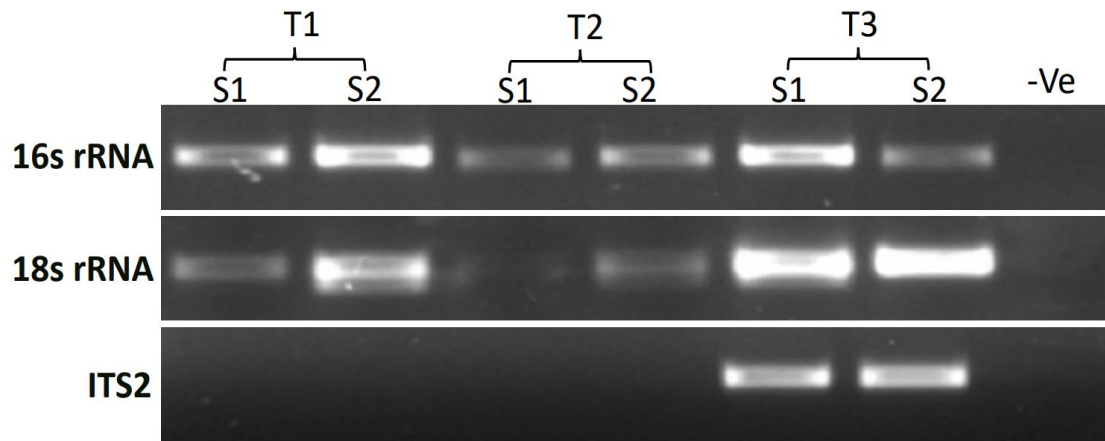
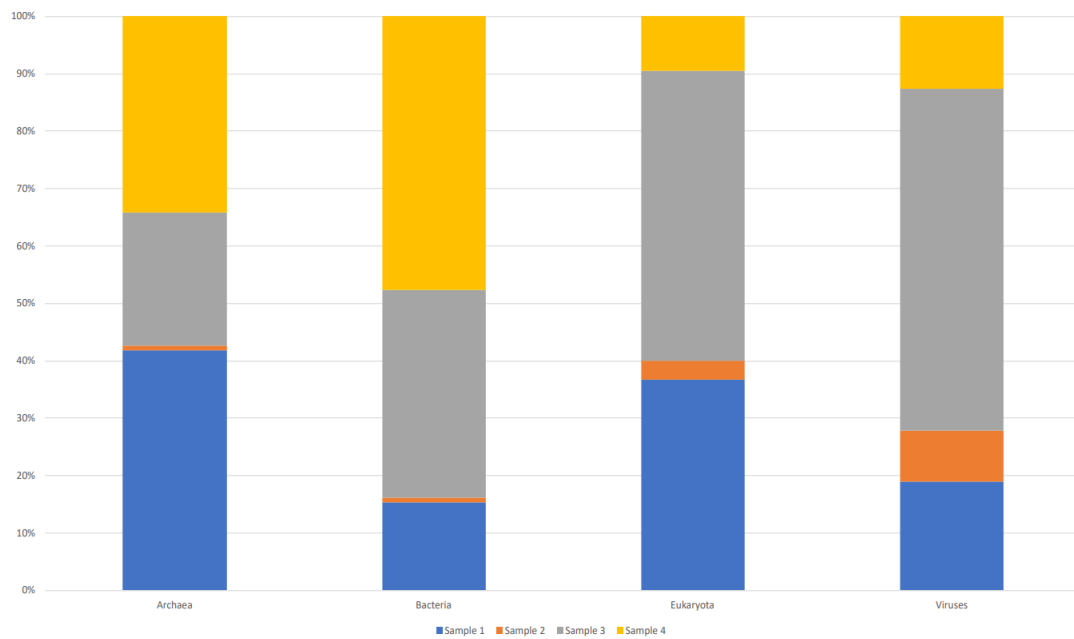


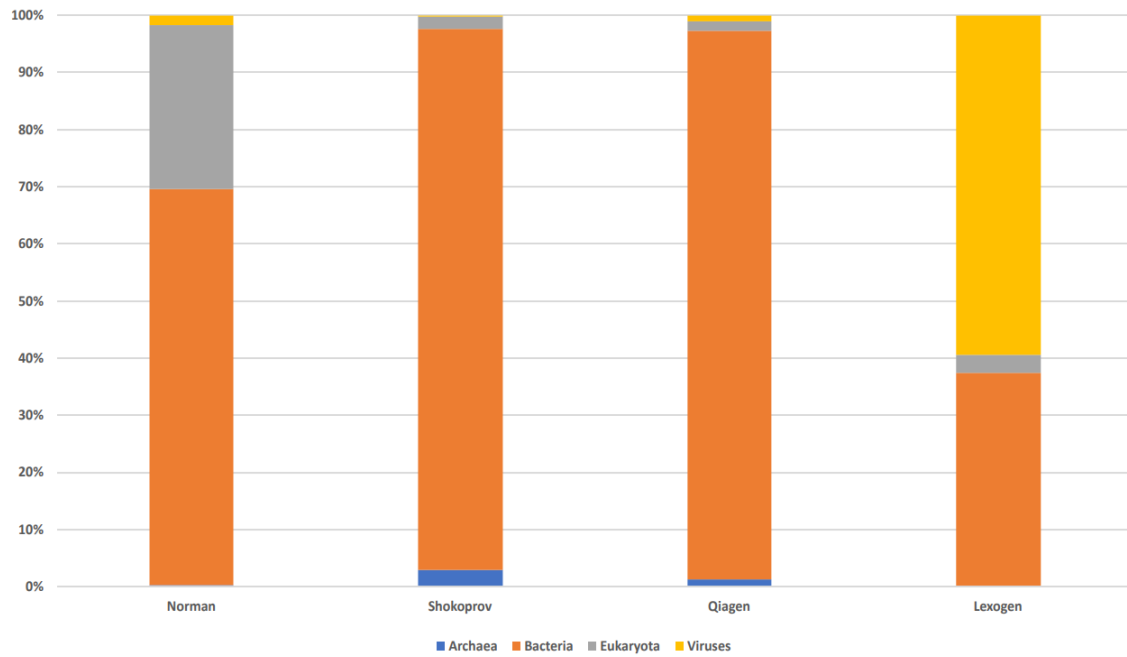
A



B



C



**Figure S1.** Optimization of urinary metagenome and virome protocols. (A) amplification of bacterial and fungal marker genes of urinary metagenome. (B) microbial roots of urinary metagenome in each donor urine sample using T3 protocol. (C) tested protocols for urinary virome. S1 (donor sample 1), S2 (donor sample 2), T1 (treatment 1), T2 (treatment 2), and T3 (treatment 3).