

Albert Soiland

(1873–1946)

“Bridging the time since it took its first faltering steps, radiation therapy is today a healthy adult: acclaimed and acknowledged in all intellectual medical centers as a highly specialized integral part of the practice of medicine.” (1944)⁵⁹²

Albert Soiland was born in Stavanger, Norway, on 5 May 1873. He was the son of Akseliane Christina Halvorsen (1847–1924) and Edvard Abelsen Soiland, a shipowner and captain. His paternal grandfather was Abel Soiland whose family originated in Gjesdal on Jaeren. When he was only three years old, Albert lost his father. He attended elementary school in Stavanger. The child’s early years among seafaring folk, inspired by their devotion and listening to their sagas, against the backdrop of the beautiful Bokken fjord, were to leave indelible marks on his character.

In 1883, when Albert was ten years old, his mother married Ole M. Olsen and the newly formed family moved to the United States. Four years later Albert’s only brother, Osmund, was born in Chicago. In half a century Chicago had grown to be a sprawling metropolis which had recovered from a devastating fire in 1871 and a later economic depression to develop into an important grain market and a teeming railroad center. Its population had reached half a million, three-fourths of it foreign born, mostly German, Scandinavian, and Irish. The horsedrawn street cars of the gas-lit city were being replaced by San Francisco-style cable cars. Infectious diseases imposed a great toll on the population, and infant mortality was high. Seventeen percent of the city’s physicians were homeopaths.

In 1893, (just a little tardy) to mark the four hundredth anniversary of the discovery of America, Chicago became the stage of the memorable Columbian Exposition. The event was a timely bonanza for men with perdurable names: Marshall Field (1834–1906), Cyrus Hall McCormick (1859–1936), Philip Danforth Armour (1832–1901), George Mortimer Pullman (1831–1897). The Exposition also gave a forum to

public spirited figures such as Bertha Honoré (Mrs. Potter) Palmer (1849–1918), to courageous politicians like Mayor Carter H. Harrison and Governor John Peter Altgeld (1847–1902), and to dedicated jurists like Clarence Seward Darrow (1857–1938). It also provided material for observers like Theodore Herman Albert Dreiser (1871–1945) and Upton Beall Sinclair (1878–1968), and it brought inestimable wealth to certain panderers to the public taste, most notably Carrie Watson and Vina Fields.²²³

Having graduated from high school and come of age, Soiland formally renounced allegiance to the King of Norway and became a U.S. citizen in 1895. That same year he applied for admission to Chicago’s College of Physicians and Surgeons. Applicants had to pass an entrance examination and to be at least eighteen years old. Many were mature men with other means of livelihood. Tuition was high at \$575. Only two courses of lectures and dissection of a cadaver were compulsory. Each student was placed under the guidance of a physician “in good standing” (i.e., not a homeopath). Albert’s prosector was Dr. W. G. Terry. Facing Cook County Hospital, P and S, as the school was called, had recently added laboratories of chemistry, bacteriology, and pathology, and also had the free West Side Dispensary on its premises. Additional opportunities for clinical observation were offered to students by the Illinois Eye and Ear Infirmary. In 1896, Dr. William A. Pusey (1863–1940)^B became Secretary of the College of Physicians and Surgeons, ushering in an era of prosperity and rapid growth (subj. note 9.1).

During Soiland’s first year in medical school, on 9 January 1896, the Chicago papers carried the news of a German professor’s discovery of a “new kind of ray,” permitting photography of the invisible without

need of a lens. Emil Grubbé (1875–1960),^B a contemporary of Soiland, was a student-instructor at the Hahnemann^B Medical College of Chicago, one of the two homeopathic schools in the city. Grubbé was a manufacturer of vacuum tubes who, on learning of Röntgen's discovery, promptly experimented with a generator and a Crookes tube. On 27 January, he attended a faculty meeting of his school at which senior members became interested in his reddened and blistering hands. This skin reaction from exposure to unfiltered radiations was a severe moist radioepidermitis. Following a basic homeopathic principle, Hahnemann professor J. E. Gilman concluded that these rays, if possibly causing a morbid state, should correspondingly be able to cure it. At his suggestion, Mrs. Rose Lee, a patient with a post-operative recurrence of cancer of the breast, was referred to Grubbé by Dr. R. Ludlam. Thus, on 29 January 1896, only a few weeks after Röntgen's formal presentation in Würzburg, Grubbé was without question the first to irradiate a malignant tumor with roentgen rays. The course of eighteen irradiations was carried out in Grubbé's shop.

