The Hospital for Special Surgery 1955 to 1972: T. Campbell Thompson Serves as Sixth Surgeon-in-Chief 1955–1963 Followed by Robert Lee Patterson, Jr. the Seventh Surgeon-in-Chief 1963–1972

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Abstract After two decades as the fifth Surgeon-in-Chief (1935–1955) of The Hospital for Special Surgery (HSS), Philip Duncan Wilson, MD (1886–1969) retired, having implemented, during his administration, major changes in the hospital. The first most important accomplishment was finalizing a formal affiliation with New York Hospital-Cornell Medical Center in 1955 and moving adjacent to the medical campus at 535 East 70th Street. The second was changing the name of the Hospital in 1940 from The Hospital for the Ruptured and Crippled to The Hospital for Special Surgery. During the two decades as Surgeon-in-Chief, Dr. Wilson was able to reestablish the hospital as a foremost hospital in the orthopedic world. The Board of Managers of the New York Society for the Relief of the Ruptured and Crippled appointed T. Campbell Thompson, MD (1902–1986), as the sixth Surgeon-in-Chief of The Hospital for Special Surgery. He assumed that office on July 1, 1955. During the previous year, Dr. Thompson served as President of the American Academy of Orthopaedic Surgeons. Philip D. Wilson, upon his retirement as Surgeon-in-Chief, took on a newly created role as Director of Research at HSS. In 1962, adverse relations between The Hospital for Special Surgery and New York Hospital-Cornell Medical Center seriously

threatened the continued affiliation agreement between the two hospitals. Because of difficulties over a faculty and staff appointment, Dr. Thompson resigned from the office of Surgeon-in-Chief. He was replaced in 1963 by Robert Lee Patterson, Jr., MD (1907–1994), who had first joined the staff of The Hospital for the Ruptured and Crippled in 1936 as a Visiting Surgeon.

Keywords Philip D. Wilson · T. Campbell Thompson · Robert Lee Patterson Jr. · Preston Wade · Philip D. Wilson Jr. · John R. Cobb · Robert H. Freiberger · Goran C. H. Bauer · Lee Ramsay Straub · Allan E. Inglis · Harlan Amstutz · David B. Levine · Thomas P. Sculco · Leon Root · Peter Bullough

Introduction

After two decades as the fifth Surgeon-in-Chief (1935–1955) of The Hospital for Special Surgery (HSS), Philip Duncan Wilson, MD (1886–1969) retired, having implemented, during his administration, major changes in the hospital. The first most important accomplishment was finalizing a formal affiliation with New York Hospital-Cornell Medical Center in 1955, and moving adjacent to the medical campus at 535 East 70th Street [1].

The second was changing the name of the Hospital in 1940 from The Hospital for the Ruptured and Crippled (R&C) to The Hospital for Special Surgery [2]. During the two decades as Surgeon-in-Chief, Dr. Wilson was able to reestablish the hospital as a foremost leader in the orthopedic world [3, 4].

The Board of Managers of the New York Society for the Relief of the Ruptured and Crippled appointed T. Campbell Thompson, MD (1902–1986), as the sixth Surgeon-in-Chief of The Hospital for Special Surgery. He assumed that office on July 1, 1955. During the previous year, Dr. Thompson served as President of the American Academy of Ortho-

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paedic Surgeons. Philip D. Wilson, upon his retirement as Surgeon-in-Chief, took on the newly created role as Director of Research at HSS.

T. Campbell Thompson was born November 11, 1902 in Ishpeming, MI. Ishpeming is a native American word for *heaven* and was a small town in Michigan known for the origin of organized skiing in the USA and its iron ore mines. His father, Henry S. Thompson, was in the mining business as was his maternal grandfather. His mother, Myrtle T. Thompson, named their son *Theodore* after her brother and *Campbell* after his father's brother. Theodore Campbell Thompson (he never liked either given name), growing up, was called *Pete* by his father and brothers. Eventually, he settled for *T. Campbell* but was better known for the rest of his life by his friends and relatives as *Tommy*. His initials TCT were widely recognized in his later professional life at the hospital [5].

In his teenage years, he was known to dislike having his picture taken and once was quoted as saying, "I hate mirrors." In the many sports in which he acquired a skill, tennis and swimming were his favorites and later golf. His love for playing the piano often resulted in playing duets with his younger sister. In later years (September 1934), when Thompson came on staff at R&C, he rented a one-bedroom apartment in Tudor City¹ and bought his first piece of furniture, a piano.

