

## Special Issue

# Glycans in Health and Disease Molecular Insights and Clinical Implications

### Message from the Guest Editor

Glycans, including heparan sulfate, are key regulators of cellular signaling, immunity, and host–pathogen interactions. Altered glycan structure or regulation contributes to diverse diseases, including infection, inflammation, cancer, and neurological disorders. This Special Issue aims to highlight the advances in glycan research, exploring their molecular roles in cellular signaling, immunity, and disease pathology. We seek studies that reveal mechanistic insights, clinical relevance, and translational potential, including innovative glycan-targeted strategies and emerging methodologies. Contributions spanning diverse glycan classes such as heparan sulfate, sialic acids, and O- or N-linked glycans are especially welcome. We welcome submissions on the following topics:

- Glycan structure, biosynthesis, and analytical approaches;
- Glycan-mediated signaling, immunity, and extracellular matrix regulation;
- Roles of glycans in infectious, inflammatory, metabolic, neurological, and malignant diseases;
- Glycan-based therapeutics, mimetics, inhibitors, and biomarkers;
- Emerging technologies advancing glycobiology research.

### Guest Editor

Dr. Vaibhav Tiwari

1. Departments of Ophthalmology and Visual Sciences & Microbiology/Immunology, University of Illinois at Chicago, Chicago, IL, USA
2. Department of Microbiology and Immunology, Midwestern University, Downers Grove, IL, USA

### Deadline for manuscript submissions

31 August 2026



## Biomolecules

---

an Open Access Journal  
by MDPI

---

**Impact Factor 4.8**  
**CiteScore 9.2**  
**Indexed in PubMed**



[mdpi.com/si/267480](https://mdpi.com/si/267480)

*Biomolecules*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[biomolecules@mdpi.com](mailto: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)