Early radiology meetings provided opportunities for interested members, who often were the only practitioners in their areas, to share new techniques and exchange information. The members of the American Roentgen Ray Society posed in Saratoga, New York, at their annual meeting in 1919. (Courtesy of the Center for the American History of Radiology, Reston, Va.)
On 28 December 1895 Wilhelm Röntgen made his famous communication to the president of the Physical-Medical Society of the University of Würzburg. Although this venue was rather obscure, German science occupied a preeminent status in the world, and the backing of a sober scientific society gave instant credibility to the report, even though Röntgen did not enjoy an international reputation. The New York Sun as early as 6 January 1896 reported a "marvellous triumph of science" without any indication of its potential influence on medical practice. The newspapers reported the ability of the new rays to see through living human flesh, but the path of future utilization of the X ray was unfocused. Immediately, lead-lined underclothes became available for sale, and multiple questionable uses of the new light created public confusion.¹ No medical organization existed in America which could seize the initiative for control of the X ray by physicians. Electricians, physicists, photographers, and electrotherapists could not easily be accommodated under one organizational umbrella. The largest medical organization, the American Medical Association (AMA), had a total membership of only ten thousand, with widely divergent interests.

In Britain and on the continent, medical roentgen societies were quickly established to share knowledge, disseminate new findings of medical interest, and establish the new rays as a medical, not a lay, sphere of interest. Existing medical journals had little interest in publishing material relating to the X ray until Britain’s first radiological journal, the Archives of Clinical Skiagraphy, appeared in May 1896 under the editorship of a twenty-four-year-old medical student, Sydney D. Rowland. During that same year an attempt to form a society of interested physicians was initiated by Dr. Samuel H. Monell, a pioneer radiologist practicing in New York City. There was considerable public interest, but it was of a nonspecific nature, with admiration of the images of shells or foreign bodies but no consideration given to the problems which can best be handled in a legitimate professional setting by a clearly defined professional organization.

The American Roentgen Ray Society

In the meantime, Heber Robarts, an eclectic St. Louis practitioner of electrotherapy, who had served as an inspector of mine sanitation and also
as a surgeon to the railway systems of the west, started in 1896 a publication, the American X-Ray Journal, wholly owned by him, to encourage medical interest in the X ray. In 1899 John Rudis-Jicinsky, a physician practicing in Cedar Rapids, Iowa, wrote to Robarts, suggesting the formation of a society of physicians and others interested in the medical uses of X rays. He sent forty handwritten invitations to physicians he thought might be interested, inviting them to meet in the St. Louis offices of Robarts.2

About fifteen potential members appeared and agreed to form the Roentgen Society of the United States (Fig. 22.1). Robarts was selected its first president and Rudis-Jicinsky its secretary. The American X-Ray Journal was adopted as its official organ, and a general meeting was scheduled for 13 and 14 December in New York. The secretary then sent out two thousand handwritten letters inviting interested parties, not necessarily all physicians, to the meeting. Originally membership was open to all with or “without credentials if they are members of medical or other scientific societies.” Only brief minutes of the first two meetings in New York and Buffalo are available, but we know the name of the organization was changed to the Roentgen Society of America and then to the American Roentgen Ray Society (ARRS) as an inducement for Canadians in the specialty to join (Fig. 22.2).3,4

The early years were characterized by turmoil and confusion. Some of the leaders realized that a primary goal of the society should be to achieve scientific respectability on a level with that of surgery, obstetrics, and internal medicine. Implicit in this goal was medical control of the use of the X ray. After all, this was a technical discovery which could easily become the turf of nonphysician workers and become a subordinate art like that of the brace maker for the orthopedist. Control required recognition of the physician as the over-
seer of proper film-making as well as the understanding that only a trained physician was qualified to interpret the images. When the dominance of the physician was clearly defined he could expect the collegial respect of his peers as well as the appropriate compensation accompanying that respect. Unfortunately, early society membership included many manufacturers and some outright charlatans. Members of the American Electrotherapeutic Society, who had been using electrical stimuli in the treatment of various real and imagined medical problems, were a major force in the ARRS. Their advantage was the possession of electrostatic units that could easily be modified for X-ray production. By 1902 Robarts, disheartened by his failure to control the quality of the membership and by continuing financial losses on the journal, sold the journal to Harry Preston Pratt, an electrotherapist who also owned the Chicago College of X-Ray and Electrotherapeutics. Pratt was an aggressive champion for the electrotherapists and was a constant thorn in the side of the ARRS leadership. He boldly tried to told the Chicago Electro-Medical Society into the ARRS, but his efforts failed.5.6

