

Isadore Lampe

(1906–1982)

“The ultimate responsibility for the accuracy of the diagnosis rests on the shoulders of the therapist, even though the diagnosis has been established by special methods beyond his capacity.”
(1944)³⁹⁴

Isadore Lampe was born in London on 16 November 1906. He was the first child and only son of Anna Tamarkin (1886–1974) and Joseph Lampkovitz (1879–1964). His mother originated in Vitebsk, Russia. She went first to Antwerp, but moved to London, where she was working in a London cigarette factory when she met Joseph, a cabinet maker and former soldier from Plonsk, Poland. They were married on 24 December 1905. Both were part of the massive migration of Eastern European Jews that took place around the turn of the century. Having endured difficulty and spiritual deterioration in the hobbled reality of perennial poverty, torn between hopes of redemption and fears of western sacrilege, people who considered themselves chosen decided to tear themselves from the lands that held the ashes of their revered ancestors.

When Isadore was only four and a half months old, he came to America, wrapped in a *tallith* in his mother’s arms, to join his father who had preceded them. For the immigrant, the vicissitudes of seasickness in the Atlantic crossing paled in comparison with the anxiety of the nearest earthly likeness to the day of judgment: the burdening demands of the immigration officers. Beyond that they were to find friendly hospitality and opportunity. A fine artisan with a determination to succeed, Joseph Lampkovitz settled his family in the Woodland section of the city of Cleveland, on the southern shore of Lake Erie, where the immigrant baby became a beautiful child (Fig. 19-1). There his family was augmented by the births of his sisters Helen (1910–), Lily (1913–79), and Rose (1916–74). Kind, fervent, and hardworking, Anna Lampkovitz kept her family well fed and clothed, dividing her time between baking or cooking and the sewing machine or knitting. Preserving their

faith, they adopted the Conservative denomination of Orthodox Judaism developed in America. As their economy permitted, they moved to the Kinsman and Mount Pleasant districts, and eventually to Cleveland Heights.

Young Isadore attended the Mount Pleasant Elementary School and, at the same time, the parochial Hebrew Yiddish School. In 1920 he entered Central High School at Wilson Avenue (2200 East 55th Street). The relatively new building with well-lighted halls and central heating favored the students. The school had acquired a wide reputation for its dedication in making good citizens of newcomers. Former graduates had achieved distinction in various fields. The school promoted debates as well as intercollegiate athletics. Isadore was a good student. His parents instilled in him a respect for learning stemming from an old tradition by which the learned were privileged to sit by the eastern wall of the synagogue. He was a member of the track team and, although he privately favored the violin, he played the tuba in the school band. In 1923 he graduated with honors, excelling in chemistry (Fig. 19-2).

Isadore Lampkovitz was admitted, within a restrictive quota, to Adelbert College. His scholarly dedication brought him membership in the oldest American fraternity, Phi Beta Kappa. He also played tennis and participated in swimming. He had long hoped to become a physician and, undoubtedly because of his scholarly performance, he was accepted at the end of his junior year to enter the School of Medicine of Western Reserve University. In 1927 he received his Bachelor of Arts degree from Adelbert College, at the end of his first year of medical school.

There had been several medical schools in Cleveland at the turn of the century, but after the scathing



Fig. 19-1. Young Isadore around 1911, riding his tricycle in long curls and sailor suit. (Courtesy of Miss Helen Lampe.)

Flexner Report of 1911 only the School of Medicine of Western Reserve University remained, with a reinforced faculty and a rigorous curriculum. Isadore's classmates nicknamed him "Lamp." After some reflection, he decided to heed their suggestion and petitioned the court to officially change his name to Lampe. His father followed, thinking it best that members of the family adopt the same name. In the second year of medical school, Isadore was hospitalized at Cleveland's Lakeside University Hospital with a serious bout of pneumonia and some underlying trouble; one would suspect tuberculosis. Whatever the pathology, the long hospitalization and the weakening effects of his illness interfered with Lampe's studies. He decided to repeat his second year. Thereafter, the handsome youngster lost his physical robustness. The serious setback affected the rest of his life. Lampe became a member of the Alpha Omega Alpha and Sigma Xi fraternities, and in 1931 received his M.D. degree.

