

## Special Issue

# Recent Advances in the Structure, Biological Activity and Structure–Activity Relationship of Polysaccharides

### Message from the Guest Editors

Natural polysaccharides, derived from sources such as plants, fungi, and algae, have gained significant attention due to their structural diversity, biocompatibility, and wide range of beneficial biological activities. Their anticancer potential, expressed either indirectly through immunomodulation or directly via the inhibition of cancer cell proliferation and/or the induction of cancer cell death, is particularly noteworthy. Understanding the structural complexity of polysaccharides and their influence on bioactivity is crucial for unlocking their full therapeutic potential. This Special Issue aims at highlighting the recent progress in the extraction, purification, structural characterization, and evaluation of the biological activity of natural polysaccharides.

### Guest Editors

Dr. Natalia Nowacka-Jechalke

Department of Pharmaceutical Botany, Medical University of Lublin, Chodźki 1, 20-093 Lublin, Poland

Dr. Marta Kinga Lemieszek

Department of Medical Biology, Institute of Rural Health, Jaczewskiego 2, 20-090 Lublin, Poland

### Deadline for manuscript submissions

30 November 2025



## International Journal of Molecular Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.9  
CiteScore 9.0  
Indexed in PubMed



[mdpi.com/si/246029](https://mdpi.com/si/246029)

*International Journal of  
Molecular Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[ijms@mdpi.com](mailto:ijms@mdpi.com)

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





# International Journal of Molecular Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.9  
CiteScore 9.0  
Indexed in PubMed



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



## About the Journal

### 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.

---

### 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

---

### 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 (Organic Chemistry)