Special Issue

Molecular Mechanisms of Neural Circuit Development and Regeneration

Message from the Guest Editors

The human brain has one hundred billion neurons, each neuron connected to ten thousand other neurons. Understanding how these neural circuits are formed and what is needed for them to be repaired is one of the biggest challenges in modern science. Studies in different animal models have helped to unravel the principles of neural circuit formation yet have also pointed out striking differences in the regenerative capacity of CNS among species. Further insights into the gene networks, molecular players, and (sub)cellular entities responsible for neural circuit formation are still urgently needed and may propel the search for neuroprotective and -reparative strategies to treat neurodevelopmental and neurodegenerative conditions.

We especially encourage submissions that address the common or differential molecular and cellular mechanisms involved in neurodevelopment and -regeneration, as well as other comparative research focusing on, e.g., animal model organisms with different regenerative capacities, CNS versus peripheral nervous system repair.

Guest Editors

Dr. Lies De Groef
Neural Circuit Development and Regeneration Research Group, Department of Biology, University of Leuven, Leuven, Belgium

Prof. Dr. Lieve Moons
Neural Circuit Development and Regeneration Research Group, Department of Biology, University of Leuven, Leuven, Belgium

Deadline for manuscript submissions

closed (31 January 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/34863

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

MDPI

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

MDPI

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)