Educated at the local high school and University of Michigan (1920–1921), he received his A.B. degree from Rollins College in 1924. In the summer of 1923, Thompson experienced a horrendous accident. While working in a steel mill on the night shift running a planer (set at 0.75 in.), his left arm went through the planer up to his elbow. He was able to turn off the machine. No one was near, and because of the usual loud factory clamor, his attempt to call for help went unheeded. So he decided to reverse the machine to extract his arm but in the process suffered severe soft tissue injury to the arm. Several orthopedic consultants recommended amputation, but a local surgeon was able to save the arm after multiple tendon and skin graft procedures, allowing him to return to classes in the fall [6].

Thompson was accepted at Johns Hopkins Medical School in 1924 and received his MD degree in 1928. Having decided to go into orthopedics, he did his residency at Johns Hopkins under Dr. George Bennett (1885–1962), Professor of Orthopaedics². Thompson also spent some time as a Resident Surgeon at the Wingfield Morris Orthopaedic Hospital in Oxford, England in 1934. There, he published a paper on Experimental Muscular Atrophy, while working at the Sir William Dunn School of Pathology [7]. In a rabbit study (ten normal and two with miliary tuberculosis), he immobilized the rabbits in plaster, resulting in extensive muscular atrophy, and showed that any atrophy could be lessened considerably by weight bearing.

¹ *Tudor City*, an apartment complex on the East Side of Manhattan, is bordered by 40th Street to the South, First Avenue to the East, Second Avenue to the West, and 43rd Street to the North. Many of the R&C staff lived and/or had offices in *Tudor City* where the hospital was located.

² In 1935, Bennett served as the first annual Surgeon-in-Chief *Pro Tempora* at The Hospital for the Ruptured and Crippled. He had been a house surgeon at R&C in 1909.

After finishing his training in 1934, Thompson was recruited to the R&C staff by Dr. Wilson on recommendation from Dr. Bennett [1] (Fig. 1). Dr. Thompson, Dr. John R. Cobb, and Dr. Marvin Stevens were appointed by Dr. Wilson as full-time fellows at the College of Physicians and Surgeons of Columbia University, being awarded degrees in Medical Science in Orthopaedics in 1936.

Having settled in New York as a young attending on staff at R&C, Thompson married Cornelia Tomlin (August 1935), whom he had met 9 years earlier. Her father was a judge, and her grandfather, Colonel Walter Taylor, was the Adjutant to General Robert E. Lee during the Civil War. Their first child, Robert, was born in 1938, and daughter, Cornelia, followed in 1940. Robert eventually became an orthopedic surgeon and practiced in Maryland.

During World War II, Thompson served as a Lieutenant Colonel in the US Army, heading the Amputation Center at Walter Reed Army Hospital with Major Donald B. Slocum, MD.

Besides being a superb teacher, clinician, and surgeon, Thompson made significant contributions to the field of orthopedics, many of which are still referred to today. In 1944, he published his surgical procedure of the quadricepsplasty to improve knee function [8]. This technique was used to release a stiff knee following a fracture or other femoral trauma. Results of this surgery were favorably reported in the literature, particularly in British journals.

Thompson had extensive experience in post polio deformities. With co-authors Drs. Thomas and Straub, in 1950, he published a technique for transplanting the external oblique muscle for hip abductor paralysis [9]. Dr. Thompson performed the first of these procedures in 1941. Their study of 25 patients showed mixed results with only three patients having excellent results and none having the abductor limp eliminated. Yet, in those days, this operative technique was considered one of the best.

In 1954, Dr. Thompson, Dr. Lee Ramsay Straub, and Dr. Rolla D. Campbell reported on the evaluation of femoral

Fig. 1 After 2 years of study at the College of Physicians and Surgeons, Dr. T. Campbell Thompson was awarded a degree in Medical Science (D.M.Sc) from Columbia University. He wrote his thesis on *Lambrinudi Foot Stabilization* (from Hospital for Special Surgery Archives)

shortening with intramedullary nailing in 22 patients [10]. Their conclusions were that the Kuntscher nail alone does not provide secure internal fixation and recommended oblique osteotomy with screw fixation.

A classic article, published in 1957 by Drs. Thompson, Straub, and Arnold, was their study of 25 cases of congenital absence of the fibula treated at the Hospital for Special Surgery [11]. Thompson and his co-authors described, for the first time, the anatomical characteristics of the fibrous band found in all cases, its clinical significance, and recommended surgical treatment.

In a 1959 article published in the *Bulletin of the Hospital for Special Surgery*, he outlined basic principles in selecting an operative procedure or the use of bracing for the paralyzed extremity [12]. He maintained that a lower extremity with little motor power could be made functional for walking.

