



# UROLOGICKÁ KLINIKA FAKULTNÍ NEMOCNICE A LF UK

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In Hradec Kralove 28-July-20015

Doctoral Thesis :

## **Interactions of muscarinic receptors and choline esterases: Functional examinations of esterase inhibitors in the rat**

Candidate: Uday Kumar Killi, M.Sc.

### **Examiner 's report**

The Doctoral Thesis from Mr. Uday Kumar Killi has a very current topic. The role and the interactions between muscarinic receptors and its subtypes plays very important role in regulation of many organ systems in human body. The presented dissertation includes high quality and deep theoretical part and an exceptionally successful experiment. The scientific level of Mr. Kelli's work is very high.

In general, the thesis was written on 105 pages. The dissertation includes a brief but all-encompassing English and Czech structured abstract. The next pages contain useful List of abbreviations and Contents. The Introduction and Theoretical part with description of examined area is on 47 pages. The proper experimental work included 27 pages of text. The references involved 198 literary references. The list references comprise all important publication on this topic. There is likeable that the list of references involved the significant publications from Czech authors, too. The manuscript is supplemented with many graphs and figures.

The theoretical introduction is very detailed and it demonstrates the deep author's knowledge this issue. The student clearly describes the complicated issue of regulation of

individual organs via the parasympathetic autonomic nerves. The author focused on subtypes of muscarinic receptors and described all known features. In this chapter are also described main limitations of our knowledge about M2 subtype M-receptors.

The specific aims of thesis were four and all were clear defined. The methods were demarcated precisely, plainly and understandingly. The methods of statistical analysis were suitable. The achieved results of experiments have been clearly listed. The results of this study have been documented also by graphs and tables. The chapter Discussion evaluates achieved results of author's experiments with results of many similar studies and describes recent knowledge in field of muscarinic-receptor regulations. The essential findings of the Thesis are summarized in chapter Conclusion.

The submitted doctoral thesis meets all the conditions and requirements imposed on it. I recommended this Doctoral Thesis for acceptance and for presentation and defense. After successful presentation and defense I recommend giving the student the title Ph.D.

Milos Brodak MD, PhD

Head of Division of Urology

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