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Magnesium in Differentiation and Development

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Deadline for manuscript submissions:

closed (31 December 2019)

Message from the Guest Editors

Magnesium (Mg) is essential for life and health, since it is implicated in every primary metabolic and biochemical process in the cell, including energy metabolism, DNA duplication, RNA transcription, protein synthesis, transphosphorylation, and redox reactions. Mg also acts as an intracellular second messenger and is considered a natural calcium antagonist. This Special Issue entitled “Magnesium in Differentiation and Development” aims to provide a research platform for the collection of high-quality up-to-date original and review articles on various aspects of the cellular and molecular biology of Mg involvement in differentiation and development.

Keywords

- mesenchymal stem cell differentiation
- cardiac progenitor cell differentiation
- muscle differentiation
- immune cell differentiation
- vascular cell differentiation
- biomineralization
- stress-induced cell differentiation
- terminal differentiation and replicative senescence
- intracellular magnesium
- magnesium transporters
- cell interaction and magnesium-based biomaterials
- embryonic development
- gastrulation
- fertilization



mdpi.com/si/21189

Special Issue



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Message from the Editor-in-Chief

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