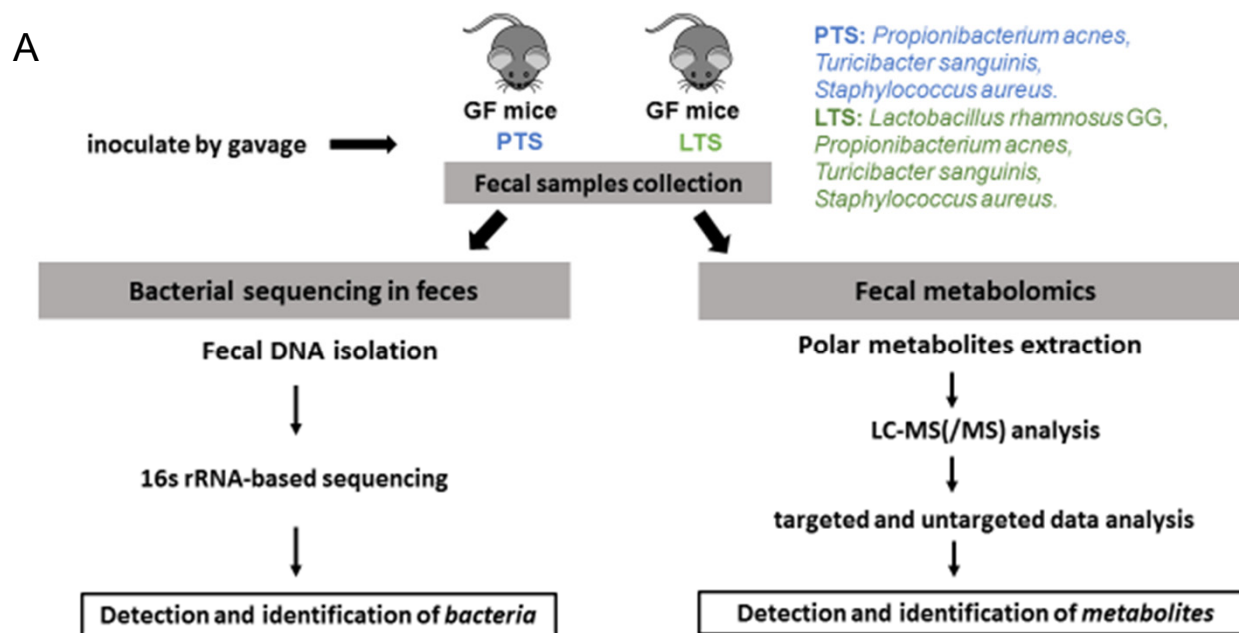


Supplementary Figures.

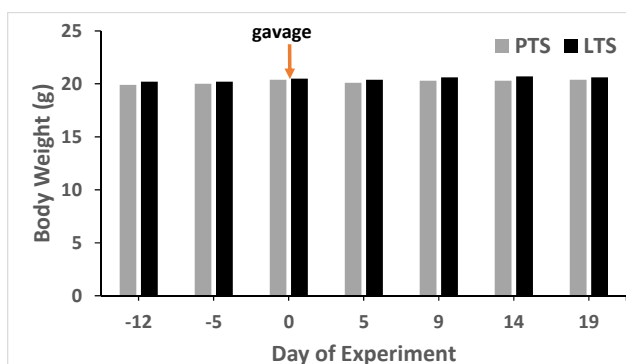
***Lactobacillus rhamnosus* GG modifies the metabolome of pathobionts in gnotobiotic mice**

Jinhee Kim⁺, Iyshwarya Balasubramanian⁺, Sheila Bandyopadhyay, Ian Nadler, Rajbir Singh, Danielle Harlan, Amanda Bumber, Yuling He, Lee J. Kerkhof, Nan Gao, Xiaoyang Su, Ronaldo P. Ferraris⁺, equal contribution

