Special Issue

Algal Antioxidants: Physiology, Metabolism, and Evolution

Message from the Guest Editor

As the oldest groups of photosynthetic organisms on Earth, algae have developed complex and efficient antioxidant defense systems that enable them to survive in extreme environments and cope with various oxidative stresses. Recent advances in molecular biology have led to significant progress in understanding algal antioxidant mechanisms. These studies not only deepen our understanding of fundamental biological processes but also provide valuable resources for developing novel antioxidants and bioactive molecules through synthetic biological approaches.

This Special Issue aims to compile the latest research findings on algal antioxidants. We particularly welcome original research in the following areas: Molecular mechanisms and regulatory networks of antioxidant enzyme systems; Physiological and biochemical adaptation mechanisms of algae to oxidative stress; Evolution and diversity of algal antioxidant systems; Environmental factors affecting algal antioxidant capacity; Biosynthetic pathways and genetic engineering of algal antioxidants.

We invite researchers from around the world to submit high-quality original research papers, reviews, and short communications.

Guest Editor

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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.

Editor-in-Chief

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