Isadore had confidently applied to serve his internship at the prestigious Mount Sinai Hospital of

Cleveland. Both he and his father were greatly disappointed when he was turned down. Instead, he was offered and accepted a position as intern to the Saint Vincent Hospital of Toledo, Ohio. This fortuitous circumstance proved to be to Lampe's advantage, for in Toledo he was to meet a generous and inspiring man, John Thomas Murphy (1885–1944),^B who became his mentor and sponsor.

Dr. Murphy was Director of the Department of Radiology at Saint Vincent's. A pioneer who had exposed himself excessively to radiations, he suffered from skin lesions which became worse with time. A handsome and eloquent man, he had a contagious enthusiasm for the growing specialty of radiology that impressed the young intern. Lampe decided to seek training in radiology. On Murphy's advice, he applied for a position as resident in the Department of Radiology at Harper Hospital in Detroit. This was one of the most prestigious departments in the midwest, headed by William A. Evans (1879–1940), a reputable radiodiagnostician, and Traian Leucutia (1892–1977),^B a highly respected radiotherapist. Lampe was offered and accepted a position as resident in train-

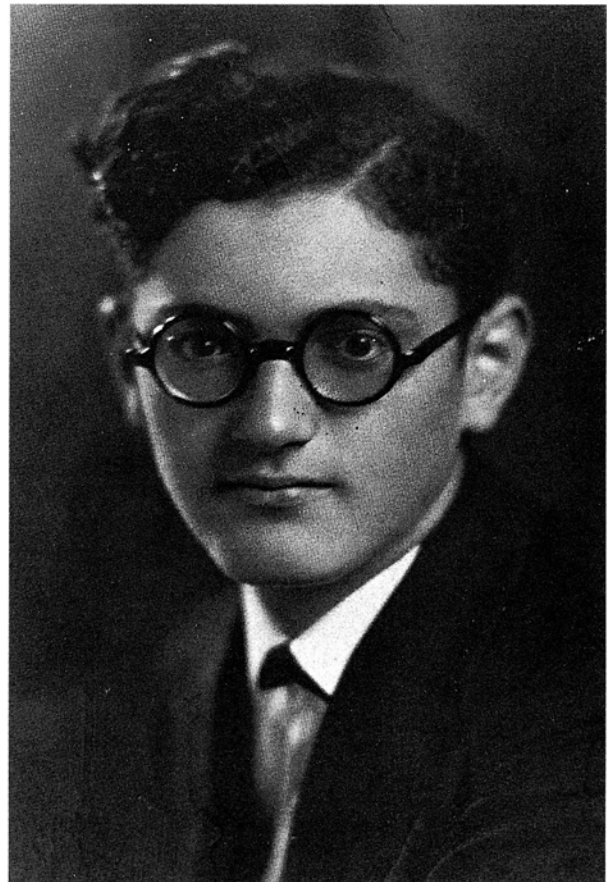


Fig. 19-2. A handsome graduate of high school in 1923. (Courtesy of Mrs. Rae Lampe.)

ing; inexplicably, the offer was later withdrawn. However, again for Lampe's good fortune, the irksome reverse was to have fateful and advantageous consequences.

The Department of Radiology at the University of Michigan had lost its prestigious leader, Preston M. Hickey,^B and after a period of uncertainty, a successor had been chosen. Fred Jenner Hodges (1895–1977) was dedicated to developing a training program second to none. Former Hickey trainees and associates remained as assistant professors under Hodges's early chairmanship: Carleton Barnhart Peirce (1898–1979), Willis Seaman Peck (1900–1974), and Harold William Jacox (1904–1992).

Dr. Murphy had gone to Ann Arbor in December 1931 to present to the University of Michigan, in the name of the American Roentgen Ray Society, a silver bas-relief as a memorial to Preston Hickey. Murphy used his influence with the new chairman on behalf of his protégé. He brought Lampe along and presented him personally to Hodges. An extra position of "assistant resident" was created to accommodate him. In all of the many years of their association, Hodges found no reason to regret it. By the account of his elders, Lampe was the most capable resident ever trained in the department. No one worked harder or longer. After two years, he was appointed instructor, and one year later research instructor.

