Stem Cells International

Special Issue on

Targeting Adult Mesenchymal Stem Cells Plasticity for Tissue Regeneration

CALL FOR PAPERS

Adult stem cells reside in several differentiated tissues, although their presence is very rare. They have the fundamental role to maintain tissue homeostasis and promote tissue regeneration after trauma or disease. While *in vitro* it has been shown that their regenerative features can be opportunely increased by cytokines and growth factors, a challenging task remains to apply them to the clinics.

Adult Mesenchymal Stem Cells (MSCs) have the plasticity to differentiate in mesodermal derived tissue such as bone, cartilage, fibrous, adipose, and muscle tissues. The study about their biology and differentiation, along with the development of isolation techniques, is increasing their therapeutic potential.

This call for papers is intended to focus and discuss breakthrough biotechnological developments and findings which have the potential to improve connective and muscle tissues regeneration.

We encourage high quality, original research articles or review articles presenting the potential of MSC plasticity in response to a variety of stimuli that might impact their differentiation plasticity.

Potential topics include but are not limited to the following:

- Novel methods for MSCs isolation and differentiation from adult tissue
- Bioengineering of materials and scaffolds for tissue regeneration
- Physical and chemical guidance of MSCs plasticity
- Modeling of MSCs growth and differentiation
- Molecular mechanisms and signaling pathways involved in MSC plasticity

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

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