

Supplementary figures

**Fungal-bacterial interactions in mice with dextran sulfate sodium
(DSS)-induced acute and chronic colitis**

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Running Title: Fungal-bacterial interactions in mice with DSS-colitis.

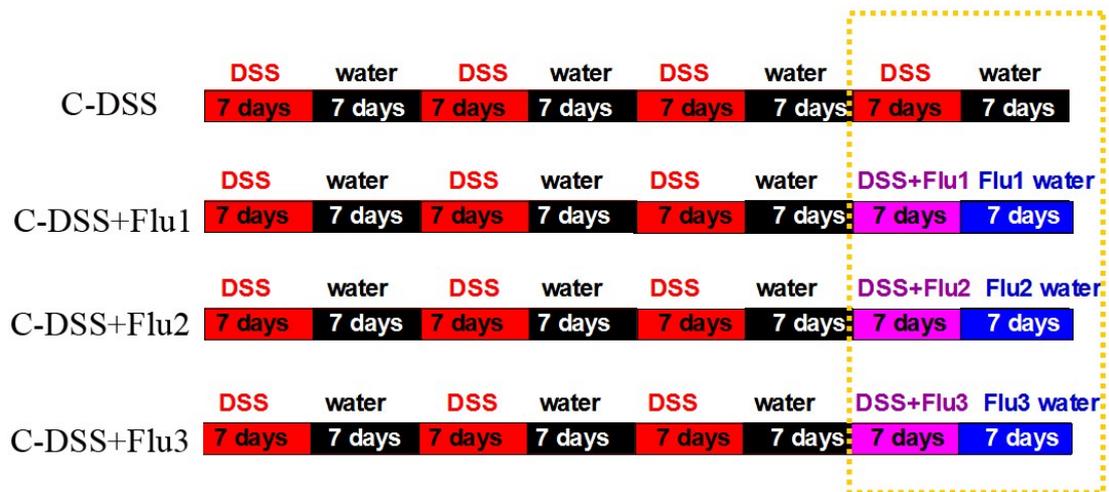


Figure S1. **Fluconazole applied in mice with chronic-DSS (C-DSS) colitis.** To induce C-DSS colitis in mice, mice were treated with four 14-day cycles consisting of seven days of water containing 2.5% DSS followed by seven days of distilled water (DSS + water) before sacrificed. Mice were randomly divided into four groups: C-DSS, C-DSS+Flu1, C-DSS+Flu2 and C-DSS+Flu3. Three different concentration of fluconazole (Flu1: 0.5 mg/mL [Fungal-depleted concentration]; Flu2: 0.125 mg/mL; Flu3: 0.0625 mg/mL) were added into the water on the fourth DSS+water cycle.

