

## ONLINE SUPPLEMENT

### Gut Microbiota and Host Plasma Metabolites in Association with Blood Pressure in Chinese Adults

Yiqing Wang, Huijun Wang, Annie Green Howard, Matthew C. B. Tsilimigras, Christy L. Avery, Katie A. Meyer, Wei Sha, Shan Sun, Jiguo Zhang, Chang Su, Zhihong Wang, Anthony A. Fodor, Bing Zhang\*, Penny Gordon-Larsen\*

Please Address Correspondence and Reprint Requests To:

Penny Gordon-Larsen, PhD  
University of North Carolina at Chapel Hill; Carolina Population Center  
123 West Franklin Street  
Chapel Hill, NC 27516  
Phone: (W) 919-962-6110; Fax: 919-966-9156  
Email: [pglarsen@unc.edu](mailto:pglarsen@unc.edu)

#### Tables:

**Table S1.** Taxa scores for principal coordinate analysis (PCoA) axes

**Table S2.** Metabolite loadings for principal component analysis (PCA) axes

**Table S3.** Characteristics of the analysis sample (n=1082)

**Table S4.** Associations between gut microbial within-person diversity ( $\alpha$ -diversity) measures with systolic and diastolic blood pressure (SBP and DBP)

**Table S5.** Association between gut microbial principal coordinates analysis (PCoA) axes with systolic and diastolic blood pressure (SBP and DBP, mmHg), Coefficient (95% CI)

**Table S6.** Association between specific microbiota with systolic and diastolic blood pressure (SBP and DBP)

**Table S7.** Post-hoc analysis of the association between within-person diversity ( $\alpha$ -diversity) measures with systolic and diastolic blood pressure (SBP and DBP)

**Table S8.** Post-hoc analysis of the association between gut microbial principal coordinates analysis (PCoA) axes with systolic and diastolic blood pressure (SBP and DBP, mmHg), Coefficient (95% CI)

**Table S9.** Post-hoc analysis of the association between specific microbiota with systolic and diastolic blood pressure (SBP and DBP)

**Table S10.** Association between individual metabolites ( $\leq 25\%$  values below detection limits) with systolic and diastolic blood pressure (SBP and DBP)

**Table S11.** Association between individual metabolites [ $25-50\%$  values below detection limits (BLD), reference=BLD] with systolic and diastolic blood pressure (SBP and DBP)

**Table S12.** Association between individual metabolites [ $>50\%$  values below detection limits (BLD), reference=BLD] with systolic and diastolic blood pressure (SBP and DBP)

**Table S13.** Post-hoc analysis of the association between metabolite patterns with systolic and diastolic blood pressure (SBP and DBP, mmHg), Coefficient (95% CI)

**Table S14.** Post-hoc analysis of the association between individual metabolites with systolic and diastolic blood pressure (SBP and DBP)

**Table S15.** Metabolic pathways not associated with systolic or diastolic blood pressure (SBP and DBP)

**Table S16.** Characteristics of the analysis sample (n=355)

**Table S17.** Associations between the fourth principal coordinate analysis (PCoA) axis with systolic blood pressure (SBP)- or diastolic blood pressure (DBP)-associated metabolites

### Figures:

**Figure S1.** Sample flow chart

**Figure S2.** Microbial between-person diversity ( $\beta$ -diversity) assessed using principal coordinate analysis (PCoA) by diastolic blood pressure (DBP)

**Figure S3.** Root mean square errors (RMSE) for (A) systolic blood pressure (SBP) and (B) diastolic blood pressure (DBP) estimated by random forest regression with 5 iterations of 2-fold cross-validation (5x2 cv)

### Reference:

1. Sumner LW, Amberg A, Barrett D, Beale MH, Beger R, Daykin CA, Fan TW-M, Fiehn O, Goodacre R and Griffin JL. Proposed minimum reporting standards for chemical analysis. *Metabolomics*. 2007;3:211-221.

