



## Lipopolysaccharide: Bacterial Endotoxin 2023

Guest Editor:

**Prof. Dr. Susana Merino  
Montero**

Department of Genetic,  
Microbiology and Statistic,  
University of Barcelona, 08028  
Barcelona, Spain

Deadline for manuscript  
submissions:

**closed (31 October 2023)**

### Message from the Guest Editor

Lipopolysaccharide (LPS) is the major molecular surface component of the outer membrane of Gram-negative bacteria. LPSs are negatively charged molecules exposed to the external environment and that provide a physical barrier that protects bacteria from antibacterial agents.

The LPS lipid A released from cell surfaces of bacteria during multiplication, lysis, or death can be recognized by specific host cell receptors and is responsible for the activation of the innate immune system via the induction of inflammatory cytokines release. The uncontrolled activation of the innate immune response triggers the development of septic shock and multiple-organ failure. Thus, lipid A is one of the most potent immune-stimulators, of which the toxicity depends on its primary structure and the severity of infection.

The set of articles proposed for this Special Issue will examine the structure, composition, biological activity, host interaction, and induction of the innate immunity of the Gram-negative bacterial endotoxin.





an Open Access Journal by MDPI

## 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

## 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.

## 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 & Molecular Biology*) / CiteScore - Q1 (*Inorganic Chemistry*)

## Contact Us

*International Journal of Molecular  
Sciences* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/ijms  
ijms@mdpi.com  
X@IJMS\_MDPI