

Special Issue

Magnesium in Differentiation and Development

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, trans-phosphorylation, 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

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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