



Professors Shigeru Kinoshita, Andrew Quantock, and Noriko Koizumi (left to right) relaxing at a Kyoto-Cardiff joint BBQ one evening at the ARVO (Association for Research in Vision and Ophthalmology) annual meeting in the USA

Prof. Andrew Quantock

Professor of the School of Optometry and Vision Sciences in the College of Biomedical and Life Sciences, Cardiff University, Wales, UK

Biography

- 1987-1992- Open University Oxford Research Unit, Oxford, UK
Research Assistant: Biophysics Group
- 1992-1996- Saint Louis University School of Medicine, St. Louis, USA. Research Associate: Department of Ophthalmology
- 1996-1999 - Kyoto Prefectural University of Medicine Kyoto, Japan
Research Associate: Department of Ophthalmology
- 1999-2004- Cardiff University, Cardiff, UK Lecturer: School of Optometry and Vision Sciences
- 2004-2009- Cardiff University, Cardiff, UK Senior Lecturer: School of Optometry and Vision Sciences
- 2009-present-Cardiff University, Cardiff, UK Professor: School of Optometry and Vision Sciences

JSPS Concerning

- 2000 JSPS Invitation Fellowship
- 2009 JSPS FURUSATO Award
- 2011 JSPS Symposium Scheme

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I suppose that mine is not a typical story of how JSPS-funded UK-Japan collaboration is usually initiated. After all, it all started when I met a man in Disneyland. To be more specific we met at the Walt Disney Swan Resort in Orlando, which was where the World Cornea Congress was held in the mid-1990s. And the man in question was Professor Shigeru Kinoshita, a co-organiser of the event. Prof Kinoshita was and still is a highly influential and respected corneal surgeon and clinician-scientist whose motto is "be international". At the time, I was a youngish researcher from the UK, a few years into my second postdoctoral position at St Louis University in the USA.

In the lab in St Louis working jointly on projects alongside me on laser-tissue interactions and new ways of conducting corneal laser surgery was Dr Mitsutoshi Ito, a PhD candidate of Prof Kinoshita's in the Department of Ophthalmology, Kyoto Prefectural University of Medicine. It was Mitsutoshi who suggested that I consider a post-doctoral position in Kyoto and arranged for me to meet Prof Kinoshita at the Congress. At the time I knew nothing of Japan, but was open to new challenges, and Prof Kinoshita was obviously keen to pursue the internationalisation of the department he had become chairman of a few years previously. The meeting happened in a corridor and negotiations were

exhaustive:

"I hear you would like to come to Kyoto?"

"Yes"

"Are you serious about it?"

"Yes"

"OK, I can bring you".

So, in April 1996 I arrived in Kyoto and was installed in a tatami-matted apartment, beautifully situated just next to the Kamo river, a lovely a ten minute walk to the university. I immediately felt very welcome in the department, and simultaneously felt some pride at being the first foreign researcher to work there. Soon after my arrival the work ethic in the university jumped out at me (and gently shook me around a little). Unlike

anything I'd experienced previously in the UK or US, the labs were commonly populated by researchers late into the evening. But the atmosphere during those times was not one of a desperate rush to meet an occasional deadline with which I was familiar, but was invariably convivial and more often than not sushi, okonomiyaki, or noodle soup -- ramen, udon or soba -- was delivered to the central office area from local restaurants for a shared dinner and as a break from the lab work or manuscript writing. This allusion of a shared experience is purposeful, and it quickly became apparent to me how strong the group ethic in Japan was. I am minded of this when I recall how I once expressed naïve concern to Prof Kinoshita when a group of about a dozen staff were eating at a small, speciality restaurant which only sells fugu, or pufferfish as it is known in the West. Parts of this fish are poisonous and the chefs are highly skilled. But my silly worries were smoothly allayed by Prof Kinoshita, "It's OK, if you die we all die": Now that's a group ethic!

My time in Kyoto was productive scientifically and I was able to work on a number of projects in the fields of corneal biology, pathology and tissue engineering. I was particularly fortunate

to get involved with research that involved growing corneal epithelial cells into monolayers which could then be transplanted onto the cornea to cure loss of vision caused by ocular surface disease or injury. Nowadays this technique is used in numerous specialised medical centres worldwide, but its success is based on the pioneering work conducted in Kyoto, and some other centres, in the late 1990s. Indeed, the lasting influence of that research is evidenced by the fact that three publications in 2000 (Koizumi et al., *Current Eye Research* 2000;20:173-177¹, *Cornea* 2000;19:65-71², and *Investigative Ophthalmology and Visual Science* 2000;41:2506-2513³) have been cited over 1,000 times, which is fairly impressive for the eye field.