The journal also had a short life and, under Pratt’s guidance, lasted only a few years and then became a part of the electrotherapy journal system.

Some of the problems of the fledgling organization arose from the lack of standards for practitioners as well as the lack of clearly defined criteria for membership. Arial Wellington George, a radiologist at the Children’s Hospital in Boston, in 1903 said, “Discredit has been thrown upon the value of diagnosis by the X-rays....This arises from the almost ridiculous interpretation of the plates by those whose knowledge in no way fits them for this expert work.” The leadership of the ARRS rose to the challenge, however, and in 1905 in Louisville the executive council dropped seventy-eight members, sixteen of whom were not physicians; almost a third of the membership, including thirty-six charter members, were excluded from the rolls. New members were required to restrict their practices to radiology and to have spent at least two years in the specialty. These rules gave the society an elitist appearance and kept membership growth modest, while achieving the main goal of the leaders: to begin the process of making radiology a separate specialty and not a subdivision of medicine or surgery. As late as World War II many medical schools and military organizations considered radiology worthy only of subordinate status. In later years, as training standards were better defined, new applicants for ARRS membership were required to present written scientific work and to show evidence of having practiced the specialty for at least five years before eligibility was established. They were also required to present letters of endorsement from two other radiologists who were already members of the society.

The ARRS continued as the predominant scientific radiological organization in the United States with a successful journal and well-organized annual meetings. Because travel was more difficult in the early part of the century, mid-winter meetings were held as a supplement to
**Heber Robarts (1852-1922)**

Dr. Heber Robarts was born in Godfrey, Illinois, the son of Dr. James Robarts, a physician of broad learning beyond his medical skills. The son briefly attended Jefferson Medical College and then graduated from the Missouri Medical College in St. Louis in 1880. While working as a surgeon for the Great Northern Railroad he had the first news of Röntgen’s discovery, and his fertile mind immediately grasped the implications for medicine. He returned to St. Louis and established a small office to apply the new knowledge.

It was here in May 1897 he published the first issue of the *American X-Ray Journal*, not the first radiological journal in the world but the first *monthly* journal printed in English. After working with Rudis-Jicinsky to establish the ARRS and serving as its president for two years, he left the society and turned his attention to radium therapy, including publication of a small manual entitled *Practical Radium*. Although he was not involved in the reorganization of the ARRS, he was able to witness the expulsion of those who had made so many problems for him when he was trying to achieve status as a science for the field.

His work with radium and early Crookes tubes led to a severe radiation dermatitis with malignant change and eventual metastatic disease. Although in great pain before his death, he gave detailed instructions for the conduct of his autopsy in order to maximize the scientific benefits. He died in 1922, remembered as both a great pioneer and a tragic martyr.8,9

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**Johann (John) Rudis-Jicinsky (1865-1921)**

Dr. John Rudis-Jicinsky was born in Chicago of Serbian parents in 1865. He received his medical training at the University of Illinois, graduating in 1886. He settled in Cedar Rapids, Iowa, and was practicing there when he heard of Röntgen’s discovery.

He started experimenting with the rays as early as 1896. Familiar with Heber Robarts’s new journal, the *American X-Ray Journal*, he suggested to Robarts the formation of a society of interested workers in the new field. He served as its first secretary but was removed from office in 1902 for scheduling controversial speakers on the scientific program.

