

2011 LEGACY INNOVATOR



ROBERT O. HICKMAN, MD

ROBERT HICKMAN grew up in the Cache Valley of Northern Utah and received his bachelor's degree from the University of Utah. After graduate work in anatomy there, he received his medical degree from the University of Maryland, graduating with honors, and then returned to Utah for his pediatric internship. He arrived in Seattle in 1958 to begin his residency, and was never to leave. His fellowship in pediatric nephrology led him to the world of Belding Scribner at a time of innovation in the fields of renal failure, dialysis, and parenteral nutrition. Dr. Scribner thought that there should be an artificial gut, which required central venous access, and a single lumen right atrial catheter was born, carrying the name of Jack Broviac, a renal fellow at the time. These catheters were manufactured with siliconized rubber in the basement of the UW Hospital by engineer Jim Sisley; the first catheter was placed in a patient by David Heimbach, a UW surgeon.

A serendipitous case led Dr. Hickman to the world of E. Donnell Thomas, a pioneer in the field of bone marrow transplantation. This case involved a prominent surgeon's wife, who had leukemia and whose peripheral venous access had been obliterated by repeated venipunctures. Dr. Hickman placed a Broviac catheter into her right atrium at the bedside, under the watchful eye of her husband, providing instant venous access for both intravenous infusions and blood draws. The nurses and Don Thomas instantly realized the implications of central venous access in patients with cancer, and Dr. Hickman set to work in 1975 to develop a double lumen catheter that could be placed percutaneously through the great veins into the right atrium, with lumens that could be used for intravenous medications; infusion of red blood cells and platelets; parenteral nutrition and hydration; and for obtaining blood samples. Further refinements of what is now widely known as the Hickman catheter included lengthening the catheter to allow it to be tunneled subcutaneously, making it less prone to infection, and producing a three-lumen version. The C.R. Bard company licensed the Hickman catheter in 1980 and continues to market it worldwide (http://en.wikipedia.org/wiki/Hickman_line).

Dr. Hickman has been honored by the University of Maryland School of Medicine, by the Northwest Kidney Foundation, and by the Department of Pediatrics at the University of Washington and Seattle Children's Hospital, where the Robert O. Hickman Endowed Chair in Pediatric Nephrology has been established. Until 2008, he was placing Hickman catheters into patients undergoing hematopoietic cell transplantation at the Seattle Cancer Care Alliance—where many patients were proud to display their "Hickman by Hickman" catheters. He has been quoted as saying, "Physicians go home every night knowing that we've made a little bit of a difference." Patients would say that their Hickman lines have meant more than a little difference—the pain and suffering avoided by countless oncology and transplant patients over the last 35 years are a tribute to Dr. Hickman's catheter and to his serendipitous meetings with Belding Scribner and Don Thomas.

