

## Special Issue

# The Role of Nutrition and Food Security in the Enteric Nervous System

### Message from the Guest Editor

The enteric nervous system (ENS) regulates motor activity, intestinal excretion, blood flow and collaborates with the intestinal endocrine and immune system independently of the central nervous system. Due to its autonomy and the number of neurons that comprise the ENS, it is referred to as the “intestinal brain”. Moreover, the ENS is very flexible in response to pathological agents and is adaptable to changing environmental conditions caused by structural changes, alterations in excitability, or a change in the neurochemical phenotype of nerve cells.

Diet is among the most prominent factors determining the chemical milieu in the lumen and, after absorption, within the gut wall. However, some dietary toxins can disrupt the functionality of the ENS, affecting the behavior of enteric neurons and enteric glial cells. Thus, the enteric nervous system may play a vital role in ensuring food security.

This Special Issue focuses on the current research addressing the influence of diet and food security on the enteric nervous system and mechanisms connected to nutrients. New research papers, reviews that investigate these associations and the underlying causes are welcome.

---

### Guest Editor

Dr. Katarzyna Palus

Department of Clinical Physiology, Faculty of Veterinary Medicine,  
University of Warmia and Mazury in Olsztyn, Oczapowskiego Str. 13, 10-718 Olsztyn, Poland

---

### Deadline for manuscript submissions

closed (5 October 2024)



## Nutrients

---

an Open Access Journal  
by MDPI

---

Impact Factor 5.0  
CiteScore 9.1  
Indexed in PubMed



[mdpi.com/si/183047](https://mdpi.com/si/183047)

*Nutrients*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[nutrients@mdpi.com](mailto:nutrients@mdpi.com)

[mdpi.com/journal/  
nutrients](https://mdpi.com/journal/nutrients)





# Nutrients

---

an Open Access Journal  
by MDPI

---

Impact Factor 5.0  
CiteScore 9.1  
Indexed in PubMed



[mdpi.com/journal/  
nutrients](https://mdpi.com/journal/nutrients)



## About the Journal

### Message from the Editorial Board

*Nutrients* is an on-line open access journal that was first published in 2009. *Nutrients* adheres to rigorous peer-review and editorial processes and publishes only high quality manuscripts that address important issues related to the impacts of nutrients on human health. The Impact Factor of *Nutrients* has risen rapidly since its establishment and it is now ranked in the first quartile of journals publishing in the field of nutrition and dietetics research.

---

### Editors-in-Chief

Prof. Dr. Lluís Serra-Majem

1. Centro de Investigación Biomédica en Red Fisiopatología de la Obesidad y la Nutrición (CIBEROBN), Institute of Health Carlos III, 28029 Madrid, Spain
2. Research Institute of Biomedical and Health Sciences (IUIBS), University of Las Palmas de Gran Canaria, 35001 Las Palmas, Spain
3. Preventive Medicine Service, Centro Hospitalario Universitario Insular Materno Infantil (CHUIMI), Canarian Health Service, 35016 Las Palmas, Spain

Prof. Dr. Maria Luz Fernandez

Department of Nutritional Sciences, University of Connecticut, Storrs, CT 06269, USA

---

### 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, MEDLINE, PMC, Embase, PubAg, AGRIS, and other databases.

#### Journal Rank:

JCR - Q1 (Nutrition and Dietetics) / CiteScore - Q1 (Nutrition and Dietetics)