

Gut Bacterial Microbiota and its Resistome Rapidly Recover to Basal State Levels after Short-term Amoxicillin-Clavulanic Acid Treatment in Healthy Adults

Chad W. MacPherson^{1*}, Olivier Mathieu¹, Julien Tremblay², Julie Champagne², André Nantel³, Stéphanie-Anne Girard¹ and Thomas A. Tompkins¹

Supplementary Figures:

Figure S1. Alpha diversity metrics (Shannon index) boxplots computed from all OTUs for each experimental condition. Statistical significance was assessed with a t-test: For each group, comparisons between V3 and V2, V4 and V5 were significant (***: p -value < 0.0001 or **: p -value < 0.005). Group A - Placebo Supplement; Group B - Probiotic Supplement

Figure S2. Beta diversity (Weighted UniFrac) metrics computed from all OTUs. Each point represents a sample. Permanova was performed using the “adonis” function of the vegan library. Group A - Placebo Supplement; Group B - Probiotic Supplement

Figure S3. Beta diversity (Weighted UniFrac) metrics computed from all OTUs. Each point represents a sample. Permanova was performed using the “adonis” function of the vegan library. In each plot, all points having the same color represent a sample from the same individual for all experimental conditions.

Figure S4. Summary *in silico* analysis of selected enriched ABR genes (Fig.8) for antimicrobial + supplement (visit 3) in both groups from the classes of aminoglycosides and beta-lactams that were linked to various opportunistic pathogens of the family of *Enterobacteriaceae* using the Comprehensive Antibiotic Resistance Database (CARD).

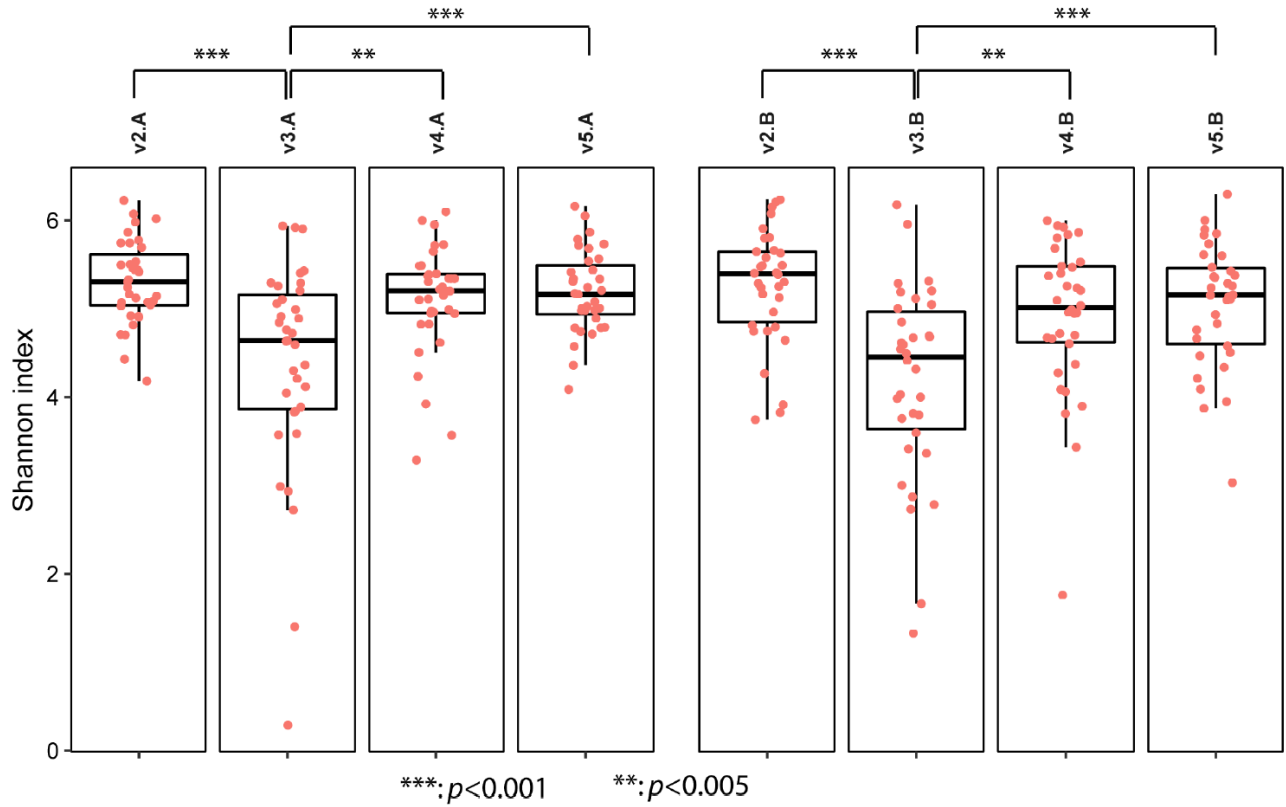


Figure S1. Alpha diversity metrics (Shannon index) boxplots computed from all OTUs for each experimental condition. Statistical significance was assessed with a t-test: For each group, comparisons between V3 and V2, V4 and V5 were significant (***: p -value < 0.0001 or **: p -value < 0.005). Group A - Placebo Supplement; Group B - Probiotic Supplement

