Microbiome Data Simulation and Power Analysis (version 13.05.29)

Goals:

1. Learn R
2. Collect data
3. Coding
4. Unit testing
5. Simulate Samples
6. Power analysis software
7. Run power analyses
8. Publish results

Tasks:

1. Learn R
   * Tutorial
   * pearsonDS
   * HMP
   * runuran (truncated normal)
2. Collect data
   * Atopic dermatitis
   * Upper respiratory
   * Rat skin
3. Coding
   * Rank pooled
   * % remainder (if have samples)
   * Fit distribution (and distribution from normal)
   * Simulate samples
   * Wrapper function
4. Unit testing
   * Simulation
   * Power analysis
5. Simulate samples
   * Atopic dermatitis
   * Upper respiratory
   * Rat skin
6. Power analysis software
   * HMP
   * Other packages
7. Run power analyes
   * Amputee
   * Rat microbiome
8. Publish paper
   * Intro
   * Methods
   * Results
   * Discussion