Special Issue

Regulation of Iron Metabolism in Health and Disease

Message from the Guest Editor

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.

Guest Editor

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Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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