

## Special Issue

# Extracellular Antioxidant Systems in Plants

### Message from the Guest Editors

The extracellular space (or the plant cell apoplast) is the plant cell compartment external to the plasma membrane. It has a primary role in cell nutrition, ion homeostasis, plant development, and cell differentiation. Since the apoplast is the initial site of injury caused by different abiotic or biotic stresses that could induce reactive oxygen species (ROS) or nitric oxide generation, the apoplastic antioxidant defenses can be the first line of defense preventing cellular damage. In addition, ROS can react with apoplastic signaling components, cytosolic kinases, phosphatases, various redox-sensitive proteins, and transcription factors. Relatively little information is available regarding the presence of the antioxidant enzymes in the apoplast of plant tissues, and the results are often contradictory. The aim and scope of this Special issue is to encourage the publication of reviews and/or experimental research dealing with physiological, biochemical, and molecular aspects related to the characterization of extracellular antioxidant mechanisms in plants as well as their response to environmental challenges.

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### Guest Editors

Dr. José Antonio Hernández Cortés

Group of Fruit Biotechnology, Department of Fruit Breeding, CEBAS-CSIC, P.O. Box 164, 30100 Murcia, Spain

Dr. Gregorio Barba-Espín

Centro de Edafología y Biología Aplicada del Segura, CSIC, Grupo de Biotecnología de Frutales, Departamento de Mejora Vegetal, E-30100 Murcia, Spain

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### Deadline for manuscript submissions

closed (30 November 2020)



## Antioxidants

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

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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

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