One of the classic tests for the clinical diagnosis of a ruptured tendo Achilles is the *Thompson Squeeze Test*, published in two separate journals [13, 14]. The test is performed with the patient kneeling to relax the Achilles and calf musculature. The calf muscles are squeezed by the examiner. A normal response is plantar flexion of the foot. If there is a complete tendon rupture, the foot does not move.

The Manhattan transfer

On the morning of May 25, 1955, The Hospital for Special Surgery, then 92 years old, made its move from 321 East 42nd Street to its new 6-million dollar building at 535 East 70th Street, adjacent to New York Hospital-Cornell Medical Center. A formal affiliation with the medical center was finally completed.

T. Gordon Young, the HSS Director who had just replaced his predecessor, F. Wilson Keller, after Keller's unexpected death in 1954, named that event—the *Manhattan Transfer*. The uptown move took place flawlessly [15] (Fig. 2).

The eight-story, 170-bed hospital building with a basement and subbasement still had a few unfinished areas at the time but otherwise provided state-of-the art hospital amenities. It was connected to New York Hospital (NYH) by a tunnel. The architects, Rogers and Butler, designed the unique “A” shaped building with practically all the patient rooms facing the East River (Fig. 3). The building site was a gift from New York Hospital to HSS.

The main entrance to the building was located on the front driveway. On the ground floor was the Margaret M. Caspary Outpatient Clinic with its entrance at the corner of the driveway and East 70th Street (Figs. 4 and 5). Alfred and Margaret Caspary were extremely generous benefactors of HSS. One of the most beloved gifts willed to the hospital from the Alfred H. Caspary Estate was a fishing lodge on over 3 acres of wooded land in the Catskill Mountains in upstate New York. It was designated as a vacation retreat for HSS residents in training (Fig. 6) [16].

Adjacent to the clinic on the ground floor were the radiology department, a large cast room overlooking the East River, and support offices. Facing the front on the second floor was a 48-seat auditorium built for conferences and other

Fig. 2 May 25, 1955, T. Gordon Young (second from left), with two nurses and residents, supervising a patient being transferred from the old HSS to the new HSS on 70th Street. Mr. Young called it the *Manhattan Transfer* (from Hospital for Special Surgery Archives)

teaching rounds. Monday mornings were reserved for the End-Result Orthopaedic Conference where postoperative patients were examined on stage. Each operative procedure was judged by two ratings, one decided by the patient and one by the surgeon. The auditorium was expanded and completely remodeled in 1997 being renamed the Richard L. Menschel Education Center at a dedication ceremony on October 16, 2003 (Fig. 7). Laboratories, the pharmacy, a therapeutic swimming pool,³ and the Physical Therapy Department were also located on this floor. Above the auditorium on the third floor was the cafeteria, while the rest of the floor was occupied by physician offices and examining rooms (Fig. 8).

Four operating rooms and a five-bed Recovery Room shared the fourth floor with on-call facilities for the house staff and a medical library first established by Dr. Wilson in 1935. That year, 1,500 operative procedures were performed with an average length of stay of 25 days. The upper floors of the nine-story building provided inpatient rooms on the fifth through eighth floors, with the fifth floor housing a New York City Public School. On the ninth floor, T. Gordon Young the hospital administrator and his family resided.

The new affiliation expanded graduate education at both New York Hospital and HSS. At the end of 1956, six residents from New York Hospital were assigned to HSS at all times. There were two surgical residents on the orthopedic service; two medical residents on the rheumatic disease service; one pediatric resident; and one radiology resident.

From HSS, two orthopedic residents were assigned to the fracture service at New York Hospital where Dr. Robert Lee

³ R&C was the first hospital to have a therapeutic pool in New York City in 1928.

Fig. 3 Architecturally designed with most patient rooms facing the East River, the original eight-story building has been expanded over the East River Drive (1954) (from Hospital for Special Surgery Archives)

Patterson, Jr. and Dr. Preston Wade were co-chiefs. Four orthopedic residents also rotated on the orthopedic service at the Kingsbridge Bronx Veterans Administration Hospital. Dr. John Doherty, who had just finished his HSS orthopedic residency, was chief of the service. The remaining 18 months of the residency training were devoted to general orthopedics for a total of 3 years of resident training. Soon, the program was expanded to 3.5 years, with the addition of Memorial Hospital rotations on the bone tumor service. Orthopedic fellows served on various services for different time periods and were expected to be involved in research projects, as were the orthopedic residents.

