

Figure S1:

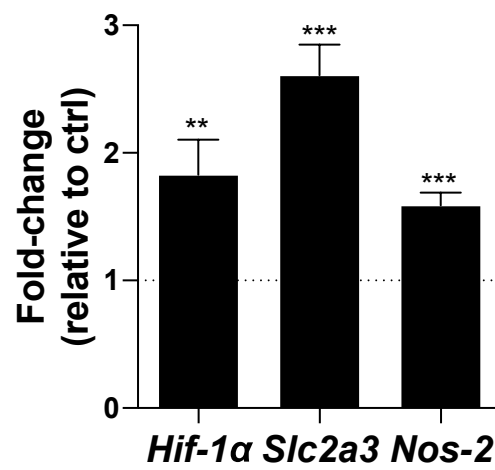


Figure S1: Vancomycin-induced microbiota alterations up-regulate hypoxia-related genes in the placenta, related to Figure 2E-F.

Vancomycin-treatment induces significant up-regulation of *Hif-1 α* , *Slc2a3* (*Glut-3*) and *Nos-2* genes in placental tissue at ed14.5 compared to controls. Gene up-regulation was assessed by real-time RT-PCR. Bars represent mean plus SEM, Wilcoxon signed-rank test (n=6), **p<0.01, ***p<0.001. Each measurement was taken from a distinct sample.

Figure S2:

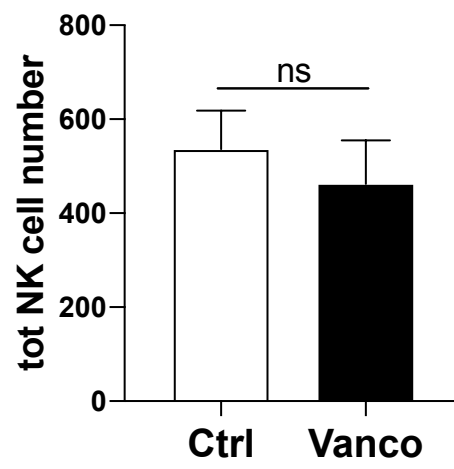


Figure S2: Effect of vancomycin-induced microbiota alterations on placental NK cell number, related to Figure 3A-B.

Vancomycin-treatment (black) slightly reduces total placental NK cell number at ed14.5 compared to controls (white, n=6). Lines represent mean plus SEM, Mann Whitney test, ns=not significant. Each measurement was taken from a distinct sample.

Figure S3:

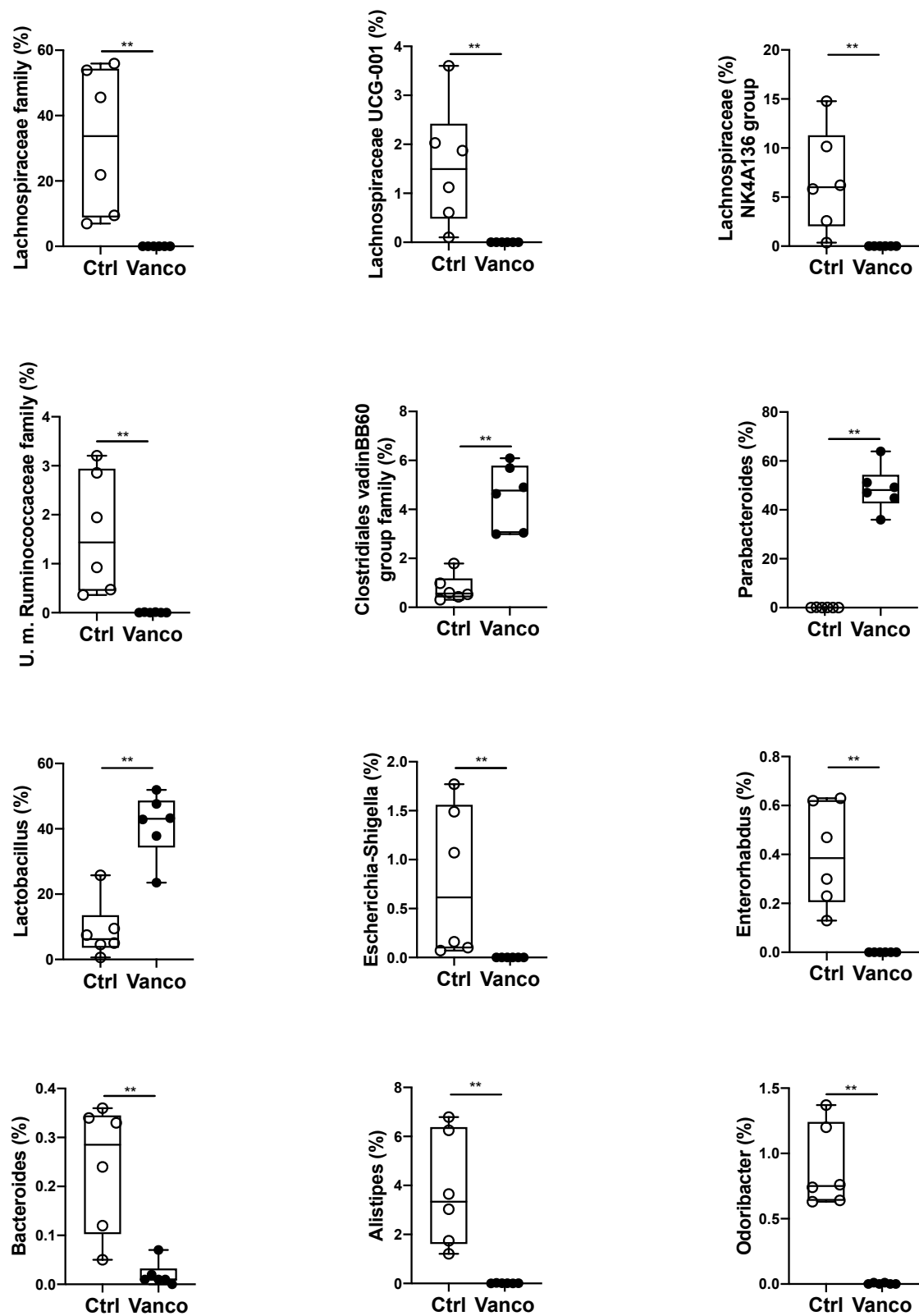


Figure S3: Vancomycin-induced fecal metabolome alterations during pregnancy, related to Figure 4E.

Box and Whisker plots indicating relative abundance of family and genera in the stool of vancomycin-treated (filled symbols) and control (open symbols) dams at ed14.5. Mann Whitney test, ** $p < 0.001$. Each measurement was taken from a distinct sample.

Figure S4:

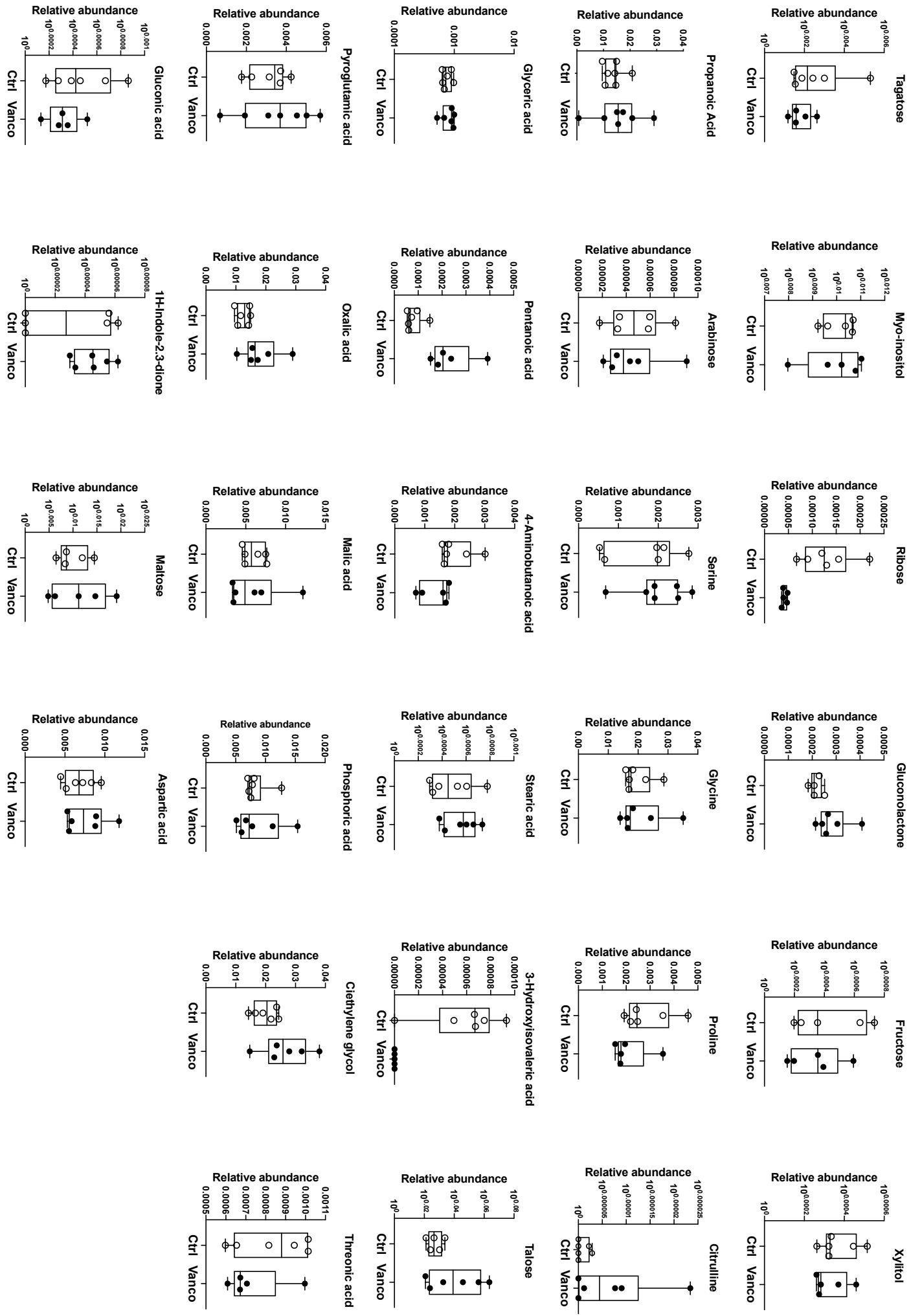


Figure S4: Vancomycin-induced placental metabolome alterations during pregnancy, related to Figure 6C.

Box and Whisker representation of the placenta metabolites amount with VIP >1.5 in control (open symbols) and treated groups (filled symbols) at ed14.5. Each measurement was taken from a distinct sample.

Figure S5:

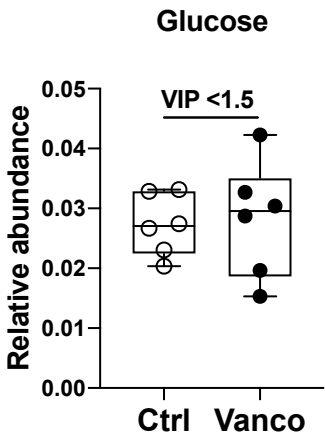


Figure S5: Vancomycin-induced glucose alteration in the murine placental, related to Figure 6D.

Box and Whisker representation of the placental glucose amount in control (open symbols) and treated groups (filled symbols) at ed14.5. Each measurement was taken from a distinct sample.

Figure S6:

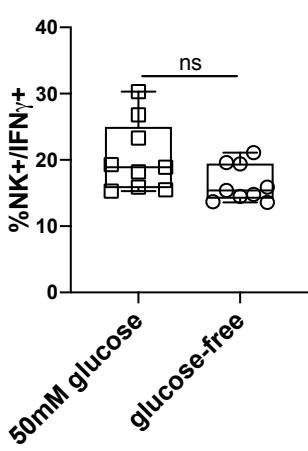


Figure S6: Effect of *in vitro* glucose supplementation on placental NK cell activation, related to Figure 6E.

Placental NK cells of untreated dams (ed14.5) show a slight IFN- γ increase after 6 hours of culture with PMA/ionomycin in media supplemented with 50 mM of glucose (open squares) compared to glucose-free media (open circles). Mann Whitney test, ns=not significant. Each measurement was taken from a distinct sample.