# Special Issue

# Optical Sensors for Biomedical Imaging and Diagnostics

## Message from the Guest Editors

Optical methods have revolutionized biomedical imaging and sensing by enabling diagnostic systems that are far less invasive than traditional approaches. Various optical sensor types have been developed, each relying on different physical mechanisms, such as chromophore fluorescence, scattering measurements, fiber-optic probes, spectroscopy, Raman scattering for molecular specificity, random laser emission in turbid media, emission from perovskite, and plasmonic resonance-enhanced signal amplification. This Special Issue aims to provide a comprehensive view of how optical sensors and imaging techniques can be optimized, validated, and translated into clinical practice. In particular, the aim is to cover the full spectrum of research in optical diagnostics, from sensor design and implementation to methods for interpreting data and images. Moreover, contributions addressing analytical modeling of light–tissue interactions, Monte Carlo-based numerical simulations of photon transport, and advanced artificial intelligence techniques for image analysis and decision support are especially welcome.

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## Deadline for manuscript submissions

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# About the Journal

## Message from the Editor-in-Chief

*Sensors* is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

## Editor-in-Chief

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