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# Advances in Bone Regeneration with Multipotential Stromal Cells and Bioactive Materials

Guest Editors:

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Deadline for manuscript submissions: closed (31 October 2021)

### **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 MSCscaffold 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

**Special**sue



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## **Editor-in-Chief**

#### Message from the Editor-in-Chief

#### Prof. Dr. Anthony Guiseppi-Elie

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