Stem Cells International

Special Issue on
Hematopoietic and Mesenchymal Stem Cells in Biomedical and Clinical Applications

CALL FOR PAPERS

Despite advances in biomedical and clinical research, many diseases and conditions have no known cure or still do not have adequate therapies which would result in sufficient recovery and high quality of life of patients. Boosting natural regenerative abilities of human body seems to be a promising therapeutic strategy. Stem cells possess an ability to self-renew and differentiate into several cell types, thus playing an important role in natural replacement of aged or apoptotic cells and regeneration of damaged tissues. Mesenchymal and hematopoietic stem cells play an important role in many regeneration processes in human body. Moreover, according to recent studies, mesenchymal and hematopoietic stem cells form a unique bone marrow niche. Not surprisingly, hematopoietic and mesenchymal stem cells are considered the most promising adult stem cell types for developing cell and gene-cell based therapies.

We elicit reviews, original papers, and clinical studies focused on using hematopoietic and mesenchymal stem cells in fundamental biomedical and clinical application.

Potential topics include, but are not limited to:

- Using hematopoietic and mesenchymal stem cells in regenerative medicine for treating neurodegenerative diseases (Alzheimer's disease, amyotrophic lateral sclerosis, multiple sclerosis, Parkinson's disease, etc.), ischemic diseases (brain ischemia, limb ischemia, myocardial infraction, etc.), various traumas (peripheral nerve injury, spinal cord injury, bone and ligament fractures, burns, etc.), organ and tissue failure (liver, kidney, lung, etc.), and others
- Hematopoietic and mesenchymal stem cells in tissue engineering (3D printing, decellularized tissues and organs, natural and artificial matrixes, etc.)
- Immunomodulatory effects of mesenchymal stem cells and participation of mesenchymal stem cells in establishing hematopoietic microenvironment and promoting engraftment of hematopoietic stem cells during bone marrow and umbilical cord blood transplantation
- Novel isolation, culture/expansion, and differentiation procedures for hematopoietic and mesenchymal stem cells
- Using genetic modification and chemical treatments for modulating biological properties of hematopoietic and mesenchymal stem cells

Authors can submit their manuscripts via the Manuscript Tracking System at http://mts.hindawi.com/submit/journals/sci/hmsc/.

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