B Intestinimonas butyriciproducens Bacteroides sp. A1C1 Intestinimonas butyriciproducens adjusted p = 0.00576adjusted p = 0.00591Unclassified Oscillospiraceae Family Pseudomonas stutzeri Bacteroides sp. A1C1 Bacteroides uniformis Unclassified Comamonadaceae Family log₁₀ normalized count log₁₀ normalized count Alloprevotella sp. E39 Unclassified Burkholderiales Order Unclassified Burkholderiaceae Family Muribaculaceae bacterium DSM 108610 Oscillibacter valericigenes
Oscillibacter sp. PEA192
Unclassified Aeromonas Genus Pseudomonas putida Cupriavidus taiwanensis Unclassified Mycobacteriaceae Family Unclassified Bradyrhizobium Genus Heliobacterium modesticaldum Ethanoligenens harbinense 0.0 0.1 0.2 0.0 0.2 Caproiciproducens sp. NJN-50 Acidaminococcus fermentans BMI change per Day (kg/m2) BMI change per Day (kg/m2) Unclassified Streptomyces Genus Stenotrophomonas maltophilia Unclassified Bacteroides Genus Pseudomonas stutzeri Clostridium perfringens adjusted p = 0.0095adjusted p = 0.00576Bacteroides vulgatus Unclassified Bacteroidales Order Bacteroides ovatus Alistipes shahii 3.5 Alistipes finegoldii log₁₀ normalized count log₁₀ normalized count Bacteroides caecimuris Bacteroides dorei 3.0 Bacteroides thetaiotaomicron Bacteroides xylanisolvens Parabacteroides distasonis Desulfovibrio desulfuricans Alistipes dispar Alistipes communis Butyricimonas faecalis Paraprevotella xylaniphila Bacteroides zoogleoformans Bacteroides salanitronis Bacteroides fragilis 1.5 Alistipes sp. dk3624 0.0 0.1 0.2 0.0 0.1 0.2 Bacteroides helcogenes BMI change per Day (kg/m2) BMI change per Day (kg/m2) Streptococcus sp. LPB0220 Streptococcus sp. HSISM1 [Ruminococcus] gnavus Lachnospiraceae bacterium Streptococcus parasanguinis adjusted p = 0.0104adjusted p = 0.0195Lachnospiraceae bacterium [Ruminococcus] gnavus 6.5 Clostridium perfringens Cohorts 6.0 log₁₀ normalized count log₁₀ normalized count BMI change per day (kg/m2)_ACUTE BMI change per day (kg/m2)_All BMI change per day (kg/m2)_CEED 4.5 5.5 log10 p-value Cohorts ΑII 5.0 **CEED** 3.5 ACUTE

0.0

0.1

BMI change per Day (kg/m2)

0.2

0.0

0.1

BMI change per Day (kg/m2)

0.2