



Katherine Austin Lathrop, 1915–2005

Katherine A. Lathrop, a professor emeritus in the department of radiology at the University of Chicago (IL), died in Las Cruces, NM, on March 10, 2005. She was a member of the Manhattan project and a pioneer in the study of the biological effects of radiation and in the development of early radiotracers.

She was born on June 16, 1915, in Lawton, OK. While preparing for a home economics major in college, she developed an interest in science and subsequently earned her bachelor of science degrees in both biology (1936) and physics (1939) and a master of science in chemistry (1939) from Oklahoma State University. There she met Clarence A. Lathrop, and the couple were married in 1938. After living in New Mexico and Wyoming during World War II, they moved to Chicago in 1944 so that Clarence could attend medical school.

The following year, one of her husband's friends recommended that she apply for a job with a secret project then hiring scientifically trained individuals on the Chicago campus. Working with the Metallurgical Laboratory team on what is now known as the Manhattan Project, Lathrop became a junior biochemist studying the quantitative localization and biologic effects of radioactivity. Through 1946, working mainly with radium and fission products, she researched uptake, retention, tissue distribution, and excretion of radioactive materials in animals. From 1947 to 1954, she commuted daily from the Chicago area to continue her work as a junior biochemist at the Argonne National Laboratory.

In 1954, she accepted an invitation from Paul V. Harper, MD, to join his laboratory as a research associate at the Argonne Cancer Research Hospital, an Atomic Energy Commission research facility that had just opened within the University of Chicago hospital. This was the beginning of a remarkable scientific partnership that would last more than 4 decades and spur the development of nuclear medicine.

Together with their laboratory team members, including Robert Beck, MD, Lathrop and Harper performed the pioneering research that would introduce ^{99m}Tc into clinical practice in the early 1960s, producing the first ^{99m}Tc brain scan in 1961, building their own dedicated scanner, and publishing the first scanning results in early 1964. This team developed the whole-body scanning technique using the gamma camera still

used today, first used thallium for heart imaging, and developed the first commercial method for producing ^{125}I . "I provided the ingenuity," Harper once told a Department of Energy interviewer, "and she provided the scholarship."

I worked with both of them closely for the decade I spent at the University of Chicago, and can tell you that her contribution to their team effort was vital. Paul Harper is a fearless, genius multitasker, who would charge after any idea he was currently interested in with abandon. Katherine Lathrop was about the only person who could get him to reconsider and renavigate when he was on a wrong road. A bit of a scornful look and a soft-spoken, "Oh, Paul! Really!" was all it took.

Although Lathrop became an emeritus professor in 1985, she continued to be active in research well into her 80s. She published her last paper in 1999, and retired in 2000.

She was active in national societies and was among the early members of the SNM. In 1966 she became a founding member of the SNM Medical Internal Radiation Dose Committee and served as its chair from 1977 to 1984. In this role, she helped assemble the first MIRD publications. From 1968 to 1984 she served as a member of the American National Standards Institute Committee on Nuclear Medicine, and from 1970 to 1975 she was a member of the Advisory Panel on Radioactive Pharmaceuticals for the United States Pharmacopoeia. At the FDA's request, she taught the first training sessions about radiation dose and exposure in nuclear medicine for regulatory workers.

"Katherine Lathrop was a very creative chemist who made all kinds of radiolabeled compounds for specific applications and was instrumental, absolutely critical, in the early clinical work in nuclear medicine," recalled Beck, now a professor emeritus of radiology at the University of Chicago. "I remember her as a very quiet, soft-spoken, inventive, dedicated, and productive scientist."

Lathrop had 5 children and, at her death, had 10 grandchildren and 5 great-grandchildren. She was buried in Lawton, OK.

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