Part III: Clinical Departments and Divisions Continued --- Chapter 46: Department of Radiology, Radiation Oncology, and Nuclear Medicine and Chapter 47: Department of Urology (pages 737-763)
“If the hand be held between the discharge tube and the fluorescent screen, the darker shadow of the bones is seen within the slightly dark shadow-image of the hand itself... For brevity’s sake I shall use the expression rays and to distinguish them from others of this name, I shall call them x-rays.”

—Wilhelm Conrad Roentgen (1845–1923).

Within a year of the astounding discovery of x-rays by Wilhelm Conrad Roentgen in 1895, a Division of Skiagraphy (Radiology) and Photography Laboratory were equipped at Jefferson Medical College Hospital. Dr. L.H. Prince, a member of the Department of Pathology, installed the first equipment under the amphitheater of the old 1877 Hospital. By the end of the first year, 67 x-ray studies and 225 fluoroscopic studies were performed. X-rays or skiagraphs were mainly ordered for metallic foreign bodies or for bony malformations (Figure...
Dr. Prince worked in association with Dr. William L. Coplin, Professor of Pathology, and Dr. Randle C. Rosenberger, later Chairman of the Department of Bacteriology (Figure 46-2). Dr. Thomas J. Buchanan of the Department of Anatomy also took an active role in performing skiagraphy. William S. Newcomet, M.D. (University of Pennsylvania, 1893), who was to become Director of the Lucy B. Henderson Foundation of Radium Therapy at Jefferson in 1915, wrote his pioneer paper on *The Use of X-rays in the Study of the Lung* in 1899.

The growing importance of Radiology was emphasized by John Chalmers DaCosta, Clinical Professor of Surgery, in *Modern Surgery* (1898). In judging the need for experienced radiologists DaCosta wrote: “In order to get the best results, not only must the apparatus be good, but the man who uses it must be expert. Pictures taken by an unskilled man lack clearness of outline and may lead to erroneous conclusions” (Figure 46-3). He further stated that there was “no positive evidence ... to prove that the Roentgen force is possessed of any therapeutical value.”

Notwithstanding Dr. DaCosta’s impression, by 1901 treatment with X-ray radiation was performed for such conditions as cancer, lupus erythematosus, and keloids. During the same year, Dr. William M. Sweet of the Department of Ophthalmology performed skiagraphy of the eye. The Sweet electromagnet for removal of metallic foreign bodies in the orbit was his invention (Figure 46-4).

Roentgenology at Jefferson was relatively unstructured for a number of years following Roentgen’s discovery. Dr. Willis F. Manges (Jefferson, 1903) (Figure 46-5) was appointed...
Assistant Demonstrator of Surgery in 1904, but his activities were directed toward x-ray services almost at once, and an x-ray department was listed among outpatient services of Jefferson with Dr. Manges as Chief as early as 1904. The previous year Dr. S.A.S. Metheny was described in the hospital staff listing as “skiagraphist.” Dr. Manges actually served as Head of the Department of Roentgenology from 1904 until his sudden death in 1936.

The Department of Roentgenology (1904)

Roentgenology grew slowly at Jefferson during the next decade, as illustrated by the Hospital budget of 1911 that showed billings of $592 compared with expenses of $1,700.91 for the

FIG. 4-6-4. The Sweet device for removal of foreign bodies in the orbit.

FIG. 4-6-5. Willis F. Manges, M.D., First Head of Department of Roentgenology (1904-1936).

Roentgenology Department. This is a startling comparison with the current multimillion dollar budgets—Roentgenology was not always a profit-making Division of the Hospital!

**Willis F. Manges, M.D.; First Chairman (1928–1936)**

In recognition of the growing importance of Roentgenology, Dr. Manges was promoted in 1918 to Clinical Professor of Roentgenology and became full Professor in 1928. He was President of the American Roentgen Ray Society in 1918. In 1920 Dr. Leon Solis-Cohen (Jefferson, 1912) (Figure 46-6) was added to the staff, thus providing an additional member of that illustrious Jefferson-connected family. In 1929 Dr. John T. Farrell, Jr. (Jefferson, 1922), and in 1932 Dr. R. Manges Smith, joined the staff.

By 1932 the Roentgenology Department was heavily involved in its teaching responsibilities. Lectures by Farrell and Smith in fluoroscopy and interpretation of films were given to the sophomore medical students. The juniors were instructed with lantern slides one day a week in both diagnosis and therapy.

**John T. Farrell, M.D.; Acting Chairman (1936–1937)**

At Dr. Manges’ death in 1936, Dr. John T. Farrell (Figure 46-7) was appointed Acting Chairman. Dr. Farrell had considerable experience in chest

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**Fig. 46-6.** Leon Solis-Cohen, M.D., Jefferson roentgenologist and member of a well-known family of physicians.

**Fig. 46-7.** John T. Farrell, Jr., M.D., Acting Chairman (1936).
roentgenology as an active consultant to the White Haven Sanatorium. His work with gastrointestinal roentgen studies later led to the publication of a book, *Roentgen Diagnosis of Diseases of the Gastrointestinal Tract*. His interest in organized medicine was later recognized when he served as President of the Philadelphia County Medical Society (1956) and the Pennsylvania State Medical Society (1958). He was also Vice President of the Radiological Society of North America (1944).

**Karl Kornblum, M.D.; Second Chairman (1937–1942)**

Dr. Farrell's brief tenure as Acting Chairman was followed by the appointment of Dr. Karl Kornblum (School of Medicine, University of Pennsylvania, 1919) as Chairman in 1937. Dr. Kornblum (Figure 46-8) was recruited from Graduate Hospital, Philadelphia, where he had been Director of Radiology since 1933. During the World War II years, new members of the staff included Clinical Assistants Herman March and E. Wayne Egbert. In 1942 Dr. J. George Teplick joined the Department as Roentgenologist to the Department of Anatomy and participated actively in teaching. Dr. Teplick later became Professor of Radiology at the Hahnemann Medical College. Dr. Kornblum resigned to join the Radiology Department at the Hospital of the University of Pennsylvania in 1942.

**Paul C. Swenson, M.D.; Third Chairman (1944–1955)**

In 1944 Dr. Paul C. Swenson (Figure 46-9) was named Chairman of the Department. Dr. Swenson (University of Minnesota, 1926), a native of Minnesota, was trained in Radiology at the University of Michigan (1928–1930) and at Columbia University, College of Physicians and
Surgeons (1930), where he advanced to Associate Professor of Radiology with many research studies and papers to his credit. His tenure at Jefferson was marked by steady growth of the Department and important staffing changes. New staff members added included Dr. George Hahn, who later became a Professor of Obstetrics and Gynecology, and Willis Manges’ son, Willis Manges, Jr. (Jefferson, 1942), who joined the staff in 1945, continuing an established tradition of family involvement in Jefferson radiology.

