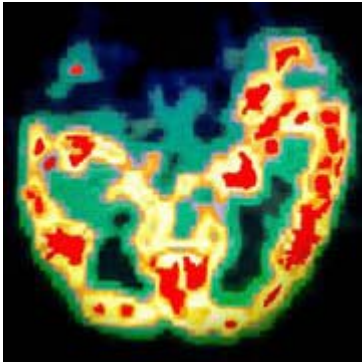




AMIC fulfills U.S. medical isotope needs, expands production goals

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AMIC is devoted to developing medical isotopes for diagnosis and treatment.
Source: Pacific Northwest National Laboratory

More than 15 million nuclear medicine procedures are currently performed each year in the United States. Approximately one-third of all patients admitted to U.S. hospitals undergo at least one medical procedure that employs the use of medical isotopes—evidence a domestic supply is needed, according to AMIC.

“AMIC has the promise to be the major U.S. supplier of medical isotopes with application for major diseases,” Robert E. Schenter, MD, chief science officer at AMIC, told *Health Imaging News*.

“In the last two years, we have been building production facilities all across the country. Today, we have begun the production of medical isotopes both on the West Coast and the East Coast, as well as burgeoning connections to various U.S. universities,” he added.

In fact, AMIC installed a compact linear accelerator designed specifically for the production of medical isotopes at its Kennewick, Wash.-based facility in March.

At the time, AMIC CEO William J. Stokes said: “With this compact linear accelerator, the first of its kind in North America designed specifically for the production of PET isotopes such as Fluorine-18, Nitrogen-13, Carbon-11, and Oxygen-15, our team will also be able to produce other highly desired, longer lived isotopes including actinium-225, iodine-123 and indium-111 for diagnostic as well as therapeutic applications.”

Late last month, after receiving its radioactive materials license from Washington state, AMIC successfully produced fluorine-18, its first in a series of isotopes that company began manufacturing at its Kennewick facility.

“We are now able to ship fluorine-FDG. We not only make the fluorine-18, but we add the compound that makes it a radiopharmaceutical that can be injected into the patient,” Schenter said.

“As we make radiopharmaceuticals, we will also require FDA approval, but we certainly made a giant stride by getting authority from the state of Washington to allow us to supply our local hospital with fluorine-FDG,” he added.

The license “allows AMIC to proceed with startup operations of our showcase production center, which is built around the nation’s first compact proton linear accelerator used for isotope production,” Stokes said.

“We plan to begin shipping of this PET isotope all around the state of Washington soon, which is just the tip of the iceberg. Then we will be making additional isotopes with the same machine, such as iodine-123—an extremely important diagnostic isotope—that can be shipped 300 to 400 miles. We are also making indium-111 in Buffalo, N.Y.,” he said.

The company also hopes to expand its production abilities across the United States. According to Schenter, the company currently has working/strategic relationship with several universities, such as Lawrence Berkeley National Laboratory in Berkeley, Calif., Idaho State University in Pocatello, Idaho, and the University of Missouri in Columbia, Miss.

However, the company is also in discussion with future AMIC PET production centers in Los Angeles and Oahu, Hawaii, according to Schenter.

“Now that the Canadians have announced that they are closing two of the Maple reactors, which are the major source of molybdenum-99—the application of which are used in thousands of procedures every day in the United States—we have to fill that void,” Schenter said.

“The other issue is that isotopes that we are producing are important for diagnostic, as well as therapeutic applications. The therapeutic

applications are become more popularized as famous people, such as Sen. [Edward] Kennedy, are diagnosed with cancer. AMIC has the future prospects of distributing these diagnostic and therapeutic isotopes all over the country. Everyday, 1,500 people die of cancer, and that statistic is expected to double over the next ten years," Schenter noted.

He said that 95 percent of the company's initial focus will be related to cancer treatment, but he also mentioned the possibility of PET isotopes with treating Alzheimer's disease and cardiac care.

"Our government has not been able to keep up with the demand of the production of these medical isotopes," Schenter said. To combat the lack of supply, AMIC intends to keep up with the growing demand has production and processing facilities in Brookhaven National Laboratory in Upton, N.Y., Oak Ridge National Laboratory in Oak Ridge, Tenn., and the Idaho National Laboratory Idaho Falls, Idaho, in addition to its headquarters in Kennewick.

In addition to domestic production facilities, AMIC has signed a letter of intent for the purchase of all the assets, tangible and intangible, of the Center of Molecular Research (CMR), based in Moscow, in late May. The acquisition closing subject to due diligence and entering into definitive agreements.

Schenter said that within the next few years, CMR's supply will be helpful in the next few years, as AMIC "gets off the ground," plus CMR is not constrained by the FDA. "They are an excellent supplement to what we are doing," he added.

AMIC's intermediate goal is to get the regional production sites operational to produce medical isotopes and supply them throughout the United States to medical practitioners and researchers.

"Our long-term goal is to have McDonald-like facilities in every town of the size of 100,000 people, so the treatments can be processed quickly in outpatient facilities. Our very-long term goal is to provide the accelerators to outpatients throughout the United States," Schenter concluded.

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