He suffered further misfortune in the society he had co-founded when he was expelled in 1911 for reporting roentgenograms of anatomical specimens as those of a patient. He continued as a radiologist and served in the Serbian Army in World War I. He published several papers on the identification of fractures and foreign bodies in the field, as well as his use of X rays in the sterilization of wounds.

He returned to Chicago where he died in 1921.
the annual meeting. These sessions were discontinued in 1925.

The leadership of the society was an impressive one and among those who had a vision for the specialty was Preston Hickey, professor of radiology at the University of Michigan, who not only succeeded in nurturing the American Journal of Roentgenology (A.J.R.) through its early difficult years but kept prodding the society to promote the specialty and maintain its scientific integrity.

The ARRS maintained its annual meetings unbroken until World War II when, because of wartime travel restrictions, a joint meeting was held with the Radiological Society of North America (RSNA) in 1944 in Chicago. The success of this joint meeting led to a proposal by Paul Hodges of the University of Chicago and Fred Hodges of the University of Michigan for a merger of the two major societies (ARRS and RSNA) along the organizational lines of the AMA, with a common journal (a suggested title was the American Journal of Radiology) and allowance for subspecialty groups to affiliate under a common leadership. Although the proposal stimulated considerable interest, the end of the war and the incredible growth of radiology and the technological explosion that followed made the idea untenable. Between 1940 and 1970 thirty new radiological organizations were incorporated.

The ARRS eventually modified its membership criteria to allow American Board of Radiology (ABR)-certified or equivalent-certified candidates to join the society without the need for written papers or practice experience. During the post World War II years the ARRS found its meetings smaller and less well attended as the RSNA grew in membership and stature. It was obvious that change was necessary. Under the leadership of Colin Holman of Rochester, Minnesota, some beginnings were made to break the perception of the ARRS as an elitist organization. The A.J.R. also was experiencing some financial difficulties because of production and editorial problems and policies.

Raymond A. Gagliardi, a community radiologist from Pontiac, Michigan, and a member of the clinical faculty at Wayne State University School of Medicine, assumed the chair of the Publications Committee in 1976, changed the editorial office to a full-time paid professional staff, changed publishers, and, together with Melvin M. Figley, changed the name and appearance of the journal. Eventually, the society was able to translate these early actions to self-publishing, and the A.J.R. now represents the financial base for the society actions, including fellowships for promising academicians and for radiologists interested in editorial studies. Following this activity, Gagliardi served as secretary of the ARRS for several years, guiding revision of the management procedures of the society with full-time director, staff, and office as well as activating an Annual Meeting Committee to plan and manage the annual meeting in a more orderly and modern manner. By virtue of these actions and the recruitment of some of the outstanding leaders in both the academic and community radiology, the society now is larger and stronger than ever before, while retaining its leadership role for all of radiology in days of subspecialization. The goals of the founders to have training and practice criteria as well as to establish radiology as a specialty on the same level with the older clinical disciplines had been achieved.

ORIGINS OF THE RADIOLOGICAL SOCIETY OF NORTH AMERICA

As the ARRS developed, the membership came predominantly from the eastern part of the country and annual meetings were held in the eastern states. It was difficult for physicians beyond the eastern seaboard to attend meetings, and it was economically impossible for many to limit their practice to radiology. Travel was generally by rail. Moreover the requirement that new members have letters of sponsorship from two other members constituted an additional obstruction, because some areas had no members within any reasonable distance who knew aspirants well enough to sponsor them. The ARRS was aware of these problems and
Preston Manasseh Hickey (1865-1930)

Preston Manasseh Hickey, one of the truly great men in radiology, was born in Ypsilanti, Michigan, in 1865. He received his medical degree at the Detroit College of Medicine, predecessor of the Wayne State University School of Medicine, in 1892.