The Department of Radiology (1946)

The name of the Department was changed from Roentgenology to Radiology in 1946. In that year Dr. Theodore Eberhard was made Director of Radiation Therapy within the Department of Radiology and Assistant Professor of Radiology. Dr. Eberhard (Western Reserve University School of Medicine, 1930) had extensive training and experience in surgery and pathology (Lakeside Hospital, Cleveland, Ohio, and New England Deaconess Hospital, Boston, Massachusetts) in the 1930s before deciding on a career in Radiology. His interest in cancer prompted the change while at Columbia University in 1937. He was certified in Therapeutic Radiology in 1940 by the American Board of Radiology.

By 1947 student teaching became an ever-increasing part of the Department’s activities. Classes were taught to the freshmen by Dr. Russell Wigh, and to the sophomores and seniors by Drs. Swenson and Eberhard. In 1949 Dr. William S. Newcomet, Director of the Lucy B. Henderson Foundation for Radium Therapy, retired, and Dr. Eberhard became Director of the Henderson Foundation as a Radium Therapist, thus effectively combining the activities of both Radiation Therapy and Radium Therapy.

Familiar resident physicians who trained during the early 1950s included Dr. Philip Gilbert, later of Cooper Hospital, and Dr. Gerald D. Dodd (Jefferson, 1947), whose distinguished career in American radiology was recognized by the Jefferson Medical College Alumni Association in 1986 with its Alumni Achievement Award. This was only one of many awards and honors he received. Having joined the Jefferson Radiology staff after residency, he became head of diagnostic radiology at the M.D. Anderson Hospital, Houston, Texas, in 1955. After an interval at Jefferson from 1961 to 1966, he was appointed Chairman of Radiology at the Medical School of the University of Texas in 1971 in addition to his former responsibilities as Chief of Diagnostic Radiology at M.D. Anderson. He was also President of the American College of Radiology.

Dr. James Bierly joined the Department as the first Assistant in Radiobiology in the Department and as the Department’s first physicist. A Radiation Physics Laboratory was built at that time, “ready to serve any and all individuals who wish to use ionizing radiation clinically or experimentally with a full time physicist and an air conditioned ‘hot’ laboratory.”

Russell L. Nichols, M.D.; Fourth Chairman (1955–1958)

In June, 1955, Dr. Paul Swenson resigned as Chairman following a serious disagreement with Hospital administration over issues of staffing and Departmental policies. The entire professional staff, including all of the Residents, left with him. During this chaotic interregnum, many private radiologists filled the vacuum by accepting hospital patients sent by taxi to their offices in Center City Philadelphia. This tumultuous period ended in August, 1955, when Dr. Russell L. Nichols (Figure 46-10) was appointed as the Professor and Chairman of the Department. Dr. Nichols (University of Chicago School of Medicine, 1938) came to Jefferson from Ogden, Utah, where he was Radiologist at Dee Hospital and Clinical Professor of Radiology at the University of Utah. He was trained in radiology after private practice and Army experience at the University of Chicago, and he joined the staff there in 1947 upon certification by the American Board of Radiology.

In April of 1956 Dr. Simon Kramer (Figure 46-11) was appointed Co-Director of Radiation Therapy with Dr. Joseph Concannon. They
assimilated the Lucy B. Henderson Foundation for Radium Therapy into the Department of Radiology. A Radioactive Isotopes Laboratory was organized and staffed by the Division of Radiotherapy under Drs. Kramer and Concannon. Dr. Kramer's training in Radiation Therapy at the Meyerstein Institute of Radiotherapy, Middlesex Hospital, University of London, followed his internship at King's Hospital, London, and British Army Service. He was certified in Radiotherapy in England and in 1954 was appointed Director of Radiotherapy at St. Boniface Hospital, Winnipeg, Canada. His appointment at Jefferson initiated a series of events that would place radiation therapy at Jefferson in a strong position of leadership.

Abruptly in 1958 Dr. Nichols resigned and Dr. Philip J. Hodes (Figure 46-12) came from the University of Pennsylvania as Professor and Chairman of Radiology. Dr. Hodes received all of his education at the University of Pennsylvania following high school in Orange, New Jersey. This included his B.S. (1928), M.D. (1931–1933), and Fellowship in Radiology (1933–1935). He advanced to Professor in the School of Medicine in 1952. A man of many skills and interests, he received such honors as the Gold Medal from the American College of Radiology. He became widely known for his dynamic leadership in teaching, humanitarian pursuits, and radiological research. He brought with him a stellar team of academic radiologists from the University Hospital, including Assistant Professors A. Edward O'Hara (Figure 46-13), Roy Greening, and Jack Edeiken. Dr. O'Hara progressed to major...
accomplishments in pediatric radiology, Dr. Greening in angiography, and Dr. Edeiken was to succeed to the Chairmanship. Dr. Robert O. Gorson also came to Jefferson at that time as Director of Medical Physics. Residents who trained during that period included Dr. Emanuel Renzi and Dr. Vijay S. Gohel. Dr. Gohel became Associate Professor of Radiology at the University of Pennsylvania Hospital.

By 1960 the Department witnessed a dramatic growth of the Resident program and staff. Residents of that era included Drs. Ronald Clearfield, later President of the Pennsylvania Radiological Society, Renate Soulen, later Professor of Radiology at Johns Hopkins, and Sidney Wallace, Professor of Radiology at M.D. Anderson Hospital in Houston.

Dr. Yen Wang, Professor of Radiology at Jefferson, was a James Picker Fellow in research radiology. Other members of the staff and residents included Dr. Morton Murdock, who entered private practice in Center City Philadelphia, Dr. Mary S. Fisher, later Professor of Radiology at Temple University, and Dr. Irvin Freundlich, who became Professor of Radiology at the University of Arizona, later Director of Radiology at Wellesley-Newton Hospital near Boston and recently joined the staff of Baylor University Hospital, Houston, Texas.

Dynamic growth of the Department occurred under Dr. Hodes. In 1959 there were six staff radiologists. By 1962 there were 22 members of the Department.

Fig. 46-12. Philip J. Hodes, M.D., Chairman (1958-1971).

Fig. 46-13. Edward A. O’Hara, M.D., Professor of Radiology and pediatric radiologist.
Department. They included Dr. Robert L. Brent, internationally known expert in Radiation Biology and Chairman of the Department of Pediatrics at Jefferson, and Dr. Carl M. Mansfield, a National Institutes of Health Fellow in Radiation Therapy, who became Chairman of the Jefferson Department of Radiation Therapy and Nuclear Medicine in 1984. Dr. John Harris, who became Professor of Radiology at the University of Texas and is a former President of the American College of Radiology, was also a member of the staff at that time. This was a period of enormous growth in diagnostic imaging. Neuroradiology and interventional vascular radiology became important parts of patient service under Drs. Francis Lee and Koson Kuroda. Mammography, ultrasound, and thermography were in the early stages of development during this period. Jefferson radiologist Dr. Sidney Wallace and Dr. Laird Jackson of the Department of Medicine were pioneers in the development of bipedal lymphangiography. They published several papers in 1961–1962 that influenced the widespread acceptance of this technique.6

Jefferson Radiology has had close family ties, as exemplified by Beth Edeiken, the daughter of Jack Edeiken, who was a Resident in the early 1970s, and by Jose Landron, a Resident in 1964, whose son Jose Landron, Jr., was a Resident in the early 1980s.

