

WILLIAM G. MYERS RETIRES AS SNM HISTORIAN, HONORED WITH DISTINGUISHED EDUCATOR AWARD

William Graydon Myers, PhD, MD, will close a chapter of The Society of Nuclear Medicine's (SNM) story when he retires this month after serving as historian for 13 years. In addition to chronicling the nuclear medicine milestones, Dr. Myers was an inspiring teacher to over 1,000 physicians and advanced graduate students, and the Society will honor him with the Distinguished Educator Award at the SNM 33rd Annual Meeting, held on June 22-25 in Washington, DC.

"Bill Myers was the first physician to publicly espouse the Anger gamma camera, especially in combination with technetium-99m, and did so at a time when it meant going out on a limb. He was teaching us the advantages of imaging with carbon-11, nitrogen-13, oxygen-15, and fluorine-18 at a time when most of us were just getting used to the shift away from iodine-131 and mercury-203. He was the only person to specifically educate us in the total array of radioactive isotopes of iodine," said C. Craig Harris, associate professor of radiology at Duke University Medical Center, who nominated Dr. Myers for the award.

From 1949-1978 at The Ohio State University, Dr. Myers taught Physiology 746 (radiation biophysics), "the oldest course in nuclear medicine in the world given by a physician," according to the

university's College of Medicine Journal (*J*). He was also a visiting professor for many years at the University of California at Berkeley under John H. Lawrence, MD, a pioneer in nuclear medicine and radiation safety.

Frank H. DeLand, MD, editor of *The Journal of Nuclear Medicine (JNM)* from 1975-1984, attended Dr. Myers's class in 1957. "I have warm memories of his fascinating lectures, and gratefully acknowledge my debt to him for provoking my interest in radioisotopes," said Dr. De Land, who published several of Dr. Myers's "Historian's Notes" in *JNM* (see bibliography).

Developed Ten Radionuclides

Dr. Myers's scientific breakthroughs, including the development of ten radionuclides (cobalt-60, gold-198, chromium-51, iodine-125, iodine-123, iodine-121, strontium-87m, strontium-85m, potassium-38, and carbon-11), have been recognized by the SNM in 1973 with the first Aebersold Award, and again in 1981 with the Hevesy Nuclear Medicine Pioneer Award (2).

The first commercially fabricated version of the Anger scintillation camera was installed in Dr. Myers's research laboratory in September 1962. He has since donated it to the Smithsonian Museum in Washington, DC.

Being a scientist, to Dr. Myers, also meant sharing his discoveries with other physicians so they could add these emerging nuclear procedures to their practices. In 1954 and 1956, he organized the first course on the uses of radionuclides for the American College of Physicians (ACP).



William G. Myers, PhD, MD

These one- and two-week intensive courses at The Ohio State University were discontinued, however, because the graduates found that they could not obtain the radionuclides. The Atomic Energy Commission (AEC) did not consider them adequately trained for licensure.

As a result, Dr. Myers fought hard in the mid-1950s to "decontrol" the use of radionuclides in medicine. In 1956, he authored a resolution passed by the American Medical Association's (AMA) House of Delegates which overturned a previous resolution, passed in 1951, that stated: "Radium, its disintegration products, and radioisotopes shall be under the supervision of one certified by the American Board of Radiology."

The next year, however, the AMA defeated another resolution introduced by Dr. Myers that called for the AEC to exempt physicians licensed to practice medicine in any state from

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Past Recipients of the Distinguished Educator Award

1984	Marshall Brucer, MD
1985	C. Craig Harris

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additional licensing requirements for the use of radionuclides. "At that point, I realized that political battles get you so emotionally upset and non-productive that you couldn't do science, and I chose to do science from then on instead of politics," he said.

Dr. Myers has avoided other distractions from scientific work, such as grantsmanship. "I used to get money from the National Cancer Institute, and after a while I began to recognize that I wasn't doing science—I was managing money," he said. "Money gets in the way, and it's got very sticky strings attached to it."

No Peers in Science

The peer review system aggravates Dr. Myers almost as much as government regulations and funding. "Insofar as you are a scientist, you are an individualist, and when you're doing something that's never been done before, you have no peers," he explained.

Despite the struggles of his career, Dr. Myers never lost the drive, even as he nears the age of 80, to continue his experiments and to teach others. He will give his last Nuclear Medicine Milestones lecture at the SNM Annual Meeting this month (Wednesday, June 25, 10:30-12:00, rm. 13).

He also never lost his drive to fight for more precision in the language and symbols of nuclear medicine. Six years ago, he proposed that the term "positron emission tomography (PET)" be changed to "positron + electron transmutation (PET)" because it indicated the physical phenomena involved more accurately (3). And in 1972, he redesigned the SNM logo because he felt that the atomic model should not "clutter" the Staff of Aesculapius, and that there should be six electrons to illustrate carbon rather than the five electrons representing boron, "a non-

physiologic, and even noxiously toxic, element," he explained (4).

