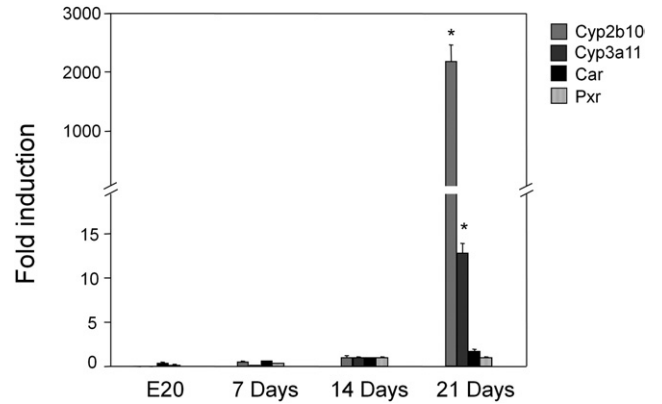
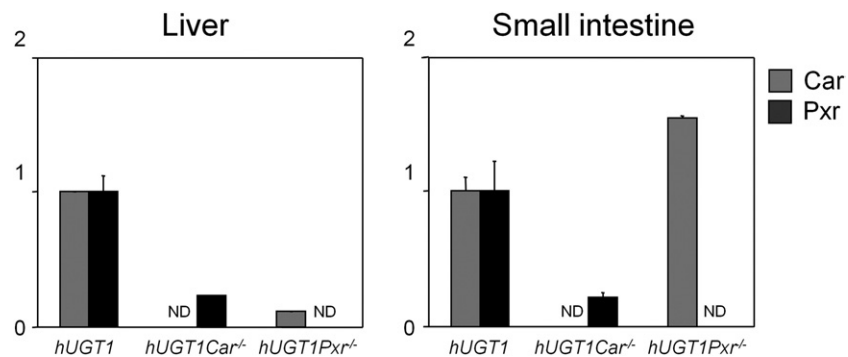


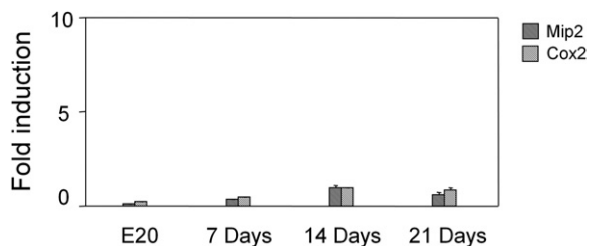
Supplementary Figure 1. Effects of formula on serum bilirubin levels in *hUGT1* mice. Newborn pups were fed with formula A (Enfamil Infant Formula, Mead Johnson & Company), B (Earth’s Best Organic Soy Formula, The Hain Celestial Group, Inc), and C (Baby’s Only Organic Dairy Formula, Nature’s One, Inc) for 5 days. At 14 days, blood was obtained from the submandibular vein and centrifuged at 2000×*g* for 5 minutes. Serum samples (20 μL) were measured for total serum bilirubin using a Unistat Bilirubinometer. The composition of the 3 formulas is shown in Supplementary Table 1. Although nursing pups developed severe hyperbilirubinemia with an average bilirubin value of 12.5 mg/dL (214 μmol/L), mice fed formula exhibited dramatically decreased total serum bilirubin values. *n* > 5.



Supplementary Figure 2. Developmental *Cyp2b10*, *Cyp3a11*, *Car*, and *Pxr* expression in the small intestine. RNA was isolated from intestinal tissue from *hUGT1* mice at embryonic day 20 (E20) and 7 days, 14 days and 21 days after birth. Quantitative real-time PCR was performed to measure relative expression for *Cyp2b10*, *Cyp3a11*, *Car*, and *Pxr*. Fold induction of the genes is expressed as compared to 14-day-old mice. Dramatically lowered *Cyp2b10* and *Cyp3a11* were observed in the mice nursed with breast milk compared to the levels at 21 days, while expression of *Car* and *Pxr* was not changed. Data are expressed as mean ± SD, *n* = 3. **P* < .01.



Supplementary Figure 3. *Car* and *Pxr* expression in *hUGT1*, *hUGT1Car^{-/-}* and *hUGT1Pxr^{-/-}* mice. RNA was isolated from the liver and small intestine of *hUGT1*, *hUGT1Car^{-/-}*, and *hUGT1Pxr^{-/-}* mice at 14 days. Quantitative real-time PCR (Q-PCR) performed for *Car* and *Pxr*. Absence of *Car* and *Pxr* expression in *hUGT1Car^{-/-}* and *hUGT1Pxr^{-/-}* mice was confirmed by Q-PCR analysis. Data are expressed as mean \pm SD, $n = 3$. * $P = .01$. ND, not detectable.



Supplementary Figure 4. Developmental *Mip-2* and *Cox-2* expression in the small intestine. RNA was isolated from intestinal tissue from *hUGT1* mice at embryonic day 20 (E20) and 7 days, 14 days and 21 days after birth. Quantitative real-time PCR was performed to measure relative expression for *Mip-2* and *Cox-2*. Fold induction of the genes is expressed as compared to 14-day-old mice. Although formula-fed mice led to induction of *Mip-2* and *Cox-2* in the GI tract, their developmental change was not observed. Data are expressed as mean \pm SD, $n = 3$.