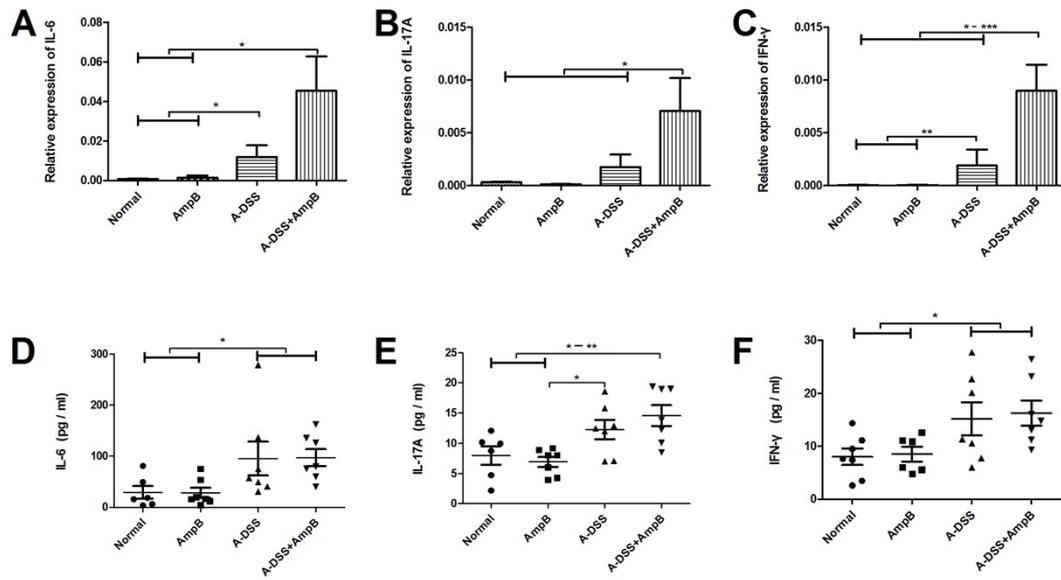


Figure S2. Pro-inflammatory cytokine (IL-6, IL-17A, and IFN- γ) mRNA levels in the colonic mucosa and serum of normal, AmpB, A-DSS and A-DSS+AmpB mice. The mRNA expression levels of IL-6 (A), IL-17A (B), and IFN- γ (C) in the colon were measured by Realtime PCR and normalized to Rpl32 mRNA. (n = 8–10 /group). The protein concentration of IL-6 (D), IL-17A (E), and IFN- γ (F) in the serum were detected by Milliplex TM MAP immunoassay. * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$.

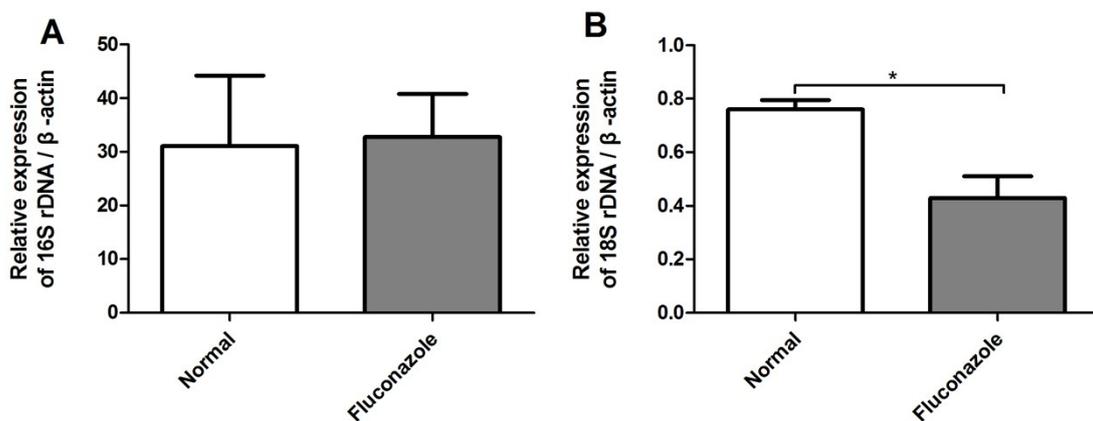


Figure S3. The 16S rDNA (A) and 18S rDNA levels in the colonic mucosa of normal and fluconazole mice. The values are expressed as mean \pm SEM. * $P < 0.05$.

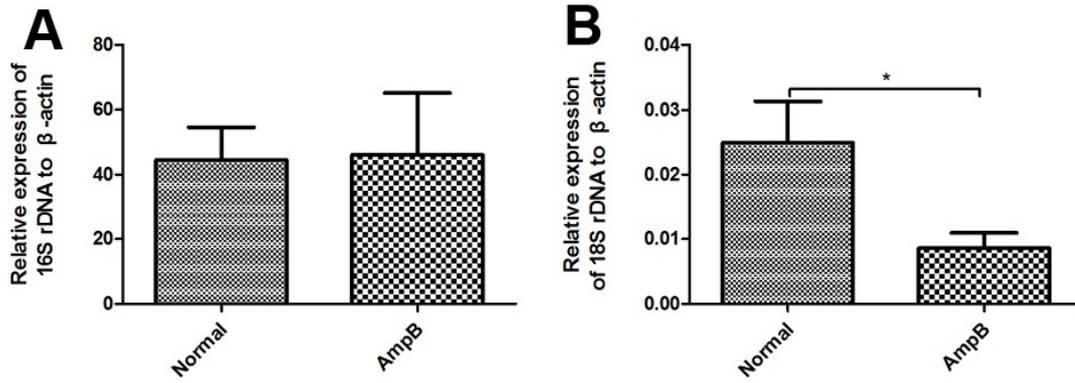


Figure S4. The 16S rDNA (A) and 18S rDNA levels in the colonic mucosa of normal and AmpB mice. The values are expressed as mean \pm SEM. * $P < 0.05$.

