

特別セミナー

Prof. Dr. Ondřej Prášil

(Institute of Microbiology ASCR, Centrum Algatech, Laboratory of photosynthesis,
Opatovický mlýn, 379 81 Třeboň, Czech Republic)

7月16日（水）場所：2C310

10:00–11:00（質疑応答含め60分）

Peculiar photosynthesis of Chromerids

Chromerids are new group of algae, closely related to the heterotrophic parasites Apicomplexa (e.g. *Plasmodium*, *Toxoplasma*). Since its discovery and initial characterization, *Chromera velia* has achieved interest also for its unusual and unique photosynthetic properties. In my presentation I will summarize results achieved in our laboratory on studies of photosynthesis in *Chromera* and its related, but distinct species *Vitrella*. Recently we have analysed in depth the response of both strains to different quality of spectral irradiance, showing in detail how *Chromera* responds to red light by synthesis of a new light harvesting protein (Red-CLH) that increases its fitness in the specific light environment of corals. Our data also indicate high mobility of light harvesting antennae in thylakoid membranes of *Chromera*. This also influences the redistribution (so called spill-over) of absorbed excitation energy among both photosystems. We have also studied the effect of environmental factors on the fatty acid composition in *Chromera*. Current results on the operation of carbon concentrating mechanism found in chromerids that contain Rubisco – type II will be also briefly discussed. The functional significance of the observed presence of uniquely split proteins for the core of Photosystem I or ATP synthase in *Chromera* remains still to be understood.

皆様のご参加をお待ちしております

問い合わせ先：内線 4908

世話人：白岩 善博（生命環境系・教授）