第七屆國際奈米生物醫學工程研討會

7th International Symposium on Nano-Biomedical Engineering

October 16-17, National Cheng Kung University, Tainan, Taiwan

October 16 (Thursday)	
8:15-8:30	Opening Remark Michael Ming-Chiao Lai, President, National Cheng Kung University
Plenary Lecture I Chair: Fong-Chin Su, National Cheng Kung University	
8:30-9:00	Intracellular Stress Transmission through Actin Stress Fiber Network Masaaki Sato, Tohoku University
Biomechanics Chair: Chih-Han Chang, National Cheng Kung University	
9:00-9:15	Biomechanical Properties of Sciatic Nerves in Circular Compression Chou-ching K. Lin, National Cheng Kung University
9:15-9:30	Viscoelasticity Measurement of Soft Tissue for Estimation of Heat Generation by Application of Prototype Ultrasonic Surgical Knife Naoki Suzuki, Tohoku University
9:30-9:45	Role of Directionality of Shear Stress in Endothelial Cell Remodeling Josh Wu, National Cheng Kung University
9:45-10:00	Mechanical Modelling for Simulation of Ventriculoplasty Yasuyuki Shiraishi, Tohoku University
10:00-10:15	Tea Break
Plenary Lecture II Chair: Masaaki Sato, Tohoku University	
10:15-10:45	Mechanosensing Machinery for Cells at Substratum Rigidity of Soft Tissue Range Min-Jer Tang, National Cheng Kung University
Nanotech in Cardiovascular Biology Chair: Takami Yamaguchi, Tohoku University	
10:45-11:00	Morphological Response of Endothelial Cells to Hemodynamic Conditions Mimicking Arterial Bifurcation Naoki Saito, Tohoku University
11:00-11:15	Quantification of the Initial Cell Detaching Force on Different Substrates by Cell Probe of AFM Ming-Long Yeh, National Cheng Kung University
11:15-11:30	Estimation of Unsteady Blood Flow Rate in Ultrasonic-Measurement-Integrated Simulation −Effect of Estimation Precision on Reproducibility of Blood Flow Takayuki Yamagata, Tohoku University
11:30-11:45	Molecular Imaging for Stem Cell Tracking in the Heart Patrick C.H. Hsieh, National Cheng Kung University
11:45-12:00	Three-dimensional Simulation of Malaria-infected Blood Flow Hitoshi Kondo, Tohoku University
12:00-13:00	Lunch

Plenary Lecture III Chair: Ming-Shaung Ju, National Cheng Kung University	
13:00-13:30	Nanoengineering of Biomimetic Structure to Functionalize Tissue Engineering Scaffolds James C.H. Goh, National University of Singapore
Nanotech in Oncology and Cell Growth Chair: James C.H. Goh, National University of Singapore	
13:30-13:45	Tumor Suppressor BRCA1 Response to DNA Single-strand Breaks Induced by Laser Micro-irradiation Natsuko Chiba, Tohoku University
13:45-14:00	Molecular Imaging of Cancers in vivo by Modularly Designed Magnetite Nanoprobes Dar-Bin Sheih, National Cheng Kung University
14:00-14:15	Imaging of Cancer Metastasis in Living Tumor with Quantum Dots Kohsuke Gonda, Tohoku University
14:15-14:30	The Influence of Ti-6Al-4V with Nano-Metric Roughness upon Surface Properties and Initial Cell Growth of Fibroblast Tzer-Min Lee, National Cheng Kung University
14:30-14:45	Effects of Hyaluronan on Mesenchymal Stem Cells and Their Applications in Regenerative Medicine Lynn L.H. Huang, National Cheng Kung University
14:45-15:00	Tea Break
Emerging Technologies in Bioengineering Chair: Tainsong Chen, National Cheng Kung University	
15:00-15:15	Measurement of Brain Activities and its Application to Brain-Computer Interface (BCI) Shin'ichiro Kanoh, Tohoku University
15:15-15:30	Characterization of Three-dimensional Neuronal Networks on Microelectrode Array Jia-Jin Chen, National Cheng Kung University
15:30-15:45	Human Assist Robot System Based on Passive Robotics Yasuhisa Hirata, Tohoku University
15:45-16:00	EMG and Biomechanics Studies on Rehabilitation of Stroke Patients with Assistance of a Shoulder-Elbow Robot Ming-Shaung Ju, National Cheng Kung University
16:00-16:15	Surface Plasmonic Microscopy for Live Cell Membrane Imaging Shean-Jen Chen, National Cheng Kung University
18:00-20:30	Banquet

