



Lanthanide-Dependent Methyлотrophy and Methyлотrophs

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Methylobacterium (including *Methylobacterium*) species are Gram-negative, aerobic, and facultative methyлотrophs that belong to the *Methylobacteriaceae* family of the order Rhizobiales. So far, 61 species are known, and they have been isolated from many different environmental niches, which are represented by plants, soil, air, aquatic, and even human living environments. As a representative model methyлотroph, *Methylobacterium extorquens* strain AM1 has been intensively studied for its methyлотrophy. Recent findings on the lanthanide dependency of its important enzyme for methyлотrophy, XoxF-type methanol dehydrogenase, have indicated the unexpected role of lanthanides in biology. Besides, many isolates of the genera have also been reported as plant-growth-promoting bacteria, as well as pink biofilms in kitchen and bathrooms. The aim of this Special Issue is to contribute knowledge on the methyлотrophy, physiology, and environment-adaptability of the genera *Methylobacterium* and *Methylobacterium*.

Dr. Akio Tani
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