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Biophotonics in Diagnostic Applications

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Deadline for manuscript submissions:
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Message from the Guest Editors

Dear Colleagues,

Diagnostic biophotonics is used to detect diseases in their initial stages before actual medical symptoms occur in patients. By using optics, diagnostic biophotonics provides several advantages of sensing and imaging at the molecular level and also collects multidimensional data for evaluation.

Optical tagging: Proteins, cells, nucleic acids, and tissues are tagged with optical tags and their incandescence or fluorescence is measured;

Visualization of complex structures: Advanced optical technologies have enhanced imaging of vasculature, retinal structures, optic nerve, and other ocular structures to provide precise diagnosis of ocular diseases;

Functional diagnosis: Sophisticated optical technologies involving lasers and photonic and biophotonic applications in medicine provide assistance in observing and identifying cellular biochemistry and their functions;

Optical endoscopes: In medical applications, the combination of optical fibers and endoscopes is used for less invasive imaging and screening [illegible]

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Special Issue