

CHARLES UNIVERSITY
FACULTY OF PHARMACY IN HRADEC KRALOVE

Department: pharmacology and toxicology

Master's degree program in Pharmacy

Opponent's review of Master's thesis

Student's name: Daulet Balmagambetov

Mentor of the thesis: Mgr. Lucie Hyrsova/Dr. Christina
Elisabeth Muller

Year of the thesis
defense: 2017

Opponent of the thesis: Professor PharmDr. Petr Pavek, PhD

Title of the thesis:

**Write or insert Pharmacological characterization of novel ligands of P2X3
receptor**

Formal comments: number of pages: 59, number of figures: 12, number of tables: 10,
number of references: 26.

Type of work: Experimental work

- a) The aim of the thesis is: Fulfilled
- b) Language and graphic level: Excellent
- c) Processing of the theory: Excellent
- d) Methods description: Very good
- e) Results description: Excellent
- f) Discussion and conclusions: Excellent

I recommend Diploma thesis for the recognition as Rigorous thesis .

Opponent's comments: Diploma thesis written by Daulet Balmagambetov and done under supervision of Dr. Christina Elisabeth Muller (University of Bonn) deals with testing 25 novel P2X3 receptor antagonists employing genetically modified cells. The thesis is very well written without formal or experimental mistakes. Introduction, data presentation and discussion is clear and comprehensive. Author has obtained very interesting data that will be for sure published in very good journal. I highly appreciate this experimental thesis.

Questions: What was the concentration used for detection of Calcium 5 dye in the work?
What was the wavelength used for detection of Calcium 5 dye in the work?
Is fitting of Drug A correct in the work? Why complete inhibition of Calcium 5 dye was not reached in case of Drug A (Table 7)?

Evaluation of Master's thesis: Excellent

Recommendations for the thesis defense: Recommended

In Hradec Kralove 18.5.2017

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Opponent's signature