Nursing at the hospital also saw changes after moving to the new building. In 1954, Mary Jeanne Clapp, RN was appointed the sixth Director of Nursing, succeeding Cleanthe Logotheton who had been at the hospital for 33 years (Table 1). With a new practical nursing school approved by New York State, the Hospital for Special Surgery School of Practical Nursing admitted its first class on January 7, 1955. The program was directed by D. Dean Smith, MS, RN, who had been instrumental in organizing the school. The purpose of the school was to train Licensed Practical Nurses (LPNs) to work under physicians and RNs. The school encouraged further nursing education, and 75% of graduates continued on for advanced nursing degrees. In the 1960s, nursing education took on new roads in higher education, and in 1996 the HSS practical nursing school was closed [17].

In 1958, Robert H. Freiburger, MD became the eighth Director of Roentgenology. Fred H. Albee, M.D. was the first part-time director in 1905. Freiburger established a radiology fellowship, developed a close link with New York Hospital's radiologists, and provided daily reading of radiographs taken for the Fracture Department at New York Hospital (Fig. 9). He led the development of arthrography in the USA, which provided improved recognition of cartilage and synovial lesions [18].

That same year, ground breaking began for the new research building on a lot on the corner of 71st Street and the East River Drive (Fig. 10). By the end of 1959, the new building was near completion and beginning to become occupied. The first floor contained facilities for animal research, while the upper floors housed laboratories. The second floor eventually housed the Medical Library and the Medical Education Department, first established in 1961 when Johana O. Vettoretti, the hospital's first electrocardiograph technician, became the first Coordinator of Medical Education. The third floor was designed by Dr. Robert C. Mellors, Chief of Pathology and Associate Director of Research.

Alfred H. Caspary and other major donors supported the creation of the Philip D. Wilson Research Foundation, the administrative and financial entity overseeing the new building [19]. Dr. Wilson's vision of a separate research center of the Hospital for Special Surgery finally came to fruition on November 16, 1960, when a dedication ceremony of the Alfred H. Caspary Research Building was held (Fig. 11)

After 8 years as Director of Research, Dr. Wilson retired from that office on June 30, 1963 and was followed by Goran C. H. Bauer (1924–1994) from Malmö, Sweden. At Lund University, Bauer had defended his doctoral thesis on bone mineral kinematics in 1954. After serving as Director of Research and Attending Orthopaedic Surgeon at HSS until 1969, Professor Bauer then returned to Sweden where he was appointed Professor of Orthopaedics and Chairman of the Department of Orthopaedics at Lund University. He held that post for 20 years until his retirement in 1989. In 1983, Goren Bauer assumed the editorship of *Acta Orthopaedica Scandinavica*, "a commission he conducted with skill and enthusiasm until his death" in 1994 [20].

R&C had a limited number of specialty clinics, but one of the earliest was the Scoliosis Clinic founded in 1934 by John R. Cobb, MD (1903–1967), who was appointed that same year by Dr. Wilson as a Gibney Orthopaedic Fellow. A

Fig. 4 (Above) Margaret Caspary (birth date unknown–1953), a patient of Dr. Wilson, was in poor health in her final years. Her husband Alfred H. Caspary (1877–1955), an investment banker, philatelist and philanthropist, formed one of the greatest stamp collections in philatelic history. He was a founder and member of

the Expert Committee of the Philatelic Foundation and advisor to the Expert Committee of the Royal Philatelic Society in London. (Below looking from East 70th Street) The original entrance to the Margaret M. Caspary Clinic (from Hospital for Special Surgery Archives)

graduate of Yale Medical School in 1930, Cobb had a degree in English Literature from Brown University where he was a member of the swim team. Born in New York, the second of six children, his early education was at Stanton Military Institute in Virginia where he graduated in 1921 [21].

John Cobb became one of the great giants in scoliosis of his time and attracted many foreign fellows, visitors, and interested orthopedic surgeons from around the world to the hospital. His treatment of scoliosis by turnbuckle cast was copied by many orthopedic centers (Fig. 12). His measure-

ment of curves, to be known as the *Cobb Angle*, was depicted in a *Cobb Protractor* and continues to be the benchmark of measuring scoliosis curves today. His love of language and of poetry was often illustrated by his fund of many limericks, which he would recite with a little coaxing.⁴ In 1954, he suffered a stroke from which he

⁴ Two of Cobb's famous limericks were: *In the field of scoliosis, there is one thing to observe—keep your eye on the patient and not on the curve. You don't have to be crazy to do scoliosis, but it helps.*

Fig. 5 The outpatient clinic was dedicated to Margaret M. Caspary, supported by a gift of \$1.5 million (about \$11 million in 2008 dollars based on the Consumer price Index conversion factors) from her

husband, Alfred H. Caspary in 1955. This was only one of many gifts from the Alfred H. Caspary estate, totaling near \$5 million [16] (from Hospital for Special Surgery Archives)

recovered, returning to full practice 2 years later. He continued to practice until 1965 when he suffered a second stroke and died in 1967 at the age of 64.

