



Přírodovědecká
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of Science

Jihočeská univerzita
v Českých Budějovicích
University of South Bohemia
in České Budějovice

STATEMENT OF THE BACHELOR/DIPLOMA* THESIS SUPERVISOR

Name of the student: Jan Hájek
Study programme: N1406 Biochemistry - Biological Chemistry 1406T007
Department/Institute: Institute of Microbiology, Department of Phototrophic Microorganisms, Opatovický mlýn, Třeboň
Thesis title: Identification of Products of Tetrapyrrole Pathway

Supervisor: prof. RNDr. Josef Komenda, CSc., DSc.
Supervisor's affiliation: Institute of Microbiology, Department of Phototrophic Microorganisms, Opatovický mlýn, Třeboň

	Point scale ¹	Points
(1) FORMAL REQUIREMENTS		
Formal and graphical quality of the thesis	0-3	2
Ability to work with literature	0-3	2
Language and stylistics	0-3	2
Ability to understand the results, their interpretation, and clarity of the results, discussion, and conclusions	0-3	3
Formal requirements – points in total		9
(2) PRACTICAL REQUIREMENTS		
Fulfillment of the aims	0-3	2
Discussion quality – interpretation of results and their discussion with the literature	0-3	2
Logic in the course of the experimental work	0-3	3
Experimental difficulty of the thesis, independence in experimental work	0-3	3
Contribution of the thesis to the knowledge in the field and possibility to publish the results (after eventual supplementary experiments)	0-3	2
Practical requirements – points in total		12
POINTS IN TOTAL (MAX/AWARDED)	27	21²

* Choose one

¹ Mark as: 0-unsatisfactory, 1-satisfactory, 2-average, 3-excellent.

² Enter the number of points awarded.

Suggestions and questions, to which the student has to answer during the defense:

Eventual mistakes, which the students should avoid in the future:

Eventual additional comments of the supervisor on the student and the thesis:

Jan Hájek chose the topic of his MSc. thesis based on the internet advertisement of our laboratory. I have to admit that this topic – identification of substances, which we believed originated from cyanobacterial tetrapyrrole metabolism, was rather unusual for our laboratory as we spend most of time with molecular biology and biochemistry work. When Jan started, I had already some preliminary data which showed unusual behavior of the substance(s), especially their high polarity, and it became clear that the task to purify and identify the substances will be difficult and will require a dedicated person if some success should be reached. Fortunately, Jan appeared to be such a person. He started his effort about year ago and then he was coming to the laboratory every time he did not have studying duties. He was doing various experiments, separations and tests with large interest and passion and this approach finally led to results which were in my view much more advanced than I assumed. After hours spent in the lab and for instance collecting chromatographic peaks from tens of analytical HPLC separations he finally got something which appeared as a pure substance with could be used for MS and NMR analysis. And this was something which I could just dream about when Jan started his work. Unfortunately, the substances appeared complicated not only from the point of view of their purification, but also from the point of view of determining the structure from the collected MS and NMR data. So, finally after all this work, we still cannot show the exact structure of the substances and based on this to establish their origin. So, we do not know whether the substances are somehow related to tetrapyrrole metabolism - rather not. Nevertheless, I believe that this topic allowed Jan to test and learn a large number of separation methods and after purification of the substances he could also test his ability to interpret collected structural data which is clearly very difficult task requiring a lot of skills.

I should also mention Jan's ability to write scientific text since performing experiments is only one part of student work, the other, and among students usually much less favored activity concerning MSc. thesis is writing. In this respect Jan started this job very relaxed and he initially wrote the text as remarks in a diary very freely describing what he was doing. Nevertheless, after our several meetings we made clear what is necessary and afterward the final version of the thesis was quickly done indicating that Jan also learnt how the scientific text should be written.

Finally, I would like to highlight that Jan did not have any problems to work in our team, he quickly became a favored member of our laboratory and it was pleasure to work with him.

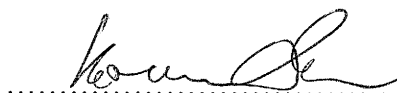
Conclusion:

In conclusion, I

r e c o m m e n d / ~~do not recommend~~*

the thesis for the defense and I suggest the grade 1.

In Třeboň date 25th of May, 2013



signature