



Antioxidants in Male Human and Animal Reproduction: In Vitro and In Vivo Studies

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Message from the Guest Editors

Oxidative stress (OS) affects the quality of gametes and plays a central role in the pathogenesis of male infertility. Treatment strategies for OS include the use of both synthetic and natural antioxidants administered in vivo and used in vitro, for example, cell supplement in culture and cryopreservation media. In the last few years, various interesting bioactive factors have demonstrated a protective antioxidant effect worthy of investigation in the field of animal and human reproduction. Studies on the effects of diets supplemented with different antioxidant molecules in animal models may represent a starting point for managing male infertility.

- In vitro studies of antioxidants in human and animal sperm;
- Relevance of antioxidants in semen cryopreservation and semen handling;
- Antioxidants and spermatogenesis;
- Antioxidant effect on human male infertility—mechanisms, molecular signaling, sperm quality;
- Molecular effects of antioxidants on male reproduction—investigations in animal models;
- Relevance of constitutive antioxidants in male infertility and animal models;
- Antioxidant-based diet in animal model of male infertility.





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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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