

## Graduate School Seminar

第75回 大学院医歯学総合研究科 大学院セミナー  
 医歯理工学専攻、医歯理工保健学専攻科目「医歯理工学先端研究特論」【031003】  
 医歯学系専攻、医歯学専攻科目「医歯学総合特論」【041003】  
 生命理工学系専攻科目「生命理工学先端研究特論」【036009】  
 生命理工医療科学専攻科目「生命理工医療科学先端研究特論」【0364001】

## 生体医歯工学共同研究拠点 第7回国際シンポジウム

### The 7<sup>th</sup> International Symposium on Biomedical Engineering (ISBE2022)

日時：2022年11月25日（金）10:00～17:50

講演形式：オンラインとオンデマンド

事前登録先：<https://rcbe-report.org/isbe2022/registration/>

上記 URL より参加申し込みをお願いいたします（大学院セミナーのプルダウンメニューで“**Yes**”を選択してください）

登録締め切り日：2022年11月18日（金）

## 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: 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 Kajiyama, 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 Escobedo, Queen’s University  
“Magnetotactic Bacteria Behavior Studies in Microfluidic Environments with Clinically Relevant Stressors”
- 16:45~17:15 Takahiro Arakawa<sup>1</sup> and Kohji Mitsubayashi<sup>2</sup>, <sup>1</sup>Tokyo University of Technology, <sup>2</sup> 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