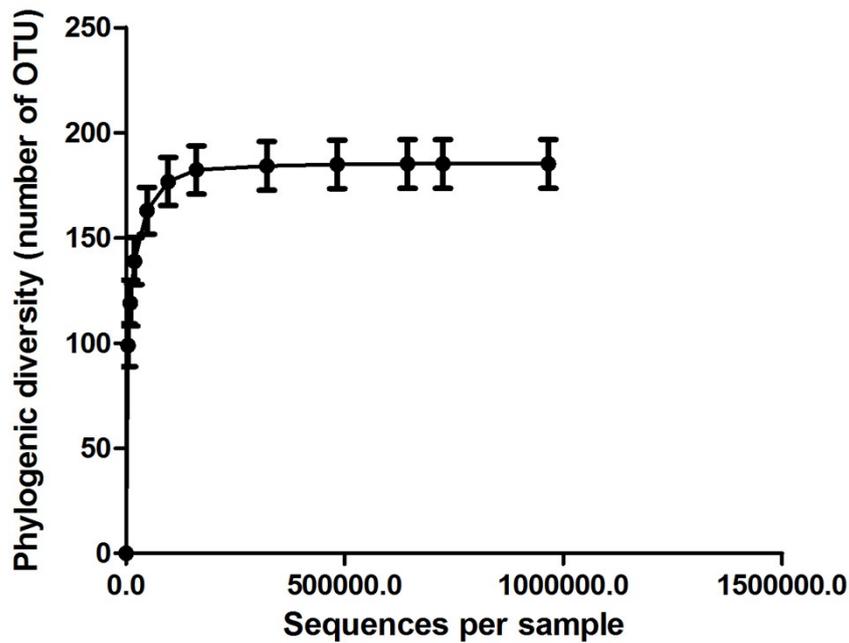


Figure S5. Rarefaction analysis of sampling by observed bacterial OTU method. The rarefaction curve shows the observed number of OTUs on sequence counts at different sequencing depths

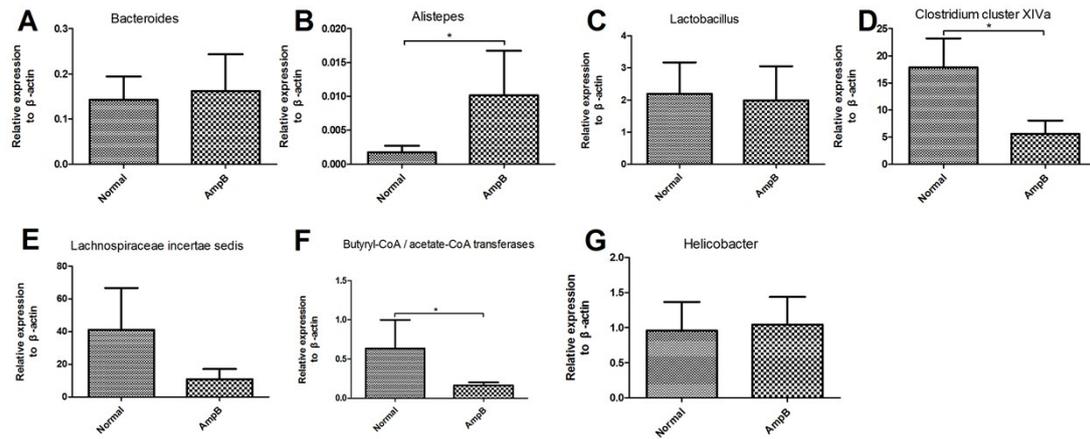


Figure S6. Six different bacterial genera (*Bacteroides*, *Alistipes*, *Lactobacillus*, *Clostridium* cluster XIVa, *Lachnospiraceae* incertae sedis, and *Helicobacter*) and butyryl-CoA/acetate-CoA transferase level in the colonic mucosa of normal and amphotericin B (AmpB) mice were determined by Realtime PCR, β -actin was used as the internal control. The values are expressed as mean \pm SEM. * $P < 0.05$.