Progress in Neurophotonics and Its Future Perspectives

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Message from the Guest Editors

Dear Colleagues,

This Special Issue aims to provide a vehicle for communicating important advancements in the use of optical methods/technologies to study brain function, organization and structure microscopically, mesoscopically or macroscopically. Topics include but are not limited to:

- Imaging and manipulation of neural circuitry;
- Methods to investigate cellular energetics, neuroglial and vascular physiology;
- Microscopy and super-resolution optical microscopy;
- Fluorescence imaging;
- Diffuse optical tomography;
- Molecular imaging and nanotheranostics;
- Multimodal optical imaging;
- Noninvasive methods of measuring and imaging brain function and physiology;
- Optogenetics and other optical methods of manipulating cellular behavior;
- Photoacoustic tomography and microscopy;
- Optoacoustic neuromodulation;
- Photodynamic therapy; Photoimmunotherapy; Photobiomodulation;
- Synthetic and genetically encoded optical reporters and actuators;
- Theoretical and computational optical methods; Optical clearing methods;
- Translational and clinical applications.

Special Issue