

Special Issue on
Regenerative Medicine and Tissue Engineering in Central Nervous System

CALL FOR PAPERS

Central nervous system (CNS), composed of the brain, spinal cord, and the retina, is the most sophisticated system in human body. CNS disorders, including Alzheimer disease, Parkinson disease, multiple sclerosis, spinal cord injury, autism, and optic neuropathies, are the most challenging and difficult conditions for functional repair, affecting more than 100 million people in the world. Due to their complexity, CNS disorders still cannot be completely cured by current therapeutic strategies. Besides, human CNS has limited regenerative power, where the diseased neurons and the axonal/dendritic loss cannot be recovered or replaced endogenously. Herein, it is urged to understand the disease mechanism and develop new treatments for CNS disorders.

This special issue aims to exhibit the current state of the art in the stem cell research on the CNS and retina. The scope includes stem cell properties, stem cell isolation, stem cell differentiation, tissue culture, tissue engineering and regeneration, artificial organs, biobanks, bioreactors, scaffold materials and synthesis, assembly methods, and stem cell therapy. Original research articles, clinical studies, and review articles on stem cell research related to CNS and retina are most welcome in this special issue.

Potential topics include but are not limited to the following:

- ▶ Stem cell replacement therapy for brain, spinal cord, and retinal disorders
- ▶ Neuroprotective treatments of stem cells on brain, spinal cord, and retinal disorders
- ▶ Tissue engineering of neurons and glia
- ▶ Disease modeling by stem cells on CNS and retinal disorders
- ▶ The development, differentiation, and physiological regulation of neural and retinal stem cells
- ▶ Novel drug screening platforms developed by stem cells
- ▶ Stem cell biobanks or bioreactors for studies on brain, spinal cord, and retinal disorders
- ▶ Novel biomaterials/scaffolds for neural and retinal stem cell transplantation
- ▶ New diagnostic techniques/measures for stem cell therapy

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

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

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