

Special Issue

Human Dental Pulp Stem Cells: Isolation, Cultivation and Applications

Message from the Guest Editor

Dental pulp stem cells (DPSCs) are a new source of mesenchymal stem cells. They reside within the dental pulp of immature human teeth and possess a great ability to differentiate into odontoblast-like cells that can regenerate a dentin–pulp complex. DPSCs play an important role in regeneration medicine with their unique properties and advantages. Studies demonstrated that DPSCs show better neuroregeneration and protective ability than bone marrow-derived mesenchymal cells. Furthermore, DPSCs are relatively easy to obtain through a minimally invasive procedure in adults and children without raising ethical issues. These characteristics make DPSCs an ideal stem cell source for clinical regeneration medicine. However, they have been given relatively less attention compared to other stem cell types, that leave many of their unique functions undetermined. Understanding the biological mechanisms of DPSCs and their clinical applications is required for successful DPSC engineering strategies. The scientific knowledge obtained from this Special Issue will provide an important basis for future studies and for creating therapeutic tools that target DPSC in regenerative medicine.

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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