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The Charles R. Drew Papers
Education and Early Medical Career, 1922–1938

Drew had no clear plans for a medical career when he began his studies at Amherst College--with an athletic scholarship--in 1922. His high school years had been distinguished more by athletic than academic achievement. Likewise, at Amherst his performance on track and football teams became legendary, while his coursework lagged behind. Yet his experiences on the playing fields shaped his character and his approach to life as nothing else would. In athletics, he later noted, one learned to meet and overcome all kinds of challenges, to subordinate self for the good of the team. By fighting on and knowing that others had won similar battles, an athlete developed the confidence essential to facing life's other challenges. Athletics at Amherst forced Drew to face one of those other challenges--racism. Though a popular, celebrated athlete at a liberal college, Drew was still one of only 13 African Americans in a student body of 600. He and several black team mates were sometimes targeted for rough treatment by opposing teams, and refused service at restaurants when they traveled to games; and he was passed over for football captain in his senior year, though as the team's top performer he deserved that rank.

Drew later credited his biology professor, Otto Glaser, for fostering the scientific interests that led him to medical school. But athletics also played a role: in his junior year an infected football injury put him in the hospital for surgery. Later, in his application to McGill University Faculty of Medicine, he traced his desire to study medicine to his sister Elsie's death, in 1920, from tuberculosis complicated by the post-war pandemic influenza. Following graduation from Amherst in 1926, Drew worked for two years at Morgan College in Baltimore to earn money for medical school. There, he taught biology and chemistry, and, as Director of Athletics, he transformed the college's mediocre football and basketball teams into champions.

Like many American professions and institutions in the pre-Civil Rights era, medicine was largely segregated, and this constrained Drew's options for medical school. Some prominent medical schools, such as Harvard, accepted a few non-white students each year, but most African Americans aspiring to medical careers had to train at one of two black institutions: Howard University College of Medicine in Washington, DC, or Meharry Medical College in Nashville, Tennessee. Howard, Drew's first choice, turned him down for not having enough undergraduate English credits. (Howard did offer him a coaching job, which he declined.) Harvard accepted him, but wanted to defer admission to the following year. Not wanting to wait, Drew applied to the McGill University Faculty of Medicine in Montréal, which had a reputation for better treatment of minority students.

In medical school, despite the financial hardship of his first years in Montréal, Drew began to distinguish himself academically. By his third year he had won an annual prize in neuroanatomy and a scholarship; he was elected to Alpha Omega Alpha, the medical honor society, and served on the staff of the *McGill Medical Journal*. In his fifth year, in competitive

examination with four other top students, he was awarded the J. Francis Williams Prize in medicine. And, as McGill allowed professional and graduate students to participate in college sports, Drew became a star athlete yet again, winning Canadian championships for McGill in several track events. In 1933, Drew received his MD and CM (Master of Surgery) degrees, graduating second in a class of 137.

During his internship and surgical residency at Montréal General Hospital, Drew worked closely with bacteriologist John Beattie, who was then studying ways to treat shock with blood transfusion and other fluid replacements. Shock is a fundamental medical challenge in which blood volume is greatly reduced by bleeding (e.g., from surgery or other injury), dehydration (e.g., from vomiting or diarrhea), fluid loss from severe burns, or a reduction in peripheral circulation. When shock sets in, blood pressure and body temperature plummet, pulse and respiration become rapid and shallow, and tissues are deprived of oxygen as circulation starts to shut down. Although the mechanisms of shock were still not completely understood in the 1930s, it was clear that restoring blood volume with transfusion was the surest way to reverse shock. Transfusion had become a practical option thirty years earlier, when Karl Landsteiner and others discovered the four basic groups of blood antigens--A, B, AB, and O. "Typing" donor and recipient blood for compatibility avoided many, though not all, dangerous immune system reactions to transfused blood. (Blood subtypes, particularly the Rh factors, had yet to be worked out, so severe reactions could still occur.) Although some researchers had successfully used stored blood for transfusion, there were no blood banks, so donors had to be found on short notice when transfusion was needed. During Drew's residency a fire at the hospital left a number of patients badly burned, providing him with a stark demonstration of the need for a reliable blood or blood substitute supply.