Dr. Gary Shaber, Research Professor of Radiology at Jefferson, Peter Arger, later Professor of Radiology at the University of Pennsylvania, and Herman Libshitz, later Professor of Radiology at M.D. Anderson Hospital, joined the Department in 1964.

Jack Edeiken, M.D.; Sixth Chairman (1971–1985)

Dr. Hodes retired in 1971 after 14 years of distinguished service. His portrait was presented to the College in 1971. He was succeeded by the

Chief of Radiologic Diagnosis, Dr. Jack Edeiken (Figure 46-14), international authority on bone radiology and the author of the popular text *Roentgen Diagnosis of Diseases of Bone*. Dr. Edeiken was born in Philadelphia and graduated from Villanova University (B.S., 1943) and from the University of Pennsylvania School of Medicine (1947). In 1958 he came to Jefferson. During his Chairmanship, Dr. Edeiken served as a Visiting Professor at various institutions both in the United States and abroad. He was active as an officer of the American Board of Radiology and numerous national committees.

The Department changed dramatically as Radiology assumed an even more important role in the medical community.

Diagnostic ultrasonography evolved from a single A mode unit in the Department of Radiation Therapy into the largest and perhaps the finest Division of Ultrasound in the nation under the Directorship of Dr. Barry B. Goldberg (Figure 46-15). Dr. Alfred Kurtz, who trained at Montefiore Hospital in New York, joined the Division. He quickly established an international reputation in genitourinary and abdominal ultrasound.

Mammography, largely developed in Philadelphia by Drs. Gershon-Cohen and Mortimer B. Hermel, also evolved into an important service of the Department of Radiology under the guidance of Dr. Stephen Feig. Dr. Feig (New York University, 1967) came to Jefferson from the School of Medicine, University of Pennsylvania, in 1974. He has carried on research into the benefits and safety of mammography.
since that time and published 100 papers and chapters including a book, *Breast Carcinoma: Current Diagnosis and Treatment* (1983). He was also one of the authors of a monograph published by the National Council on Radiation Protection: *Mammography, A User's Guide* (1985).

Dr. Esmond Mapp came to Jefferson in 1976 as Chief of the Section of Gastrointestinal Radiology. He served as President of the Radiology Section of the National Medical Association and has been a member of many key committees of the Radiological Society of North America and the American College of Radiology.

Dr. Robert M. Steiner (Jefferson, 1964), Co-Director of General Diagnostic Radiology and Chief of Thoracic Radiology, joined the Department in 1976 and advanced to Professor in 1982. His sabbatical period at the University of Leiden (1983–1984) in magnetic resonance imaging introduced this new technology to the Department.

Dr. Vijay M. Rao, a Resident at Jefferson, rapidly developed an interest in Head and Neck Radiology and spent her sabbatical leave (1985–1986) at the University of Pennsylvania in magnetic resonance imaging to further enhance the Department's expertise in this new technology.

Dr. Matthew Rifkin joined the Division of Ultrasound and developed an international reputation in the areas of small parts and genitourinary ultrasonography. He became Director of the Division of Magnetic Resonance Imaging in 1986.

David Levin, M.D.; Seventh Chairman (1985–)

In 1985 Dr. Edeiken announced his retirement as Chairman. Dr. David Levin (Figure 46-16), Professor of Radiology at the Harvard Medical School and Director of Cardiovascular Radiology at the Peter Bent Brigham and Women's Hospital, was selected to be the next Professor and Chairman. The Department anticipated a new period of dynamic growth not only in its clinical activities but also in research and teaching responsibilities. The purchase of a high field strength magnetic resonance imaging unit and the establishment of a state-of-the-art cross-sectional imaging center in the new radiology unit in the Thompson Building brought about this new era.

Radiation Therapy

William S. Newcomet, M.D., A Pioneer (1915–1946)

The therapeutic use of ionizing radiation at Jefferson dates back to the turn of the century. Initially, radiologists practiced both diagnostic and therapeutic radiology. Diagnostic radiology
occupied most of their time, and the therapeutic use was empirical, with minimal scientific basis. Radiation therapy by external beam continued to be a minor portion of the work of the Roentgenology Department. In 1915, with funds donated by Lucy B. Henderson, a separate Foundation for Radium Therapy was created. This Foundation was directed by Dr. William S. Newcomet (Figure 4-6-17), who controlled a good deal of radium, which he used for skin cancers and other superficial lesions both in the hospital and in house calls. By 1917, seventy-eight patients had received 750 individual radium treatments. After working alone for many years, Dr. Newcomet was joined by Dr. Henry A. Cleaver in 1933. Radiation therapy administered by external beam remained the responsibility of the Department of Roentgenology. Both the training and the practice of roentgenology encompassed diagnostic and therapeutic uses of radiation.

Theodore P. Eberhard, M.D.; Director, Radiation Therapy and Nuclear Medicine (1946–1956)

It was not until 1946, when Dr. Theodore P. Eberhard (Figure 46-18) joined the Department, that a fully accredited radiation therapist became a member of the staff. Even then Dr. Eberhard had a number of duties to perform in the Diagnostic Division of the Department as well as being Director of the Radiation Therapy Division. In
1949 Dr. Newcomet retired as Director of the Lucy B. Henderson Foundation for Radium Therapy and Dr. Eberhard became the Director of the Radium Foundation at the hospital as well. Among the physicians who trained under Dr. Eberhard in the early 1950s were Dr. Luther Brady, later Professor and Chairman of the Department of Radiation Oncology at Hahnemann University in Philadelphia, and Dr. Frank Hendrickson, later Professor and Chairman of the Department of Therapeutic Radiology at Rush-Presbyterian St. Luke's Medical Center in Chicago. The practice of making house calls for the application of radium ceased when Dr. Eberhard took over the Foundation.

Nuclear Medicine

In the early 1950s a Division of Nuclear Medicine was created that, among other things, developed the first mechanical scanner for radioisotopes in Philadelphia. This Division was also directed by Dr. Eberhard while James Bierly became the first physicist to be involved primarily with nuclear medicine. Dr. Bierly was also active in teaching the physics of radiology, both diagnostic and therapeutic. In 1955 Chairman Swenson resigned and took with him all his staff, residents, all but two technologists, and all the records available. His reasons were based on philosophical and financial disagreements with the Hospital administration.

