

## Special Issue

# Biomedical Optics in Cell Biology

### Message from the Guest Editors

Biomedical optics play an increasing role in the diagnosis and treatment of patients, as well as in advanced studies in cell biology. In the latter case, novel methods of 3D microscopy based on various kinds of illumination patterns (wide field, focused laser beam, structured, or light sheet) are adapted for investigations of 3-dimensional cell cultures, tissues or whole organs. In addition, laser-assisted micromanipulation, e.g. optical tweezers or optoporation techniques, have been revealed as helpful tools for diagnosis or treatment of single cells. In vitro diagnostics often requires methods of (super-resolution) microscopy, hyperspectral imaging or fluorescence lifetime imaging as well as application of opto-acoustic methods, high-content reader systems or optical biosensors. Deconvolution, automated image processing and machine learning have become valuable tools for the evaluation of large data sets. Contributions on all these and related techniques, as well as their application to various fields of cell biology, are welcome in this Special Issue.

### Guest Editors

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### Deadline for manuscript submissions

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## International Journal of Molecular Sciences

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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