Soiland passed all his first year's subjects with good grades: anatomy (97), histology (91), chemistry (90), physiology (80), and materia medica (79). He helped two of his teachers, Drs. W. G. Terry and Pierre Wilson, to build a coil X-ray generator for the College of Physicians and Surgeons. During his student vacations, Soiland also worked for the Wagner Palace Car Company, as a vendor (a "candy butch") in railroad trains throughout the southwest. He attained a supervisory position in Dennison, Texas. He registered for his second year at P and S and passed a course in embryology, but then fell ill. His condition was diagnosed as tuberculosis and he decided to seek a cure in a sunny climate.

The sleepy pueblo of Nuestra Señora la Reina de los Angeles had developed rapidly towards the turn of the century, doubling its population to 100,000 in the 1890s. Joseph Pomeroy Widney (1841–1938), an Ohioan of Scottish descent and a graduate of the Toland Medical College of San Francisco, had founded the College of Medicine of the University of Southern California.⁴⁷⁶ The College invited eastern students, particularly those "who are not robust," to exchange snow, sleet, and ice for flowers, oranges, and sunshine in the delightful and healthful climate of Los Angeles. Dean Widney accepted students on the basis of their culture rather than scholarship, and insisted on an exacting high standard in the curriculum. Upon Widney's retirement, Henry G. Brainerd (1850–1928), Professor of Diseases of the Mind and Nervous System, became Dean of the College. Entrance examinations were instituted. The curriculum was extended to four years with compulsory atten-



Fig. 9-1. The Albert Soiland Radiological Clinic at 1407 Hope Street in Los Angeles. It became the Albert Soiland Cancer Foundation, now part of the University of Southern California.

dance in laboratories, lectures, and hospital wards. The school moved from its original building at Aliso Street to a new one on Buena Vista, now North Broadway.

Soiland was given credit for work done in Illinois and permitted to register as a second year student at the U.S.C. Medical College. He became a member of the Phi Rho Sigma fraternity. In Los Angeles, he also helped Bern Smith build a static generator for X rays at the California Hospital. He graduated in 1900 and took a position as a contract surgeon with the Crowell-Spencer Lumber Company in Longleaf, Louisiana.

In the vertiginous developments following Röntgen's discovery, physicians became primarily interested in the diagnostic potential of the new rays, but a few also investigated its biological and therapeutic effects. Francis Williams published his book, *The Roentgen Rays in Medicine and Surgery*, which was widely read and appreciated.⁶⁶⁸ The book showed excellent esthetic results of radiotherapy of cancer of the skin and lower lip. In Chicago, William A. Pusey,^B Soiland's professor of dermatology, also became interested in radiotherapeutics. He was the first to irradiate a patient with chronic lymphogenous leukemia.⁴⁹³ With Eugene Wilson Caldwell (1870–1918),^B a pioneer American radiation physicist and at that time a medical student, Pusey published a book in 1903, *Roentgen Rays in Therapeutics and Diagnosis*.⁴⁷³

After his short tenure as a sawmill surgeon, Soiland returned to California and became the associate of his former instructor and dean, H. G. Brainerd. He was thus the second physician to practice in Hollywood. In 1902 he married Dagfine Berner Svendsen, of Stavanger, whom he met in Los Angeles. In 1902 Soiland also reported his irradiation of a patient with cancer of the breast.⁵⁷³ Because of his increasing in-



Albert Soiland

Fig. 9-2. Albert Soiland at his work.



Fig. 9-3. The gold medal of the American College of Radiology.

volvement in X-ray work both at the California and County Hospitals, Soiland decided to establish an independent office for the practice of radiology in Los Angeles in 1903. Serious practitioners of medicine were reluctant to use this new form of “photography” as a medical tool. Delivery of glass plates was often requested to be made through the back door of a physician’s offices.

