

Special Issue

Nutrient Receptors: Sensing Mechanisms and Metabolic Impact

Message from the Guest Editor

Beyond their established role in taste perception, nutrient-sensing G protein-coupled receptors (GPCRs) are increasingly being recognized as key modulators of peripheral metabolism. These receptors interact directly with dietary nutrients—including sugars, amino acids, lipids, and metabolites—to influence diverse physiological processes. However, their function outside the oral cavity remains unclear and significantly understudied. Notably, nutrient-sensing GPCRs are expressed in metabolically active tissues such as the intestine, pancreas, liver, adipose tissue, skeletal muscle, and even the brain, kidney, and immune cells. Their broad distribution suggests that they serve as integrative nodes that coordinate local and systemic responses to nutritional status. Emerging preclinical and clinical data have linked dysregulated nutrient–receptor signaling to obesity, insulin resistance, and other metabolic diseases. We welcome original research and reviews that explore how nutrient-specific or dietary signals acting through these receptors affect integrative physiology, as well as their specific roles in isolated tissues and cell types relevant to metabolic health and disease.

Guest Editor

Dr. George Kyriazis

Department of Biological Chemistry & Pharmacology, College of Medicine, The Ohio State University, Columbus, OH 43210, USA

Deadline for manuscript submissions

5 February 2026



Nutrients

an Open Access Journal
by MDPI

Impact Factor 5.0
CiteScore 9.1
Indexed in PubMed



mdpi.com/si/244651

Nutrients
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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 (UIBS), 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)