

## Special Issue

# Iron Metabolism Rewiring and Ferroptosis to Trigger Drug Resistance in Human Cancers

### Message from the Guest Editor

Cancer is a leading cause of death worldwide. Drug resistance continues to be the most significant challenge in cancer today. Developing novel therapeutic strategies represents a major goal of cancer research.

Cancer cells show the so-called “iron-addicted” phenotype, characterized by a marked iron uptake and a weak iron efflux, which may represent a metabolic determinant of ferroptosis sensitivity. Ferroptosis is a type of programmed cell death driven by the iron-dependent accumulation of reactive oxygen species (ROS) to detrimental levels. In summary, our aim is to provide readers with novel insights into ferroptosis in cancer. This Special Issue will cover the following topics:

- Ferroptosis as an alternative strategy to target apoptosis-resistant cancer cells;

- Characterization of genetic and metabolic determinants of susceptibility in ferroptosis-resistant cancer cells;

- Identification of new hallmarks of ferroptosis in cancer;

- Application of novel iron-based compounds as an alternative therapeutic approach to induce ferroptosis in cancer.

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### Guest Editor

Dr. Anna Martina Battaglia

Biochemistry and Molecular Biology Laboratory, Department of Experimental and Clinical Medicine, "Magna Graecia" University of Catanzaro, Catanzaro, Italy

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### Deadline for manuscript submissions

closed (31 May 2025)



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*Biomedicines*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[biomedicines@mdpi.com](mailto:biomedicines@mdpi.com)

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### 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.

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### 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

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