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Biomedical Imaging and Sensing Conference 2020

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Introduction

On behalf of the organizing committee and program committee, it is our great pleasure that the 6-th Biomedical Imaging and Sensing Conference in Yokohama is going to open, within the framework of the OPTICS & PHOTONICS International Congress (OPIC 2020). Unfortunately, due to the spreading of COVID-19, the conference this year is performed as a digital conference.

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, like SHG or THG microscopy, is spreading into multiple biological and clinical imaging applications. OCT is continuously broadening its clinical applicability by even higher resolution, higher speed and more compact and the use of Doppler and polarization sensitivity for functional imaging.

In the field of optics and photonics, biomedical imaging and sensing areas are the most quickly progressing and expanding. Techniques developed in these areas could make great steps forward in the advancement of physical, engineering and biological knowledge as well as optics and photonics technology. This Conference aims at covering several aspects from fundamental studies at the cellular level to clinical applications of various optical technologies.

Finally, we hope the 6-th Biomedical Imaging and Sensing Conference contributes to progress in this field and we hope you enjoy fruitful discussions during the Conference.

**Takashige Omatsu
Kishan Dholakia
Hajime Ishihara
Keiji Sasaki**

