

Roman Sobotka`s group

Title of the project: Interplay between photosynthesis and the production of chlorophyll

Supervisor: Eva Kiss kiss@alga.cz

For how many student/s: 1-2

Description of the project:

Photosynthetic organisms use the chlorophyll pigment to turn light into chemical energy. Inside the cell chlorophyll is embedded in proteins that form the photosynthetic complexes responsible for the photosynthetic reactions. The apparent connection between chlorophyll and photosynthesis however becomes a mysterious topic when we talk about how the synthesis of chlorophyll and the chlorophyll-binding protein complexes are synchronised. Our laboratory is specified to answer the rising questions related to pigment and protein synthesis. During the summer school you can contribute to our research that will give you an outstanding opportunity to gain hands-on experience in biochemical (2 dimensional protein electrophoresis, immunoblot); analytical (HPLC); molecular biological (reverse genetics, enzymatic assays); and biophysical (Clark-type electrode measurements, pulse modulated chlorophyll fluorescence) methods used in the field of photosynthesis.

Requirements:

Good communication skills in English, and the will to work in wet laboratory is needed.