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Sommario/riassunto	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 as breast cancer, prostate cancer, ovarian 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 detectors; nanoparticles designed for PAI; photoacoustic molecular imaging; photoacoustic spectroscopy.