



Advances in Light- and Sound-Based Techniques in Biomedicine

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Message from the Guest Editors

Advances in optical and ultrasound-based techniques have resulted in the emergence of innovative and transformative tools that can be used to probe biomedical and biological systems at the subcellular, cellular, tissue, and organ levels. Due to their unique potential to provide low-cost, safe, and portable medical devices with extremely high sensitivity and specificity, optical and ultrasound techniques are expected to play a prominent role in next-generation diagnostic, analytical, and therapeutic modalities. This Special Issue encompasses a broad range of techniques, mainly focused on recent advances in instrumentation, multi-modal configurations, theranostic combinations, contrast agents, and new instrumentation schemes. Topics include, but are not limited to:

- Optical Imaging and Spectroscopy
- Ultrasound Imaging
- Acousto-optic Imaging
- Photoacoustic Imaging
- Microscopy, Mesoscopy, Endoscopy
- Affordable and portable light sources (laser diodes, LED) and light delivery methods
- Data Processing and Novel algorithms
- Optical and Ultrasound Therapy
- Fluorescence, Raman, Photoacoustics, Optical Coherence Tomography (OCT), Hyperspectral Imaging





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Message from the Editor-in-Chief

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