Another early and important specialty clinic was the Hand Clinic established in 1951. Dr. Wilson appointed Lee Ramsay Straub, MD (1913–1994), Chief (Fig. 13). Dr. Straub developed the Hand Service into one of the most distinguished hand centers in the USA. His 1-year hand fellowship was very competitive and sought by many young orthopedic surgeons throughout the world. He was a

founding member of the American Society for Surgery of the Hand, established after World War II in 1946 by Sterling Bunnell, MD (1882–1957), the world-renowned hand surgeon. Among the many honors received and offices held, Dr. Straub was particularly proud of his election as President of the American Orthopaedic Association in 1968. In 1967, Dr. Straub's orthopedic interests expanded when he and Dr. Richard Freyberg (1904–1999), Director of Rheumatology since 1944, formed the Comprehensive Arthritis Program (CAP), for patients with severe arthritis

Fig. 6 The main Caspary lodge was built in 1929 with hand-sculptured beams imported from Europe, as a fishing lodge for Alfred Caspary. Funds from the Caspary estate were designated to allow maintenance of the property (from Hospital for Special Surgery Archives)

Fig. 7 Two residents are presenting a postoperative patient in the second floor conference room to Dr. John R. Cobb for rating by the patient and surgeon (circa late 1950s; from Hospital for Special Surgery Archives)

who would benefit from joint surgery. This became a prototype for similar programs in other hospitals around the world.

Lee Ramsay Straub, the youngest of three brothers and three sisters, traced his roots back to John Ramsay who sailed in 1776 from Kintire, Scotland. He became ship wrecked off the coast of Prince Edward Island and settled there to raise his family. Lee Ramsay (in later years, he preferred to be called *Ramsay*) was born in Perth Amboy, NJ, December 12, 1913. During his early years, he underwent a number of operations for congenital unilateral hemangiomas, one reason for his interest in pursuing medicine as a profession. He received his undergraduate degree from the University of California, Berkley, and his medical degree from the Medical School of McGill University. It was in Montreal that he met his future wife, Mary, trained as a physical therapist, who came from Lethbridge, Alberta. They were married in New York in September 1941 and raised three sons, all eventually marrying a *Mary* (four *Mary Straubs* in the family).

His early physical problem of chondromalacia of his knees resulted in multiple knee surgeries [22]. In his later years, he was very disabled by arthritis with severe involvement of both knees but had great courage and continued to operate and examine patients, using an electric chair.

Robert Lee Patterson, Jr. becomes Surgeon-in-Chief

In 1962, adverse relations between The Hospital for Special Surgery and New York Hospital-Cornell Medical Center seriously threatened the continued affiliation agreement between the two hospitals. Because of difficulties over a faculty and staff appointment, Dr. Thompson resigned from the office of Surgeon-in-Chief. He was replaced in 1963 by

Robert Lee Patterson, Jr., MD (1907–1994), who had first joined the staff of The Hospital for the Ruptured and Crippled in 1936 as a Visiting Surgeon.

T. Campbell Thompson was considered to be one of the best clinicians and surgeons in the hospital by his colleagues and an excellent teacher by his students. In conferences, he would often nod off to short periods of light sleep, but should a question be addressed to him, he immediately awakened and responded with a pertinent and knowledgeable answer. Dr. Thompson continued to practice orthopedics and devoted most of his time to teaching after his retirement as Surgeon-in-Chief. He died in 1986.

Robert Lee Patterson, Jr., MD, who had been Co-Chief of the combined NYH-HSS Fracture Service with his good friend and colleague, Dr. Preston Wade⁵ (1901–1982), a general surgeon, had a number of other close ties with New York Hospital (Fig. 14). Patterson's older brother, Dr. Russell H. Patterson (1890–1993), was a senior surgeon at NYH, and his son, Dr. Russell H. Patterson, Jr. became Chief of Neurosurgery at New York Hospital in 1971. After Dr. Robert Patterson assumed the office of HSS Surgeon-in-Chief, relations between the two hospitals improved.

