



## Melatonin and Redox Signaling

Guest Editors:

**Prof. Dr. Joaquín J. García**

Department of Pharmacology,  
Physiology, and Legal and  
Forensic Medicine, Area of  
Physiology, Faculty of Medicine,  
University of Zaragoza, c) Domino  
Miral s/n, E-50009 Zaragoza,  
Spain

**Prof. Dr. Darío Acuña-  
Castroviejo**

Centro de Investigación  
Biomédica, Instituto de  
Biotecnología, Parque  
Tecnológico de Ciencias de la  
Salud, Universidad de Granada,  
18016 Granada, Spain

Deadline for manuscript  
submissions:

**closed (31 March 2020)**

### Message from the Guest Editors

Melatonin is especially effective as an antioxidant because it utilizes a wide variety of means to reduce oxidative stress. Firstly, melatonin scavenges several toxic reactants, including the highly toxic hydroxyl radical, and perhaps even more importantly, it takes advantage of its derivatives, which also are efficient free radical scavengers. Secondly, this indoleamine also functions as an indirect antioxidant because of its ability to stimulate the expression and activity of antioxidant enzymes which remove free radicals and their precursors. One additional important feature of melatonin's ability to reduce oxidative stress is that melatonin is a mitochondria-targeted antioxidant. Several studies have provided evidence that melatonin could protect mitochondria from oxidative stress resulting from different toxins.

This Special Issue aims to publish original research papers and reviews on melatonin and its relationships with oxidative stress and redox signaling pathways, and wishes to be an instrument for communication and dissemination of the most recent findings about the beneficial therapeutic implications of this indoleamine in human diseases.





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](#), [CAPus](#) / [SciFinder](#), and [other databases](#).

**Journal Rank:** JCR - Q1 (*Food Science & Technology*) / CiteScore - Q1 (*Food Science*)

## Contact Us

*Antioxidants* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/antioxidants](http://mdpi.com/journal/antioxidants)  
[antioxidants@mdpi.com](mailto:antioxidants@mdpi.com)  
[X@antioxidants\\_OA](#)