He started his career as a pathologist and otolaryngologist, but a passion for amateur photography led him to investigate the possibilities of Röntgen's "new light." He was asked to organize an X-ray service at Harper Hospital in Detroit and later was charged with the responsibility of the "X-ray rooms" at the University of Michigan. A born teacher and innovator, he dedicated himself to the cause of earning recognition for radiology as a specialty on a level with the older established clinical disciplines. He served as first editor of the American Quarterly of Roentgenology and it successor, the American Journal of Roentgenology.

Among his many contributions were his use of an oblique view at a time when all views were frontal, development of the reporting method used today and calling it an "interpretation," and the early use of negative images rather than positive prints. He also was an organizer of the Section on Radiology of the AMA, and in 1920 spearheaded the Roentgen Ray Protection Committee of the ARRS, the most important early attempt to place radiation protection on a scientific basis. He also developed in 1904 one of the earliest sections devoted to children's radiology, only five years after the first pediatric radiology department was started in Boston.

He is remembered most as a great leader who exposed "quacks and other fakes" and promoted radiology and its reporting methods to the highest level.12

*had established "Western Section" meetings as well as an associate membership category for people who did not meet all the criteria for membership. These compromises were not enough and, at the urging of Edwin C. Ernst of St. Louis, a meeting was called in the offices of Miles B. Titterington (formerly the offices of
Russell D. Carman before his move to Rochester, Minnesota) to consider Ernst’s proposal that “the time was ripe for the formation of a central or western roentgen society.” Those in attendance were Ernst, Titterington, Gray Briggs of St. Louis, and Fred O’Hara of Springfield, Illinois. On 15–16 December 1915 the Western Roentgen Society (WRS) was organized in Chicago with Fred S. O’Hara of Springfield, Illinois, as its first president. Membership was available to those physicians who had devoted a major portion of their practice time to radiology for only one year rather than the two years demanded by the ARRS. The group’s original bylaws fixed Chicago as the annual meeting site. This major railroad hub provided much greater access at less expense for the rapidly growing number of radiologists in the central and western states. In consequence the WRS grew with a rapidity beyond anyone’s expectations. In 1918 and 1919 the Journal of Roentgenology was published by the WRS with little success. By 1920 the WRS had almost five hundred members with a wide national distribution. It was then renamed the Radiological Society of North America to recognize, as had the ARRS before it, that it served more than a narrow geographical base. The early leaders were men of great vision, but it is doubtful that even they could have imagined the growth of this society to its present status as a truly international organization.

The Journal of Roentgenology had not been a financial success and was followed as the organization’s official journal by the Journal of Radiology, owned by a nonprofit organization controlled by Albert Tyler of Omaha. In consequence of the organization’s desire to control the scientific content of the journal, the dispute between the RSNA and the owners of the journal resulted in a lawsuit against the RSNA. The court ruled in favor of the RSNA, the journal reverted to the control of that society, and in 1930 it became known as Radiology, destined to become the radiological journal with the largest circulation in the world. Much of the credit for the success of the RSNA belongs to Donald S. Childs of Syracuse, New York, secretary-treasurer from 1932 until 1960 and responsible for giving the RSNA administrative stability during some difficult years.

The annual meetings of the RSNA continued to grow, and the membership became the largest of any radiological association in the world. The RSNA has encouraged participation by allied health professionals and maintains a close relationship with the American Association of Physicians in Medicine. Its meetings attract many groups that provide support services. The annual meeting has become the premier international scientific radiological assembly (Fig. 22.5).

The American College of Radiology and the AMA

In 1923 the California legislature passed a bill authorizing establishment of “X-ray laboratories for medical purposes.” Involvement of physicians was not required, and there were no special qualifications required of those who would operate these laboratories. Although vetoed by the governor, the bill reinforced a public perception that radiologists were simply well-educated technicians. This action especially disturbed Albert Soiland, a radiotherapist from Los Angeles who had just completed service as president of the RSNA. Soiland was concerned that radiologists had not been accorded a status commensurate with their accomplishments. The whole face of medical practice had been changed by Röntgen’s discovery, but there was a tendency on the part of physician and non-physician alike to credit the discovery rather than the physician pioneers who had made the discovery an effective tool. When the AMA met in San Francisco on 16 June 1925, Soiland offered a resolution that the AMA officially recognize radiology as an integral part of medicine open only to licensure by physicians and that the AMA form a Section Council on Radiology. The AMA recognized the status of radiology as a clearly medical discipline but rejected the concept of a separate section.
DONALD S. CHILDS (1888-1960)

