



Figure S1: Cartoon of the experimental design. Soil was collected from a sandy soil grassland field, microbial suspensions extracted from the soil, and 10-fold serially diluted aliquots were re-inoculated into the origin sterilized soil (by gamma-irradiation). The extraction and re-inoculation procedure was repeated 4 times (given as A, B, C and D). Soils were incubated in the dark at 20 °C for 61 weeks, after which 12 seedlings of *Arabidopsis thaliana* were transplanted per soil (one plant per pot), 4 pots of which were harvested after 1, 2 and 3 weeks of growth, respectively. Three replicate pots from the 1- and 3-weeks harvest were randomly chosen for 16S rRNA gene tag sequencing and network analysis of rhizosphere soil.