

IN MEMORIAM

Henry N. Wagner, Jr., MD 1927–2012

Henry N. Wagner, Jr., MD, a pioneer in nuclear medicine and international leader in the field for more than half a century, died on September 25 at his Baltimore home. Wagner retired from his career-spanning professorship at Johns Hopkins Hospital (Baltimore, MD) in 1995 but remained active in his emeritus status as a vigorous contributor to the nuclear medicine community. His achievements, which were recognized by numerous awards and honors, included not only basic and clinical science “firsts” but a distinguished record of publication, presentation, education, and outreach. “For 56 years, Henry Wagner was a towering figure in nuclear medicine, radiology,



and public health at Hopkins—and around the world,” said radiologist Richard L. Wahl, MD, who holds the Henry N. Wagner Jr., professorship in nuclear medicine at Hopkins. “His unique ability to look back at the history of our field, to synthesize current trends, and to predict future directions was an extraordinary gift from which all of us in the global nuclear medicine community benefited.”

Wagner was born and grew up in Baltimore. After service during World War II at the U.S. Coast Guard Academy (New London, CT), he received his undergraduate and medical degrees from Johns Hopkins. Service in the U.S. Air Force Reserve was followed by residency at Hopkins, which he completed in 1959, after also holding a clinical associate position at the National Institutes of Health (Bethesda, MD) and a fellowship at Hammersmith Hospital (London, UK). He remained at Hopkins throughout his career, becoming a full professor of radiology in 1967, of medicine in 1970, and of environmental health sciences in 1976. From 1964 to 1973 he served as physician-in-charge of the Hopkins Nuclear Medicine Division and from 1972 to 1976 as the acting chair of the Department of

Radiological Sciences. He was also the director of the Division of Radiation Health Sciences in the department from its founding in 1976. He received honorary doctorates from Washington College (Chestertown, MD), the Universitatis Georgine Augustae (Göttingen, Germany), and the Universiteit Brussel (Belgium).

Wagner initially worked with John G. McAfee, MD, at Hopkins in the 1950s on studies with a range of early radiolabeled agents and scanning devices. In 1962 and 1963 they published pioneering studies on the use of ^{203}Hg -chlormerodrin for renal imaging. In 1963 they also first used radiolabeled albumin aggregates for imaging lung perfusion in healthy indi-

viduals and patients with pulmonary embolism. Five years later Wagner and colleagues built on previous work to publish groundbreaking studies on the use of ^{133}Xe ventilation scans to diagnose pulmonary embolism. Wagner is perhaps most widely known for his early contributions to PET imaging, having served in 1983 as the first human test subject for PET imaging of dopamine and opiate receptors in the brain. The images acquired in these experiments are widely acknowledged to have influenced a new generation of research into the brain's physiology and pathophysiology. His work also advanced diagnosis and understanding in cardiology. In addition to the wide focus of his investigations, he served as a durable and reliable advocate for nuclear medicine on the larger scientific stage, writing numerous state-of-the-art reviews for publications such as *The Journal of the American Medical Association* and the *New England Journal of Medicine*.

Wagner trained more than 500 radiologists, internists, nuclear medicine physicians, and scientists, many of whom went on to become leaders in the field and 8 of whom (thus far) have served as SNM presidents. His list of publications

includes more than 800 peer-reviewed articles, 122 book chapters, more than 20 books and monographs, and a volume of scientific and personal memoirs, *A Personal History of Nuclear Medicine* (2006). He was president of the American Federation for Clinical Research (1953), SNM (1970–1971), the World Federation of Nuclear Medicine and Biology (1975–1978), and the Johns Hopkins and Baltimore City Medical Societies (1978–1980). He served on numerous advisory and editorial boards, including national and international government consultancy positions. His lifetime achievement was recognized by (among many awards) the Hevesy awards of both the European Association of Nuclear Medicine (1976) and SNM (1985), the first Vikram Surhabel gold medal awarded by the Society of Nuclear Medicine of India (1972), the American Medical Association's Scientific Achievement Award (1991), and the first annual SNM President's Award for Outstanding Contributions to Nuclear Medicine (1993). He also founded what is

today the SNMMI Wagner–Torizuka Fellowship, which provides dedicated training to Japanese physicians in early stages of their careers. A separate named lecturership now honors Dr. Wagner's many contributions and was presented at the 2012 Annual Meeting by Kirk Frey, MD, PhD.

In his many roles as leader, investigator, counselor, and mentor, Wagner embraced innovation and encouraged independent thinking. In his memoirs, he advised young readers with an interest in science: "Do not think as you are told, and do not do as others do according to the rules." His own creative and independent adherence to these maxims helped to define the development of nuclear medicine from its earliest years through its 21st-century transition to molecular medicine.

Wagner is survived by his wife of 61 years, Anne Barrett Wagner, 4 children, and 9 grandchildren. A private funeral was held in September, with a scientific community celebration of his life on November 3 at Hopkins.

The Wagner Highlights Lectures

From the Newsline editor: For more than 3 decades, Henry N. Wagner, Jr., MD, presented the annual Highlights Lecture at the SNM Annual Meeting, pulling together from the growing numbers of presentations and exhibits common themes and trends for an eager audience of attendees and media representatives. For many years Newsline was honored to work with Dr. Wagner in publishing the complete Highlights lectures, including the majority of images presented. On October 26, 2009, Dr. Wagner wrote to Heinrich Schelbert, MD, PhD, then editor in chief of *The Journal of Nuclear Medicine (JNM)*, that the time had come to "say goodbye" to his annual lecture. He added: "I want to thank all who attended the talks over all these years, those who sent me slides and discussed their work with me. . . . Keep up your revolutionary work that is transforming the practice of medicine, including the design and development of new drugs and the increasingly rational approach to surgical treatment."

Michael N. Graham, then SNM president, responded by writing in Newsline that:

Dr. Wagner's announcement that the 2009 Highlights lecture was his last presents an opportunity for us as a profession and as a society to extend our thanks to him—as well as a challenge for us to continue the high standards he set in this much anticipated yearly tradition in our field. As evident in his excellent memoir, *A Personal History of Nuclear Medicine*, his professional life has paralleled that of the development of radionuclide imaging and therapy. He was a first-hand witness (and often frontline participant and leader) to many of the groundbreaking innovations that paved the way for the transition to today's multifaceted molecular medicine. His broad understanding and panoramic view of the field—as well as his many international friendships across geographic and disciplinary boundaries—made him uniquely qualified to present the Highlights lectures summing up the most remarkable and representative achievements from each SNM Annual Meeting. He brought to this task—which required months of preparation and an encyclopedic knowledge of new techniques and tracers—a boundless enthusiasm and genuine generosity of spirit. He was always quick to spotlight young and promising investigators from around the world. The press queued up each year to learn which study Henry had selected for the "SNM Image of the Year," and the resulting popular and scientific coverage reached millions of individuals. It is unlikely, in our rapidly diversifying field, that one individual can duplicate Henry's success in providing this yearly overview. This 33-year contribution is truly extraordinary and unmatched in this field or any other medical discipline.

The tradition of the annual Highlights lecture continues today in the newly renamed Society for Nuclear Medicine and Molecular Imaging, and the task of summarizing the broad spectrum of presentations at the meeting now requires the efforts of 4 lecturers focused on general nuclear medicine, oncology, neuroscience, and cardiac sciences.