

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: Ichiro Kuronuma, Research Promotion Bureau, Ministry of Education, Culture, Sports, Science and Technology (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: Shin-ichiro Kuroki, 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 |
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| 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 Arakawa ¹ and Kohji Mitsubayashi ² , ¹ Tokyo 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 |
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| 17:45~17:50 | Closing Remarks: | Akinobu Teramoto, Hiroshima University |