Reviewer Evaluation of Master Thesis

Author Name: Bc. Marek Kucej

Thesis Title: Engineering suspension HEK293OX stable cell lines for CRISPR–based screening

Reviewer Name: prof. Mgr. Jiří Drábek, PhD.

Criteria n.	Evaluation Criteria	Points (0-5)
1	**Completeness and timeliness of the literature search**	5
2	**Quality of the introductory part (number of used original articles, the suitability of literature selection)**	5
3	**Fulfilment of thesis goals**	5
4	**Logics of literature search or experimental work approaches**	5
5	**Completeness of methods and protocols description**	4
6	**Level of results presentation (suitable choice of graphs and tables etc.)**	5
7	**Adequate interpretation of obtained results and their discussion**	4
8	**Conciseness of thesis summary in Czech and English languages**	5
9	**Graphical editing of text and images**	5
10	**Language and stylistic level, respect of valid nomenclature**	5
11	**Correctness and completeness of figure and table legends (intelligibility without regard to the main text, correct explanation of used symbols and units)**	5
12	**Correct usage of citation references (presence of non-cited data, compliance with a unified citation style, utilization of official journal names abbreviations)**	5
	Total points	**58** max 60

Specific comments and questions to the thesis (*please use additional sheets if necessary*)**:**
This thesis in several aspects surpasses requirements for MSc diploma. The introduction can aspire for a publication in an impacted (or AISed) journal without substantial modification. It comprises such a broad area of work that it is not expected that every method mentioned in the experimental part was done by MSc student. Therefore, I advice to distinguish more clearly what was done by whom and give credit to co-authors.

I have the following questions:

1) Do you expect any advantage of using 3D cell culture for HEK293OX cell lines?
2) Can you comment Horizon choice to use U2OS cell line and your choice to use HEK293 cell line?
3) With the benefit of hindsight, what would be your future design for dCas9_VPR?

Errors required to be corrected:
There is nothing serious what would require a correction (virtually no clerical errors, I have noticed just mistyping “CRSIPR” at page 20 and “blasicidin” at several figure legends).

I have got just notes for a future work of MSc student:
Abbreviation should be defined upon its first appearance in the text to ease reading and support understanding (and then in the list of abbreviations). I.a. for geneticists, WES means Whole Exome Sequencing and not a commercial name for Western blotting kit.
Even software should be cited sufficiently (CRITIC software is not referenced sufficiently, ICE software is revealed to belong to Synthego late in the thesis).
Author should avoid using laboratory jargon ("Hitpicking" is not yet accepted word, "mixed fortunes" belongs more to fiction than to science).

Conclusion: I recommend this thesis to defence.

In Olomouc on: 3rd May 2021

Signature

Thesis evaluation according to total points:

- A- 56-60
- B- 51-55
- C- 46-50
- D- 41-45
- E- 36 -40
- F- 35 and less

Digitálně podepsal prof. Mgr. Jiří Drábek, Ph.D.
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