

Guest Editors



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New Frontiers in Mesenchymal Stem Cell Immunomodulation and Regenerative Medicine

🕒 **Deadline: 31 August 2022**

Dear Colleagues,

Mesenchymal stroma cells (MSCs) have a spindle- or fibroblast-like shape. Although originally isolated from the bone marrow, several studies revealed that MSCs are also present in a variety of other tissues. In addition, they possess multipotent differentiation capacity in vitro that can give rise to bone, cartilage, tendon, ligament, adipocytes, dermis, muscle and connective tissue, hence their extensive use in the field of regenerative medicine. The accumulated knowledge on MSC biology suggests these cells do not represent a homogenous population. This may explain observed differences in their mode of action, marker expression and secretome profile. MSCs have regenerative and immunomodulatory capacity via the secretion of bioactive factors including small molecules, exosomes and microvesicles. Their involvement in efferocytosis by phagocytes such as monocytes or macrophages, as well as other regulatory effects means that MSCs are very valuable for cell-based therapies. This special issue will focus on novel properties and concepts relating to the biology of MSCs, as well as their potential utility as therapeutic cells for the treatment of major human illnesses such as auto-immune diseases or for the repair of damaged cells and tissues.

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