

Special Issue

Molecular Mechanisms of Viral Infections—2nd Edition

Message from the Guest Editors

Viruses are complex biological entities that have evolved intricate molecular mechanisms to invade host cells in order to replicate and spread efficiently. Understanding the molecular mechanisms of viral infections is essential for unraveling the dynamic interactions between viruses and host cells, elucidating the pathogenesis of viral diseases, and devising effective antiviral strategies. This Special Issue delves into the fundamental principles governing virus–host interactions; the key molecular events facilitating virus entry, replication, and spread; and the implications of these interactions in disease. By dissecting the molecular intricacies of viral infections, researchers aim to develop innovative therapeutics and vaccines to combat viral infections and mitigate their global impact on public health.

The aim of this Special Issue is to better understand the molecular mechanisms that are implicated in viral infections. We welcome submissions of research articles and reviews focused on molecular mechanisms unraveling the dynamic interactions between viruses and host cells.

Guest Editors

Dr. Ioannis Karakasiliotis
Dr. Christine Kottaridi
Dr. Konstantinos Konstantinidis

Deadline for manuscript submissions

31 May 2026



Biomolecules

an Open Access Journal
by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/255014

Biomolecules
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biomolecules@mdpi.com

[mdpi.com/journal/
biomolecules](https://mdpi.com/journal/biomolecules)





Biomolecules

an Open Access Journal
by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed



[mdpi.com/journal/
biomolecules](https://mdpi.com/journal/biomolecules)



About the Journal

Message from the Editorial Board

Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

Editors-in-Chief

Prof. Dr. Peter E. Nielsen

Department of Cellular and Molecular Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Blegdamsvej 3C, DK-2200 Copenhagen, Denmark

Prof. Dr. Lukasz Kurgan

Department of Computer Science, Virginia Commonwealth University, Richmond, VA 23284, USA

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, MEDLINE, PMC, Embase, CAPIus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Biochemistry)