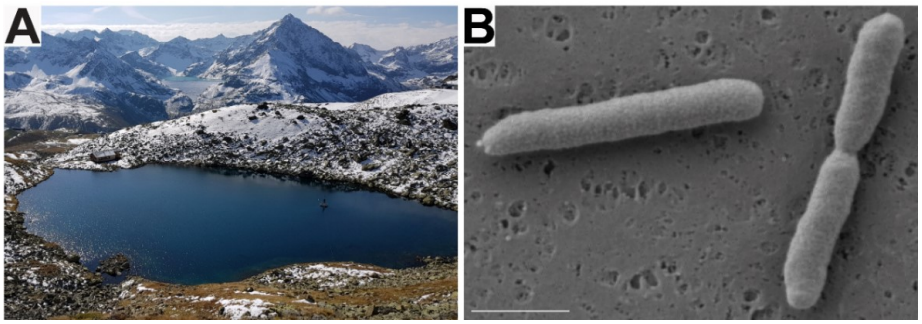
PhD project:
Dual phototrophy

Phototrophic organisms provide most of the metabolic energy powering life on this planet. There exist two fundamentally distinct photosynthetic systems (bacterio)chlorophyll-based photosynthetic complexes and proton-pumping rhodopsins. Recently we described the bacterium *Sphingomonas glacialis* AAP5 from an alpine lake Gossenköllesee, Austria. This bacterium is the first organism described that can utilize both systems simultaneously (Kopejtka et al. *Proc. Natl. Acad. Sci. USA* 2022). As very little is known about photophysiology of these organisms we propose to investigate how they regulate and express the dual phototrophic apparatus in response to environmental conditions, specifically light and temperature and how this contributes to cellular metabolism.



The Laboratory of Anoxygenic Phototrophs at the Institute of Microbiology in Trebon is an international research team working on physiology, genomics and ecology of anoxygenic phototrophic bacteria. The communication language is English.
See: http://www.alga.cz/en/c-371-laboratory-of-anoxygenic-phototrophs.html
Applicants should send their motivation letter and CV to aap@alga.cz by **July 31st, 2024** at the latest. The selected candidates will be contacted for additional information with interviews to be held in July. The expected start is **September 2024**.

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