

SMART-Tohoku GCOE joint Workshop on Micro & Nano Bioengineering: MIT, NUS, NTU and Tohoku

Jan 11 & 12, 2010

**CIT Auditorium, Centre for Instructional Technology, National University
of Singapore, 2-Engineering Drive 4, Singapore 117584**

11th Jan 2010

#	Time	Agenda	Who?
1	8.30 - 9.00 am	Registration & Welcome Tea/Breakfast	All
2	9.00 - 9.15 am	Opening Remarks	Reps. from Tohoku, MIT, NUS, NTU
3	9.15 - 10.00 am	Plenary Lecture 1: Micro- to Nanoscale Analysis of the Cell-Material Interface: Mechanical Identification and Manipulation of Cell Function	Krystyn Van Vliet
4	10.00 - 10.30 am	Development of Intelligent Si Neural Probe and Its Impact on Neural Engineering	Tetsu Tanaka
5	10.30 - 11.00 am	Towards Closed-loop Control of Angiogenesis	Waleed Farahat
6	11.00 - 11.15 am	Tea Break	All
7	11.15 - 11.45 am	Expanding Capsule for Diet Control	Tomoyuki Yambe
8	11.45 - 12.15 am	Controlled Assembly of Nanomaterials and Biomolecules	Huang Ling
9	12.15 - 2.00 pm	Lunch / Poster*	All
10	2.00 - 2.45 pm	Plenary Lecture 2: Research for Cancer Cell Imaging and Therapy based on Nano-biotechnology	Noriaki Ohuchi
11	2.45 - 3.15 pm	Functional and Molecular Imaging using Positron Emission Tomography at Tohoku University: Application to Health Sciences	Manabu Tashiro
12	3.15 - 3.45 pm	High Resolution, High Throughput System for 3D Imaging of Bulk Tissue	Elijah
13	3.45 - 4.00 pm	Tea Break	All
14	4.00 - 4.30 pm	Development of New Adrenal Venous Catheters based on Bio-imaging of Fine Adrenal Veins. --For Successful Management of Primary Aldosteronism Patients.--	Kei Takase
15	4.30 - 5.00 pm	3D in vivo Imaging to Understand How the Intestinal Epithelium Migrates	Dipanjan
16	5.15 pm	Transfer to Dinner	All
17	6.00 - 9.00	Dinner	All

***Posters (11th Jan 2010, 12.15 - 2.00 pm)**

#	Poster Title	Presenter
1	Fabrication of Gel-based Bioassay System with Micropatterned Contractile Skeletal Muscle Cells	Kuniaki Nagamine
2	Biomolecular Immobilization onto Nano/Microstructure for Biodevice Application	Takeo Miyake
3	A Telemetry System for Body Implantable Applications	Kouji Kiyoyama
4	Effect of Shear Stress and Shear Stress Gradient on Tyrosine Phosphorylation of PECAM-1 in Endothelial Cells	Han Xiaobo
5	Initial Morphology of Endothelial Cell Affects Flow-induced RhoGTPases Activation	Kazuma Nishio
6	Long-term Performance Evaluation of a Positron Emission Tomography (PET): A Proposal of a Simple Maintenance Protocol for Long-term Utilization	Shoichi Watanuki
7	Nano-imaging of Cancer Metastasis with a Novel Antibody-based Therapeutic Agent	Kohsuke Gonda
8	Deformability based Cell Margination - A Simple Microfluidic Design for High Throughput Malarial Infected Red Blood Cell Filtration	Han Wei Hou
9	Continuous Flow Deformability based Sorting of Malaria Infected Red Blood Cells	Ali Asgar Bhagat
10	Automated Tracking of Cell Sprouting in the Spatio-Temporal Context	Sharon Ong
11	Transitions Between Epithelial and Mesenchymal States in Microfluidic Platform: Acquisition of Malignant and Stem Cell Traits	Amir Aref
12	Mechanoinduction of Impedance Variation in Zebrafish Embryos by Explicit Force Control	Nam Joo Hoo
13	On-Chip Magnetic Based Actuated Valve for Early Diagnostic of Malaria Disease	Sahan Christie Bandara Herath / Guan Guofeng
14	A Stochastic Broadcast Feedback Approach to Regulating Cell Population Morphology for Microfluidic Angiogenesis Platforms	Levi Wood
15	Effects of magnesium and sodium salt concentrations on B-DNA overstretching transition	Hongxia Fu

12th Jan 2010

#	Time	Agenda	Who?
1	8.30 - 9.00 am	Registration & Welcome Tea/Breakfast	All
2	9.00 - 9.45 am	Plenary Lecture 3: Viscoelastic behavior, Fracture, and Adhesions Strength of Cells	Liao Kin
3	9.45 - 10.15 am	Morphological Changes in Vascular Endothelial Cells Exposed to Spatial Gradient of Shear Stress	Naoya Sakamoto
4	10.15 - 10.45 am	Anchorage-dependent Cell Delivery with Injectable Hydrogel Hybrids	Wang Dongan
5	10.45 - 11.00 am	Tea Break	All
6	11.00 - 11.30 am	Clinical Application of Ultrasonic-Measurement-Integrated Simulation for Diagnosis of Carotid Artery	Kenichi Funamoto
7	11.30 - 12.00 noon	Stem Cell Bioprocess Characterization using Design of Experiments: a Case Study on Erythropoiesis	Maya Lim
8	12.00 noon - 1.00 pm	Lunch	All
9	1.00 - 1.45 pm	Plenary Lecture 4: Force Sensing and Control for Micro/Bio-Manipulation	Peter Chen
10	1.45 - 2.15 pm	Microfluidic Devices for Tracking and Sorting Cells Based on Migratory Activity	Aida Rahim
11	2.15 - 2.45 pm	Immune Atomic Force Microscopy of the Inner Ear Motor Prestin using Qdots	Michio Murakoshi
12	2.45 - 3.00 pm	Tea Break	All
13	3.00 - 3.30 pm	Atomic Force Microscopy Study of Human Malaria Infected Erythrocytes	Li Ang
14	3.30 - 4.00 pm	Cellular Behaviours in High Hematocrit Blood Flow in Microchannels	Takuji Ishikawa
15	4.00 - 4.15 pm	Wrap Up	Roger & Takami