



Molecular Ecology of Climate Changes: Diatoms as Key Model Organisms

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Message from the Guest Editors

Dear Colleagues,

Marine diatoms are emerging models for a wide range of ecological studies, including ecotoxicology, drug discovery, oceanography, and biotechnology. Their key role in aquatic ecosystems has attracted great interest among researchers, which has allowed for the development of a broad range of tools to manage, manipulate, and investigate these widely biodiverse microalgae.

Multidisciplinary approaches have given new insights into the use of diatoms as model organisms, especially in the field of climate change biology. The availability of genomic information (transcriptomes, genomes, etc.), genome editing (TALEN endonucleases and CRISPR/Cas9), and gene expression and epigenetic techniques are allowing for the incredible progress of marine science. For example, knockout strains have been produced that can clarify the effect of temperature, acidification, and other stresses on the physiological processes of diatoms.

The aim of this Special Issue is to collect high-quality papers dealing with ecological studies investigating the effects of global climate change on marine diatoms using molecular approaches.

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Message from the Editor-in-Chief

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