Special Issue

Mitochondrial Functions in Stem Cells

Message from the Guest Editor

Regenerative cell-based therapies, such as infusion of stem cells or progenitor cells, have shown promising results in repairing damaged tissues in several organs. Mitochondria are intracellular organelles responsible for energy production that also regulate generation of reactive oxygen species, proliferation, apoptosis, and calcium homeostasis. Accumulating evidence suggests that mitochondria play critical roles in regulating multiple aspects of stem cell function, including their viability, plasticity, proliferative, and differential potential. However, the exact mechanisms by which these organelles modulate stem cell biology and function remain to be clarified. Understanding these mechanisms will aid the development of novel strategies to preserve mitochondrial structure and function and improve the efficacy and regenerative capacity of stem cells. We invite investigators to contribute original research articles and review articles that help us to get more insight into the role of mitochondria in stem cell function and the development of strategies to preserve these organelles.

Guest Editor

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Deadline for manuscript submissions

closed (30 September 2021)



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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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