



Biomedical Photoacoustic Imaging: Technologies and Methods

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Message from the Guest Editor

Dear Colleagues,

I would like to invite you to contribute to a Special Issue on Biomedical Photoacoustic Imaging (PA), which will be published in the MDPI *Journal of Imaging*. Recent technological advances have shown that PA imaging is capable of acquiring images at high resolution and frame rates using a single excitation pulse, which minimizes tissue motion artifacts and paves the way for high speed functional and molecular imaging. In addition, novel experimental methods, such as the development of novel genetic reporters, and computational approaches, such as model-based inversions and deep learning, have produced promising initial results that may enable truly quantitative imaging. These technologies and methods are vital components for functional and molecular PA imaging, and the successful translation of PA modalities to clinical applications. Contributions are invited that address the range of current challenges, which may include novel PA signal generation approaches, PA detection and scanner technologies, methods for quantitative PA imaging, functional and molecular PA imaging, and in vivo applications in preclinical and clinical studies.

Prof. Jan Laufer

Guest Editor





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Message from the Editor-in-Chief

The imaging term, specific with journal, is to be considered in its broadest sense. Image processing, image understanding and computer vision are all terms related to imaging acquisition, its processing and the extraction of relevant information from the scene to obtain the underlying knowledge. All tasks related to the above items are oriented toward specific applications in a broad range of areas and topics. The *Journal of Imaging* is conceived as an efficient vehicle in the scientific community for the communication and transmission of the progress and research results in the topics covered.

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