To punctuate the high industry and achievements of the researchers I worked alongside, I was delighted to find that numerous department parties and dinners were organised to celebrate various events. It was the norm for everyone to attend and mix and mingle, all the way from the most senior academic to the most junior of new staff. These events were hugely enjoyable and promoted excellent bonding, and I would like to think that if there is any

justice in the world my numerous and melodious karaoke renditions of Tom Jones' "Green Green Grass of Home" will be warmly remembered or coldly forgotten. After two and a half very happy years in Kyoto I secured a faculty position in Cardiff University, near my hometown in Wales, UK, and took this up in 1999. But, magnificently, the bonds forged in Kyoto remain and collaborations have blossomed in the years since I left. And this is where the JSPS came in, providing tremendous support via its wide range of schemes at all levels of academia. I have benefited hugely from funding to cement and strengthen research links with my colleagues in Kyoto and Osaka, and several talented young British scientists have undertaken cornea research placements in Japan funded by JSPS-London. In all cases this has hugely benefitted both the careers and life experiences of those who have been successful in obtaining funding. And those individuals who have obtained JSPS-London support can be confident that they have done so through what is a robust and competitive selection process.

When I look back and reflect, it is clear that my time in Kyoto represents the

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1. Noriko Koizumia, Tsutomu Inatomi, Chie Sotozonoa, Nigel J. Fullwooda, Andrew J. Quantock & Shigeru Kinoshita. Growth factor mRNA and protein in preserved human amniotic membrane. *Current Eye Research* 2000;20:173-177
 2. Noriko Koizumi, Tsutomu Inatomi, Andrew J. Quantock, Nigel J. Fullwood, Atsuyoshi Dota, Shigeru Kinoshita. Amniotic Membrane as a Substrate for Cultivating Limbal Corneal Epithelial Cells for Autologous Transplantation in Rabbits. *Cornea* 2000;19:65-71
 3. Noriko Koizumi, Nigel J. Fullwood, George Bairaktaris, Tsutomu Inatomi, Shigeru Kinoshita, Andrew J. Quantock. Cultivation of Corneal Epithelial Cells on Intact and Denuded Human Amniotic Membrane. *Investigative Ophthalmology and Visual Science* 2000;41:2506-2513

single most pivotal experience of my academic career. When I arrived in Kyoto in 1996 I was assigned some desk space about a metre wide in a short row of adjoined desks facing a wall with a bookshelf behind. Either side of me, each with a glorious metre of their own, were Noriko Koizumi and Kohji Nishida. Noriko is now Professor of Biomedical Engineering and Head of Faculty at Doshisha University in Kyoto. Kohji is Professor and Chairman of the Department of Ophthalmology at Osaka University. Both, therefore, are hugely influential figures who emerged from Prof Kinoshita's department in the late 1990s, and that they make me feel like the underachiever from that row of three chairs in three meters goes without saying! But, magnificently we all continue to work and publish together.

Indeed, a grant from JSPS-Tokyo awarded to Prof Kinoshita has allowed the placement in Cardiff University of a number of highly talented vision scientists. A JSPS-London Symposium Grant in 2011 enabled us to hold a very successful meeting in Cardiff, which brought together numerous corneal scientists from across the UK and Japan. Working together over the years has led to a great exchange of ideas as well as lots of highly enjoyable scientific and non-scientific discourse. It has also resulted in more tangible outcomes such as numerous joint papers and other forms of recognition. For example, since 2009, Prof Kinoshita has been a Cardiff University Honorary Distinguished Professor at the invitation of the University's Vice Chancellor and I am Visiting Professor at Kyoto Prefectural

University of Medicine. Moreover, in 2013 I was awarded the Cardiff University Celebrating Excellence award for International Activities with Japan, and in 2004 we (Prof Shigeru Kinoshita, Prof Noriko Koizumi, Dr Nigel Fullwood (Lancaster University) and me) were fortunate enough to be awarded the prestigious Daiwa Adrian Prize for excellence in Anglo-Japanese research. Without the help and support of the JSPS none of this would have happened. So hats-off to the organisation. JSPS-London, in all its activities, is an absolutely essential facilitator of scientific research conducted between the UK and Japan, and crucially has been highly influential in enhancing the lives and careers of many researchers, myself included.



Eye Researchers at Cardiff Castle. Left-to right. Yuji Tanaka, Mayumi Yamamoto, Keith Meek, Noriko Koizumi, Andrew Quantock, Naoki Okumura.