Special Issue

Mechanobiology of Cells in Regenerative Medicine

Message from the Guest Editors

Mechanobiology is defined as the study of mechanisms by which cells detect and respond to mechanical stimuli. Mechanobiology can reveal fundamental processes associated with development, normal physiology, and pathology through the elucidation of mechanotransduction pathways by which mechanical perturbations are transduced into biological responses. The mechanical environment also plays an important role in controlling both the maintenance of stem cells and their lineage-specific differentiation Thus, the elucidation of mechanobiology processes in stem cells might have a direct impact on the development of innovative therapeutic tools for regenerative medicine application. We will consider submissions of both research and review articles focused on recent progress in understanding the mechanosensing of stem cells, discussing its applications to preclinical models of stem cell therapy and considering how these insights may be used to translate stem cells into clinical applications.

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Deadline for manuscript submissions

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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).