Special Issue

Oxidative Stress and Ferroptosis in Health and Disease

Message from the Guest Editors

Organ and cell metabolism is regulated by a number of signaling pathways, including redox signaling. Experimental and clinical studies have shown that redox imbalance is involved in the pathogenesis of various human diseases. Redox signaling functions on several levels, including communication between subcellular organelles, individual cells, organs, and the entire organism, as well as interactions between molecules in their surroundings. One definition of redox imbalance is oxidative stress, which accounts for all of the redox couples found in the cell or in its various subcompartments. Iron-dependent oxidative cell stress, ferroptosis, has recently been connected to a number of clinical diseases without specifically addressing the underlying pathophysiology. In this regard, it is important to look into how ferroptosis occurs in disease as well as how ferroptosis is regulated in homeostatic conditions, which is necessary to identify new targets to develop treatment strategies. This Special Issue invites original research articles and reviews that address the underlying mechanisms and etiology of all human diseases by oxidative–ferroptotic stress.

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Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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