Abstract—Lewis A. Conner, MD (1867 to 1950), was a pioneer in public health cardiology, cardiac rehabilitation, and cardiac psychology. He helped establish the Burke Rehabilitation Hospital and was the founding president of the New York and American Heart Associations (AHA). Dr Conner was the founder of the American Heart Journal, America’s first medical subspecialty journal, and the official publication of the American Heart Association until 1950, when Circulation was created. Conner spent more than a half-century on the staff of the New York Hospital and Cornell University Medical College and was Chairman of Medicine from 1916 to 1932. During this time, he created the innovative Cornell Pay Clinic and united the “old” New York Hospital with the new and scientifically-oriented Cornell University Medical College on a modern and inspiring urban campus. An extraordinary clinician and a humanist with great equanimity, Conner devoted his career to the Oslerian tradition of scholarship, leadership, and organization in the quest for improved patient care. This article contains newly discovered biographic material on Dr Conner and explores his professional and personal connection to Sir William Osler. (Circulation. 2000;102:1062-1067.)

Key Words: American Heart Association periodicals ■ history of medicine

The year 2000 marks the 50th birthday of Circulation and the 50th anniversary of the death of Lewis A. Conner, MD, who founded the American Heart Journal in 1925 and served as its editor-in-chief until 1937. This journal was Circulation’s predecessor as the American Heart Association’s (AHA) official journal.

In 1937, the AHA honored Conner, who was a founder and first president of the New York Heart Association and AHA, with its first named annual lectureship. Shortly before his death, he was awarded the prestigious Gold Heart Award by the AHA in honor of his pioneering work in organizing and perpetuating the AHA. After Conner’s death, the February 1951 issue of Circulation was dedicated to his memory. Scholars have recently drawn attention to his myriad seminal contributions.

In this article, I will present previously unpublished biographic material on Dr Conner and document that he fashioned his career in the “Oslerian tradition” (L.A. Conner, unpublished data, 1945). 3

The Portrait

Hanging in a corner on the first floor of the Joan and Sanford I. Weill Medical College and Graduate School of Medical Sciences of Cornell University (formerly Cornell University Medical College [CUMC]) is a portrait of Lewis A. Conner, MD, (Figure). Next to the portrait is a 9.5×11-inch plaque, on which the information next to the Figure is inscribed. This portrait was painted by Charles C. Curran in 1948 to honor the last surviving original faculty member of CUMC on its golden anniversary, and it is distinctly different from the other portraits that hang in the York Avenue corridor. The other portraits have light backgrounds; Conner sits in darkness on a throne-like chair. The other men wear business suits or white laboratory coats; Conner wears an academic gown with the green medical hood around his shoulders. The portrait is similar to the “The Four Doctors” of Hopkins (Welch, Halsted, Kelly, and Osler) painted by Sargent. Conner’s red Cornell tie is reminiscent of Osler’s scarlet scarf, and his hands are positioned like Osler’s, confirming the notion that Conner emulated the “Chief.” More importantly, by the depth and breadth of his accomplishments and equanimity, Dr Lewis A. Conner richly merits the sobriquet “Cornell’s Osler.”

Biographic Sketch

Lewis Atterbury Conner was the oldest of 10 children born to Charles Horace Conner and Katherine Boudinot Atterbury. The Conners were part of the Scotch-Irish Presbyterian migration to Western Pennsylvania in the 18th century. Judge John Conner, Dr Conner’s great-grandfather, was born in Pennsylvania in 1777, and his family migrated westward, settling in New Albany. Dr Conner’s grandfather, William Chamberlain Conner, became a successful merchant who was prominent in the Second Presbyterian Church. Conner’s father, Charles Horace Conner, who was born in 1841,
attended Yale College but returned to New Albany in 1860 when his father died. Charles Conner became successful in the roofing, chemical, and steel business and was active in the Presbyterian Church, where he unified several Indiana branches (L.A. Conner, unpublished data, 1945). Lewis attended the Chenault School in Louisville and, as a Yale undergraduate, joined Chi Phi Fraternity and traveled across the country as the lead baritone for the Glee Club (L.A. Conner, unpublished data, 1945). On graduation in 1887 (the dates on the plaque are incorrect), he entered Columbia's College of Physicians and Surgeons. Conner's circle included his cousins Lewis Atterbury Stimson (the prominent surgeon who was among the first to employ the Listerian technique in the United States), Julia Stimson (who married Dr Alfred Loomis, the renowned chest physician), and Olive Atterbury (who married the Dutch platoon scion Killaen van Renessalaer) (L.A. Conner, unpublished data, 1945).

