UNIVERZITA KARLOVA V PRAZE FARMACEUTICKÁ FAKULTA V HRADCI KRÁLOVÉ

Téma diplomové práce

Purinoreceptors in the urinary bladder of the rat>

altered effects of purinergic P1A1 receptors in cystitis

Jméno studenta, studentky

Jméno oponenta

Renata Veselá

Mgr. Ondřej Soukup

II. Posudek oponenta

Diploma thesis (DT) of Renata Veselá is dealing with the expression of purinergic receptors, namely P1A₁ and P2X₁ subtypes in the rat urinary bladder, their changes in location during the inflammatory process and their physiological role. The experimental part of DT was done at the Sahlgrenska Academy at Göteborg University in Sweden. The thesis has 77 pages of text and contains 3 tables and 14 figures and 8 graphs. In the "References" part, there are 52 citations.

In the "Introduction" part of the DT student described anatomy, histology and physiology of the urinary bladder, then the neural control and the receptors involved in the micturition and also decribed the problem of the incontinence and overactive bladder. In the experimental part, there are described *in vitro* studies performed on the bladder strips, and immunohistochemical investigation of purinoreceptor expression in the healthy and inflamed bladder.

The whole DT is clearly written, with very few minor typographical errors and some lacking citations. Used citations are recent. Methods used for investigation corresponding with the aims of DT and were adequately chosen. The author solved successfully all topics determinate in the part describing the aims of this work.

I have a 2 question for the author:

How did you check the viability of the bladders strips?

Did you observe any dependence of the response on the size of precontraction?

Proposed work is fully corresponding with the rules for DT and therefore I am recommending it for the defence.

Předložená práce vyhovuje požadavkům kladeným na DP a proto ji doporučuji k obhajobě.

Navrhovaná klasifikace

Výborně-Excellent

V Hradci Králové dne

29. 5. 2009

Podpis oponenta diplomové práce