Special Issue

Advanced Image-Guided Neurosurgery: Brain Mapping and Intraoperative Imaging Innovations

Message from the Guest Editors

Image guidance has remained at the forefront of neurosurgical advances and has evolved from basic anatomical visualization to multimodal imaging integration across diverse neurosurgical disciplines. This Special Issue explores advances in multimodal imaging for patient selection, surgical planning, and intraoperative imaging technologies that enhance decision-making for neurosurgical procedures.

We seek contributions addressing novel imaging biomarkers for tumor characterization, anatomical targeting for stereotactic procedures, functional brain mapping techniques, intraoperative visualization techniques, AI-driven image analysis, extended reality surgical navigation, and multimodal imaging integration. We welcome original research articles, reviews, and technical notes covering imaging biomarker validation, intraoperative imaging innovations, surgical workflow optimization, and clinical outcome studies demonstrating the impact of advanced imaging technologies on neurosurgical practice.

Guest Editors

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You are invited to contribute a research article or a comprehensive review for consideration and publication in *Brain Sciences* (ISSN 2076-3425). *Brain Sciences* is an open access, peer-reviewed scientific journal that publishes original articles, critical reviews, research notes, and short communications on neuroscience. The scientific community and the general public can access the content free of charge as soon as it is published.

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