**Table S1. Taxa scores for principal coordinate analysis (PCoA) axes**

<b>MDS1</b>	<b>MDS2</b>	<b>MDS3</b>	<b>MDS4</b>	<b>kingdom</b>	<b>phylum</b>	<b>class</b>	<b>order</b>	<b>family</b>	<b>genus</b>
0.44	0.45	-	-	Archaea	Euryarchaeota	Methanobacteria	Methanobacteriales	Methanobacteriaceae	Methanobrevibacter
-	-	-	0.67	Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micrococcaceae	Rothia
0.48	-	-	-	Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Nocardiaceae	Rhodococcus
-0.70	-	-0.64	-	Bacteria	Actinobacteria	Actinobacteria	Bifidobacteriales	Bifidobacteriaceae	Bifidobacterium
-	-	0.57	-0.86	Bacteria	Actinobacteria	Coriobacteriia	Coriobacteriales	Coriobacteriaceae	Adlercreutzia
-	-	0.80	-0.51	Bacteria	Actinobacteria	Coriobacteriia	Coriobacteriales	Coriobacteriaceae	Eggerthella
0.45	-	-	-	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales		
0.46	-	-	-	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Barnesiellaceae]	
0.42	-	-	-	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Odoribacteraceae]	Odoribacter
0.74	-	-	-	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Paraprevotellaceae]	[Prevotella]
0.96	0.85	-	-	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Bacteroidaceae	Bacteroides
1.01	0.67	-	-	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae	Parabacteroides
1.33	0.70	-	-	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Prevotellaceae	Prevotella
0.77	-	-	-	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Rikenellaceae	
1.20	-	-	-	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	S24-7	
-	-	-0.67	-	Bacteria	Cyanobacteria	4C0d-2	YS2		
0.45	-	-	-	Bacteria	Firmicutes	Bacilli	Bacillales		
-	-	-	0.49	Bacteria	Firmicutes	Bacilli	Lactobacillales	Lactobacillaceae	Lactobacillus
-	-0.63	0.73	0.80	Bacteria	Firmicutes	Bacilli	Lactobacillales	Leuconostocaceae	
-	-0.69	0.93	-	Bacteria	Firmicutes	Bacilli	Lactobacillales	Streptococcaceae	Lactococcus
0.45	0.50	-	-	Bacteria	Firmicutes	Clostridia	Clostridiales	Christensenellaceae	
-	-	0.49	-	Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Clostridium
-	-	0.70	-	Bacteria	Firmicutes	Clostridia	Clostridiales	Eubacteriaceae	Pseudoramibacter_Eubacterium
-	0.51	-	-	Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Anaerostipes
-	-	0.43	-0.41	Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Blautia
-	-	-	-0.52	Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Coproccoccus
-	0.83	-	-	Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Lachnospira
-	0.46	-	-	Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Roseburia