Thus in April, 1956, when Dr. Simon Kramer (Fig. 46-11) and Dr. Joseph Concannon were appointed to be Co-Directors of Radiation Therapy, they had to start from scratch. They amalgamated the Lucy B. Henderson Foundation for Radium Therapy into the Department of Radiology and established a new separate Division of Radiation Therapy in separate quarters. Modern equipment was purchased, and modern radiation therapy was established. The Division of Radiation Therapy weathered another difficult period when Dr. Nichols, Chairman of the Radiology Department, resigned in 1958.

More changes took place as Dr. Philip J. Hodes was appointed Professor and Chairman of the Department of Radiology in 1958. Dr. Concannon left to become Director of Radiation Therapy at the Allegheny General Hospital in Pittsburgh. A number of brilliant young physicians came to assist Dr. Kramer. Dr. Stanley Dische stayed at Jefferson for two years and then returned to Britain, from whence he had come, to become the director of a medical research unit at Mt. Vernon Hospital, London. Dr. Ruheri Perez-Tamayo joined the Division for a year and later became the Chairman of the Department of Radiation Therapy at Loyola University in Chicago. In 1962 Dr. Carl M. Mansfield (Figure 46-19) joined the Department as a Fellow in Radiation Therapy and completed his training in radiology. After a year's fellowship in Britain (1963) he returned to join the staff and progressed through the ranks to full Professor. In 1976 he left to become Professor and Chairman of the Department of Radiation Therapy at the University of Kansas.

![Theodore B. Eberhard, M.D., Director of Radiation and Radium Therapy (1946-1955).](image-url)
The Division of Radiation Therapy grew apace. The first cobalt unit had been installed in 1957, and a second unit was installed in 1960. Modern afterloading radium applicators and sources were purchased in keeping with the needs of improved interstitial and intracavity therapy. The Division of Nuclear Medicine continued to flourish as a Division within Radiation Therapy and here, too, modern equipment and expertise were added. In 1964 Dr. Martha Southard (M.D., Ohio State University, College of Medicine, 1947; Figure 46-20) joined Dr. Kramer as Associate Professor of Radiation Therapy and rapidly established a large academic practice. Dr. Southard had an extensive background of hospital training in Columbus and Cincinnati, Ohio, as well as in New York, and further experience as Associate Director of Radiation Therapy at Temple University Hospital, Philadelphia. She was promoted to Professor of Radiation Therapy and Nuclear Medicine at Jefferson in 1969.

The teaching of the Division at that time involved both general radiology residents, residents in radiation therapy, and the medical students. The Division of Physics in Radiology, under the Directorship of Dr. Robert O. Gorson, provided services for diagnostic radiology and radiation therapy.

Later Dr. Gorson was appointed Professor and Director of Medical Physics in the Department of Radiology, and Dr. Nagalingam Suntharalingam held a similar position in the Department of Radiation Therapy, but both held appointments in both Departments.
The Department of Radiation Therapy and Nuclear Medicine (1969)

After 13 years of attempts to establish a separate Department, the Department of Radiation Therapy and Nuclear Medicine was created in 1969 as a distinct entity both in the Medical School and in the Hospital, with Dr. Simon Kramer as the first Chairman. Four Divisions were established in the new Department: a Clinical Division headed by Dr. Martha Southard, a Division of Nuclear Medicine under Dr. Carl M. Mansfield, a Division of Medical Physics under Dr. Nagalingam Suntharalingam, and a Division of Experimental Radiation Therapy under Dr. Dennis Leeper. Considerable development dated from that period. A planning grant for a radiation therapy cancer center was funded by the National Cancer Institute, and shortly thereafter a construction grant was obtained from the National Cancer Institute to totally refurbish and double the size of the Radiation Therapy Department. In 1966 the first radiation therapy simulator in the United States had been developed and was installed at Jefferson. This was later replaced by a commercially manufactured machine. The new Department was equipped with a 45-million-volt Betatron machine capable of the most penetrating x-rays available in the United States, as well as being the first machine capable of electron beams in Philadelphia. A linear accelerator was purchased at that time.

Both basic and clinical research efforts intensified. The extensive experience in the management of pediatric and adult brain tumors was reported. In 1968 the first national randomized study in treating advanced head and neck tumors by radiation therapy and adjuvant chemotherapy was initiated in the Department. One year later the Radiation Therapy Oncology Group, a nationwide group of university departments, was created at Thomas Jefferson University Hospital with Dr. Kramer as its first Chairman. Over 10,000 patients have been entered into clinical trials since that time. In 1972 the National Cancer Institute funded a ten-year study to determine the patterns of care in cancer management by radiation therapy. In a “first” in medicine anywhere, this study established national benchmarks and a method of quality assessment for radiation therapy throughout the United States.

Almost all the research done in the Clinical Division, the Division of Nuclear Medicine, the Division of Physics, and the Division of Experimental Radiation Therapy since that time was funded by the National Cancer Institute. Some was also funded from institutional sources. With increase in the academic endeavors there was a commensurate increase in the clinical involvement, with enlargement of the professional and technical staff. By 1983, when Dr. Kramer stepped down from the Chair, there were eight full-time physicians in radiation therapy, three Ph.D.s in radiation biology, five Ph.D.s in radiation physics, and two M.D.s in nuclear medicine. His portrait was presented to the University on the occasion of the First Annual Simon Kramer Lecture and Symposium on November 4, 1983. Dr. Kramer was then honored to become Jefferson’s first “Distinguished Professor.”

Carl M. Mansfield, M.D.; Second Chairman (1984–)

Plans were developed in 1983 for an entirely new Department of Radiation Therapy and a new and reconditioned area for Nuclear Medicine. Dr. Carl M. Mansfield returned in 1984 as the new Chairman and Professor of Radiation Therapy and Nuclear Medicine. Under his direction the Department of Radiation Therapy and Nuclear Medicine took on added dimensions in the new Thomas Jefferson University Hospital (of 1978), and new techniques of cancer management and research were continued.

The new Department, the Bodine Center for Cancer Treatment (Figures 46-21 and 46-22),
promised expanded facilities for research in the fields of cancer and radiation biology and clinical research in cancer treatment. The clinical area included new facilities for hyperthermia, intraoperative radiation therapy, a dedicated CT scanner to assist in treatment planning, and four new linear accelerators. Two of the latter are capable of very high energy photon and electron beams. A Day Hospital is provided for patients to receive combined modality therapy or other procedures that do not necessitate inpatient care. In the fall of 1986 Jefferson continued as one of the most up-to-date facilities in radiation therapy in the United States.

Fig. 46-21. The Bodine Center model; from left to right, Simon Kramer, M.D., F.F.R., Mrs. William Bodine, and Carl M. Mansfield, M.D. (1985).

Fig. 46-22. The Bodine Center, 1987; Drs. Carl M. Mansfield (left) and Simon Kramer.