Robert Lee Patterson, born in Athens, GA, was the youngest of five children. He graduated in 1928 from the University of Georgia where he was elected to Phi Beta Kappa. His early intention was to become a minister. Having decided to pursue medicine, he was accepted at Harvard Medical School, receiving his medical degree in 1932. He then interned at Peter Bent Brigham Hospital in Boston and stayed in Boston to train as an orthopedic resident at Children's Hospital and Massachusetts General Hospital. In 1935, he had 6 months further training on the

⁵ Dr. Wade was brought out of retirement in 1970 to assume the post of interim Chief of Surgery at New York Hospital.

Fig. 8 The cafeteria, mainly for staff, was open daily for three meals. It was the *soul of the hospital* where all levels of staff not only would eat a meal but could break up the work day, meeting other staff. It was replaced in 1988 by the Belaire Café (from Hospital for Special Surgery Archives)

Neurosurgical Trauma Service at Boston City Hospital. Following his Boston experience, he came to New York where he was an orthopedic resident on the Fracture Service of Presbyterian Hospital. Completing his training in 1936, he was appointed by Dr. Wilson to the attending staff of the Hospital for the Ruptured and Crippled, where he was assigned to start a Cerebral Palsy clinic. On May 1, 1937, Dr. Patterson married Margaret Douglas Sloane, daughter of Mrs. William Sloane and the late Mr. Sloane in a ceremony at the Union Theological Society in New York. Her father was the founder of the famous Sloane Furniture store in 1843 in New York.⁶ During World War II, from 1942 until 1946, Patterson served with the Armed Forces in Europe, being discharged with a rank of Lieutenant Colonel [1, 23]. Col. Patterson was decorated with three battle stars and the Legion of Merit.

The year Dr. Patterson assumed the office of Surgeon-in-Chief, the hospital celebrated its 100th anniversary, having first opened its doors on May 1, 1863 [24]. The hospital celebrated its Centennial that May with a 3-day scientific program, chaired by Dr. Philip D. Wilson, Jr. who had joined the attending staff as an Orthopedic Surgeon to the Out-Patient Department in 1951. Dr. Wilson, Jr. had trained as an orthopedic resident at HSS from 1948 to 1950 and, in 1951, finished his residency at the University of California Hospital Medical Center, San Francisco.

Under Dr Patterson's direction, The Department of Rehabilitation was created with Dr. William Cooper, then Chief of the Cerebral Palsy Clinic, becoming the first full-time Director. Dr. Wilson, Jr., was appointed Chief of the Hip Service. Using knowledge gained from his experiences

abroad and the laboratory findings of Dr. Harlan Amstutz, a protocol was established for total hip replacement using polymethyl-methacrylate fixation of the components. Insertion of the McKee Ferrar metal on metal implant began in 1967 [25].

Dr. Harlan C. Amstutz, having finished his orthopedic residency at HSS in 1960, returned after a tour of military duty, to be appointed to the staff in 1964 as Orthopedic Surgeon to the Out Patient Department (Fig. 15). That year, he established the Leg Equalization Clinic and soon became Chief of the Amputee Clinic [26]. Realizing the coming impact of technology in joint replacement, Dr. Patterson established the Biomechanics and Biomaterials Laboratory in 1966 and appointed Dr. Amstutz its Director [25]. Amstutz was promoted to Director of Bioengineering in 1969 and brought Peter S. Walker, Ph.D into the department as Project Engineer. In 1970, Dr. Amstutz resigned to become Chief of the Orthopedic Department of

Table 1 Chief nursing officers

The Hospital for the Ruptured and Crippled and Hospital for Special Surgery

Ella S. Murdock Matron	1896–1911
Ella E. Patterson, RN Matron and Directress of Nursing	1912–1916
Jean L. England Matron and Directress of Nursing	1917–1924
Ethel B. Ridley, RN Directress of Nursing	1924–1942
Cleanthe E. Logotheton Directress of Nursing	1942–1954
Mary Jeanne Clapp, RN Director of Nursing	1954–1965
D. Dean Smith, MA, RN Director of Nursing	1965–1977

⁶ The name was changed to W and J Sloane when his brother John Sloane joined the store in 1852. For years, it was located on Fifth Avenue at 38th Street and decorated the homes of the wealthy and famous, created Hollywood movie sets, and even designed furniture for the interior of the White House.

Fig. 9 Dr. Richard Freiburger with a member of the HSS house staff (*left*), reading an X-ray. Freiburger's radiological diagnosis was also often weighed heavily by many of the HSS staff for his clinical impression and expert advice (from Hospital for Special Surgery Archives)

the University of California, Los Angeles. Dr. Wilson, Jr. replaced him as Director of Applied Biomechanics.