Youngsters from Stavanger could not resist the call of the sea. Albert and Dagfine Soiland discovered Newport Bay and bought land on the bay front. Their eighteen-foot boat *Viking I*, built in their Hollywood backyard, was the first boat on the bay and also the first in a series of Vikings.⁴⁹¹

It took several years following the discovery of radium in 1898 for a few milligrams to be produced, but soon its biologic effects were observed and their therapeutic value tried.⁵⁰⁰ In the United States, the first attempts at radiumtherapy were made by Francis Williams, of Boston, in 1903. He reported his observations of over forty patients so treated.⁶⁶⁹ At the same time, Margaret Abigail Cleaves (1843–1917),^B an electrotherapist in New York, borrowed a sealed glass tube containing one hundred milligrams of ra-

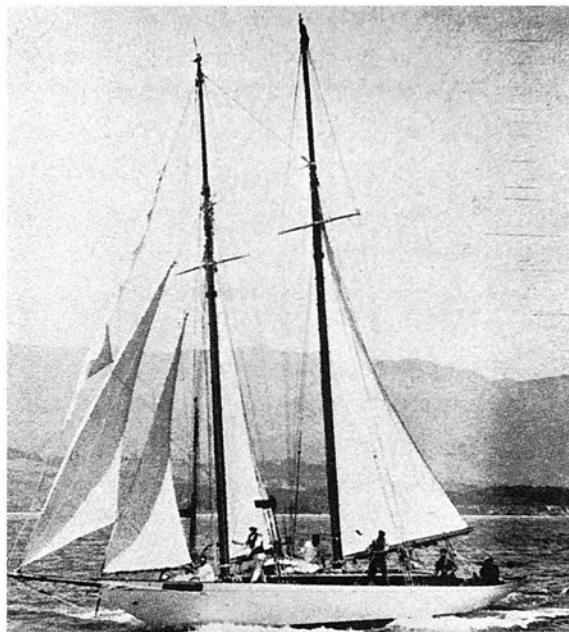


Fig. 9-4. The *Viking IV* hoisting sail in Santa Barbara ready to start its race to Hawaii.

dium chloride brought from Paris by professor Charles Baskerville of the chemistry department at the University of North Carolina. Doctor Cleaves reported that on her desk the tubes glimmered in the dark like glow worms! She placed one of the tubes in the vagina of a patient with cancer of the cervix and also irradiated a patient with “sarcoma” of the cheek. Doctor Cleaves reported marked regression of the tumors and became convinced that it foreshadowed an important place in medicine.¹⁰¹ Shortly afterwards Dr. Robert Abbe (1851–1921),^B also of New York, made a vaginal application for carcinoma of the cervix with radium he had imported from Germany. Subsequently Dr. Abbe, a surgeon, pioneered an afterloading technique in the treatment of carcinoma of the thyroid.²

Soiland organized the first department of radiology at the University of Southern California Medical College and became its first Professor of Radiology in 1904. In 1905, he traveled to Europe and purchased a plaque of five milligrams of radium suitable for superficial applications in the treatment of cancer of the skin. He remained a dedicated curietherapist.^{584,586}

Knowledge of radiophysiologic effects and understanding of their histologic substratum developed gradually. In the United States, histologic studies of the effects of irradiation of the skin were published as early as 1897.³⁵⁰ In 1907 Charles Russell Bardeen (1871–1935), of Wisconsin, reported congenital defects in the offspring of toads whose sperm had been

irradiated.²³ Also in 1907, Aldred Scott Warthin (1866–1931),^B of Michigan, observed the histological changes caused by irradiation of the kidney.⁶⁵³

In the earlier part of the century low-voltage roentgentherapy was practiced mainly by dermatologists and electrotherapists. The various indications of intracavitary and interstitial radiumtherapy became the operating room activity of gynecologists, otolaryngologists, and other oncologic surgeons. Textbooks from the time reveal the various associations of practice: Charles Warrenne Allen (1854–1906) wrote *Radiotherapy and Phototherapy* (1904),⁹ Mihran Krikor Kassabian (1870–1910)^B wrote *Roentgen Rays and Electrotherapeutics* (1907),³⁴⁷ and Sinclair Tousey wrote *Medical Electricity, X-rays, and Radium* (1910).⁶⁴⁹

