

Special Issue

Dietary Regulation of Glucose and Lipid Metabolism in Diabetes

Message from the Guest Editors

Diabetes mellitus is a growing global health concern characterized by impaired glucose and lipid homeostasis. Diet plays a central role in both the development and management of diabetes, influencing insulin sensitivity, hepatic glucose production, lipid storage, and systemic inflammation. This Special Issue focuses on the intricate relationship between dietary components and the regulation of glucose and lipid metabolism in the context of diabetes. It highlights recent advances in understanding how macronutrient composition, micronutrient availability, phytochemicals, and dietary patterns affect metabolic health. Articles in this issue explore the molecular mechanisms by which diet modulates insulin signaling pathways, hepatic lipid synthesis, gut microbiota, and adipose tissue function. Special attention is given to emerging dietary strategies, including intermittent fasting, ketogenic diets, and plant-based interventions, and their potential to restore metabolic balance and improve diabetic outcomes. By integrating findings from basic, translational, and clinical studies, we aim to provide new insights into personalized nutrition approaches for diabetes prevention and therapy.

Guest Editors

Dr. Wanbao Yang

Department of Nutrition, College of Agriculture and Life Sciences, Texas A&M University, College Station, TX 77843, USA

Prof. Dr. Shaodong Guo

Department of Nutrition, College of Agriculture and Life Science, Texas A&M University, College Station, TX 77843, USA

Deadline for manuscript submissions

20 August 2026



Nutrients

an Open Access Journal
by MDPI

Impact Factor 5.0
CiteScore 9.1
Indexed in PubMed



mdpi.com/si/248073

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 (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)