Special Issue

Novel Approaches in Stem Cell Research

Message from the Guest Editor

Besides general shortcomings and ethical problems of animal models with regard to clinical, pharmacological and biological research, broadly used animals such as mice do not represent the human organisms in many regards. Stem cells and their resulting model systems comprise the important 3R-potential to significantly reduce, refine and replace current animal models, and to increase the translatability of results from preclinical to clinical phases to make the entire drug development process much more economic, quicker, and safer. A variety of novel models based on stem cells and their differentiated progeny have appeared just lately. Here, not only organoids and assembloids, but also Organ-on-a-chip (OoaC) Systems were found that combine unique features of cell-assays (human genes) and animal models (complex tissues and blood circulation). Advanced stem cell model systems open up entirely new possibilities in research and therefore should be considered as one of the most promising techniques for current and future approaches.

Guest Editor

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Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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