In the first decades of the century important American contributions influenced the course of therapeutic radiology. Caldwell in 1903 designed a roentgen-ray tube permitting transvaginal irradiation.⁴⁷³ Homer Clyde Snook (1878–1942),^B of Philadelphia, developed in 1907 a closed core transformer and high tension rotary switch, known as the interrupterless



Fig. 9-6. Actress Laura LaPlante admiring Commodore Soiland's Sam Solover trophy.



Fig. 9-5. Marie Curie in the company of Soiland and of René Ledoux-Lebard on the terrace of the Club Interallié of Paris, in 1931.

apparatus, which put both inverse and direct discharges through the tubes. William David Coolidge (1873–1975),^B of Schenectady, New York, contributed the hot cathode high vacuum tube with tungsten filament in 1913. William Duane (1872–1935), of Boston, perfected a radium emanation extraction plant and conceived the capillary “glass seeds” for implantation in malignant tumors.¹⁶⁹

Soiland was one of the world's pioneer radiotherapists. His clinical experience in radiotherapy of cancer started in 1901 with the “x-radiance” of an advanced carcinoma of the breast. Two years later and repeatedly thereafter he made pleas for the utilization of pre- and post-operative radiotherapy of this form of cancer. In 1907 he wrote on the role of roentgentherapy in skin diseases. In 1916 he expressed his concern with the various methods of computing dosage. A year later he welcomed the Coolidge tube and the many advantages of its use. He wrote on radiotherapy of carcinoma of the prostate (1918), on cancer of the lower lip (1921), on leukemia (1921), on uterine cancer (1923), and on cancer of the oral cavity (1925). In 1921, he heralded the advent of two-hundred kilovolt roentgentherapy, which he called “super-radiation.”⁵⁸² He warned against the late effects of this one hundred percent improvement in penetrability. He also experimented with operating room open-wound postoperative irradiation in 1923.

Of his one hundred and fifty lifetime publications, many of which concerned organized radiology, two-thirds are devoted to radiotherapy. A review of the early proceedings of the national medical societies finds him frequently concerned with developments in therapeutic radiology. Most of Soiland's papers, editorials, and discussions are chatty, short, reportorial narratives or single-message comments without slide-rule pretense. One may be disappointed at their lack of scientific design and thoroughness, but one is also refreshed by their candor and freedom from pseudo-sophistication.

In 1910, the Albert Soiland Radiological Clinic (Fig. 9-1) was established at 1407 South Hope Street, in Los Angeles. Albert and "Fink" Soiland occupied the second floor of the building, where a large dining room provided entertainment for many friends. Soiland visited Europe in 1910 and again in 1914. At the onset of the first World War he received an appointment as Lieutenant (j.g.), M.R.C., U.S. Navy. He was charged with coordinating radiologic work in the San Diego, Los Angeles, and San Francisco Naval Hospitals. In 1915 he founded the Pacific Coast Roentgen Ray Society. He also was a co-founder of the Western

Roentgen Ray Society which later became the Radiological Society of North America. He served as president in 1919. After the war he was commissioned Lieutenant Commander in the U.S. Navy, a distinction of which he remained proud all his life.

The war marked an important turning point in the concepts and practice of radiotherapy. In its aftermath the work of Regaud and his associates Lacassagne and Coutard revealed the curative possibilities of radiotherapy in various common manifestations of cancer. Soiland gave up his radiodiagnostic practice and thereafter practiced radiotherapy exclusively, one of the first Americans to do so (Fig. 9-2). In 1922, William Evert Costolow (1892–1959) joined him, and in 1926 Orville Newton Meland (1889–1975) also became his associate. Their office was now the Los Angeles Tumor Institute, and the three associates devoted themselves to excellence both in the practice of therapeutic radiology and in the keeping of lifetime records of their cancer patients.