Donald Childs was born in Syracuse, New York, and received his education there, including his M.D. degree at Syracuse University School of Medicine in 1909. He devoted his entire professional life to the university and the community. He served as professor of radiology from 1914 to 1948 and, because of his recognized knowledge of musculoskeletal anatomy and physiology, he also served as professor of osteology. In addition to his academic duties, he organized and directed the radiology departments of several Syracuse hospitals.

His great contribution to international radiology started in 1931, when he assumed the role of secretary-treasurer of the RSNA and business manager of Radiology, now wholly owned by the society. At the height of the Great Depression, the RSNA and the journal were in economic and organizational crisis. Childs had a natural flair for financial management and was able to guide the society to financial security as well as manage the establishment of the RSNA as a self-publishing organization. He assumed the major role in meeting planning, and many of his principles are still used and have made the annual meetings of the RSNA the largest and most important in the world.

This energetic man also served as president of the American Board of Radiology and chairman of the Section on Radiology of the AMA and is remembered as "Dr. RSNA." 18, 19

Soiland then invited twenty-one radiologists to dinner on the evening following that fateful AMA meeting and proposed formation of a society, limited to one hundred members, to be called the American College of Radiology (ACR), analogous in some ways to the prestigious and powerful American College of Surgeons. The members would be chosen from distinguished radiologists who had practiced the specialty for at least ten years and who had won unanimous approval of
the chancellors, the governing body of the new organization. The members would be called “fellows” and would add the initials F.A.C.R. after their names and medical degrees. Soiland envisioned an organization that would coordinate the activities of other radiological societies and standardize training programs and procedures while encouraging research. The founding group agreed there was a need for just such an organization.

This action was the final link in the establishment of radiology as a purely medical discipline on a level with other clinical specialties and worthy of the same degree of respect. The first president chosen by the group was George E. Pfahler of Philadelphia, widely respected as an active innovator in the specialty and one of the true American pioneers. On 11 June 1924, in Chicago, the ACR held its first formal convocation, a tradition which continues at the annual meeting of the college. New fellowships were originally to be limited to five candidates, but the candidate list now often exceeds one hundred names each year.

Although Soiland had been eminently successful in launching the ACR, he was continually rebuffed by the AMA in his attempts to establish a Section Council on Radiology within the framework of the large and powerful parent organization. This was crucial, because organizing radiologists was meaningless unless the entire body of physicians as exemplified by the AMA accepted the goals of radiology as consistent with the needs of medicine in general. Soiland realized he had failed because he had insufficient knowledge of the legislative and organizational procedures of the AMA.

In 1924 he took an entirely new approach to persuade the AMA to establish a permanent section. It was AMA program policy to include all scientific communications to a Section on Miscellaneous Topics if no section was available in which the papers could be logically included. Soiland encouraged his fellow radiologists to deluge the program committee with submissions on radiological topics. The message was clear, and, with the combined support of the ARRS and the RSNA, the AMA approved a permanent section.

Meanwhile, the AMA’s Section Council on Radiology, which started as a very small group, has grown considerably. Representatives of the major radiological societies sit in the House of Delegates as do many influential members who are regular delegates from their state chapters. As the AMA has
Albert Soiland (1873-1946)

Albert Soiland was born in Norway and emigrated to the United States at age ten. He attended the University of Illinois and settled in California after he completed his medical studies at the University of Southern California in 1900. While still an undergraduate he had helped build an X-ray generator for the California Hospital (1898) and one for the Los Angeles County Hospital.

