

Seminar Announcement
- All Are Welcome -

Speaker: Dr Takashi Hiiragi
European Molecular Biology Laboratory, Heidelberg

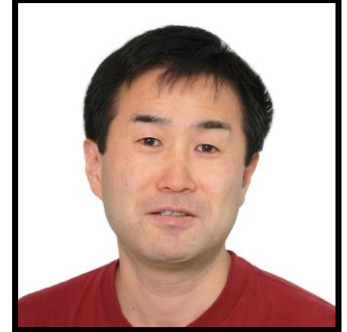
Title: “Symmetry breaking in mouse development”

Date : 4 March 2013 (Monday)

Time : 4.00pm – 5.00pm

Venue: Breakthrough Theatre, Matrix Level 4, Biopolis

Host : Prof Davor Solter
(Tel: 64070170, email: davor.solter@imb.a-star.edu.sg)



Abstract of the Seminar:

A fundamental question in biology is the mechanism by which embryonic symmetry is broken and cells with distinct fates are specified. While in many organisms embryonic development begins under the control of mRNAs and proteins localized asymmetrically in the egg, mammalian eggs lack the polarity and thus symmetry has to be broken during pre-implantation development in which the blastocyst is formed with the inner cell mass and the trophectoderm. Despite its importance, the molecular mechanism of symmetry breaking and blastocyst patterning has long been elusive. We have developed live-imaging and demonstrated unexpectedly high dynamicity and stochasticity during mouse pre-implantation development. We aim at understanding general principles and robustness underlying early mammalian development.

About the Speaker:

Graduated in Kyoto University in 2000, Takashi joined the laboratory of Davor Solter in Max-Planck Institute of Immunobiology, Freiburg. Since 2002, he stayed there as a group leader, until in 2007 he moved to Max-Planck Institute for Molecular Biomedicine in Muenster, as an independent group leader. As a recipient of the European Research Council Starting Grant, Takashi recently moved to EMBL Heidelberg as a group leader. The primary research interest of his lab is a systems-level understanding of the symmetry breaking process in the mouse embryo.