

Special Issue

Genetic Regulation in Iron Homeostasis

Message from the Guest Editor

Iron is an essential cofactor for biological processes, since it participates in multiple enzymatic reactions as a part of iron–sulfur clusters, heme prosthetic groups, and other iron-containing centers. However, the propensity of iron to generate reactive free radicals through the Fenton reaction makes this biometal a doubled-edged sword in a biological oxygen environment. Since there is no natural pathway for excreting excess iron from the organism, systemic iron homeostasis must be very tightly controlled. Over the past twenty years, our understanding of iron metabolism has increased exponentially. Genetic studies of patients with inherited iron homeostasis disorders and the analysis of genetically modified laboratory animals have contributed to the identification of several new genes important in cellular and systemic iron homeostasis, and their roles have been intensively investigated. Nevertheless, despite such progress in the field of iron biology, our view of cellular and systemic iron metabolism is far from exhausted. I strongly encourage researchers from the “iron community” to submit original articles and reviews to this Special Issue of *Genes*.

Guest Editor

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closed (20 June 2021)

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Message from the Editor-in-Chief

Genes is central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fast-moving field. There is a need for good quality, open access journals in this area, and the *Genes* team aims to provide expert manuscript handling, serious peer review, and rapid publication across the whole discipline of genetics. Starting in 2010, the journal is now well established and recognised. Why not consider *Genes* for your next genetics paper?

Editor-in-Chief

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