Undergraduate Education at HSS was under the direction of Allan E. Inglis, MD who enjoyed a wealth of knowledge in orthopedics and anatomy. He organized classes in both fields for Cornell Medical students. Dr. Patterson appointed him Executive Assistant to the Surgeon-in-Chief and, eventually, Chief of the CAP Service.

Born in Seattle, Washington, Dr. Inglis earned his undergraduate graduate (1951) and medical degrees (1955) from the University of Rochester. He completed his orthopedic resident training at HSS in 1960 and then performed 2 years of fellowship training at Memorial

Hospital Center for Cancer and Allied Diseases as well as at HSS (1960–1962). In later years, he was appointed Professor of Clinical Surgery (1985) and Professor of Anatomy in Cell Biology and Anatomy (1986) at Cornell University Medical College (Fig. 16).

In 1968, Dr. David B. Levine was appointed Chief of Scoliosis at the Hospital for Special Surgery. Having finished his orthopedic residency at HSS in 1964, he trained as a scoliosis fellow for 1 year under Dr. Jacqueline Perry at Rancho Los Amigos Hospital in Downey, CA, returning to HSS in 1966 as an Assistant Attending Orthopaedic Surgeon (Fig. 17). He introduced a new approach for treating scoliosis patients, particularly with cardio-pulmonary compromise. Dr Levine introduced HSS to prophylactic tracheostomy, use of the halo, adjunct respirators, Cotrel traction, and use of Harrington Rod implants. These new methods led to elimination of the cumbersome, restrictive turnbuckle casts of the Cobb era which necessitated being recumbent in bed for up to a year [27]. He organized a *step-down* pediatric nursing unit on 5 South where both men and women were in the same room—a first at the hospital for mixing male and female inpatients, except for the Recovery Room. In cooperation with the Anesthesia Department, he brought routine cardiac monitoring into the operating rooms and arterial blood gas analysis into the hospital.

In 1964, as a senior resident, at a scoliosis instructional course meeting held at the University of Minnesota, he proposed establishing a Scoliosis Research Society (SRS) and drafted the first bylaws of the society. He had the longest tenure (12 years) of any member of the Board of Directors of the society and served as Secretary-Treasurer (1970–72), Secretary (1972–74), and President (1978–79). Besides winning the first prize Walter P. Blount Award with

Fig. 10 Looking west from the East River Drive, a building lot between 71st and 72nd Streets was purchased in 1956 for the future research building. The farther half of the lot facing 72nd Street was sold for commercial development (from Hospital for Special Surgery Archives)

Fig. 11 The new Alfred H. Caspary Research Building was joined to the hospital building by a ramp over 71st Street. It had an underground garage for 40 cars. Only five of the designed floors were completed at

the time, allowing for future expansion of two floors (from Hospital for Special Surgery Archives)

Laura B. Flawn, MD (1953–2001) in 1983, Dr. Levine was awarded the 2009 SRS Lifetime Achievement Award at the 44th annual meeting of the Scoliosis Research Society in San Antonio, TX, September 26, 2009.

In addition to these duties and achievements, Dr. Patterson assigned Dr. Levine to the Directorship of the Newborn Hip Examining Service (1966–76), a new program. With Wan Ngo Lim, MD (1920–2004), Chief of Pediatrics at HSS, Dr. Philip D. Wilson, Jr., and a team of

fellows and orthopedic residents, Levine routinely examined biweekly over 50,000 newborns at New York Hospital for dislocation of the hip (CDH), preventing the dreaded complications of an undiagnosed CDH [28].

Dr. Levine retired from active practice in 1995. In 2003, Dr. Thomas P. Sculco became the 11th Surgeon-in-Chief and asked Dr. Levine, in spite of his retirement, to accept a new position as Director of HSS Alumni Affairs. He established the HSS Archives, continued his previous

Fig. 12 Dr. John Cobb (circa 1940) was a careful and meticulous surgeon who watched over his scoliosis patients with great care and whose patients in return loved him (from Hospital for Special Surgery Archives)

Fig. 13 Lee Ramsay Straub (circa 1950s) was long recognized as one of the country's outstanding hand surgeons (from Hospital for Special Surgery Archives)

Fig. 14 Dr. Robert Patterson (1954) just before he became Co-Chief of the New York Hospital-Hospital for Special Surgery Combined Fracture Service (from Hospital for Special Surgery Archives)

interests in publishing medical history of the hospital, and resumed the management of the Caspary Lodge, a responsibility he had held from 1967 to 1994.

