In Memoriam

Dr. Paul Eston Lacy, 1924–2005

Paul Lacy, a pathologist who pioneered islet transplantation in the treatment of diabetes, died on February 15, 2005, at the age of 81. Dr. Lacy grew up in the farming community of Trinway, Ohio, and came to St. Louis in 1956 after receiving an M.D. from Ohio State University and a Ph.D. in pathology from the Mayo Clinic. From 1961 until 1984, he was the Edward Mallinckrodt Professor and Chairman of the Department of Pathology at Washington University School of Medicine and Pathologist-in-Chief at Barnes Hospital.

Dr. Lacy dedicated his extraordinary career to the study of diabetes. He was among the first to use electron microscopy to identify the different cell types within islets of Langerhans. His laboratory established morphological criteria for their identification, setting the stage for the first immunohistochemical localization of insulin. Among the most important of his early achievements was the development of methods to isolate and culture pancreatic islets. These techniques had a profound impact on studies of β cell function because they made it possible to perform detailed biochemical analyses and to elucidate cellular mechanisms responsible for insulin secretion in a defined system.

Dr. Lacy's most enduring contribution was the development of islet transplantation for the treatment of type 1 diabetes. In the late 1960s, he and Walter Ballinger, M.D., former head of the Department of Surgery at Washington University, injected healthy islets into the livers of isogenetic diabetic rats and restored euglycemia. Lacy and his associates refined islet transplantation in experimental animals and proved that this approach could prevent diabetic complications. They also identified antigen presenting cells in islets and demonstrated their importance in allograft rejection. These studies were crucial in developing the concept of passenger leukocytes as an element of the transplantation reaction. The first islet transplantation in humans was performed by Dr. Lacy and his colleague David Scharp, M.D., in 1989. This milestone in medicine, the first successful treatment to relieve a lifelong dependence on insulin injection, was the driving force responsible for the creation of the Juvenile Diabetes Research Foundation.

Dr. Lacy approached science and medicine with great enthusiasm and optimism. Early on, he adopted an interdisciplinary approach to diabetes research that brought together investigators in pharmacology, pathology, surgery, internal medicine, microbiology, and immunology.

Dr. Paul Eston Lacy

"Since the days of the Nobel laureates Carl and Gerty Cori, the School of Medicine has been known internationally as a center of excellence in diabetes research, and Paul contributed significantly to this reputation," said David M. Kipnis, M.D., Distinguished University Professor and former head of the Department of Medicine at Washington University. Dr. Lacy and Dr. Kipnis were among the visionary leaders who established Washington University as a research powerhouse. As heads of clinical departments, they maintained close ties with the basic science departments and even implemented a plan to transfer clinical revenues to support graduate student training in preclinical departments, which had been seriously threatened by large cutbacks in NIH training grants. Dr. Lacy is widely regarded as one of the princi-

pal architects of the concept of the physician-scientist in pathology. He believed that residents in pathology must undertake research training, and he insisted that his clinical faculty develop basic and translational research programs. It is no surprise that Dr. Lacy's department spawned the development of more physician-scientists and more future department chairs in pathology than any other in the nation.

Dr. Lacy was a member of the National Academy of Sciences and the American Academy of Arts and Sciences. In 1994, he received the Distinguished Service Award and the Second Century Award from Washington University School of Medicine. In 1995, he received the Gold-Headed Cane Award from the American Society for Investigative Pathology in recognition of long-term contributions to pathology, meritorious research, outstanding teaching, and general excellence in the field. For many years after his retirement in 1984, Dr. Lacy maintained a

vibrant, NIH-funded research laboratory on islet transplantation. He also pursued his many other interests, including a life-long fascination with space travel, designing experiments for several space shuttle missions.

Paul Lacy is survived by his second wife, Bonnie Mattingly Lacy; sons Paul Lacy, Jr., and Steven Lacy, M.D.; four stepchildren; and 10 grandchildren. His first wife of 43 years, Ellen Lacy, died in 1998. He will be remembered as a giant in academic pathology and one of the pre-eminent physician-scientists of the 20th century.

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