

## Supplemental figures

Figure **S1**: EMPeror 3-d plot of three covariance-based PCs; colors represent ethnicity and scaling represents Nugent score category with coral (asian), green (black), turquoise (hispanic), and pink (white) for sphere colorings.



Figure S2: EMPeror biplot:

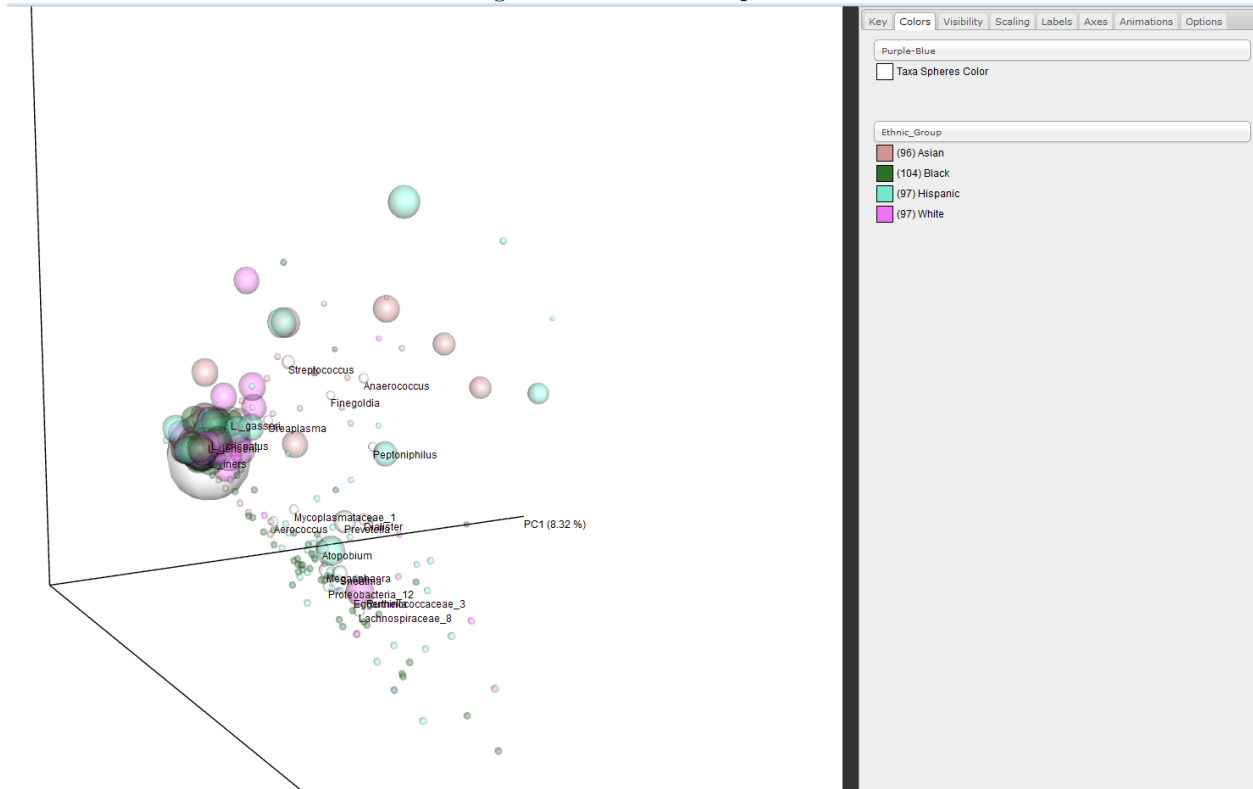


Figure S3: EMPeror biplot:

