

## Special Issue

# New Advances in Stem Cells in Human Health and Diseases

### Message from the Guest Editor

Stem cells are unspecialized cells of the human body. They can be induced to differentiate into many cell types and have the ability to self-renew. They are able to go through numerous cycles of cell division and capacity to develop into any cell type. Stem cells have the ability to repair damaged or destroyed tissues; thus, they have great potential to become one of the most important aspects of medicine. Stem cell therapy can be implemented in the treatment of a variety of diseases and conditions like neurodegenerative diseases, fertility, transplantation, arthroplasty, and many others. Despite great treatment potential, there are still many obstacles to overcome: improving the efficiency of stem-cell-directed differentiation, understanding the mechanisms by which stem cells function, discovering the ability to produce fully functional organs made by stem cells, and preventing immunological rejection, which is a major barrier to successful stem cell transplantation. The main aim of this Special Issue is to cover recent significant advances in basic stem cell research that could translate and improve potential stem cell therapies in the future.

### Guest Editor

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## International Journal of Molecular Sciences

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### Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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