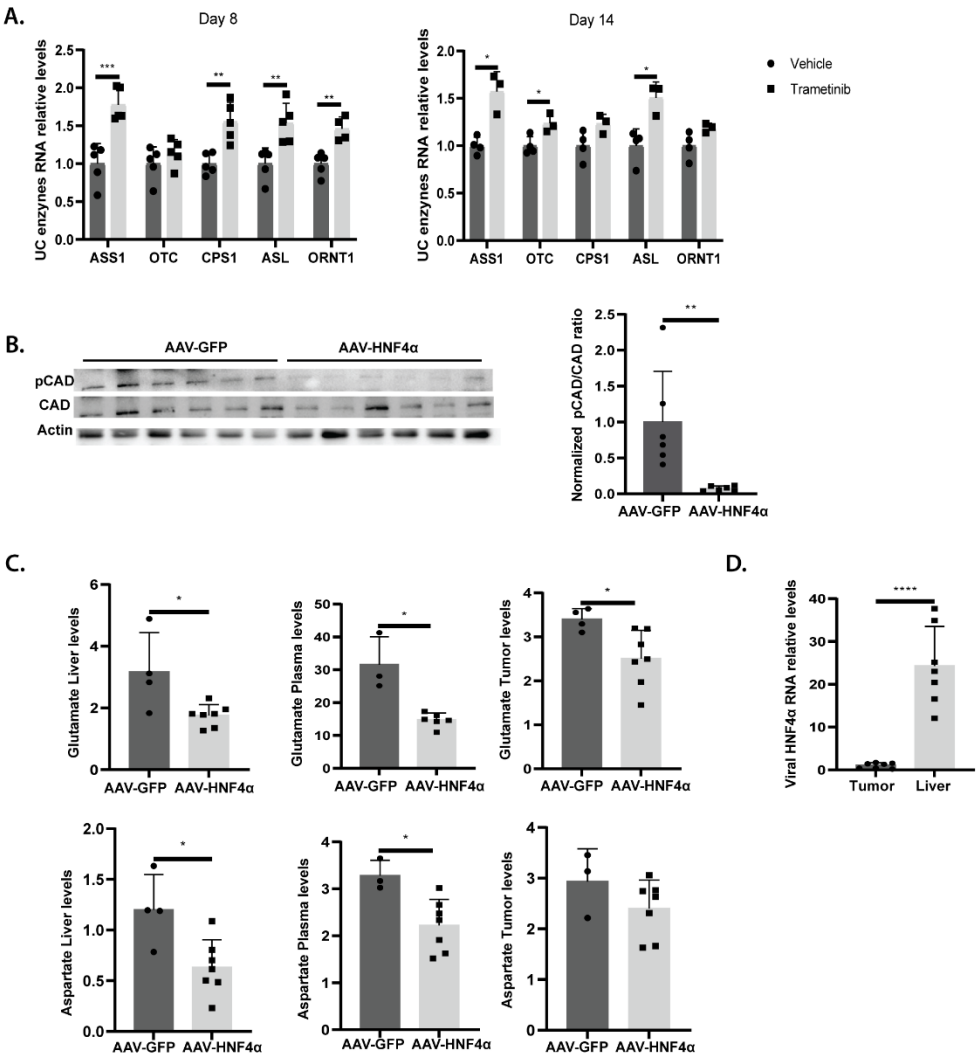
Supplementary Figure S3: Perturbing IL-6-pSTAT-HNF4a signalling preserves liver metabolism and restricts BC tumor growth




**Supplementary Figure 3: Perturbing the IL-6-pSTAT-HNF4a signaling preserves liver metabolism and restricts BC tumor growth. A.** RT-PCR of livers from BC-bearing mice treated with an ERK inhibitor vs. control mice demonstrates increased RNA expression of UC enzymes along cancer progression on day 8 (Left panel) and day 14 (Right panel) compared to non-treated BC-bearing control mice (Day 8 Vehicle = 4, Trametinib n = 5, Day 14 Vehicle n = 4, Trametinib n = 3, student T-Test). Day 8, P = 0.0009, 0.028, 0.007, 0.002, respectively. Day 14, P = 0.004, 0.024, 0.012, respectively. **B.** Left panel- Western blots showing decreased levels of pCAD in tumors from BC-bearing mice treated with HNF4α compared to mice treated with GFP. Right panel- quantification of pCAD band intensity relative to CAD. P=0.009. **C.** 4T1 BC-bearing mice show decreased levels of glutamate (Upper panel) and aspartate (lower panel) in the livers, plasma, and tumors of AAV-HNF4α injected mice compared to AAV-GFP injected mice. Aspartate and glutamate levels were measured with GC–MS, (AAV-GFP n = 3-4, AAV-HNF4α n = 7, student T-Test). P values: Glutamate = 0.019, 0.001, 00.27, respectively. Aspartate: 0.014, 0.016. **D.** RT-PCR of livers and tumors from BC-bearing mice treated with AAV8-HNF4α demonstrates a significant increase in the RNA expression of viralHNF4α (BGH polyadenylation signal) in the liver (n = 7, Student T-Test) P<0.0001.