

# Special Issue

## Cell Behavior Under Blood Flow

### Message from the Guest Editors

Blood components and endothelial cells encounter varying levels of shear (mechanical) stress during circulation. Exposure to elevated levels of mechanical stress can lead to subcellular structural changes due to cell strain, potentially resulting in alterations in membrane composition and biochemical and biophysical properties. All these cellular changes can ultimately initiate cell injury and dysfunction.

In this Issue, we aim to compile reports of new research addressing the effects of mechanical stress on the functioning of cells in the bloodstream. We encourage the submission of papers that allow readers to explore this topic from biochemical and biophysical perspectives, focusing on the molecular mechanisms involved. We encourage scholars to employ a variety of methods to solve the research problem, ranging from theoretical and experimental to numerical.

#### Keywords

- blood flow
- shear stress
- red blood cells
- white blood cells
- platelets
- endothelial cells
- cell stimulation
- mechanical stress

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#### Guest Editors

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#### Deadline for manuscript submissions

31 January 2026



## Cells

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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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### Editors-in-Chief

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#### Journal Rank:

JCR - Q2 (Cell Biology) / CiteScore - Q1 (General Biochemistry, Genetics and Molecular Biology)

#### Rapid Publication:

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).