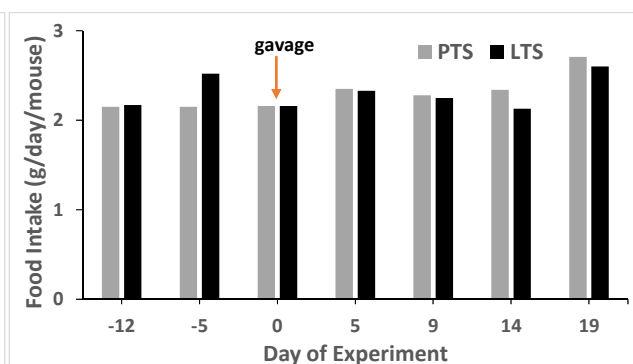
Kim et al. Supplementary Figure 1



B



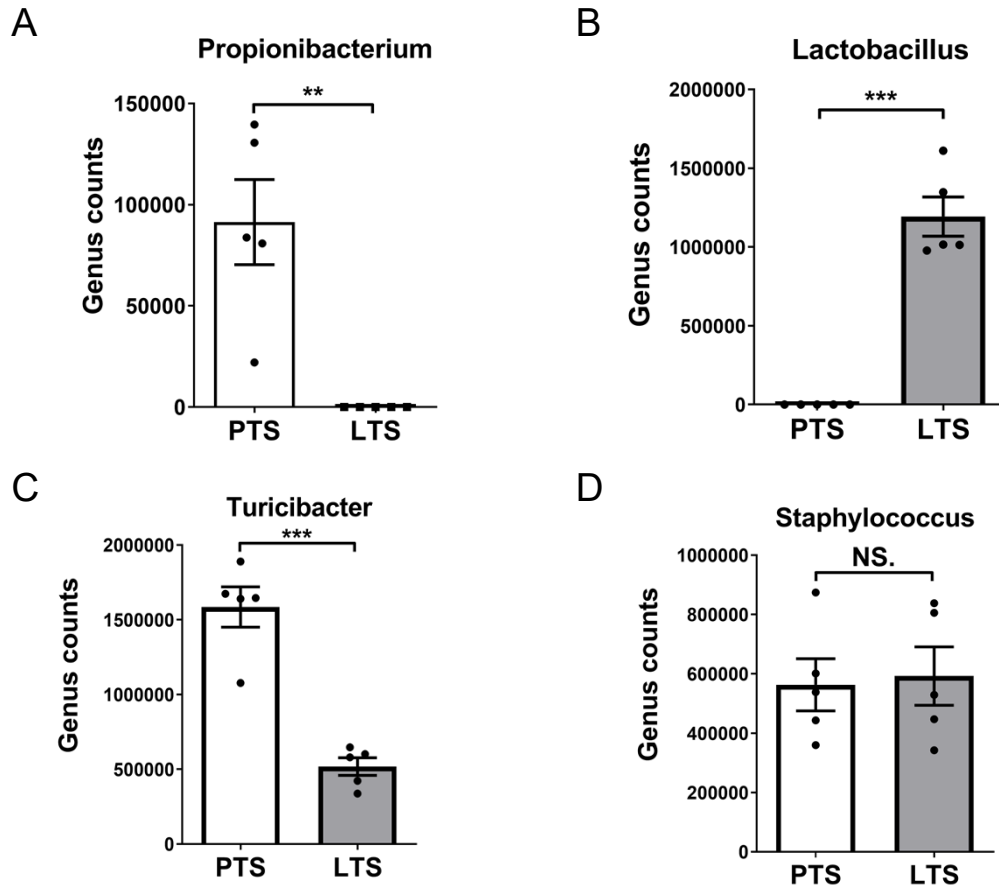
C



Supplementary Fig 1. Experimental design and clinical parameters (A)

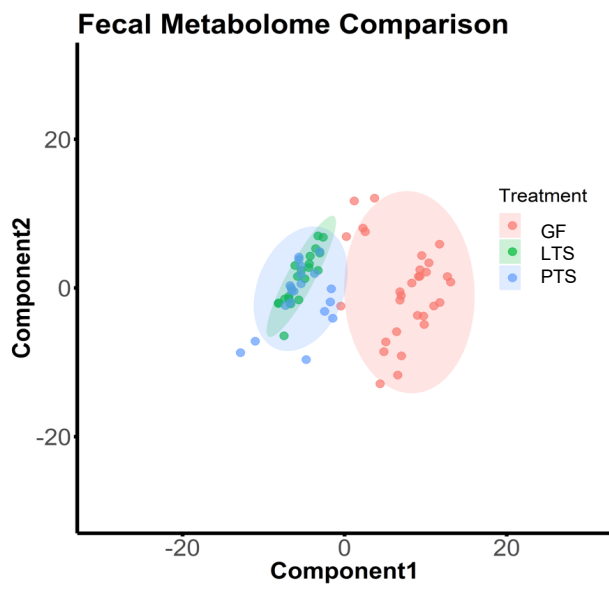
Schematic diagram of experimental plan (B) Body weights as a function of age of mice before and after gavage with PTS or LTS (C) Diet consumption by mice over the course of the study.

