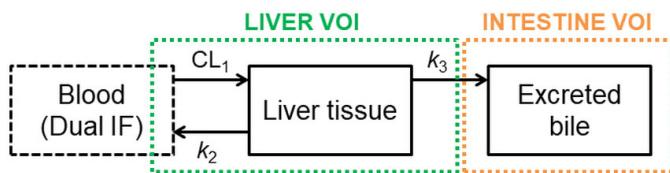


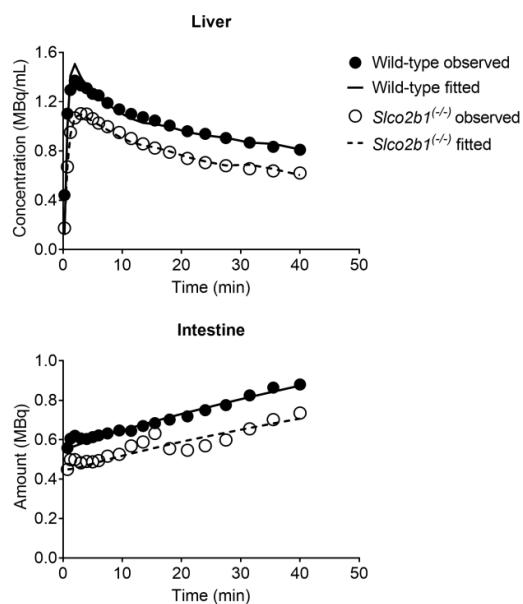


## Supplementary Materials: Imaging-Based Characterization of a *Slco2b1<sup>(-/-)</sup>* Mouse Model Using [<sup>11</sup>C]erlotinib and [<sup>99m</sup>Tc]mebrofenin as Probe Substrates

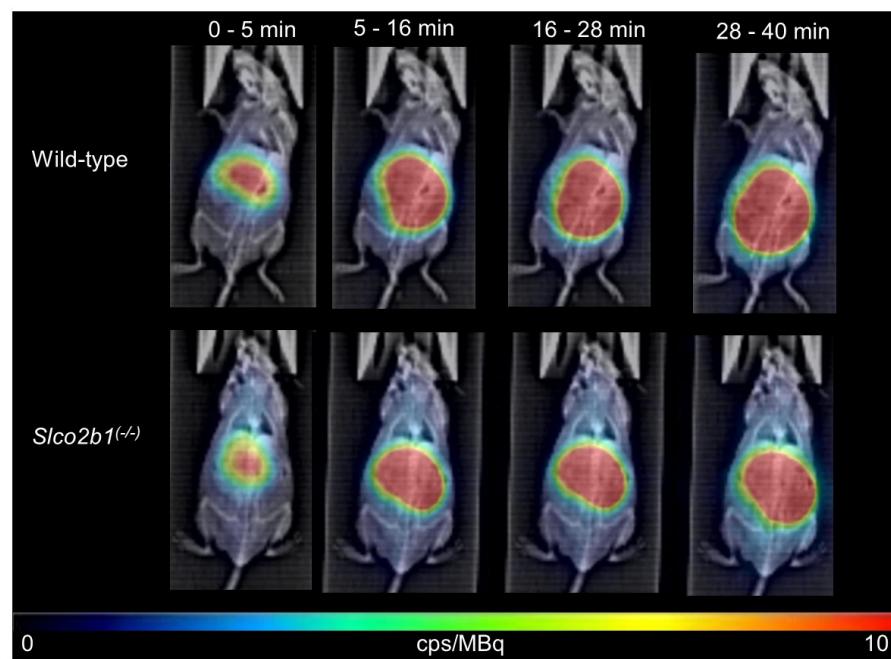
Solène Marie, Irene Hernández-Lozano, Louise Breuil, Charles Truillet, Shuiying Hu, Alex Sparreboom, Nicolas Tournier and Oliver Langer



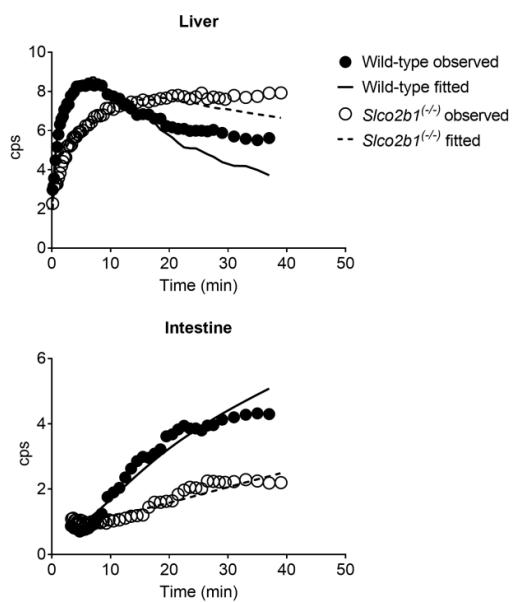
**Figure S1.** Pharmacokinetic model implemented to assess the hepatobiliary disposition of [<sup>11</sup>C]erlotinib and [<sup>99m</sup>Tc]mebrofenin.  $CL_1$  ( $\text{mL}/\text{min}$ ) represents the hepatic uptake clearance, and  $k_2$  and  $k_3$  ( $\text{min}^{-1}$ ) are the rate constants defining the transfer of radioactivity from liver to blood and from liver to intestine, respectively. The model was modified from a previously published liver model [15]. IF, input function; VOI, volume of interest.



**Figure S2.** Observed and fitted time-activity curves (MBq/mL or MBq) of [<sup>11</sup>C]erlotinib in the liver and intestine in one representative wild-type and *Slco2b1<sup>(-/-)</sup>* mouse.



**Figure S3.** Serial CT-co-registered planar scintigraphy images of one representative wild-type and *Slco2b1*<sup>(-/-)</sup> mouse after i.v. injection of [<sup>99m</sup>Tc]mebrofenin. Radioactivity counts (counts per second, cps) are normalized to the injected radioactivity amount (cps/MBq).



**Figure S4.** Observed and fitted time-activity curves (cps) of [<sup>99m</sup>Tc]mebrofenin in the liver and intestine in one representative wild-type and *Slco2b1*<sup>(-/-)</sup> mouse.