

Special Issue on
**Engineering Solutions for Craniomaxillofacial
Rehabilitation and Orofacial Healthcare**

CALL FOR PAPERS

Innovative engineering solutions that incorporate nanobiotechnology, advanced biomaterials, computer assistance, three-dimensional printing, and robotic systems offer huge potential for augmenting and improving the functional and esthetic craniomaxillofacial and orofacial health profile of patients. A good example, perhaps, is nanodentistry, clearly multidisciplinary and interdisciplinary, building on existing knowledge and accruing expertise in different scientific and technological fields, seeking persistent refinement of traditional approaches, via the development and/or incorporation of advanced biomaterials, new tools, and pharmacological formulations to improve overall orofacial practice and care, which is slowly-evolving yet expected to provide dentists with more precision-made and tailored materials, drugs, and equipment, by which safety, esthetics, function, and patient compliance are enhanced. Due to the complex nature of such “outside-the-box” healthcare-related engineering technologies, they have attracted experts from physics, chemistry, biology, materials science, pharmaceuticals, robotics, and bioengineering, as well as the industry.

This special issue is dedicated to the state of the art in orofacial and craniomaxillofacial healthcare related topics and emphasizes the bionanotechnology-, computer-assisted-, and three-dimensional-related topics for innovative solution and alternative engineering. Through a collection of original papers, this state-of-the-art issue aims to exhibit the latest R&D&i ideas, concepts, findings, achievements, and future projections and promote awareness of this rapidly evolving and enabling multidisciplinary technology, thereby encouraging bridging the gap between engineering and dentistry (including subspecialties, extending to the head and neck) for research collaboration across the fields to address the critical and urgent biodental/biomedical concerns. Clinicians and researchers are invited to contribute with their original evidence-based articles as well as critical literature review manuscripts, summarizing the most recent and exciting innovative developments in the field of craniomaxillofacial and orofacial healthcare.

Potential topics include but are not limited to the following:

- ▶ Computer-aided planning and intraoperative navigation in dental implantology and craniomaxillofacial surgery
- ▶ Functional scaffolds for craniomaxillofacial tissue engineering applications
- ▶ Nanodentistry and the role of nanobiotechnology in biomaterials, pharmaceuticals, and biodental tissue engineering
- ▶ Image-guided surgery and medicodental robotics
- ▶ 3D printing and surgical engineering in the craniomaxillofacial complex
- ▶ Drug/gene delivery and cell therapy
- ▶ Cosmetology and orofacial surgery
- ▶ Platelet concentrates and leukocyte and platelet-rich fibrin in oromaxillofacial surgery
- ▶ Green dentistry

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/jhe/escmf/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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