

Special Issue

Synaptic Plasticity and Diseases

Message from the Guest Editor

Synaptic plasticity is a basic process in the brain that allows humans and animals to adapt to changes in their environment and is considered the neural basis of learning and memory as well as brain disorders including Alzheimer's disease, Parkinson's disease, autism, schizophrenia, mental retardation, chronic pain and drug addiction. Long-term potentiation (LTP) and long-term depression (LTD) are the most intensively studied forms of activity-dependent synaptic plasticity. It is now clear that LTP and LTD are involved in many physiological functions and are linked to various brain disorders. An understanding of the cellular and molecular mechanisms of synaptic plasticity could aid the development of effective treatments for brain disorders. This Special Issue will be of interest to basic and clinical researchers involved in studies that focus on synaptic plasticity and diseases.

Guest Editor

Dr. Hiroki Toyoda

Graduate School of Dentistry, Osaka University, Suita, Japan

Deadline for manuscript submissions

closed (30 June 2022)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/75783

*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)