

# UK-Japan Symposium supported by the UK-JSPS Alumni Association Symposium Scheme FY 2011

Host Institution: School of Optometry and Vision Sciences, Cardiff University

UK Scientific Lead: Professor Andrew Quantock

Japanese Scientific Lead: Professor Shigeru Kinoshita, Chair of Ophthalmology, Kyoto Prefectural University of Medicine

Date of event: 18-19 August 2011

This day-and-a-half symposium was a successful event highlighting current research in the field of cornea, with a focus on tissue engineering efforts. Platform presentations on the first day after welcome messages from Prof Kozo Hiramatsu (Director, JSPS London) and Prof Tim Wess, Pro-VC, Cardiff University) were split equally between speakers from Japan and the UK, with the universities of Sheffield, Keele, Reading, Nottingham and London represented alongside that of Cardiff, the host. The first session centred on new understandings of the complex microanatomy of the collagen-rich cornea and how its cells -- the keratocytes -- can be manipulated pharmacologically. Following this, there were excellent talks about the use and behaviours of stem cells in the cornea, and – to widen the scope of the symposium – in cartilage and oral tissue too. This session finished with an informative and comprehensive overview of JSPS funding schemes by Ms. Polly Watson, JSPS London International Programmes Coordinator. A poster session followed, accompanied by refreshments, which was well attended and involved much discussion at the posters. The first day finished off with a Public lecture by Dr Justyn Regini, illustrating how the development of a cataract can influence colour vision and how this happened to the famous French Impressionist painter, Monet.

The morning of the second day focused on fundamental aspects of the biology of the corneal epithelium, its mechanism of constant replenishment, immunological characteristics, and use in tissue engineering. This was followed by presentations of contrasting clinical applications of tissue engineered corneal epithelium in Japan and the UK. The symposium wrapped up with presentations from Kyoto and London about the important emerging field of corneal endothelial regeneration, the hurdles to be overcome, and the challenges and potential of gene transfer and *ex vivo* cell expansion.

The scientific programme was a success, with fairly lively debate after every presentation and significant networking and discussion during the social and poster viewing sessions. The final evening saw a very enjoyable symposium dinner inside Cardiff Castle, which allowed delegates to interact in the presence of good food and entertainment.

New UK-Japan interactions are planned as a result of this symposium, to include an extended research placement in London by researchers from Kyoto and the furthering of the already strong Cardiff-Kyoto links to include researchers in affiliated institutions.



Symposium Participants