

Special Issue

Biomaterials for Dental Applications and Implants

Message from the Guest Editors

In oral and maxillofacial surgery computer assisted surgery as well as planning and insertion of patient specific implants is not only an uprising field of research but is finding its way into clinical routines. Virtual surgical planning and computer-aided design and manufacturing have revolutionized work flows and therapies in dentistry and maxillofacial surgery. 3D and 4D printing of polymers has become popular in recent years. Printed absorbable plates for osteosynthesis of fractures or treatment of craniosynostosis are interesting new developments. Various 3D printing strategies have been developed to enable bioprinting of different biopolymers and hydrogels. Bioprinting offers new opportunities for bone and soft tissue regeneration. This Special Issue welcomes in vitro, animal, pre-clinical studies and clinical studies on computer assisted surgery, computer-aided design (CAD) and manufacturing (CAM) and 3D-printing for dental and maxillofacial purposes. Moreover, studies on biomaterials applied in the oral and maxillofacial field are of interest. **Keywords:**

- biomaterials, biopolymers, hydrogels
- bioprinting
- computer-aided design (CAD)

Guest Editors

Prof. Dr. Majeed Rana

Department of Oral and Maxillofacial Surgery, University of Duesseldorf, Moorenstr 5, D-40225 Dusseldorf, Germany

Dr. Lara K. F. Schorn

Department of Oral & Maxillofacial Surgery, University of Duesseldorf, Moorenstr 5, D-40225 Dusseldorf, Germany

Deadline for manuscript submissions

closed (15 March 2023)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/121460

*International Journal of
Molecular Sciences*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

[mdpi.com/journal/
ijms](https://mdpi.com/journal/ijms)





International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



[mdpi.com/journal/
ijms](https://mdpi.com/journal/ijms)



About the Journal

Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences,
Sez-Biochimica, Faculty of Medicine, Università Politecnica delle
Marche, Via Ranieri 65, 60100 Ancona, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore
- Q1 (Organic Chemistry)