Lampe made a comparative study of cholecystographic appearances with proved pathology. It was published in co-authorship with Hodges.²⁸² With

Peirce he reported observations on the treatment of giant-cell tumors of bone.⁴⁶⁴ His interest in statistical methods led to his appointment as a part-time statistician in the Medical Records Division of the University Hospital. In this position, he set up the Medical Statistics Division of the University of Michigan. With the help of Hodges and John C. Bugher (1901–70), he initiated a coding system that became a national model among tumor registries.²⁸³

In 1932 James Chadwick (1892–1974) identified and baptized as "neutrons" the highly penetrating chargeless particles dislodged from an atomic nucleus bombarded by protons. Researchers sought to produce high energy electromagnetic units to enhance the effects. Ernest Thomas Sinton Walton (1903–) and John Cockcroft (1897–1967) produced in Cambridge, England, a high energy accelerator hurling fifty million protons at high velocity. They achieved artificial transformation of lithium. At the same time, in Berkeley, California, Ernest Orlando Lawrence (1901–58) and his graduate student, Milton Stanley Livingston (1905–), perfected their invention of the first cyclic accelerator: the cyclotron. With the cyclotron they could accelerate positive ions, and soon repeated the artificial transformation of lithium.

The next logical step was to test the biologic effects of neutrons. Struggling against technical difficulties yet to be overcome, Ernest Lawrence, his graduate student and collaborator Paul C. Aebersold,^B as well as his brother, John Hundale Lawrence (1904–1992), succeeded in demonstrating relative biologic differences between X-rays and neutrons.⁴¹² During the time of this work, Lampe spent six



Fig. 19-3. Lampe in the company of Paul Aebersold at the Radiation Laboratory of the University of California at Berkeley in 1936.

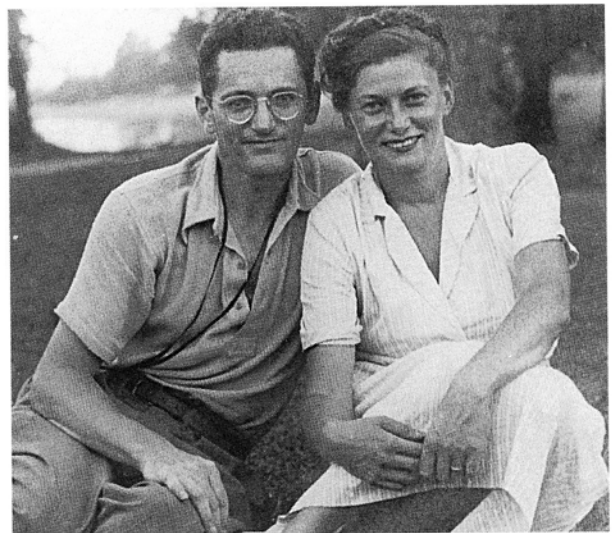


Fig. 19-4. Isadore and Rae Lampe enjoying a vacation in 1943.

months in the Radiation Laboratory at Berkeley (Fig. 19-3), and observed the procedures employed. "A very bright young man he was," recalled John H. Lawrence, M.D.

The Department of Physics of the University of Michigan developed a cyclotron capable of producing a low intensity beam of neutrons. Lampe arranged to use it for biological research. Taking advantage of Aebersold's solution of the problem of collimation of neutrons, and aided by Raymond Elliot Zirkle (1902–), physicist, Lampe sought to investigate further the possible biologic differences between the effects of roentgen rays and neutrons. Their findings were reported by Lampe in 1938 in his Ph.D. dissertation. They demonstrated that within the same species (*Drosophila* eggs of various ages) and within the same organism (shoot and tap root of wheat seedlings), there were obvious differences in the relative effectiveness of neutrons and roentgen rays in producing comparable biological effects. The inevitable conclusion was that the selective effects of neutrons were inferior by a considerable margin; a conclusion that, in the opinion of Robert Parker, Lampe's distinguished student, was many years ahead of its time. The experiments also suggested that neutrons may have their own characteristic selective effects with

probable significance in their use against malignant tumors.⁷⁰³

The strength of the Department of Radiology at the University of Michigan rested on the skill of its radiodiagnosticians and the reputation of their teaching abilities. During Preston Hickey's tenure, the Division of Radiotherapy had been headed briefly by a radiotherapist, Ernest A. Pohle.^B After Pohle's departure, the division was under a succession of temporary heads: William MacCawley Gilmore, Sr. (1903–), who returned to the practice of general radiology in Canada; John McGregor Barnes (1899–1956), who left to practice general radiology in Buffalo, New York; Harold William Jacox (1904–1992);^B and William Seaman Peck (1900–74), a converted physical therapist, who left to practice general radiology in Toledo. Of all these, only Jacox developed a genuine interest in radiation therapy. He held the position the longest, from 1932 to 1936, and chose to remain in the specialty for the rest of his professional life. In later years, Lampe wrote to "Jake" that the development of his department stemmed from Jacox's early efforts.

