



## State-of-the-Art Hypertension and Biomedicine in the USA

Guest Editors:

**Dr. Pedro A. José**

Medicine and  
Physiology/Pharmacology,  
School of Medicine and Health  
Sciences, The George  
Washington University,  
Washington, DC, USA

**Dr. Robin A. Felder**

Department of Pathology,  
University of Virginia,  
Charlottesville, VA 22903, USA

Deadline for manuscript  
submissions:

**closed (31 July 2023)**

### Message from the Guest Editors

The long-term regulation of blood pressure rests on renal and non-renal mechanisms. The gastrointestinal tract has to be integrated in the overall regulation of sodium balance and blood pressure because it is the first organ exposed to ingested sodium. The gut microbiota can regulate about 10% of the host's transcriptome, especially those genes related to immunity, cell proliferation, and metabolism. Hypertension develops with chronically increased sodium intake when sodium that accumulates in the body can no longer be sequestered (e.g., skin), extracellular fluid volume is expanded, and compensatory neural, hormonal, and pressure-natriuresis mechanisms fail. However, sodium is not the only mineral that can affect blood pressure. Moreover, sodium can affect overall health independent of blood pressure regulation. Thus, it is important to test the effect of minerals on blood pressure regulation-related and unrelated mechanisms, such as studying renal tubule cells shed in the urine. The changing environment has to be put into consideration into all the above mechanisms in the pathogenesis of hypertension.





an Open Access Journal by MDPI

## 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

## 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.

## 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](#), [PMC](#), [CAPUS / SciFinder](#), and [other databases](#).

**Journal Rank:** JCR - Q1 (Pharmacology and Pharmacy) / CiteScore - Q2 (*Medicine (miscellaneous)*)

## Contact Us

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

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/biomedicines](http://mdpi.com/journal/biomedicines)  
[biomedicines@mdpi.com](mailto:biomedicines@mdpi.com)  
[X@Biomed\\_MDPI](#)