Special Issue

Ferroptosis: Mechanisms and Human Disease

Message from the Guest Editor

Ferroptosis is a unique form of cell death, driven by iron-dependent phospholipid peroxidation, which is regulated by a wide range of cellular metabolic processes, including redox homeostasis, iron handling, mitochondrial activity, amino acid, lipid, and sugar metabolism, in addition to several signaling pathways that are relevant to diseases. It is important to note that ferroptosis is closely associated with many diseases on a pathological level. It is also important to note that ferroptosis is closely associated with many diseases on a pathological level. In recent years, research has focused on regulating ferroptosis to prevent and treat diseases associated with it. The presence of ferroptosis is currently found in numerous common diseases such as tumors, inflammatory diseases, bacterial infections, hepatitis, inflammatory bowel diseases, skeletal muscle damage, and neurodegenerative diseases. Authors are encouraged to discuss the characteristics and mechanisms of ferroptosis in this Special Issue and summarize how ferroptosis plays a role in pathophysiological processes in a wide variety of systemic diseases.

Guest Editor

Dr. Chan-Yen Kuo

Department of Research, Taipei Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, New Taipei City 23142, Taiwan

Deadline for manuscript submissions

15 August 2025

Biology

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 7.4
Indexed in PubMed

mdpi.com/si/187480

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

mdpi.com/journal/biology

Biology

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 7.4
Indexed in PubMed

mdpi.com/journal/biology

About the Journal

Message from the Editorial Board

A major strength of biological science is the diversity of approaches that biological scientists apply to their research problems. *Biology* reflects this diversity and brings together studies employing the varied experimental and theoretical approaches that are fueling biological discovery. *Biology*, the journal, is a fully peer-reviewed publication with a rapid and economical route to open access publication and is listed on PubMed. All articles are peer-reviewed and the editorial focus is on determining that the work is scientifically sound rather than trying to predict its future impact.

Editors-in-Chief

Prof. Dr. Jukka Finne
Research Programme in Molecular and Integrative Biosciences, Faculty of Biological and Environmental Sciences, University of Helsinki, P.O. Box 56, FI-00014 Helsinki, Finland

Prof. Dr. Andrés Moya
Integrative Systems Biology Institute, University of Valencia and CSIC, 46980 Valencia, Spain

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q1 (Biology) / CiteScore - Q1 (General Agricultural and Biological Sciences)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.4 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the first half of 2025).

MDPI