

Special Issue

State of the Art and Perspectives in Antimicrobial Peptides

Message from the Guest Editor

Antimicrobial peptides (AMPs), a class of small peptides that widely exist in nature and contribute to an organism's defenses, have attracted researchers' attention. Perspectives and applications are numerous and cover different fields. Although peptides present some weaknesses in membrane impermeability and poor stability in vivo, due to the intrinsic limitations of amino acids, extensive research has been carried out in terms of the discovery and optimization of peptide drugs in order to overcome these drawbacks. The use of chemical modification and integration of traditional lead peptide discovery methods with novel technologies, such as rational design models, provides a reliable approach for the development of effective and selective lead peptides in a short period of time. Moreover, the design of peptide-based nano-systems opens the door to new and important scenarios.

Guest Editor

Dr. Annarita Falanga

Department of Agricultural Sciences, University of Naples Federico II,
80055 Portici, Italy

Deadline for manuscript submissions

closed (31 May 2025)



Biomolecules

an Open Access Journal
by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/177686

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, CAPlus / SciFinder, and other databases.

Journal Rank:

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