Human civilization began about 200,000 years ago, yet the ability to perform neurological surgery has evolved in just the last 150 years. Although there are many cities that can claim to have been the incubator of modern neurological surgery, the rise of this surgical subspecialty in New York City in the late 19th and early 20th century mirrors what was occurring around the world. The first confirmed brain tumor operation in the US was performed there in 1887. The author describes the role of several pioneers in the development of neurological surgery. Charles Elsberg was the first dedicated neurological surgeon in New York City and was instrumental in the development of the Neurological Institute and the careers of several other notable neurosurgeons.

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New York City at the dawn of neurological surgery

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Although there are many cities that can claim to have been the incubator of modern neurological surgery, the rise of this surgical subspecialty in New York City in the late 19th and early 20th century mirrors what was occurring around the world. The first confirmed brain tumor operation in the US was performed there in 1887. The author describes the role of several pioneers in the development of neurological surgery. Charles Elsberg was the first dedicated neurological surgeon in New York City and was instrumental in the development of the Neurological Institute and the careers of several other notable neurosurgeons.

First Brain Tumor Operation in the US

The first reported brain tumor operation in the US was performed in New York City in 1887 by Robert F. Weir, a general surgeon at New York Hospital. The case was reported by W. R. Birdsall, a neurologist on the faculty of the College of Physicians and Surgeons, with Weir as a coauthor. The patient was a 42-year-old man who was initially diagnosed by Edward Constant Séguin, one of the most distinguished New York neurologists of the period. In November 1885, after 2 or 3 months of observation, Dr. Séguin recognized a hemianopic defect, gait imbalance, and intermittent diplopia. The diagnosis was a tumor of the mesial aspect of the right occipital lobe, involving primarily the cuneus, extending downward toward the tentorium cerebelli and perhaps also upward toward the paracentral lobule. Dr. Charles Mills, a prominent neurologist at the University of Pennsylvania, later wrote about the occasion:

“On the invitation of Dr. Séguin I went to New York to witness the first operation for a tumor of the brain by an American Surgeon, Dr. Weir.”

The surgery was performed on March 9, 1887, in the presence of Drs. Birdsall and Séguin as neurological counsel. Also in attendance were several neurologists and surgeons who, in later years, would become instrumental in developing neurological surgery as a subspecialty. Among those observing were Charles Dana, the first professor of neurology at Cornell; Bernard Sachs, a neurology consultant at Mount Sinai Hospital; Allen Starr, professor of neurology at Columbia University College of Physicians and Surgeons; Robert Abbe, a general surgeon at St. Luke’s Hospital; and William T. Bull, chief of surgery at New York Hospital.

Some descriptions of the operation are quoted and paraphrased as follows:

The head was shaved, and the scalp washed with green soap and water, and then with ether, and subsequently covered for several hours with carbolic cloths ... a U-shaped flap was made with the base upward... The trephine opening was made and the bone rongeured away... The dura mater, non-pulsating, rose tensely in the space... On opening the dura, the tumor at once rose into the bony opening. It was purplish-red color, like kidney structure, and was covered over by thin cellular tissue, with large veins ramifying in it... The tumor was therefore incised, and some of its softened, granular, and fatty-
looking contents forced out … and enabled the forefinger to be passed between the cranium and tumor … the delicate cellular attachments that held the mass in place were felt to yield easily… By drawing the finger gently toward the cranial opening, the tumor was torn nearly in two … and withdrawn by the end of the finger-end and nail…. The operation was well borne until the final enucleation, when the pulse fell from loss of blood. The limbs were bandaged and whiskey given subcutaneously … pulse of 132... On coming out of ether he moved all his limbs... At six hours he was conscious but dull. He was given a salt transfusion … but failed to respond and died shortly thereafter.²,³,²¹,²⁶,³¹ (Fig. 1)

By modern standards the procedure was a disaster, with a bone flap too small, no way to stop the bleeding scalp, no rubber gloves, inserting the finger to tear the tumor out of the brain, ripping bridging veins to the midline, and avulsing the arterial supply without the means to stop the bleeding. It is probably fortuitous that the patient died of massive blood loss before succumbing to sepsis, venous infarction, and brain swelling. Nonetheless, it was this pioneering effort that gave rise to the first successful brain tumor removal later that same year in Philadelphia by Dr. William Keen.¹⁴

