ON THE BEAT

Obituary

Dr. James Whyte Black, a Nobel laureate whose discovery of the beta-blocker propranolol was a pharmacological breakthrough in the treatment of heart disease, died March 21 after a long illness. He was 85.

DR. JAMES WHYTE BLACK

The Uddingston, Scotland, native received the Nobel Prize for Physiology or Medicine in 1988 for his work in the development of propranolol in the early 1960s and the ulcer drug cimetidine in the 1970s.

Dr. Black was raised in Fife, Scotland, where "I coasted, daydreaming, through most of my school years," he wrote in his autobiographical notes for the Nobel Foundation. He won a scholarship to study medicine at the University of St. Andrews in Fife, and after graduating in 1946, married Hilary Vaughan and joined the university's physiology department, where he studied the effects of iodoacetate on blood pressure. The couple moved to Singapore in 1947, where Dr. Black lectured at the King Edward VII College of Medicine. Three years later, after returning to Scotland, he established a physiology laboratory at the University of Glasgow, where he teamed with academic surgeons to study to the effects of 5-hydroxytryptamine on gastric acid secretion, and how to improve oxygen supply in patients with narrowed coronary arteries.

By 1956, he wrote, "I had clearly formulated the aim based on [Dr. Raymond] Ahlquist's dual adrenoreceptor hypothesis, of finding a specific adrenaline receptor antagonist." Dr. Black left academia in 1958 to work for Imperial Chemical Industries, a drug company in Alderley Park, Cheshire, where he developed propranolol, the first successful beta-blocker.

Meanwhile, he had been working on a treatment for stomach ulcers, and he pursued this research after leaving ICI in 1964 to take a position as head of biological research at Smith, Kline, and French, where he remained until 1973. He moved on to University College, London, to head the physiology department, and in 1975, his ulcer drug, cimetidine, was marketed as Tagamet.

In 1978, Dr. Black changed course again, to direct therapeutic research at the Wellcome Research Laboratory. In 1984, he took the chairmanship of the pharmacology department at University College before becoming chancellor at the University of Dundee, Scotland, where he served from 1992 to 2006.

Propranolol and cimetidine, among the most frequently prescribed drugs worldwide, are considered two of the most significant pharmacological advances of the 20th century.

The 1988 Nobel prize was awarded jointly to Dr. Black and U.S. researchers Gertrude B. Elion and George H. Hitchings "for their discoveries of important principles for drug treatment," according to the Nobel Foundation. Dr. Black received the Lasker Award in 1976 and the Artois-Baillet Latour Health Prize in 1979. In 1988, he founded the James Black Foundation, for scientists involved in new drug research. He was awarded the Order of Merit by the Queen of England in 2000, and received the Royal Medal in 2004. He was the first recipient of the University of Dundee's honorary degree of doctor of science in 2005, and in 2006, the university unveiled the Sir James Black Centre, for life sciences research.

He is survived by his second wife,

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Rona McLeod MacKie, and a daughter, Stephanie, from his first marriage. His first wife died in 1986.

Dr. Mario J. Garcia, an expert in the development and implementation of CT coronary angiography, has been appointed codirector of the Montefiore-Einstein Heart Center, chief of cardiology in the department of medicine at Montefiore Medical Center, and professor of medicine at Albert Einstein College of Medicine of Yeshiva University in New York.

DR. MARIO J. GARCIA

The medical centers and the university are located in the Bronx borough, which has a high prevalence of diabetes, obesity, atherosclerosis, and hypertension. "We see an explosion of risk factors for heart disease coupled with a demand to practice evidence-based medicine and to lower costs," Dr. Garcia said in a statement, adding that his goal as codirector of the heart center is to set new standards for technology, diagnosis, and treatment.

His interests in cardiac imaging include coronary artery disease diagnosis, diastolic heart failure, cardiomyopathies, and valvular heart disease.

Dr. Garcia previously was director of cardiovascular imaging and professor of medicine and radiology at Mount Sinai School of Medicine in New York. From 2000 to 2006, he directed the departments of echocardiography and cardiovascular imaging at the Cleveland Clinic.

Over the past 2 decades, with funding from the National Institutes of Health, NASA, and industry, Dr. Garcia has explored noninvasive methods of evaluating the cardiovascular system. His methods have been used in hospitals, on manned space flights, and in the battlefield via telemedicine, according to a statement from Montefiore.

Dr. Garcia received his medical degree in 1986 from Universidad Nacional Pedro Henriques Ureña in Santo Domingo, Dominican Republic. He did his cardiology fellowship at Massachusetts General Hospital in Boston.

—Jane Locastro