Stem Cells International

Hindawi

Special Issue on

Improving the Therapeutic Ability of Mesenchymal Stem/Stromal Cells for the Treatment of Conditions Influenced by Immune Cells

CALL FOR PAPERS

Currently, mesenchymal stem/stromal cells (MSCs) are among the most used cells in clinical trials. Whereas many characteristics of these cells have been described to date, aspects of their basic biology that may have an impact on their use in regenerative medicine are still under investigation. The ability of MSCs to interact with immune cells has been documented, and the consequences of this interaction may be beneficial, as seen in cases in which inflammation is reduced. On the other hand, the influence of MSCs on immune system cells may be detrimental in some cases, as demonstrated in experiments in which the effects of MSCs on immune cells favor the development of cancer.

The aim of this special issue is to provide a venue for high quality research articles and reviews that broaden the knowledge on ways to enhance the therapeutic properties of MSCs to treat conditions in which immune system cells may influence outcomes. Manuscripts that provide mechanistic insight on processes that can be used to improve the ability of MSCs to overcome hurdles posed by immune cells are particularly welcome. These may include in vitro and/or in vivo studies, including clinical trials. Additionally, manuscripts describing novel mechanisms by which MSCs modulate the action of immune cells will be considered.

Potential topics include but are not limited to the following:

- Pretreatment of MSCs with soluble molecules prior to administration in vivo
- Genetic modifications aimed at improving production of immunomodulatory molecules by MSCs, including studies in which these modified MSCs are administered in vivo to treat a given condition
- Novel technologies to enhance production and action of acellular mesenchymal stem/stromal cell-derived products (e.g., extracellular vesicles) to treat conditions sensitive to the action of immune cells
- Novel molecular mechanisms through which MSCs modulate the action of immune cells

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/sci/bba/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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