Conner received his MD degree from Columbia in 1890 and interned at New York Hospital (NYH). This was followed by 2 years of postgraduate study in Vienna, Heidelberg, Munich, and Kiel (under Professor Quinke) and service in the Spanish-American War (L.A. Conner, unpublished data, 1945). Conner married Emma Witt Harris, the granddaughter of US Senator Ira Harris, who was a friend of Lincoln’s. The Conners had 4 children: Katharine Atterbury (b. 1901), William Harris (b. 1905), Edith Harris (b. 1908), and Sylvia Colt (b. 1910). Sadly, Emma died in 1921, but soon thereafter Dr Conner met Dr Laila Ann Coston, a surgeon decades his junior, whom he married 2 years later. Their only child, Ann Atterbury Conner (now Ann Conner Powers), resides in New England and is the only living Conner child.

Dr Conner’s family life was far from blissful. Although daughter Katharine (schooled at the home of J.P. Morgan, who was a patient of Conner’s) fared well, son William disappointed his father by dropping out of Yale. Edith was developmentally delayed, institutionalized, and died in her forties. Sylvia (Tibby) struggled with emotional problems.

In good times, Dr and Mrs Conner enjoyed music and, for many years, Conner was the baritone soloist at St Bartholomew’s Church in Manhattan. In later life, progressive deafness curtailed his music. Fortunately, he was able to compensate clinically because of his training in Europe. He used his hands to detect murmurs and championed direct auscultation with a sounding towel, astounding students with his genius at the detection of murmurs which they, with their stethoscopes, had failed to appreciate.4,6,7

When he retired from Burke, Dr and Mrs Conner relocated to Greenwich Village to be near their children and the “old” New York Hospital where Dr Conner’s early medical years were spent. Conner died in 1950 after a cerebrovascular accident and is buried in Katonah, NY (Ann Conner Powers, personal communication, 1995).

**Conner’s Work**

In 1894, Conner was appointed Medical Director and Pathologist at the House of Relief, which was maintained by NYH for the care of the indigent of lower Manhattan. Here, Conner performed the first lumbar puncture in the Western hemisphere (providing data for Dr William Elser’s studies on meningitis)6 and established a diagnostic laboratory service that cousin Stimson used as a model in negotiations between the CUMC and NYH for an affiliation (C.A. Berntsen, unpublished data, 1996).

Conner succeeded Dr W. Gilman Thompson to the Chair of Medicine at Cornell and continued his Oslerian vision of medicine: compassionate and complete patient care, intensive
bedside instruction, scholarship aimed at improving diagnosis and treatment, and innovation in teaching and organization for postgraduate education. Conner’s tenure occurred during turbulent times: sandwiched between a Great War and a Great Depression were Suffragette movement, Prohibition, and the Roaring Twenties.

In 1916, the CUMC faculty under Conner concluded that students were not exposed to a large segment of the patient population and that patients were suffering from noncomprehensive treatment. Accordingly, the Cornell Pay Clinic was created. The principles of ambulatory and preventive medicine, as well as the importance of psychological factors in medical disorders, were stressed. The Pay Clinic offered the patients personal care at a fraction of a private physician’s office fee, with the dignity of appointments and supervision by senior staff physicians. Conner selected Dr Connie Guion, a CUMC graduate and enthusiastic Oslerian, to run the Pay Clinic, which 75 years later is thriving as Cornell Internal Medical Associates.

