

Supplementary Information

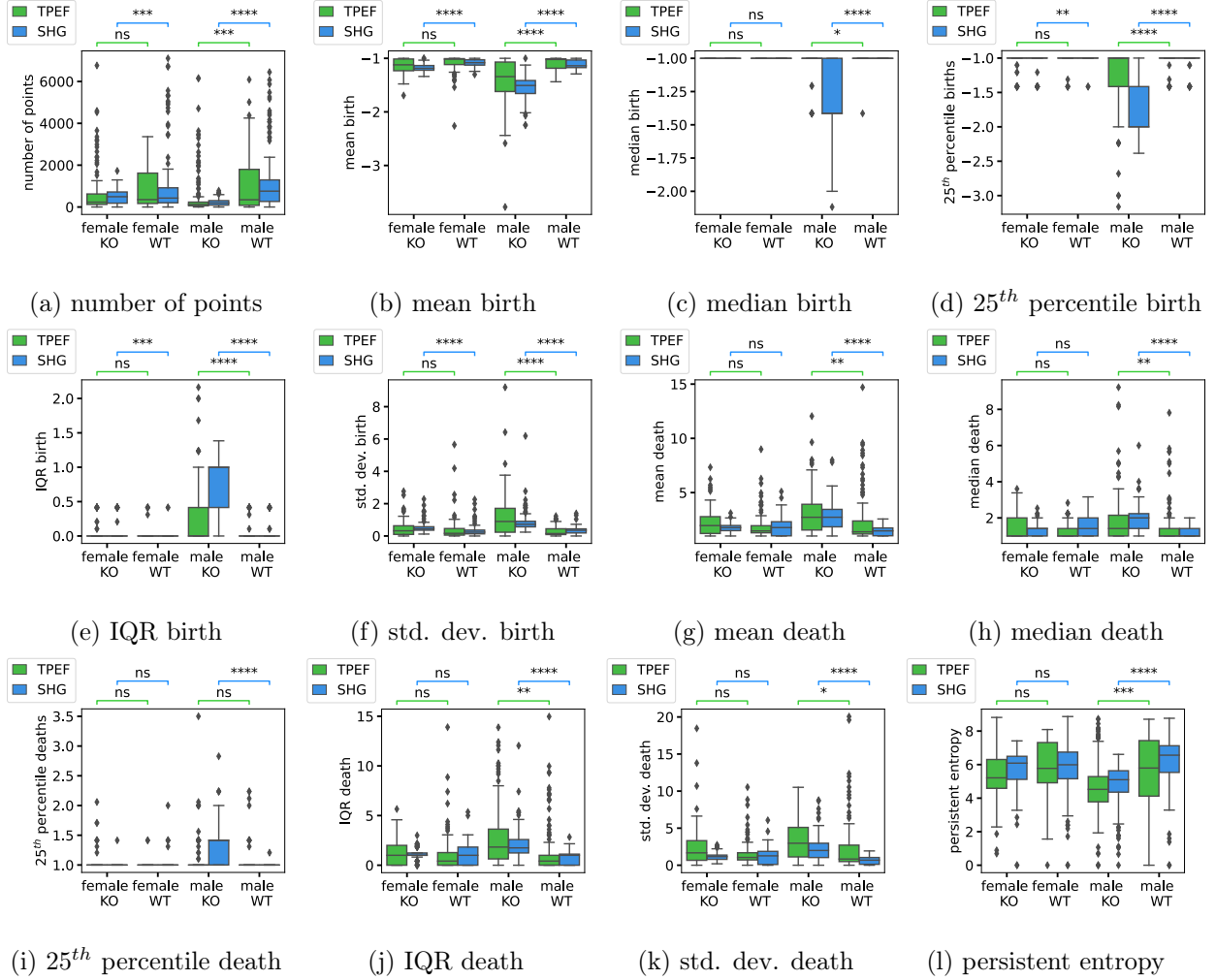


Figure S1: Box plots of persistence statistics from quadrant 2 of H_0 per image patch, which summarise the micro-holes. We annotate their significance using the adjusted p -values for four comparisons (male OcnVEGFKO v. male WT, female OcnVEGFKO v. female WT, male OcnVEGFKO v. male WT, female OcnVEGFKO v. female WT) on each imaging type (TPaF or SHG). Here the stars indicate significance levels: ‘ns’ is not significant $0.05 < p \leq 1$, ‘*’ $0.01 < p \leq 0.05$, ‘***’ $0.001 < p \leq 0.01$, ‘****’ $0.0001 < p \leq 0.001$, and ‘*****’ $p \leq 0.0001$. We include only four of eight significance annotations for readability. Std. dev. is the standard deviation and IQR is the interquartile range.

