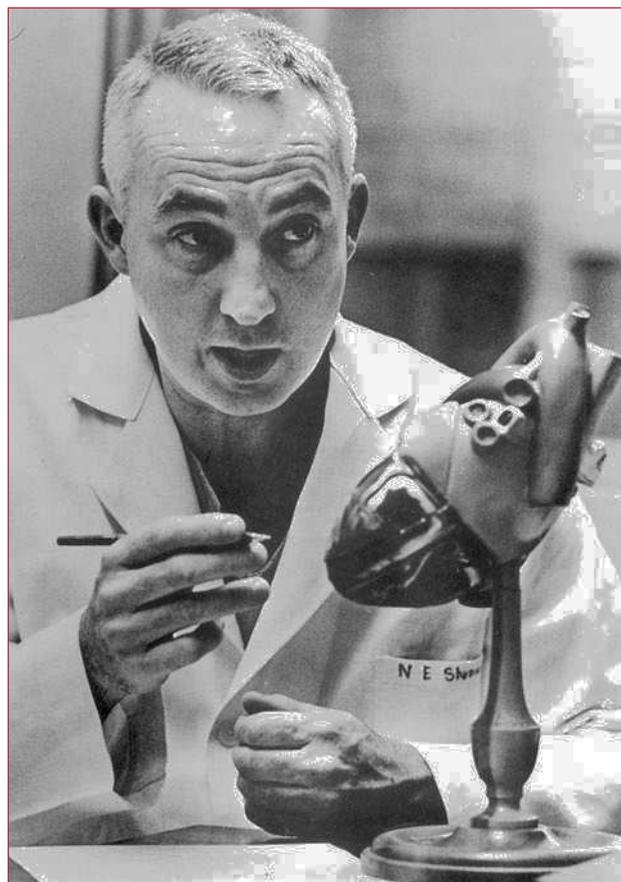


Norman E. Shumway, MD, PhD



Dr. Norman E. Shumway passed away on February 10, 2006 at his home in Palo Alto, California, the day after his 83rd birthday. Many patients on the transplant waiting lists of hospitals throughout the world are indebted to him thanks to his determination to develop heart transplantation and his clear vision of the future in combination with his patient approach to scientific work.

Norman E. Shumway was born in Kalamazoo, Michigan, in 1923. A test he took during his military service (1943-1946) persuaded him to switch from law studies to medicine, and he graduated in 1949. He joined the University of Minnesota and, after a break in the armed forces (1951-1953), continued his training with C. Walton Lillehei, who obtained the first success with the technique of cross circulation in

1954. In 1956, after using this technique in 45 patients, he started using the oxygenator developed by Wall and Varco. Many teams adopted this technique and the number of patients undergoing open-heart surgery increased sharply. Shumway, Barnard, and Cabrol coincided as residents under the tutelage of Lillehei. They studied a new aspect of physiology which evolved towards myocardial protection with hypothermia and the development of heart transplantation. In 1958 he moved to the University of Stanford, where he developed one of the most innovative and solid surgery departments.

In 1960, Shumway and Lower successfully carried out the first orthotopic heart transplants in dogs. The second innovation was to protect the heart in saline serum at 4°C, thereby obtaining normal activity in the transplanted heart in most cases. With the refined sense of humor that characterized him, he told Christian Cabrol of the lack of interest in their work: "When we presented our transplantation results in dogs, there was nobody in the room listening to Lower except me and the slide projectionist; even the chairman of the session had left his seat, though it has to be said ours was the last presentation of the session." Despite the lack of interest, his faith and determination enabled transplantation to ripen like fruit on a tree of knowledge. The development of the surgical technique posed further problems, and in all cases, his contribution was essential, and helped lay the experimental foundation for the procedure.

At the University of Stanford, Shumway seemed set to be the first to transplant a human heart, and as early as October 1967 he was preparing for the first procedure. Fate though dictated that he was not to be the first surgeon to perform a human transplant operation; that honor went to Christian Barnard on December 3, 1967. When some friends congratulated Shumway on being the second surgeon to have successfully performed a heart transplant, he replied "How many of you remember the name of the second pilot to cross the Atlantic?"

After the rapid spread of this technique, the true difficulties became apparent. Many teams abandoned heart transplantation, but some persevered, including Norman E. Shumway, one of its pioneers. The history of transplantation in the 70s is closely linked to the



University of Stanford. Almost all advances were due to him, and thanks to his hard relentless work and enthusiasm, the technique was revived in the 80s. Shumway and Reitz successfully carried out the first heart-lung transplant in 1981, opening the doors to this procedure.

Norman E. Shumway was a master who has guided several generations of surgeons, surgeons who have been taught how to work and think, and to solve problems with rigor and decisiveness. His protégées have been set on a good course. With his fine sense of humor, he was brilliant, ingenious, and an expert psychologist. He trained his residents, in contrast to the conventions and customs of the time, giving them

greater responsibility in the operating theatre, and the results have vindicated his approach.

His humility is an example to everyone. He shied away from the spotlight, preferring that his protégées took the credit whenever possible, and so he was not the first author on many of his most important articles. He was not interested in social recognition, preferring to defend his work in scientific meetings and publications. Although his relationship with his former colleague Barnard deteriorated, this was not due so much to the media coverage that Barnard enjoyed as to the fact that Barnard took full advantage of this coverage without actually explaining his project.

The dignity and excellence that he brought to surgery have been recognized in his lifetime. His scientific career, his protégées, patients, the University of Stanford, and many awards from bodies such as International Society for Heart and Lung Transplantation, American Association for Thoracic Surgery, American Surgical Association, American Medical Association, and the Conchita Rábago Foundation all attest to his achievements.

People will judge us by our actions not by what we intended to do. Norman E. Shumway has left us with much to admire. He leaves behind his teaching, research, many friends, and, most importantly, his example.

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