



Biophysics and Mechanical Properties of Cells 2.0

Guest Editor:

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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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Message from the Editor-in-Chief

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