Introduction: Based on the special propagating/scattering/reflecting/absorbing properties of the light in tissue, different optical imaging techniques have been developed in the past decades for detecting the structural and/or functional information, and the underlying changes as well. Optical imaging techniques, e.g. functional near infrared (fNIR), diffuse optical imaging (DOT), optical intrinsic signal (OIS), laser speckle imaging (LSI), voltage sensitive dye (VSD) imaging, optical coherence tomography (OCT), laminar optical tomography (LOT), two-photon microscopy, photoacoustic microscopy, coherent Raman imaging, optical projection tomography and etc., have shown great success and potential in a wide range of research and clinical applications. In particular, in-vivo optical brain imaging has drawn more and more attention from the macro- to meso- to micro-scopic level.

Scope: In order to report the latest progress in this area, we propose a special issue on Optical Brain Imaging of the journal Medical & Biological Engineering & Computing. We are calling for submission of papers on the state-of-art techniques or applications of in-vivo optical imaging of brain, including but not limited to neurovascular/hemodynamic coupling, monitoring brain activation for clinical or field use or natural environments, neuronal structural & functional imaging and etc.

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