

Special Issue

Molecular Research of Biomedical X-ray Fluorescence Imaging (XFI)

Message from the Guest Editor

The use of different techniques for biomedical imaging purposes has been established over many decades. However, there are still several drawbacks, such as a very limited spatial resolution in PET and the fact that longitudinal studies are hard to realize due to the short half-life times of typical radiotracers. A novel imaging modality which can offer several advantages is X-ray fluorescence imaging (XFI), which uses a scanning X-ray pencil beam to excite characteristic X-ray fluorescence photons. XFI offers both a high sensitivity and a high spatial resolution at the same time. XFI-measurements can already be conducted from the single-cell level up to full-body. XFI allows for multiplexing or multi-tracking, respectively. Key applications could be pharmacokinetics or immune cell tracking. With this special issue, we hope to make this promising imaging modality even more compelling. We encourage the submission of articles reporting new applications of XFI or new strategies for the further development of XFI technology, as well as manuscripts focusing on translating this modality into new medical applications in the clinic, which are highly welcome.

Guest Editor

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Deadline for manuscript submissions

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