

Special Issue

Anesthetic and Sedative Actions on Nervous System Development

Message from the Guest Editor

Studies from animal models including rodents and nonhuman primates have demonstrated that early developmental exposure to general anesthetic and sedative agents alters the development of the nervous system, and that these changes may have lasting, harmful effects. Investigators have demonstrated deficits in learning and memory as well as in affective behaviors, and a wide array of pathologic consequences including cell death, impaired neurogenesis, disruptions in axon and dendrite formation, loss of synapses, and aberrations in glial cell development, has been documented. The clinical significance of these findings in human pediatric patients remains unclear and thus an area of concern that requires further research. In this Special Edition, we are soliciting manuscripts ranging from original research to review articles that provide novel and timely insights into how anesthetics and sedatives act on nervous system development. Investigations that range from basic science to translation or clinical topics will be considered, with particular interest in newly discovered targets, novel phenotypes, and risk factors for vulnerability.

Guest Editor

Dr. Cyrus David Mintz

Department of Anesthesiology and Critical Care Medicine, Johns Hopkins University School of Medicine, Baltimore, MD 21218, USA

Deadline for manuscript submissions

closed (29 February 2024)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/183614

*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)* 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, and molecular biophysics. *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. José L. Quiles
Department of Physiology, Institute of Nutrition and Food Technology
"Jose Mataix", Biomedical Research Center, University of Granada,
Avda. Conocimiento s/n, 18100 Armilla, Granada, Spain

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, CAPus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)