

Special Issue

Neural Signaling, Neuromodulation and Plasticity

Message from the Guest Editor

Neurons are capable of sensing and responding to changes in their microenvironments via several receptors and channels. These highly diverse receptors and channels represent the dynamics of neuronal development and plasticity, which involve multiple highly complex, interactive, and dynamic signaling pathways. To further understand the underlying complex molecular and cellular mechanisms behind neural signaling pathways and plasticity, in this Special Issue we aim to focus on: 1) The computational modeling of neural signaling and pathways; 2) Spatial synaptic modeling; 3) The interaction between spatial and temporal mapping and synaptic plasticity; 4) The influence of individual signaling pathways on the regulation of neural stem cells.

Guest Editor

Prof. Dr. Metin Akay

Biomedical Engineering Department, University of Houston, 3517 Cullen Blvd, Houston, TX 77204, USA

Deadline for manuscript submissions

closed (31 December 2021)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/65422

*International Journal of
Molecular Sciences*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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)