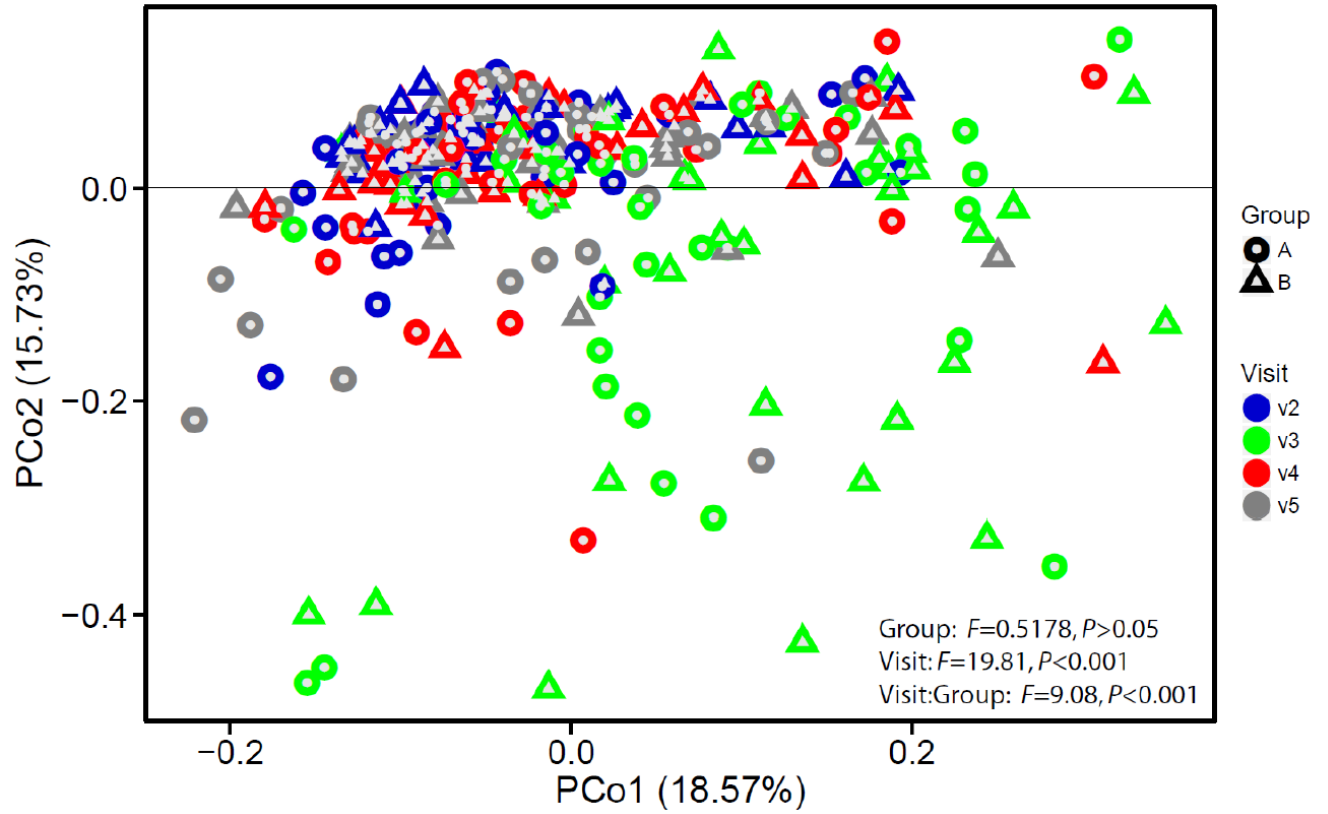


Figure S2. Beta diversity (Weighted UniFrac) metrics computed from all OTUs. Each point represents a sample. Permanova was performed using the “adonis” function of the vegan library. Group A - Placebo Supplement; Group B - Probiotic Supplement

