

Special Issue

Molecular Mechanisms of Gastrointestinal Immunity: Balancing Homeostasis and Pathological States

Message from the Guest Editor

The gastrointestinal immune system plays a pivotal role in maintaining the delicate balance between immune tolerance and immune activation in response to food antigens, microbiota, and invading pathogens. Disruption of this balance can result in chronic inflammation, barrier dysfunction, and the onset of a wide range of gastrointestinal pathologies, including inflammatory bowel disease, colorectal cancer, and infections. Recent advances have shed light on the complex molecular pathways involved in mucosal immunity, innate and adaptive immune responses, and their crosstalk with epithelial and stromal cells. This Special Issue aims to explore the latest research on the molecular mechanisms governing gastrointestinal immunity, with a particular focus on how these mechanisms contribute to either the preservation of gut homeostasis or the development of pathological conditions. We welcome original research articles and comprehensive reviews addressing immune regulation, signaling pathways, host–microbe interactions, and novel therapeutic strategies targeting immune dysregulation in the gut.

Guest Editor

Prof. Dr. Mihai Danciu

Pathology Department, University of Medicine and Pharmacy “Grigore. T. Popa”, 700115 Iasi, Romania

Deadline for manuscript submissions

30 November 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/242665

*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*, 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)