-	-	0.63	-	Bacteria	Firmicutes	Clostridia	Clostridiales	Peptococcaceae	Peptococcus
-	-0.43	-	-	Bacteria	Firmicutes	Clostridia	Clostridiales	Peptostreptococcaceae	
-	0.55	-	-	Bacteria	Firmicutes	Clostridia	Clostridiales	Ruminococcaceae	
0.51	0.80	-	-	Bacteria	Firmicutes	Clostridia	Clostridiales	Ruminococcaceae	Faecalibacterium
0.57	0.50	-	-	Bacteria	Firmicutes	Clostridia	Clostridiales	Ruminococcaceae	Oscillospira
-	0.45	-	-	Bacteria	Firmicutes	Clostridia	Clostridiales	Ruminococcaceae	Ruminococcus
0.52	0.67	-	-	Bacteria	Firmicutes	Clostridia	Clostridiales	Veillonellaceae	Phascolarctobacterium
-	-	-	0.48	Bacteria	Firmicutes	Clostridia	Clostridiales	Veillonellaceae	Veillonella
0.45	-	-	-	Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	[Eubacterium]
0.58	-	-0.74	-	Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Catenibacterium
-	-	0.44	-	Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Coprobacillus
-	0.49	-	-	Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Holdemanina
-	-	0.57	0.54	Bacteria	Fusobacteria	Fusobacteriia	Fusobacteriales	Fusobacteriaceae	Fusobacterium
0.56	-	-	-	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bradyrhizobiaceae	
0.54	-	-	-	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	
0.62	-	-	-	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Alcaligenaceae	Sutterella
0.80	-0.70	-	-	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	
1.06	-1.01	-	-	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Delftia
0.40	-0.46	-	-	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Other
1.24	-1.03	-	-0.50	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Oxalobacteraceae	Ralstonia
0.43	-	-	-	Bacteria	Proteobacteria	Deltaproteobacteria	Desulfovibrionales	Desulfovibrionaceae	Desulfovibrio
-	-	0.50	0.71	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	
-	-	-	0.71	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Serratia
-	-	0.56	0.81	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Other
0.65	-0.48	-	-	Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Moraxellaceae	Acinetobacter
0.51	-0.63	-	-	Bacteria	Proteobacteria	Gammaproteobacteria	Xanthomonadales	Xanthomonadaceae	
0.74	0.42	-	-0.41	Bacteria	Tenericutes	Mollicutes	RF39		
0.44	-	-	-	Bacteria	TM7	TM7-3			
-	0.79	-	-	Bacteria	Verrucomicrobia	Verrucomicrobiae	Verrucomicrobiales	Verrucomicrobiaceae	Akkermansia
0.84	-	-	-	Unassigned	Other	Other	Other	Other	Other

MDS, multidimensional scaling. Principal coordinate analysis (PCoA) was performed for 1,008 taxa based on Bray-Curtis distance matrix in 1,003 participants. The first four axes each explained 8.61, 5.58, 3.54, and 3.16 percent variance of gut microbiota, respectively. Taxa with scores > 0.40 or ≤ -0.40 are shown here. Taxa are ordered alphabetically.

