



Přírodovědecká
fakulta
Faculty
of Science

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

SUPERVISOR'S STATEMENT ON BACHELOR/DIPLOMA* THESIS

Name of the student: Sebastian Vranjes

Study program: Biological Chemistry

Department/Institute: Biology Centre CAS

Thesis title: In silico modelling of the effect of bacterial DNA fragmentation on gene counts using digital droplet PCR

Supervisor: Roey Angel

Supervisor's affiliation: Biology Centre CAS

	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
Formal requirements – points in total		6
(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	20

* Choose one

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

Comments of the supervisor on the student and the thesis:

This work by Sebastian Vranjes describes an *in silico* modelling project to help us better correct for biases in digital-droplet PCR caused by either DNA fragmentation or the presence of multiple copies of certain genes. Being a pure bioinformatics project, Sebastian had to learn quite a lot on his own, starting from unix command line to python and R and conceptualize methods he had never used before in a theoretical way. Although it took some time, I'm happy that Sebastian finally managed to finish up and submit his thesis. The model developed during his work will be included in an upcoming paper we are currently writing on the subject.

Conclusion:

In conclusion, I
r e c o m m e n d
the thesis for the defense.

In České Budějovice date 24.08.2022

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