Special Issue

Approaches in Enhancing Antioxidant Defense in Plants

Message from the Guest Editors

As a sessile organism, plants always face various abiotic and biotic stresses. In addition to their many detrimental effects, they lead to oxidative stress through the overaccumulation of reactive oxygen species (ROS). A certain steady-state of ROS is maintained by properly balancing the generation and elimination of ROS through finely regulating a defense system in plants. Plants primarily deal with oxidative stress through their own defensive mechanism, which consists of different enzymatic and non-enzymatic antioxidants. Non-enzymatic antioxidants include ascorbic acid (AsA), glutathione (GSH), phenolic compounds, alkaloids, □-tocopherol, non-protein amino acids, etc. These molecules either scavenge or detoxify ROS and confer stress tolerance in plants. In recent decades, plenty of research has focused on the role of different non-enzymatic antioxidants in the mitigation of oxidative stress, and the results of these studies are being applied to crop plants. In this Special Issue, we aim at publishing research articles and reviews on research focused on antioxidant defense, which will serve as a foundation for plant oxidative stress tolerance.

Guest Editors

Prof. Dr. Masayuki Fujita

Laboratory of Plant Stress Responses, Department of Plant Science, Faculty of Agriculture, Kagawa University, Miki-cho, Kita-gun, Kagawa 761-0795, Japan

Prof. Dr. Mirza Hasanuzzaman

Department of Agronomy, Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka 1207, Bangladesh

Deadline for manuscript submissions

closed (31 December 2021)

Antioxidants

an Open Access Journal by MDPI

Impact Factor 6.6
CiteScore 12.4
Indexed in PubMed

mdpi.com/si/51217

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

mdpi.com/journal/antioxidants

Antioxidants

an Open Access Journal by MDPI

Impact Factor 6.6
CiteScore 12.4
Indexed in PubMed

mdpi.com/journal/antioxidants

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

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 (Food Science)