Special Issue

Microalgae-Bacteria Interaction: Molecular Significance and Biotechnological Applications

Message from the Guest Editor

Interactions among microorganisms are critical to maintaining ecosystem viability. In their habitat, microalgae have evolved along with a vast variety of organisms interacting with them as predators, competitors, parasites, pathogens, mutualists, or commensals. Frequently, these interactions allow algal cells to thrive in a dynamic environment and fit better in a broader set of natural conditions. When microalgae and bacteria are cultivated together, they can establish mutualistic relationships that benefit the growth of both organisms. For instance, bacterial cells can solubilize and mineralize sulfur, nitrogen, and phosphorus, which become available to algal cells. In addition, bacterial heterotrophic metabolism releases CO2, which algae can use as a carbon source. The purpose of this Special Issue is to bring together high-quality research articles and reviews addressing recent developments in current relevant topics where algae–bacteria consortia are playing a leading role as nitrogen fixation, biomass production, bioremediation, phytohormone production, quorum sensing regulation, biofertilizers, biostimulants, or biofuels and hydrogen production, among others.

Guest Editor

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