In 1939, on Peck's departure, Lampe was asked to assume charge of the Division of Radiotherapy, a position he held for thirty-five years. His interest in

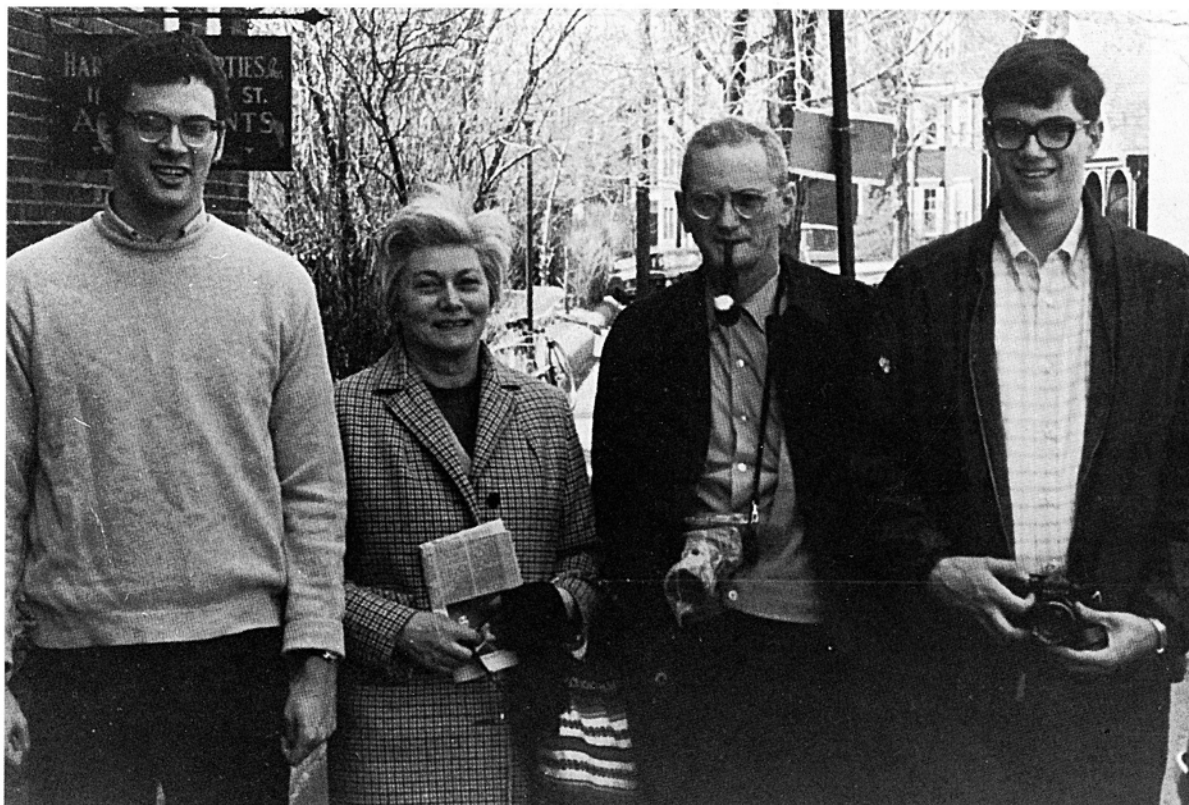


Fig. 19-5. The Lampe family around 1968: William Howard, Rae, Isadore, and Matthew Mark. (Courtesy of Mrs. Rae Lampe.)

