



## Biomedical Imaging and Sensing Conference (BISC25)

*Program Committee:* **Szu-Yu Chen**, National Central Univ. (Taiwan); **Wonshik Choi**, Korea Univ. (Korea, Republic of); **Shi-Wei Chu**, National Taiwan Univ. (Taiwan); **Dong Li**, Chinese Academy of Sciences (China); **Katsumasa Fujita**, Osaka Univ. (Japan); **Yoshio Hayasaki**, Utsunomiya Univ. Ctr. for Optical Research & Education (Japan); **Masaki Hisaka**, Osaka Electro-Communication Univ. (Japan); **Wataru Inami**, Shizuoka Univ. (Japan); **Miya Ishihara**, National Defense Medical College (Japan); **Ichiro Ishimaru**, Kagawa Univ. (Japan); **Hsiang-Chieh Lee**, Graduate Institute of Photonics and Optoelectronics (Taiwan); **Xingde Li**, Johns Hopkins Univ. (United States); **Takashi Kakue**, Chiba Univ. (Japan); **Myung K. Kim**, Univ. of South Florida (United States); **Robert Magnusson**, The Univ. of Texas at Arlington (United States); **Yuji Matsuura**, Tohoku Univ. (Japan); **Kazuya Nakano**, Seikei Univ. (Japan); **Goro Nishimura**, Hokkaido Univ. (Japan); **Yusuke Ogura**, Osaka Univ. (Japan); **Eiji Okada**, Keio Univ. (Japan); **Yukitoshi Otani**, Utsunomiya Univ. (Japan); **Yong-Keun Park**, KAIST (Republic of Korea); **Manabu Sato**, Yamagata Univ. (Japan); **Shunichi Sato**, National Defense Medical College (Japan); **Kung-Bin Sung**, National Taiwan Univ. (Taiwan); **Tatsuki Tahara**, National Institute of Information and Communications Technology (Japan); **Enrique Tajahuerce**, Univ. Jaume I (Spain); **Yosuke Tamada**, Utsunomiya Univ. (Japan); **Sheng-Hao Tseng**, National Cheng Kung Univ. (Taiwan); **Tom Vetterburg**, Univ. of Dundee (United Kingdom); **Eriko Watanabe**, The Univ. of Electro-Communications (Japan); **Peng Xia**, AIST (Japan); **Takeshi Yasui**, The Univ. of Tokushima (Japan)

This conference will provide an international forum for reporting recent progress in imaging and sensing in biology and medicine, as well as related areas. In biomedical optics and photonics, optical tools are employed for the understanding and treatment of diseases, from the cellular level to macroscopic applications. At the cellular level, highly precise laser applications allow the manipulation, operation or stimulation of cells, even in living organisms or animals. Optical microscopy has been revolutionized by a thorough understanding of the different markers and their switching behavior. Marker-free microscopy technologies, like CARS, SHG or THG-microscopy, Digital Holographic Microscopy, are spreading into multiple biological and clinical imaging applications. OCT is continuously broadening its clinical applicability by becoming even higher resolution, higher speed and more compact. Computational imaging including compressive sensing and deep learning is a rapidly growing field to create powerful applications such as imaging, sensing, and diagnosis. In the broader field of optics and photonics, biomedical imaging and sensing are the most quickly progressing and expanding areas. Techniques developed in these areas could greatly advance physical, engineering and biological knowledge as well as optics and photonics technology.

This conference will include basic research at cellular level through clinical applications of various optical technologies.

Both invited papers and regular contributions will be presented. All abstracts will be reviewed by the program committee for originality and merit. Topics of the conference are listed below, but other topics related to biomedical imaging are also welcome.

Submit your abstract today

<https://opicon.jp/conferences/BISC>

### CONFERENCE CHAIRS



**Yasuhiro Awatsuji**  
Kyoto Institute  
of Technology  
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**Yuan Luo**  
National Taiwan  
Univ. (Taiwan)



**Osamu Matoba**  
Kobe Univ.  
(Japan)



**Izumi Nishidate**  
Tokyo Univ. of  
Agriculture and  
Technology  
(Japan)

Topics include:

- medical and biological imaging instrumentation and techniques
- optogenetics
- advanced microscopy
- advanced endoscopy
- super resolution in biomedical imaging and sensing
- computational imaging in biomedical imaging and sensing
- adaptive optics in biomedical imaging and sensing
- structured illumination in biomedical imaging and sensing
- interferometry and holography in biology and medicine
- optical coherence tomography
- diffuse optical tomography
- digital holography
- quantitative phase imaging
- photoacoustic imaging
- multimodal imaging and sensing
- optical biopsy
- spectroscopic imaging and sensing
- multispectral imaging and sensing
- scattering imaging
- fluorescence imaging
- molecular imaging
- terahertz sensing
- optical fibers and sensors for biomedicine
- multimodality optical diagnostic systems.

**Submission Deadline: 18 December 2024**