## **Abstract**

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Title of Thesis: In vitro mechanism of action of quinoxaline derivate

VN-034 on the respiratory system

Abstract: The aim of this thesis was to investigate the

mechanism of relaxation effect of quinoxaline

derivative VN-034 in vitro, and to evaluate the

potential of the substance to act as a β-agonist or

M-antagonist. The classical in vitro method of

isolated trachea was applied. In our experimental

work VN-034 did not behave as a competitive

β-agonist, however propranolol had an influence on

its effect. On  $\beta$ -receptors, detailed mechanism of

action could not be determined. On M-receptors, the

substance behaved as a competitive antagonist.