**Origin of Neurosurgery in Neurology and General Surgery**

The origins of neurological surgery lie in the 1860s with the concept of cerebral localization and spinal physiology. Prior to the development of cerebral localization, the brain was considered like any other solid organ, functioning as a unit. It is illustrative of the times to review the vigorous debate being waged at a meeting of the Société d’Anthropologie in Paris in 1861. Louis Pierre Gratiolet, a physician-scientist who had been reluctant to accept the doctrine of Bouillaud, became a devoted advocate of the concept when the autopsy confirmed a lesion in the third left frontal convolution.²⁷ Bouillaud and Auburtin, not Broca, were the first to recognize the importance of the left frontal lobe in motor speech. The work of these men gave credibility to the concept of cerebral localization and launched intensive research into this field.

Of course the other landmark event that made neurosurgery possible was the development by Joseph Lister of the antiseptic principle of surgery in 1867.¹⁶ The possibility of operating on the brain without the usually fatal complications of meningitis, combined with the increasing understanding of cerebral localization during the late 19th century, allowed general surgeons to experiment with open surgery of the central nervous system. Aggressive neurologists, emboldened by a new understanding of the functional significance of structures in the central nervous system, drove surgeons, now capable of more sophisticated surgical techniques, to operate on the brain and spinal cord.⁹

In New York this sentiment was reflected by R. W. Amidon who read a paper before the New York Academy of Medicine in June 1884 urging heroic surgical intervention for brain lesions: “… accessible neoplasms of the brain, which have resisted medicinal treatment, and which continue to grow … should be removed; for the reason that they are generally single … and always kill by pressure.”²² These radical sentiments propelled New York general surgeons such as Robert Abbe, Robert Weir, Arpad Gerster, Charles McBurney, and others in cooperation with neurologists Edward Séguin, Allen Starr, Bernard Sachs, and Charles Dana to experiment with cranial surgery for mass lesions, epilepsy, and pain.²⁶

The first textbook on neurological surgery was in fact written by the neurologist Moses Allen Starr. Working with Charles McBurney, a noted general surgeon at Roosevelt Hospital in the late 19th century, Starr is quoted as stating that “one of the functions of the neurologist is to superintend and direct operative procedures on the brain and spinal cord by surgeons.”²⁶ Through their work at the Syms Operating Pavilion, a building that still stands today...
on the west side of Manhattan, Starr gained the experience that led him to write *Brain Surgery*, a seminal work dealing with the status of brain surgery and its potential for treating intracranial tumors. It was the first real textbook of modern neurosurgery.

**The Rise of the Neurological Institute of New York**

Neurosurgery in New York City was incubated at the Mount Sinai Hospital. This institution has a storied past that begins with the founding of the Jews’ Hospital in 1855 on West 28th Street. It was created to provide free medical care to the indigent Jews in the largely immigrant Jewish community that was evolving in New York City. The hospital was expanded during the Civil War to accommodate Union soldiers. After the war, to maintain eligibility for state and local government support, the Jews’ Hospital had to abandon its sectarian charter and was renamed The Mount Sinai Hospital in 1866. After a brief existence on Lexington Avenue and 65th Street, the hospital moved to its present location on Fifth Avenue and 100th Street in 1904. During this development period, Arpad Gerster was appointed the first chief of surgery at Mount Sinai in 1890. Gerster was the most active of New York surgical chiefs in embracing the evolving interest in neurological surgery. He was a pioneer in the use of aseptic and antiseptic surgery in the US and also pioneered surgery for epilepsy.

One of Gerster’s first residents was Charles Elsberg, who went on to become the first surgeon in New York to devote his practice entirely to neurosurgery. Another early Mount Sinai surgical resident was Ernest Sachs. Sachs trained with Gerster in general surgery, then went to London to train with Sir Victor Horsley, and ultimately landed in St. Louis as the first professor of neurological surgery at Washington University. Sachs, with his dour personality, became an important and instrumental contributor to the rise of organized neurosurgery in the US.