Although only four years out of medical school, he was asked in 1904 to organize a department of radiology at the University of Southern California, becoming its chairman and, later, full professor. He eventually devoted all his professional efforts to radiation therapy.

He served as president of the American Radium Society and of the western division of the ARRS. Following the founding of the RSNA, he served as its president and was one of the founders and chairman of the Section Council on Radiology of the AMA. In spite of all these contributions, Soiland is best remembered for his founding efforts of the ACR. Benjamin Orndoff, himself an illustrious pioneer, summed up Soiland's career as follows: "In the development of radiology in North America he played a significant role. He was a leader in elevating it to a specialty of the first rank, eliminating the impostors and linking it solidly with medical science within the medical profession." At the conclusion of World War II he made a sentimental journey to his war-ravaged homeland and died there in 1946.22,23

increased its emphasis on socioeconomic and services to the poor, the importance of the section has increased. Government officials, not understanding the makeup of specialty societies, often prefer to deal with a parent organization representing all of medicine. In consequence, the voice of radiology is sometimes better heard through this small section than through a bigger society. In 1995 the speaker of the House of Delegates and president-elect
is Daniel H. (Stormy) Johnson, a Louisiana radiologist.

The early years of the ACR were not productive; many people doubted the need for such an organization and its likelihood of survival. Ways to standardize practice and radiation protection were always discussed by the ACR, but it was perceived as a ceremonial society without major influence on everyday practice. In 1931 Rollin H. Stevens urged the group to concern itself more with the establishment of standards for training radiologists, and in 1932 Arthur Christie raised the issue of an examination process for certification of radiologists. In 1933 an attempt at unification of the RSNA and ARRS led to the American Congress of Radiology under the presidency of Henry K. Pancoast. The congress met only once, but it provided an opportunity for the representatives of the major societies to consider joint sponsorship of an examining board. In 1938 the ARRS, RSNA, ACR, American Radium Society, and the Section on Radiology of the AMA joined to form the ABR. A mechanism for standardizing training and examining candidates who sought certification as specialists in radiology was now a reality.

This in itself was a major achievement, but the ACR still seemed to be an organization trying to find its appropriate niche. The limited membership and ceremonial convocation had become the subjects not only of ridicule but of downright animosity. In 1935 John T. Murphy, for the board of chancellors, enlisted W. Edward Chamberlain, chairman of the department of radiology at Temple University, to find ways to revive the ACR and give it purpose. Chamberlain was given unrestricted authority by the board of chancellors and installed as chairman.24

During a five-year period Chamberlain created a new category of affiliation, called “members,” and opened it to any diplomate of the ABR. The ACR then embarked on an entirely different program, assuming leadership in the socioeconomic of the specialty. Ever since, the ACR has been dealing with the problems of everyday practice. As government intervention and third-party payers became significant forces in medical practice, the ACR, using knowledgeable staff and volunteer leadership of many radiologists, has been able to deal with problems that even the most effective and dedicated individual radiologists could not manage on their own. Their work with early Blue Cross/Blue Shield plans succeeded in establishing radiology as a professional rather than a hospital service in most places. These early endeavors led to later victories when, in 1965, revisions in the Medicare law threatened to exclude the hospital radiologist’s service with the hospital component when paying for services. Although the ACR has continued its emphasis on education, sponsoring refresher courses and self-help materials and monitoring continuing medical education efforts, its greatest contribution has remained in socioeconomics. This emphasis was reinforced when the ACR chose to move its headquarters to Reston, Virginia, close to the Washington legislative scene. The ACR headquarters also serves as the administrative base for many other societies, large and small, that use ACR resources.

