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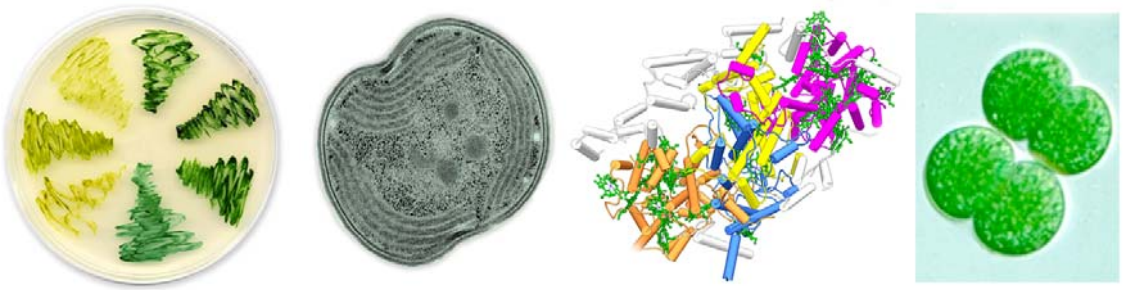

Fascinated by photosynthesis? Keen to work on the most amazing molecular machinery evolved by nature?

Photosynthesis is a fundamental biochemical process on Earth evolved by cyanobacteria around 3 billion years ago. During the process of photosynthesis two large membrane protein complexes called **photosystem I and II** work as a couple to convert energy of photons into chemical energy. Assembled from tens of protein subunits and many cofactors photosystems belong to the most complex nano-machines evolved by nature.

Our group studies biogenesis of photosynthetic membrane and the life-cycle of photosynthetic complexes. In the laboratory we use a very broad spectrum of techniques including construction of mutants, various -omics, state-of-art biochemistry (protein pull-down, different chromatography, 2D gels, radiolabelling), biophysics, confocal and electron microscopy. Our favorite model is the unicellular **cyanobacterium** *Synechocystis* PCC 6803.

We are looking for a motivated **PhD student** for a multidisciplinary project dealing with the **regulatory role of tetrapyrroles** (chlorophyll and heme) during the biogenesis of photosynthetic apparatus. The project builds upon our recent discoveries revealing the role of (heme-producing) **ferrochelatase enzyme** as the master-controller of the whole photosynthetic metabolism.

Selected publications

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Knoppová, J, Sobotka, R, Tichý, M, Yu, J, Halada, P, Nixon, PJ, Komenda. Discovery of a Chlorophyll Binding Protein Complex Involved in the Early Steps of Photosystem II Assembly in Synechocystis. ***Plant Cell*** 26, 1200-1212, 2014.

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