

Table S5

Microbial phylotype	Function	Correlation coefficient	P
Bacterial family			
Coriobacteriaceae	Tyrosine metabolism	0.4177	<0.001
	Fructose and mannose metabolism	0.4779	<0.001
	Glycolysis / Gluconeogenesis	0.4194	<0.001
	Pentose phosphate pathway	0.4812	<0.001
	Propanoate metabolism	0.4224	<0.001
	Pyruvate metabolism	0.3970	<0.001
	Starch and sucrose metabolism	0.2172	0.035
	Carbon fixation in photosynthetic organisms	0.2997	0.003
	Methane metabolism	0.2257	0.028
	Fatty acid biosynthesis	0.3266	0.001
	D-Alanine metabolism	0.2681	0.009
	Biosynthesis of ansamycins	0.3284	0.001
	Tetracycline biosynthesis	0.3923	<0.001
	Benzoate degradation	0.4397	<0.001
	Chloroalkane and chloroalkene degradation	0.4059	<0.001
	Naphthalene degradation	0.3311	0.001
	Polycyclic aromatic hydrocarbon degradation	0.2638	0.001
Paenibacillaceae	Glycolysis / Gluconeogenesis	0.2100	0.041
Veillonellaceae	Amino acid related enzymes	0.4153	<0.001
	Lysine degradation	0.2491	0.015
	Valine leucine and isoleucine degradation	0.3490	<0.001
	Novobiocin biosynthesis	0.3552	<0.001
	Tropane piperidine and pyridine alkaloid biosynthesis	0.2924	0.004
Bacterial genus			
<i>Roseburia</i>	Phenylpropanoid biosynthesis	0.3854	<0.001
	Glyoxylate and dicarboxylate metabolism	0.2371	0.021
	Starch and sucrose metabolism	0.3474	<0.001
	Photosynthesis	0.4501	<0.001
	Photosynthesis proteins	0.4358	<0.001
	Sulfur metabolism	0.5142	<0.001
	Glycerophospholipid metabolism	0.5878	<0.001
	Biotin metabolism	0.3576	<0.001
	Porphyrin and chlorophyll metabolism	0.3808	<0.001
	Riboflavin metabolism	0.2096	0.042
Thiamine metabolism	0.5958	<0.001	

	Cyanoamino acid metabolism	0.3104	0.002
	Selenocompound metabolism	0.4166	<0.001
	Biosynthesis of ansamycins	0.4243	<0.001
	Glutamatergic synapse	0.7122	<0.001
undefined genus of Paenibacillaceae	Glycolysis / Gluconeogenesis	0.2109	0.040
undefined genus of order RF39	Streptomycin biosynthesis	0.2294	0.025
	Amino sugar and nucleotide sugar metabolism	0.2154	0.036
	Polyketide sugar unit biosynthesis	0.2614	0.011
Archaeal species			
undefined sp. of Methanopasmatales	Lysine degradation	0.3558	<0.001
	Phenylpropanoid biosynthesis	-0.2665	0.009
	Butanoate metabolism	0.3069	0.003