

# IMCB Invited Speaker



**Speaker : Prof. Sima Lev**  
*Associate Professor, Molecular Cell Biology Department,  
The Weizmann Institute of Science, Israel*

Date : 15 January 2014, Wednesday

Time : 11:00AM - 12:00PM

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

Host : Prof. Wanjin Hong

## Seminar :

### Lipid Trafficking, Signal Transduction and Cancer Metastasis

**Non-vesicular lipid transport can be mediated by lipid-transfer proteins (LTPs); soluble proteins which facilitate the transport of various lipid species between membrane bilayers *in vitro*. LTPs have been extensively studied in yeast, mammals and plants. Our studies on mammalian LTPs demonstrated their important regulatory roles in membrane trafficking, lipid metabolism and signal transduction. We have recently found that specific LTPs regulate phosphoinositides signaling, thereby controlling cell motility, invasion and cancer metastasis. We will describe our current findings and discuss the molecular mechanisms by which LTPs execute their physiological functions and coordinate lipid metabolism and signaling at specific membrane domains.**

## About the Speaker :

Sima Lev studies the molecular mechanisms of membrane trafficking pathways in mammalian cells. These pathways mediate the transport of proteins, lipids, and sugars to their final cellular destinations and are fundamental to normal cell function and survival. Defects in these pathways are associated with many human diseases and can affect cell cycle progression. She is currently focusing on mechanisms that control the lipid composition of membrane domains along the secretory pathway, as well as the regulation of membrane trafficking events during cell division.