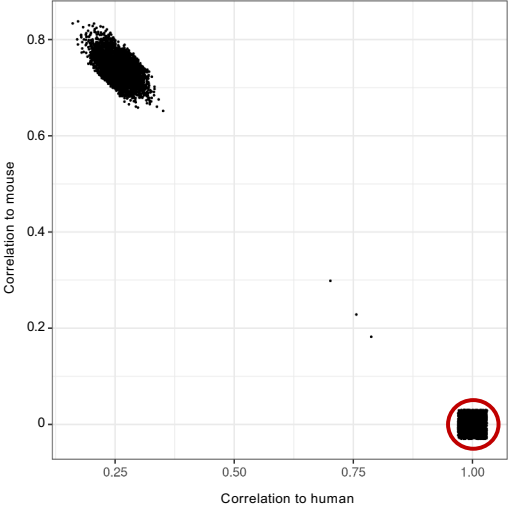
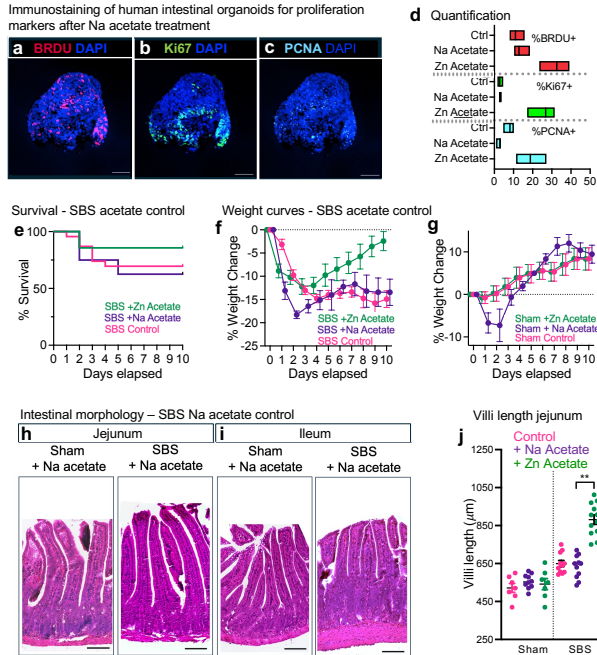


Suppl Fig. 1



Correlation of Single Cell RNA Sequences to Human versus Mouse Reference Sequences. Single cell RNA sequences were aligned to both human and mouse reference genomes by high-throughput alignment. Correlation coefficients were calculated to determine the similarity of each sequence to the human or mouse reference, allowing for the identification and elimination of contaminating mouse sequences. Only sequences with a high correlation to the human reference were retained for downstream analysis.

Suppl Fig. 2. Acetate does not improve adaptation in SBS



Representative immunofluorescence images of human intestinal organoids after an 8-hour pre-treatment with 40 μ M sodium acetate, stained for BrdU (**a**) Ki67 (**b**) and PCNA (**c**). Magnification 25x; scale bar 100 μ m. **d**, Quantification of fluorescence intensity for BrdU, Ki67, and PCNA after 8 hours of treatment with control, 40 μ M sodium acetate, or 40 μ M zinc acetate. Data represent n=3 from two independent experiments per group. Floating bars indicate the range, with the line representing the median. **e**, Survival curves comparing the three groups in a 10-day SBS model. **f**, Growth curves for control SBS mice (Ctrl SBS) (n=10), zinc acetate supplementation (SBS + Zn Acetate) (n=6), and sodium acetate supplementation (SBS + Na Acetate) (n=5) over 10 days. Data points are presented as mean values \pm SEM. **g**, Growth curves for control SBS mice (Ctrl SBS, n=10), zinc acetate supplementation (SBS + Zn Acetate, n=6), and sodium acetate supplementation (SBS + Na Acetate, n=5) over 10 days. Data points are mean \pm SEM. H&E staining of mouse jejunum (**h**) and ileum (**i**) tissue 10 days following SBS or sham surgery, with 80mg/kg supplemented sodium acetate diet. Magnification: 10x; scale bar: 100 μ m. **j**, Average jejunal villi length measured under light microscopy. Data points represent individual villi lengths from 4 mice per experimental group. Bars show mean \pm SEM. T-test, p < 0.0001.