**Table S2. Metabolite loadings for principal component analysis (PCA) axes**

Axis 1	Axis 2	Axis 3	Metabolites	Class	Pathway
-	0.58	-	(2 or 3)-decenoate (10:1n8 or n7)	Lipid	Medium Chain Fatty Acid
0.45	-	-	(2,4 or 2,5)-dimethylphenol sulfate	Xenobiotics	Food Component/Plant
-	0.60	-	(R)-3-hydroxybutyrylcarnitine	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Hydroxy)
-	0.45	-	(S)-3-hydroxybutyrylcarnitine	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Hydroxy)
0.44	-	-	(S)- $\alpha$ -Amino- $\omega$ -caprolactam	Xenobiotics	Food Component/Plant
-	-	0.59	1-(1-enyl-oleoyl)-GPE (P-18:1)*	Lipid	Lysoplasmalogen
-	-	0.52	1-(1-enyl-palmitoyl)-GPC (P-16:0)*	Lipid	Lysoplasmalogen
-	-	0.59	1-(1-enyl-palmitoyl)-GPE (P-16:0)*	Lipid	Lysoplasmalogen
-	-	0.54	1-(1-enyl-stearoyl)-GPE (P-18:0)*	Lipid	Lysoplasmalogen
-	0.79	-	10-heptadecenoate (17:1n7)	Lipid	Long Chain Monounsaturated Fatty Acid
-	0.74	-	10-nonadecenoate (19:1n9)	Lipid	Long Chain Monounsaturated Fatty Acid
-	0.47	-	10-undecenoate (11:1n1)	Lipid	Medium Chain Fatty Acid
-	-	0.51	13-HODE + 9-HODE	Lipid	Fatty Acid, Monohydroxy
-	0.56	-	16-hydroxypalmitate	Lipid	Fatty Acid, Monohydroxy
-	-	-0.41	17 $\alpha$ -hydroxypregnenolone 3-sulfate	Lipid	Pregnenolone Steroids
-	0.55	-	1-arachidonoyl-GPI* (20:4)*	Lipid	Lysophospholipid
-	0.62	-	1-arachidonoylglycerol (20:4)	Lipid	Monoacylglycerol
0.60	-	-	1-carboxyethylisoleucine	Amino Acid	Leucine, Isoleucine and Valine Metabolism
0.54	-	-	1-carboxyethylleucine	Amino Acid	Leucine, Isoleucine and Valine Metabolism
0.66	-	-	1-carboxyethylphenylalanine	Amino Acid	Phenylalanine Metabolism
0.54	-	-	1-carboxyethyltyrosine	Amino Acid	Tyrosine Metabolism
0.55	-	-	1-carboxyethylvaline	Amino Acid	Leucine, Isoleucine and Valine Metabolism
-	0.66	-	1-dihomo-linolenylglycerol (20:3)	Lipid	Monoacylglycerol
-	0.64	-	1-dihomo-linoleoylglycerol (20:2)	Lipid	Monoacylglycerol
-	0.49	-	1-docosahexaenoylglycerol (22:6)	Lipid	Monoacylglycerol
-	0.56	-	1-linolenoylglycerol (18:3)	Lipid	Monoacylglycerol
-	0.63	-	1-linoleoylglycerol (18:2)	Lipid	Monoacylglycerol
0.52	-	-	1-linoleoyl-GPE (18:2)*	Lipid	Lysophospholipid
0.55	-	-	1-methyl-4-imidazoleacetate	Amino Acid	Histidine Metabolism
0.44	-	-	1-methyladenosine	Nucleotide	Purine Metabolism, Adenine containing
0.62	-	-	1-methylhistidine	Amino Acid	Histidine Metabolism
-	0.43	-	1-myristoylglycerol (14:0)	Lipid	Monoacylglycerol
-	0.67	-	1-oleoylglycerol (18:1)	Lipid	Monoacylglycerol
0.42	-	-	1-oleoyl-GPC (18:1)	Lipid	Lysophospholipid
0.61	-	-	1-oleoyl-GPE (18:1)	Lipid	Lysophospholipid
-	0.56	-	1-palmitoleoylglycerol (16:1)*	Lipid	Monoacylglycerol
0.42	-	-	1-palmitoyl-2-linoleoyl-GPE (16:0/18:2)	Lipid	Phosphatidylethanolamine (PE)