THE ASSOCIATION OF UNIVERSITY RADIOLOGISTS

Following World War II and with the beginning of the space age, radiological technology expanded rapidly. With the introductions of new technologies including computed tomography (CT), magnetic resonance (MR) imaging, ultrasound, and new techniques such as interventional and vascular, new societies sprang up. Radiology was starting down the path of subspecialization which had already taken place in other specialties. The general radiologist was becoming eclipsed by his specialized colleagues. These events created special problems for the large training centers which assumed the responsibility of training young people for community practice as well as academic appointments. Hugh Wilson of St. Louis had been favorably impressed by an organization of full-time academic surgeons, the Society for Clinical Surgery. Envisioning a similar organization of academic radiologists, he
William Edward Chamberlain (1892-1983)

William Edward (Ed) Chamberlain was a native of Ann Arbor, Michigan, but was raised and educated in California, receiving his B.S. in electrical engineering from the University of California in 1913 and his medical degree from the same school in 1916. His engineering background helped influence him to enter the growing field of radiology, where he could use his talents for research and innovation to best advantage. He became chief of radiology at Stanford University Medical School in 1920 and professor in 1927.

He left Stanford in 1930, accepting the post as professor and chair of radiology at Temple University in Philadelphia. It was there he did most of his work, developing the concept of image intensification as well as significant contributions to neuroradiology, cardiac radiology, and to the engineering aspects of the specialty. He was considered one of the great teachers of radiology, but still managed to make his greatest contributions to the revitalization and reorganization of the ACR.

His remarkable career did not end with his retirement from Temple, for he spent the next twenty years working full time in the Veterans Administration, mostly in research but also as chief radiologist at the Veterans Hospital in Brooklyn, accepting this position at age eighty-four. He continued teaching young residents until his ninety-first year, serving as visiting professor at Thomas Jefferson University as late as 1982. His death the following year closed one of the longest active careers and one of the most productive in the history of the specialty.25

solicited the support of Russell H. Morgan of Johns Hopkins, Paul Hodges of the University of Chicago, Fred Hodges of the University of Michigan, and Henry S. Kaplan of Stanford University. Meeting in Chicago in May 1953, the Association of University Radiologists (AUR) was organized with Morgan as its first president and William B. Seaman of Washington University in St. Louis as its secretary.26,27 Wilson wanted the group to exchange ideas specifically related to academic radiology and radiological investigation. Its stated goals
were: to encourage laboratory and clinical investigation in radiology by the informed exchange of ideas, to stimulate an interest in academic radiology as a medical career, and to advance radiology as a medical science.

In keeping with Wilson's ideas, active membership was to be small and restricted to persons under age fifty who occupied full-time faculty positions in university departments of radiology. As university costs skyrocketed, however, many radiologists in academic practice spent much of their time practicing clinical radiology, and the distinctions between academic and community practice became blurred. In the meantime, with prodding by the ABR, many nonacademic training programs began to equal or even surpass some of their academic competitors. The AUR broadened its membership requirements to eliminate the need to be full-time, so long as the candidate was involved as chairman or program director of an accredited training program. The membership grew, and the importance of the organization was recognized by its acceptance as a sponsoring society of the ABR. Because it is most intimately involved in developing teaching programs, it seems appropriate that the AUR should have a voice in setting policy. The AUR also produces Academic Radiology, its official organ with major emphasis on research, both clinical and laboratory. In 1994 the AUR elected to self publish its own journal, and it is produced for them by the ARRS publications division.

Two other organizations, the Society of Chairmen of Academic Radiology Departments and the American Association of Academic Chief Residents in Radiology also meet at the AUR's annual meeting. These two societies discuss funding, staffing, organization, and goals of academic services. As the AUR founders envisaged, they also serve as a vehicle for identifying and encouraging potential academics.

Allied Health Professionals

We have concentrated here on the organizations formed by physicians, but in probably no other specialty are the skill and services of technical associates of greater importance. The same criteria for training and organization would logically apply to these allied groups.

