



## Polyamines in the Central Nervous System: Neurons, Glial Cells and Diseases 2.0

Guest Editors:

**Dr. Serguei Skatchkov**

School of Medicine, Universidad  
Central del Caribe, Bayamon, PR,  
USA

**Dr. Rüdiger W. Veh**

Institut für Zell- und  
Neurobiologie, Charité -  
Universitätsmedizin Berlin,  
Charitéplatz 1, D-10117 Berlin,  
Germany

Deadline for manuscript  
submissions:

**closed (1 April 2024)**

### Message from the Guest Editors

Dear Colleagues,

Polyamines contribute to the pathogenesis of Alzheimer's, Parkinson's, and other diseases of the central nervous system (CNS), while polyamine supplementation induces the regeneration of neurons and increases longevity. In the normal adult CNS, the polyamines spermidine and spermine are accumulated preferentially in astrocytic cells, not in neurons, and are key molecules regulating many receptors and channels. Recent evidence emphasizes that the localization of polyamines; their metabolites, including agmatine; and their biosynthetic enzymes in the CNS (brain and retina) vary with age and are altered in diseases. This Special Issue will highlight the uneven functional distribution of polyamines in the CNS, their effects on channels and transporters, as well as their roles in CNS disorders. We invite investigators to contribute high-quality original research and review articles focused on the roles of polyamines in health and disease, concerning the biological functions of neurons, gliotransmission, and the importance in the glial system.





an Open Access Journal by MDPI

## 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

## 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.

## 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)

## Contact Us

---

*Biomolecules* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/biomolecules  
biomolecules@mdpi.com  
X@Biomol\_MDPI