**Data Description**

Data used in the study: *Naturally-diverse airborne environmental microbial exposures modulate the gut microbiome and may provide anxiolytic benefits in mice*

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| **File name** | **Data description** |
| absoluteabundance.xlsx | Bacterial 16S OTU abundance table generated by the Australian Genome Research Facility (AGRF; Job ID CAGRF16610) for all soil, air, fecal, cecal and bedding samples and controls from the mouse-soil aerobiology exposure study. Samples are columns and taxa are rows. The final column contains taxonomic assignments. |
| Air-dust-weights-within-enclosures.xlsx | Measurements of accumulated dust within enclosures, used to quantify average weekly exposures of soil dust mass per mouse. |
| Animal-details-main-study.xlsx | Detailed contextual information for the 54 mice, including ID, sex, litter, date of birth, cage, treatment, rack position, and age at commencement of the study. |
| Elev-plus-post-exposure.xlsx | Data files generated by ANY-maze video tracking software from post-soil-exposure Elevated Plus Maze behavior testing. |
| Open-field-post-exposure.xlsx | Data files generated by ANY-maze video tracking software from post-soil-exposure Open Field behavior testing. |
| OTU-rep-sequences.xlsx | Table containing representative sequences for each OTU. |
| quant-readings.xlsx | DNA concentrations (in ng/uL) for samples and controls prior to PCR amplification. |
| R-script-analyses-mouse-soil-study.txt | Text copy of R code used for data analyses and plots. The script includes details of R packages and versions used. Elements include: importing microbiome data, decontamination and data cleaning, microbial community visualization (e.g. ordinations and composition bar plots), alpha diversity analyses, differential abundance testing, analysis of behavioral and other physical data, statistical testing, and management of BLASTN searching of the NCBI 16S Microbial reference database to assign putative species to OTUs. R console outputs were copied following each command and are included as comments (i.e. ‘# …’) as a record of results from the analyses. |
| Weight-record-sheet-main-study.xlsx | Monitoring record of individual mouse weights over sampling times T01-T16 (i.e. week 0-week 7) over the duration of the mouse-soil aerobiology exposure study. Weights include the respective tub masses which are also recorded in this spreadsheet. |