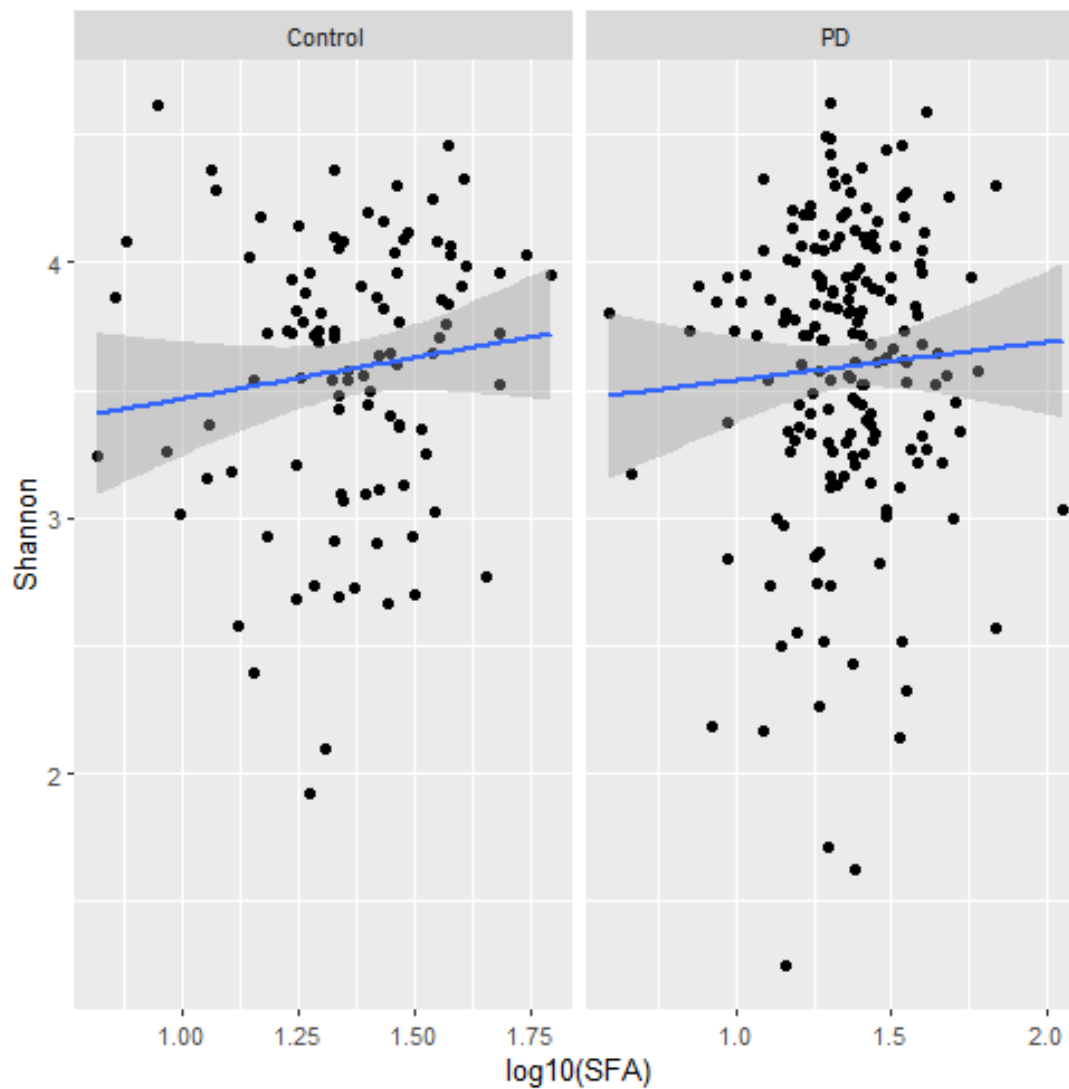


## SUPPLEMENTARY MATERIAL



**FIG. S1 Weak positive associations between SFA levels and Shannon diversity in Parkinson's disease and control subjects.** **A)** Scatter plot visualizing the association between SFA levels and the gut microbial Shannon diversity in control patients. The correlation coefficient of this slope is 0.147 (Supplementary Table S1). **B)** Scatter plot visualizing the association between SFA levels and the gut microbial Shannon diversity in PD patients. The correlation coefficient of this slope is 0.037 (Supplementary Table S1). The grey region in the plots indicates the 95% confidence interval.

**TABLE. S1 Correlation Coefficient of each FA in relation to Shannon diversity, in PD and control subjects.** The correlation between each FA and Shannon diversity metric was computed using the Spearman statistical test. The correlation coefficient represents the Spearman rho ( $\rho$ ) value.

| <b>Disease Status</b> | <b>Variable</b> | <b>Correlation Coefficient</b> |
|-----------------------|-----------------|--------------------------------|
| <b>PD</b>             | SFA             | 0.03720                        |
|                       | MUFA            | -0.02900                       |
|                       | PUFA            | -0.03333                       |
| <b>Control</b>        | SFA             | 0.14690                        |
|                       | MUFA            | 0.05095                        |
|                       | PUFA            | 0.00729                        |