**List of additional files**

**Additional file 1:** a\_alzheimers\_input\_data\_and\_results.xlsx

**Additional file 2:** b\_biomedataFilt.csv

**Additional file 3:** c\_microbiome\_alzheimer's\_input\_11a\_s1.tsv

**Additional file 4:** d\_md1UAMS.csv

**Additional file 5:** e\_Alzheimers\_AK\_5\_topics\_a\_0P3\_b\_0P25\_cut\_1\_12.15rrtst\_docTopicSum.csv

**Additional file 6:** f\_allTable7.tsv

**Additional file 7:** Sample information and OTU tables

- **Table S7**: Sample information

- **Table S8**: Read counts after each CCS filtering step (SMRT Link v7 - MCSMRT)

- **Table S9**: Read counts and taxonomic assignment with confidences for each OTU (SMRT Link v7 - MCSMRT)

- **Table S10**: Read counts after each CCS filtering step (SMRT Link v9 - MCSMRT)

- **Table S11**: Read counts and taxonomic assignment with confidences for each OTU (SMRT Link v9 - MCSMRT)

**Additional file 8:** Differential abundance analysis code. Two formats are provided: rmarkdown (.rmd file) and pdf file.