

OS8: Advanced Physical Stimuli and Biological Responses

November 6, 2023

EX-3-A

- 14:05-14:10 **Opening Address**
Takehiko Sato (Tohoku University, Japan) & Yun-Chien Cheng (National Yang Ming Chiao Tung University, Taiwan)
- OS8-1 14:10-14:40 **Design Principle of Shark Noses: Structures, Multiscale Fluid Dynamic, and Biomimicry Applications (*Invited*)**
Yun-Hsin Lin, Zhe-Yi Su, Yi-Xiang Huang, Kai-Jung Chi, Wei-Hsiang Wang (National Chung Hsing University, Taiwan), Ya-Yu Chiang (National Taiwan University, Taiwan)
- OS8-2 14:40-15:10 **Non-thermal Plasma Generated by High-voltage Pulses and Its Applications for Improving the Growth and Preserving the Freshness of Fruits and Vegetables (*Invited*)**
Katsuyuki Takahashi, Koichi Takaki (Iwate University, Japan)
- OS8-3 15:10-15:25 **High-Permittivity Substrates for Enhancing APPJ-Assisted Bonding on Microfluidic Chip**
Ching-Chieh Ni, Chia-Hung Dylan Tsai (National Yang Ming Chiao Tung University, Taiwan)
- OS8-4 15:25-15:40 **Base Material Property of Cancellous Bone**
Ya-Chi Lu, Chen-Gang Xu, Kai-Ming Chan (National Yang Ming Chiao Tung University, Taiwan), Tuo Wu (National Taiwan University Hospital, Taiwan), Wen-Yea Jang (National Yang Ming Chiao Tung University, Taiwan)
- OS8-5 15:50-16:20 **Calcium Response and Large Cation Uptake Induced by Atmospheric Pressure Plasma (*Invited*)**
Shota Sasaki, Ryosuke Honda, Makoto Kanzaki, Toshiro Kaneko (Tohoku University, Japan)
- OS8-6 16:20-16:50 **Investigate the Effects of Gold Nanoparticles on the Electrohydrodynamic Behavior of Cells (*Invited*)**
Chih-Jie Lee, Hsiang-Yu Wang (National Tsing Hua University, Taiwan)
- OS8-7 16:50-17:05 **Miniature Plasma Microbubble System For Dental Applications**
Yu-Wei Huang, Chun-Wei Feng, An-Sheng Chen, Yun-Chien Cheng (National Yang Ming Chiao Tung University, Taiwan)
- OS8-8 17:05-17:20 **Improving Puncture Accuracy Using Vibrating Devices for Flexible Organs**
Yujiro Iwata, Kenji Kikuchi, Kei Takase, Takuji Ishikawa (Tohoku University, Japan)
- OS8-9 17:30-18:00 **Dielectric Breakdown of Cell Membrane and ROS Generation by Pulsed Electric Field (*Invited*)**
Yasushi Minamitani, Takayoshi Kowase, Masaki Ichikawa, Toshiya Mizuno, Hiromi Sato, Yuta Kobayashi, Jyunya Hiyama, Riku Kageyama, Kenji Tamura, Yoshie Kuramochi, Koki Saito (Yamagata University, Japan)

OS8-10 **A Grooved Petri Dish used with a Commercial Orbital Shaker for Tissue-Engineered Vascular Graft Culture** (*Invited*)
18:00-18:30 Je-Wei Yeh, Jin-Jia Hu, Yao-Hsien Liu (National Yang Ming Chiao Tung University, Taiwan)

OS8-11 **Influence of Pulse Rise and Fall Time on Plasma Intensity and Electron Temperature**
18:30-18:45 Ann Sung, Yun-Chien Cheng (National Yang Ming Chiao Tung University, Taiwan)

November 7, 2023

EX-3-A

OS8-12 **Portable Biosensor System with Microfluidics Embedded Optical Sensor** (*Invited*)
9:30-10:00 Chien-Chieh Chiang, Cheng-Sheng Huang (National Yang Ming Chiao Tung University, Taiwan)

OS8-13 **Effects of Superimposed Electric Field on Structure and Permeability of Biological Membrane Investigated by Molecular Dynamics Simulation** (*Invited*)
10:00-10:30 Kosuke Tachibana (Oita University, Japan), Kosuke Takami, Ryo Ninomiya, Ippei Yagi (Tokyo Metropolitan University, Japan), Akinori Oda (Chiba Institute of Technology, Japan), Satoshi Uchida (Tokyo Metropolitan University, Japan)

OS8-14 **The Effect of Low Temperature Plasma Treatment on Rat Adipose-Derived Stem Cells** (*Invited*)
10:40-11:10 Kun-Jie Xie (National Chiao Tung University, Taiwan), Chih-Kuan Su (Taipei Veterans General Hospital, Taiwan), Chih-Hsun Lin (Taipei Veterans General Hospital / National Yang Ming Chiao Tung University, Taiwan), Ying-Hao Liao (National Chiao Tung University, Taiwan)

OS8-15 **Observation of Laser-Induced Optical Breakdown and Its Application in Biomedicine** (*Invited*)
11:10-11:40 Siwei Liu, Keisuke Iwasawa, Airi Nakayama, Tomoki Nakajima, Takehiko Sato (Tohoku University, Japan)

11:40-12:00 **Award Ceremony & Closing**
Takehiko Sato (Tohoku University, Japan) & Yun-Chien Cheng (National Yang Ming Chiao Tung University, Taiwan)