

Special Issue on
Noncoding RNAs and Stem Cell Function and Therapy

CALL FOR PAPERS

Pluripotent stem cells, such as embryonic stem cells and induced pluripotent cells, can differentiate into any tissues from three germ layers, and resident stem cells in adult tissue are responsible for tissue maintenance and internal repair.

Previous studies on the stem cells have been dominated by protein paradigms. Recent advances have provided compelling evidence that noncoding RNAs, such as microRNAs (miRNA), long noncoding RNAs (lncRNA), circular RNAs (circRNA), Piwi-interacting RNA (piRNA), small nucleolar RNAs (snoRNAs), and others, play a critical role in fine regulation of gene expression by transcriptional and posttranscriptional mechanisms. It is also becoming increasingly evident that both small noncoding RNAs and long noncoding RNAs (lncRNAs) have a profound impact on the stem cell fate determination, including differentiation, apoptosis, autophagy, proliferation, and integration; therefore, noncoding RNAs have attracted a lot of attention for their potential in stem cell therapy.

This special issue welcomes research as well as review articles that provide the emerging importance of noncoding RNAs in stem cell function and therapy.

Potential topics include but are not limited to the following:

- ▶ Functions of noncoding RNAs in stem/progenitor cell differentiation
- ▶ Functions of noncoding RNAs in stem cell reprogramming and pluripotency
- ▶ Functions of noncoding RNAs in stem cell apoptosis, autophagy, and proliferation
- ▶ Improving stem cell therapy in tissue regeneration using noncoding RNA
- ▶ Noncoding RNA mediated epigenetic mechanism for stem cell fate determination
- ▶ Cellular signaling related to noncoding RNA regulation
- ▶ Biomaterials and tissue engineering using noncoding RNA modified stem cells
- ▶ Role of noncoding RNA in stem cell derived exosomes

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

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

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