

**Sir Roy Calne, You have been always on the cusps of medicine,
leading us by examples!**

Keio University School of Medicine

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We have the honor of welcoming Sir Roy Calne, the professor emeritus of Cambridge University, School of Medicine who has been on the cusps of organ transplantation; so-called 20th Century miracle medical science, to Keio University, School of Medicine. As his fame and scope of achievements have been so well known all over the world, I humbly would like to introduce my personal relationship with Sir Calne this time.

I lost my father from cardiac infarction right before my graduation from school of medicine. Up until his death, I had been dreaming of devoting myself as a doctor dedicated to local inhabitants in desert areas of Niigata prefecture as a result of my studies on local medicine acquired at Jichi Medical University. After going through my father's decease, my focus has moved strongly toward heart transplantation therapy just initiated on a global scale. With a dream in my mind to study organ transplantation someday, after graduation from Jichi Medical University in 1982, I had spent 9 years as a surgeon in Niigata prefecture, which was my obligation set by the university regulations. I acquired a doctor degree by the paper regarding mice skin transplantation model thanks to the transplantation immunology lectured by Professor Michio Fujiwara of Department of immunology at Niigata University, School of Medicine while I had been in charge of local hospital as a surgeon. After my obligatory dedication to local medicine, Dr. Naoshi Kamada was introduced to me by Professor Michio Fujiwara, who was assigned later to be a professor of surgery department of Queensland University in Australia. Sir Roy Calne was a disciple of Dr. Naoshi Kamada at that time. He was the leading doctor in research for the mechanism of immunological tolerance by rat liver transplantation model.



Photo 1: At the hot spring Ryokan in Oita prefecture (28 of January, 1992).

Prof. Roy Calne in the center with Prof. Kamada lab members. He came to me in the public bath so I managed to speak English telling him that I had been charmed by transplantation medicine triggered by my father's death. I was not sure I could convey my thoughts in English at that time. And together in the bath with him, it seemed to me that he had referred to the history of immunosuppressive agents for clinical application. What he said about the sorrow "I have lost lots of patients by administrating in accordance of proportional dosage measured by rat models" has nailed my mind for a long time.

After advancing my study in Australia, I came back to Japan to assign myself to be a surgeon at the department of surgery, Jichi Medical University and continued my basic studies on organ transplantation while developing my skills as a surgeon. My scope of research had been focused on the generation of world-first gene-modified rat with a purpose of studying symptoms of immunological reaction and organ regeneration triggered after organ transplantation and these research results had been open to the participants at international congresses. It was more than natural that Prof. Roy Calne had attended these international congresses and always treated us as colleagues.



Photo 2: Sixth International Symposium on Composite Tissue Allotransplantation at Arizona (18 of January 2006)

Sir Roy Calne in the center with Dr. Naoko Tsuji (graduate school student at that time). At the congress, it had been discussed about ethical and technical issues on face transplant. Lots of leaders in transplantation medicine attended the congress. Thanks to the kind introduction by Sir Calne, I could meet Prof. Joseph Edward Murray who was the winner of Nobel Prize Physiology or Medicine in 1990.



Photo 3: 22nd International Society for Transplantation at Sydney (10 of August, 2008)

At that time with I had been pushing forward researches for immunological tolerance with the liver transplantation team of Kyoto University, School of Medicine. It was proven that we could observe stable condition of liver transplanted patients even dispensing

with immunosuppressive agents over MHC (Major histocompatibility complex) same as rats and pigs.

Nevertheless, Sir Roy Calne foresaw that human immunological tolerance was balanced in a subtle status and tend to be unbalanced by an unexpected accident such as infections. He insisted that the stable condition should be maintained with a small amount of immunosuppressive agents as `Prope` Tolerance.

In order to solve issues caused by organ transplantation at Jichi Medical University and push forward researches for fabricating organs by myself for transplantation, I devoted myself to the inauguration of one of the top-notch pig center exclusively dedicated to experimental pigs. I asked Sir Roy Calne to make a commemorative lecture in time for the inauguration ceremony, it was our utmost honor that he willingly came to Tochigi prefecture from UK.



Photo 4: Commemorative lecture for the inauguration of department of medical technique training at Jichi Medical University (12 of April, 2007)

The scene of get-together after the commemorative lecture. All the members who studied at Cambridge University under the supervision of Sir Roy Calne and who have been involved in generating experimental pigs in Japan attended the party. The system has made it possible after the inauguration for non-clinical and clinical-integrated surgical training, organ transplant and research for regenerative medicine

The future of organ transplantation lies in the development of methodology that we fabricate “transplantable organs” by our hands without relying on cadaver (brain death and cardiac arrest) or living donors. On the visit of Sir Roy Calne to Keio University School of Medicine, we cordially request him to observe the future we should be heading.