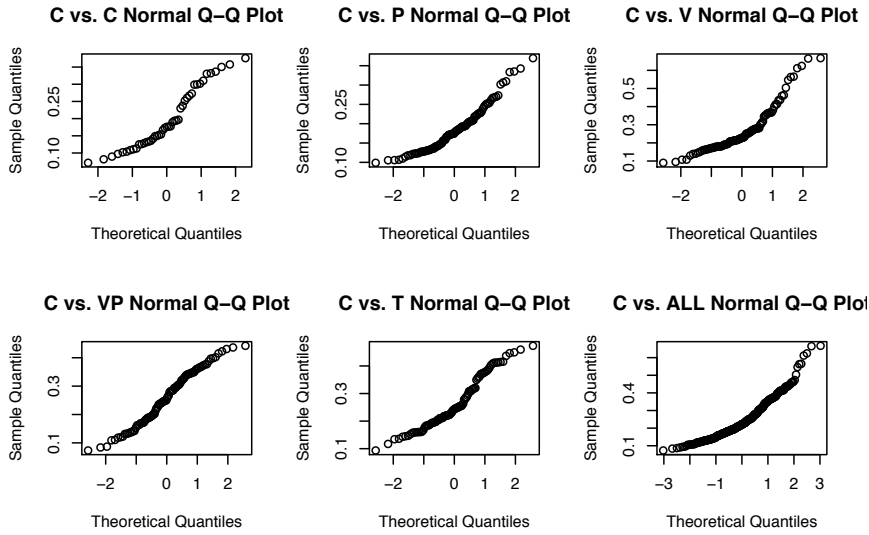
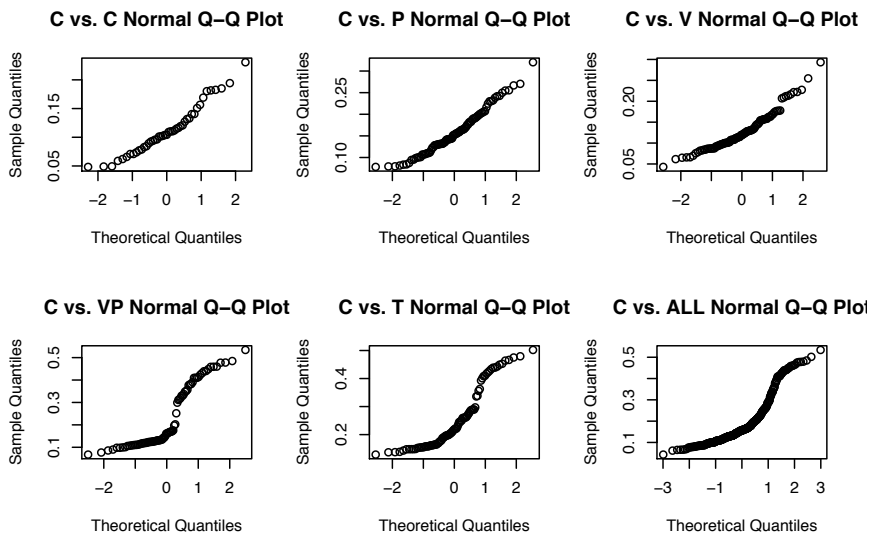


Online Figure 1. Mean growth of female study mice overlaid on growth curves for C57BL/6J mice from Jackson Laboratory. The growth curves for the experimental female mice are indicated by the red stars (n=40 mice). Each star indicates the mean of the weights of all the experimental mice at that time point. The mice in our study grew near the mean of the expected range for female Jackson mice. (Growth chart source: <http://jaxmice.jax.org/support/weight/000664.html>).