References
3. Farrell, J.T., Jr., "Memoir of Willis F. Manges," Clinic 1917, p 64.
IN all probability there has never been a time when diseases of the urinary and sexual organs did not attract the attention of practitioners of the healing art. Among the symptoms were those caused by calculi, retention of urine, painful urination, incontinence of urine, elongation of the prepuce, and venereal infection. For the relief of these conditions, operative procedures were devised such as lithotomy, lithotrity, catheterization, and circumcision. Medical formulae were prepared and administered when operations were not performed.

The Earliest History of the Study of the Urinary Tract

In the Papyrus of 1550 B.C., discovered by Ebers in 1872, the ancient Egyptians recorded concoctions both to increase the flow of urine and to diminish an excessive flow. Circumcision was extensively practiced, but whether for hygienic or religious reasons is uncertain. Cutting for stone was apparently not practiced.

About 1,000 years later the Hindus of India in the Susruta of Susrut described treatment of strictures by gradual dilatation with sounds of metal and wood, and diseases of the urethra and bladder by injection. Literature of the Persians and Turks described similar conditions and instruments.

Among the Greeks at the time of Hippocrates (460–370 B.C.) passages were recorded referring to painful urination, bloody urine, pus in the kidney, retention of urine, bladder stones, and gout. Treatment was unsatisfactory because of lack of knowledge of anatomy as well as the causes of the conditions. Hippocrates disapproved of operations on the bladder, but did advise cutting into the kidney for the removal of pus. The great Alexandrian anatomist Erasistratus in the fourth century B.C. was one of the originators of human dissection. He left no textbook record, but the work was pieced together out of Galen, the...
founder of experimental physiology. Erasistratus discovered the exact relations of the urinary organs, especially the anatomy of the prostate gland, and gave it the name it has kept to the present.

Aurelius Cornelius Celsus described Roman medicine during the reign of Tiberius Caesar (14–37 A.D.) as an encyclopedist rather than a physician. The practice was essentially that of the Greeks, and the document was the oldest medical one after the Hippocratic writings. In the excavation of Pompeii (destroyed by the eruption of Mt. Vesuvius in 79 A.D.) there were found many kinds of surgical instruments, among which was a metallic catheter about nine inches in length and with a double curvature. Through a gift of Mr. Daniel Baugh of the Board of Trustees, a reproduction of these instruments was placed in the museum at Jefferson and later transferred for display in the Scott Library. Galen (131–201 A.D.), the greatest Greek physician after Hippocrates, wrote upon incontinence and retention of urine. He described an “S-shaped” or curved catheter for relief of the latter condition.

With the decline of the Roman Empire, most of the advances came to an end and were practically forgotten for some centuries.

Medicine in the eleventh and twelfth centuries was elevated by the School of Salerno, near Naples, from its decline of half a millennium. Arabic medical doctrine was introduced there by Constantinus Africanus (ca. 1020–1087), who imposed Mohammedan modes of thought upon Western European medicine from the twelfth to the seventeenth centuries. During the heyday of the Salernian School, all the physicians were practically urologists, since they depended upon the urine for diagnosis and prognosis. The urinal became the insignia of the physician and the emblem of medicine.

In the beginning of the Middle Ages, urinary tract diseases had been treated medically for 2,000 years, and surgical interference had been practiced sporadically for 1,000 years. The practice of medicine fell into the hands of the monks, and surgery was carried on by barbers and charlatans.

In the latter part of the eighteenth century, there was a decided advance in the analysis of urine. Cotugno in 1764 discovered albumin in the urine of diseased kidneys by boiling that urine, and Rouelle (1773) discovered urea. New forms of catheters were devised for emptying the bladder, sounds for dilating strictures of the urethra, operations on the bladder for relief of ureteral retention, and external urethrotomy. Around 1762 it was established by Morgagni that enlargement of the prostate was a source of disease of the urinary organs.

At the dawn of the nineteenth century a good basis existed for study of the urine itself as well as treatment of kidney, bladder, and urethral diseases. Tumors of the bladder had been discovered as far back as the seventeenth century. Metabolic experiments yielded many new facts, a few of which were Wollaston’s investigation of cystin calculi (1810); Blackall and Wells on albumin in the urine (1812–1814); Marcet’s investigation of black urine (1822); F. Rose’s biuret tests for albumin (1833); proof by Bouchardat and Peligot that the sugar of diabetic urine is grape sugar (1838); Pettenkofer’s test for bile (1844); the quantitative test for sugar in the urine by von Fehling (1848); and Bence-Jones’s discovery of a special proteid (albumose) in the urine of patients with softening of the bones (multiple myeloma). Lithotripsy, the crushing of bladder stones, was suggested and practiced by French surgeons.

In Philadelphia, which was the medical center of the United States to somewhat beyond the first half of the nineteenth century, Philip Syng Physick (1767–1837) of the University of Pennsylvania became the acknowledged “Father of American Surgery.” In 1831, at the age of 63, he performed his famous removal (lithotomy) of about 1,000 calculi from the bladder of Chief Justice John Marshall. This was done without anesthesia, which was still 15 years or more in the future. Marshall, who was 75, survived the operation for some years and died of an entirely different disease. Jefferson’s founder, Dr. George McClellan, studied under Physick and was proficient in lithotomy as well as the latest operative procedures of the day. Pancoast (1844) and Mütter (1846), in their textbooks at Jefferson as well as in practice, devoted much attention to the urinary organs. Mütter was the first in Philadelphia (1846) to use ether anesthesia in surgery.

Urology as a distinct branch of general surgery was definitely established in the United States in 1831 by Samuel D. Gross in his authoritative
Orville Horwitz, M.D. (1860–1913); Clinical Professor of Genito-Urinary Diseases (1894), First Chairman of Urology (1904–1912)

A Department of Genito-Urinary Diseases was established in the Jefferson Hospital in August 1894. At that time, a body of Clinical Professors in various specialties was instituted but not admitted to full faculty Chairs. Among these was Dr. Orville Horwitz, who was appointed Clinical Professor of Genito-Urinary Diseases (Figure 47-1).

Horwitz was born in Washington, D.C., in June 1860.1 He came from a distinguished medical family. His father, Phineas J. Horwitz, had been Surgeon-General and Medical Director of the U.S. Navy with special prominence during the Civil War, and his grandfather, Jonathan Horwitz, was an 1811 graduate of the University of Pennsylvania. Through marriage, the two daughters of Dr. Samuel D. Gross (Maria and Louisa) were his aunts. He took his B.S. degree from the University of Pennsylvania (1881) and his M.D. from Jefferson (1883).

After a year of internship at Jefferson Hospital, Horwitz spent three years in resident service at the Pennsylvania Hospital for the Insane and at the Pennsylvania Hospital. Following this he began an uninterrupted service in Jefferson Medical College and Hospital until his resignation in May 1912. His first position was as Demonstrator of Anatomy and subsequently as Demonstrator of Surgery for six years, during which time he worked with Drs. Samuel W. Gross and W.W. Keen.

