isotopes Production Act of 2011. This bipartisan bill, with Senators Jeff Bingaman (D-NM) and Lisa Murkowski (R-AK) as original cosponsors, was reported unanimously by the Senate Committee on Energy and Natural Resources in April. At that time Bingaman noted, "Millions of Americans each year depend on medical isotopes for scanning and imaging essential to the diagnosis of heart and brain function and cancer detection. This important, bipartisan bill will ensure a stable and continuing supply of these essential radiopharmaceuticals." Applauding the Senate passage, Murkowski said, "The isotope shortages that the medical community and patients experienced in 2009 and 2010 certainly brought attention to this important issue. While imports, at the moment, are meeting our growing demand, the stability and long-term viability of that supply remain in question. Developing our own reliable supply of nuclear medical isotopes will ensure that we can continue to provide the highest standard of medical care."

The purpose of the legislation is to develop a reliable domestic supply of ^{99}Mo for the production of ^{99m}Tc. Each year, 85% of procedures (18 million) that use medical isotopes for diagnostic scanning and imaging in the United States require reliable ^{99}Mo resources. No large-scale domestic supply of the isotope is currently available, and the United States continues to rely on aging reactors in Canada and Europe. The bill was designed to correct this problem by allowing the U.S. Department of Energy (DOE) to work with U.S. companies to produce a reliable domestic supply of ^{99}Mo to avoid future shortages.

The bill also proposes a 14-y phaseout of U.S. exportation of highly enriched uranium, previously a part of most ^{99}Mo production processes. Technology is now available to produce ^{99}Mo from low-enriched uranium, and companies in South Africa and Australia are currently producing isotopes with this technology. In addition, the bill allows the DOE and U.S. companies to enter into cooperative agreements.

After Senate passage, the bill was referred to the House Committee on Energy and Commerce, the House Committee on Budget, and the House Committee on Science, Space, and Technology, for a period to be subsequently determined by the Speaker, for consideration of provisions that fall within the respective committee jurisdictions.

The full text of the bill is available at www.gpo.gov/fdsys/pkg/BILLS-112s99is/pdf/BILLS-112s99is.pdf.

MOLECULAR IMAGING UPDATE

Molecular Imaging Training Course Debuts

As we all know, nuclear medicine is rapidly evolving. Molecular imaging, including nonradioactive tracers, is becoming an increasingly important part of our specialty. As a result, SNM refocused its mission to incorporate the expanding role of molecular imaging in patient care and is now considering a name change to the "Society of Nuclear Medicine and Molecular Imaging."

The Center for Molecular Imaging Innovation and Translation (CMIIT)'s Education Task Force examined the educational needs for current and future physicians and scientists practicing molecular imaging and developed suggestions for curricula. Although these suggestions have not yet been incorporated into the residency curriculum, SNM is now offering a training course on this material.

A new series of educational lectures in molecular imaging debuts this month in a webinar format. The monthly course is primarily designed for nuclear medicine and radiology residents, but may also be helpful for physicians, scientists, technologists, and other professionals who want a better understanding of molecular imaging. The overall goal of the webinar series is to provide participants with a firm foundation in the basic principles of molecular imaging, including methods employing radioisotopes, optical imaging agents, ultrasound, and magnetic resonance.

To achieve this goal, the objectives are that at the conclusion of the program participants will be able to: (1) Review the basic science of molecular imaging, including molecular and cellular chemistry, biochemistry, biology, imaging physics, and instrumentation; (2) Apply key concepts to effectively communicate and interact with experts in molecular imaging; and (3) Discuss the current and future roles of advanced molecular imaging techniques and agents for clinical imaging of disease.

The following topics will be offered monthly (and on demand) with CME and VOICE credit: molecular and cellular biology overview, cell trafficking, animal imaging and instrumentation, magnetic resonance imaging and spectroscopy, molecular imaging of the heart, optical imaging, techniques and agents, apoptosis, angiogenesis, proliferation, reporter genes, amyloid imaging, hypoxia, and molecular imaging with ultrasound technology.

Through training mechanisms such as this course, SNM hopes to help grow and evolve the field as well as attract new individuals.

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