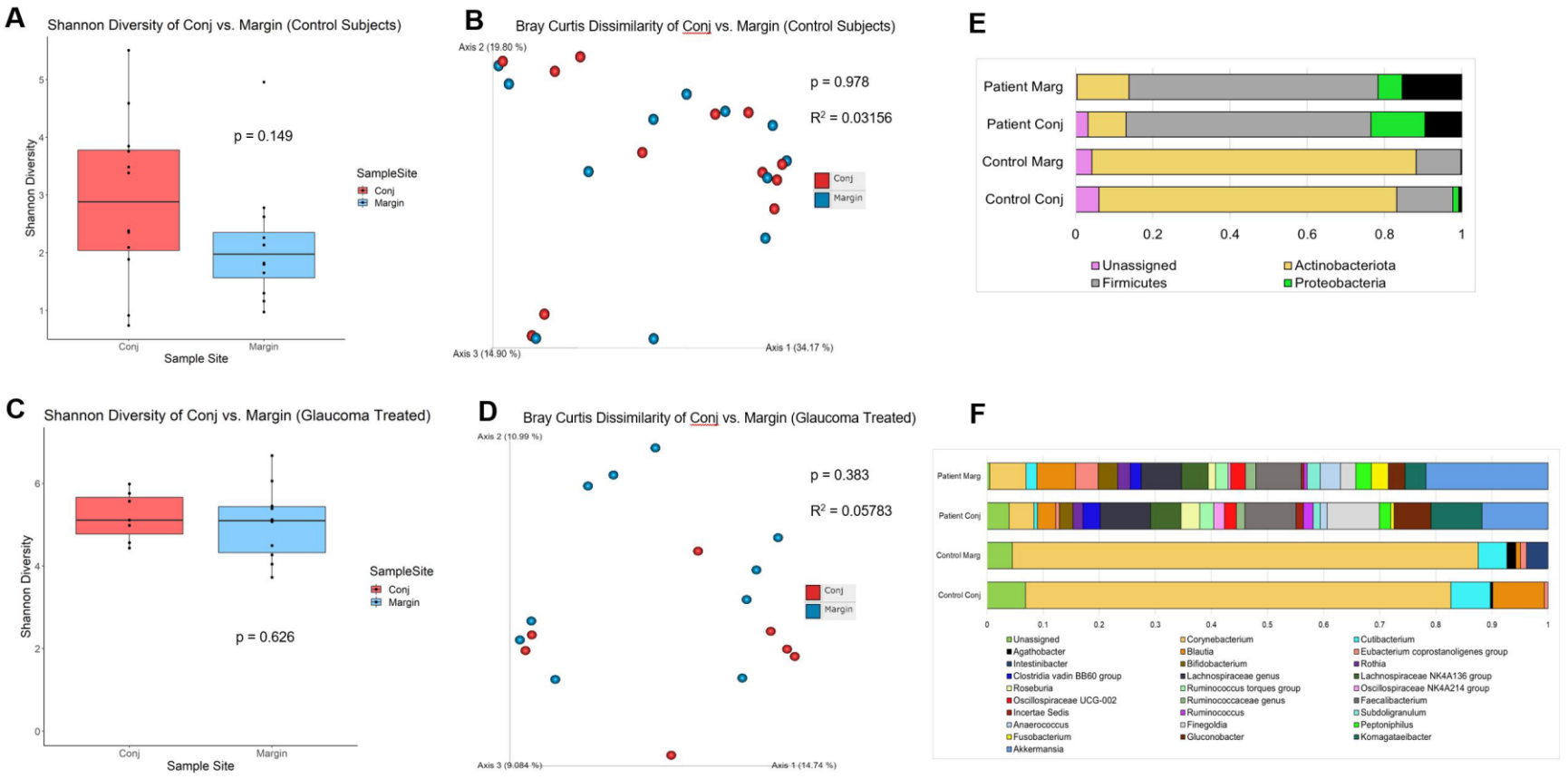

Supplemental Figure 3. Diversity analysis and taxonomic classification by sampling location (conjunctiva vs. margin). Comparisons of alpha- and beta-diversity between samples obtained from conjunctiva vs. margin were divided into separate analysis for control subjects and glaucoma treated patients to control for confounders in effects of treatment and/or presence of glaucoma. (**A**) No differences were found in alpha-diversity metrics between conjunctiva and margin samples for Shannon diversity ($p = 0.149$, Kruskal-Wallis) for control subjects. There were no differences in beta-diversity measure of (**B**) Bray Curtis distances ($p = 0.978$, $R^2 = 0.03156$, PERMANOVA) between conjunctiva and margin samples for control subjects as demonstrated by principal coordinates analysis plots. (**C**) No differences were noted in alpha-diversity metrics between conjunctiva and margin samples for Shannon diversity ($p = 0.626$, Kruskal-Wallis) for glaucoma treated patients. There were no differences in beta-diversity measures between

conjunctiva and margin samples for glaucoma treated patients in (**D**) Bray Curtis distances ($p = 0.383$, $R^2 = 0.05783$, PERMANOVA). The average relative abundance of taxonomic classifications to amplicon sequence variants (ASVs) for margin ("Marg") and conjunctival ("Conj") eye samples for control subjects ("Control") and glaucoma treated patients ("Patients") are displayed at the phylum (**E**) and genus (**F**) level, with no differentially abundant taxonomic classifications. Only taxonomic classifications with >1% (0.01) average relative abundance are shown. The axis values in beta-diversity plots (**C, D**) are the percentage of variance of phylogenetic beta diversity.