

## Special Issue

# Biophysics and Mechanical Properties of Cells 2.0

### Message from the Guest Editor

Cells in our body are subjected to mechanical stresses and can sense these mechanical stimuli and actively respond to them by triggering biomechanical reactions that include cell growth, proliferation, differentiation, motility, and even apoptosis. Furthermore, cell mechanics studies have shown that changes in cell and nuclear mechanics are hallmarks of many diseases, such as cardiovascular disease, laminopathies, cancer, infectious diseases, and fragility in aging.

We would like to give researchers in many interdisciplinary areas of research—such as biophysics, biomedicine, tissue engineering, and materials science—the opportunity to address and illustrate the complementarity of biophysical and biological approaches and how mechanical properties influence cells' behavior with their surrounding microenvironment, both in healthy conditions and in diseases. Recent advances in developing novel techniques and tools for cell mechanics characterization and the challenges associated with their implementation will also be presented.

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### Guest Editor

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### Deadline for manuscript submissions

closed (20 January 2025)



## International Journal of Molecular Sciences

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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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