

Téma diplomové práce

Developmental expression pattern of Slco1c1

Jméno studenta, studentky

Jana Hroudová

Jméno vedoucího diplomové práce

Doc. Ing. Vladimír Wsól, Ph.D.

I. Posudek vedoucího diplomové práce

Diplomantka Jana Hroudová se zapojila do výzkumné práce ihned po absolvování předmětu xenobiochemie a její téma zpočátku zasahovalo experimentálně do hledání vhodných inhibitorů pro karbonylreduktasu AKR1C3, a které bylo součástí většího grantového úkolu.

Později se diplomantka rozhodla vypracovat svou DP v rámci programu Erasmus na zahraničním pracovišti. Svou práci dělala na farmakologickém institutu na univerzitě v Heidelbergu pod vedením prof. Murkuse Schwaningera, který byl s jejím přístupem i pracovním úsilím mimořádně spokojen (viz příloha).

Navrhovaná klasifikace **v ý b o r n ě**

V Hradci Králové dne 30.5.2008



Podpis vedoucího diplomové práce



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Dear Dr. Wsol,

We are from the Institute of Pharmacology, University of Heidelberg. Prof. Markus Schwaninger is the principle investigator of the lab and Ming-Fei Lang is a PhD student in the 4th year. We supervised Jana Hroudova's research in our lab during her stay.

Jana's project is part of a transgenic study. In this study, we generated a mouse that carries Cre recombinase under the control of the *Slco1c1* locus. *Slco1c1* encodes a protein, *Oatp1c1* (*Oatp14*), which is a thyroxine transporter (T4) found in blood-brain barrier endothelial cells and choroid plexus epithelial cells in adult. But the developmental expression was unknown. When Jana started, we found neuronal expression of the *Slco1c1*-Cre in the transgenic mouse. At the time, the question was which neurons expressed the transgene.

In order to answer the question, Jana established a LacZ staining protocol with *Slco1c1*-Cre; LacZ (*Rosa26*) mice. This protocol gives a strong, still differentiable staining on brain sections. At the same time, she did Nissl staining as well. By examining the sections under microscope, she created an expression table, which tells us which neurons expressed *Slco1c1*-Cre prior to sectioning. Then she was interested to look at *Slco1c1*-Cre expression at an early stage. With the P2 mice we got, she did LacZ and Nissl staining of brain sections. She compared the expression patterns between adults and P2 mice and concluded that neuronal *Slco1c1*-Cre expression happens mostly (if not all) during development.

Jana is a very good student to work with. She is good at grasping new techniques and works independently. She is self-motivated to conduct her project and always works very hard. In our opinion, it is a great accomplishment to do so many things within such a short period of time (4 months). We are totally impressed by her work and results.

Sincerely yours,

Prof. Dr. Markus Schwaninger

Ming-Fei Lang