Charles Elsberg is the dominant figure in the early days of neurosurgery in New York City (Fig. 2). He graduated from Columbia University College of Physicians and Surgeons in 1893, and, after preliminary training at Mount Sinai, he spent 2 years in Breslau, Germany, training in general surgery. Elsberg then returned to Mount Sinai to practice in 1899. There he befriended the famous neurologist Bernard Sachs, who increasingly relied on the young surgeon to perform cranial and spinal procedures in his neurology patients. This period from 1880 to 1910 was marked by intense interest around the world in developing new techniques for performing elective surgery on the central nervous system. In 1887, William W. Keen performed the first successful removal of a brain tumor in the US under the supervision of S. Weir Mitchell. In 1887, William W. Keen performed the first successful removal of a brain tumor in the US under the supervision of S. Weir Mitchell. In London, Victor Horsley performed the first laminectomy to remove a spinal cord tumor in 1887. At the dawn of the 20th century, Harvey Cushing in Baltimore became the first general surgeon in the US to devote himself entirely to neurosurgery.

Elsberg noted that “Surgery of the nervous system had not yet become a specialized branch of general surgery, and at this period (1908) there was not, in the US, any institution which had special wards for patients suffering from diseases of the nervous system. The patients were cared for in general wards by internists... If by any chance an operation upon the brain or spinal cord was thought to be advisable, a general surgeon was called upon to perform it.” What became increasingly clear was that both patient care and the proper training of young neurologists required special hospital wards for patients with diseases of the nervous system.

In 1908 Joseph Frankel and Joseph Collins, two eminent New York neurologists, met several times early in the year to discuss the need for a hospital entirely devoted to the nervous system. They invited Pearce Bailey, another neurologist, to meet with them in Bailey’s office one evening in April 1909, to begin laying plans for the organization of such a special hospital. Elsberg describes the scene of the meeting in his book, *Story of a Hospital*: Bailey and Frankel smoking cigarettes, Collins puffing on a cigar and enjoying a few scotch highballs, and Bailey (a connoisseur of fine wine) probably joining him in an alcoholic beverage. Dr. Bailey asked, “Do you think that there is a field for a surgeon in diseases of the nervous system?” Collins and Frankel answered, “yes.” The meeting lasted until 2 AM, with the conclusion that they needed a surgeon to work with and an agreement to call their newly imagined hospital the “Neurological Institute of New York.”
At the next meeting, 1 week later, Charles Elsberg, with his interest in neurosurgery was asked to join them. Shortly thereafter, the certificate of incorporation was obtained, and these men became organized as the board of trustees. By October 1909, they had secured the lease on what was to be the first building to house the Neurological Institute. The building was originally a nurses’ home for Mount Sinai Hospital, an old building that was vacated when Mount Sinai made the move a few years earlier from 67th Street and Lexington Avenue farther uptown. The inadequacy of the building must have been immediately evident to all involved parties, but the Institute was not ready at the time to collect sufficient funds to buy a piece of property and build an adequate hospital.

With limited resources, an operating room was established, and 4 weeks after moving into the building, Elsberg performed one of the first successful operations in the world for a tumor within the substance of the spinal cord. The patient was a female physician, one of the few female doctors of that era, and she recovered and lived for many years.20 Some idea of the surgical activities of the neurological service may be obtained from the annual report of 1909 covering the first 11 months of the Institute’s existence, in which 15 operations upon the brain and its membranes were performed; 21 operations upon the spine, spinal cord, and its membranes; and 21 operations on the peripheral nerves. Thirteen miscellaneous operations were also performed.23 The work done in this building formed the basis of Elsberg’s most important academic work, *Diagnosis and Treatment of Surgical Diseases of the Spinal Cord and Its Membranes.*8 The book, published in 1916, is best known for its description of techniques for removing intramedullary spinal cord tumors, techniques that have hardly been improved upon, even after a century.

The first department of neurological surgery in New York was organized at the Neurological Institute in 1915 when Elsberg became a member of the medical board, and the surgeon of the Neurological Institute. Besides Elsberg, the original staff consisted of three other individuals. The visiting surgeon was Alfred Taylor, a professor of clinical surgery at Cornell University Medical College. He was an expert in the treatment of spinal injuries and tumors, particularly those in the cervical region. One of the associate surgeons was Harold Neuhof, who did both chest surgery and neurosurgery. (In 1929, when Elsberg officially left Mount Sinai, Harold Neuhof was appointed chief of the neurosurgical service at Mount Sinai. His professional passion however was thoracic surgery, and in 1932 he abandoned neurosurgery and became a full-time thoracic surgeon with a special expertise in treating putrid lung abscesses.)

