

Special Issue

Biophysics and Mechanical Properties of Cells

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. Furthermore, cell mechanics studies have shown that changes in cell and nuclear mechanics are hallmarks of many diseases. In this regard, mechanobiology studies the essential roles that these physical factors play via mechanotransduction.

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.

Guest Editor

Prof. Dr. Orfeo Sbaizero

Department of Engineering and Architecture, University of Trieste, Via Valerio 2, 34127 Trieste, Italy

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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Prof. Dr. José L. Quiles
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Avda. Conocimiento s/n, 18100 Armilla, Granada, Spain

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