

By Walter F. Naedele
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When he was a doctoral student at Trinity College, Cambridge, in the 1940s, Britton Chance liked to sneak a pet monkey into classes.

"When the professor was looking his way," Inquirer reporter Art Carey wrote, he "would let the monkey peek out its head.

"The goal was to see whether he could elicit more than a blink from the famously unflappable dons."

Even in 2001, when he was 88, "in the gleam in his eyes, you see a still-thriving mischievousness," Carey wrote

On Tuesday, Nov. 16, Mr. Chance, 97, an enzyme researcher and director of the Eldridge Reeves Johnson Foundation for Medical Physics at the University of Pennsylvania from 1949 to 1983, died of heart failure at the Hospital of the University of Pennsylvania.

A building on the Penn campus - the Stellar-Chance Laboratories - is named for him.

Dr. Chance got to those British monkey-see classes in an inventive way.

While earning a doctorate in physical chemistry at Penn, Dr. Chance "was dabbling in a sideline - perfecting an automatic ship-steering mechanism," Carey wrote. "British General Electric made Chance an offer: If he'd install the gadget on one of its tankers and go along for a three-month trial cruise to Australia, the company would pay for a fellowship to Cambridge University."

A 1938 Evening Bulletin story reported that the trip for the 24-year-old would begin on the day after his Chestnut Hill marriage to 17-year-old Jane Earle, when they would sail for England and then on the tanker to Australia - "a combination honeymoon and business venture."

Engineering was in the genes. At the time of the marriage, his father, Col. Edwin M. Chance, was president of United Engineers & Constructors Inc. On the trip to Australia, Dr. Chance was taking no risks. He had tested the device on his father's 105-foot ketch on a 1935 trip to the West Indies.

In World War II, Dr. Chance helped develop a radar system at the Massachusetts Institute of Technology that, among other uses, allowed blimps to spot German submarines off the Eastern Seaboard. For that wartime work, an Army brigadier general visited Penn in 1949 to present him with the President's Certificate of Merit.

Dr. Chance had a lifelong fascination with the water, enough that in 1951 he commissioned construction of a four-man sailboat, and at its helm won the gold medal in the 5.5-meter class at the 1952 Olympics.

In the 1950s and 1960s, he led the national governing body of sailing.

Born in Wilkes-Barre, he graduated from the Haverford School in 1931 and earned a bachelor's degree in chemistry at Penn in 1935 and a doctorate in physical chemistry there in 1940. Despite the monkey business, Cambridge in 1942 awarded him a doctorate in biology and physiology.

In 1947, Dr. Chance earned a Guggenheim Fellowship for what the Evening Bulletin described as "continuation of experimental studies of the chemical kinetics of the respiratory enzymes on which he is presently engaged at the Nobel Institute, Stockholm, Sweden."

The New York Herald Tribune in 1950 reported that he had developed a device to verify "the way in which living things get energy by burning up food at temperatures far lower than it takes to burn it outside of living things. . . .

"The machine uses principles of electronics, chemistry and biology to measure reactions occurring within one thirty-five-millionth of a second."

For that, Dr. Chance won the Paul-Lewis Award in Enzyme Chemistry.

There were other honors.

The Franklin Institute gave him its highest honor, the Franklin Medal, in 1966.

The Royal Netherlands Academy of Arts and Sciences awarded him its Dr. H.P. Heineken Prize in 1969.

President Gerald Ford presented him with the National Medal of Science in 1975 at a White House ceremony.

Even in retirement from the Johnson Foundation, Dr. Chance gave the 1986 keynote address at the 152d national meeting of the American Association for the Advancement of Science in Philadelphia.

And he continued to thrive.

A 1988 Inquirer report stated that his work at the University City Science Center as a Penn emeritus professor "led to the formation of PhosphoEnergetics, which makes a spectrometer that improves the sensitivity of magnetic resonance imaging, a medical diagnostic technique."

And in 2001, Carey reported, Dr. Chance was still riding a 10-speed bicycle from his West Philadelphia home to work at his research lab, for 12-hour days, six days a week.

Except when he would take a long weekend to go sailing off Florida.

A son, Benjamin, said Dr. Chance is also survived by Shoko Nioka, whom he married this year; sons Britton Jr., Peter, and Samuel Chance and Neil Blackstone; daughters Eleanor Burgess, Lillie Chance, Tina Davidson, Jan Morgan, Jan O'Malley, and Margaret Schmitt; stepsons Gerald Lucas, William Lucas, and Sachio Nioka; stepdaughters Brooke Drinkwater and Ann Mesnard; 27 grandchildren; five great-grandchildren; and former wives Lilian Chance and Jane Lindenmayer.

A memorial service is planned for an undetermined date and place in 2011.