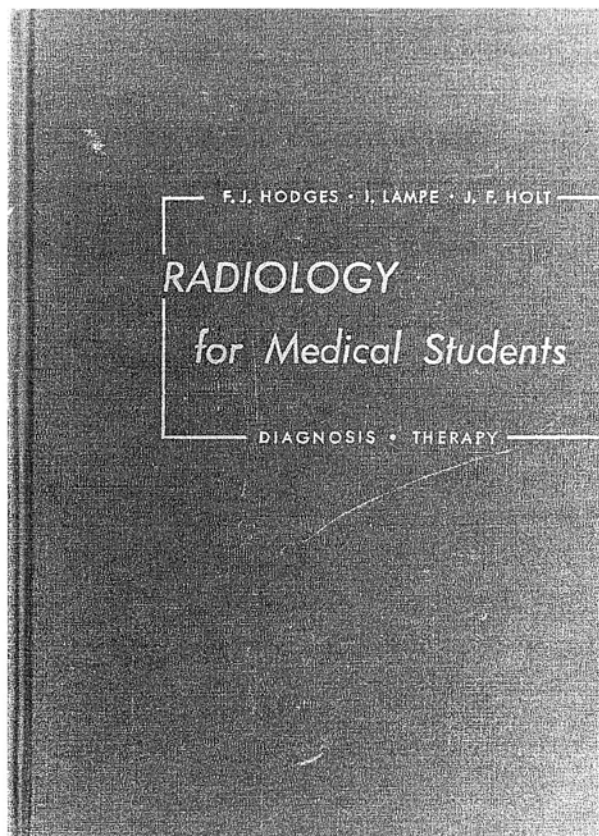


Fig. 19-6. Front cover of handbook for medical students, 1954.

radiotherapy had been encouraged by Murphy in Toledo, and it is known that Lampe frequently visited him on weekends, thus receiving continued stimulus. Lampe's experimental work with neutrons had given him insight into radiobiology, yet he never received formal training in the various modalities of clinical radiation therapy: in this area he was an autodidact. This circumstance made him meticulous, fastidious, and cautious. He was a methodical reader of the world literature, and developed a studious judgment of authors and the value of their contributions.

In 1942 Lampe set out to test the possible advantages of neutrons in circumstances closely resembling clinical practice. Using 180 kv roentgen rays, Regaud and Ferroux had shown in 1927 that it was not possible to sterilize the testis of a rabbit by a single dose of radiations without causing necrosis of the scrotal integuments, whereas a smaller total dose divided into several irradiations over several days would do so without permanent damage to the skin.⁵²¹ This experiment had reaffirmed Regaud's concept and contributed to the universal adoption of fractional roentgentherapy in the treatment of patients with cancer. Benefiting by Abersold's technical solution of the collimation of neutrons, Lampe

was able to irradiate small animals. He found that it was possible by a single irradiation with neutrons to sterilize the rabbit's testis without damage to the scrotum and pondered whether further fractionation would enhance the selective effects.⁴²³

In the summer of 1943, Lampe was visiting a relative in Windsor, Ontario. There he met a charming young lady of more than external beauty, who worked as an occupational therapist (Fig. 19-4). Rae Ethel White (1912–1986) also had Eastern European ancestors who came from the Ukraine. Rae and Isadore Lampe married in Windsor in October 1943. They made a very congenial and lasting union, which in time brought them two sons: William Howard (1945–) and Matthew Mark (1951–) (Fig. 19-5).

In 1944 an editorial appeared in *Radiology* under the signature of Isadore Lampe, revealing his acquired stature and maturity as a therapeutic radiologist.³⁹⁴ Radiotherapy, he wrote, had developed beyond the phase when the primary indication for it was inoperability. He emphasized the pre-eminent position of the radiotherapist in the treatment of tumors and his or her obligations in verifying diagnoses as well as in the administration of treatments. In collaboration with Hodges, he developed an index and cross-filing system for radiodiagnostic data which was widely used in departments of radiology for years.²⁸⁴ He also reasoned that the clinical experience embodied in therapeutic records would be of little value for research and teaching purposes unless it was easily retrieved through a system simple enough not to require special clerical effort. He devised such a system that was carefully maintained in his department on a daily basis.³⁹⁵ Thus, his rich resources were easily recalled.

At the end of the second World War, the Radiological Society of North America initiated a program of refresher courses which proved very successful. At the request of Charles Edgar Virden (1895–1958), Juan del Regato undertook to recruit speakers in therapeutic radiology. Lampe volunteered a course of ninety minutes on the Biological Foundations of Radiotherapy. It was a capable summary of radiobiology for physicians he was to deliver repeatedly to appreciative audiences.

