



Molecular Mechanisms of Biomineralization in Healthy and Pathological Bone Tissues

Guest Editors:

Dr. Emil Malucelli

Department of Pharmacy and
Biotechnology, University of
Bologna, 40127 Bologna, Italy

Prof. Dr. David Bendahan

CNRS Research Director Centre
de Resonance Magnetique
Biologique et Medicale

Deadline for manuscript
submissions:

closed (31 December 2021)

Message from the Guest Editors

Biomineralization refers to the process by which living systems generate organized mineral crystals. Bone mineralization depends upon the complex crosstalk between osteoclasts, osteoblasts, and osteocytes. The degree of bone mineralization, assessed by the bone mineral density, the microarchitecture, and the characteristics of the mineral deposits, is a major determinant of bone quality. This whole set of determinants has to be taken into account and assessed if one intends to better understand and characterize bone “quality”. In that respect, further studies should be designed to characterize the molecular mechanisms involved in bone formation, repair, and remodeling. This Special Issue will be dedicated to “Molecular Mechanisms of Biomineralization in Healthy and Pathological Bone Tissues” with a focus on the mechanisms of bone formation and remodeling in both physiological and pathological conditions and the corresponding impact on bone quality. This Special Issue is intended to gather papers addressing various issues related to the assessment of bone quality in the fields of imaging, bioinformatics, cell differentiation, and regenerative medicine.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. José L. Quiles

Department of Physiology,
Institute of Nutrition and Food
Technology “Jose Mataix”,
Biomedical Research Center,
University of Granada, Avda.
Conocimiento s/n, 18100 Armilla,
Granada, Spain

Message from the Editor-in-Chief

The *International Journal of Molecular Sciences (IJMS)* 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, and molecular biophysics. *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.

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)

Contact Us

*International Journal of Molecular
Sciences* Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/ijms
ijms@mdpi.com
X@IJMS_MDPI