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## Regulation of Iron Metabolism in Health and Disease

Guest Editor:

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Deadline for manuscript  
submissions:

**closed (30 April 2024)**

### Message from the Guest Editor

Dear Colleagues,

Iron is an essential nutrient necessary for the function of critical proteins involved in biochemical reactions that are indispensable for normal cellular function. However, excess iron is toxic to cells as they undergo the Fenton reaction, catalyzing the production of reactive oxygen species and leading to tissue damage. Iron's contributory role in disease pathogenesis has been identified not only in genetic disorders of iron overload but also in cancer, diabetes, cardiovascular diseases, endocrine dysfunction, neurodegenerative diseases and ocular disorders. Thus, reducing intracellular iron levels is a promising therapeutic target for these diseases. Current therapeutic targets under study include BMP/Smad signaling, hepcidin–ferroportin axis, Wnt signaling, oxidative stress pathways, inflammasome signaling, ferritinophagy and ferroptosis. This Special Issue welcomes submission of original research articles, reviews, clinical trials and brief reports related to the role of iron metabolism in disease pathogenesis and the elucidation of novel therapeutic agents that target these molecular pathways.

Dr. Jaya Gnana-Prakasam

*Guest Editor*



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# Special Issue



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