Fowler Awarded National Medal of Science

Joanna Fowler, PhD, a senior chemist and Director of the Radiotracer Chemistry, Instrumentation, and Biological Imaging Program at the U.S. Department of Energy (DOE) Brookhaven National Laboratory (Upton, NY), was awarded the National Medal of Science at a White House ceremony on October 7. She was 1 of 9 researchers named by President Barack Obama to receive the nation's highest award for lifetime achievement in science.

The National Medal of Science was created by statute in 1959 and is administered for the White House by the National Science Foundation. The annual award recognizes individuals who have made outstanding contributions to science and engineering. Nominees are selected by a committee of Presidential appointees based on their advanced knowledge in and contributions to the biological, behavioral/social, and physical sciences, as well as chemistry, engineering, computing, and mathematics.

"This award is both humbling and gratifying," Fowler said. "It recognizes the importance of chemistry and imaging in advancing our knowledge of the human brain, particularly as it is affected by drugs, disease, and aging."

Fowler has been a major contributor to brain research and the study of diseases such as addiction, where she has advanced PET techniques and associated radiopharmaceutical agents. In 1976, she and her colleagues synthesized ^{18}F-FDG. In her recent research, Fowler has focused on changes in brain circuits disrupted during drug addiction. She is also involved in PET studies to understand the action of therapeutic drugs and facilitate the introduction of new drugs into medical practice. Another research area centers on variations in monoamine oxidase genes and their effects on personality and vulnerability to psychiatric disorders.

After earning a BA in chemistry at the University of South Florida (Tampa) in 1964 and a PhD in chemistry at the University of Colorado (Boulder) in 1967, Fowler carried out postdoctoral research at the University of East Anglia (Norwich, UK) and at Brookhaven Lab. Joining the laboratory in 1969, she has spent her entire career at Brookhaven. She has published more than 350 peer-reviewed articles and holds 8 patents for radiolabeling procedures. Fowler's honors include the SNM Paul Aebersold Award and the DOE E.O. Lawrence Award, both received in 1997; the American Chemical Society's Francis P.

Joanna Fowler, PhD

Garvin–John M. Olin Medal in 1998; and the Glen T. Seaborg Award in 2002. She was elected to the National Academy of Sciences in 2004 and, earlier this year, was honored with the National Academy of Sciences Award in Chemical Sciences and was inducted into the Long Island Technology Hall of Fame.

"These scientists, engineers and inventors are national icons, embodying the very best of American ingenuity and inspiring a new generation of thinkers and innovators," President Obama said. "Their extraordinary achievements strengthen our nation every day—not just intellectually and technologically but also economically, by helping create new industries and opportunities that others before them could never have imagined."

NMT Master's Degree Program Initiated

On September 25 a press release from SNM announced the availability of the Nuclear Medicine Advanced Associate (NMAA) program, a first-of-its-kind master's degree program now being offered to provide nuclear medicine professionals with another career pathway for advancement in the field. The program is designed to help meet growing demands for advanced imaging practitioners as new procedures are developed and as the range and utilization of imaging procedures expand. "One of our major goals as a professional society is to prepare technologists for the changes we have experienced as our field has evolved," said Cybil Nielsen, MBA, CNMT, president of the SNM Technologists Section (SNMTS), which helped establish the program. "This new program is a significant step toward achieving this mission. In addition, we expect that these new professionals will positively contribute to the overall advancement of nuclear medicine technology."

The program is currently offered through a consortium of 3 universities: the University of Arkansas for Medical Sciences (UAMS; Little Rock), Saint Louis University (MO), and the University of Missouri–Columbia. The program includes 5 semesters of full-time enrollment. Students are accepted on a rolling basis and may begin the program in the fall, spring, or summer semester. The program is designed for distance learning and is delivered using a combination of online instruction and clinical instruction at facilities affiliated with UAMS and the consortium partners.

"This educational model takes advantage of technology to allow experienced nuclear medicine technologists to update their knowledge and upgrade their skills in their current workplace without the burden of relocating," said Mark Wallenmeyer, MBA, CNMT, RT(N), past president of SNMTS, who chairs the NMAA committee. SNM approved and will oversee adherence to a set of clinical competencies. Students will work under the supervision of a physician instructor to demonstrate core competencies in a curriculum that includes patient management skills, specialized procedures, and proper recognition and evaluation of diagnostic images. Upon completion of the program, students will earn a Master's of Imaging Sciences from UAMS, which carries a professional title of Nuclear Medicine Advanced Associate (NMAA). More information about the program is available at: www.uams.edu/chrp/nuclearadvanced/default.asp.