



an Open Access Journal by MDPI

# Computational Simulation of Macromolecular Processes Involved in Disease

Guest Editor:

#### Dr. Paulino Gómez-Puertas

Molecular Modeling Group, Centro de Biologia Molecular Severo Ochoa (CBM, CSIC-UAM). CL Nicolas Cabrera, 1. Campus UAM, 28049 Madrid, Spain

Deadline for manuscript submissions: closed (30 April 2024)



Message from the Guest Editor

Dear Colleagues,

The structural information of macromolecules is of great importance for understanding the mechanisms underlying various types of diseases.

This atomic-scale information allows a precise understanding of the mechanisms underlying different types of biological systems, as well as techniques capable of computationally simulating the movement of these macromolecules in their biological environment, helping us to rationalize mechanisms and understand how biological systems operate.

In addition, computational drug design relies on knowledge of the active sites or allosteric sites of enzymes to find chemical compounds that can stably bind to the amino acids present in them, thus inhibiting or modulating their activity.

This Special Issue welcomes contributions that use threedimensional molecular structure techniques and/or virtual modeling in computational biology, alone or in combination with in vitro or in vivo strategies. Papers addressing 3D screening strategies, the design of new drugs and therapies, and any original articles or comprehensive reviews related to molecular structure and simulation in biological systems are also welcome.



mdpi.com/si/188997





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, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/ijms ijms@mdpi.com X@IJMS\_MDPI