



## Oxidative Stress and Paraoxonases in Cancer

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### Message from the Guest Editors

Cancer cells display high levels of reactive oxygen species (ROS) arising from different mechanisms such as alterations of mitochondria and peroxisome functions, increased activity of metabolic pathways, enhanced cellular receptor signaling, increased activity of inflammatory cytokines, and oncogene activation. Furthermore, ROS can lead to abnormal gene expression and impaired intercellular signaling. Among antioxidant enzymes, the paraoxonase (PON) family is emerging as a novel cluster of enzymes of clinical importance. Indeed, there is increasing evidence that PONs may be involved in cancer development and progression since alterations of PON status, including genotype, activity and/or expression, have been demonstrated in different human malignancies. This research topic will discuss novel insights regarding the influence of oxidative stress on cancer cells' behavior and related strategies focused on limiting cancer progression. In this light, special attention will be given to studies involving the paraoxonase family.





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## Message from the Editor-in-Chief

It has been recognized in medical sciences that in order to prevent adverse effects of "oxidative stress" a balance exists between prooxidants and antioxidants in living systems. Imbalances are found in a variety of diseases and chronic health situations. Our journal *Antioxidants* serves as an authoritative source of information on current topics of research in the area of oxidative stress and antioxidant defense systems. The future is bright for antioxidant research and since 2012, *Antioxidants* has become a key forum for researchers to bring their findings to the forefront.

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