

Wednesday, March 12, 2014

8:00- 9:00 **REGISTRATION**

9:00- 9:10 **WELCOME ADDRESS**

Professor Ryoichi NAGATOMI, Graduate School of Biomedical Engineering, Tohoku University

Key Note Lecture I

Chair: Jaw-Lin Wang (National Taiwan University)

9:10- 9:50 Prof. Ryoichi Nagatomi Tohoku University

9:50- 10:00 **COFFEE BREAK**

Biomechanics I

Chair: Fong-Chin Su (National Cheng Kung University)

10:00- 10:15 Tien-Han Li National Taiwan University Effects of Lamina Expansion on Cervical Stability and Spinal Nerve Tension after Open-door Laminoplasty

10:15- 10:30 Shuo-Heng Chen National Taiwan University Loss of Cervical Deep Muscle Function Is Associated with An Increase in Cervical Kyphosis after Laminoplasty Surgery: In-Vitro Experimental Spine Model with Muscle Function Simulation

10:30- 10:45 Su-Ya Lee National Cheng Kung University Study of the Isokinetic Performance of the Wrist Extensor Muscles at Different Wrist Deviations

10:45- 11:00 Po-Tsun Chen National Cheng Kung University The Adjustment of Digit Force during Five-Digit Grasping in Patients with Carpal Tunnel Syndrome

11:00- 11:10 **COFFEE BREAK**

Biomechanics II

Chair: Li-Chieh Kuo (National Cheng Kung University)

11:10- 11:25 Li-Yu Lin National Taiwan University The effects of Glycation and Enzymatic Digestion on Rheological Properties of Intervertebral Disc

11:25- 11:40 Yun-Chen Chiu National Taiwan University Estimation of altered dynamic mechanical properties of the intervertebral disc after injection-induced glycation and enzymatic digestion

11:40- 11:55 Hsiao-Feng Chieh National Cheng Kung University The impact of joint configuration on kinetics of the thumb trapeziometacarpal joint during lateral pinch

11:55- 12:10 Chien-Ju Lin National Cheng Kung University The in vivo analysis of joint contact pattern of the thumb trapeziometacarpal joint during lateral pinch

12:10- 13:20 **LUNCH**

Biomedical Devices/Neuro Engineering

Chair: Ali Hasnain (National University of Singapore)

13:20- 13:35 Tomo Kinoshita Tohoku University Radiofrequency ablation of the adrenal gland: in vivo and ex vivo experiments with "bipolar" ablation system

13:35- 13:50 He Shuai National University of Singapore Optimization of Gold Nanostars for Probing Molecules by Surface Enhanced Raman Spectroscopy

13:50- 14:05 Koushik Kumar Nundy National University of Singapore Wearable Continuous Blood Pressure Monitoring and Measurement

14:05- 14:20 Aishwarya Bandla National University of Singapore A Multimodal Imaging Study of Hyperacute Stroke Neurorestorative Functions by Peri-Infarct Activations

14:20- 14:30 **COFFEE BREAK**

Medical Imaging

Chair: Yu-Chun Hsu (National Taiwan University)

14:30- 14:45 Nozomi Satani Tohoku University Non-contrast-enhanced MR adrenal venography for adrenal venous sampling: Comparison with CT angiography

14:45- 15:00 Akie Inami Tohoku University A POSITION EMISSION TOMOGRAPHIC (PET) STUDY TO CONSIDER THE Working Mechanism of an Alternative Therapy on Neck Pain Patients

15:00- 15:15 Rin Matsuda Tohoku University Effects of radiochemotherapy on cerebral metabolic change in esophagus cancer patients.

15:15- 15:30 Teppei Yamaki Tohoku University Study of diagnosis of lymph node metastasis by Micro-CT

15:30- 15:40 **COFFEE BREAK**

Others

Chair: Wen-Kai Chou (National Taiwan University)

15:40- 15:55 Daisuke Matsuki Tohoku University Study of drug delivery to secondary lymph nodes via sentinel lymph nodes

15:55- 16:10 Chia-Ching, Lin National Taiwan University Prognostic Values of Cervical Spine Morphology and Intersegment Range of Motion in Predicting Post-surgical Outcome for Cervical Spondylotic Myelopathy

16:10- 16:25 Zong-Xing, Chen National Taiwan University Patient with Cervical Spondylotic Myelopathy undergone laminoplasty demonstrated slower recovery in their range of motion compare to those with anterior cervical discectomy and fusion

16:25- 16:40 Chia-Hao Hsieh National Taiwan University Development of An Image-guided Navigation System for Hydrocephalus Ventricular Shunt Placement Procedure

19:00- 21:00 **CONFERENCE BANQUET**

Thursday, March 13, 2014

Key Note Lecture II

Chair: Yoshifumi Saijo (Tohoku University)

9:00- 9:40 Prof. Pai-Chi Li National Taiwan University

9:40- 9:50 **COFFEE BREAK**

Medical Ultrasound I

Chair: Naoki Takeishi (Tohoku University)

9:50- 10:05 Genta Masuno Tohoku University High Frame-Rate Estimation of Two-Dimensional Blood Flow Vector by Bidirectional Doppler Ultrasound with Parallel Beamforming

10:05- 10:20 Yosuke Komatsu Tohoku University Basic study on "Sonosytometry"

10:20- 10:35 Shigeki Kato Tohoku University Inhibition of tumor growth in lymph nodes by lymphatic administration of drugs and nano/micro bubbles with ultrasound exposure

10:35- 10:50 Jun Yasuda Tohoku University Effects of Rose Bengal on Cavitation Inception in Gel Phantom Investigated by High-Speed Observation

10:50- 11:00 **COFFEE BREAK**

Medical Ultrasound II

Chair: Ryo Nagaoka (Tohoku University)

11:00- 11:15 Joe Shikama Tohoku University Development of Ultra-high Frequency Ultrasound microscope for imaging of a single cell

11:15- 11:30 Mika Sato Tohoku University Development of Optical Resolution Photoacoustic Microscopy

11:30- 11:45 Yukihiro Naganuma Tohoku University Ultrasound microscopic imaging of human caries dentin

11:45- 12:00 **COFFEE BREAK**

12:00- 12:30 AWARD PRESENTATION & ADJOURNMENT

Professor Takami YAMAGUCHI,
Graduate School of Biomedical Engineering, Tohoku University

12:30- 13:30 **LUNCH**

13:30- **LABORATORY TOUR**