Kamoltip Promnares Ph.D. Thesis

Localization of the small chlorophyll *a/b*-like proteins in the cyanobacterium *Synechocystis* sp. PCC 6803

Supervisor's Comments

Cyanobacteria contain several genes coding for SCP proteins with significant homology to LHC proteins of higher plants, despite the fact that cyanobacteria do not contain LHC as their antenna.

Kamoltip Promnares started her Ph.D. in our lab in November 2002 as a graduate of the

International Training Course in Szeged. At that time it was known, that SCP proteins are membrane proteins expressed under various stress conditions. During her study Kamoltip accumulated significant amount of data demonstrating their association with Photosystem II. She was able to identify two PSII subunits involved in association of the ScpD protein to PSII. These data resulted in two nice publications, first of which was already published in JBC. Originally, the title of Kamoltip's dissertation was: Localization and Function of SCPs. She spent great amount of time to see some differences in PSII function in strains lacking SCPs with no success. Despite this, thanks to Kamoltip's work we at least know where to look for such structural and functional differences. Moreover, in last few months, she has shown that SCPs accumulate not only under typical stress conditions but also in the dark, supporting our view that primary function of SCPs is not dissipation of the excess light energy.

In conclusion, Kamoltip greatly contributed to our work on SCP proteins, proved that she can work independently, plan her experiments, draw correct conclusions and organize them into publication. With no doubts, I recommend her Ph.D. Thesis for the defense.

November 1, 2006

Martin Tichy

supervisor