**Technical Parallel Session**
**Computation and Systems Biology (CSB)**

Tuesday, 23 January 2007
Location:  Lecture Room 3 (Level 3), Nanyang Executive Centre, Nanyang Technological University

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| 13:00 – 13:30 | **Registration** | |

13:30 – 13:40      Prof Paul Matsudaira (MIT)
*Opening Remarks*

13:40 – 13:55      Dr Sebastian Leptihn (SMA)
*Studies of Lipopolysaccharide (LPS) Binding Peptides and their use as Quantum dot (Qdot) Labeled Bio-Probes to Image and Trace Gram Negative Bacteria and LPS*

13:55 – 14:10      Shiva Ayyadurai (MIT)
*CytoSolve: A Distributed Architecture for Integrating Multiple Biomolecular Pathways*

14:10 – 14:25      W.T. Tang (SMA)
*Surface Plasmon Resonance Fluorescence Microscopy*

14:25 – 14:40      Ke Du (SMA)
*Simulation of Surface Plasmon-Coupled Emission (SPCE) Microscopy Based on Numerical Methods*

14:40 – 14:55      Jia Yi Har (SMA)
*Host-Pathogen Interaction and Tracking of Bacterial Invasion in Tissues*

14:55 – 15:30      **Tea Break**

15:30 – 15:45      Diana H.P. Low (SMA)
*The Molecular Basis of Pathogen Recognition Receptor Interactions in Innate Immune Defense*

15:45 – 16:00      Huangming Xie (SMA)
*MicroRNAs in Cell Growth and Differentiation*

16:00 – 16:15      Minh Le (SMA)
*Post-Transcriptional Mechanism Modulating Differentiation of Stem Cells*

16:15 – 16:30      Zhenyuan Wang (SMA)
*Intestinal Stem Cells: Experimental Identification and Characterization in the Small Intestine of Zebrafish*

16:30 – 16:45      Shek Yoon Wong (SMA)
*Development and Implementation of Advanced Imaging and Computational Algorithms to Track the Migration of Epithelial Cells in Zebrafish Intestine*

16:45 – 17:00      Lin Shao (SMA)
*Medaka as Hepatic Fibrosis Model*

17:00      Prof Hew Choy Leong (NUS)
*Concluding Remarks*