**Supplemental data**

**Generation of *SLCO2B1935G/A* and *ABCC12012G/T* plasmids**

Plasmids sequences were verified using Sanger method (Eurofins, Germany) represented on Figure S1.

**FIGURE S1.** Gene sequencing of HEK293 transfected cells with (**a**) OATP2B1WT, (**b**) OATP2B1var, (**c**) MRP1WT and (**d**) MRP1var.

**Generation of stable *ABCC12012G* and *ABCC12012T* overexpressing cell lines and characterization of OATP2B1 expression level**

Models were created using the same method as for the creation of SLCO2B1*935G* or *SLCO2B1935A* models. Cells were selected in culture with gentamicin (G418) in culture and overexpression of MRP1 protein was validated by FACS.

**Effect of *SLCO2B1935G* versus *SLCO2B1935A* overexpression on ATV intracellular accumulation**

Results presented in Figure S2 compare the intracellular ATV accumulation between HEKMRP1WT and HEKCTRL. ATV accumulated after 2h of incubation is lower in HEKMRP1WT compared to HEKCTRL at every concentration although significant at 150 and 500nM of the drug (\*\*\**P* < 0.0001 at both concentrations).

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**FIGURE S2.** ATV accumulation experiment represented in percentage from the control condition (ATV accumulation in HEKCTRL at the lowest concentration) in single transfectant model HEKMRP1WT compared to the control cells HEKCTRL. (\*\*\**P* < 0.0001 HEKMRP1WT compared to HEKCTRL).