

ABSTRACT

Charles University in Prague

Faculty of Pharmacy in Hradec Králové

Department of Inorganic and Organic Chemistry

Candidate: Pavlína Sochová

Consultant: PharmDr. Marcel Špulák, Ph.D.

Title of Thesis: Quinazoline derivatives as compounds with potential bronchodilatory effect II

The aim of this thesis is to synthesize various derivatives of (-)-vasicin and (-)-vasicinone and explore their bronchodilatory activity. Two most active compounds from previous screening were selected as model structures and the relationship between the bronchodilatory effect and a) the number of nitrogen atoms in heterocyclic core, b) the presence of benzene ring and c) the substitution of benzene ring was investigated.

Preliminary results of bronchodilatory screening showed some promising effects of certain compounds. Even though the activity of the most successful derivatives are not yet comparable to ipratropium bromide, due to the fact that their mode of action is still not explored, it renders them possible target for further development.