



**Figure S1: Altered ATP, ApoB100, pre-selected biological pathways, and gene expression in PCLs.** **A** ATP/protein content in human PCLs after up to 96 h incubation in WEGG medium, under either 20 or 80% O<sub>2</sub>. Different colors represent different livers. **B** ApoB100 secretion by PCLs after incubation with WEGG and GFPO. (\*) denotes statistical differences between GFPO and WEGG at each time point, while (#) denotes statistical differences in GFPO or WEGG compared to their corresponding 24 h; \*(#) $p < 0.05$ , \*\*(\*\*#) $p < 0.01$ . **C** Bar chart showing secretion of inflammatory cytokines by PCLs after up to 96 h of incubation (100% to WEGG 24 h). Data are presented as mean ± SD, (\*) denotes statistical differences between GFPO and WEGG at each time point; \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ . **D** Altered "Focal adhesion", "Matrix metalloproteinases", and "ECM receptor interaction" pathways by GFPO compared to WEGG at each time point (\*/\*\* indicates significantly changed compared to the corresponding WEGG, which was calculated by GSEA, \* $p_{adj} < 0.05$ , \*\* $p_{adj} < 0.01$ ). **E-F** Gene expression of VEGFA (E) and HIF1A (F) displayed in z-score by NGS.