



Reactive Oxygen Species and Male Fertility

Guest Editor:

Dr. Cristian O'Flaherty

Department of Surgery (Urology
Division), Faculty of Medicine,
McGill University, Montreal, QC,
Canada

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Message from the Guest Editor

Oxidative stress promotes damage in the lipids, proteins, and DNA of spermatozoa, and this oxidative damage is associated with infertility. The ROS-dependent damage could occur at different stages of the production and maturation of the sperm. Thus, spermatogenesis, epididymal maturation, or the processes needed to acquire fertilizing ability can be affected by oxidative stress.

On the other hand, low and controlled levels of ROS are necessary to trigger and regulate sperm function. ROS regulate the different molecular mechanisms such as sperm motility, capacitation, and acrosome reaction to assure fertilization.

This Special Issue welcomes original research and literature reviews concerning the role of reactive oxygen species in the following areas: spermatogenesis, epididymal maturation, sperm motility, capacitation, acrosome reaction, and male fertility. Moreover, the role of antioxidants in the regulation of male fertility as well as basic and clinical studies using antioxidant-based strategies for the treatment of male infertility are also welcome.





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Editor-in-Chief

**Prof. Dr. Alessandra
Napolitano**

Department of Chemical
Sciences, University of Naples
"Federico II", Via Cintia 4, I-80126
Naples, Italy

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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Antioxidants Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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