Kim et al. Supplementary Figure 2



Supplementary Fig 2. Abundance of pathobionts when coassociated with LGG. Propionibacterium (A), Lactobacillus (B), Turicibacter (C), and Staphylococcus (D) abundance was determined in the feces from PTS (n=5) and LTS (n=5) mice by 16S amplicon profiling.

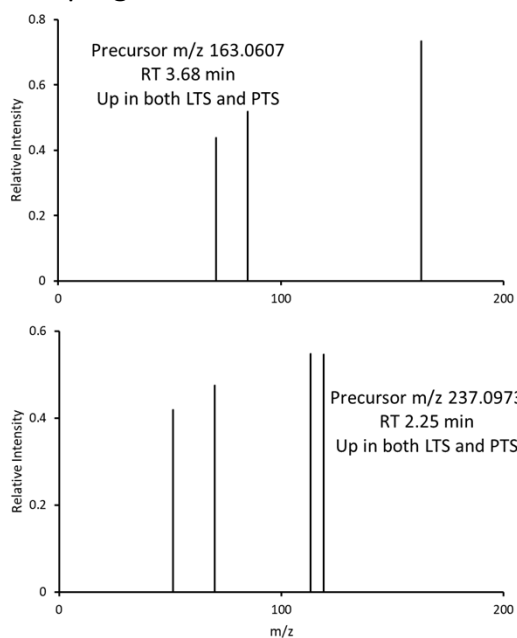
Kim et al. Supplementary Figure 3



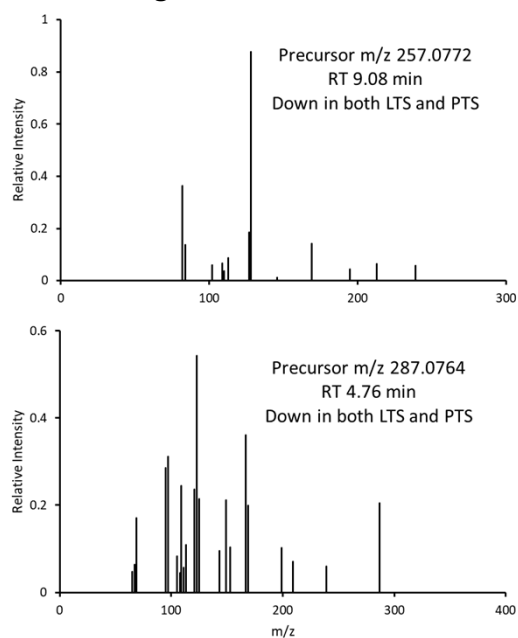
Supplementary Fig 3. Unsupervised principal component analysis (PCA) of fecal metabolites from GF, PTS, and LTS mice.

