Instructions:

1. Download common_core8.csv and Mucus_Code.R from Codes_and_data folder.
2. Download all the packages listed in Rstudio_package_list from Codes_and_data folder.
3. Run Mucus_Code.R in the same directory as common_core8.csv (This code was found to have issues for some computers running Windows OS; specifically, points do not show in plots in some outputs).
4. Locate "Figure_S1_diffusion_scaled_by_size_a.pdf".
5. From the folder, locate "Figure_S1_diffusion_scaled_by_size_a". Locate "Figure_S1_diffusion_scaled_by_size_data_a.csv". This data file creates "Figure_S1_diffusion_scaled_by_size_a.pdf". The first row is the header. The file contains information on the size of the particle (Diameter), its effective diffusion measurement (Diffusion_constant), and its particle type (Particle_type).

Output(s):

"Figure_S1_diffusion_scaled_by_size_a.pdf" is a pdf of a scatter plot of the effective diffusion scaled by particle size versus particle size with different shapes corresponding to particle type.