Dr Irving S. Wright, a past president of the AHA, was a student of Conner’s at CUMC and recalled an exercise Conner used when teaching physical diagnosis. Conner would have the students examine the patients without obtaining a history to sharpen their examination skills. At the end of one exercise, he pointed to a small mole behind the patient’s ear and reminded them that the detection of a neglected lesion like a melanoma might be more prognostically important than the presenting complaint.8

Conner’s medical interests were varied, and he contributed to medical literature for more than half a century. Like Osler, Conner had training in laboratory medicine and pathology, and his early studies involved clinicopathologic correlation. As expected in the preantibiotic age, much of Conner’s early work involved infectious disease.4

Conner was among the first to bring attention to the syndrome of occult thromboembolic disease. He speculated that sporadic fever in the course of a protracted illness like typhoid, with subsequent bed rest, might be secondary to thrombophlebitis and/or acute pulmonary embolism.6 His seminal investigation in this field led to a highly publicized consultation into the extensive deep femoral venous thrombosis of Mayor John F. Harlan of New York City9 and a presentation of his 30-year experience to a prominent New England postgraduate assembly.4

Another of Conner’s interests was functional cardiac disease. During the First World War as a brigadier general in the reserve medical corps, he supervised and catalogued the cardiovascular symptoms and signs of recruits, an undertaking recommended to President Wilson by Osler.10 Conner was struck by the prevalence and severity of “irritable heart” syndrome in recruits, writing “‘from the very first day of the army heart examinations, however this neurosis obtruded itself on the consciousness of the examiner in no uncertain manner. It was far away the commonest [sic] disorder encountered and transcended in interest and importance all other heart affections combined.”11

Conner’s paper, “The Psychic Factor in Cardiac Disorder,” which was delivered at the New York Academy of Medicine in 1920 and published in JAMA4 was his most extensively read article. Six decades later, it remains a uniquely terse and germane analysis of panic disorder and functional cardiovascular symptoms and is as relevant today as when first written.

By 1916, deaths from cardiovascular disease eclipsed those from tuberculosis, and there were a large number of “cardiac cripples”—patients with moderate to severe rheumatic valvular heart disease who continued to suffer “breakdowns” precipitated by their strenuous occupations as manual laborers. Armed with these facts, Dr Haven Emerson, the New York City Health Commissioner, called for action.12

Conner and Dr Nan Gilbert Seymour opened the combined Trade School and Convalescent Home for Cardiac Convalescents in Sharon, Connecticut. After medical stabilization and cardiac rehabilitation, patients underwent retraining in less physically arduous occupations. The Sharon Convalescent Home was subsequently merged into the Winifred Masterson Burke Rehabilitation Hospital in White Plains, New York. Burke was founded in 1915 at Conner’s urging by James Masterson Burke, Conner’s patient and friend. Today, the Burke Rehabilitation Hospital is a leader in physical rehabilitation and scientific investigation with 150 inpatient beds, a busy outpatient service, and an active research institute.

It has been thought that cardiac rehabilitation in the United States did not begin until the 1940s and cardiac psychology in the 1960s. However, in the broadest sense, Conner and Seymour began cardiac rehabilitation and cardiac psychology many decades earlier. With our present understanding of the importance of depression and social isolation in the prognosis of patients with heart disease, the goals and achievements of the Sharon School and the public health and rehabilitative movement that ensued are notable.

Concomitant with Conner and Seymour’s work, Dr Hubert C. Guile and Miss Mary E. Wadly established the first Cardiac Clinic at Bellevue Hospital in 1911 for the medical and social supervision of chronic rheumatics. The endeavors of Conner, Guile, and Wadly grew into an association concerned with the management and systematic care of patients with heart disease. The culmination of these efforts, at Conner’s initiation, was the establishment of The Society for the Prevention and Relief of Heart Disease in 1915. The Society later changed its name to the New York Heart Association. By 1924, a national association, the AHA, was established. Dr Conner served as the first President of both.

