

Special Issue

Bone and Cartilage Injury and Repair: Molecular Aspects

Message from the Guest Editor

Bone and cartilage injuries pose a clinical and research challenge due to their limited regenerative capacity and the complexity of their molecular repair mechanisms. Understanding the biomolecular processes involved in tissue damage, inflammation, and regeneration is essential for developing effective therapies. This Special Issue of the International Journal of Molecular Sciences will gather research on the molecular aspects of bone and cartilage injury and regeneration. We welcome original research and review articles on molecular signaling pathways, gene expression, epigenetic regulation, stem cell-based therapies, biomaterials, immune modulation, oxidative stress, and novel therapeutic strategies. Studies exploring the interplay between inflammation, mechanobiology, and molecular responses, as well as translational approaches bridging basic research with clinical applications, are also encouraged. By advancing knowledge in bone and cartilage biology, this Special Issue aims to foster innovative therapeutic strategies in regenerative medicine.

Guest Editor

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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.

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