Institute of Molecular and Cell Biology

A*STAR

SEMINAR ANNOUNCEMENT

We would like to invite you to attend this seminar hosted by Prof. Walter Hunziker:

Date: 16 November 2017, Thursday

Time: 2:00PM – 3:00PM

Venue: Level 3, IMCB Seminar Room 3-46, Proteos, Biopolis

Speaker: Dr. Heli Skottman, University of Tampere, Finland

Title: Human pluripotent stem cell based tools for retinal and corneal application

Tissue engineering and stem cells are a potential approach for the replacement of degenerated cells of the eye and to study ophthalmic diseases. Tissue specific stem cells and human pluripotent stem cells (hPSC) both have their own benefits and drawbacks. For corneal defects, shortage of donated human corneas for transplantation has driven the search of novel cell sources including hPSC. In healthy cornea, epithelium is renewed by limbal stem cells (LSCs) and LSCs transplantation has been used to treat limbal stem cell deficiency (LSCD). However, this is only possible if enough healthy limbal tissue is available. Thus hPSC provide unique opportunities for differentiation of limbal and corneal epithelial cells. For retinal diseases such as age related macular degradation (AMD), the usability of hPSC as a source of retinal pigment epithelial (RPE) cells are widely studied. The talk will give an overview of current state of the stem cell research in ophthalmology and special demands regarding cells and biomaterials used in these applications highlighting our own experience gained from hPSC based RPE and LSC studies.

Biography:

Dr. Skottman, PhD, joined University of Tampere (UTA) in 2005 having worked as a postdoctoral research fellow in Karolinska Institute, Sweden and University of Turku Finland. Dr. Skottman holds M.Sc. in applied zoology and a Ph.D. in molecular animal biotechnology in University of Eastern Finland. In addition she has educated herself in Turku School of Economics, Finland. Dr.

Skottman is currently Associate Professor in Faculty of Medicine and Life Sciences at UTA, group leader and responsible professor for Master of Science in cell technology program. Dr. Skottman has over 15 years' experience on hPSC. Last 10 years she has devoted herself in eye research targeting already from the early phases of research towards clinical applications in ophthalmology. Currently her research focus on retinal and corneal diseases, developing hPSC based tools for disease modeling, drug discovery and cell transplantation. In addition, she has experience on intellectual property strategy, licensing of stem cell products and establishment of a spin-off company. She has co-authored several patent applications and has over 80 peer reviewed publications in area of biotechnology and human stem cell research.

ALL ARE WELCOME *(No registration required)*

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