

**PRESS RELEASE
WINNERS ANNOUNCED
2001/1421H THE KING FAISAL INTERNATIONAL PRIZE
FOR
MEDICINE**

Topic: ORGAN TRANSPLANTATION

The King Faisal International Prize in Medicine has been awarded to:

Professor Sir Roy Yorke Calne

Emeritus Professor of Surgery, University of Cambridge, UK

Professor Norman Edward Shumway

Professor and Chairman of Department of Cardiothoracic Surgery,
University of Stanford, California, USA

Professor Thomas Earl Starzl

Professor of Surgery, University of Pittsburg, Pennsylvania, USA

Professor Sir Roy Calne FRCS, FRS, Emeritus Professor of Surgery at the University of Cambridge, was born in the UK in 1930 and received his medical training at Guy's Hospital, London. Professor Calne later spent two years as a Research Fellow in Surgery at Harvard Medical School. Upon his return to UK he held surgical posts at St. Mary's and Westminster Hospitals before he became Professor of Surgery at the University of Cambridge, a post which he held until he retired in 1998.

Professor Calne is being honored for his pioneering experimental and clinical research on the use of immunosuppressive drugs and other aspects of transplantation, documented in more than 500 scientific papers. His work led to the introduction into clinical practice of 6-mercaptopurine (1960), azathioprine (1961) and, most importantly, cyclosporine (1970). Professor Calne's research on these drugs paved the way for heart, lung, liver, pancreas and kidney transplantation to become standard procedures throughout the world, thereby benefitting huge numbers of patients.

Professor Caine also pioneered the use of monoclonal antibodies to prevent graft rejection, and made the seminal discovery that liver transplantation is of itself immunosuppressive. This has led to the concept that it may be possible to reduce the use of immunosuppressive drugs in recipients of liver and other organ transplants. Professor Calne is a Fellow of the Royal Society, a recipient of the Lister Medal and the Medawar Prize, and was knighted by the Queen.

Dr. Norman Edward Shumway was born in the USA in 1923, and obtained his M.D. degree from Vanderbilt University and Ph.D. from University of Minnesota. He pursued his postdoctoral training at the National Institutes of Health. He started his academic career as an instructor in surgery at Stanford University where he remains at present, as the Frances and Charles D. Field Professor and Chairman of the Department of Cardiothoracic Surgery. He received the Medawar Prize in 1992 from the Transplantation Society.

Dr. Shumway is considered by many as the father of heart transplantation. His first experiments were in dogs. The first human heart transplant, while performed by Dr. Barnard, was based entirely on Dr. Shumway's work. He introduced endomyocardial biopsy for the diagnosis of rejection, a major advance in managing these patients. Introduction of cyclosporin allowed the Stanford program to expand and establish the efficacy of clinical heart transplantation. Dr. Shumway is credited with the first successful transplantation of the heart and both lungs, which is now an established therapy for patients with end-stage cardiopulmonary disease. Because of his reputation as a pioneer in the field and the success of his program he trained many surgeons who came to Stanford to learn his techniques. His contributions are documented in almost 500 publications.

Professor Thomas Earl Starzl was born in the USA in 1926. He received his MD and PhD degrees from Northwestern University in Chicago, and his surgical training at Johns Hopkins Hospital, the University of Miami, and the Chicago Veterans Administration Research Hospital. Professor Starzl began his pioneering work in organ transplantation in the department of surgery at Northwestern University in Chicago. Later, he moved to the University of Colorado where he was promoted to Professor and Chairman of Surgery in 1981, Professor Starzl joined the University of

Pittsburgh where he became the director of the world renowned Thomas E. Starzl Transplant Institute.

Professor Starzl has performed pioneering work that influenced all aspects of organ transplantation. He was the first to develop the surgical techniques without which successful liver transplantation would not have been possible. He was also the first to introduce the important immunosuppressive drugs, corticosteroids, into clinical transplantation. In addition, he pioneered the use of FK506 (tacrolimus) to prevent the rejection of liver, small bowel, and multiple visceral organ transplants. Professor Starzl has also put forth some of the most challenging scientific concepts, such as microchimerism, which stimulated an immense amount of research in the field of transplantation. Professor Starzl has published more than 3000 research papers and he is among the most cited of all medical scientists. He has also trained a large number of surgeons from all over the world. Professor Starzl received the Sir Peter Medawar Prize in 1992.