Ever since Bailey and Cushing had segregated medulloblastomas from other gliomas, the average survival of patients diagnosed with this tumor was reported to be seven months; various reports claimed an increase in the average survival with the use of post-operative radiotherapy.^{20,6} Lampe decided to attempt a course of radiotherapy with an aim to cure. Conscious of the fact that a frequent cause of failure was the metastatic spread of the tumor via the cerebrospinal fluid, he devised a plan to irradiate the entire central nervous system. Initially, his course of

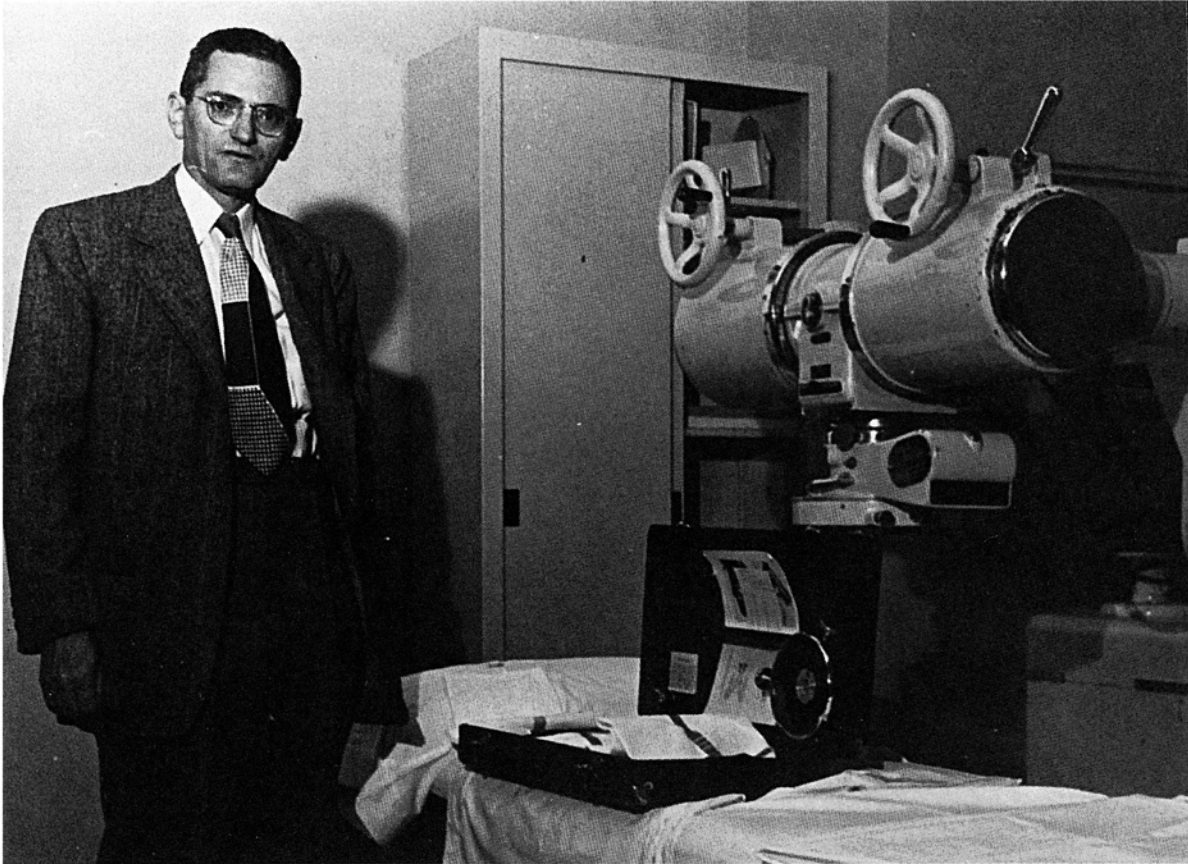


Fig. 19-7. Lampe in front of a conventional roentgentherapy unit with a light localizer and, over the couch, a set of specula for transvaginal roentgentherapy, 1948.

treatments lasted five weeks. In 1949 Lampe and MacIntyre reported the results of these treatments on twenty-five patients: seven were living from three to eight years after radiotherapy.⁴⁰⁴ Evidence showed that medulloblastomas were curable, and curable only by means of radiotherapy. Three years later, the authors recapitulated their experience and concluded that in order to minimize untoward radiation effects, fractionation of treatments over longer periods was necessary.⁴⁰⁵ This piece of work alone signals Lampe as an original researcher and an outstanding contributor to original radiotherapeutic literature.

