



Bone Development and Regeneration 2.0

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Message from the Guest Editor

Bone formation is orchestrated by multiple stimuli and processes and based on their embryological origin, ossification of collagenous tissues is regulated by different paths. Compared to other musculoskeletal tissues, bone has a high regenerative potential, with the skeleton being fully remodeled multiple times throughout the human lifespan.

With the revolutionary rise of the -omics field and the latest advances in cell lineage tracing models and single cell analysis, new molecular mechanisms are being elucidated and novel important players are being recognized. For example, our understanding of epigenetic processes or metabolites that control bone integrity is growing at a rapid pace. In concert with the progress made recently in the development and design of new scaffolds and biomaterials, all these advances generate novel and alternative approaches to target bone regeneration and are under investigation with the potential to increase the quality of life for many.

This Special Issue provides a platform for bone development and/or presenting new molecular and conceptual approaches for the manipulation of osteogenesis and bone regeneration, as well as bone homeostasis.





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Message from the Editor-in-Chief

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