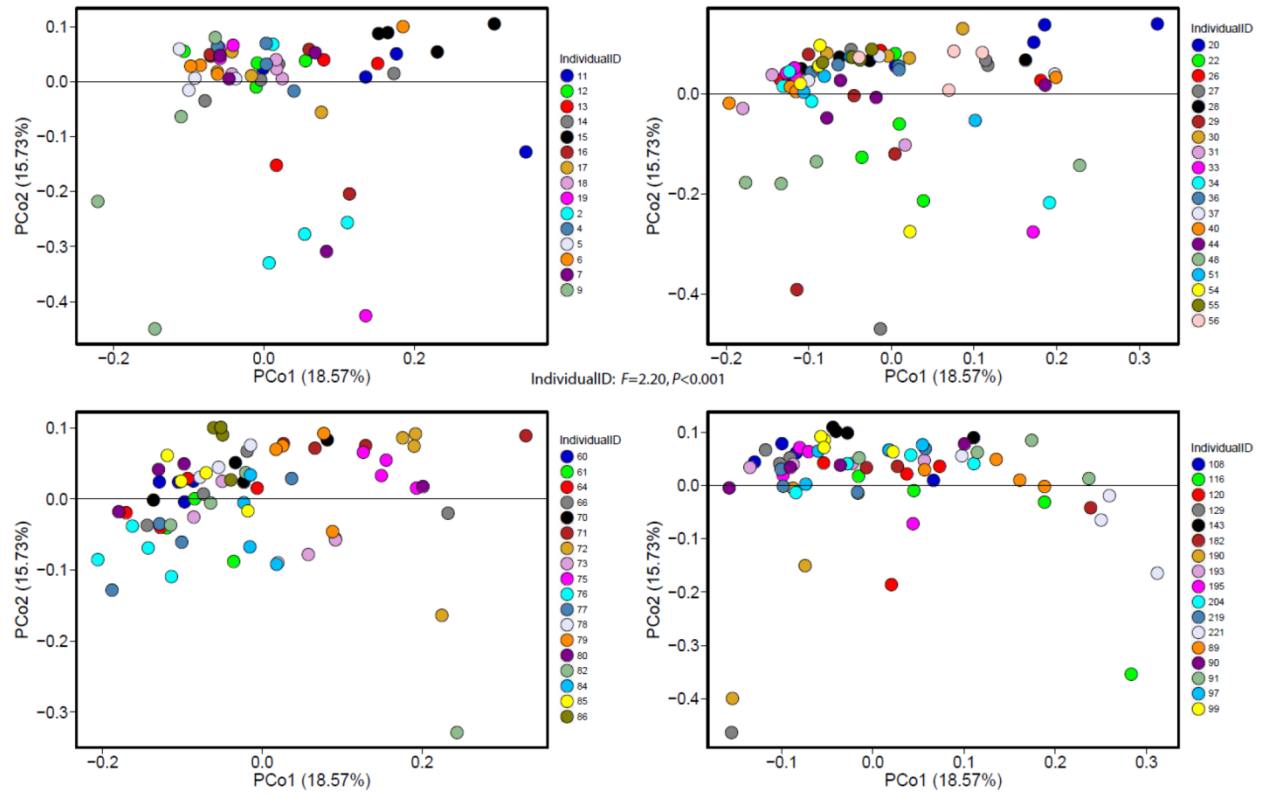


Figure S3. Beta diversity (Weighted UniFrac) metrics computed from all OTUs. Each point represents a sample. Permanova was performed using the “adonis” function of the vegan library. In each plot, all points having the same color represent a sample from the same individual for all experimental conditions.

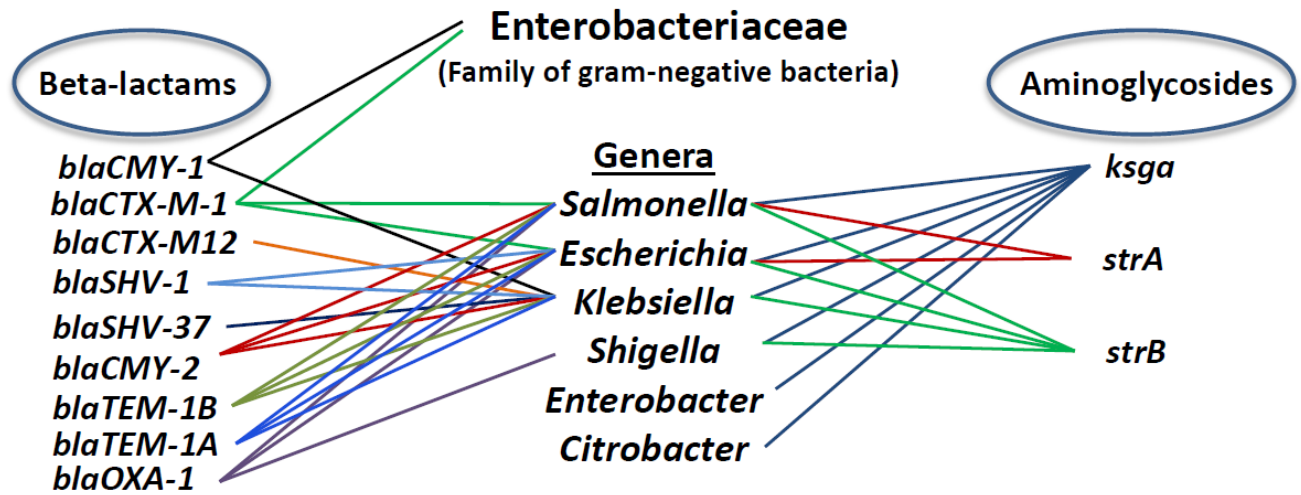


Figure S4. Summary *in silico* analysis of selected enriched ABR genes (Fig.8) for antimicrobial + supplement (visit 3) in both groups from the classes of aminoglycosides and beta-lactams that were linked to various opportunistic pathogens of the family of *Enterobacteriaceae* using the Comprehensive Antibiotic Resistance Database (CARD).