



Photoacoustic Tomography (PAT)

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Message from the Guest Editors

Dear Colleagues,

Photoacoustic (or optoacoustic) imaging, including photoacoustic tomography (PAT) and photoacoustic microscopy (PAM), is an emerging imaging modality with great clinical potential. PAI's deep tissue penetration and fine spatial resolution also hold great promise for visualizing physiology and pathology at the molecular level. PAI combines optical contrast with ultrasonic resolution, and is capable of imaging at depths of up to 7 cm with a real-time scalable spatial resolution of 10 to 500 μm . PAI has demonstrated applications in brain imaging and cancer imaging such breast cancer, prostate cancer, oval cancer etc. This Special Issue focuses on the novel technological developments and pre-clinical and clinical biomedical applications of PAI. Topics include, but are not limited to:

- Brain imaging
- Cancer imaging
- Image reconstruction
- Quantitative imaging
- Light source and delivery for PAI
- Photoacoustic detector
- Nanoparticles designed for PAI
- Photoacoustic molecular imaging
- Photoacoustic spectroscopy





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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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