



Biomedical Imaging Using Photoacoustic Technology

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Message from the Guest Editors

Dear Colleagues,

Biomedical imaging has been an essential tool in daily medical diagnostics. For more than 100 years, various biomedical imaging technologies have been developed to provide anatomical, functional, and molecular information of internal organs, among which optical imaging and ultrasound imaging have been two major modalities. Being distinct in fundamental physics, optical imaging and ultrasound imaging have been explored by different research communities. In recent decades, the emergence of photoacoustic imaging (PAI) technology has opened the way for integrating optical and ultrasound merits, i.e., rich optical contrast and deep ultrasound resolution. PAI has experienced an exponential increase in both the research and industrial communities.

This Special Issue focuses on the novel technological developments and preclinical and clinical biomedical applications of PAI. Topics include, but are not limited to:

- Tumor imaging;
- Image reconstruction;
- Light delivery methods;
- Skin imaging;
- Photoacoustic spectroscopy;
- Photoacoustic imaging of brain;
- Improving penetration depth in photoacoustic imaging;
- Development of photoacoustic contrast agents.





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