The last member of the original team was associate surgeon James Kenyon. There is little information about this man, but his paper read before the New York Surgical Society in October, 1914, gives some insight into the state of the art for craniotomies at that time.15 The paper contained some instructive operative photographs revealing the use of a scalp tourniquet to minimize bleeding (Fig. 3). Also seen in this figure is an electric drill devised both to drill holes in the skull and to saw between bur holes. Another figure shows elevation of an osteoplastic bone flap with the pial surface visible as the bone is being lifted, indicating laceration of the dura during the cranial opening (Fig. 4). The techniques are surprisingly sophisticated and indicate how rapidly the field was advancing in the early 20th century.

New York School

The rapid advancement of neurosurgery in this period rendered previously fatal wartime head and spine inju-

![Fig. 3. Figure from Kenyon's paper on surgical techniques showing a scalp tourniquet to control bleeding and the use of an electric saw for the craniotomy. Reproduced from Kenyon JH: Ann Surg 61:21, 1915. Public domain.](image1)

![Fig. 4. Another of Kenyon's operative photographs showing elevation of an osteoplastic scalp flap with the pial surface visualized as the flap is coming up. Reproduced from Kenyon JH: Ann Surg 61:21, 1915. Public domain.](image2)
ries into potentially treatable conditions. During the First World War, the Surgeon General’s office mandated the development of regional neurosurgical schools to teach medical officers how to perform neurosurgery in wounded soldiers. The Neurological Institute was quickly coopted, and Charles Elsberg, who served as military director of the New York neurosurgical school, played an important role in training general surgeons in neurosurgical techniques. Dr. Alfred S. Taylor of the Neurological Institute and Dr. Frederick Tilney, a professor in the neurology department of the Columbia University College of Physicians and Surgeons, were Elsberg’s most important collaborators. The teaching group also consisted of the medical and surgical members of the staff of the Neurosurgical Institute; the members of the neurology department of Columbia; and many volunteer neurologists, pathologists, and other physicians in the city.23

During 1917 and 1918, 5 successive 6-week programs of the regional neurosurgical schools were held. The students were medical officers who wished to obtain training in the surgery of the nervous system. The officers received instruction in the methods of neurological examination and diagnosis, in the anatomy and pathology of the central nervous system, and in the observation of surgical techniques. By modern standards, it is amazing to realize how poorly trained these medical officers must have been, yet they were the only hope for soldiers with battlefield injuries of the brain and spine (Fig. 5).

Wilder Penfield in New York

Wilder Penfield, one of the most famous neurological surgeons in history, began his neurological career in New York City. He might have remained in New York and brought further luster to the early Neurological Institute, if not for petty political squabbles that characterized that period of time. Penfield graduated from Oxford University in England, where he was exposed to the experimental work of Charles Sherrington in neurophysiology. He finished his medical training at Johns Hopkins and did his surgical training with William Halsted. Penfield was initially drawn to neurosurgery by watching Walter Dandy, but he was also influenced by Cushing in Boston and Charles Frazier in Philadelphia. Penfield felt that Cushing and Dandy, trained in the surgical techniques of William Halsted, were developing a technical approach to neurological surgery that was markedly superior to the early development of neurosurgery in England by Horsley and Sargent.21

In 1921, Allen Whipple, the newly appointed professor of surgery at Columbia University College of Physicians and Surgeons, recruited Penfield to start a neurosurgery program at Presbyterian Hospital. The relationship between Presbyterian Hospital and the Neurological Institute of New York had not yet been formalized. Penfield was also a brilliant surgical pathologist, and after his arrival the surgical specimens from the Neurological Institute were sent to him for review. Frederick Tilney, the professor of neurology at Columbia University, did not want neurological procedures to be done at Presbyterian Hospital and arranged a compromise whereby Elsberg was appointed to the staff of Presbyterian and Penfield joined the staff at the Neurological Institute. Penfield, however, only worked at the Neurological Institute infrequently and as an assistant to Elsberg. He remained largely at the Presbyterian Hospital studying brain scars in his laboratory. While in New York, Penfield met David Rockefeller, who desired to endow an institute where Penfield could study the surgical treatment of epilepsy. However, the politics in the clinical neurosciences at the time prevented the establishment of the institute in New York. Penfield grew weary of working with both Tilney and Elsberg, and had little that was nice to say about them in the future.