Given the controversy over specialization in American medicine at the time, Conner was an ideal first president. His educational background, academic position, clinical reputation, scholarship, social connections, and presidency of the Association of American Physicians rendered the fledgling Heart Associations unassailable under his leadership.

Conner founded America’s first medical subspecialty journal, The American Heart Journal, in 1925 and served as editor-in-chief for 12 years. He was assisted by his wife, Dr Laila Coston-Conner. The original editorial board included Henry A. Christian, Alfred E. Cohn, George Dock, James B. Herrick, Emanuel Libman, John H. Musser, G. Canby Robinson, Joseph Sailer, William S. Thayer, Paul D. White, Carl J. Wiggers, Frank N. Wilson, and others.

One exciting event in Conner’s career was when he spoke at a meeting at the New York Academy of Medicine in 1931.
He shared the podium with his former CUMC student Soma Weiss and the acclaimed author of the small book Conner had carried throughout his career to teach ECGs, Sir Thomas Lewis, whose journal Heart served as the model for Conner’s American Heart Journal.

The creation of the AHA and American Heart Journal (and its successor, Circulation) undoubtedly has had a major effect on the care and outcome of patients with heart disease for the past 75 years. For his leadership, the AHA honored Conner in 1937 by creating its first annual lecturership in his name. The first AHA Conner lecture was given in 1938 by former CUMC colleague Carl J. Wiggers. Over the past 60 years, the AHA annual sessions have begun with memorable Conner Memorial lectures by such speakers as Nobel laureates Richards, Lown, Brown, and Goldstein, Conner’s student Irvine H. Page, Hamman, Edwards, Goldblatt, Katz, Stead, McKusick, Comroe, Blumgart and Freedberg, Lillhei, Rudolph, Fishman, Kirklin, Shepherd, Hoffman, Braunwald, Wessler, Feigenbaum, Wagner, Ross, Fisch, Frederickson, Gorlin, Fuster and, in 1997, David Satcher on the importance of public health in cardiovascular disease—a full cycle back to Dr Conner’s métier.

Conner retired as Chairman in 1932 at the age of 65, which coincided with the opening of the new uptown campus of NYH-CUMC. He continued to practice at NYH, serve as editor-in-chief of the American Heart Journal, and publish in peer-reviewed journals. He also became president of the Burke Foundation. In 1942, he retired from private practice and became the Burke Rehabilitation Hospital’s medical director, as well as the Foundation president, filling in for a staff called to war. He retired from both positions in 1946 (personal communication, Ann Conner Powers).

The Osler-Conner Connection

Osler was born in 1849, 18 years before Conner and 5 years after Conner’s cousin and CUMC founder Dr Lewis Atterbury Stimson who, like Osler, played a large part in Dr Conner’s career. Both Osler and Conner were raised in rural areas in large families with strong religious backgrounds; their fathers were instrumental in organizing churches in their region. Osler and Conner had postgraduate training in Europe and shared medical interests in physical examination, clinicopathologic correlation, infectious diseases, neurology, and organic and functional cardiovascular disorders. They shared a commitment to the public health approach to disease, which was likely born of their experience with infectious disease; the Tuberculosis Association was the model and mentor for the Heart Association.13

Both married socially prominent women and both experienced the tragedy of losing a grown child. They were admired for their equanimity and shared a good sense of humor; Osler relished practical jokes, whereas Conner’s humor was tongue-in-cheek.

They spent their careers training students and residents in the integration of science and art in medicine and were on the original faculties of a new breed of American medical schools established at 2 new universities founded by self-made Quaker businessmen who envisioned European-like universities with broad curricula and accessibility to the common man and woman. The first presidents of Hopkins and Cornell, Daniel Coit Gilman and Andrew Dickson White, were Yale classmates who traveled to Europe together and were impressed by the importance of scientific training and its application to medicine.