Kim et al. Supplementary Figure 4

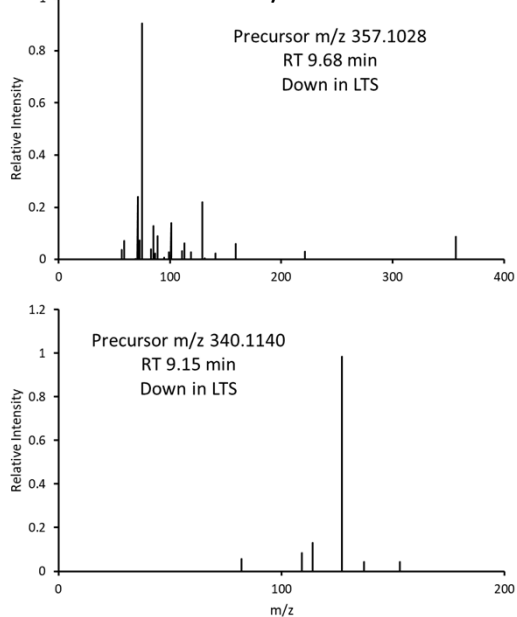
A. Upregulated in both LTS and PTS



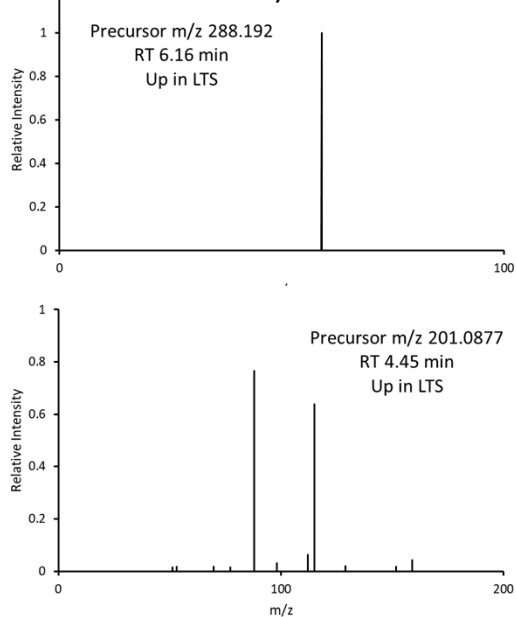
B. Downregulated in both LTS and PTS



C. Downregulated LTS compared to PTS and/or GF

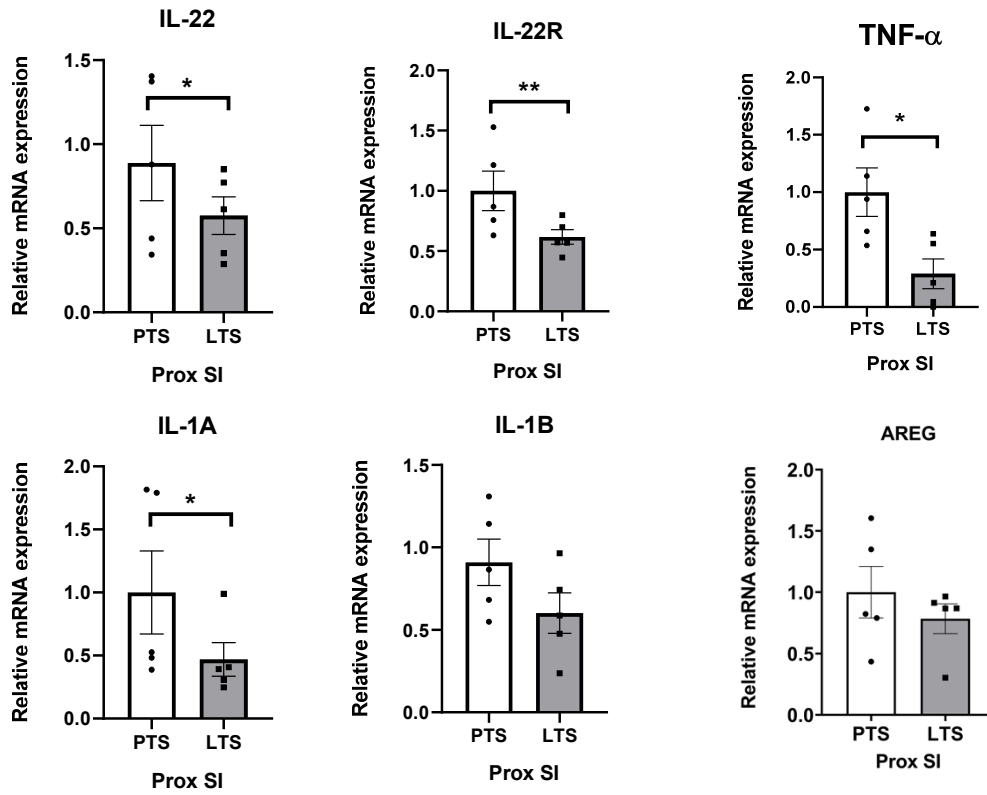


D. Upregulated LTS compared to PTS and/or GF



Supplementary Fig. 4. Accurate mass and MS² spectra of unidentified metabolites

Kim et al. Supplementary Figure 5



Supplementary Figure 5. Relative mRNA expression of intestinal immune-related genes in mucosa of proximal small intestine in GF mice associated PTS or LTS