



Thomas E. Starzl MD PhD

11 March 1926 - 4 March 2017

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Professor Sir Roy Calne and Thomas Starzl sharing ideas over coffee in the 1970s.

Courtesy of Sir Roy Calne.

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Thomas Starzl was a giant in academic surgery and a wonderful example of advancing surgery by studying the problems in the laboratory and introducing the lessons learned to the clinic. His first interest was the physiology of the liver and then he developed a technique for experimental orthotopic liver transplantation.

At the same time Dr Francis Moore was following a similar path in Boston. They both overcame very difficult technical challenges and showed that the liver could be successfully transplanted and like other organs was subjected to rejection.

Azathioprine and steroids could prolong graft survival and Starzl was a pioneer in producing antilymphocyte antibodies in horses.

In 1961 Starzl's Group in Denver began a programme of clinical kidney transplantation using azathioprine and steroids, which were being investigated in Boston. Starzl showed the importance of detailed record keeping using wall charts to follow the course of the patient and plan medications. His results were the best in the world and following his laboratory



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experiences he started a programme of clinical liver transplantation in Denver in 1963. The results were dismal and he decided to have a moratorium on the programme. After intense laboratory work he resumed the clinical programme in 1967 and showed that liver transplantation could save lives and restore desperately sick patients to excellent health, however there were many difficulties still to be overcome and the early results were poor and often heart breaking. In Cambridge we started our programme in 1968 and for 10 years there was great scepticism worldwide that liver transplantation would ever be of clinical value. During this slow and painful period there were frequent communications between Starzl's group and ours in Cambridge, sharing information and giving mutual support. Cyclosporin was a watershed in improving results and was important in making liver transplantation a respectable pursuit. Tacrolimus, a compound discovered in Japan was studied extensively in Pittsburgh and led to further improvement in the results of all transplants. Starzl did many experiments on xenografting transplanted kidneys and the liver from baboons to patients and described in detail the unsatisfactory outcomes. He was concerned with the ethics of transplantation and was particularly worried by the danger to the donor of living adult to adult liver transplants.

I first met Tom Starzl in 1961 and was amazed by his extraordinary work ethic. At that time he smoked 60 cigarettes a day and he seemed to be able to work 24 hours a day with a remarkable ability to focus on and overcome a specific problem. This also applied to his recreations of skiing and cycling, in both of these pursuits he was exceedingly competitive.

Starzl's memory for minute details was astounding, and he had a laser like ability to direct his attention on the cutting edge of transplantation biology. When he moved to Pittsburgh his department became the centre for training young surgeons worldwide in organ transplantation. Some visiting surgeons found him difficult to work with since he expected them to work at least half as much as he did, but most of them after leaving his hard school, forged successful new transplant centres themselves.

Thomas Starzl was showered with honors and prizes including the Lasker-DeBakey Award, but he lived quite simply showing no interest in financial gain or luxury. With the changing face of surgical training and practice it is unlikely that there will ever again be a surgeon with such influence and originality as my long-time friend Thomas Starzl, I will sorely miss our frequent encounters and discussions.

Professor Sir Roy Calne

Cambridge, 2017