When Horwitz was appointed Clinical Professor in 1894, he equipped the Department at his own expense. It started with ten cases, and was located

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1 Horwitz was born on June 1, 1860.

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on the second floor of the old 1877 Hospital, which has since been replaced by the Samuel Gustine Thompson Annex (1924). For a number of years no outlay was incurred by the Hospital for either equipment or maintenance, since support came from donations of grateful patients. By 1900 the number of new cases for the year was 2,398, and the number of old cases for the year was 21,778, making a total of 24,176. It became one of the largest Departments of the Hospital.

In May 1904, a formal Department in the College was established and Dr. Horwitz was admitted as full Professor to a Faculty Chair. In his short lifespan, cut off prematurely at the age of 53, he contributed many articles to the general surgical and urologic literature and made many presentation at local and national meetings in his field. The lectures of this debonair gentleman were popular among the students for their delivery and content (Figure 47-2). Ill health forced him to resign in May, 1912, and he died at his home, 1721 Walnut Street, January 28, 1913.

Hiram R. Loux, M.D. (1859–1930); Second Chairman (1913–1930)

The successor to Dr. Horwitz, Dr. Hiram Rittenhouse Loux (Figure 47-3), was born in Bucks County, Pennsylvania, in 1859. He received his earliest education in the local schools and at age 13 entered Washington Hall in Trappe, Pennsylvania, from which he graduated in 1876. During the next three years he taught school in Montgomery and Bucks Counties.

Loux matriculated at Jefferson in 1879, where he came under the personal tutelage of Professor Samuel D. Gross. This fortunate circumstance allowed him to observe Gross in his hospital work and to be quizzed in the great surgeon's office at Eleventh and Walnut Streets on Sunday mornings. Gross convinced his protegé to take a three-year course rather than the customary two-year one of that day. Upon graduation with honors in 1882, he also received the Jacob Mendes DaCosta Prize in Medicine for his thesis entitled High Temperature as a Cause of Heart Disease.

For the next ten years Dr. Loux practiced general medicine in Souderton, Pennsylvania. An urge toward academic medicine brought him back to Philadelphia in 1892, where he immediately entered the surgical service of Professor W.W. Keen as Assistant in the Surgical Laboratory. A few months later he was appointed a Demonstrator of Surgery and Demonstrator of Fracture Dressings and Bandaging, a position he ably filled for 15 years. In 1894, when the Department of Urology was started in the Hospital, Dr. Loux was appointed Chief Clinical Assistant and Assistant Urologic Surgeon. A few years later he was made Assistant Professor of Urology. Upon the death of Dr. Horwitz in 1913, he was unanimously elected by the Board of Trustees to fill the Chair of Urology.

Dr. Loux was Assistant Surgeon to the Philadelphia General Hospital with Professor Horwitz, and for 18 years he was Senior Surgeon until his resignation from that institution in 1928.

In addition to numerous articles pertaining to general surgical subjects as well as urologic topics, Dr. Loux belonged to the local and national scientific societies in his field. The Class of 1926 dedicated the Clinic Yearbook to him and the Class of 1929 presented his portrait to the College. This nationally recognized clinician and surgeon died in February, 1930, while actively in service.

FIG. 47-2. The Clinic of Professor Orville Horwitz, in the pit of the 1877 Hospital (ca. 1907).
Although not directly related to Jefferson history, a major event of urologic importance occurred in the late 1920s. Dr. Moses Swick, Clinical Professor of Urology at the Mount Sinai School of Medicine in New York City, developed intravenous pyelography through his discovery of Uroselelctan as a safe contrast medium for the diagnosis of many urologic disorders. This technique was quickly adopted by the Radiology Department at Jefferson and greatly enhanced the care of urologic patients.

Thomas C. Stellwagen, M.D. (1879–1935); Third Chairman (1930–1935)

Dr. Thomas Cooke Stellwagen (Figure 47-4), who succeeded Dr. Loux in 1930, was born in Media, Pennsylvania, in 1879. His ancestors were among the early settlers in Delaware and were distinguished for their service in the U.S. Navy. A graduate of Jefferson in the Class of 1903, Dr. Stellwagen served in World War I first with the British Army and then as a member of Jefferson Base Hospital Unit No. 38. He was sent to the front in charge of a mobile unit and served as a surgeon until the signing of the Armistice agreement.

In addition to his scientific articles, Dr. Stellwagen was a charter member and President of the Genito-Urinary Society and was a member of the Association of Genito-Urinary Surgeons and the American Urological Association. As a surgeon of distinction, he was greatly respected by the students for his teaching. The Class of 1936 barely
accomplished the painting of his portrait before his sudden premature death on March 16, 1935, from a heart attack at the age of 56.

David M. Davis, M.D. (1886–1982); Fourth Chairman (1935–1951)

Dr. David Melvin Davis (Figure 4-7-5) was appointed to succeed Dr. Stellwagen on September 19, 1935. Born in Buffalo, New York, in 1886, he was educated in the public schools there, graduated from Princeton University in 1907, and received his M.D. degree at the Medical School of Johns Hopkins University in 1911. He became a member of Phi Beta Kappa and Alpha Omega Alpha Honorary Societies, respectively, in those institutions. After a year of internship at the Baltimore City Hospital, he became Assistant in Pathology at Hopkins for two years (1913 and 1914), and then Pathologist and Director of Research of the Brady Urological Institute (1914–17). He was made Associate Editor of the *Journal of Urology* at the time of its inception (1917).

At the outbreak of World War I in 1914, Dr. Davis was studying chemistry in Munich. In 1915 he served as Bacteriologist to the American Ambulance Hospital at Neuilly-sur-Seine, France. After attending the Citizens Training Camp at Plattsburg, New York, he was sent abroad as First Lieutenant in the Medical Corps. For those two years he was first attached to the British Army and later with the American Expeditionary Forces, where he rose to the rank of Major.

Back at the Brady Institute of Johns Hopkins, Davis spent a year of research on the gonococcus organism, completed a residency in Urology, and then spent two years preparing the manuscript of *Practice of Urology* as a coauthor with his famous mentor, Dr. Hugh H. Young. In 1924 he was Head of Urology in the new medical school at the University of Rochester, where he organized the Department. In 1928 he resigned to return to Baltimore as an Associate of Dr. Hugh Young. Curiously, in 1930 he went to Phoenix, Arizona, where he abandoned academic urology for private practice.

During the strange interlude (1930–1935) of this brilliant academician in Arizona, he served as Visiting Urologist at the Desert Sanitarium at Tucson. Dean Ross V. Patterson became interested in Dr. Davis as a candidate for the vacant Chair of Urology at Jefferson and received impressive letters of recommendation from Hopkins and the University of Rochester where Dr. Davis had served. Thus followed his appointment to the Chair and the 16 fruitful years at Jefferson.

