

Special Issue

Biomedical Applications of Mesenchymal Stem Cells

Message from the Guest Editors

Mesenchymal stem cells (MSCs) are characterized by their multipotent differentiation ability. In fact, they can give rise to endodermal and ectodermal cells other than those of the mesodermal variety. Moreover, they have antioxidant and anti-inflammatory properties. For these reasons, MSCs can be suitable for cell-based therapeutic strategies, especially in molecular pathologies where pharmacological treatments produce poor results. The molecular mechanisms of MSC-induced beneficial effects include neurogenesis, osteogenesis, chondrogenesis, and angiogenesis stimulation, as well as immunomodulatory, anti-inflammatory, and antiapoptotic actions. Moreover, the paracrine release of growth factors and cytokines, mainly delivered at damaged regions, may help to restore tissue homeostasis. This Special Issue entitled “Biomedical Applications of Mesenchymal Stem Cells” focuses on the role of MSCs in damaged tissue repair and its molecular regulatory mechanism. We welcome submissions of original papers and reviews based on results from molecular viewpoints.

Guest Editors

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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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