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## W. F. Ganong, 83, Expert in Brain's Control of Body, Dies

By DENNIS HEVESI JAN. 12, 2008

William F. Ganong, a former chairman of one of the leading physiology departments at an American university and one of the first scientists to trace how the brain controls important internal functions of the body, died Dec. 23 at his home in Albany, Calif. He was 83.

The cause was prostate cancer, his wife, Ruth, said.

Dr. Ganong, a neuroendocrinologist, was chairman of the physiology department at the University of California, San Francisco, from 1970 to 1987. When he took over the department, neuroendocrinology — the science of how hormones and glands interact with the nervous system — was just becoming part of medical school curriculums.

The brain and the body were taught separately, and the basic science of the nervous system “was still a mystery,” said Michael Stryker, a professor of physiology and a successor of Dr. Ganong as chairman of the U.C.S.F. physiology department.

“He assembled a department that was regarded as one of the best in the world,” Dr. Stryker said of Dr. Ganong, “and its particular strength was neuroscience.”

In 1982 and again in 1986, the U.C.S.F. physiology department was rated first in the nation in a survey by the [National Academy of Sciences](#).

Physiology is the study of how the body functions at the levels of organs, cells and molecules. While Dr. Ganong specialized in endocrinology, he believed that medical students needed to understand the science underlying the clinical practice of medicine. He taught classes in all of his department's disciplines, including respiratory medicine, cardiology and neuroscience. He also encouraged faculty members, including scientists he had recruited to do basic research, to teach classes beyond their specialties. At the same time, working in his laboratory, Dr. Ganong made several breakthroughs.

Hormones, which are chemical sig-

nals from one part of the body to another, control things like digestion, weight regulation, temperature, growth and even moods. Dr. Ganong was one of the first scientists to realize that much of the action of the endocrine system is regulated by the brain.

Bruce S. McEwen, director of the neuroendocrinology laboratory at [Rockefeller University](#) in New York, said on Friday that Dr. Ganong's major contribution was the discovery of how blood pressure and fluid balance — the salt and water levels in the body — are regulated by hormones from the adrenal gland and the kidney.

“This led to some of the current treatments of hypertension,” Dr. McEwen said. “He did the basic work, and drug companies developed the drugs.”

Dr. Ganong was also one of the discoverers of Lown-Ganong-Levine syndrome, an electrical abnormality that affects heart rhythm.

William Francis Ganong, who preferred to be called Fran, was born on July 6, 1924, in Northampton, Mass., one of two children of William and Anna Hobbet Ganong. His father was a doctor, and his mother was a geologist.

He entered [Harvard](#) in the fall of 1941, but was drafted into the Army after the attack on Pearl Harbor. Under a special wartime program, he began pre-med studies while in the Army. He completed his bachelor's degree at Harvard after the war and received his medical degree there in 1949. Two years later, he was drafted into the Army again and served as a medical officer in Japan and Korea.

In 1955, Dr. Ganong was hired as an assistant professor at the University of California, Berkeley. Three years later, he moved to the University of California, San Francisco, to help start a research program in physiology. He retired in 1999.

Dr. Ganong wrote a textbook that is considered a touchstone in his field. First published in 1963, “Review of

Medical Physiology” (Lange Medical Publications) is now in its 22nd edition and has been translated into 18 languages.

Dr. Stryker, who took over the U.C.S.F. physiology chairmanship in 1994, recalled how he had once become a proxy recipient of the esteem in which Dr. Ganong was held.

“I didn't realize the impact his book had all over the world; medical students everywhere use it,” Dr. Stryker said. “When I visited the medical school in Semarang, in Central Java, in 1982 and I mentioned that I knew Dr. Ganong, they actually washed my feet as an honored visitor.” ■