

## Special Issue

# Molecular Mechanism of Pollen and Pollen Tube Development

### Message from the Guest Editor

Flowering plants have evolved pollen tubes that deliver passive and immobile sperm cells into the maternal reproductive organ for double fertilization. This successful reproductive development includes anther and pollen development, pollen tube growth, pollen–pistil interaction, and double fertilization. Agriculturally, the fertilization of flowers directly determines crop yield, and the understanding of pollen development mechanisms contributes to the hybrid technology used for crop breeding. Because climate changes sensitively affect reproductive development, a greater understanding of the genes and environment is crucial. Recently, omics data of gamete tissues and cells as well as the CRSIPR-Cas9 gene editing system have expanded our knowledge through a newly generated mutant gamete gene. We would like to invite you to contribute to this Special Issue by submitting a paper on any of the topics described above, either in the form of an original research article or review.

### Guest Editor

Prof. Dr. Yujin Kim

Department of Life Science and Environmental Biochemistry, Pusan National University, Miryang 50463, Republic of Korea

### Deadline for manuscript submissions

closed (20 February 2025)



## International Journal of Molecular Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.9  
CiteScore 9.0  
Indexed in PubMed



[mdpi.com/si/194936](https://mdpi.com/si/194936)

*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)