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Molecular and Cellular Mechanisms of the Acclimation Response in Microalgae

Guest Editors:

Prof. Dr. Tomoko Shinomura

Plant Molecular and Cellular
Biology Laboratory, Department
of Biosciences, School of Science
and Engineering, Teikyo
University, 1-1 Toyosatodai,
Utsunomiya, Tochigi 320-8551,
Japan

Dr. Shun Tamaki

Microalgae Production Control
Technology Laboratory, RIKEN,
230-0045 Yokohama, Japan

Deadline for manuscript
submissions:

closed (31 May 2021)

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.



mdpi.com/si/66371

Special Issue



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Editor-in-Chief

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, St. Alban-Anlage 66
4052 Basel, Switzerland

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