

Special Issue

Craniomaxillofacial Surgery 4.0: Personalized Digital Planning, Augmented Reality, Point-of-Care Manufacturing and Molecular Data Integration

Message from the Guest Editors

This Special Issue aims to explore and disseminate the most recent and impactful advancements in Craniomaxillofacial Surgery 4.0. It will focus on how digital planning, point-of-care manufacturing, advanced visualization technologies, and molecular data integration are revolutionizing the field. The scope covers both clinical and translational research, including technological development, case series, workflow innovation, and patient-centered approaches. We are particularly interested in contributions that address the following topics:

- Point-of-care manufacturing of patient-specific implants and surgical guides;
- Integration of 3D printing into preoperative planning and intraoperative navigation;
- Applications of augmented, virtual, and mixed reality in reconstructive and orthognathic surgery;
- Implant-guided rehabilitation strategies in oncologic maxillofacial patients;
- Smart surgical instruments (SSIs) and real-time intraoperative feedback systems;
- Omics-based approaches for surgical planning and tumor stratification;
- AI-based surgical planning, decision support systems, and data analytics.

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