**In silico and in vitro characterization of Organic Anion Transporting Polypeptides involved in tumor survival and inflammatory processes**

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According to plan, in the first period the plasmid constructs allowing the expression of all 11 human Organic Anion Transporting Polypeptides (OATPs) were created and insect and mammalian cells overexpressing these OATPs were generated. To analyze OATP function, using these cell lines, we established assays for the flow cytometry detection of two fluorescent substrates, Na-fluorescein and fluorescein-methotrexate1. As planned, drugs interacting with OATPs were gathered from databases and data on OATP mutants were collected from publications employing automatic data mining methods. Using the newly developed functional assays these potential OATP-interacting compounds and the functionality of OATP mutants will be tested.

1: Izabel Patik, Melinda Gera, Orsolya Német, Daniella Kovacsics, Csilla Özvegy-Laczka

“Functional expression of human Organic Anion Transporting Polypeptides (OATPs) in Sf9 insect cells reveals sodium-fluorescein as a general OATP substrate”.Poster, 2nd Hungarian Life Sciences Conference 2015, Eger.