The 10th Biomedical Imaging and Sensing Conference BISC 2024

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Kobe University, Japan



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National Taiwan University, Taiwan



Conference Co-Chair **Izumi Nishidate**

Tokyo University of Agriculture and Technology, Japan

On behalf of the Organizing and Program Committees, we are delighted that the 10th Biomedical Imaging and Sensing Conference will be held as part of the OPTICS & PHOTONICS International Congress (OPIC 2024).

In biomedical optics and photonics, optical tools are used to understand and treatment of disease, from the cellular level to clinical applications. At the cellular level, high-precision laser applications allow the manipulation, operation or stimulation of cells, even in living organisms or animals by using fluorescent protein and optogenetics. Optical microscopy has been revolutionized by the development of a wide variety of fluorescent dye probes and methods to control their excitation and fluorescence behavior. Various label-free imaging techniques, such as multiphoton microscopy, second-and third-harmonic generation methods, and Raman microscopy, are spreading into many biological and clinical applications. Optical coherence tomography continues to expand its clinical and preclinical applications with higher resolution, faster speed, further miniaturization, and the creation of novel approaches that enable imaging of functional information and tissue dynamics.

Biomedical imaging and sensing are the most rapidly advancing and expanding areas in optics and photonics. Techniques developed in these areas could bring us great advances in physical, engineering and biological knowledge as well as in optics and photonics technology. The aim of this conference is to cover several aspects, from the fundamental studies at the cellular level to the clinical applications of various optical technologies.

Finally, we hope that the 10th Biomedical Imaging and Sensing Conference will contribute to the progress in this field and wish you fruitful discussions.

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