Special Issue

The Challenges and Opportunities of Mesenchymal Stromal Cells in Regenerative Medicine

Message from the Guest Editor

The term "mesenchymal stromal cells" has often been used as a synonym for "mesenchymal stem cells", sharing the common abbreviation “MSCs”. However, mesenchymal stromal cells are a broader group of cells, of which mesenchymal stem cells are a subset. The International Society for Cell and Gene Therapy has characterized mesenchymal stromal cells as a bulk population with remarkable secretory, immunomodulatory, and homing properties, while mesenchymal stem cells have been defined as multipotent adherent cells expressing CD73, CD90, and CD105, lacking the expression of hematopoietic and endothelial markers, and capable of differentiating into specific cell types. In addition, the abbreviation "MSCs" has been used to refer to "medicinal signaling cells". Authors contributing to this Special Issue are invited to further clarify the differences or overlaps between the cell groups for which the abbreviation MSCs has been used in the literature for several decades. These new findings will further enhance the benefits and reduce the risks of using mesenchymal stromal cells in regenerative medicine, such as cell therapy and tissue engineering.

Guest Editor

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Deadline for manuscript submissions

31 March 2026

Cells

an Open Access Journal by MDPI

Impact Factor 5.2
CiteScore 10.5
Indexed in PubMed

mdpi.com/si/240697

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Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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