

## Special Issue

# Mesenchymal Stem Cells Differentiation in Health and Disease

### Message from the Guest Editor

In recent decades, a role has been recognized for the migration ability of mesenchymal stem cells in tumor-targeted delivery vehicles and tumor-related stroma formation. They emerged in the past two decades as promising candidates for clinical applications, especially in cell replacement therapies for mesenchymal tissues such as bone and cartilage. The dysregulation of the MSC differentiation process occurs frequently in many bone diseases, for example, osteogenesis imperfecta or sarcoma. Investigating the molecular basis involved in regulating the differentiation and maturation of MSCs into osteoblastic cells or chondrocytes in health and disease conditions is essential for the development of innovative approaches for therapy. This Special Issue of IJMS provides an opportunity for the description of recent original research advancements in the field of MSCs, focusing on transcriptional factors involved in osteoblastic differentiation. We are particularly interested in the analysis of a range of transcription factors with regulatory roles at different stages during the osteoblastic differentiation of MSCs in order to gain an understanding of bone development in health and disease.

### Guest Editor

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### Deadline for manuscript submissions

closed (20 January 2025)



## International Journal of Molecular Sciences

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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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