In a letter to Larry Pool in 1971, Penfield writes, “At

![FIG. 5. Photograph of a class of the neurosurgical school at the Neurological Institute of New York. These 6-week schools trained military general medical officers during the First World War to perform emergency surgery on soldiers with neurological injuries. The civilians occupying central seats in the front row are (left to right) Alfred Taylor, Charles Elsberg, and Frederick Tilney. Reproduced from Riley HA: Bull NY Acad Med 42:660, 1966. Public domain.](https://example.com/fig5.jpg)
the time, however, Elsberg was doing practically all the operating himself in the Institute and the specimens were extraordinarily small. But he had a very keen interest in all the problems that involved neurosurgery and I was always fond of him on a personal basis although he was not a very daring brain surgeon. There was a curious difference in his career as a spinal surgeon and a brain surgeon. I suppose that sort of thing happens to all of us."

He was less charitable in his autobiography some years later: "Charles Elsberg kept a jealous eye on younger men ... he had little interest, and indeed little understanding, of the science that should, it seemed to me, be basic to neurosurgery... The other assistant surgeon working under Elsberg in 1922 was Byron Stookey. He was not happy in this relationship ... but in time (Stookey and the neurologist Henry A. Riley) became my close friends and delightful companions at meetings in many parts of the world."7

Penfield left New York in 1928 and moved to Montreal, ultimately founding the Montreal Neurological Institute in 1934 with funding from the Rockefeller Foundation (Fig. 6). Perhaps if Elsberg and Tilney had embraced Penfield, the Montreal Neurological Institute might never have existed. The new Neurological Institute of New York was just being constructed at its present location adjacent to the Presbyterian Hospital, and one can only imagine what the addition of Penfield and the Rockefeller Foundation to that venture would have been like.

**Amalgamation of Columbia University, Presbyterian Hospital, and the Neurological Institute of New York**

The Presbyterian Hospital was founded in 1868 by James Lennox. The hospital was originally founded for the poor of New York because Lennox’s African American servant was refused admittance to several New York hospitals. Lennox donated the land between Park and Madison Avenues and between 70th and 71st Streets, and the hospital existed in that location for decades. In 1911, Columbia University’s College of Physicians and Surgeons became affiliated with Presbyterian and plans were begun to build a new medical center.22

The founding of the new medical center had an interesting relationship to another storied New York institution. In 1903 the New York Highlanders were an American League baseball team that moved from Baltimore to New York to counterbalance the National League’s New York Giants. The Highlanders built a field at Hilltop Park in Washington Heights, a rural section of northern Manhattan. The Giants played in the nearby Polo Grounds and despised the upstart Highlanders. Those sentiments, however, changed radically in 1911 when the Polo Grounds burned down and the Highlanders allowed the Giants to share Hilltop Park. When the Polo Grounds were rebuilt, both the Giants and the Highlanders moved to the Polo Grounds and Hilltop Park became vacant. In 1922, the Highlanders moved to the Bronx and changed their name to the Yankees, and in 1957, the crumbling Polo Grounds was deserted when the Giants moved to San Francisco.

After the Highlanders departed in 1922, the Hilltop park site came into the possession of the Harkness family, and in that same year, Edward Harkness and his mother, Mrs. Stephen Harkness, donated a plot of 22 acres to create a joint campus for the Columbia University College of Physicians and Surgeons and the Presbyterian Hospital. Located in a rapidly developing middle-class neighborhood in Washington Heights, the tract was bounded on the east and west by Broadway and Fort Washington Avenue and by 168th and 165th Streets to the north and south.

During the First World War, the first steps in the affiliation between the Neurological Institute and Columbia were taken in conjunction with the New York regional neurosurgical school as a result of the strong friendship that had developed between Elsberg, who, after leaving Mount Sinai, held an academic appointment at Columbia, and Frederick Tilney, the professor of neurology at Columbia. In 1919 the president of Columbia University wrote a letter to the board of trustees of the Institute offering to take over the Institute and incorporate it into the University. One of the major stumbling blocks was the requirement of Columbia University that the medical staff of the hospital should be composed solely of members of the teaching staff of the College of Physicians and Sur-
geons. At the time, major staff members of the Neurological Institute were on the faculties of other medical schools: Edward Zabriskie was at New York University–Bellevue and Foster Kennedy was on the teaching staff of Cornell University–New York Hospital.