A particularly historic year for Albert Soiland was 1923. In January he founded the Pacific Coast Yachting Association, and in the summer won a nautical race to Honolulu and back. But the simple achievement for which he was to be remembered in years to come was his initiative in founding the



Fig. 9-7. Supervoltage generator at the California Institute of Technology in Pasadena, California. At the top, left to right: Soiland, Lauritsen, and Millikan. On the ground floor are recognized: Pfahler, Ernst, and Orndoff.



Fig. 9-8. High-voltage (600 kv) unit built for Soiland by Lauritsen; both men are shown.

American College of Radiology.⁴⁹² In 1923, the California Legislature approved a projected law to certify lay “radiographers” to use roentgen rays “and other photographic means” in diagnosis of disease (State of California Senate Bill #647, introduced by Senator Burnett, 2 February 1923). Soiland and a group of physicians went to Sacramento and prevailed on the governor not to sign the bill into law. Subsequently, Soiland wrote a circular letter to some sixty radiologists throughout the United States. It was his contention that radiology continued to be viewed as a form of photography and that its practitioners lacked professional status. He invited his colleagues to join him for dinner during the American Medical Association annual meeting in San Francisco. On 26 June 1923, in the San Francisco City Auditorium, he proposed to the House of Delegates of the AMA a resolution to recognize radiology as an integral part of medicine and to authorize the formation of a Section of Radiology.⁵⁸³ On the evening of the same day he met the twenty colleagues who had accepted his invitation for dinner at the Palace Hotel. Following the meal Soiland drew from his coat pocket a few sheets of paper and read to his friends a proposal for the Constitution and By-Laws of the American College of Radiology. These provided for recognition of dedication and contributions to the specialty with a formal cap and gown ceremony to invest as Fellows those specially chosen, as well as creating a gold medal (Fig. 9-3) to be bestowed for exceptional achievement. The purpose was not, said Soiland, to place wreaths upon the brows of older men, but rather to uphold the professional status of radiologists and to seek for them the recognition they had earned. Unanimously, those present approved the project and became the founders of the American College of Radiology.⁴⁹²

They elected as president the venerable pioneer from Philadelphia, George Edward Pfahler (1874–1957).^B Dr. Russell D. Carman (1875–1926), of Rochester, Minnesota, was chosen Chairman of the Board of Chancellors. Benjamin Harry Orndoff (1881–1971), of Chicago, was elected Treasurer, and Soiland became Executive Secretary (subj. note 9.2).

On 21 July 1923, Soiland sailed his fifty-four-foot schooner, *Viking IV*, from Santa Barbara. He and his crew of six were detained in a flat spot in the lee of the Santa Cruz island, but after a few hours were lifted by the breeze. Their frustration changed to exhaustion as they faced the howling winds and high waves of the Pacific. They reached Honolulu after thirteen days, eleven hours, and forty-five minutes, on 5 August, and learned that President Warren G. Harding (1865–1923) had died three days earlier. On their return, they left Hawaii on 11 August and reached San Francisco after twenty-one days,

twenty hours, and thirty minutes. They had won the race in their category³⁰ (Fig. 9-4).

Seldom has a professional organization achieved so abundantly the expectations of its founder as has the American College of Radiology. Soiland proposed to muster the strength of radiology in a single organization devoted to the best interests of the specialty, irrespective of other societies' memberships. He wanted to bring together those seriously devoted to radiology and to promote closer fellowship among them, seeking at the same time greater recognition from among the ranks of other medical professionals. The College was to facilitate the exchange of information and techniques as well as the standardization of records.⁵⁸⁹ Above all, the organization should serve to discredit charlatans. One of the functions of the new organization was the arrangement of national Congresses of Radiology to replace each society's annual meeting. This politically sensitive task was achieved only once with a national congress held in Chicago in 1933, but never again.

