

## **Abstract**

This thesis takes on the theme of blood-brain barrier. Blood-brain barrier is a physiological barrier, that divides the circulatory system from brain, in place of their konfrontation. Barriers main task is to maintain homeostasis and regulate the transport of substances in both directions. The most important group of proteins, responsible for transport, are the ABC transporters. Alterations of barrier properties during the pathological states, but also the distribution of medical drugs is subject of futher investigations. Overview of the above mentioned themes will be mediated by this thesis.