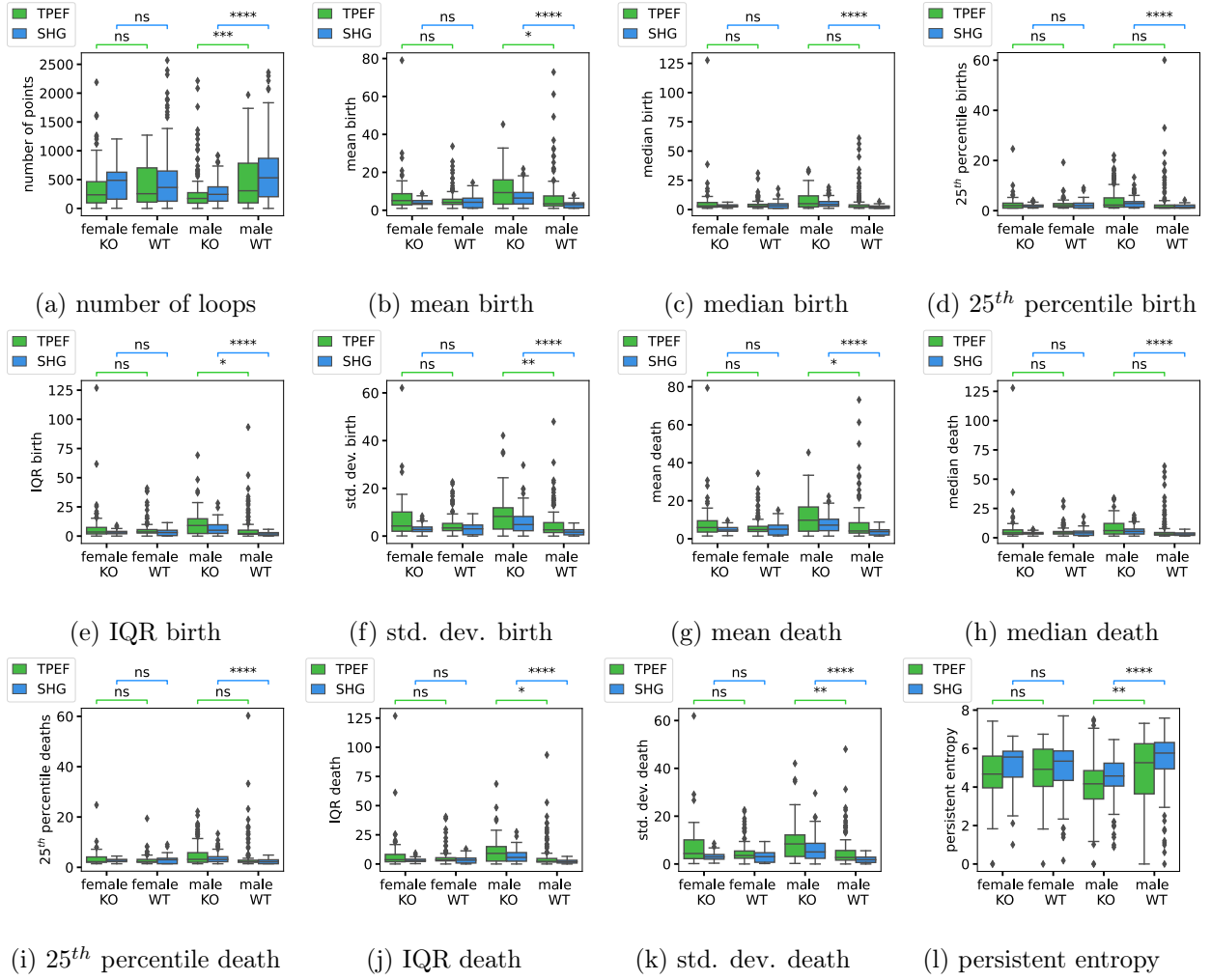


Figure S2: Box plots of persistence statistics from quadrant 1 of H_1 per image patch, which summarise the loops in the filtration that are regions of bone surrounded by micro-holes. We annotate their significance using the adjusted p -values for four comparisons (male OcnVEGFKO v. male WT, female OcnVEGFKO v. female WT, male OcnVEGFKO v. male WT, female OcnVEGFKO v. female WT) on each imaging type (TPaF or SHG). Here the stars indicate significance levels: ‘ns’ is not significant $0.05 < p \leq 1$, ‘*’ $0.01 < p \leq 0.05$, ‘**’ $0.001 < p \leq 0.01$, ‘****’ $0.0001 < p \leq 0.001$, and ‘*****’ $p \leq 0.0001$. We include only four of eight significance annotations for readability. Std. dev. is the standard deviation and IQR is the interquartile range.