

**Figure S2.** Gut microbiome sequencing data of treatments and controls analyzed by principal component analyses at phyla level (A) Duodenum, (B) Jejunum, (C) Ileum and (D) Cecum. Ck: birds fed with basal diet supplementation with virginiamycin; Bs: birds with the basal diet supplementation with *Bacillus subtilis* B10; Sb: birds fed with the basal diet supplementation with *Saccharomyces boulardii*.