Special Issue

The Role of Body Iron: Inconspicuous When Healthy, Up to Fatal When Leaving Homeostasis

Message from the Guest Editor

Iron is omnipresent in Nature, and can bind oxygen and sulfur. Due to their interchangeable redox reaction the bivalent and trivalent ions, which are relevant in aqueous solution, iron is involved in biologically essential electron transfer reactions. The “naked” hydrolyzed ions are toxic and are bound in proteins in the majority of cases by the co-factor porphyrin (e.g., in hemoglobin) or in oxy-hydroxy clusters (e.g., in the iron storage protein ferritin). Iron is taken up from nutrition and is made bio-available in specific pathways. These pathways are complex and tightly regulated. Pathological symptoms, which can lead to severe diseases, can occur when this iron homeostasis is no longer maintained. It is the task of diagnosis and therapy to find the defective steps in the cascade of iron metabolism and to develop therapeutic methods for “troubleshooting”, which can span from acute interventions to prevention in chronic cases.

Guest Editor

Dr. Rüdiger Lawaczeck
Retired, Homeoffice Schulzendorf “Biophysics & Medical Imaging”, Beyschlagstr. 8c, 13503 Berlin, Germany

Deadline for manuscript submissions

closed (31 August 2023)

Biomedicines

an Open Access Journal by MDPI

Impact Factor 3.9
CiteScore 6.8
Indexed in PubMed

mdpi.com/si/165883

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).