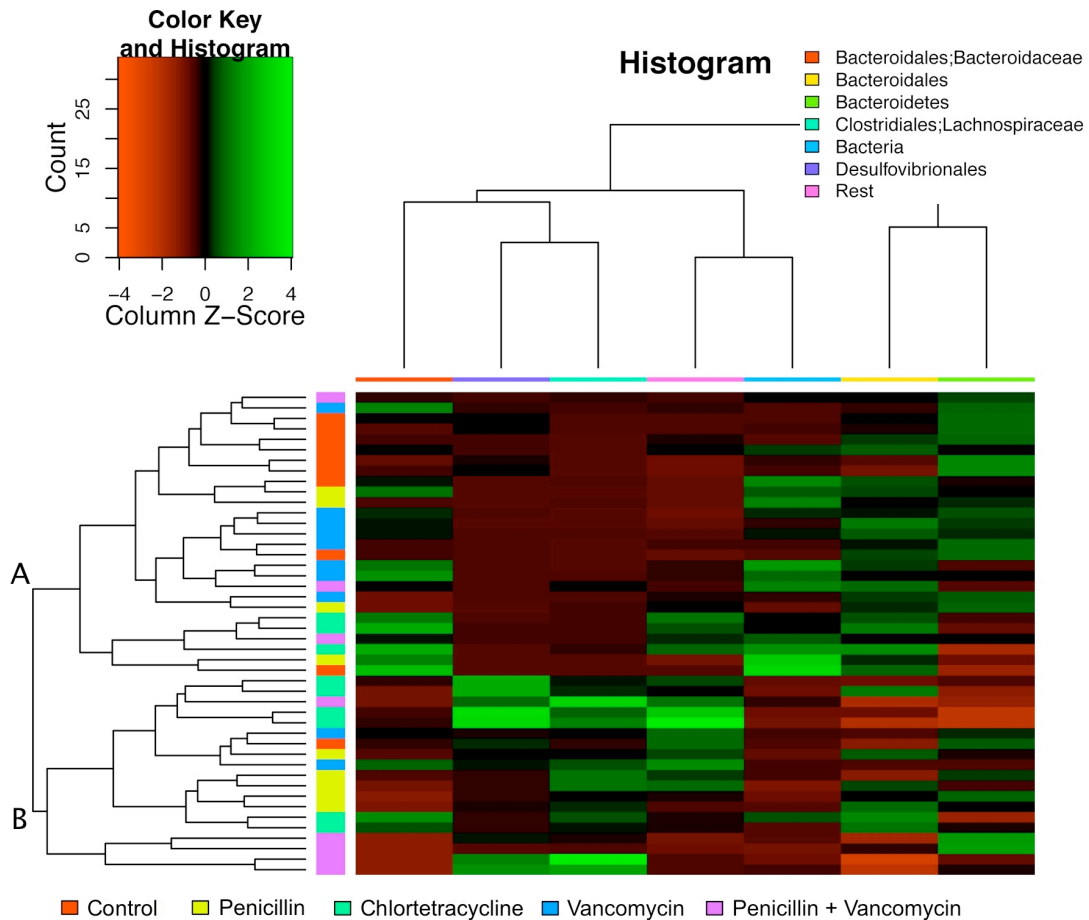
A.



B.



Online Figure 2. Normal quantile plots for weighted Unifrac distances within Controls (C vs. C) and between treatment groups (C vs. P, C vs. V, C vs. VP, C vs. T, C vs. ALL). Comparisons shown for (Panel A) cecal and (Panel B) fecal specimens. Quantile plots are diagnostic for concordance of an empirical distribution with a theoretical distribution (normal, in our analyses). Perfectly concordant distributions result in perfectly linear trends in the plots. Typical plots show linear trend with skew present in the tails. The quantile plots demonstrate this expected shape, over regions of varying length. (Controls n=10, penicillin n=9, vancomycin n=10, penicillin + vancomycin n=8, chlortetracycline n=10)



Online Figure 3. Heat map generated using the non-Euclidean Canberra distance metric. Since Euclidean distance metrics may be influenced by artifacts when clustering taxon tables, non-Euclidean distance metrics also were used to generate a heat map of 46 fecal specimens (controls n=10, penicillin n=9, vancomycin n=10, penicillin + vancomycin n=8, chlortetracycline n=10) showing the relative abundance of bacteria present at >1% at the Family taxonomic level. Clustering analysis using the Canberra distance metric identified two distinct branches with non-random distributions of control and STAT mice (9 of 10 control mice segregated to branch A; $p < 0.05$). Mice whose samples clustered on branch A trended to have lower percent body fat ($21.9 \pm 0.6\%$) compared to branch B ($23.4 \pm 0.6\%$, $p = 0.09$).