



Stem Cells International

Special Issue on
**Modelling Diseases and Therapeutic Approaches
using Stem Cells**

CALL FOR PAPERS

The use of stem cells to model diseases has increased over the years, especially after the generation of induced pluripotent stem cells in 2006. These cells can be differentiated into tissue-specific cells and recapitulate cellular and molecular features of a disease, essential to understanding disease mechanisms. Adult stem cells (including hematopoietic and mesenchymal stem cells) can also be used for modelling; however, they have a more limited differentiation potential. Regardless of being pluripotent or multipotent, patient derived stem cells are an excellent tool for screening compounds for personalized medicine towards the customization of healthcare. Recent advances in regenerative medicine with bioengineering tissue and organs make the stem cell field even more exciting towards realising translational potential.

In this special issue, we invite investigators to contribute original research as well as review articles relating to modelling diseases and therapeutic approaches using stem cells.

Potential topics include, but are not limited to:

- ▶ Modelling Mendelian and complex diseases using pluripotent stem cells (PSCs) or adult stem cells
- ▶ Genome editing to understand disease mechanisms (ZFN, TALENs, and CRISPR in animal and cellular models)
- ▶ Bioengineering and stem cells: the use of biomaterials, nanotechnology, 3D printing, and other techniques to produce scaffolds for cell/tissue research and *in vivo* replacement
- ▶ Approaches for targeted delivery of progenitors to diseased tissues
- ▶ Other modelling and clinical applications of stem cells (including gene therapy, cell transplantation, and drug screening)
- ▶ Epigenetics, disease, and iPS cells

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

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