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## Oxidative Stress, Antioxidants and Male Reproduction

Guest Editors:

**Prof. Dr. Giulia Collodel**

Department of Molecular & Developmental Medicine, Università degli Studi di Siena, 53100 Siena, Italy

**Dr. Elena Moretti**

Department of Molecular and Developmental Medicine, University of Siena, 53100 Siena, Italy

Deadline for manuscript submissions:

**closed (30 April 2022)**

### Message from the Guest Editors

Oxidative stress (OS) results from an imbalance between the production of radical oxygen species and antioxidant defenses, and it is believed to play a central role in pathogenesis and clinical progression of male infertility. It has been known that PUFAs represent the main target of the free radical insult, leading to the oxidative lipid deterioration causing alterations in sperm functional characteristics. On account of this, OS is associated with the matters of human and animal reproduction. Traditionally, malondialdehyde (MDA), 4-hydroxynonenal (4-HNE) and isoprostanes have been used as diagnostic markers for oxidative damage to lipid in sperm membranes. Dietary administration of antioxidants may be a therapeutic option, and animals could be suitable models for the study of the effects of these supplementations in the spermatogenetic process.

Oxidative stress and sperm

Antioxidants and spermatogenesis

Antioxidant effect on male infertility

Oxidative stress and male infertility in animal model

Antioxidant dietary model in male infertility



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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, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
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