As an investigator, teacher (Figure 4-7-6), clinician and authority in urologic surgery, Dr. Davis became known throughout the world. Shortly after his arrival, the Department of Genito-Urinary Diseases changed its name to the Department of Urology. The teaching system was modified by a gradual reduction of didactic lectures and emphasis on small groups with
student participation. Dr. Davis was a severe quizmaster with an uncomfortable mixture of invective and cajolery until his point was strongly driven home.

In 1946 a Professorship in Urology was established under the bequest of Henry Reed Hatfield as a memorial to his father, Nathan Lewis Hatfield. Dr. Davis was its first occupant. He was also the first recipient of the Hugh Hampton Young Award of the American Urological Association in 1969. In addition to his memberships in a galaxy of scientific societies, he was President of the Medical and Surgical Association of the Southwest (1934–1935), of the Mid-Atlantic Section of the American Urological Association (1941–1942), and of the Philadelphia Urological Society (1943–1945). He held honorary membership in Urologic Societies of Britain, Greece, Mexico, and Argentina.

Under Dr. Davis's leadership, advanced training in Urology was established. The first residencies at Jefferson started in 1937 in Obstetrics under Dr. P. Brooke Bland, and the Department of Urology established one in 1939. World War II caused a delay in increasing the number of residents, but a second was created in 1946 and a third in 1947. In 1948 an arrangement with Professor John H. Gibbon, Jr., provided a year of training in General Surgery before beginning three years in the Urologic Residency.

Dr. Davis greatly improved the standard of care in the Urology Ward and Curtis Clinic. His teaching staff was strengthened by such members as Theodore R. Fetter, Walter W. Baker, George H. Strong, and Harry Bogaev. Four of these members were certified by the American Board of Urology, four served as Presidents of the Philadelphia Urological Society, and two became Presidents of the Mid-Atlantic Section of the American Urological Association.

In addition to more than 130 journal articles, after academic retirement Dr. Davis wrote a textbook Mechanisms of Urologic Disease (1953). He designed a cystoscopic-roentgenographic-fluoroscopic table constructed in Philadelphia by the Franklin x-ray Corporation. On this table the patient rested on a traveling carriage that moved by hydraulic motors back over the x-ray apparatus after the ureteral catheters were in place. His particular interests were in hypospadias, hydronephrosis, and early diagnosis and radical operations for carcinoma of the prostate.

Dr. Davis was most unhappy that the rules of the Board of Trustees caused his compulsory retirement to Emeritus status at age 65 in 1951. The Class of 1952 presented his portrait to the College. He remained active in practice, research, and authorship of articles for another 17 years until December 31, 1968, at which time he was 82 years of age. He died in 1982 at the age of 96.


Like Dr. Davis, Dr. Theodore Roosevelt Fetter (Figure 47-7), appointed June 15, 1951, was also to
serve as Chairman of Urology for 16 years. Born in Schaefferstown, Pennsylvania, in 1903, he grew up in Atlantic City, New Jersey, where he attended public schools. He took his premedical education at Lafayette College and graduated from Jefferson in the Class of 1926. This was followed by an internship at Jefferson Medical College Hospital for 27 months.

Dr. Fetter promptly chose urology as his lifetime professional interest. In 1929 he was appointed as Assistant in Genito-Urinary Surgery under Professor Hiram R. Loux. He subsequently became the personal assistant to Professor Thomas Stellwagen, who succeeded Dr. Loux. Following the untimely death of Dr. Stellwagen in 1935, Dr. Fetter had the unique opportunity of serving under a third distinguished Professor of Urology, namely Dr. David M. Davis. During these years he worked intensively in the outpatient and on the ward services, where he became especially interested and expert in cystoscopy. He also devoted much time to urologic pathology under Dr. Baxter L. Crawford, the Director of Clinical Laboratories in the Hospital.

Modern urology was developing rapidly during these years, based upon newer knowledge of physiology and microbiology. Intravenous pyelography, better cystoscopes, resector-Bovie machines for electric current cutting and coagulation, use of antibiotics, and anesthesia with use of intravenous fluids and blood loss replacement, were all major advances. Dr. Frederick B. Wagner, Jr. (Jefferson, 1941), of the Surgery Department, contributed pioneer work on arteriography in renal diagnosis as related to hypertension, renal artery lesions, and tumors, which was reported in the *Journal of Urology* in 1946. Dr. Davis and his staff, Drs. Charles W. Bonney (Jefferson, 1904), Willard H. Kinney (Jefferson, 1906), James McCahey, Harry Bogaev, and Theodore R. Fetter stayed in the forefront of these advances. Dr. Fetter, as a stellar clinician within the Department, rose through the ranks to Associate Professor and became Chairman upon the retirement of Dr. Davis in 1951. In 1959 Dr. Fetter was named the second Nathan Lewis Hatfield Professor of Urology. In that same year Lebanon Valley College awarded him an Honorary Doctor of Science degree.

In addition to his distinction as a clinician, Professor Fetter contributed nearly 100 articles to the urologic literature on a wide spectrum of topics. These papers were delivered at numerous local and national meetings. He assisted in revising the chapters on genito-urinary disease in the *Anspach Gynecology*.

As a teacher (Figure 47-8), Dr. Fetter was a hard taskmaster and continued Dr. Davis’s custom of intimidating the students. His mind was sharp and critical in ward rounds, in which he displayed a broad knowledge of medicine beyond his own specialty. His urologic residents received excellent clinical training under his direct supervision, especially in cystoscopy. To him the giving of the ultimate in the scientific and compassionate care of

**Fig. 47-7. Theodore R. Fetter, M.D., Fifth Chairman (1951–1967).**
patients was the most important aspect of medicine.

Although he served as Urologic Consultant to several other hospitals, Fetter's entire career was at Jefferson. He was continually active in the Alumni Association, in which he served as President in 1950. During the fund-raising campaign that started in 1951 in preparation for the "New Pavilion" of 1954 (later named Foerderer in 1962) Dr. Fetter served as Chairman of the Medical Staff Campaign Committee. He rarely missed a faculty meeting or his many committee meetings, and served as President of the Executive Staff of the Hospital for seven years.

From his earliest days in medicine, Dr. Fetter recognized an obligation to organized medicine to which he gave long and devoted service throughout his career. He served as President of the Philadelphia County Medical Society (1948) and the Pennsylvania State Medical Society (1952). He was also President of the Mid-Atlantic Section of the American Urological Association.


Paul Donald Zimskind (Figure 47-9), who succeeded Dr. Fetter in July, 1967, was born in Trenton, New Jersey, in 1931.8 His father, Dr. Joshua N. Zimskind, graduated from Jefferson in the Class of 1927. After receiving his elementary and high school education in Trenton, he graduated magna cum laude from Princeton University in 1953. He was awarded his M.D. degree from Jefferson in 1957. An internship, residency in general surgery for one year, and residency for three years in urology were then completed at Jefferson. With the award of a Postdoctoral Fellowship by the National Institutes of Health, Dr. Zimskind continued as a full-time graduate student in the Department of Physiology, earned his Ph.D. degree in 1964 (Figure 47-10), and maintained an appointment in the Urology Department as Research Associate. His thesis was on Studies of Urethral Dynamics. In an academic career in urology oriented chiefly to research and teaching, he was appointed Assistant Professor at Jefferson in 1964, on a geographic full-time basis and in charge of the Urology Research Laboratories.

