IMCB Invited Speaker

Speaker : **Dr. Li-Kun Phng**
Post-Doctoral Fellow, Vascular Patterning Laboratory,
Vesalius Research Centre, KU Leuven and VIB, Belgium

Date : 31 October 2013, Thursday

Time : 11:00AM - 12:00PM

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

Host : Prof. Philip Ingham

Seminar :

Actin and membrane dynamics in endothelial cells during sprouting angiogenesis

During blood vessel development, endothelial cells undergo extensive changes in cellular morphology during processes such as migration, cell division, anastomosis and lumenization. While these may be seemingly discrete events at the single cell level, endothelial cells coordinate their behaviour so that they behave collectively to shape the developing vascular network. As such, the cell body has to be flexible yet retain sufficient strength to maintain structural integrity within the cell as well as within the tissue.

The actin cytoskeleton is integral in providing cells with mechanical support and driving forces for movement. However, our current knowledge of actin cytoskeleton formation, organization and rearrangement during angiogenesis and how it influences endothelial cell behaviour is limited to in vitro studies. In my talk, I will present insights into dynamic endothelial cell behaviour during vesselmorphogenesis, the dynamics of Factin-based structures during sprouting angiogenesis and an interesting finding that infers a dispensable role filopodia in endothelial tip cell guidance.

About the Speaker :

Li-Kun Phng graduated with a BSc in Pharmacology from the University of Bristol and a MSc by Research from the University of Edinburgh. She received her PhD from University College London in 2009 for her research on "Notch signalling in endothelial cells during developmental angiogenesis" in the lab of Holger Gerhardt at the Cancer Research UK London Research Institute. This was followed by post-doctoral training in EMBL, Heidelberg, Germany and at the Vesalius Research Centre, VIB, KU Leuven, Belgium.

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