

Program

November 25, 2022

Opening Session Chair: Yoshikazu Nakajima, Tokyo Medical and Dental University

10:00~10:10 Opening Remarks: Yujiro Tanaka, President, Tokyo Medical and Dental University

10:10~10:20 Greeting: TBD, MEXT

10:20~10:30 Introduction of Research Center for Biomedical Engineering
Hiroyuki Kagechika, Tokyo Medical and Dental University

Session A Chair: Tso-Fu Mark CHANG, Tokyo Institute of Technology

10:30~11:00 Hsu, Yung-Jung, National Yang Ming Chiao Tung University

“Semiconductor Heterostructures for Photocatalytic Applications”

11:00~11:30 Naohiro Sugita, Tokyo Institute of Technology

“Application of ultrasound cavitation and bubble dynamics in medical diagnosis and treatment”

11:30~12:00 Wei Qiu, Lund University

“Acoustophoresis – fundamentals and biomedical applications of ultrasound particle manipulation in microfluidics”

12:00~13:00 **Lunch Break**

Session B Chair: Hiroshi Inokawa, Shizuoka University

13:00~13:30 Joao Seco, DKFZ German Cancer Research Center

“FLASH radiation therapy: a quantum leap in reducing radiation side effects”

13:30~14:00 Mitsutoshi Setou Hamamatsu University School of Medicine

“Imaging mass spectrometry and its application to aging research”

14:00~14:30 Yukari Nakano and Yasuo Terasawa, Nidek Co., Ltd.

“Recent progress in artificial vision research”

Session C Chair: Suguru Kameda, Hiroshima University

14:30~15:00 Tetsuhiko Teshima, NTT Research Inc., Medical & Health Informatics Laboratories

“Transformative bioelectronic and biointerfaces”

15:00~ 15:30 Mikihiro Kajiya, Hiroshima University

“New avenues for regenerative medicine opened by 3D cell clumps culture techniques and nanodevices.”

15:30~16:00 Ryo Miyake, The University of Tokyo

“Paper-based analysis chip and the applications”

16:00~16:15 **Break**

Session D Chair: Yoshikazu Nakajima, Tokyo Medical and Dental University

- 16:15~16:45 Carlos Escobeto, Queen's University
"Magnetotactic Bacteria Behavior Studies in Microfluidic Environments
with Clinically Relevant Stressors"
- 16:45~17:15 Takahiro Arakawa¹ and Kohji Mitsubayashi², ¹Tokyo University of Technology, ²
Tokyo Medical and Dental University
"Wearable biosensor and gas sensor for non-invasive monitoring of human
metabolism"
- 17:15~17:45 Takeshi Hori, Tokyo Medical and Dental University
"Microphysiological systems and 3D cell cultures for accelerating human placenta
research."

Closing Session Chair: Yoshikazu Nakajima, Tokyo Medical and Dental University

- 17:45~17:50 **Closing Remarks:** Akinobu Teramoto, Hiroshima University