Institute of Molecular and Cell Biology
A*STAR

SEMINAR ANNOUNCEMENT

We would like to invite you to attend this seminar hosted by A/Prof. Frederic Bard:

Date: 18 September 2014, Thursday
Time: 11:00AM – 12:00PM
Venue: Level 3, IMCB Seminar Room 3-46, Proteos, Biopolis

Speaker: Dr. Virgile Viasnoff, Principal Investigator, Mechanobiology Institute (MBI), Singapore
Title: From microdishes to micronishes. How extracellular matrix environment can be controlled to study and induce cell/cell interactions

In this talk I will present our recent work on controlling the microenvironment around cell in vitro to induce specific cell/cell interactions. In particular I will describe how apico-basal polarization of epithelial and hepatic cells can be controlled by specifically and spatially structured interaction with extra cellular matrix proteins. 2 examples will be developed:
- Induction of apico-basal polarization of single epithelial cells by appropriate environmental cues.
- Control of the lumen formation during canaliculi morphogenesis by mechanobiological stimulation.
Lastly I will present how environmental control of cell culture can be coupled sur super resolution imaging to investigate protein transport and morphogenesis at the single molecule level.

Biography:
Virgile Viasnoff graduated from l'Ecole Normale Supérieure in Paris as a soft Matter physicist Paris. After his master studies at Johns Hopkin's he joined the ESPICI (Paris) where he developed new technologies from oprical microrheological detection in opage medium (DWS). He then spent a 2 year post at Harvard working on folding and unfolding kinetics of RNA translocating through nanopores. In Il a ensuite passé 2 ans en post-doctorat à l'université d'Harvard où il a travaillé sur les technologies nanopores pour l'étude des cinétiqu, he was recruited by the CNRS in Paris where he studied the biophysical transport of proteins across membranes. In 2010, he started a joint appointment with MBI where he developed a new approach to study cell/cell interaction in contextual in vitro experiment. Since 2013, he is in a joint DBS/MBI/CNRS faculty heading a Singapore/French joint lab studying the biomechanics of cell adhesion.

ALL ARE WELCOME *(No registration required)*