

Special Issue

Advances in Bone Regeneration with Multipotential Stromal Cells and Bioactive Materials

Message from the Guest Editors

The aim of this Special Issue is to present a state-of-the-art update on the use of MSCs for bone regeneration. We welcome original research articles, comprehensive reviews, methods, mini-reviews, and perspectives including (but not limited to) the following topics:

- the benefits and limitations of using minimally manipulated autologous MSC isolates versus culture-expanded MSCs for bone repair;
- phenotype-based MSC isolation and/or priming, including the use of growth factors from autologous platelet concentrates;
- MSC and biomaterial functionalization, including gene-activated matrices;
- engineering of MSCs and immune cells for bone regeneration;
- personalized implants and therapies for patients with co-morbidities, including metabolic bone diseases;
- novel approaches to in vitro analysis of MSC-scaffold interactions in three-dimensional (3D) conditions;
- sensors and novel live imaging techniques for the assessment of bone regeneration in weight-bearing and non-weight-bearing bones

Guest Editors

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Deadline for manuscript submissions

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About the Journal

Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Bioengineering* (ISSN 2306-5354). *Bioengineering* is published in open access format – research articles, reviews and other contents are released on the Internet immediately after acceptance. The scientific community and the general public have unlimited and free access to the content as soon as it is published. *Bioengineering* provides an advanced forum for the science and technology of bioengineering. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 17 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).