



an Open Access Journal by MDPI

The Impact of Antioxidant Deficiency in Newborns

Guest Editor:

Dr. Jean-Claude Lavoie

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

Deadline for manuscript
submissions:

closed (20 December 2022)

Message from the Guest Editor

Neonatal oxidative stress has been linked to several diseases affecting different organs (lung, liver, intestine, brain, eye, etc.), compromising their development. In the long term, these infants are susceptible to developing cardiovascular disease, type II diabetes, asthma, chronic obstructive pulmonary disease, etc. The long-term impact of the imbalance between oxidants and antioxidants in early life may be caused by a neonatal change in organ development and/or permanent epigenetic modifications. Recently, the level of DNA methylation was strongly correlated with the redox value measured in the liver of a newborn animal model.

Exposure to a high level of oxidants is toxic, while a low level of oxidants is necessary to induce endogenous antioxidant defenses; too much exposure to oxidants can induce oxidative stress, while too high an intake of antioxidants could induce reductive stress. This Special Issue of Antioxidants seeks to publish works exploring the impacts of a neonatal deficit in molecules supporting the antioxidant defenses of the newborn, as well as the impacts of antioxidant therapy in this population.



mdpi.com/si/98087

Special Issue



an Open Access Journal by MDPI

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, FSTA, PubAg, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (Chemistry, Medicinal) / CiteScore - Q1 (Clinical Biochemistry)

Contact Us

Antioxidants Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/antioxidants
antioxidants@mdpi.com
[X@antioxidants_OA](https://twitter.com/antioxidants_OA)