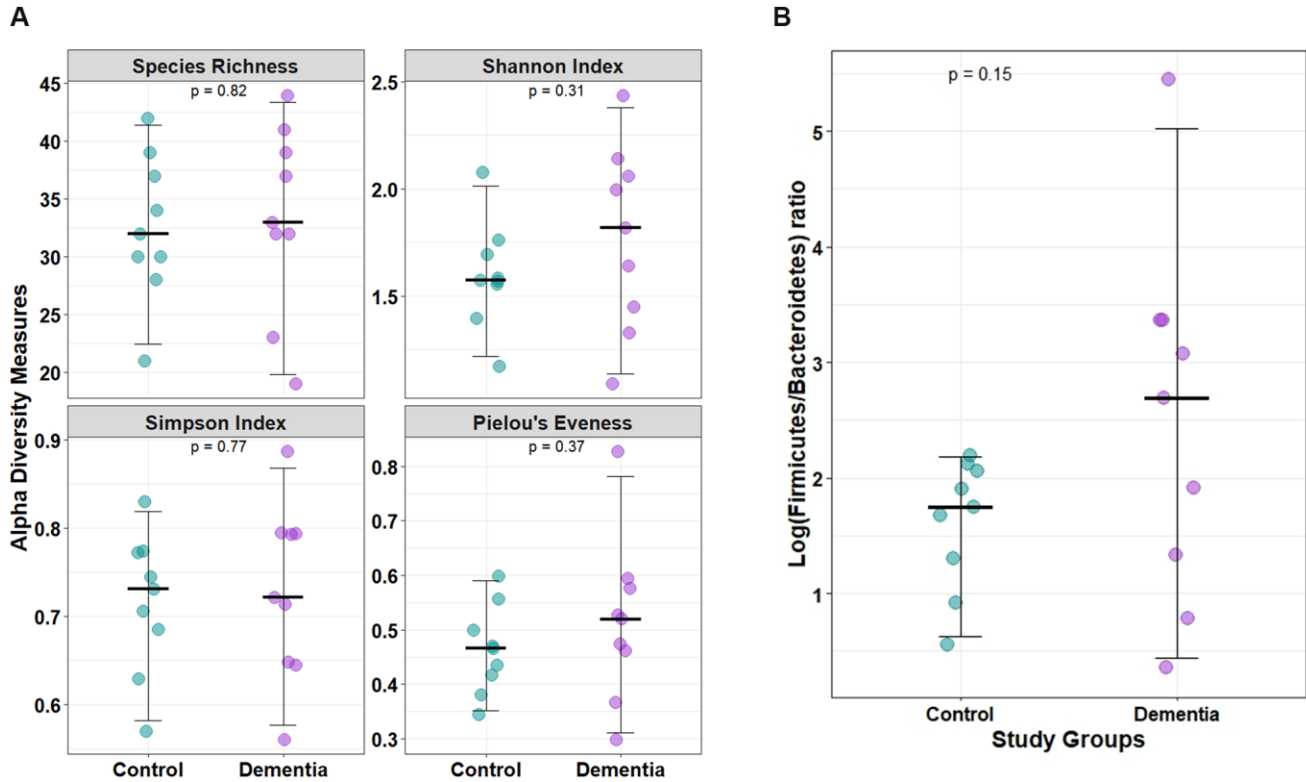
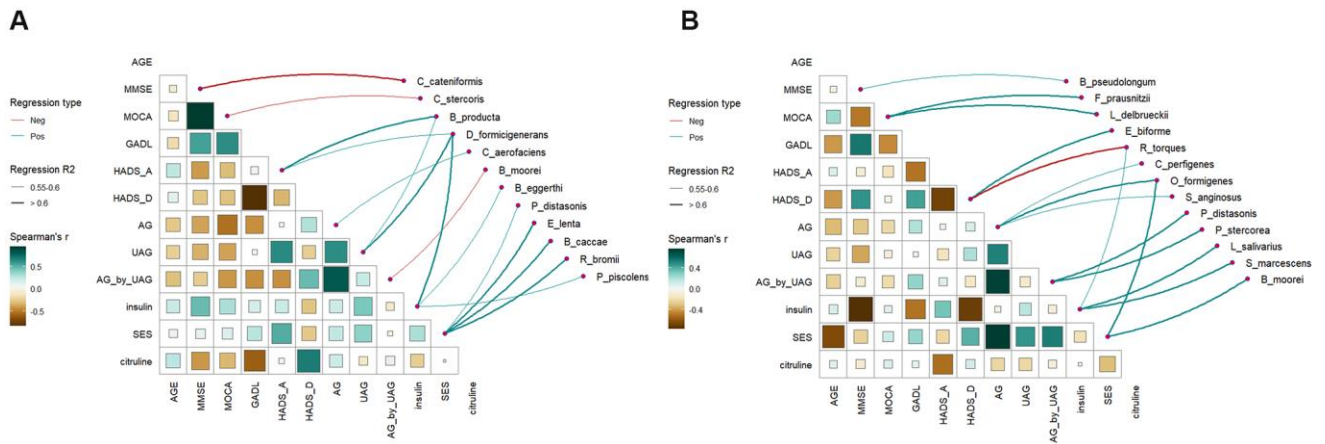


