

Special Issue on **Reactive Oxygen Species in Cancer Immunology and Longevity**

CALL FOR PAPERS

The biological feature of the human aging process is well-known and of universal nature. Indeed, the aging processes reduce the all physiological mechanism and also decrease immunological capacity to body-defense against diseases, such as cancer. The capability of the body to eliminate pathogens depends on the immune system works. Moreover, the immune cell functions are closely linked to reactive oxygen species (ROS) production and then involved in the microbicidal activity of phagocytes, cytotoxic activity, and lymphoproliferative response. In contrast, the ROS are very harmful to the immune cells and can decrease the ability of the immune system in recognizing the immunogens. Also, ROS can induce cell damage or death of the immune cell by oxidizing the membrane lipids, protein, carbohydrates, and nucleic acids.

Although the reduction of immune surveillance by ROS can reduce the ability of the immune system to identify and destroy nascent tumors and its defense against cancer and decrease the longevity, there is consistent evidence indicating that aging also provokes the genetic instability of tumors. This mechanism drives the tumor cells to have strong genetic stability systems to be protective against ROS.

The purpose of this special issue is to publish high-quality original papers and research communications as well as review articles in the field of ROS in cancer immunology and longevity. Original, high-quality contributions that are not yet published or that are not currently under review by other journals or peer-reviewed conferences are sought. We invite investigators to disseminate their recent results on the topic of the special issue.

Potential topics include but are not limited to the following:

- ▶ Roles of ROS and decreases longevity
- ▶ Molecular mechanisms of ROS disturbing the immune system in cancer
- ▶ Physiologically and pathophysiology tolerability limits of the immune response on longevity
- ▶ ROS and cancer: prevention and treatment
- ▶ New mechanisms involved in defending the immune cells against the oxidative damage
- ▶ Advances on cellular and molecular aspects of ROS and longevity

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/omcl/rosl/>.

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First Round of Reviews

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