In 1965, Mary Jeanne Clapp, RN, retired as Director of Nursing and was followed by D. Dean Smith, MA, RN who held that position until 1975. Another important nursing milestone was the retirement of Hazel Evans, RN who was Operating Room (OR) Supervisor for 25 years from 1941 to 1966. She was followed by Elizabeth Kirsch, RN who held the post until 1970, after which Ingrid Andersson from Malmo, Sweden, became OR Supervisor.

Another Patterson appointment was Peter Bullough, MD from Oxford, England who joined the HSS staff as an Associate Attending Pathologist in 1968. The Department

Fig. 16 (1971) Dr. Allan Inglis, Executive Assistant to the Surgeon-in-Chief, showing an X-ray to his patient (from Hospital for Special Surgery Archives)

of Pathology was then chaired by Dr. Mellors (Fig. 18). Dr. Bullough became Chief Orthopaedic Pathologist and Attending Pathologist in 1980 and Director of Laboratory Medicine in 1984 when Dr. Mellors retired.

After battling peripheral vascular disease, Philip D. Wilson died May 7, 1969 at the age of 83 in New York Hospital. A memorial service was held at the New York Academy of Medicine on May 10th. In his obituary published in the *Journal of Bone and Joint Surgery*, his very close friend, Sir Harry Platt, wrote in part:

“In Great Britain we have long seen Philip Wilson not only as an outstanding surgical leader in the United States, the doyen of orthopedic surgery, but as a world figure. For us he represented the outward symbol of that *special relationship* between the orthopedic surgeons of our two

Fig. 15 Dr. Harlan Amstutz as an orthopedic resident in 1960 at the Hospital for Special Surgery (from Hospital for Special Surgery Archives)

Fig. 17 (1968) Dr. David B. Levine and Dr. Wan Ngo Lim examining a scoliosis patient in preoperative Cotrell traction (from Hospital for Special Surgery Archives)

Fig. 18 Dr. Leon Root (*left*) and Dr. Peter Bullough established an osteogenesis imperfecta clinic in 1970 (from Hospital for Special Surgery Archives)

countries created in the days of war by Sir Robert Jones and nurtured by Robert Osgood” [29].

In 1969 with the resignation of Dr. Goran Bauer, Director of Research, who also had been Chief of the Knee Clinic, John Insall, MD (1930–2000) became the new Chief. Insall along with Chitranjan Ranawat, MD, Peter Walker, PhD, and Dr. Inglis began investigations ultimately leading to the design and development of the total condylar knee prosthesis at HSS. In December 1971, Drs Insall, Ranawat, and Joseph I. Hoffman, Jr., MD (Orthopedic Fellow) performed the first implantation of a duo-condylar knee prosthesis, designed in the laboratory by Dr. Walker and Joseph V. Hajek, MD (Orthopedic Fellow) [30].

In 1970, with the resignation of Dr. Richard Freyberg as Director of Rheumatic Diseases, Charles L. Christian, MD was appointed to that position, becoming Physician-in-Chief and Associate Director of Research. Dr. Christian brought with him from Columbia Presbyterian Hospital Doctors Lawrence Kagen, Robert W. Lightfoot, Jr., Michael D. Lochshin, and Paul E. Phillips. Among their many investigative studies, Dr. Christian and his colleagues were

Fig. 19 Dr. Patterson’s last orthopedic resident graduating Class of 1972. *Left to right* John Lyden, William Crutchlow, Steven Muller, Dr. Patterson, Charles Hamlin, Robert Milgrim, and Michel Errico (from Hospital for Special Surgery Archives)

particularly interested in autoimmune disorders such as systemic lupus erythematosus and rheumatoid arthritis.

John L. Marshall, DVM, MD (1936–1980) established the first Sports Medicine Clinic at HSS in 1971 [31]. Marshall died in a light airplane crash on February 19, 1980. He was on his way from an annual meeting of the American Academy of Orthopaedic Surgeons in Atlanta, GA to the Winter Olympics in Lake Placid, NY.

In 1972, Dr. Patterson resigned as Surgeon-in-Chief. Transformation of technical advancement in joint surgery, major developments in arthritis, and establishment of a biomechanics laboratory occurred on his watch. HSS post-graduate education was expanded; the orthopedic residency was increased to six residents per year with introduction of new fellowship opportunities (Fig. 19). Ultimately, one of Robert Lee Patterson’s most important accomplishments was to reestablish a better relationship with New York Hospital-Cornell Medical Center, which saved the affiliation agreement.

On July 2, 1972, Philip D. Wilson, Jr. became the eighth Surgeon-in-Chief of The Hospital for Special Surgery.

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