Supporting Information

Long-term Pu-erh tea consumption improves blue light-induced depression-like behaviors

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Supporting Figure 1

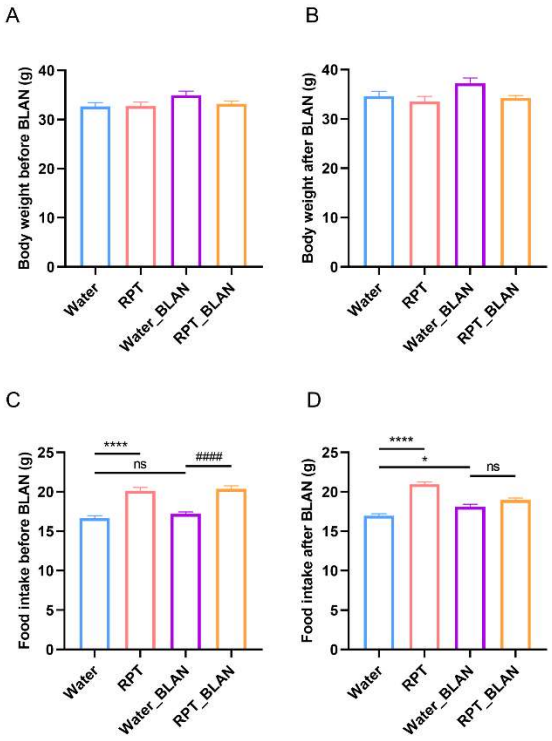


Figure S1. The effect of Pu-erh tea on body weight and food intake in BLAN mice.

(A) Body weight before BLAN. (B) Body weight after BLAN. (C) Food intake before BLAN. (D) Food intake after BLAN. Data presented as mean ± SEM. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$ vs the Water group. # $p < 0.05$, ## $p < 0.01$, ### $p < 0.001$, #### $p < 0.0001$ vs the RPT_BLAN group.

Supporting Figure 2

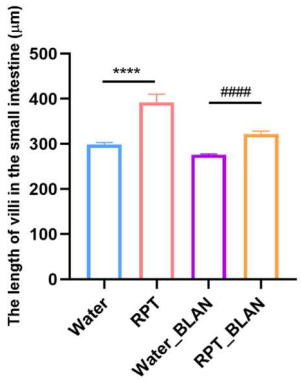


Figure S2. Effect of Pu-erh tea on the length of villi in the small intestine.

The villi length of the small intestine was calculated by Image J. Data presented as mean ± SEM. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$ vs the Water group. # $p < 0.05$, ## $p < 0.01$, ### $p < 0.001$, #### $p < 0.0001$ vs the RPT_BLAN group.

Supporting Figure 3

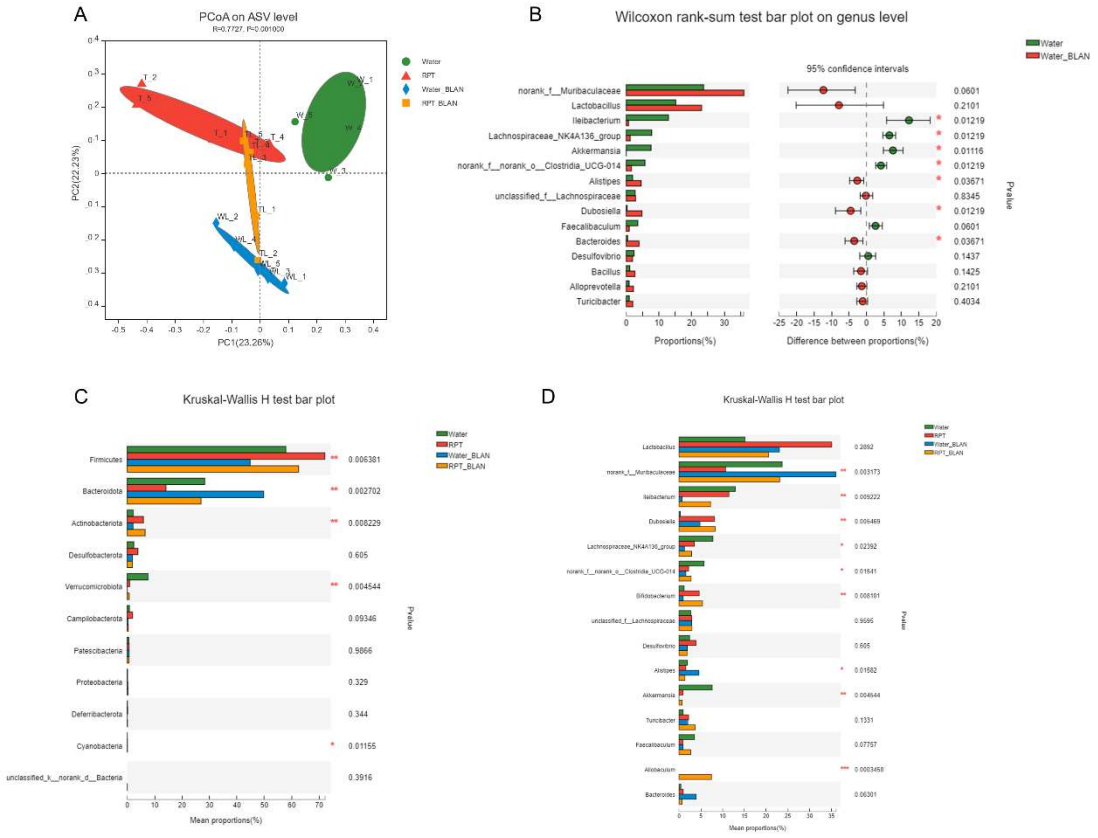


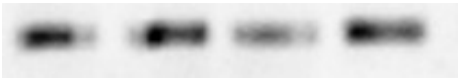
Figure S3. Pu-erh tea reshaped the gut microbes of BLAN mice.

(A) The PCoA analysis on ASV level. (B) The Wilcoxon rank-sum test bar plot on genus level between Water mice and Water_BLAN mice. (C) The Kruskal-Wallis H test bar plot on phylum level. (D) The Kruskal-Wallis H test bar plot in genus level. * $0.01 < p \leq 0.05$, ** $0.001 < p \leq 0.01$, *** $p \leq 0.001$.

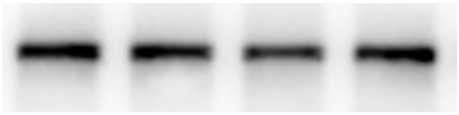
Supporting Figure 4

WB1:

Occludin in the brain



Occludin in the gut



ZO-1 in the brain

ZO-1 in the gut

MyD88

NF-κB

GAPDH in the brain

GAPDH in the gut

WB2:

Occludin in the brain

Occludin in the gut

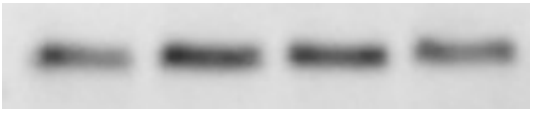
ZO-1 in the brain

ZO-1 in the gut

MyD88

NF-κB

GAPDH in the brain

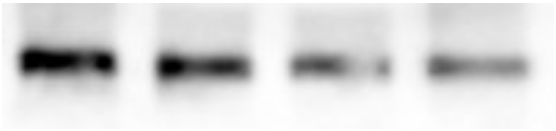


GAPDH in the gut

WB3:

Occludin in the brain

Occludin in the gut



ZO-1 in the brain

ZO-1 in the gut

MyD88

NF-κB

GAPDH in the brain

GAPDH in the gut