Topical Collection

Stem Cells and Bioengineering for Brain Repair

Message from the Collection Editor

Despite its well-known plasticity, the adult injured brain displays a poor ability to self-repair, whether by generating new cells or long-range connections. Cell transplantation offers a viable treatment strategy for various brain disorders by providing new cells to replace those lost through injury or disease. While significant progress has been made in recent years, the translation of experimental strategies to clinical practice is still limited. Biomaterials are receiving increased attention in tissue engineering because of their unique and appealing biological properties such as biocompatibility and biodegradability. The combination of cells with biomaterial scaffolds is currently in development and could be a promising approach to enhancing graft survival and functional recovery. The aim of this Topical Collection is to provide an overview of the current research efforts for the development of therapeutic strategies based on the combination of biomaterial scaffolds, 3D printing, and neurons derived from human embryonic stem cells or induced pluripotent stem cells, to repair neural circuits in the central nervous system after injury.

Collection Editor

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Message from the Editorial Board

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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