中央研究院生物多樣性研究中心
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Microbial Diversity and Bioinformatics

Autotrophic Metabolism in Changing Environments

Prof. Ivan Berg

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Time: 2024. 07. 26 Fri. 10:00

Venue: Auditorium, 1st Floor,
Interdisciplinary Research Building
跨領域科技研究大樓1樓演講廳

Host: Dr. Yin-Ru Chiang 江殷儒研究員

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Abstract

Autotrophy, the ability to produce biomass exclusively from inorganic carbon, probably evolved with life and is the basis for past and present carbon cycling. To date, seven different autotrophic pathways have been identified, with more likely to be discovered. Their distribution reflects both the diversity of life and the diversity of the ecological niches existing in nature. The study of autotrophy sheds new light on the evolution and functioning of the biosphere and the origin of life. Here I will discuss metabolic adjustments that allow environmental conditions to shape autotrophic metabolism in various anaerobic autotrophic bacteria, determining the direction of metabolism, the choice of pathway, and the efficiency of growth.