

## Special Issue

# Role of *Drosophila* in Human Disease Research 4.0

### Message from the Guest Editors

*Drosophila* has been used as a highly tractable animal model for studying human diseases, with notable success in the study of various neurodegenerative diseases, metabolic syndromes, and cancer. The similarities between the mammalian and *Drosophila* systems have also allowed *Drosophila* to play a role in the evaluation of candidate substances for the treatment of these human diseases. More recently, based on similarities in the pathways involved in DNA replication, DNA repair pathways, physical and neurological properties, *Drosophila* models have also started to be used to study more complex psychiatric disorders, aging, and other rare intractable human genetic diseases. However, it is always important to keep in mind both the benefits and limitations of fly models by comparing them to other animal models, such as mouse, zebra fish, and nematode worm. For this Special Issue, we welcome original research and up-to-date review articles that provide novel insights into how *Drosophila* models (especially models of DNA replication and repair genes) have progressed the understanding of human disease.

### Guest Editors

Dr. Masamitsu Yamaguchi

Department of Applied Biology, Kyoto Institute of Technology, Kyoto 606-8585, Japan

Dr. Sue Cotterill

Molecular and Clinical Sciences Research Institute, St George's University of London, London SW17 0RE, UK

### Deadline for manuscript submissions

closed (30 June 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/176776](https://mdpi.com/si/176776)

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)