The idea was revived in January 1925, when plans were announced by Cornell University and the New York Hospital to erect a medical center from 68th to 71st Streets and York Avenue. The Institute realized that it had to be part of a major medical center, so a compromise was reached. In March of 1925 the proposed affiliation with Columbia University College of Physicians and Surgeons was approved, and the site for the new building at 168th Street and Fort Washington Avenue was accepted (part of the original land donated to the medical center by Mr. Harkness). The Neurological Institute was built very close to the third base side of Hilltop Park, the site of one of the most famous baseball photographs ever taken (Fig. 7).

There is some interesting history about fund-raising for the new Neurological Institute. The old building was sold to the Polish government for $100,000, but $2,000,000 was needed for the new building. Dr. Walter Timme, the head neurologist at the time, held a fund-raising dinner at the Metropolitan Club in Manhattan. Timme claimed that he had discovered the “maladjusted and criminal personality” that was a glandular problem found in essentially all jailed prisoners with life sentences. A New York Times article stated, “According to the announcement of the Neurological Institute, Dr. Timme has developed the ability to recognize at sight certain physical types as pro-criminal, or naturally inclined toward criminality.” In the words of Dr. Timme, “A certain type of blond, curly haired giant with the peaches and cream complexion, I have found to be distinctly dangerous.” He further explains, “The thymus gland is overactive not only prolonging the physical traits of childhood, but also causing under-development in behavior.” The building of the Neurological Institute therefore “represents the first intensive campaign ever undertaken to check maladjustment, life’s failure and potential criminality through the study of brain blight before birth, chemical and personality disturbances in six month old infants and definite pro-criminal characteristics.”

“The Institute will make the new Medical Center a nursery not only to fight the crime wave, but to put square pegs in round holes.” The hysteria whipped up resulted in the Institute being easily funded, and ground was broken in 1927 and the project completed in March 1929.

**Charles Elsberg**

Charles Elsberg was one of the founding members of the Society of Neurological Surgeons, which first met in 1920 in Boston. In 1922 the meeting was held at the old Neurological Institute, and in December 1929 and again in May 1936 at the new facility. The society’s group picture shot on the roof of the Neurological Institute in 1936 depicts the early founders of neurological surgery in the US (Fig. 8).

It is difficult to gain insight into Dr. Elsberg’s personality, but comments about him from some of his contemporaries suggest that he was not a beloved figure (Fig. 9). Elsberg resigned in December 1936, having served as chief of the department of neurosurgery since the founding of the Institute, and Dr. Byron Stookey was appointed his successor. Larry Pool describes a personality clash between these two eminent surgeons, and there is some indication that Stookey was instrumental in precipitating Elsberg’s retirement.

Paul Bucy reported in his book, *Neurosurgical
Giants: Feet of Clay and Iron, that Stookey spent an afternoon telling him what a despicable person Elsberg was.7

Fritz Cramer, a neurosurgical colleague of Elsberg at the Neurological Institute, describes him as “extremely diffident and always courteously reserved, governed by an almost archaic Victorian type of patrician discrimination and choice of proper times and circumstances in which to exhibit levity and humor; he was not a snob in the pejorative sense. He was however very discriminating in the choice of intimates...”13

When asked about Elsberg, Leo Davidoff is quoted as saying: “I can say nothing good about the bastard and I won’t say anything bad.”

Eban Alexander stated that Elsberg “was a bachelor until the age of 67, and up to that time lived with his bachelor brother. He was short, extremely neat and dapper, and he always wore a necktie and a high, white, stiffly starched collar.” Elsberg had no children, but at age 67 he married Jane Stewart who had served as his surgical technician and lived with her until his death at age 77.12

Leo Davidoff

Leo Davidoff (Fig. 10) was the only Jewish neurosurgeon to be trained by Cushing. It is difficult to backtrack and understand the social temper of the 1920s regarding Jews, but Cushing’s letter of recommendation to Elsberg when Davidoff was being considered in 1929 for a position at the Neurological Institute is certainly revealing: “a very un-Hebraic-Hebrew ... escaped the effects of the ghetto ... a Hebrew but a most attractive lad. You will have to have a Hebrew or two on your staff and he is about as good a one and unhebraic.”5

Davidoff was, of course, a pillar of New York neurosurgery and left the Neurological Institute in 1937 to become chief of surgery at the Jewish Hospital of Brooklyn. Subsequently he moved to Beth Israel Hospital in 1949 as director of neurosurgery and was simultaneously appointed chairman of neurosurgery at Mount Sinai Hospital. He was a founder of the Albert Einstein College of Medicine in 1956.

