Special Issue

Cell Metabolism and Oxidative Stress in the Process of Ferroptosis in Different Human Disease

Message from the Guest Editors

Ferroptosis is a form of regulated cell death dependent on iron, reactive oxygen species and characterized by the accumulation of lipid peroxides due to the reduction of antioxidant machinery, mainly connected with glutathione peroxidase (Gpx4) activity.

The study of ferroptosis is a currently developing area of research, and its induction or prevention seems to be a new promising therapeutic approach. Nowadays, a lot of information is available related to ferroptosis, and the three peculiar hallmarks of this cell death have been defined, such as the oxidation of PUFA-PLs, the presence of redox-active iron, defective or inhibited lipid peroxide repair system and the cell-specific metabolism, which confers sensitivity or resistance toward this process. However, some aspects are not yet deeply investigated. This Special Issue aims to provide a complete overview of what is already known about the ferroptosis process together with the different points not yet completely understood, looking at the process as both a usable approach to suppress tumor growth and a mechanism to be suppressed to solve some human diseases.

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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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