Following his residency in Montréal, Drew hoped to get further surgical training at a major medical center such as the Mayo Clinic. But specialty residencies were rarely given to African Americans (or women or Jews) during that era, and Drew received no offers, despite his excellent record at McGill. The same segregationist culture that had limited his medical school choices constrained his options for further training. Prestigious American hospitals selected their residents for their professional potential, but also for their academic and social pedigrees; many non-elite candidates were thus disqualified. And even if supervisors and fellow residents could accept a minority doctor, many patients--whether black, white, male, or female--expected their attending physicians to be white males. Drew reluctantly concluded that he would probably have to pursue his career at Howard University. When his father died in 1935, leaving him as the family's primary support, he applied to Numa P. G. Adams, dean of Howard University's medical school, for a position in the department of surgery. Adams quickly hired him as a pathology instructor, the traditional first-year faculty assignment for young surgeons.

Drew arrived at Howard at a good time: both the university and the medical school were undergoing substantial changes. Like many historically black institutions, Howard had been founded after the Civil War by white benefactors, and was for many years run by whites.

Though the faculty was mixed, blacks were rarely appointed as department chairs or deans. The paternalistic pattern began to shift as the pool of highly educated and successful African Americans gradually expanded during the first half of the twentieth century. At Howard, this trend was reflected by the appointment of its first black president, Mordechai Johnson, in 1926, and Adams' appointment as the first black dean of the medical school in 1929. Johnson and Adams, like many African American educators, knew that overcoming the predominant Jim Crow culture would require, among other things, that their graduates meet or exceed the standards set by the better white institutions. To that end, they sought to improve the quality of their students, faculty, and facilities.

Howard University's basic operating budget would not support the improvements envisioned by Johnson and Adams. As a private university supported primarily through yearly federal appropriations of erratic size, Howard had few reserve funds. Fortunately, substantial help became available through the Rockefeller Foundation's General Education Board (GEB), beginning in 1920. That year, the GEB provided a matching grant for $250,000 to help Howard establish an endowment. A grant of $130,000 in 1927 helped build a new main medical education building, and in 1929 the medical school received $75,000 to cover Adams' salary for four years, and fund a five-year advanced training program for four faculty members. Thus, when Adams began his tenure as dean, the medical college had some new facilities, funding for training and administration, and a commitment from the GEB for continued support.

Adams developed a comprehensive plan for reorganizing the medical school, and recruited exceptional African American medical graduates to train as teachers and eventually full professors in their fields. These included W. Montague Cobb and Robert Jason in preclinical fields and J. Robert Lowry and Charles Drew in clinical surgery. By 1935, Adams had won approval for resident training programs in medicine, obstetrics and gynecology, pediatrics, and surgery. Initially, Adams also planned to hire two outstanding African Americans as the new heads of the surgery and medicine departments. Unable to find the highly qualified candidates he sought, in 1935 he asked the GEB for funds to hire two first-rate white medical professors, who would head the departments, modernizing and reorganizing them, for five years. They would also train the most promising black residents as their successors. For the department of surgery, Adams chose Edward Lee Howes, a young Yale-trained surgeon who was already a recognized authority on wound healing.

Adams had had his eye on Drew for several years as he worked to upgrade the medical faculty, and was glad to hire him. At the end of Drew's first year, Adams' evaluation rated him highly and commented, "A very high type of man. Intelligent, forceful. Willing to work." After Howes arrived in 1936, Drew worked closely with him as surgical instructor and then as assistant surgeon. Impressed by his excellent work, Howes recommended Drew for one of the two-year specialty training fellowships made available by GEB funding. Adams strongly encouraged his fellowship recipients to earn doctorates in medical science if possible. The fellowship not only gave Drew his longed-for chance to get further surgical training at a leading

medical center--New York's Presbyterian Hospital--it brought him into the blood bank research and development work for which he would be best known.

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