

City University of Hong Kong
Department of Biomedical Sciences
presents a seminar



“ETV2 IN CARDIOVASCULAR DEVELOPMENT AND VASCULAR REGENERATION”

by

Dr Changwon PARK
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Date : 4 May 2016

Time: 10.00am to 11.30am

Venue: G5-214 (Green Zone), 5/F (near Lift 8), Academic 1 Building, CityU

Abstract

Heart disease accounts for 26% of deaths annually in the United States. More knowledge is needed about how the cardiovascular system develops and how it functions to devise better treatments for cardiovascular diseases. FLK1, a receptor tyrosine kinase, is essential for cardiovascular development and in the adult. It also plays a crucial role in neovascularization. Therefore, understanding molecular mechanisms regulating generation and function of FLK1+ cells that give rise to blood vessels and blood cells is essential for delineating the pathways involved in differentiation of vessels as well as postnatal (cardio) vascular regeneration. However, the molecular mechanisms of FLK1+ cell generation and function still remains unclear. Recently, we have demonstrated that the transcription factor ER71 (also known as ETV2) is a critical regulator of FLK1 and thereby it is essential for the cardiovascular system. The long-term goal of my group is to understand the detailed mechanism of cardiovascular development and in postnatal (cardio) vascular regeneration with a special emphasis on transcriptional regulation including ER71/ETV2. To this end, we are currently employing mouse embryonic stem cell differentiation, mouse genetics, genome wide expression assay, NGS (next generation sequencing) including Chromatin Immunoprecipitation (ChIP)-sequencing and miRNA sequencing in conjunction with mouse injury models. The regulatory mechanisms of ER71/ETV2 in generating cardiovascular lineage cells and function in vascular regeneration/tissue repair in response to ischemic injury will be discussed in the seminar.

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All are welcome