# Special Issue

# Advances in Sepsis: Molecular and Biochemical Perspectives

## Message from the Guest Editor

Sepsis stands out among critical conditions in contemporary clinical practice as a multifaceted challenge marked by a dysregulated host response to infection that can lead to organ dysfunction and mortality. The mechanisms underlying sepsis involve complex interactions between pathogens, immune cells, inflammatory mediators, and alterations in the microbiome, making the understanding of its pathophysiology imperative for effective management. As the interplay of these biological components varies widely from patient to patient, recognizing sepsis's heterogeneity is crucial for tailoring therapeutic strategies. Traditional molecular and biochemical diagnostic approaches could delay appropriate treatment initiation.

This Special Issue is Guest Edited by , assisted by Dr. Asimina Safarika and Dr. Spyros Foutadakis (Hellenic Institute for the Study of Sepsis). We welcome original research manuscripts and review articles on the development of better diagnostic tools offering novel insights into the development of new therapeutic strategies in sepsis to improve the survival and quality of life of patients affected by this life-threatening condition.

# **Guest Editor**

Dr. Akrivi Chrysanthopoulou

Department of Biological Applications & Technology, Faculty of Health Sciences, University of Ioannina, 45110 Ioannina, Greece

## Deadline for manuscript submissions

20 January 2026



# International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed



mdpi.com/si/224731

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





# International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed





# 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)

