

Universal Biology Institute-MBI Joint Symposium

Mechanobiology Institute, National University of Singapore

April 14-15, 2018

Venue: MBI Level 5 Seminar Room

Saturday, April 14 , 2018

Time	Programme
0930-1000am	Masaki Sano Dep of Physics, Graduate School of Science, The University of Tokyo, Japan <i>A physical mechanism controlling collective dynamics of neural stem cells: Topological defects in nematically ordered state</i>
1000-1030am	Yusuke Toyama Mechanobiology Institute & Department of Biological Sciences -NUS, Singapore <i>Mechanobiology of apoptosis in a tissue</i>
1030-1100am	Coffee Break
1100-1130am	Tetsuya Hiraiwa Dep of Physics, Graduate School of Science, The University of Tokyo, Japan <i>Collective cell movement driven by left-right asymmetric shrinkage of cell-cell junctions</i>
1130am-1200 noon	Timothy Saunders Mechanobiology Institute & Department of Biological Sciences -NUS, Singapore <i>Selective filopodia adhesion ensures robust cell matching in the Drosophila heart</i>
1200-1230 pm	Tetsuhiro Hatakeyama Graduate School of Arts and Sciences, The University of Tokyo, Japan <i>Reciprocity between robustness and plasticity as a universal law in biology</i>
1230-0200pm	Lunch
0200-0230pm	Shuji Ishihara Graduate School of Arts and Sciences, The University of Tokyo, Japan <i>From cell to tissue: a continuum model for epithelial tissue deformation</i>
0230-0300pm	Paul Matsudaira Mechanobiology Institute, Centre for Bioimaging Sciences & Dept of Biological Sciences-NUS, Singapore <i>The Emergency of Symmetry from Strain Maps of Zebrafish Gastrulation</i>
0300-0330pm	Ronen-Zaidel Bar Mechanobiology Institute, Singapore <i>Syncytial germline architecture is actively maintained by contraction of an internal actomyosin corset</i>
0330-0400pm	Coffee break
0400-0430pm	Akihiko Nakajima Dep of Basic Science, Graduate School of Arts and Sciences, The University of Tokyo, Japan <i>Cell-to-cell heterogeneity in spatial and temporal sensing of signals in migrating cells</i>
0430-0500pm	Fumio Motegi Mechanobiology Institute, Singapore <i>Deconstruction and reconstruction of cell polarity networks</i>

6.00 PM– Dinner at MBI Level 10 Lobby

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Time	Programme
0930-1000am	Yasushi Okada Dep of Physics, Graduate School of Science, The University of Tokyo, Japan <i>Imaging based approaches to the mechanobiology of the fast axonal transport</i>
1000-1030am	Alexander Bershadsky Mechanobiology Institute, Singapore <i>Control of integrin-mediated adhesions by microtubules and actomyosin cytoskeleton</i>
1030-1100am	Coffee Break
1100-1130am	Taihei Fujimori Dep of Basic Science, Graduate School of Arts and Sciences, The University of Tokyo, Japan <i>Differential polarity - an efficient and rapid mechanism of cell sorting</i>
1130am-1200noon	Virgile Viasnoff Mechanobiology Institute, Singapore & CNRS, France <i>From Microdishes to microniches. 3D micro-environmental control around single cells. Application to single cell apico basal polarization and lumenogenesis control</i>
1200-1230pm	Marius Sudol Mechanobiology Institute, NUS, Department of Physiology, Institute of Molecular and Cell Biology (IMCB) A*STAR, Singapore <i>The role of YAP Mechano-Responder in Actin Dynamics and Metastasis is revealed by CRISPR/Cas9 Gene Editing Approach</i>
1230-0200pm	Lunch
0200-0230pm	Hideo Higuchi Dep of Physics, Graduate School of Science, the University of Tokyo, Japan <i>Unified walking model for processive motor proteins and its experimental evidences</i>
0230-0300pm	Yan Jie Mechanobiology Institute, Department of Physics, NUS, Singapore <i>Mechanical lifetime of biomolecules</i>
0300-0330pm	Nen Saito Dep of Physics, Graduate School of Science, The University of Tokyo, Japan <i>Phase field simulation for macropinocytosis of amoeboid cells</i>
0330-400pm	G.V.Shivashankar Mechanobiology Institute & Department of Biological Sciences, NUS, Singapore & IFOM, Italy <i>Mechanical control of nuclear reprogramming & cell-fate decisions</i>
0400-0430pm	Closing & High Tea