Special Issue

Chronic Vascular Impairment in Heart, Brain, and Kidney Disorders: Molecular Mechanisms and Therapeutic Strategies

Message from the Guest Editor

Vascular impairment including endothelial dysfunction, blood–brain barrier disruption, glomerular injury, and microvascular rarefaction plays a central role in the pathogenesis of heart, brain, and kidney diseases. This Special Issue explores the molecular and cellular mechanisms underlying vascular dysfunction in conditions such as heart failure, stroke, Alzheimer's disease, chronic kidney disease, and vascular dementia. Key themes include the role of oxidative stress, inflammation, lipid signaling, and endothelial–mesenchymal transition in driving vascular pathology across these organ systems. Additionally, the issue highlights emerging therapeutic strategies aimed at preserving or restoring vascular integrity ranging from pharmacological interventions and lifestyle-based approaches to novel gene and cell therapies. By integrating insights from cardiovascular, neurovascular, and renal research, this collection aims to foster a more unified understanding of systemic vascular health and promote translational advances in the treatment of complex multi-organ disorders.

Guest Editor

Dr. Mahdi O. Garelnabi

Department of Biomedical and Nutritional Sciences, Zackerburg College of Health Sciences, University of Massachusetts, 3 Solomont Way, Suite 4, Lowell, MA 01854, USA

Deadline for manuscript submissions

31 March 2026

Biomedicines

an Open Access Journal by MDPI

Impact Factor 3.9
CiteScore 6.8
Indexed in PubMed

mdpi.com/si/249395

Biomedicines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biomedicines@mdpi.com

mdpi.com/journal/biomedicines

Biomedicines

an Open Access Journal by MDPI

Impact Factor 3.9
CiteScore 6.8
Indexed in PubMed

mdpi.com/journal/biomedicines

About the Journal

Message from the Editor-in-Chief

Biomedicines (ISSN 2227-9059) is an open access journal devoted to all aspects of research on human health and disease, the discovery and characterization of new therapeutic targets, therapeutic strategies, and research of naturally driven biomedicines, pharmaceuticals, and biopharmaceutical products. Topics include pathogenesis mechanisms of diseases, translational medical research, biomaterial in biomedical research, natural bioactive molecules, biologics, vaccines, gene therapies, cell-based therapies, targeted specific antibodies, recombinant therapeutic proteins, nanobiotechnology driven products, targeted therapy, bioimaging, biosensors, biomarkers, and biosimilars. The journal is open for publication of studies conducted at the basic science and preclinical research levels. We invite you to consider submitting your work to Biomedicines, be it original research, review articles, or developing Special Issues of current key topics.

Editor-in-Chief

Prof. Dr. Felipe Fregni
1. Neuromodulation Center and Center for Clinical Research Learning, Spaulding Rehabilitation Hospital and Massachusetts General Hospital, Harvard Medical School, Boston, MA 02114, USA
2. Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, MA 02115, USA

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Pharmacology and Pharmacy) / CiteScore - Q1 (Medicine (miscellaneous))

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).