

Special Issue

Mesenchymal Stem Cells: Cross-Talk with the Microenvironment

Message from the Guest Editors

Multipotent mesenchymal stromal cells (mMSC) are involved in building up the stroma of most organs. These cells are involved in bone marrow hematopoietic niche in health and disease. They are also one of the keys stromal components of solid tumor. mMSC mediate the fine balance between differentiation, proliferation, self-renewal and quiescence via intracellular regulatory networks and cell-to-cell interaction. The interaction between mesenchymal stem cells and the surrounding cells works both ways: adjacent cells influence and are influenced by mMSC. In this Special Issue devoted to mMSC interaction with their neighborhood we will discuss recent breakthroughs in this topic and their impact on basic research and the concept of mMSC clinical application. We aim to depict recent data on our progress in understanding the mechanisms of mMSC bidirectional interaction with their microenvironment. The data will broaden our understanding of mMSC therapeutic potential and bring new ideas on possible clinical applications.

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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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