

## Special Issue

# Advanced Optical Imaging for Tissue and Tumour Characterization

### Message from the Guest Editors

This Special Issue focuses on the pivotal role of advanced optical imaging techniques in enhancing our ability to characterize tissues and tumours across multiple spatial and temporal scales. Imaging modalities such as multiphoton microscopy, Raman-based microscopy (including confocal Raman), optical coherence tomography, fluorescence imaging, and photoacoustic imaging are being leveraged to investigate tissue biomechanics, cellular microenvironments, tumour heterogeneity, and immune interactions. These tools also enable the monitoring of novel therapeutic strategies, including mRNA-based treatments. The goal of this issue is to showcase how optical imaging contributes not only to technological innovation but also to a deeper biological understanding and the development of more precise, personalized medical approaches.

### Guest Editors

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