



Přírodovědecká
fakulta
Faculty
of Science

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

SUPERVISOR'S STATEMENT ON BACHELOR THESIS

Name of the student: Guy Michel Wolf

Study program: Biological Chemistry

Department/Institute: Department of Chemistry

Thesis title: Encapsulation of bacterial photosynthetic reaction centers into viral capsids

Supervisor: David Kaftan

Supervisor's affiliation: Faculty of Science, University of South Bohemia

Point scale¹ Points

(1) FORMAL REQUIREMENTS

Formal and graphical quality of the thesis	0-3	2
Ability to work with literature	0-3	3
Language and stylistics	0-3	3
Formal requirements – points in total		8

(2) PRACTICAL REQUIREMENTS

Fulfillment of the aims	0-3	3
Ability to understand the results, their interpretation, and clarity of the results, discussion, and conclusions	0-3	3
Discussion quality – interpretation of results and their discussion with the literature	0-3	2
Experimental difficulty of the thesis, independence in experimental work	0-3	3
Contribution of the thesis to the knowledge in the field and the possibility to publish the results (after eventual supplementary experiments)	0-3	3
Practical requirements – points in total		14

POINTS IN TOTAL (MAX/AWARDED)

24

22

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

Comments of the supervisor on the student and the thesis:

Guy started working on his thesis topic the first day he picked it. Our subsequent more than one-year intensive collaboration laid the foundation for the bachelor's thesis that he is submitting for defense today. I had the opportunity to get to know Guy very well both during joint planning of experiments, theoretical training, as well as during the performance of other tasks as his supervisor. Guy's task was to use all his then existing and also his future theoretical knowledge and practical skills in the fields of biology, chemistry, genetics and molecular biology in solving a difficult mission. The task required a combination of a number of experimental approaches. For their successful completion, Guy used basic and advanced methods of transformation plasmid construction, independently managed to isolate, purify and chemically modify the key protein indispensable for the assembly of the complex of photosynthetic reaction center and its antenna, that he himself managed to purify in large enough quality and quantity. Finally, he managed to assemble the capsids containing the photosystems. He completely and reliably mastered working with advanced protein chromatography techniques. Thanks to a responsible approach and hard work, Guy managed to achieve exceptional results that will have a major impact on the research we are doing in our team and will materialize in a publication soon. Guy made full use of his excellent theoretical foundations in the fields of chemistry, molecular biology, biochemistry and genetics. His ability to work independently and use new methods resulted in the creation of this high-quality diploma thesis, which I recommend to be accepted without comment.

Conclusion:

In conclusion, I

r e c o m m e n d

the thesis for the defense.

In České Budějovice date 29.5.2023

signature