Lampe's dedication to the demanding details of everyday clinical practice have seldom been equaled. He questioned and examined every patient brought to his care. He verified the positioning of every patient receiving treatment. He even checked the times of exposure. He read every note entered in the records and frequently made additions and corrections. An avid reader, he spent many evening hours in methodical reviews of the world literature. He wrote succinctly and only when there was something to be shown or said. He adopted the ethical reporting of results in five year absolute survival, in which all

patients dead, regardless of cause, or lost to follow-up before five years, were considered failures, a procedure that discouraged self-serving salesmen. These time-consuming activities did not interfere with his contributing a chapter on therapeutic radiology in a charming and popular book, *Radiology for Medical Students*, which he co-authored with Fred Hodges and Jack Holt (Fig. 19-6).²⁸⁵ With these same enthusiastic and congenial co-authors, he embarked on the demanding and arduous task of continuously reviewing and excerpting worthy works as his contribution to the radiation therapy portion of *The Yearbook of Radiology*, a task he undertook for years.²⁸⁶

As radioactive isotopes became available for clinical trials, Lampe collaborated in a number of tests for the study of dosimetry and uptake of radioiodine in human tissues.⁸⁸ He warned against the indiscriminate use of beta emitters for the treatment of adenoids in young children.³⁹⁹ With Walter MacIntyre Whitehouse (1916–), he reported on the risk of asymmetrical bone growth from the irradiation of children with Wilms' tumors.⁶⁵⁶ With Howard Bennett Latourette (1918–), he was among the first in the United States to discourage aggressive irradiation of

hemangiomas of skin in children, since the majority of these lesions disappeared spontaneously without sequelae or could be easily stopped in their early development by inconsequential mild irradiation.

It was not generally understood that the prognosis of carcinomas of the meso- and hypopharynx depended greatly on their point of departure under equal circumstances of treatment. He wrote on the results of radiotherapy of these tumors.^{16a} It was also generally believed that carcinomas of the oral cavity which invaded the mandible were not likely to be cured by means of radiations. Lampe provided objective and long-standing proof that adequate radiotherapy could be successful, despite bone involvement.⁴⁰⁰

Intracavitary pre-operative radiumtherapy was and is accepted as the procedure of choice in the treatment of most patients with adenocarcinoma of the endometrium. At the second National Cancer Conference, held in Cincinnati in 1952, Lampe provided statistical evidence that external pelvic irradiation was by far preferable as a pre-operative procedure, reducing the occurrence of post-operative vaginal recurrences and yielding unprecedented five-year survivals.^{399,401}

Alumni generosity brought to the University of Michigan in 1954 a handsome gift, the Alice Crocker Lloyd Radiation Therapy Center, named in the memory of an outstanding alumna. The long sought facilities greatly enhanced the work of the Division of Radiotherapy.

Under a contract (AT-(11-1)-25) with the Atomic Energy Commission and in collaboration with his faithful associate, Howard Latourette, and his physicist, Charles S. Simons, Ph.D., Lampe undertook an exhaustive study of the value of Cs¹³⁷ as an external source for clinical teletherapy.⁴⁰² They concluded that cesium could not replace Co⁶⁰ but that it could become a valuable adjunct for the treatment of certain conditions, replacing conventional roentgentherapy units.⁴⁰⁷

The faculty and house staff of the University of Michigan Hospital were privileged to attend a series of well-conducted Pathology-Radiation Therapy Symposia, presenting a responsible approach to the diagnosis and treatment of malignant tumors. These conferences were capably carried out by Murray Richardson Abell (1920-), Professor of Pathology, by Lampe, and by his longtime associate, Juan Vallvey Fayos (1929-). Ovarian tumors, multiple myeloma, and retroperitoneal seminomas were successively and comprehensively discussed.³

A long-standing cordial relationship between Lampe and Norman Fritz Miller (1894-), Professor of Gynecology, resulted in great benefits for the patients and remarkable experiences for residents in both the departments of gynecology and radiology (Fig. 19-



Fig. 19-8. Caricature of Lampe by Ruheri Perez-Tamayo.

