



Oxidative Stress and Newborns

Guest Editor:

Dr. Jean-Claude Lavoie

Department of Pediatrics-
Neonatology and Nutrition, CHU
Sainte-Justine, Université de
Montréal, Montréal, QC H3T 1C5,
Canada

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Message from the Guest Editor

The difference in oxygen pressure at birth, from 25 mm (intrauterine) to 85 mm Hg (ambient air), induces a stress necessary to induce, among other things, the newborn's antioxidant defenses. However, conditions inducing exaggerated oxidative stress or a breakdown in redox homeostasis could compromise the newborn's overall metabolism, as well as the development of several systems and organs. As DNA methylation has been shown to be influenced by the redox environment, long-term effects on the newborn's health are also very possible.

These conditions may include a genetic component; the mother's environment during gestation (diet, food supplements, medication, physical activity, etc.); the newborn's diet; birth conditions; prematurity; growth retardation; treatments received by newborns (parenteral nutrition, medication, etc.); etc.

The aim of this Special Issue is to collect literature review or original data from clinical, animal, or in vitro studies. All studies concerning oxidative stress, the redox environment, the induction of antioxidant defenses, or the administration of antioxidant molecules in neonates are 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, Grosspeteranlage 5
4052 Basel, Switzerland

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