

Special Issue

Gestational and Lactational Redox Signaling and Oxidative Stress in Dairy Cows

Message from the Guest Editors

Abrupt changes in the metabolic and immune functions of dairy cows often occur as a consequence of rapid fetal growth in the last trimester of gestation, parturition, and the onset of lactation. Many alterations in metabolic and immune functions involve modifications in the redox state of cells that are rapidly controlled by antioxidant pathways in healthy animals. When redox signaling becomes dysregulated, and oxidative stress ensues, however, dairy cows become more susceptible to inflammatory and metabolic diseases. This Special Issue focuses on the physiology of redox signaling and the pathology of oxidative stress in different organs and systems in dairy cows during various stages of lactation and gestation. Strategies that can mitigate oxidative stress during specific times in the lactation cycle will have major implications in improving the health and productivity of this important production-animal species.

Guest Editors

Dr. G. Andres Contreras

Department of Large Animal Clinical Sciences, Michigan State University, East Lansing, MI, USA

Prof. Dr. Lorraine Sordillo

College of Veterinary Medicine, Michigan State University, East Lansing, MI 48824, USA

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Antioxidants
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
antioxidants@mdpi.com

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About the Journal

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.

Editor-in-Chief

Prof. Dr. Alessandra Napolitano

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

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