



Confocal Microscopy: Clinical Impacts and Innovation

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Message from the Guest Editors

The principle of confocal laser endomicroscopy (CLE), based on extreme miniaturization of the microscope imaging head, offers the possibility of in vivo microscopy with subcellular and subnuclear resolution. Clear visualization of the cytoarchitecture can be achieved with a 400-fold to 1000-fold magnification.

In oncological diagnosis and surgery, CLE would allow on one hand, intraoperative detection and differentiation of single tumor cells (without the need of fast biopsies) and on the other hand, the definition of borders between tumor and normal tissue on a cellular level, making surgical resection much more accurate than ever before. The application and implementation of CLE-assisted surgery in surgical oncology increases not only the diagnostic but also the therapeutic options by extending the resection borders of cancer on a cellular level and, more importantly, by protecting the functionality of normal tissues.

For this Special Issue, we would like to attract studies from authors working on implementing in vivo and ex vivo surgical and clinical concepts and techniques of confocal laser endomicroscopy in their treatments.





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Message from the Editor-in-Chief

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