

## Special Issue

# Machine Learning and Artificial Intelligence in Neurosurgery

### Message from the Guest Editors

Artificial intelligence (AI) is transforming all surgical fields, and neurosurgery in particular, by enhancing precision, improving patient outcomes, and streamlining surgical workflows. AI-driven technologies, such as machine learning algorithms, can assist in the analysis of medical imaging (like MRI and CT scans) to detect subtle abnormalities, identify tumors, or map neural pathways, all of which are crucial for planning complex surgeries. AI-powered robotic systems can provide real-time guidance during surgery, enabling surgeons to perform delicate procedures with higher accuracy and reducing the risk of human error. Additionally, AI can predict post-surgical recovery and identify potential complications early, allowing for proactive interventions. Integrating AI into neurosurgical practice can augment a surgeon's expertise, reduce variability in outcomes, and ultimately enhance the safety and efficacy of brain and spinal surgeries. We seek to collect work from leaders in the field. Papers from clinical and computer science backgrounds are welcome but should have a clear association with neurosurgery.

### Guest Editors

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### Deadline for manuscript submissions

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