
Dr. Frank J. Rauscher, Jr.:

An Appreciation

Frank Joseph Rauscher, Jr., Ph.D., will long be remembered as the man who discovered the "Rauscher Virus," the murine leukemia virus that now bears his name, and for his service as director of the National Cancer Institute and senior vice president for research of the American Cancer Society.

He died unexpectedly on New Year's Eve of a heart attack while driving to see relatives in Pennsylvania. He was 61 years old and lived in Weston, Conn., with Margaret, his wife of 37 years.

Dr. Rauscher was known to his friends and colleagues as a kind and compassionate person, a skilled administrator, an accomplished scientist, and a fearless advocate of cancer research on Capitol Hill and at the White House.

"His ability to work with people and combine that with his vast knowledge of cancer research made him a truly outstanding NCI director," said Carl G. Baker, M.D., director of the National Cancer Institute from 1969–1972.

Dr. Rauscher was always accessible to his staff and frequently enjoyed the company of others. Individuals hoping to gain favors from his staff by saying, "I'm a close personal friend of Frank's," were often admonished because Dr. Rauscher's closest friends knew to call him "Dick," a nickname his parents had given him. Dr. Rauscher was seldom called Frank, except by his father, and never "Francis." His brothers and sisters preferred to call him "Joe."

He was born in 1931, in Hellertown, Pa. As a boy, Rauscher spent his afternoons after school working as a stock boy at Rauscher's Hardware Store, the family-owned business his father, Frank, Sr., started more than 44 years ago. Frank, Sr., now 81, still owns and operates the store.

As a pitcher, he played baseball whenever he got the opportunity. He played for the Hellertown team, the American Legion team, numerous nearby town teams, and the high school. He also excelled in basketball and received a varsity letter in both sports. Soon after receiving a college baseball scholarship, Dr. Rauscher received a minor league pitching offer, but his interest in microbiology influenced him to make a career of science and leave his baseball mitt on the shelf.

Dr. Rauscher received his Bachelor of Science degree from Moravian College, Bethlehem, Pa., in 1953 and his Ph.D. in microbiology and virology from Rutgers University in 1957.

From 1958–1959, he served as assistant professor of virology at Rutgers University Graduate School. In 1959, he became visiting instructor of animal virology at Trinity College, Washington, D.C.

That same year, Dr. Rauscher began his career in a small lab at NCI. In the late 1950s, NCI scientists did not have modern molecular tools, such as genetic mapping and DNA technology, available to them to perform the complex research tasks. Largely, the skills that Rauscher and his colleagues employed were entirely self taught. Sometimes the cancer virologists did not really know what type of viruses they discovered. What were originally thought to be human cancer viruses often turned out to be nothing more than cat viruses that had invaded the culture.

Moreover, most scientists would not accept the theory that viruses could induce cancer. Dr. Rauscher's colleague John Moloney, Ph.D., recalled that, "Often during large scientific meetings cancer virologists were not allowed to present their theories of viral-induced cancer, and the real presentations and cooperation took place in smoke-filled hotel rooms."

In 1962, Dr. Rauscher's announcement of the discovery of a virus-induced leukemia of mice (see *J Natl Cancer Inst* 29:515–543, 1962), signaled a new era of respect for the cancer virologist. Now leukemia could be induced in mice in just 12 days, something previously impossible. The very short latent period and the high potency and stability of the virus permitted new studies on chemotherapy, biochemistry and physical properties in one-fourth the time required for other laboratory model systems.

Soon the Rauscher Virus was supplied to more than 800 laboratories throughout the world, and eventually more than 5,000 scientific papers would be published about it.

Dr. Rauscher and close colleagues were sent to the far corners of the world to lecture about their new cancer discoveries—Russia, Japan, and even a special meeting in

East Germany, which led Rauscher past "Check Point Charlie" and across the Berlin Wall.

The discoveries of the Rauscher and other viruses eventually enabled Kenneth Endicott, M.D., the NCI director in 1964, to receive a \$60-million surge of funding for the NCI's Special Virus Leukemia Program. Dr. Rauscher, who had worked for the National Cancer Institute from 1959, was named head of the program and later NCI's scientific director for cancer etiology.

With the help of leading non-federal scientists, Dr. Rauscher defined the major research objectives of the Special Virus Leukemia Program, and targeted four major research areas: the nature of animal leukemias and their relationships to humans; the hazards of working with viral agents; development of animal and cell culture systems, quantities of virus, and other materials needed for research; and improved treatment for the disease in humans.

Many of the early projects concentrated on developing experimental methods and materials necessary to advance virus research. By 1967, new methods to grow the mouse leukemia virus in large quantities had been developed. This accomplishment led to development of techniques for growing other viruses.

In 1965, Rauscher was named one of the nation's 10 outstanding young men by the Junior Chamber of Commerce. Three years later, he received the Arthur S. Fleming Award as one of the outstanding young men in federal service for his work on cancer and viruses. In 1973, he received the Lucy Wortham James Award for Basic Research in Cancer from the James Ewing Society.

Dr. Rauscher received many awards, honors and degrees. Arthur I. Holleb, M.D., former senior vice president for medical affairs at ACS, called Dr. Rauscher "an exceptionally modest man. He once begged me to stop the praise during an awards ceremony because I was using up some of his time for his research lecture." In 1970, Dr. Rauscher was elected to the Board of Directors of the American Association for Cancer Research. He served as vice president of the World Society for Comparative Leukemia Research from 1967 to 1972. As director of NCI from May 1972 to October 1976, he served on governing and scientific boards of the International Agency for Research on Cancer in Lyon, France. He also directed the establishment of formal cancer

research agreements between the United States and the U.S.S.R., Japan, Poland, and many other countries.

In 1972, Dr. Rauscher was chosen by President Richard M. Nixon to direct the National Cancer Institute and the National Cancer Program, spearheading the country's research efforts on what President Nixon then called "the war on cancer."

During his tenure, NCI's budget rose from \$378 million to \$815 million, oncogenes and proto-oncogenes were discovered, recombinant DNA technology, genetic engineering, and hybridoma technology came into being, and new chemotherapy treatments such as Adriamycin demonstrated remarkable results in patients with breast and lung cancer. Under Dr. Rauscher's leadership, cancer control programs were established at NCI, and 15 comprehensive cancer centers were designated.



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He left the NCI reluctantly in 1976 because he could not educate his five children on a salary of \$37,800 a year. Rauscher joined the American Cancer Society, where he was named senior vice president for research.

At ACS, Dr. Rauscher spearheaded initiatives on interferon research, devoting \$2 million to this new field of study. Dr. Rauscher also fostered research and development programs that allowed scientists to receive rapid funding on research that had the high potential for directly benefiting people, but for which there were no pilot studies. Rauscher also developed million-dollar special institutional grants committed to the study of cancer carcinogenesis.

In 1988, when ACS moved to Atlanta, Dr. Rauscher decided to stay in the northeast and became executive director of the Thermal Insulation Manufacturer's Association in Stamford, Conn., where he directed research on noncarcinogenic thermal insulation materials to replace asbestos.

"Dick Rauscher was an exceptionally nice man — and tolerant as well," said Holleb. "The smile was always there. He had a kindly nature — and a willingness to listen to exciting new science or the personal problems of his friends or staff." Everyone was his friend.

Dr. Rauscher is survived by his wife, five children, his father, and two grandchildren.

—*Francis X. Mahaney, Jr.*