0.43	-	-	1-palmitoyl-2-oleoyl-GPE (16:0/18:1)	Lipid	Phosphatidylethanolamine (PE)
-	0.57	-	1-palmitoylglycerol (16:0)	Lipid	Monoacylglycerol
-	-	0.46	1-palmitoyl-GPI* (16:0)	Lipid	Lysophospholipid
0.44	-	-	1-ribosyl-imidazoleacetate*	Amino Acid	Histidine Metabolism
0.43	-	-	1-stearoyl-2-linoleoyl-GPE (18:0/18:2)*	Lipid	Phosphatidylethanolamine (PE)
0.45	-	-	1-stearoyl-2-oleoyl-GPC (18:0/18:1)	Lipid	Phosphatidylcholine (PC)
0.48	-	-	1-stearoyl-2-oleoyl-GPE (18:0/18:1)	Lipid	Phosphatidylethanolamine (PE)
-	-	0.51	1-stearoyl-GPC (18:0)	Lipid	Lysophospholipid
-	-	0.52	1-stearoyl-GPI (18:0)	Lipid	Lysophospholipid
0.76	-	-	2,3-dihydroxy-5-methylthio-4-pentenoate (DMTPA)*	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism
-	0.40	-	2-arachidonoylglycerol (20:4)	Lipid	Monoacylglycerol
0.48	-	-	2-hydroxy-3-methylvalerate	Amino Acid	Leucine, Isoleucine and Valine Metabolism
-	0.57	-	2-hydroxybutyrate/2-hydroxyisobutyrate	Amino Acid	Glutathione Metabolism
0.45	-	-	2-hydroxyfluorene sulfate	Xenobiotics	Tobacco Metabolite
-	0.48	-	2-hydroxypalmitate	Lipid	Fatty Acid, Monohydroxy
0.45	-	-	2-hydroxysebacic acid	Lipid	Fatty Acid, Dicarboxylate
-	-	-0.55	2-ketocaprylate	Amino Acid	Leucine, Isoleucine and Valine Metabolism
-	0.58	-	2-linoleoylglycerol (18:2)	Lipid	Monoacylglycerol
0.55	-	-	2-methylbutyrylcarnitine (C5)	Amino Acid	Leucine, Isoleucine and Valine Metabolism
-	0.65	-	2-oleoylglycerol (18:1)	Lipid	Monoacylglycerol
-	0.46	-	2-palmitoleoylglycerol (16:1)*	Lipid	Monoacylglycerol
0.69	-	-	3-(3-amino-3-carboxypropyl)uridine*	Nucleotide	Pyrimidine Metabolism, Uracil containing
0.58	-	-	3-(4-hydroxyphenyl)lactate (HPLA)	Amino Acid	Tyrosine Metabolism
0.52	-	-	3-amino-2-piperidone	Amino Acid	Urea cycle; Arginine and Proline Metabolism
0.54	-	-	3-hydroxy-2-ethylpropionate	Amino Acid	Leucine, Isoleucine and Valine Metabolism
0.67	-	-	3-hydroxy-3-methylglutarate	Lipid	Mevalonate Metabolism
-	0.60	-	3-hydroxybutyrate (BHBA)	Lipid	Ketone Bodies
-	0.66	-	3-hydroxydecanoate	Lipid	Fatty Acid, Monohydroxy
-	0.56	-	3-hydroxyhexanoate	Lipid	Fatty Acid, Monohydroxy
-	0.63	-	3-hydroxylaurate	Lipid	Fatty Acid, Monohydroxy
-	0.56	-	3-hydroxyoctanoate	Lipid	Fatty Acid, Monohydroxy
-	0.56	-	3-hydroxyoctanoylcarnitine (1)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Hydroxy)
-	0.56	-	3-hydroxyoctanoylcarnitine (2)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Hydroxy)
0.53	-	-	3-hydroxypyridine sulfate	Xenobiotics	Chemical
0.41	-	-	3-indoleglyoxylic acid	Xenobiotics	Food Component/Plant
0.57	-	-	3-methoxytyramine sulfate	Amino Acid	Tyrosine Metabolism
0.47	-	-	3-methyl catechol sulfate (1)	Xenobiotics	Benzoate Metabolism
-	-	-0.65	3-methyl-2-oxobutyrate	Amino Acid	Leucine, Isoleucine and Valine Metabolism