Byron Stookey

Byron Stookey (Fig. 11), for whom the chair in the department of neurological surgery at Columbia University College of Physicians and Surgeons is named, was an interesting character. He did not seem to get along with any of his contemporaries, except for Wilder Penfield. He clearly had conflicts with Elsberg, his predecessor; Putnam, his successor as chairman; and Larry Pool, one of his residents, who later became his chairman.24

FIG. 9. Photograph of Charles Elsberg late in his career. Courtesy of Neurosurgical Department, Columbia University.

FIG. 10. Photograph of Leo Davidoff, taken when he was president of the American Association of Neurological Surgeons. Journal of Neurosurgery 45:1–2, 1976. Published with permission.
In his writings, Larry Pool describes Stookey: “he seemed to attract controversy like a lightning rod that attracts lightning on a clear day. Perhaps this was because, despite being an extremely capable diagnostician and top-of-the-heap surgeon, he tended to let colleagues know it, nor did his dictatorial manner help. His overbearing attitude finally led to trouble. The Institute’s neurologists and other non-surgical members of its staff protested to such an extent that in late 1939, the governing Board of the Medical Center asked him to step down as chief of Neurosurgery.”

That move opened the door for Tracy Putnam to replace Stookey as chair of neurosurgery at Columbia.

Tracy Putnam, both a neurologist and a neurosurgeon, was the chief of neurology at the Boston City Hospital. With his junior associate Houston Merritt, he published groundbreaking work on epilepsy and discovered Dilantin (phenytoin) as the first really useful anticonvulsant medication.17

Putnam was trained by Cushing and was recognized both as a neurologist and a neurosurgeon. In neurology he was the chief editor of the Archives of Neurology and Psychiatry, the premier neurology journal of the day. In neurosurgery, he helped found the Harvey Cushing Society and later, when it became the American Association of Neurological Surgeons, he was named president.

The neurology program at the Neurological Institute at the time was in disarray, at least from an academic perspective. The leader Frederick Tilney, a contemporary of Elsberg, had his first stroke at age 48 in 1924. He was hemiplegic at the time but continued to practice. Later in life he had crippling cardiac ischemia and was debilitated during the last few years of his tenure, finally resigning for health reasons in 1938.24

To lure Putnam to New York (Fig. 12), the Neurological Institute offered him control of both the neurology program and the neurosurgery program, displacing Stookey as the chief. Stookey was never happy about this arrangement, and it appears that he worked against Putnam from the start. There are reports that Stookey met several times with the dean of the medical school and the president of Presbyterian Hospital to complain of Putnam’s lack of surgical and administrative skills. In any event, in 1946, the job as director of the Neurological Institute was eliminated by the medical board, and Putnam took a leave of absence. He formally resigned his professorship of neurosurgery in 1947 and moved into obscurity in California, opening a private neurology practice in which he used anticoagulants to treat multiple sclerosis and attending patients at Cedars Sinai Hospital.24

Putnam wrote that his problems leading the Neurologi-
cal Institute stemmed from anti-Semitism at Presbyterian Hospital. Although Putnam was not Jewish, he hired several Jewish neurologists who were escaping the miserable conditions in Europe at the time. “In 1943, Mr. Charles Cooper was elected President of the Presbyterian Hospital... In 1945, he sent word through Dr. Robert Loeb ... that I should get rid of all the Jews in my department or resign.” (Tracy Putnam’s letter to Meyer Friedman, M.D., 1961, quoted in Rowland, p. 90).24

Lewis Roland, in his book on the matter, states, “Putnam himself must have been partly to blame. He had not a single ally. No other service director came to his side... He had a formidable foe in Byron Stookey, whose position as head of Neurosurgery he had usurped and ... (Stookey) played a role in the resignation of Charles Elsberg ... as a prelude to squashing Putnam.”24

It is interesting to note that all the Jewish neurologists stayed on staff after Putnam’s departure. The most direct proof that Putnam was not the right man for the job was the success of his successors: Houston Merritt in neurology and Larry Pool in neurosurgery, both of whom went on to long and brilliant careers at the Neurological Institute, marking the emergence of the modern era of neurosurgery in New York.

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