

## **Abstract**

Nuclear receptors activated by transcriptional factors control expression of biotransformation enzymes and many drug transporters, which are involved in drug elimination through the interactions with xenobiotics. When the nuclear receptors are activated, mechanism of pharmacokinetics drug interactions is triggered and drugs increase activity of biotransformation enzymes or transporters involved in elimination of another co-administrated drug.

This dissertation summarizes our current knowledge concerning transcriptional regulation of drug transporters via the most important nuclear receptors and transcriptional factors. The greatest importance is devoted to the ABC transporters. Databases PubMed, HighWire and ScienceDirect were used as a source of information. I have found information about 25 transporters, which are regulated by 10 nuclear receptors and transcriptional factors.