



Stem Cells International

Special Issue on
Stem Cells in Cardiovascular Health: Functional Impairment and Therapeutic Preconditioning

CALL FOR PAPERS

The field of regenerative medicine has grown exponentially in the last decade, and studies showing the potential use of stem/progenitor cells in the treatment of a broad range of pathological conditions targeting all organ systems have been developed. Stem/progenitor cells have been shown to contribute to injury repair in many conditions, although with variable success rates depending on the target application. In cardiovascular disease, although stem cell therapy has shown promising results, benefits remain limited.

Little is known regarding these therapeutic variations, which is a limitation for advancement in the field. We are still walking in the dark regarding the fate of transplanted cells when placed in an injured environment. Importantly, the fact that stem/progenitor cells have also been shown to play a pathological role in certain conditions, suggesting an environmental effect on their behavior, contributes to the complexity of the problem.

We invite investigators to contribute original mechanistic insights as well as “in depth” review articles that will stimulate continuing efforts to understand how stress factors affect stem/progenitor cell function and fate. Our goal is to improve our knowledge on the identification of mechanisms that lead to impairment of their regenerative potential and how they can be targeted to improve stem cell engraftment and function.

This special issue will focus on the cardiovascular system, as cardiovascular disease remains the leading cause of death worldwide and regenerative efforts have been limited.

Potential topics include, but are not limited to:

- ▶ Cardiac and vascular progenitors cells
- ▶ The effect of stress factors on stem/progenitor fate changes leading to phenotypic conversion from proregenerative to pro-pathogenic state
- ▶ Identification and characterization of specific stem/progenitor cell populations that may contribute to pathological conditions of heart and blood vessels
- ▶ Mechanisms involved in stem/progenitor cell stress response
- ▶ Preconditioning methods that improve stem/progenitor cell response to stress preserving their regenerative potential

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

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First Round of Reviews

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