The earliest organization of technologists was formed in 1920 as the American Society of X-Ray Technicians. Ed C. Jerman had called a meeting of fourteen technicians to form an organization that would provide a professional voice for technologists and share educational, technical, and administrative information. By 1929 the society had grown and started publication of the X-Ray Technician with a national circulation. As the educational requirements became more stringent, the group changed its name to the American Society of Radiological Technologists (ASRT) to reflect the increasing professionalism of its members. The journal became Radiologic Technology, and it remains the only peer-reviewed journal in the field. The ASRT encompasses all of radiological technology, although many new societies covering technical aspects of CT, MR, ultrasound, nuclear medicine, and radiation oncology have been organized with similar goals. An interesting sidelight is the organization of administrative societies (American Healthcare Radiology Administrators and the Radiologists' Business Managers Association) reflecting the increasing role of technologists in the management of hospital departments and private practices.

The American Registry of Radiologic Technologists was organized in 1922 to set standards for technologists and also to conduct examinations for certifying eligible candidates. This organization has kept a record of all technologists who have met the standards of training and have been certified, just as radiologists judge their peers by similar criteria. Although there are many technological organizations, the groups have recently sponsored an annual conference, originally called the Summit on Manpower, to evaluate the needs for technologists in the years ahead.

Conclusion

One of the primary reasons for the formation of any scientific organization is the need to disseminate knowledge.
Hugh Monroe Wilson (1902-1978)

Hugh Wilson was born in Jacksonville, Illinois, and completed his medical studies at Washington University in St. Louis in 1927. Greatly influenced by Evarts Graham, he started surgical training at the Royal Victoria Hospital in Montreal. A severe allergy to surgical glove material forced him from surgery, and he returned to St. Louis to complete radiology training with Sherwood Moore. In later years his right middle finger was amputated as a result of chronic eczema related to his allergy rather than as a result of radiation damage.

After brief staff service at St. Louis, he was called to Yale in 1934 to serve as its first full-time radiologist, although the department was a division of the department of surgery and remained so until 1945, when Wilson became the first chairman and professor of an independent department. He was recalled to St. Louis in 1949 to succeed his former chief as the second director of the Mallinckrodt Institute of Radiology.

A shy, almost reclusive man, he felt the appropriate role of the academic radiologist was to teach and do research with clinical practice as a mechanism for teaching and not a primary objective. He developed the "preview" method of teaching for closer preceptor-student contact.

His major contribution was the organization of the AUR for, although he was somewhat scornful of medical organizations as political entities, he felt the need for properly focused groups.29

This has been especially true of radiology because it did not have the centuries of evolution which medicine or surgery enjoyed. Every month saw a new development. Until the 1960s most radiologists did diagnosis and radiation therapy and were the recognized authorities on the use of radium. As the body of radiological knowledge grew, so did the proliferation of radiological organizations. Radiation oncology grew away from its antecedents in general radiology, and
there are today no active training programs for "general" radiologists according to the old definition. The annual meetings of the ARRS no longer have sessions on therapy. Some radiologists wonder what keeps the diagnostic radiologist and the radiation oncologist in the same organizations, except for the common denominator of using ionizing radiation. These remarks only point to the importance of the radiological organizations in the development of the science of radiology. It is fair to say that without radiological organizations, radiology, as we know it, simply would not exist.

The first century of radiology has seen the organization of more than a hundred professional societies, many of which did not survive for a variety of reasons. Rapidly changing technology may make an organization irrelevant or cause it to change direction. In 1985 the ACR listed eighty-one recognized radiological organizations in America, not including all the local and state organizations as well as those with a narrow focus. Some of these will not survive, and some will outstrip their senior relatives. These societies now meet at an annual "summit," where the common problems of all radiology are discussed and debated. Organized by the Inter-Society Commission of the ACR, this annual meeting has served to promote a unity in the specialty not seen since the earliest days. Many societies are starting to revisit the conclusions of the founders that radiology is a separate and distinct medical specialty and only by common action can that identity be preserved.

From the beginnings of the first society, the ARRS, in 1890, all these organizations have striven to make radiology the best it can be with ongoing improvement of education, technology, and service. In less than a hundred years, radiology has become one of the most exciting of medical specialties. In no small measure the dedication of the many individuals who made these societies function has made possible the present position of the specialty.

REFERENCES:
8 Brecher, The Rays.
16 Ibid.
22 Ibid.