‘Stem Cells & the Eye’

A JSPS-Sponsored Research Symposium at Cardiff University

Main Lecture Theatre & Atrium
European Cancer Stem Cell Research Institute
Hadyn Ellis Building
Cardiff University

2-3 November 2017

Main Organisers: Professor Andrew J. Quantock
& Professor Kohji Nishida

[Co-organisers: Drs Elena Koudouna, Alina Akhbanbetova & Koji Kitazawa]

Additional support kindly provided by Cardiff University, Osaka University and the Biotechnology & Biological Sciences Research Council (BBSRC)
Welcome to the UK-Japan Symposium on Stem Cells & the Eye

We are delighted to welcome you to Cardiff University for this JSPS/BBSRC-sponsored UK-Japan Symposium, “Stem Cells & the Eye”.

We hope that you will find the series of presentations on this important and fascinating topic exciting and thought-provoking.

Thanks to all of you for contributing to this event. It is a great pleasure to be hosting some highly esteemed researchers from the UK and Japan to discuss their science alongside early career researchers with a burgeoning interest in stem cell biology and the eye. We hope that this event will help promote existing professional and personal relationships and serve as a springboard for new developments and collaboration.

We hope very much you enjoy your time with us at Cardiff University.

Andrew Quantock and Kohji Nishida,
Symposium Organisers
Venue details

Address

Hadyn Ellis Building
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(Dr Alina Akhbanbetova)
Stem Cells & the Eye Symposium Programme
Thursday 2nd November 2017

9:30 am - 10:00 am  Registration

10:00 am - 10:05 am  **Professor Andrew Quantock**, Cardiff University
Welcoming remarks from the organisers.

10:05 am – 10:15 am  **Professor Colin Riordan**, Cardiff University
Welcome from the Vice-Chancellor.

10:15 am – 10:25 am  **Rt. Hon. Carwyn Jones AM**, First Minister of Wales
Introductory remarks.

10:25 am – 10:30 am  **Professor Kohji Nishida**, Osaka University
Greetings from Japan.

**Session 1**  
Chair: **Dr Elena Koudouna**, Cardiff University

10:40 am - 11:00 am  **Dr Naoki Okumura**, Doshisha University
"Development of a pharmaceutical treatment for Fuchs’ Endothelial Corneal Dystrophy”.

11:00 am - 11:20 am  **Dr Geraint Parfitt**, Cardiff University
"Characterizing the slow-cycling stem cells of the ocular surface”.

11:20 am - 11:40 am  **Dr Olla Al-Jaibaji**, Newcastle University
"Use of adipose derived mesenchymal stem cells on corneal repair”.

11:40 am - 12:00 pm  **Dr Koji Kitazawa**, Kyoto Prefectural University of Medicine
"Direct reprogramming of human fibroblast into corneal epithelial cells”.

12:00 pm - 1:00 pm  **Buffet Lunch: Atrium, Hadyn Ellis Building**
Stem Cells & the Eye Symposium Programme
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Session 2  
Chair: Dr Koji Kitazawa, Kyoto Prefectural University of Medicine

1:00 pm - 1:20 pm Dr Felicity Rose, University of Nottingham
“Cell culture in the third dimension: electrospun fibre-based scaffolds to support corneal cells in vitro”.

1:20 pm - 1:40 pm Professor Che Connon, Newcastle University
“Modulation of corneal tissue mechanics influences limbal epithelial stem cell phenotype”.

1:40 pm - 2:00 pm Dr Yoshinori Oie, Osaka University
"Autologous cultivated oral mucosal epithelial cell sheet transplantation – towards to universal therapy”.

2:00 pm - 2:20 pm Dr Dominic Aghaizu, University College London
“Mechanisms of rod photoreceptor enrichment in the ONL during development”.

2:20 pm - 2:50 pm Tea, Coffee and Biscuits: Atrium, Hadyn Ellis Building

Session 3  
Chair: Professor Andrew Quantock, Cardiff University

2:50 pm - 3:10 pm Professor Kohji Nishida, Osaka University
"Development of stem cell-based therapy for corneal diseases – from tissue stem cell to iPS cell”.

3:10 pm - 3:30 pm Professor Anne Rosser, Cardiff University
“Stem cell therapy for brain disease: lessons from Huntington’s disease”.

General Interest Lecture

3:30 pm - 4:00 pm Dr Justyn Regini, Cardiff University
“Claude Monet, his cataracts, and the Japanese Bridge at Giverny”.

4:00 pm - 6:00 pm Drinks Reception: Foyer, School of Optometry & Vision Sciences
Stem Cells & the Eye Symposium Programme
Friday 3rd November 2017

Session 1
Chair: Professor Kohji Nishida, Osaka University

9:20 am - 9:35 am  Professor Nobuo Ueno, JSPS London Office
Opening remarks from Director of JSPS-London.

9:35 am - 9:50 am  Ms Shiho Hayashida, JSPS London Office
“An overview of JSPS activities and its funding programmes”.

9:50 am - 10:05 am  Mr Martin Gadsden, Japan Agency for Medical Research and Development
"An overview of AMED activities".

10:05 am - 10:20 am  Mr Tim Willis, BBSRC Associate Director, International
“An overview of BBSRC's international activities”.

10:20 am - 10:40 am  Professor Julie Daniels, University College London
“The cornea – a window of opportunity for stem cells”.

10:40 am - 11:00 am  Dr Alvena Kureshi, University College London
“Bioengineering aligned tissue equivalents of the human cornea”.

11:00 am - 11:30 am  Tea, Coffee and Biscuits: Atrium, Hadyn Ellis Building

Session 2
Chair: Dr Alina Akhbanbetova, Cardiff University

11:30 am - 11:50 am  Dr Rob Young, Cardiff University
“Three-dimensional imaging of cells in the embryonic cornea and the mature limbal niche”.

11:50 am - 12:10 am  Dr Elena Koudouna, Cardiff University
“Collagen deposition by presumptive keratocytes in the embryonic cornea”.

12:10 am - 12:30 pm  Professor Bruce Caterson, Cardiff University
“Proteoglycans and their potential role in stem cell niches”.

12:30 pm - 12:50 pm  Dr Vivien Coulson-Thomas, University of Houston
“Hyaluronan in the limbal stem cell niche regulates limbal stem cell differentiation”.

12:50 pm - 2:00 pm  Buffet Lunch: Atrium, Hadyn Ellis Building
Stem Cells & the Eye Symposium Programme
Friday 3rd November 2017

Session 3

Chair: Professor Marcela Votruba, Cardiff University

2:00 pm - 2:20 pm
Dr Alun Barnard, University of Oxford
"Exchange of cellular contents between donor and host cells following photoreceptor precursor transplantation into the non-degenerate retina".

2:20 pm - 2:40 pm
Professor Rachael Pearson, University College London
"Unravelling the mechanisms behind retinal repair by photoreceptor transplantation".

Keynote Session

2:50 pm - 3:00 pm
Professor Sir Martin Evans FRS, Cardiff University
"Reflections on stem cell research".

3:00 pm - 3:50 pm
Dr Masayo Takahashi, Centre for Developmental Biology, Kobe RIKEN
"Application of iPS cells to retinal diseases".

3:50 pm - 4:00 pm
Professor Andrew Quantock, Cardiff University and Professor Kohji Nishida, Osaka University
Closing remarks from the organisers.