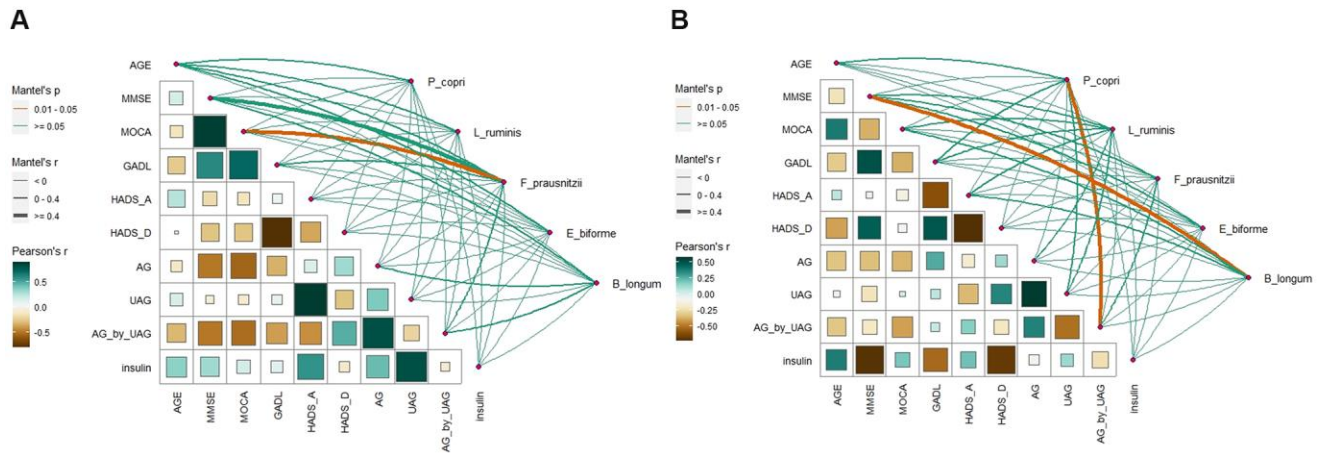
SUPPLEMENTARY FIGURES



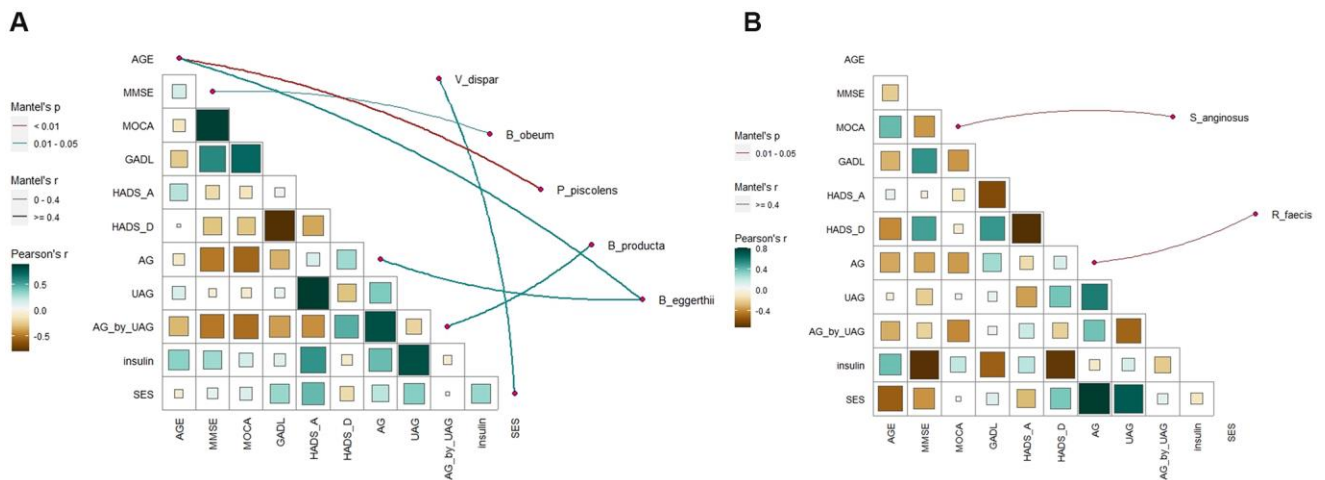
Supplementary Figure 1. (A) Alpha diversity comparison between dementia and control group. (B) Log transformed Firmicutes/Bacteroidetes ratio comparison between dementia and control group.



Supplementary Figure 2. Regression between species and clinical parameters. (A) Dementia Group, (B) Control Group. Red lines show a negative association, and green lines show a positive association. Thicker lines show $r^2 > 0.6$.



Supplementary Figure 3. Mantel test between influential species in beta diversity and clinical scores and ghrelin levels. (A) Dementia Group. (B) Control Group. Brown color lines show a significant association ($p < 0.05$).



Supplementary Figure 4. Mantel test between important species in neural network and clinical scores and ghrelin levels. (A) Dementia group. (B) Control Group. Brown color lines show a highly significant association ($p < 0.01$), and dark cyan color lines show a significant association ($p < 0.05$).