

Special Issue

Molecular and Cellular Mechanisms of the Acclimation Response in Microalgae

Message from the Guest Editors

Many microalgae, which exist as single cells or as colonies of a small number of single cells, complete the entirety of their biological processes, from photosynthesis to stress responses to reproduction, "in one cell." This has long stimulated the interest of many biologists. Recent advances in the use of microalgae to produce biomass for foods, feeds and fine chemicals using solar energy require a detailed understanding of the molecular and cellular mechanisms of microalgae acclimation responses. Despite the surprising amount of information that has recently been accumulated, there are still many open questions and challenges in this fascinating area. For example, the regulation of gene expression in response to light (light–dark cycle, wavelength and intensity of light) is an important aspect of microalgae lifecycle progression which remains the subject of intense research. In this Special Issue, articles (original research papers, perspectives, hypotheses, opinions, reviews, modeling approaches and methods) on molecular and cellular mechanisms of the acclimation response in model microalgae, endosymbiotic and native species, are most welcome.

Guest Editors

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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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