Special Issue

Ferroportin and Ceruloplasmin: Structure and Function in Health and Disease

Message from the Guest Editors

In the last years, our understanding of the role of proteins involved in the handling of iron in health and disease had tremendously advanced. Two proteins playing a key role in the cellular management of iron are ferroportin, the only known cellular iron exporter in mammals, and ceruloplasmin, a multifunctional enzyme with ferroxidase activity. A strong connection between ferroportin and ceruloplasmin was uncovered and they can be viewed as a system of functionally interacting partners. The importance of both proteins is underscored by the finding that mutations in each cause iron imbalance leading to pathological states, particularly severe in the case of aceruloplasminemia which belongs to the neurodegeneration with brain iron accumulation (NBIA) group.

This Special Issue of IJMS will focus on recent advances regarding different aspects of ferroportin and ceruloplasmin biology in health and disease: molecular structure and mechanism of action, regulation of expression, interactions with other proteins, exploitation as drug targets, and roles in other pathological states where iron status is altered (e.g., infection and inflammation, cancer, etc.).

Guest Editors

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Message from the Editor-in-Chief

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