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Heart treatment wins Lasker prize

Scientists take 'America's Nobel' for their work on artificial valves

By Kate Naseef
USA TODAY

Two scientists were honored over the weekend by the Albert and Mary Lasker Foundation for their development of artificial heart valves, which have saved the lives of millions of heart disease patients over the past five decades.

Alain Carpentier, a professor of vascular surgery at Hôpital Européen Georges Pompidou in Paris, and Albert Starr, the director of academic affairs at Providence Health System in Oregon, are the recipients of the 2007 Albert Lasker Award for Clinical Medical Research.

The awards, often called "America's Nobels," have been given since 1946 to those who have made outstanding contributions to medical research. According to the foundation, 72 winners of the Lasker Awards have gone on to win the Nobel Prize.

Starr, working with the late engineer Lowell Edwards, invented the first successful artificial heart valve in 1958. After two years of testing on dogs, Starr performed the first valve-replacement surgery on a man at the University of Oregon Medical School. Now 90,000 people a year in the USA have heart valves replaced. Roughly half of the valves are mechanical.

Carpentier's work in the 1960s with pig-tissue valves mounted in Teflon-coated metallic frames addressed the major shortcoming of synthetic valves: the higher risk of clot formation.

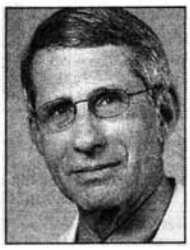
Impressed with Carpentier's device, Starr introduced him to Edwards, and the two developed a commercial product. The technique for making Carpentier's valves is still used today, as is the 1965 version of the Starr-Edwards valve.

Other 2007 Lasker Award winners:

▶ Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases, engineered the President's Emergency Plan for AIDS Relief and the strategies to protect the nation from natural biological and bioterrorist threats. He received the Mary Woodard Lasker Award for Public Service.

▶ Ralph Steinman, a professor and senior physician at the Laboratory of Cellular Physiology and Immunology at Rockefeller University, received the award for Basic Medical Research. His work over the past 34 years led to the discovery of dendritic cells, which trigger the immune system to respond to microbial invaders. Now these cells are being studied for use in therapies to treat tumors, HIV and autoimmune and allergic disorders.

Carpentier: Valve technique still used.



Fauci: Put together an AIDS relief plan.

Providence Health System

Starr: Did the first valve replacement.

Rockefeller University

Steinman: Studied immunity triggers.