

## Special Issue

# Molecular Response to Endotoxin

### Message from the Guest Editors

The neuroendocrine response to inflammation after endotoxin exposure is a broad response that includes fever, anorexia, and a number of hormonal and metabolic changes which are necessary to adapt the body to this new situation. This complex response leads to an increase in catabolism and a decrease in anabolism.

Endotoxin is a well-known modulator of hypothalamic and anterior pituitary hormones. The acute phase of inflammation induces a decreased activity of the thyroid and gonadal axes, with an increased activity of the adrenal axis. Inflammation also affects the hypothalamic neurons that regulate feeding behavior and basal metabolism. Several data suggest that sepsis or high-grade hypothalamic inflammation is associated with anorexia, decreased fat mass, skeletal muscle wasting, and weakness. By contrast, low-grade hypothalamic inflammation has been associated to obesity and insulin resistance. Both conditions increase morbidity and mortality in several diseases. Therefore, it is important to understand the molecular mechanisms by which inflammation modifies the hypothalamic regulation of energy homeostasis.

### Guest Editors

Dr. Asunción López-Calderón Barreda  
Dr. Ana Isabel Martín Velasco  
Dr. Teresa Priego Cuadra

### Deadline for manuscript submissions

closed (30 November 2021)



## International Journal of Molecular Sciences

an Open Access Journal  
by MDPI

Impact Factor 4.9  
CiteScore 9.0  
Indexed in PubMed



[mdpi.com/si/52127](https://mdpi.com/si/52127)

*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)