Although there is no existing direct correspondence (New York-Presbyterian Hospital-Weill-Cornell Medical Archives, Welch Library, and the McGill-Osler Collection), undoubtedly Osler and Conner had a meaningful relationship: they had mutual friends and colleagues and met professionally. Conner, like Welch and Halsted, graduated from Yale and Columbia and trained at New York Hospital. Conner quoted Osler in his work,14,15 wrote a chapter for one of Osler’s texts,4 and Osler’s name was heard frequently in the Conner household (Ann Conner Powers, personal communication, 1995). Specifically, Osler and Conner were firmly joined through Stimson, Camac, and Thayer.

Cousin Stimson tried to recruit Osler to a combined University Medical College–Bellevue Medical College Chairman of Medicine position after the death of Dr Loomis.16 It is possible that had Osler accepted this position, the political crisis that ensued, which created the schism of the University Medical College from New York University, would not have occurred and the Cornell University Medical College would not have been opened in 1898. However, Osler demurred, CUMC was born, and Stimson and Osler remained colleagues. Osler’s opinion was sought in developing the “new school”16 and, in 1904, Stimson along with Allbutt, Jacobi, Gilman, and Welch made an address at the opening of a new clinical amphitheater at Hopkins.16

In 1905, Osler organized the “Interurban Clinical Club,” which included Camac, Conner, and Meara of CUMC, Janeway of Columbia, Barker and Thayer from Hopkins, and Riesman and Sailer of Philadelphia.

“There could be no doubt of Osler’s sound appraisal of the young men active in Internal Medicine in 1905, when one considers the careers of those he chose as charter members of the club. All proved to be outstanding physicians and many made fundamental contributions to the creation of medicine’s scientific base and to the application of scientific developments to medical practice in this country.”17

Meara and Conner were the mentors of Dr Connie Guion, the first female Professor of Clinical Medicine in the United States and the first living American woman physician to have a medical building named in her honor. The importance of Osler’s textbook is demonstrated in Dr Guion’s biography Look to this Day!

“The book which Connie used everyday in her medical school career was Sir William Osler’s The Practice of Medicine, a tome of 1500 pages describing every main disease. ‘Let Osler be your bible,’ Dr Walter Niles told his students, ‘There is no textbook in existence that could compare with his. It will give you a peg in which to hang the physical examination and history of every patient. Moreover, it is filled with philosophy and is excellent reading.’ Under Dr
Niles’s strict supervision, Connie and her classmates went through Osler page-by-page studying each disease in detail. Although they had yet to see most of the diseases described, by the end of the year they had a working knowledge of each.”18

Dr Charles Camac served as Assistant Resident Physician at Hopkins with Osler and, from 1899 to 1905, he worked closely with Conner as Director of the Laboratory of Clinical Pathology at CUMC and Director of the Outpatient Department at NYH. The Cornell Medical Archives have letters to Camac from Welch, Barker, and Cushing, the latter of whom wrote, “Beloved Camac . . . Congratulations on your appointment to the new school.”

On Camac’s death in 1940, Conner wrote that “Osler had the most important influence in the life of the younger man” and “from his earliest association with Osler, Dr Camac acquired the enthusiastic interest in medical history and book collecting, which became one of his main preoccupations. In 1905, he compiled a volume of ‘Counsels and Ideals from the Writings of William Osler’ . . . ”19

William Sydney Thayer graduated from Harvard Medical School in 1899, served as a house officer at Massachusetts General Hospital, and succeeded Lafleur as Chief Resident at Hopkins in 1891. He became Chairman of Medicine at Hopkins in 1919. He shared Conner’s interest in the pathophysiology of cardiopulmonary sounds, worked with Hirschfelder on the third heart sound, coined the term “opening snap” in mitral stenosis, and described the epigastric venous hum associated with cirrhosis of the liver.20 Thayer and Conner were close friends and colleagues and were involved in the inception of the AHA and its highest symbol of gratitude, the Gold Heart Award, for contributions to medical education and in, 1937, the inaugural issue of the “Samaritan,” the CUMC yearbook, was dedicated to him as a revered role model—the physician the students most wanted to emulate.

