

## Special Issue

# Novel In Vitro and In Silico Approaches to Study Developmental Neurotoxicity

### Message from the Guest Editor

There are sufficient shreds of evidence that increased exposure to environmental contaminants plays a substantial role in the increase in developmental diseases. Due to the complexity of the brain, this organ is highly vulnerable to toxic insult. Current developmental neurotoxicity (DNT) testing guidelines present high cost and are very time consuming, generating a lack of information and knowledge concerning new chemicals reaching the market. DNT experts have suggested *changing/updating* current testing guidelines with a comprehensive *in vitro* DNT strategy, consisting of a test battery that recapitulates key events during brain development. A DNT screening program has been developed under EFSA, the JRC, the US EPA, and the OECD to develop a complete DNT testing battery that could replace the actual guidelines OECD TG 426 or OECD TG 443. The special issue aims to cover original research and reviews focused on new advances in *in vitro* and *in silico* neurotoxicity testing strategies and models which in the future could be used or further adapt for developmental neurotoxicology studies.

### Guest Editor

Dr. David Pamies

Department of Biomedical Sciences, University of Lausanne, CH-1015 Lausanne, Switzerland

### Deadline for manuscript submissions

closed (31 August 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/55182](https://mdpi.com/si/55182)

*International Journal of  
Molecular Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[ijms@mdpi.com](mailto: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)