

Special Issue

Updates on Molecular Mechanisms of Lysosomal Storage Disease

Message from the Guest Editors

Lysosomal storage diseases (LSDs) are a group of inherited (monogenic) metabolic diseases associated with the dysfunction of lysosomal apparatus. Virtually every cell in the body possesses lysosomes, yet storage in these organelles can vary even among various cells.

The clinical phenotype is quite heterogeneous, affecting multiple organs and systems, reflecting also the complexity of their pathomechanism. The introduction of enzyme replacement therapy for LSDs created a breakthrough in treating genetic diseases. Even though our knowledge of LSD has increased, and many therapies have been established, many molecular aspects remain ambiguous. This Special Issue provides an opportunity for researchers to contribute with original papers as well as review articles that will provide a comprehensive overview of the molecular aspects of various LSDs. Thus, research papers allowing a better understanding of the molecular physiopathology underlying LSDs, providing novel potential molecular biomarkers, and describing pre-clinical aspects at the molecular level are welcome.

Guest Editors

Prof. Dr. Anna Tyłki-Szymanska

Department of Pediatric Nutrition and Metabolic Diseases, The Children's Memorial Health Institute, 04 730 Warsaw, Poland

Dr. Patryk Lipiński

1. Institute of Clinical Sciences, Maria Skłodowska-Curie Medical Academy, Warsaw, Poland

2. Department of Pediatrics, Center of Postgraduate Medical Education, Warsaw, Poland

Deadline for manuscript submissions

31 October 2026



Biomolecules

an Open Access Journal
by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/229213

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)