The outflow of admiration for Conner did not end at this retirement dinner. The following year he was awarded the University Medal at the Columbia University Commencement for contributions to medical education and in, 1937, the inaugural issue of the “Samaritan,” the CUMC yearbook, was dedicated to him as a revered role model—the physician the students most wanted to emulate.

In 1950, the AHA paid tribute to the “Three Wise Men of the East”—Conner, Halsey and Emerson—by awarding them their highest symbol of gratitude, the Gold Heart Award, for their role as founders.20 After his death, Conner was lauded as “one of the choice and master spirits of this age, a giant in the earth,” whose “place in the history of medicine is assured.”21

Summary

Lewis Atterbury Conner, the second Chairman of Medicine and a founding faculty member of CUMC, played a significant role in medicine in the first half of the 20th century. As CUMC was modeled after Hopkins, Conner emulated Osler. Conner was the father of cardiac rehabilitation in America and was a proponent of cardiac psychology. He established the Burke Rehabilitation Hospital and the Cornell Pay Clinic. Conner was president of the Association of American Physicians, a founder and the first president of the New York Heart Association and AHA, and founder and editor of the American Heart Journal, America’s first subspecialty journal. Throughout his professional and personal life, Dr Conner practiced equanimity and the integration of art and science in medicine. A beloved practitioner, educator, and administra-

Dr William Menninger, Topeka, Kansas: “I always felt deeply grateful to him for the personal interest and stimulation which he always gave me.”

Dr Joseph L. Miller, Chicago: “In a long acquaintance with Dr Conner, I have learned to love and respect him. He possesses all those qualities so essential to a great physician. A courteous and considerate personality, love of scientific medicine, enthusiastic leadership, abounding interest in preventive medicine, and an earnest desire to have the proper medical care for the poor sick.”

Dr Walter L. Bierring, Des Moines, Iowa: “As a teacher and consultant he has been an inspiration to a generation of students and young practitioners. He has distinctively contributed to our knowledge and authoritative literature of cardiovascular diseases, as well as the entire field of internal medicine. I treasure his friendship. . . .”

Dr Harry Aitken, Berkeley, California: “Fortunate are they who are yet to know him for his thoroughness and soundness of teaching.”

Dr Maud Parker, Seattle, Washington: “Dr Conner as few professors do, impressed his genius on his students. To this day as I walk the hospital wards I feel the influence of his clinical judgment.”

Dr F.L. Krauss, Chatham, New Jersey: “There is no one in our profession who has meant what Dr Conner has meant to me: his training, his wisdom, his kindness have set me and many others an ideal to which I strive daily to obtain. His photograph, given to me in 1911, greets me every morning.”

Dr Paul Dudley White, Boston, Massachusetts: “. . . express to him and those assembled at the dinner my appreciation of Dr Conner’s high place in internal medicine, of his contributions to internal medicine particularly in the field of cardiovascular disease and his charming personality.”

Thayer wrote to Dr Laila Coston-Conner after the party, saying the following:

“Conner is making a very deep impression on his colleagues, an impression which is really immortal, in a sense that it will be carried on long after we are gone and the ideals of those who follow. There are some men, like John Musser and the ‘Chief’ and Theodore Janeway among them that I have known personally who gave me this sort of feeling, which is so different from the relative coldness with which one appreciates mere scientific accomplishments. . . .”

The above letters are the property of Ann Conner Powers.

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tor, he richly deserves the title “Cornell’s Osler.” A half-century after his death, his ideals and accomplishments should be remembered.

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Lewis A. Conner: Cornell's Osler
Jeffrey Fisher

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