October 17 (Friday)	
Plenary Lecture IV Chair: Kazuhiko Yanai, Tohoku University	
8:15-8:45	Registration-based Segmentation for Multi-posture MR Hand Images Yung-Nien Sun, National Cheng Kung University
Systematic Nano-biotechnology Chair: Shin'ichiro Kanoh, Tohoku University	
8:45-9:00	Development of a PVDF Tactile Sensor for an Endoscopic Application Mikiko Sone, Tohoku University
9:00-9:15	The Accuracies of Hybrid Algorithms in Cardiac Action Potential Simulation Ching-Hsing Luo, National Cheng Kung University
9:15-9:30	Thermostat Implantable Elements with Thermosensitive Ferrite for Hyperthermia Tetsuya Takura, Tohoku University
9:30-9:45	Magnetic Nanoparticles and Needles for Cancer Therapy Xi-Zhang Lin, National Cheng Kung University
9:45-10:00	A Basic Experiment of Different Pulse Width Stimulation for Information Presenting Method Using Dynamic Electro-cutaneous Sensation Patterns Yuka Minegishi, Tohoku University
10:00-10:15	Pulse Diagnosis Machine Tomoyuki Yambe, Tohoku University
10:15-10:30	Tea Break
Plenary Lecture V Chair: Kuo-Sheng Cheng, National Cheng Kung University	
10:30-11:00	Development of an Apparatus for Non-invasive Measurement of the Middle Ear Function in Neonates Hiroshi Wada, Tohoku University
Biomedical Imaging Chair: Yung-Nien Sun, National Cheng Kung University	
11:00-11:15	Molecular Imaging and its Application to Drug Development Kazuhiko Yanai, Tohoku University
11:15-11:30	Application of Positron Emission Tomography to Visualization of Daily Movements in Human Subjects Manabu Tashiro, Tohoku University
11:30-11:45	The Craniofacial Morphology Characterization for Automatic Cephalogram Landmarking Kuo-Sheng Cheng, National Cheng Kung University
11:45-12:00	Human Brain Aging Studied with Japanese Brain MRI Database ― Anatomical Networks Analysis Using Regional Gray Matter Volume Kai Wu, Tohoku University
12:00-13:00	Lunch

Plenary Lecture VI Chair: Ruey-Jen Yang, National Cheng Kung University	
13:00-13:30	Electrochemistry-Based Biointerface Engineering Matsuhiko Nishizawa, Tohoku University
Bioinstrumentation Chair: Hiroshi Wada, Tohoku University	
13:30-13:45	Fabrication of Arteriole Model with Circular Cross-section by Using Gray-Scale Lithography Takuma Nakano, Tohoku University
13:45-14:00	Multidetector-row Computed Tomographic Evaluation of the Adrenal Vein in Patients with Primary Aldosteronism. Kei Takase, Tohoku University
14:00-14:15	Cell Adhesion over Au Cluster Patterned Chitosan Film as the Wound Healing Substrate Jiunn-Der Liao, National Cheng Kung University
14:15-14:30	Evoked Potentials in response to Electrical Stimulation of the Cochlear Nucleus by means of the Multi-channel Surface Microelectrodes Kiyoshi Oda, Tohoku University
14:30-14:45	Tea Break
On-Chip Technology and Nanobioiology Chair: Hsien-Chang Chang, National Cheng Kung University	
14:45-15:00	On-chip Cell Manipulation by Magnetically Driven Microtools Yoko Yamanishi, Tohoku University
15:00-15:15	Development of Si Double-sided Microprobe for Platform of Brain Signal Processing System Risato Kobayashi, Tohoku University
15:15-15:30	Rapid Test of Bacteria Based on a Dielectrophoretic Microfluidic Chip with Functions of Sorting and Trapping Hsien-Chang Chang, National Cheng Kung University
15:30-15:45	Active Control of Sliding Pathway of Kinesin-driven Microtubules Shukei Sugita, Tohoku University
15:45-16:00	Effective Electrokinetic Mixing in a Microfluidic Device Ruey-Jen Yang, National Cheng Kung University
16:00-16:15	Effects of HDAC Inhibitors on Leukemia Cells Kenji Ishihara, Tohoku University
16:15-16:30	Tenascin-C Inhibits Polarization and Transmigration of T Cells Bei-Chang Yang, National Cheng Kung University
16:30-17:00	Adjournment