

Special Issue on
**The Role of Stem Cells in Acute Trauma: Mechanisms of
Activation and Therapeutic Opportunities**

CALL FOR PAPERS

Stem cells are believed to play pivotal roles in tissue regeneration after traumatic injury and the potential application of these trauma-induced stem cells has contributed to the explosion of commercial and academic investment into stem cell therapies for tissue regeneration. However, the underlying trigger for stem cell activation as a result of trauma remains elusive and controversial. It is critical that we understand how these cells are activated to impart their trophic and regenerative characteristics so that reliable and optimized stem cell sources are available for stem cell based therapies after injury.

Activation of cells to induce stemness has been met with great praise and debate. Within the past ten years, induced pluripotent stem (IPS) cell technology drew much attention as a potential method of generating large quantities of stem cells for regenerative medicine applications. This enthusiasm was limited because the method of genomic reprogramming required for pluripotency raised great concern for human applications. Stimulus-triggered acquisition of pluripotency (STAP) cells were introduced as an alternative stem cell source which mitigated concerns of genetic manipulation; however, concerns over reproducibility of the published data have prevented serious consideration of STAP cells as potential stem cell source.

We invite authors to contribute original research articles as well as review articles that will illustrate and stimulate the continuing effort to isolate, identify, and generate relevant stem cell sources which may be used for regenerative medicine applications in humans.

Potential topics include but are not limited to the following:

- ▶ Recent discoveries of relevant, minimally manipulated, stem cell sources which are available in sufficient quantities appropriate for regenerative medicine applications
- ▶ Introduction and characterization of reproducible stem cell induction strategies using minimal manipulation of adult cells
- ▶ Identification of cellular and molecular triggers from tissue trauma which induce plastic transformation of adult cells
- ▶ Characterization of posttraumatic cellular and molecular events that contribute to the recruitment and induction of stem cells at the site of injury
- ▶ Point-of-care strategies to optimize use of trauma-induced stem cells for regenerative medicine applications

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

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First Round of Reviews

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