



## High-Fat Diet, Obesity and Related Inflammation

Guest Editor:

**Dr. Ryoichi Banno**  
Graduate School of Medicine,  
Nagoya University, Nagoya,  
Japan

Deadline for manuscript  
submissions:

**closed (5 May 2024)**

### Message from the Guest Editor

Dear Colleagues,

Diet-induced obesity is associated with inflammation not only in the peripheral tissues but also in the brain, by which energy balance is primarily regulated. Energy balance is regulated by not only the homeostatic system, but also the reward system in the brain. It has been previously reported that a high-fat diet (HFD) causes inflammation in various places in the brain. The inflammation induced by HFD has been well studied in the arcuate nucleus region in the hypothalamus that regulates the homeostatic system, and it has been reported that inflammation occurs through the activation of both microglia and astrocytes, a state called gliosis. In addition, several lines of evidence indicate that inflammation occurs in reward-related brain regions by HFD. However, the detailed molecular mechanisms of the pathology underlying the dysregulation of the homeostatic and reward system caused by HFD-induced inflammation with gliosis remain unclear. Therefore, this Special Issue solicits submissions of original research on high-fat diets, obesity, and related inflammation, with a particular focus on the central nervous system.

Dr. Ryoichi Banno  
*Guest Editor*





an Open Access Journal by MDPI

## 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 (Food Science)

## 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.

## Contact Us

*Nutrients* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

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

mdpi.com/journal/nutrients  
nutrients@mdpi.com  
X@Nutrients\_MDPI