

NUCLEAR PIONEER

LECTURER—1970

JOSEPH FOSTER ROSS,
M. D.



Dr. Joseph Foster Ross, Professor of Medicine and Chief of the Division of Hematology at the University of California at Los Angeles, was educated at Stanford University and Harvard Medical School and completed intern and residency training in Internal Medicine and Pathology at the Boston City Hospital.

In 1939, as an intern in Pathology at the University of Rochester School of Medicine, working with Doctors George H. Whipple and Paul F. Hahn, he used the newly discovered cyclotron-produced isotope ^{59}Fe in the study of iron metabolism and blood formation in dogs. Moving to Boston University in 1940 as an Assistant Professor of Medicine, he was among the first to apply radioiron tracer methods to the study of iron metabolism and erythropoiesis in human subjects. During the next 14 years he and a series of colleagues studied the patterns of ferrokinetics in normal subjects and in patients with hematologic diseases, contributing significant information concerning the mechanisms of anemia in neoplastic and inflammatory diseases.

With the need for large quantities of whole blood

for blood transfusions in World War II, Dr. Ross and his associate, Dr. Clement Finch, studied methods of *in vitro* preservation of red cells in bank blood. By following the post-transfusion survival of erythrocytes biologically labeled with ^{59}Fe , they developed a method of storage with "ACD solution" which satisfactorily preserved erythrocyte viability for storage periods of 21 days. This method was used for the preservation of hundreds of thousands of pints of blood which were flown to battle areas all over the world, and the method still is in general use in blood banks. This work was recognized by President Harry Truman as "an invaluable contribution to the war effort of the United States" with the Award of the Presidential Certificate of Merit.

Following the war, in collaboration with Doctors Franklin Ebaugh, Jr., and Charles Emerson, Jr., the use of radioactive chromium-labeled erythrocytes to determine the *in vivo* survival of red cells was developed and applied to the study of erythrocyte survival in pathological conditions—a method still widely used.

Working with Dr. Belton Burrows, Dr. Ross in-

vestigated thyroid physiology and pathology with radioactive iodine, studies which were recognized by the American Goiter Society with the Award of the Van Meter Prize in 1953.

In 1948 Dr. Ross established one of the first Veterans Administration Radioisotope Units—at the Framingham and the Boston Veterans Administration Hospitals. During the ensuing 22 years, he has continued his interest and association with the Veterans Administration Radioisotope Research and Nuclear Medicine Services, and presently is Chairman of the Veterans Administration Committee on Training in Nuclear Medicine.

Returning to his home state of California in 1954, Dr. Ross served as Associate Dean, Professor of Medicine and Professor of Radiation Biology of the new UCLA School of Medicine, and Chief of Staff of the UCLA Hospital. In 1958 he developed and became Director of the United States Atomic Energy Commission supported UCLA Laboratory of Nuclear Medicine and Radiation Biology, working with Doctors Stafford L. Warren, George Taplin and Benedict Cassen. His interest in environmental radiation and radiation ecology was recognized in 1964 by the American Clinical and Climatological Society with the Gordon Wilson Lectureship and the Award of the Gordon Wilson Medal.

An active member of the Board of Trustees of the Society of Nuclear Medicine since 1962, Dr. Ross served as Chairman of the Program Committee in 1966–67 and Chairman of the Bylaws Commit-

tee from 1967 to 1969, during which time a revision of the organization of the Society was proposed and adopted by the membership of the Society. He also has been active in other professional organizations, serving as President of the American Society of Hematology, of the Western Association of Physicians, of the Southern California Chapter of the Society of Nuclear Medicine, and Councillor of the Radiation Research Society.

He has represented the United States Atomic Energy Commission and Department of State, the International Atomic Energy Agency, and the World Health Organization on numerous international missions concerned with research and education in nuclear medicine.

A long-standing interest in medical publications is reflected in membership on the Editorial Boards of the *Journal Blood*, the *Annals of Internal Medicine*, the *Journal of Nuclear Medicine*, the Medical Book Division of Little Brown & Company and the University of California Press Medical Book Series.

During the 30 years of his association with nuclear medicine, Dr. Ross has worked toward the establishment of nuclear medicine as a recognized medical specialty with high standards of medical excellence. Now as Secretary of the "Proponents of the American Board of Nuclear Medicine," he sees his hopes bearing fruit, and it appears that official recognition of the American Board of Nuclear Medicine and the establishment of specialty Certification in the field will be a reality in the near future.