

## Special Issue

# Technologies for the Regeneration of Bone Tissue

### Message from the Guest Editors

Bone is a connective tissue that provides structural integrity to the human body, supports movement, and protects vital organs. Orthopaedic tissue engineering (OTE) uses a combination of cells, chemical and mechanical cues, and biomaterials to address clinical challenges such as non-union fractures; spinal fusion; and extensive bone defects due to trauma, diseases, or surgery.

Novel bioceramics, biopolymers, hydrogels, and composites have been developed and fabricated into complex orthopaedic scaffolds using a variety of techniques, including 3D bioprinting and cryogelation.

Over the years, numerous differentiation protocols for cell types such as MSCs and iPSCs have been investigated. These protocols often combine the use of growth factors and bioreactors.

To create functional bone tissue and enhance the success of its clinical outcomes, forming new vasculature and controlling the body's immune response are of great importance. Furthermore, in situ tissue repair will aid in promoting personalised tissue regeneration strategies.

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### Guest Editors

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### Deadline for manuscript submissions

31 January 2026



## Bioengineering

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Impact Factor 3.7  
CiteScore 5.3  
Indexed in PubMed



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### Editor-in-Chief

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