

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: Model selection results of LME, LME-P, and GP-ARD over all simulated datasets.

File Name: Supplementary Data 2

Description: Full metagenomics dataset results including the selected models and explained variances of the components for all 394 pathways.

File Name: Supplementary Data 3

Description: Full proteomics dataset results including the selected models and explained variances of each component for all 1538 proteins.