

Special Issue

Mechanobiology of Single Cells, with a Focus on Tumorigenesis

Message from the Guest Editor

This Special Issue invites submissions that cover the cross-talk between mechanical forces and tumorigenic processes at the single cell level. Particular focus is placed on how mechanotransduction signaling pathways (mediated by cytoskeletal reorganizations, nuclear deformation, and communication between organelles) result in the initiation, growth, and metastasis of cancer. We encourage original research papers and reviews on (but not limited to) the following:

- Mechanosensing and mechanotransduction at the single-cell level in cancer;
- Mitochondrial dynamics and function modified by mechanical forces;
- Integration of biophysical modeling and experimental mechanobiology;
- Single-cell technologies for probing cancer cell mechanics;
- Organelle-specific mechanical stress responses to mechanical stress in tumor microenvironments;
- The mechanobiological contribution to drug resistance, metastasis, and cancer stemness.

This Special Issue aims to provide a comprehensive and multidisciplinary overview of the roles of physical signals and cellular mechanics in tumor biology and their implications for new therapeutic opportunities and diagnostic methodologies.

Guest Editor

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Message from the Editor-in-Chief

The *International Journal of Molecular Sciences (IJMS)* is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, and molecular biophysics. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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