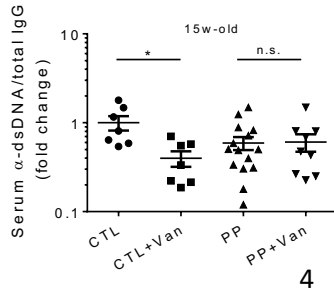


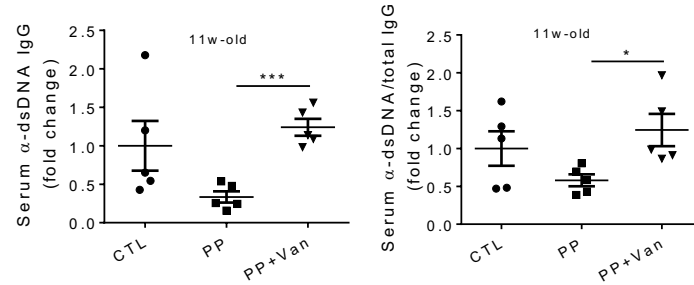
1 **Supplementary Figure 1.**

2

3 **A**



**B**



5

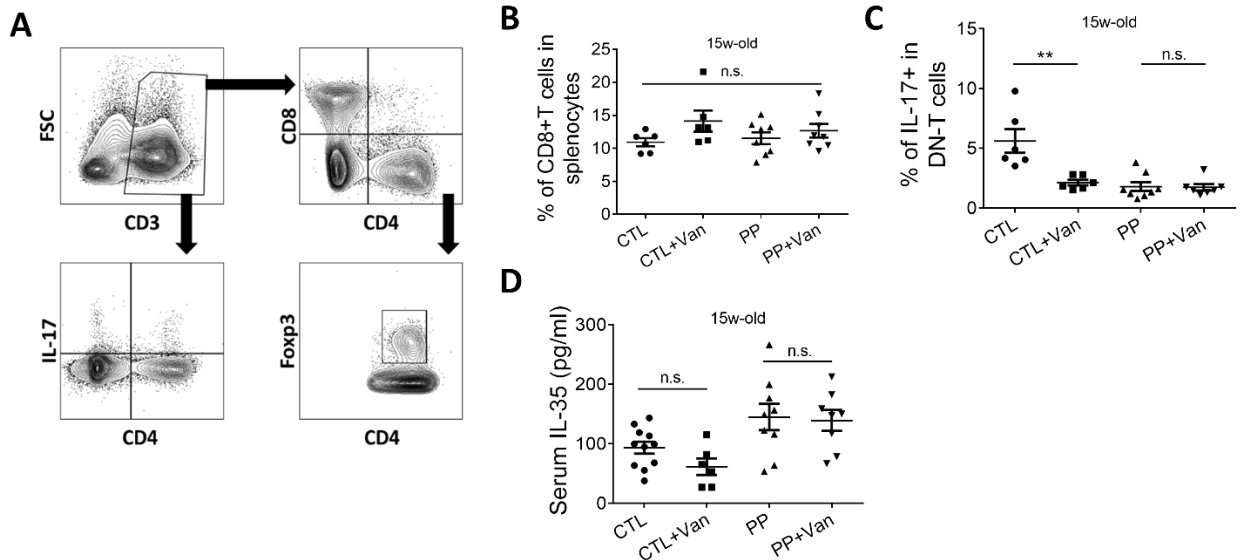
6 (A) Ratio of anti-dsDNA IgG to total IgG in the mouse serum at 15 weeks of age ( $n \geq 7$  per

7 group). (B) Level of anti-dsDNA IgG in the mouse serum and its ratio to total IgG at 11 weeks of

8 age ( $n \geq 5$  per group). \* $p < 0.05$ , \*\*\* $p < 0.001$ , n.s.: not statistically significant.

