

Paul di Sant'Agnese

The late Dr. Paul A. di Sant'Agnese is best remembered as the researcher whose pioneering studies led to the development of the sweat test. The simple, yet elegant test is regarded still as the gold standard in cystic fibrosis (CF) diagnosis.

The son of a physician father and a pianist mother graduated *magna cum laude* from the University of Rome Medical School in 1938. He went on to earn his Medical Science Doctor degree from New York's Columbia University in 1948. Nearly 15 years later, di Sant'Agnese earned an honorary medical doctorate degree from Justus Liebig University in West Germany, due to his many advances in (CF) research.

Di Sant'Agnese began his medical career at Manhattan's Presbyterian Babies Hospital in 1948, where he remained until 1959. It was there that he watched as children with cystic fibrosis were admitted, complaining of heatstroke. At that time, CF had only recently been identified.

As the physician cared for his CF patients, he wondered if there was a connection between cystic fibrosis and heatstroke. He wanted to know if the problem was the patients' inability to produce enough sweat to cool off, or if the content of a CF person's sweat was different from that of someone who did not have CF. After five years of observations, di Sant'Agnese discovered the electrolyte balance of the sweat produced by people with CF has a marked imbalance of sodium and chloride. His findings led to the development of the sweat test.

After leaving Babies' Hospital in 1960, di Sant'Agnese taught pediatrics at Johns Hopkins University until 1963. And in his quest to help people with CF, he ran into a serious health problem of his own.

His wife of 62 years, Betty di Sant'Agnese, said the doctor never fully recovered from a bout of encephalomyelitis (brain and spinal cord swelling), that he contracted a short time after he began his work at Babies Hospital. He later experienced paralysis on the right side of his entire body.

Despite his medical hardship, di Sant'Agnese never stopped serving the medical community. He was a member of more than a dozen professional medical societies, most notably the American Academy of Pediatrics; the American Association for Advancement of Science; and the American Medical Association.

In his later years, di Sant'Agnese divided his research time between the National Institutes of Health, Georgetown University and the Children's Hospital of the District of Columbia. He was recognized as a *World Who's Who in Science* and a *Who's Who in Government* honoree.

During his lifetime, the U.S. Cystic Fibrosis Foundation named their highest research award, given annually to the scientist who made the most significant strides in CF studies, after di Sant'Agnese. The scientist, who published hundreds of papers on the disease, also received a medal from the International Cystic Fibrosis Foundation, for his efforts in founding the organization.

Dr. di Sant'Agnese died in Sibley Memorial Hospital, in the nation's capitol, on May 17, 2005.