For all his love of history, Dr. Myers does not live in the past. He relies on historical knowledge to focus his vision on the future, and he still has several ideas to pursue.

Rectilinear Scanner for I-125

Dr. Myers plans to design a rectilinear scanner to image the distribution of iodine-125 in animals and humans. "There is a great emerging interest in iodine-125 for use with monoclonal antibodies, and it's an especially suitable radionuclide for imaging because it's *inherently* directional. The scattered photons are absorbed photoelectrically in the patient, and few off-axis events are recorded," he explained, which renders an image with almost all signal, and little noise.

In the scientific program for the 7th SNM Annual Meeting in 1960, Dr. Myers and his graduate student, J. C. Vanderleeden, published the first work with iodine-125 (5), and he has

closely watched its applications in medicine evolve (6). "Many people think that it can't be used for imaging, but they haven't recognized that, in the early 1960s, Kurt Scheer of the Institute für Nuklearmedizin in Heidelberg, and Teruo Nagai of the Gunma University School of Medicine in Japan, used it for scanning the liver," he added (7, 8).

Another project on Dr. Myers's mind is an exploration of the possibility that the principal biologic effects of ionizing radiation have little to do with ionization. "Whenever you have atoms in a highly excited state, they give off light when they stabilize. Much of that light is in the ultra-violet region, which is one of the most noxious entities known, energy-wise. This could well be involved chiefly to cause the biologic effects of ionizing radiation," he explained.

Dr. Myers said that he was always interested in history because he was taught subjects in school from a historical perspective, and he teaches



William G. Myers, PhD, MD, giving a lecture at the University of Guadalajara in November 1952, on radioactive gold-198 sources for cancer treatment. Dr. Myers was invited to lecture with Paul Aebersold, PhD, first director of the Division of Isotopes Development at the US Atomic Energy Commission. Dr. Aebersold gave a general overview of the production and distribution of radionuclides, including gold-198, generated in the graphite-moderated nuclear reactor at the Oak Ridge National Laboratory. (Courtesy of Mrs. Florence Myers)

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 you are an individualist, and when you’re
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his classes with the same philosophy. “If you know the history of a subject, then you know the subject,” he often said.

Georg Charles de Hevesy, PhD (1885–1966), named the “father of basic nuclear medicine” by Dr. Myers, had even more insight into the special relationship between historians and scientists who use “radioindicators,” as he called radionuclides. “The indicator chemist is to some extent a historian, highly interested in the past of atoms and molecules. . . . He has great concern in the distinction of how far molecules present in the tissue are ‘old’ or ‘new,’” said Prof. de Hevesy in a lecture 35 years ago (9).

[Dr. Myers also said that Herrman Ludwig Blumgart, MD, (1895–1977), should be designated “the father of clinical nuclear medicine” because he introduced the methodology of “inside-out” diagnostic imaging 60 years ago that now predominates in nuclear medicine. Dr. Blumgart was the director of medical research at Beth Israel Hospital in Boston from 1928 until he retired in 1962.]

Born in Toledo, OH, in 1908, Dr. Myers spent much of his childhood in a log cabin in Alberta, Canada, where the temperatures often reached 50°F below zero. He had once considered becoming a lawyer or journalist, and worked for a short time on the *Denver Post*. He left Colorado at the age of 19 to begin high school in Ohio, and was offered a scholarship to The Ohio State Univer-

sity where he received his BA in chemistry in 1933, his PhD in theoretical chemistry in 1939, and his MD in 1941. Today, Dr. Myers is a professor emeritus of radiology at Ohio State.

Dr. Myers was a charter member of the SNM in 1954, and is involved in 30 scientific and professional societies. He has written over 100 papers, and received numerous awards.

Throughout Dr. Myers’s career, he has voiced strong opinions that didn’t quite fit in with accepted scientific or medical thought, but has had the satisfaction of seeing some of his predictions realized. And other ideas are slowly gaining support within the nuclear medicine community. In 1969, Dr. Myers predicted that major hospitals would “need a medical cyclotron necessarily within a decade or two” (10), and he is no longer the only advocate of this development.

Threshold of Endless Frontier

When he is in a serious frame of mind, Dr. Myers will reveal that he has learned to cope with the frustrations of politics, regulations, and peer review by living within himself, interacting at times with colleagues in the pursuit of scientific discovery, and interacting with great thinkers of the past through the literature.

But Dr. Myers’s outlook is more often joyful, as reflected in the message he published under his name in *Who’s Who in America*: “Savoring the past enriches the present and

presages the future. In FUNdamental research, the zest is in the quest and not in the conquest—but only the first three letters count!”

Linda E. Ketchum

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