7).³⁹⁶ Lampe attended the weekly combined clinic and examined every patient presented. He was not so fortunate with his colleagues in otolaryngology. Nevertheless, he made great efforts on behalf of patients with cancer of the tonsil, tongue, and floor of the mouth, and published his results in a number of articles in co-authorship with Fayos.^{223,408} He wrote frequently on numerous other subjects with his young colleagues.^{103,253,406}

Before World War II, few institutions in the United States offered an opportunity for exclusive training in therapeutic radiology, and none offered a comprehensive program of training.⁴⁸³ Most patients received radiotherapy administered by a variety of surgical specialists or by general radiologists whose heart was often behind the light boxes. The few available therapeutic radiologists often had their training abroad or spoke with a variety of accents. Lampe, foremost among the native American radiotherapists, possessed the facilities and was endowed with the skill to undertake training of therapeutic radiolo-



Isadore Lampe

Fig. 19-9. Professor Isadore Lampe, 1958, Professor of Radiology.

gists. However, the Department of Radiology at the University of Michigan was committed to offer training in general radiology. Residents in training were assigned to Lampe for periods of six to nine months. The astonishing fact is that with this short exposure, most of the Ann Arbor trainees acquired greater respect for radiotherapy and many were creditable therapists in their general practice of radiology. Moreover, several of them decided to make radiotherapy their specialty. Abandoning the practice of radiodiagnosis, they sought additional training and qualifications in radiotherapy. Among these were Malcolm Bagshaw (1925–), Howard Latourette (1908–), Robert W. Gillies (1933–), Irving Horowitz (1925–) Robert G. Parker (1925–), G. Ray Ridings (1918–), Phillip Rubin (1927–), and Gordon Lloyd Verity (1929–). In addition, Lampe contributed to the formation of others who had already qualified as therapeutic radiologists but sought his inspiring guidance. Among these were Jose Luis Campos (1934–), Patrick Joseph Michael Cavanaugh (1924–), Basil Considine (1921–), Juan Fayos, Alvin J. Greenberg (1923–), Seymour Herbert Levitt (1928–) and Ruheri Perez-Tamayo (1926–). Latourette, Fayos, Campos, and Perez-Tamayo became his trusted associates for variable periods of time, with Latourette (1952–59) and Fayos (1961–74) enjoying the longest tenure.

For most residents in radiology at the University of Michigan, their tour of duty in the Division of Radiotherapy became a memorable succession of mixed feelings. Their chief was a tall, stoop-shouldered, craggy, and prematurely edentulous man looking older than his age, who wore dark suits and ties and, often even in fine weather, rubber overshoes. He smoked a pipe and, like most pipe smokers, smoked more matches than tobacco (Fig. 19-8). The chief insisted on doing or checking everything himself; nothing was done without his approval.

Everyone who came to Lampe was well pleased to find that he was a fine photographer who owned some expensive gadgets, that he liked to take snapshots of his dogs and other pets, and to make portraits of his friend's children. They were surprised to

learn of his interest in sports records and statistics which he carefully revised. They were also amazed at his extravagant interest in a succession of imported sports cars which, for the benefit of his guests, he drove at vertiginous speeds. Some termed this "contradictory" or "incongruous." Photography, athletics, and speed were also avocations of his admired mentor, Dr. John Murphy.

In 1953, in Copenhagen, Lampe was elected one of the American members of the newly created International Club of Radiotherapists. In 1958 he was one of the founding members of the American Club of Therapeutic Radiologists. This organization (in its maturity, as the American Society of Therapeutic Radiologists) granted him its outstanding recognition with the Gold Medal in 1979 (Fig. 19-9). That same year, he was also awarded the Distinguished Teaching Service and Research Award of the Michigan University Medical Alumni Society.

For years Lampe suffered from a peculiar sensitivity to certain foods. For the last fifteen to eighteen years of his life, he was known to have chronic lymphogenous leukemia. After his retirement, he developed myelofibrosis and had to receive occasional transfusions. While being driven on icy streets to receive one of these transfusions, he suffered an automobile accident and fractures which his spent system could not overcome. On 25 January 1982 he expired.

Lampe is remembered by his students and associates with superlatives. "As a mentor and as a role model, I could have found no better," wrote Latourette. "A man is fortunate to be exposed to excellence and to pattern himself after someone he admires: Lampe was that model for me," said Zatzkin. "Only a few of us are fortunate enough to be exposed to someone of his caliber, as a person and as a teacher," wrote Kittleson. "I wonder if this awkward man ever realized how much we admired him," said Parker. "Lampe had few peers," stated Figley considerably. In our opinion Iz Lampe had none. He was by far the outstanding academic radiotherapist in the United States in his lifetime.