



# Stanley J. Korsmeyer



Dr. Stanley J. Korsmeyer, Sidney Farber Professor of Pathology and Professor of Medicine, at the Dana-Farber Cancer Institute and Harvard Medical School, died at age 54 on March 31, 2005. A lifelong non-smoker and vigorous man in seemingly perfect health, he succumbed to the ravages of lung cancer after a heroic 15-month battle. Prior to coming to the Dana-Farber, he was Chief of the Division of Molecular Oncology at Washington University in St. Louis, Missouri.

Stan's parents, Willard and Carnell Korsmeyer, were lifelong livestock farmers in Beardstown, Illinois where Stan was born. The lessons of his parents and the farm in Beardstown, Illinois, were never far from his mind, and they kept him grounded. He did not start out to be a research scientist – as a high school student, he thought about becoming a veterinarian. It was his involvement in the 4H club that spawned his interest in science. A pair of Hampshire Hogs he raised at age 14 were named Grand Champions at the Illinois State Fair. While attending the University of Illinois, one of his early mentors advised him to think more about a career in biological sciences and he switched to premed.

After majoring in biology at the Urbana-Champaign campus, he went to the University of Illinois medical school in Chicago. He received his medical degree in 1976, interned and was a resident at the University of California hospital in San Francisco.

From 1979 to 1986, Dr. Korsmeyer worked very productively at the National Cancer Institute as a research fellow at a time when molecular biology was just beginning to revolutionize the study of human disease. Under the tutelage of scientists like Tom Waldmann and Phil Leder, Dr. Korsmeyer joined the vanguard of research scientists characterizing the molecular features of the chromosomal translocations that had been observed in patients with leukemia/lymphoma. Throughout his career, he contributed enormously to the characterization of a variety of chromosomal translocations and identified several widely studied

oncogenes including MLL, AF4, and Ttg1 (rhombotin).

After working as a senior investigator at the NCI, he joined Washington University in 1986, where he became Chief of the Division of Molecular Oncology. Dr. Korsmeyer exploded on the scientific scene in the late 1980's with a landmark experiment that opened a new view of cancer. He helped show that the abnormal cells in a specific type of blood cancer, B-cell lymphoma, contained a genetic mutation that allowed them to survive the body's normal process for eliminating cells, termed "apoptosis." The abnormal gene that blocked apoptosis, Bcl-2, thus became the first of a new class of cancer-causing "oncogenes". Dr. Korsmeyer was credited with spearheading the study of apoptosis – and its failure – in cancer causation. He also discovered other members of the Bcl-2 gene family and found that they too regulated cell death. His studies helped to establish that many human disorders – including lymphomas and other cancers – can be caused by a dysregulation of apoptosis. In short, he made crucial contributions to the elucidation of the molecular genetic pathways that control the normal processes governing cell survival and cell death and to the discovery that the dysregulation of cell death plays a major role in human disease.

For 19 years, Dr. Korsmeyer was an investigator in the prestigious Howard Hughes Medical Institute (HHMI), the largest private funder of biomedical research and science education in the nation. He moved to Boston in 1998, joining the Dana-Farber and Harvard Medical School as the Sidney Farber Professor of Pathology, where he continued his extraordinary science. During his seven years in Boston, he helped to transform the scientific enterprise at the Dana-Farber. His development of the High Technology Research Fund made possible the early introduction of genomics, proteomics and computational biology into oncology research.

For his trailblazing research, Dr. Korsmeyer received many prestigious awards and honors, and election to the American Philosophical Society, the National Academy of Sciences, the Institute of Medicine, and the American Academy of Arts and Sciences. His many honors included the Bristol-Meyers Squibb Award for Distinguished Achievement in Cancer Research, the General Motors Foundation Mott Prize, the first Wiley Foundation Prize in Biomedical Science, the Pezcoller Foundation – AACR International Award, and the Louisa Gross Horwitz Prize of Columbia University. Last year, the American Society of Hematology awarded him its highest honor, the Stratton Medal.

At Dana-Farber, Dr. Korsmeyer headed the Program in Molecular Oncology within the Department of Cancer Immunology and AIDS. As chair of the Executive Committee on Research, he was a scientific visionary and driving force, helping to shape the Institute's new strategic plan for attacking cancer that emphasizes collaboration among researchers within and outside of Dana Farber while employing the most advanced tools for discovering new cancer drug candidates. At the time of his death, he and his colleagues had been applying what they had learned over the years, manipulating apoptosis molecules to force cancer cells to self-destruct.

Throughout his stellar career, he trained young people with a mixture of super science, common sense and warm support. He cared enormously about the young scientists who trained with him; he was a superb mentor and seeded the biomedical world with his scientific offspring. Forty of his former postdoctoral fellows now hold faculty positions at universities around the world. Most appropriately, he won the Barger Award for Excellence in Mentoring at Harvard last year.

"He was everybody's hero – as a scientist and as a human being," said eminent scientist and close friend,

Nobel laureate H. Robert Horvitz of the Massachusetts Institute of Technology. “His contributions were truly major and pioneering, and they revolutionized the field.”

With his loss, Dana-Farber and Harvard scientists have been urged by Dr. David Nathan, President Emeritus, to “work much harder, become even better as trainers, and love each other as a family,” and said researchers have to defeat cancer by picking up Stan Korsmeyer’s “fallen lance.”

A spirit of caring and humility prefaced all that Dr. Korsmeyer did. Despite his many scientific accolades, his source of greatest pride was his family. His wife of 25 years, Susan, and his sons, Jason and Evan, were the most important people in his life. He took great joy in sharing his passions in life with them – sailing and fishing. Although he was a visionary scientist and a natural leader, he was even more revered as a compassionate human being whose mission was to heal. He had an everoptimistic view of life, and a broad, genuine smile that could light up a room. He embodied the spirit of Wordsworth, who wrote: “That best portion of a good man’s life, his little, nameless, unremembered acts of kindness and of love.” To Stan Korsmeyer, that was the best and biggest portion indeed.

Edward J. Benz, Jr., M.D., chair

David G. Nathan, M.D. cochair

Gordon Ginder, M.D.

H. Robert Horvitz, PhD

Timothy J. Ley, M.D.