Editorial

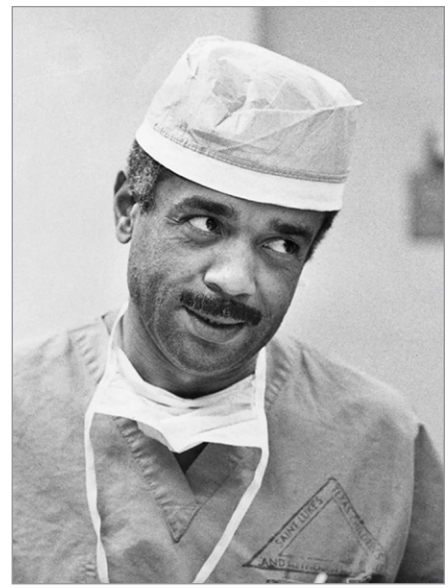
In Memoriam:

John C. Norman

(1930–2014)

Denton A. Cooley, MD

The Texas Heart Institute community is saddened by the loss of John C. Norman, MD, who died at age 84 on 23 August 2014. He was the first director of the THI Cullen Cardiovascular Surgical Research Laboratories and was the founder and first editor-in-chief of this journal.



John C. Norman, MD

John Clavon Norman, Jr., was born on 11 May 1930, in Charleston, West Virginia. His father was an architect and structural engineer, and his mother was a high school English teacher. As one of West Virginia's first licensed black architects, John C. Norman, Sr., erected hotels, high schools, theaters, hospitals, and churches around the state; during World War II, he also worked on classified construction projects related to the war effort.

From childhood, John, Jr., was a self-described "perpetual overachiever."[1] He was valedictorian of his high school class and entered Howard University at age 16. He subsequently transferred to Harvard, from which he graduated *magna cum laude* and Phi Beta Kappa in 1950. Four years later, he received his MD from Harvard Medical School. At that time, few blacks were admitted to white medical schools. "It was very difficult for any member of any minority to forget that some avenues had been closed to them because of their race," he later explained to an interviewer. "I had to be a pathfinder. And once you train yourself to run, you keep running."[1]

Dr. Norman completed his internship and residency at Presbyterian Medical Center and Bellevue Hospital, in New York. Subsequently, he joined the U.S. Navy and served on the aircraft carrier *Saratoga* (1957–8), attaining the rank of lieutenant commander. Afterwards, he finished his cardiac surgical training at the University of Michigan, then spent a year at the University of Birmingham, England, pursuing a National Institutes of Health fellowship.

On returning to the United States, Dr. Norman became an associate professor of surgery at Harvard Medical School and joined the surgical staff at Boston City Hospital in 1964. He also became involved in several medical research projects involving organ transplants. In 1967, he successfully transplanted the spleen of a healthy dog into a hemophiliac beagle. He and his team later used a pig's liver to keep a patient alive for 18 days. During this period, Dr. Norman began to focus on developing a partial artificial heart, or left ventricular assist device (LVAD), which could temporarily sustain patients whose hearts failed after open heart surgery.

I first met Jack Norman in 1971, when we both were flying home from Russia after attending a medical meeting. On the airplane, the two of us happened to sit next to each other. Being familiar with his work, I told him about my eagerness to develop a research laboratory. We talked for several hours, and I decided that I needed this brilliant mind. I asked if he would be interested in creating, designing, and staffing a

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laboratory at THI. Dr. Norman later stated in a *Texas Monthly* interview, "By the time we were over Warsaw, we were talking business. By Paris, we were coming to terms."[2]

Accordingly, in 1972, he moved to Houston and established THI's Cullen Cardiovascular Surgical Research Laboratories, of which he became the first director. He also became a clinical professor of surgery at the University of Texas at Houston and San Antonio. At THI, he focused on developing and testing mechanical devices for cardiac assistance or replacement. He also investigated potential materials for these devices, as well as alternative power sources, including plutonium. Between 1975 and 1978, he and I used a pneumatic, abdominally positioned left ventricular assist device (ALVAD) for the temporary support of 22 patients who could not be weaned from cardiopulmonary bypass after heart surgery. In February 1978, we implanted the ALVAD in a 21-year-old man who developed "stone-heart" syndrome after double heart-valve replacement. The device functioned as a total artificial heart for nearly 6 days until the patient underwent a transplant. Unfortunately, he died of infection 15 days later. This was the first case in which an LVAD was used as a bridge to cardiac transplantation.

In 1973, in connection with a THI symposium called *Coronary Artery Disease: Concepts and Controversies,* Dr. Norman began to collect articles for a proposed medical bulletin, of which he would be editor-in-chief. The first issue of *Cardiovascular Diseases: Bulletin of the Texas Heart Institute* was printed in January 1974, contained 10 short articles, and was mailed to 2,000 physicians. By the end of the 2nd year, manuscripts began to arrive from outside the Texas Medical Center. The bulletin gradually grew into an international publication, and in 1982 its name was changed to the *Texas Heart Institute Journal.* Today, its archives at PubMed Central are visited by at least a million individual viewers per year.

In the early '80s, Dr. Norman felt that much of his work had been accomplished at THI. To be nearer his home, he accepted a position on the surgical staff of Newark Beth Israel Medical Center in New Jersey and became a professor of clinical cardiothoracic surgery at the University of Medicine and Dentistry of New Jersey. In 1986, he returned to West Virginia to head the surgery department at Marshall University School of Medicine. Later, he served as senior scholar-in-residence at the Humana-Reese Hospital, in Chicago, and as director of clinical investigations at Whalen Biomedical, Inc., a research and development company in Lexington, Massachusetts.

Over the course of his career, Dr. Norman wrote or edited several medical textbooks and more than 700 articles concerning his research and clinical work. He was a Nieman Foundation lecturer at Harvard, a consultant to the medical science grants review committee of the National Institutes of Health, and an advisor for the National Science Foundation's grants review section. He testified before the House Ways and Means Committee on the adequacy of funding for the National Heart, Lung, and Blood Institute. In 1971, he was named West Virginian of the Year by the Charleston *Gazette-Mail*. For his research breakthroughs, he received the 1985 Congressional High Technology Award.

Those of us who worked with John Norman knew him as a brilliant thinker, researcher, writer, and procurer of government funding. He was an excellent mentor and teacher, who could be exceptionally charming and witty. However, he was also a complex, rather eccentric man, a workaholic and demanding taskmaster who expected his research team to work long hours. During his time at THI, he had no local residence but lived in the windowless laboratory and slept in a hospital room at night. For days on end, he neither left the hospital nor was aware of what the weather was like outside. Visitors to his office were often greeted by his harlequin Great Dane, Yonnie, who roamed the laboratory freely—hospital rules being more lax at that time than they are today.

After leaving THI, Dr. Norman stated in a letter to his former coworkers, "I do not believe everyone realized my true feelings towards the lab and the wonderful people there . . . [they] came to constitute my little world on which I became so dependent. My heart will always be in Houston. Think of me kindly, as I do of you."

Dr. Norman's survivors include his wife, Doris; their daughter, Jill Caryn; and 2 grandchildren. I extend my sympathies to his family and gratefully acknowledge his many contributions to the Texas Heart Institute.

References

1. Feldman C. Heart Institute lab director a workaholic. Houston Chronicle, 27 May 1979, section 2, page 5.
2. Lemann N. Super medicine. Available from: http://www.texasmonthly.com/story/super-medicine/page/0/19 [Apr 1979; cited 22 Sep 2014].