The first International Congress of Radiology was called in London, in 1926, under the presidency of Charles Thurston Holland (1863–1941) of Liverpool.⁵⁸⁷ Soiland attended and presented a paper on the treatment of cancer of the breast. At the second International Congress, which took place in Stockholm in 1928, under the presidency of Gösta Forsell, Soiland presented a paper on radiotherapy of exophthalmic goiter.⁵⁹⁵ He headed the United States delegation to the third International Congress, which took place in Paris under the presidency of the venerable Bécélère. On this occasion the Board of Chancellors of the American College of Radiology called a special convocation in order to confer on Marie Curie their greatest honor: the award of the A.C.R. gold medal. The ceremony took place in the Club Interallié with eighteen American Fellows and fourteen Honorary Fellows of the College in attendance. Among the latter: C. T. Thurston Holland (1863–1941), of Liverpool; Severin A. Heyerdahl (1870–1940), of Norway; Alfred Barclay (1876–1949), of London; René Ledoux-Lebard (1879–1948), of Paris; and Pasquale Tandoja (1870–1934), of Rome. In an unprecedented open air ceremony within view of the Eiffel Tower, Soiland placed the ribboned medal around the neck of the admired scientist (Fig. 9-5).⁴⁹² Curie, visibly moved, made a short speech of thanks.

Living in Los Angeles and well-acquainted with Hollywood, Soiland had a number of friends among the notables of the motion picture industry. He sailed to Hawaii with John Barrymore, was photographed in the company of Laura LaPlante (Fig. 9-6), and was said to be particularly fond of Gloria Swanson. He preserved the medical record of Captain Roald Amundsen, whom he professionally attended in 1926,



Fig. 9-9. Dr. Albert Soiland, Professor of Radiology, University of Southern California; Lieutenant Commander, U.S. Navy.

and was flattered to have met President Roosevelt and King Haakon. In 1936, he attended the Olympic Games in Kiel, representing the U.S. Secretary of the Navy.

In the early 1930s Soiland asked Robert Andrew Millikan (1868–1954) and his associate Charles Christian Lauritsen (1892–1968), of the California Institute of Technology in Pasadena, to permit a trial of radiotherapy in patients with cancer, using their newly developed 750,000 volt generator and tube (Fig. 9-7). Soiland brought patients at night to the physical research laboratory. The first patient treated for a carcinoma of the rectum was alive many years later. Impressed by the possibilities, Soiland acquired a 600 kilovolt unit to continue trials in his own institution. With the help of Dr. Lauritsen this unit was put to work (Fig. 9-8). Thus, Soiland was among the first to use high voltage equipment before it became commercially available.⁵⁹¹ Three years later, his associates published early results on 285 patients with cancer of the esophagus, rectum, bladder, prostate, etc., treated with “super voltage” roentgen therapy.²⁸⁰ Soiland wrote one of the first books on cancer for the laity: *CANCER: A Professional Responsibility and a Public Liability*.²⁵⁹⁰ He testified in Congress on behalf of the creation of the National Cancer Institute.

Soiland remained concerned with the role of the American College of Radiology.⁵⁹² In the midst of changes giving the College renewed vigor, the Board of Chancellors sent Soiland a telegram on 13 February 1936:

The Board of Chancellors sends its sincere greetings and felicitations to the Founder of the ACR. With every Officer and Chancellor present the Board unanimously voted that the radiologists of America owe you their lasting gratitude for your tireless efforts to further the interests of Radiology in medicine. They join in extending to you their best wishes, highest esteem and affectionate regards.

The list of signatures was headed by that of Edward Chamberlain, Chairman of the Board of Chancellors.

A mariner at heart, Soiland founded and became Commodore of a number of west coast yacht clubs. He also published privately on his travels and sea experiences.^{593,594} On his seventieth birthday the Los Angeles County Medical Society rendered homage to Soiland: for the occasion he came dressed in his U.S. Navy uniform (Fig. 9-9). In 1946 he and Dagfine took passage on a slow steamer which passed through the Panama Canal and took them to their place of birth. On 14 May 1946 he suffered a heart attack and died in Solboken, Norway. Soiland and his wife, who died of cancer shortly after him in Los Angeles, bequeathed their entire estate to the establishment of the Albert Soiland Cancer Foundation, naming associates and friends as trustees. The Foundation became the nucleus of the Southern California Cancer Center. In 1982, the Foundation initiated an annual series of Albert Soiland Memorial Lectures and a gold medal to be awarded to the lecturers (Fig. 9-10).

