



Fellowship in the new field of Bioengineering at Leeds University, under Professor Duncan Dowson. During the final months of my PhD in 1969, a surgeon from New York visited and asked if I might be interested in working there, where I would have the opportunity to put into practice my knowledge of joint biomechanics. Professor Dowson advised me to take the job in New York. It was a completely different proposition compared with taking up the consulting engineering job in London that I had been offered. After a lecturing tour to the USA, I decided to take the chance of working in New York.

By that time, artificial hip joints had been developed in Wrightington, England, by Sir John Charnley, while knee joints were in development in both Wrightington and London. The USA felt the need to enter this new area of artificial joints. In my first year at the Hospital for Special Surgery in New York, I was assigned to work on a new hip design. However I then proposed to the Surgeon-in-Chief that the lab should begin to work on artificial knees. He supported the idea and the next few years the senior knee surgeons and I worked together to produce some of the earliest artificial knee designs, the most notable being the Total Condylar, a design based on engineering principles and backed up by our laboratory experimentation. Later clinical follow-up studies showed that the design performed very well in patients, most knees lasting for 20 years.

During my stay in New York, I married Elizabeth Mitchell, a previous Newcastle Central High student. In the following years in the USA, I worked at a prominent implant company, as well as at the Brigham & Women's Hospital affiliated with Harvard Medical School in Boston; at each location I worked with surgeons on advanced types of artificial knees and on other joints.

Then in 1987 we decided to move back

to England. I was fortunate to obtain a Professorship at University College London, in the Royal National Orthopaedic Hospital located at Stanmore. The department carried out basic research, as well as designing and manufacturing custom artificial joints for difficult cases of hips, knees and other joints, but especially for bone tumour patients. During all of this time, I continued to be a Consultant to international orthopaedic companies on design teams, producing new artificial knee systems.

Eventually however I felt the need for a change, and in 2000, I returned to the USA, where I became a Professor at New York University, working at the NYU Langone Orthopaedic Hospital, remaining there until this day. I have been working on new concepts of design, including in a design team with a major orthopaedic company on the most recent artificial knee system with new surgical techniques. One of these

**New, double glazed wooden windows ready to be reinserted into the original sash windows, thanks to Peter and Wuliang's gift.**



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artificial knees was inserted into my own leg early this year! I have also written a book on the 50 year history of the artificial knee, and have served on the boards and committees of orthopaedic societies, organising conferences, and involving younger investigators.

Looking back, there have been a number of influencing factors on my career. But it is certain that my RGS experience has been a major positive influence. It is difficult to imagine a better high school than the RGS. What I learned there was to be open to new options and experiences and to make the most of what abilities I had; this was useful preparation for navigating the various options which occurred during a professional career.

Some time ago, my wife Wuliang and I decided to see how we could thank the school in an appropriate way. On discussing options with the Headmaster and the Director of Development, we decided upon funding for the renovation of the impressive traditional fabric of the school. This would enable students and staff to appreciate the physical space of the school for many years to come. The donation is made on behalf of my wife Wuliang and me and it's a privilege to be able to give back.