



Molecular Motors in Neuronal Homeostasis and Neurodegeneration

Guest Editors:

Dr. Daniel José Barbosa

Dr. Ana Filipa Sobral

1. Associate Laboratory i4HB-Institute for Health and Bioeconomy, University Institute of Health Sciences-CESPU, 4585-116 Gandra, Portugal
2. UCIBIO-Applied Molecular Biosciences Unit, Toxicologic Pathology Research Laboratory, University Institute of Health Sciences (1H-TOXRUN, IUCS-CESPU), 4585-116 Gandra, Portugal

Deadline for manuscript submissions:

31 December 2024

Message from the Guest Editors

Molecular motors stand as the unrecognized protagonists mediating the movements essential for the functioning of living organisms. These nanoscale machines, such as kinesins, dyneins, etc. powered by the energy currency of the cell, navigate through the complex cellular environment, transporting cargo, facilitating cellular division, and contributing to various physiological processes.

This Special Issue aims to elucidate the mechanisms underlying motor protein-mediated transport processes and their implications in maintaining neuronal health or precipitating neurodegenerative conditions. Topics of interest include the role of motors in neuronal development (neurogenesis), cellular trafficking, and synaptic plasticity, and the involvement of molecular motors in glial cell functions and neuroimmunomodulation. We are also interested in studies that potentially implicate molecular motors as putative biomarkers for early diagnosis and their potential to enable the precise targeting of therapeutics toward the affected neuronal populations or even molecules or gene therapies designed to modulate motor activity or enhance axonal transport to ameliorate neurodegenerative processes.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Stephen D. Meriney

Department of Neuroscience,
University of Pittsburgh,
Pittsburgh, PA 15260, USA

Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Brain Sciences* (ISSN 2076-3425). *Brain Sciences* is an open access, peer-reviewed scientific journal that publishes original articles, critical reviews, research notes, and short communications on neuroscience. The scientific community and the general public can access the content free of charge as soon as it is published.

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, Embase, PSYINDEX, CAPlus / SciFinder, and other databases.

Rapid Publication: manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.6 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the second half of 2023).

Contact Us

Brain Sciences Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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

mdpi.com/journal/brainsci
brainsci@mdpi.com
[X@BrainSci_MDPI](https://twitter.com/BrainSci_MDPI)