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## **Antioxidants and Antioxidant Enzymes in Higher Plants**

Guest Editor:

#### Dr. Viviana Maresca

Department of Biology, University of Naples "Federico II", 80126 Naples, Italy

Deadline for manuscript submissions: closed (31 December 2023)

# Message from the Guest Editor

Dear Colleagues,

Reactive oxygen species (ROS) within a cell can be produced at different cellular levels, as a result of various metabolic processes. In physiological conditions, the production and removal of reactive species are finely controlled processes that maintain the balance of the redox state. However, this balance can disrupted when ROS are synthesized in excess, e.g., in stressful scenarios. The defense systems that cells possess can be nonenzymatic and enzymatic. Among the non-enzymatic components, certain molecules are of great importance, including ascorbate, glutathione, tocopherol, carotenoids and phenolic compounds. The ability of plants to modulate ROS production in the presence or absence of stress is also due to the activity of enzymes that use ROS as substrates. The aim of this Special Issue is to present advances in the research on enzymatic and non-enzymatic antioxidant responses and defense mechanisms of plants to oxidative stress, bringing together high-quality original research papers, brief communications and reviews by leading scientists in this field of research.



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**Prof. Dr. Dilantha Fernando** Department of Plant Science, University of Manitoba, Winnipeg, MB R3T 2N2. Canada

#### Message from the Editor-in-Chief

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*Plants* Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/plants plants@mdpi.com X@Plants\_MDPl