Obeying his wishes, a group of friends sailed in the Newport Harbor Yacht Club flagship, on 29 September 1946, to return his ashes to the Pacific waters he loved in the Catalina Channel. A friend recalled a poem:

Sometime at eve when the tide is low
I shall slip my moorings and sail away

And greet the friends who have gone before
O'er the Unknown Sea to the Unseen Shore

A few who have watched me sail away
Will miss my craft from the busy bay ...

Soiland was among the earliest in American medicine to choose radiotherapy as a specialty. Were he

among us today he would scarcely believe the strides made in the past few decades. Patients with cancer of the cervix Stage III, far beyond the possibility of cure by other means, are curable only by radiotherapy. Patients with inoperable cancer of the prostate, condemned to prolonged hopelessness and impotence just a few years ago, are curable by external irradiation alone in incredible numbers. Computerized dosimetry and computerized tomography have added greater precision in treatment planning. The frontiers of research remain wide open. The search for sensitizers and protectors and for better use of fractionation offers new possibilities yet to be achieved. Combinations of high energy electrons and photons have found implementation at the clinical level, while accelerated neutrons and other nuclear particles have opened new opportunities for experimental clinical research.

Albert Soiland was a man of singular elegance, impetuous yet serene. In his character were blended the adventurous heroism of his Viking ancestors and the pragmatism and generosity of his adopted country. A man of tumultuous sentimentality, he loved his associates and co-workers as his own family. He named a street in Hollywood for his beloved companion: Fink Place. Soiland was a man in the American tradition making the best of every opportunity to the best of his ability. High-minded and unpretentious, he detested privilege but not well-earned distinction and dignity. In the painful insecurity of the storm he sought that delicious anxiety essential to life, as



Fig. 9-10. The Albert Soiland Memorial Lecture award.

though behind adversity there was truth: he was a Nordic knight errant. His version of peace has come to pass in his unique conception of the American College of Radiology and in the development of the Southern California Cancer Center.

Subject Notes

9.1 The College of Physicians and Surgeons of Chicago opened in 1882. It was established under the initiative of Charles Warrington Earle, Samuel McWilliams, Abraham Reeves Jackson, and Daniel Atkinson Steele. They purchased a narrow strip of land on the corner of Harrison and Honoré streets, adjacent to the West Division High School. The College building, said to be the handsomest medical school in the nation, was a four-story Queen Anne-style brick structure, with limestone front and central tower. The Faculty was divided into twenty-six chairs, with each of its professors buying two thousand dollars worth of shares in the corporation. In 1890 elaborate laboratory facilities were added and the curriculum was greatly improved. Operating deficits were generously covered by Earle, Steele, and William Quine. Resisting at first, the school became associated with and eventually incorporated into the University of Illinois. P & S had a popular football team known by its colors: Blood and Iodoform. *Plexus*, the school magazine, enjoyed wide attention for many years.

9.2 Founders of the American College of Radiology were: Lloyd Bryan (1884–1945) of San Francisco; J. Bell Bullitt (1863–1946) of San Jose, California; W. Edward Chamberlain (1892–1983) of San Francisco; Edwin Charles Ernst (1885–1969) of St. Louis; Amedée Granger (1879–1939) of New Orleans; Maximillian John Hubeny (1880–1942) of Chicago; Lyell Cary Kinney (1884–1956) of San Diego; Robert John May (1878–1951) of Cleveland; Benjamin Harry Orndoff (1881–1971) of Chicago; Louis Kershaw Poyntz (1891–1959) of Portland, Oregon; Charles Maynard Richards (1881–1941) of San Jose, California; Frederick H. Rodenbaugh (1891–1957) of San Francisco; Howard Edwin Ruggles (1886–1939) of San Francisco; Henry Schmitz (1871–1939) of Chicago; Albert Soiland (1873–1946) of Los Angeles; Rollin Howard Stevens (1868–1946) of Detroit; Isadore S. Trostler (1881–1950) of Santa Barbara, California; William Walter Wasson (1884–1968) of Denver; and Harold Zimmerman (1896–1975) of Sacramento, California.