

# IMCB Invited Speaker



**Speaker : Prof. Eduardo Moreno**  
*IZB, University of Bern, Switzerland*

**Date : 23 Sep 2013 (Monday)**

**Time : 10:00AM - 11:00PM**

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

**Host : Prof. Wang Yue**

## Seminar :

### Active Mechanisms of Cell Selection: From Cell Competition to Cell Fitness

**The molecular mechanisms that mediate cell competition, cell fitness and cell selection is gaining interest. With innovative approaches, molecules and ground-breaking hypothesis, this field of research can help understand several biological processes such as development, cancer and tissue degeneration. Preliminary results suggest that the pathways identified do not only play important roles in the elimination of slow dividing cells, but also during cancer initiation and progression as well as in neuronal selection, specially during neurodegeneration, development of the retina and adult brain regeneration in *Drosophila*. The phenomena of cell competition and its participating genes have the potential to discover novel biomarkers and therapeutic strategies against cancer and tissue degeneration.**

## About the Speaker :

Prof. Eduardo Moreno received his PhD in year 2000 for research on 'Caudal is the Hox gene that specifies the most posterior *Drosophila* segment' under the advisory of Ginés Morata at the Centro de Biología Molecular Severo Ochoa (CBMSO), Spain. He stayed there as a Postdoctoral Scientist in the group of Ginés Morata before moving to University of Zurich, Switzerland, in 2001 to continue his postdoc training in the group of Konrad Basler. From 2005 to 2010, he was a Group Leader at the CNIO in Madrid, where he expanded the concept of cell competition (elimination of slow dividing cells) and identified general pathways that reveal the fitness of a cell to its neighbours. Prof. Moreno is now a Group Leader at IZB, University of Bern, Switzerland, since 2011. He has connected cell competition in *Drosophila* to mammalian and human cancer, patented molecules for the early detection and treatment of cancer. Prof. Moreno has also received prestigious awards for cancer research like the Josef Steiner Prize. He analyzed the timeline of cell competition overturning previous dogmas of how winners recognize and eliminate slow dividing cells. He also has the ambition of transforming "Cell fitness" from an «obscure concept» to a widely known phenomena with biomedical applications.