



Přírodovědecká
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Faculty
of Science

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

OPPONENT'S REVIEW ON BACHELOR/~~DIPLOMA~~^{*} THESIS

Name of the student:

Keller Moritz

Thesis title:

THE SECRETS ENCODED IN THE DRAFT GENOME OF *Lentzea* sp. STRAIN BCCO 10_0061 ISOLATED FROM RECLAIMED MINE HEAPS

Supervisor:

Supervisor: Ana Catalina Lara Rodriguez, PhD

Co-supervisor: Erika Corretto, PhD

Referee: PD. Dr. Mag. Christoph Schüller

Referee's affiliation: University of Natural Resources, Vienna, Austria

	Point scale ¹	Points
(1) FORMAL REQUIREMENTS		
Extent of the thesis (for bachelor theses min. 18 pages, for masters theses min. 25 pages), balanced length of the thesis parts (recommended length of the theoretical part is max. 1/3 of the total length), logical structure of the thesis	0-3	3
Quality of the theoretical part (review) (number and relevancy of the references, recency of the references)	0-3	3
Accuracy in citing of the references (presence of uncited sources, uniform style of the references, use of correct journal titles and abbreviations)	0-3	2
Graphic layout of the text and of the figures/tables	0-3	3
Quality of the annotation	0-3	3
Language and stylistics, complying with the valid terminology	0-3	3
Accuracy and completeness of figures/tables legends (clarity without reading the rest of the text, explanation of the symbols and labeling, indication of the units)	0-3	3
Formal requirements – points in total		
(2) PRACTICAL REQUIREMENTS		
Clarity and 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

* Choose one

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

Discussion quality – interpretation of the results and their discussion with the literature (absence of discussion with the literature is not acceptable)	0-3	3
Logic in the course of the experimental work	0-3	3
Completeness of the description of the used techniques	0-3	3
Experimental difficulty of the thesis, independence in experimental work	0-3	3
Quality of experimental data presentation	0-3	3
The use of up-to-date techniques	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	3
Practical requirements – points in total		47
POINTS IN TOTAL (MAX/AWARDED)	48	(0-48) ²

Comments of the reviewer on the student and the thesis:

Well written und utterly clear. Some typos are there but minor. Regarding the scientific canon the referee has a very good impression of the oversight and depth of the data, he analysis

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

Mistakes, which the students should avoid in the future:

"Lentzea is a group for which little data is available, especially regarding its genetic characteristics. For example, there are currently (January 2021) only 17 fully available genomes of Lentzea spp. and 16 of them are on the contig or scaffold level, lacking essential elements like the 16S rRNA and some housekeeping genes (NCBI – Genome, accessed 12/09/21)."

In fact there are 23 genomes available in the meantime and the quality has increased. The access of the database is a year before the submission. Care should be taken to keep such visits as close as possible to the submission of e.g. a manuscript or a thesis.

The source: Genomics, F. L. and Schroeder, K. (2022) A history of sequencing, Front Line Ge-nomics. Available at: <https://frontlinegenomics.com/a-history-of-sequencing/> (Accessed: 10 November 2022). - is incorrect in several points. – also I doubt the existence of an author name "Genomics".

"The first method of sequencing was introduced by Frederick Sanger in 1977"

is not correct - it was Maxam Gilbert

the Figure 2 is also incorrect – the author may want to find out why.

"which could be identified due to the nucleotide specific radioactive labels." is not correct.

The source of the DNA for sequencing has not been revealed. Who did that when and how?

The phylogeny might have been discussed in more detail. What are the properties of the closest neighbors. What discriminates this species from other closely or farther related in the light of the insight from the genome.

Conclusion:

² Enter the number of points awarded.

In conclusion, I

r e c o m m e n d *

the thesis for the defense and I suggest the grade 1 .³

In Tulln a.d. Donau date **20.1.2023**

³ You can suggest a grade, which can be modified during the defense based on the presentation. However, if the reviewer is not present at the defense, the grade will not be counted. Grades: excellent (1). Very good (2), Good (3), Unsatisfactory/failed (4).