

## Special Issue on **Oxidative Damage in Cancer: Biomarkers, Impacts, and Therapy**

# CALL FOR PAPERS

Cancer represents a major cause of death worldwide. Oxidative damage—which may be caused by excessive production of reactive oxygen species (ROS) and/or insufficient elimination of ROS—plays an important role in causing cellular damage at various levels of proteins/enzymes and phospholipids, leading to mutations of DNA and consequently altered physiological functions. In addition, ROS interact with and modify several signaling cascades involved in cancer development. Taken all together, these factors play considerable roles in both initiation of hyperplastic/neoplastic transformation and progression of cancers. This view-point is emphasized by direct recent research evidence in almost all of these areas and indirectly by the benefits provided by numerous antioxidant agents present in diets that reduce the incidence of particular forms of cancer in certain geographical areas (e.g., lower incidence of breast cancer in Asian populations consuming soya).

Of late, the etiology of tumors/cancers has been linked to a number of newly discovered transcription factors and regulators. MicroRNAs (miRNAs), for instance, play an important role in the regulation of posttranscription of gene expression. Recent findings attribute a causal role for altered miRNAs in the initiation and progression of cancers. Emerging evidence implicates a role for oxidative stress/damage in miRNA-induced cancer pathobiology. A number of drugs including statins and antidiabetic and antihypertensive agents have recently been shown to reduce ROS formation and oxidative damage as well as modulate key cellular cascades involved in pathological states. Lately, lower risk of cancers (particularly breast cancer related deaths and pancreatic cancer) is linked to statin use.

This special issue invites researchers in different scientific disciplines to contribute original research articles, clinical studies, and review articles on these aspects of oxidative damage in cell biology. The special issue welcomes papers reporting studies aimed at understanding novel cellular modifications induced by oxidative damage in cancer development, reducing oxidative damage in cancer, or combining conventional cancer therapy with antioxidant agents to enhance treatment effectiveness.

Potential topics include but are not limited to the following:

- ▶ Role of posttranscriptional regulators of gene expression such as ROS and miRNAs in cancer pathology
- ▶ Role of ROS, miRNAs, and other cellular mediators/regulators as potential cancer biomarkers and therapeutic targets
- ▶ Analysis or identification of biomarkers of cellular oxidative damage in cancers
- ▶ Mechanistic pathways/transcription factors involved in prevention or reversal of oxidative damage in cancers
- ▶ Biological assays exploring the effectiveness of antioxidative agents in cancers
- ▶ Role of statins and other drugs on oxidative damage in cancers
- ▶ Discovery of new agents or targets that have potential therapeutic roles in ameliorating oxidative damage in cancers

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/acp/odcbi/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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Friday, 13 December 2019

### **Publication Date**

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