9

1 **Supplementary Figure 2.**

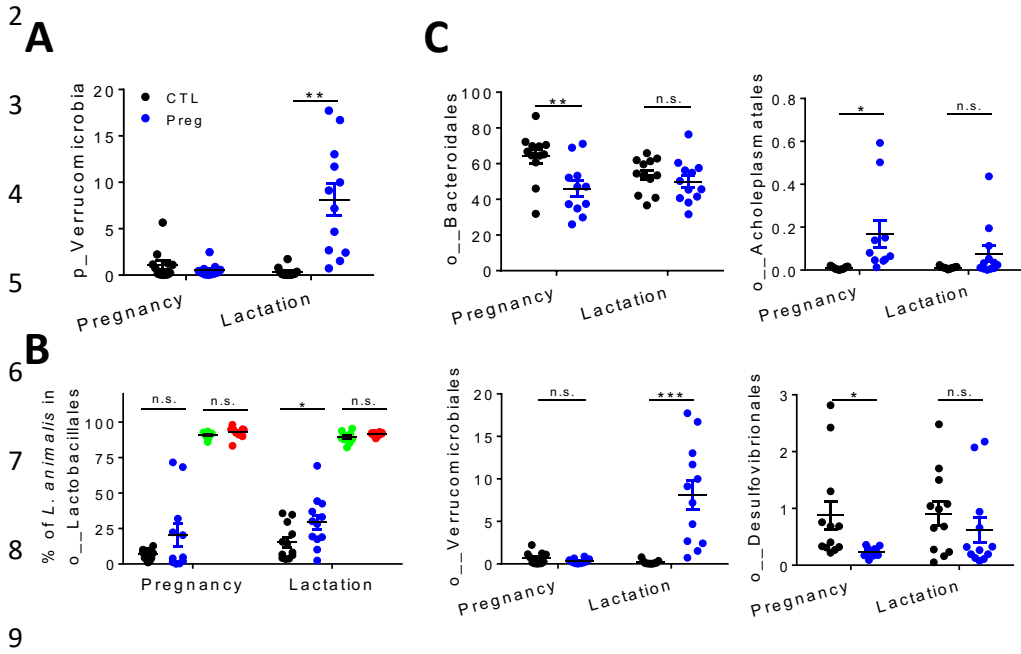


2

3 (A) Gating strategies for IL-17<sup>+</sup> producing T cells and Treg cells. (B) Percentage of CD8<sup>+</sup> T cells  
 4 (CD3<sup>+</sup>CD4<sup>-</sup>CD8<sup>+</sup>) in the spleen at 15 weeks of age (n≥6 per group). (C) Percentage of IL-17  
 5 producing cells in splenic DN-T cells at 15 weeks of age (n≥6 per group). (D) Level of IL-35 in  
 6 the mouse serum at 15 weeks of age (n≥6 per group). \*\*p< 0.01, n.s.: not statistically significant.

7

1 **Supplementary Figure 3**



10 (A) Relative abundance of Verrucomicrobia in fecal microbiota (n=12 per group). (B) Percentage

11 of *L. animalis* in Lactobacillales in the feces of mice at different ages with or without vancomycin

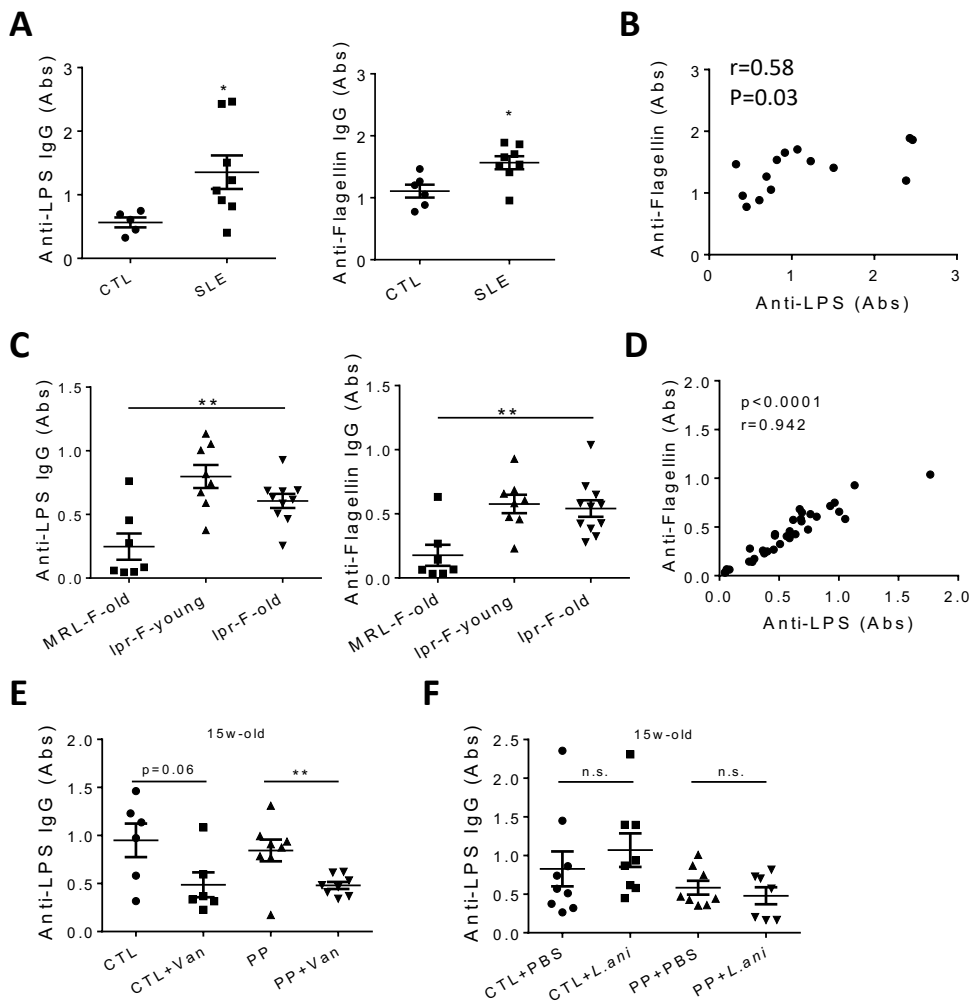
12 treatment (n≥10 per group). (C) Relative abundance of Bacteroidales, Acholeplasmatales,

13 Verrucomicrobiales and Desulfovibrionales in fecal microbiota at different ages (n=12 per

14 group). \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ , n.s.: not statistically significant.

15

1 **Supplementary Figure 4**



2

3 (A) Level of anti-LPS and anti-flagellin IgG in the plasma of human lupus patients and healthy  
4 controls (n≥5 per group). (B) Correlation analysis of human anti-LPS IgG and anti-flagellin IgG.

5 (C) Level of anti-LPS and anti-flagellin IgG in the mouse serum. lpr-F-old: female MRL/lpr mice  
6 at 15 weeks of age. lpr-F-young: female MRL/lpr mice at 7 weeks of age. MRL-F-old: female  
7 MRL mice at 15 weeks of age (n≥7 per group). (D) Correlation analysis of mouse anti-LPS IgG  
8 and anti-flagellin IgG.

9 (E) Level of anti-LPS IgG in mouse serum at 15 weeks of age (n≥6 per  
10 group). (F) Level of anti-LPS IgG in mouse serum at 15 weeks of age (n≥7 per group). \* $p<0.05$ ,

\*\* $p<0.01$ , n.s.: not statistically significant.