



## Biophysics and Mechanical Properties of Cells

Guest Editor:

**Prof. Dr. Orfeo Sbaizero**

Department of Engineering and  
Architecture, Università degli  
Studi di Trieste, Trieste, Italy

Deadline for manuscript  
submissions:

**closed (31 October 2022)**

### 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.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Maurizio Battino

Department of  
Odontostomatologic and  
Specialized Clinical Sciences,  
Sez-Biochimica, Faculty of  
Medicine, Università Politecnica  
delle Marche, Via Ranieri 65,  
60100 Ancona, Italy

## Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) 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, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), PubMed, PMC, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Inorganic Chemistry)

## Contact Us

---

*International Journal of Molecular  
Sciences* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/ijms  
ijms@mdpi.com  
X@IJMS\_MDPI