

## Hussein M. Abdel-Dayem, MD 1934–2017

On March 12, 2017, the nuclear medicine and molecular imaging community lost a brilliant physician–scientist, an excellent educator, a devoted mentor, and, above all, a great human being and a true friend. Hussein M. Abdel-Dayem graduated from Cairo University’s Kasr El Ainy Medical School in 1968 and completed his residency in radiology at the Roswell Park Cancer Institute (Buffalo, NY). He was certified by both the American Board of Radiology and the American Board of Nuclear Medicine in 1972. He remained in New York and practiced until 1981. He then traveled to Kuwait, where he served as professor and chair of the Department of Nuclear Medicine at Kuwait University (Kuwait City) and had the opportunity to build the first nuclear medicine residency program in the Middle East. In 1990, he returned to the United States and worked at the Memorial Sloan Kettering Cancer Center (New York, NY). In 1992 he became chief of the Nuclear Medicine Department and director of the nuclear medicine residency training program at St. Vincent’s Hospital (New York, NY) and a professor of radiology at New York Medical College (Valhalla, NY). He contributed to the training of a number of residents in nuclear medicine and radiology during an active career of almost 50 years.

Dr. Abdel-Dayem held leadership positions as president of the Asia Oceania Federation of Nuclear Medicine and Biology (1988–1992), president of the SNM Greater New York



Chapter (2003–2004), president of the New York Academy of Medicine, Nuclear Medicine Section (2004–2005), and president of the American College of Nuclear Medicine (ACNM; 2007–2008). He published more than 250 papers in peer-reviewed journals and contributed to 8 book chapters.

Dr. Abdel-Dayem was the recipient of the Berson–Yalow Award in 2005, given by the Northeast Regional SNM, and was a fellow of the ACNM and the American College of Nuclear Physicians. He was also actively involved

in educational activities in developing countries as an expert for the International Atomic Energy Agency and through other professional organizations. As a physician–scientist, he was totally devoted to the field and made many contributions to its growth.

He was not only a brilliant man and respected teacher, knowledgeable in many fields, but also a cheerful, generous, and humble person. He truly was blessed with an incredible personality with all imaginable gifts of humanity, and we feel lucky to have known such a great human being. We will miss him dearly. He is survived by his wife, Aida, his daughter, Amani, his son, Essmaeel, and numerous grandchildren.

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## MURR Files for NRC Isotope Production Approval

The University of Missouri Research Reactor (MURR; Columbia) and its partners Nordion (Ottawa, Canada), a business of Sterigenics International (Oak Brook, IL), and General Atomics (San Diego, CA) announced on March 29 that MURR’s License Amendment Request had been submitted to the U.S. Nuclear Regulatory Commission (NRC). In an associated press release, the partners noted that “This marks a critical step towards implementing domestic U.S. production of  $^{99}\text{Mo}$ . Once operational, production from this facility will be capable of supporting nearly half of U.S. demand for  $^{99}\text{Mo}$ , which currently must be imported from outside North America.”

Once approved by NRC, MURR will begin producing  $^{99}\text{Mo}$  using selective gaseous extraction, a proprietary technology developed by General Atomics to extract the isotope from low-enriched uranium targets. This approach will produce

$^{99}\text{Mo}$  of the highest specific activity, while avoiding production of the liquid uranium waste associated with technologies that use highly enriched uranium. Extracted  $^{99}\text{Mo}$  will be transported to Nordion’s facility in Ottawa for final purification and distribution to radiopharmaceutical manufacturers, after which it will be distributed to hospitals and medical facilities around the world. In addition, Nordion is maintaining its conventional  $^{99}\text{Mo}$  processing capacity through March 31, 2018, as a cautionary measure against further global shortages.

The MURR project is being conducted with the active support of the U.S. Department of Energy’s National Nuclear Security Administration, which was mandated to help secure a new, reliable domestic supply of  $^{99}\text{Mo}$  by the American Medical Isotopes Production Act of 2012.

*University of Missouri Research Reactor*