Special Issue

State-of-the-Art Insights into the Cell Microenvironment

Message from the Guest Editor

The microenvironment surrounding normal cells, including stem cells, plays a crucial role in determining cell fate and maintaining tissue homeostasis. Any disruption in this microenvironment can lead to significant imbalances, ultimately contributing to disease, including cancer. In stem cells, this specialized environment—known as the stem cell niche—must remain tightly regulated. Any deviations can result in an abnormal niche, leading to cellular changes that drive tumor initiation and progression. This complex microenvironment consists of immune, inflammatory, and stromal cells, as well as secreted proteins, small molecules, the extracellular matrix, and blood vessels, all of which interact with and influence tumor growth, metastasis, and therapy resistance. Potential topics include, but are not limited to, the following research areas:

- Stem cells and the microenvironment;
- Cancer stem cell initiation;
- Metabolic adaptations within the tumor microenvironment;
- Mechanisms of therapeutic resistance driven by the microenvironment;
- Targeting the tumor microenvironment;
- Organoid and 3D culture models for studying the cell microenvironment.

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About the Journal

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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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).