

## Special Issue

# Antioxidants and Antioxidant Enzymes in Higher Plants

### Message from the Guest Editor

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 be disrupted when ROS are synthesized in excess, e.g., in stressful scenarios. The defense systems that cells possess can be non-enzymatic 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.

### Guest Editor

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### Deadline for manuscript submissions

closed (31 December 2023)



## Plants

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### Message from the Editor-in-Chief

*Plants* is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, and conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

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### Editor-in-Chief

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