In 1966 Dr. Zimskind was selected as one of the 25 Markle Scholars in Academic Medicine out of
68 candidates from throughout the United States and Canada. The John and Mary R. Markle Foundation of New York City provides a total sum of $30,000 at the rate of $6,000 per year for five years to the medical school at which the scholar will teach or do research or administration. This sum is used to supplement salary, aid research, and otherwise assist in the development of the scholar as a teacher or investigator. The committee at Jefferson unanimously proposed Dr. Zimskind as their candidate for this national honor. Little was he to know that during his second year as a Markle Scholar at the age of 36 he would be assuming the Chairmanship of the Department of Urology.

Dr. Zimskind was the natural, undisputed candidate to replace the sudden loss of Dr. Fetter. He became the first full-time, fully salaried Chairman and Nathan Lewis Hatfield Professor of Urology as well as one of the youngest men to reach the status of Executive Faculty. The appointment as Chairman did not interfere with his Markle Scholarship since the combined funds for his salary amounted to a modest $24,000 in 1968.

Dr. Zimskind's accomplishments in education, research, and patient care were commensurate with someone far beyond his years. His Urodynamics Laboratory at Jefferson had an international reputation for its productivity and excellence. He led studies on the dynamics of normal and abnormal urinary conduction using pressure recordings and fluoroscopic motion pictures of urinary tract activity; he evaluated the various laboratory, radiographic, and clinical features in

![Fig. 47-9. Paul D. Zimskind, M.D., Ph.D., Sixth Chairman (1967–1976).](image)

![Fig. 47-10. Paul D. Zimskind, M.D., as a research graduate student (ca. 1963).](image)
patients with renovascular hypertension in an effort to establish firm criteria for differentiating potentially correctible versus noncorrectible cases; and he designed projects to discover means of enhancing the preservation of functional renal and ureteral tissues for future organ transplantation.

As a teacher, Dr. Zimskind's lectures to the medical students were models of meticulous organization and clarity, coupled with a most engaging manner of delivery. He stimulated students and his residents in research problems. By the time of his sudden death at age 44, he had written 43 scientific papers and made 77 presentations worldwide.

Beyond his distinction as an educator, researcher, and clinician, Dr. Zimskind was an accomplished violinist who found time to participate in chamber music groups. He had a profound interest in classical and modern theater, accompanied by acting ability, radio experience, and occasional participation as a narrator for documentary motion pictures. In addition to his memberships in the various prestigious urologic societies, he belonged to the Philadelphia Art Museum, the Philadelphia Zoological Society, and was a volunteer in the Philadelphia Council for International Visitors, an organization that provides entertainment of foreign visitors in the home. He was an avid tennis player and photographer.

The entire Jefferson community was shocked by Dr. Zimskind's sudden death on February 29, 1976. This 44-year-old, beloved Chairman was apparently afflicted with an insidious form of Addison's disease that had not previously manifested itself, except, on retrospect, by an unusually dark complexion ascribed easily to his love of the outdoors. Family, colleagues, and friends presented his portrait to the College on April 15, 1983.

Stanford Grant Mulholland, M.D.; Seventh Chairman (1977–)

Jules H. Bogaev, M.D., Clinical Professor of Urology, became Acting Chairman of the Department until the appointment of S. Grant Mulholland as Nathan Lewis Hatfield Professor and Head of the Department on October 1, 1977.

Mulholland (Figure 47-11) was born in Springfield, Ohio, on September 1, 1936. Two years later, his family moved to the Philadelphia area, where he has remained. His father was a prominent Philadelphia urologist who was Professor and Chairman of the Department of Urology at the Medical College of Pennsylvania.

After attending Episcopal Academy, Dr. Mulholland received his B.S. Degree from Dickinson College in 1958, his M.D. from Temple University in 1962, and later an M.S. degree from the University of Virginia (1966). His thesis for the latter was The Effect of Vesical Mucosa on Bacterial Growth.

With interest in smaller town practice, Dr. Mulholland took his internship at the Reading Hospital in Reading, Pennsylvania. He then chose one year of general surgical training in Florida at the Tampa General Hospital (1963–1964). This was
followed by residency training in urology at the University of Virginia Hospital, Charlottesville, Virginia (1964–1968). During this period his research interest in urinary tract infection was stimulated and persisted for the ensuing 25 years. Although he became well known for his contributions in this field, his research interests diversified into other areas as well.

After his training at the University of Virginia, Dr. Mulholland entered the U.S. Navy and served at St. Albans Naval Hospital in Queens, New York City (1968–1970). It was during this time that he cared for Vietnam veterans and became interested in urologic trauma. After this tour of duty, Dr. Mulholland secured a position at the University of Pennsylvania as Assistant Professor of Urology (1970–1974) with promotion to Associate Professor (1974–1977). During his seven years there his interest in clinical urology was vastly extended into pediatric urology, surgery for stone disease, and urologic oncology. He served as a Urologist at the Veterans Hospital in West Philadelphia, Children’s Hospital, and the Hospital of the University of Pennsylvania. He was also Chief of Urology at the Philadelphia General Hospital through its closure in the mid-1970s.

Dr. Mulholland’s immediate goal on arrival at Jefferson was the organization of highest quality teaching for the medical students and residents, which resulted in heightened popularity of the Department. Research was expanded by appointment of Hugh J. Callahan, Ph.D., a biochemist, and three laboratory technicians. The main research interests centered on infection, infertility, and cancer. In 1983, Demetrius H. Bagley, M.D., an international authority on endourology and instrumentation of the entire urinary tract, was added to the staff as Associate Professor in Urology and Radiology. Under Dr. Bagley the Department developed extracorporeal lithotripsy for dissolution of urinary tract stones. Dr. Mulholland also developed the Sexual Function Center, which became well known locally and nationally. Irvin H. Hirsch, M.D., appointed in 1985, added the specialty of infertility and neurourogynology. This led to activities in sperm banking, artificial insemination, and artificial ejaculation stimulation of spinal cord-injured patients and neurological patients.

Dr. Mulholland has authored nearly 100 scientific articles over the past 25 years. He is a member of the important local, national, and international organizations in his field. Among his many committee activities may be mentioned the Executive Committee of the Philadelphia Urologic Society (President-Elect in 1987) and the Mid-Atlantic Section of the American Urological Association.

In all aspects of modern urology—teaching, research and full-service care, the Department is in a strong competitive stance for continued leadership and productivity.

References