

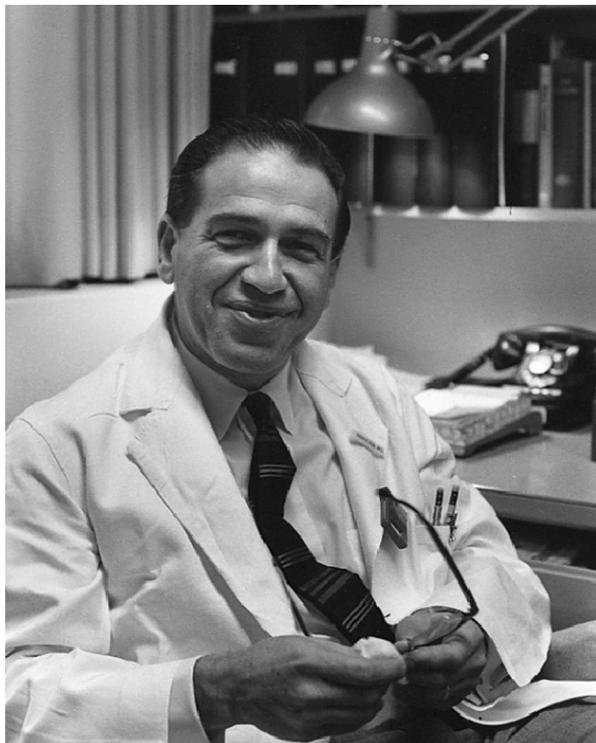
Joseph P. Kriss, MD (1915-1989)

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Joseph Pinkus Kriss, MD, an internist turned endocrinologist, turned nuclear physician was impressed by the new gamma camera developed by Hal Anger. In the late 1960s, he purchased one of the first commercial gamma cameras built by the Nuclear Chicago Corporation. Using this scintillation camera he performed the first comprehensive series of radionuclide angiography studies in cardiac patients.¹

Joe Kriss was born on 15 May 1919 in Philadelphia, PA. He grew up in the Town of State College, PA where his father, Max Kriss, a Russian-American, was Professor of Animal Nutrition in the Department of Biochemistry at Penn State College.

From 1936 to 1939, Joe Kriss attended Penn State College, graduating summa cum laude. He then went to Yale University School of Medicine and received his MD degree cum laude in 1943. He completed his internship and residency in internal medicine and metabolism at (Yale) New Haven Hospital and was Instructor of Medicine at Yale University School of Medicine from 1944 to 1945. Subsequently, he completed research fellowships in endocrinology and metabolism at Washington University School of Medicine, St. Louis, MO and the Michael Reese Hospital in Chicago, Ill.

In September 1948 Dr. Kriss and his family moved to San Francisco to start a private practice in internal medicine. Soon he was appointed as Clinical Instructor in Medicine at Stanford University School of Medicine in San Francisco.* His interest in research and medical education drove him back to academic medicine. Under the influence of Dr. Robert Reid Newell, chief of nuclear medicine at Stanford, he developed an interest in isotopic medicine.** He became Assistant Clinical Professor in 1951, Associate Professor of Medicine and Radiology in 1957. He succeeded Dr. Newell as Chief of Nuclear Medicine in 1958. In 1962, he was promoted to Full Professor of Medicine and Radiology at Stanford University.

Dr. Kriss was known for excellence in research, patient care, teaching, as well as for managerial skills. He was internationally recognized as an authority on the pathogenesis and treatment of thyroid disorders. He isolated and identified long-acting thyroid stimulator as

* Stanford University Hospital was located in San Francisco from 1906 to 1959, when the hospital and medical school relocated to Palo Alto, CA.

** Robert Newell played a major role in the development of the multi-hole focused collimator, which markedly increased the sensitivity of the rectilinear scanner.

the cause of Graves' hyperthyroidism. His research had significant impact on the understanding and treatment of thyroid disease. He was the first to demonstrate that radiation therapy of extraocular muscles was effective to arrest or even reverse Graves' ophthalmopathy.

In the late 1960s, working with cardiovascular surgeon Norman E. Shumway,[†] Joe Kriss performed radionuclide angiograms in more than 100 patients with a variety of cardiac conditions. Serial images recorded after an intravenous slow bolus injection of ~ 10 mCi (370 MBq) of technetium-99m pertechnetate demonstrated the time of appearance and morphology of cardiac chambers and great vessels. On the basis of analysis of serial images, congenital heart disease such as Tetralogy of Fallot and acquired heart diseases such as mitral stenosis and aortic insufficiency could be readily identified.¹ In 1970 one of us (WS) attended the national meeting of the American Federation of Clinical Research in Atlantic City, NJ. Dr. Kriss was the invited speaker. He gave an inspiring presentation about his recent experience with radionuclide angiocardigraphy. At the end of his presentation he received a standing ovation from an audience of ~ 4,000 attendees. It is of interest to consider why Kriss' pioneering work that generated so much excitement is currently almost forgotten. A few years after publication of his *morphological* cardiac images, stress myocardial perfusion imaging with thallium-201 became widely available and provided important *functional* information about coronary artery disease. Myocardial perfusion imaging became the clinical and research focus of nuclear cardiology.

In addition to his two major areas of research, Joe Kriss had many other interests, such as the use of radiotracers for the detection of cancer and abscesses; the use of liposome vesicles to deliver therapeutic radionuclides to target sites. During his career he published 164 scientific articles and book chapters.

Joe was also interested in the efficacy of medical education and co-designed a flexible medical curriculum at Stanford University School of Medicine that allowed medical students to do research and focus on topics of special interest to them.

Dr. Kriss was known as an excellent clinician who cared a greatly about a correct attitude towards patients and appropriate bedside manners. In response to criticism by a Stanford medical student in 1975, he published his opinion in "On white coats and other

matters"² in which he defended the importance of a respectful doctor-patient relationship.

Joe Kriss received many awards: Distinguished Alumnus Award from Penn State University (1978), the MacFarlane Professorship of the University of Glasgow (1986), and Honorary Fellow of the Royal College of Physicians and Surgeons, Glasgow (1986).

Amazingly, in addition to all his scientific and medical achievements, Joe found time to become an established and talented artist who regularly exhibited his figurative and abstract paintings, work on paper, bronze and wood sculptures, and computer art (see below "Fractal Blue" 1988).

On 1 September 1989 Joe Kriss retired as an Emeritus Professor. Nine days later he died suddenly of cardiac causes. He was 70 years old.



Acknowledgement

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References

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2. Kriss JP. On white coats and other matters. *N Engl J Med* 1975;292:1024-5.

[†] Dr. Shumway performed the first adult human heart transplant in the US in January 1968 at Stanford Hospital.