

## OS8: Advanced Physical Stimuli and Biological Responses

November 18, 2024

EX-2

- 13:05-13:10     **Opening**  
Takehiko Sato (Tohoku University, Japan), Yun-Chien Cheng (National Yang Ming Chiao Tung University, Taiwan)
- OS8-1     **Poroelestatic Modelling of Articular Cartilage** *(Invited)*  
13:10-13:40     Dean Chou (National Cheng Kung University, Taiwan)
- OS8-2     **Experimental and Finite Element Analysis of the Microstructural Design for Femoral Implants**  
13:40-13:55     Liang-Ting Chen, Wen-Yea Jang (National Yang Ming Chiao Tung University, Taiwan)
- OS8-3     **The Plasma Simulation of the Ion Thruster Using the Coupling of Finite Element Method and PIC-DSMC Method**  
13:55-14:10     Tsi-Li Li, Dean Chou (National Cheng Kung University, Taiwan)
- OS8-4     **Investigation of Vascular Endothelial Cell Dynamics Using Microfluidic Platforms to Control Microenvironments** *(Invited)*  
14:10-14:40     Kenichi Funamoto (Tohoku University, Japan)
- OS8-5     **A Novel Detection Method for Metal Contamination Within Microalgae Cells Using Dielectrophoresis** *(Invited)*  
14:50-15:20     Chih-Jie Li, Hsiang-Yu Wang (National Tsing Hua University, Taiwan)
- OS8-6     **20-year-old PVA-H biomodel** *(Invited)*  
15:20-15:50     Makoto Ohta, Riko Hasegawa, Shintaro Sasaki, Ayami Omiya (Tohoku University, Japan), Hiroyuki Kosukegawa (Tohoku University / Blue Practice Co., Ltd., Japan)
- OS8-7     **Effect of High-Speed Water Nanodroplets on Cell Response**  
15:50-16:05     Keisuke Iwasawa, Siwei Liu, Tomoki Nakajima, Takehiko Sato (Tohoku University, Japan)
- OS8-8     **Experimental Study on the Configurations of Double Emulsion under Different Flow Ratios**  
16:05-16:20     Shih-Hsiang Weng, Chia-Hung Dylan Tsai (National Yang Ming Chiao Tung University, Taiwan)
- OS8-9     **Multiscale Molecular Simulations for Biomolecular Systems** *(Invited)*  
16:30-17:00     Takuya Mabuchi (Tohoku University, Japan)
- OS8-10     **Event-Based Camera for Aerodynamic Testing in High-Speed Flight** *(Invited)*  
17:00-17:30     Zu Puayen Tan (National Yang Ming Chiao Tung University, Taiwan)

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- OS8-11      **Multiphase Flow Approach for Biological Thermodynamics and Carbon-Neutral Energy Sciences** *(Invited)*  
9:00-9:30      Jun Ishimoto (Tohoku University, Japan)
- OS8-12      **Low Temperature Co-Fired Ceramics Device for Plasma Generation and Biomedical Applications** *(Invited)*  
9:30-10:00      Ivan Gomez Ho, Yun-Chien Cheng (National Yang Ming Chiao Tung University, Taiwan)
- OS8-13      **Rapid Blood Flow Analysis and Blood Flow Database Creation Enabled by Deep Learning** *(Invited)*  
10:00-10:30      Hitomi Anzai, Keito Yanagisawa, Liao Jing, Kazuki Shibata, Kazuyoshi Jin, Makoto Ohta (Tohoku University, Japan)
- OS8-14      **Towards Advanced Control and Application of Charged Cavitation for Biomedicine** *(Invited)*  
10:40-11:10      Siwei Liu, Tomoki Nakajima, Takehiko Sato (Tohoku University, Japan)
- OS8-15      **Application of High-Speed Nanodroplets to Cleaning and Sterilization Treatments** *(Invited)*  
11:10-11:40      Takehiko Sato (Tohoku University, Japan), Shigeru Fujimura (Tohoku Medical and Pharmaceutical University, Japan), Seiji Kanazawa (Oita University, Japan), Siwei Liu (Tohoku University, Japan), Kosuke Tachibana (Oita University, Japan), Yun-Chien Cheng (National Yang Ming Chiao Tung University, Taiwan), Jiun-Shian Lee, Takuro Okuma, Keisuke Iwasawa, Yunchen Xiao, Tomoki Nakajima (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)