-	-	-0.59	3-methyl-2-oxovalerate	Amino Acid	Leucine, Isoleucine and Valine Metabolism
0.43	-	-	4-acetylphenyl sulfate	Xenobiotics	Benzoate Metabolism
-	-	0.51	4-guanidinobutanoate	Amino Acid	Guanidino and Acetamido Metabolism
-	-	0.59	4-HDoHE	Lipid	Docosanoid Leucine, Isoleucine and Valine Metabolism
-	-	-0.60	4-methyl-2-oxopentanoate	Amino Acid	Leucine, Isoleucine and Valine Metabolism
0.53	-	-	4-vinylphenol sulfate	Xenobiotics	Benzoate Metabolism
0.65	-	-	5-(galactosylhydroxy)-L-lysine	Amino Acid	Lysine Metabolism
0.70	-	-	5,6-dihydrouridine	Nucleotide	Pyrimidine Metabolism, Uracil containing
-	-	-0.45	5alpha-androstan-3beta,17beta-diol disulfate	Lipid	Androgenic Steroids
-	0.58	-	5-dodecenoate (12:1n7)	Lipid	Medium Chain Fatty Acid Fatty Acid Metabolism (Acyl Carnitine, Monounsaturated)
-	0.50	-	5-dodecenoylcarnitine (C12:1)	Lipid	Medium Chain Fatty Acid Fatty Acid Metabolism (Acyl Carnitine, Monounsaturated)
-	-	0.57	5-HEPE	Lipid	Eicosanoid
-	-	0.61	5-HETE	Lipid	Eicosanoid
-	-	0.59	5-HETrE	Lipid	Eicosanoid
0.41	-	-	5-hydroxylysine	Amino Acid	Lysine Metabolism Methionine, Cysteine, SAM and Taurine Metabolism
0.44	-	-	5-methylthioribose	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism
0.48	-	-	5-methyluridine (ribothymidine)	Nucleotide	Pyrimidine Metabolism, Uracil containing
0.53	-	-	7-methylguanine	Nucleotide	Purine Metabolism, Guanine containing
-	0.50	-	acetylcarnitine (C2)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Short Chain)
0.40	-	-	acisoga	Amino Acid	Polyamine Metabolism
-	0.71	-	adrenate (22:4n6)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6) Leucine, Isoleucine and Valine Metabolism
0.44	-	-	alpha-hydroxyisovalerate	Amino Acid	Leucine, Isoleucine and Valine Metabolism
-	-	-0.57	alpha-ketoglutarate	Energy Cofactors and Vitamins	TCA Cycle
-	-	-0.48	alpha-tocopherol	Vitamins	Tocopherol Metabolism
-	-	-0.49	androstenediol (3alpha, 17alpha) monosulfate (3)	Lipid	Androgenic Steroids
-	-	-0.50	androstenediol (3beta,17beta) disulfate (1)	Lipid	Androgenic Steroids
-	0.41	-0.47	androstenediol (3beta,17beta) disulfate (2)	Lipid	Androgenic Steroids
-	-	-0.48	androstenediol (3beta,17beta) monosulfate (1)	Lipid	Androgenic Steroids
0.57	-	-	arabitol/xylitol	Carbohydrate	Pentose Metabolism
-	0.47	-	arachidate (20:0)	Lipid	Long Chain Saturated Fatty Acid Long Chain Polyunsaturated Fatty Acid (n3 and n6)
-	0.66	-	arachidonate (20:4n6)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6) Urea cycle; Arginine and Proline Metabolism
0.46	-	-	argininate*	Amino Acid Cofactors and Vitamins	Urea cycle; Arginine and Proline Metabolism
0.49	-	-	ascorbic acid 3-sulfate*	Vitamins	Ascorbate and Aldarate Metabolism
-	-	0.40	behenoyl sphingomyelin (d18:1/22:0)*	Lipid	Sphingomyelins
0.43	-	-	beta-citrylglutamate	Amino Acid	Glutamate Metabolism

-	-	-0.52	bilirubin	Cofactors and Vitamins	Hemoglobin and Porphyrin Metabolism
-	-	-0.45	bilirubin (E,E)*	Cofactors and Vitamins	Hemoglobin and Porphyrin Metabolism
-	-	-0.49	bilirubin degradation product, C17H18N2O4 (2)**	Partially Characterized Molecules	Partially Characterized Molecules
-	0.62	-	branched-chain, straight-chain, or cyclopropyl 12:1 fatty acid*	Partially Characterized Molecules	Partially Characterized Molecules
-	-	0.60	butyrate/isobutyrate (4:0)	Lipid	Short Chain Fatty Acid
-	0.49	-	caprate (10:0)	Lipid	Medium Chain Fatty Acid
-	-	0.46	caproate (6:0)	Lipid	Medium Chain Fatty Acid
-	0.42	-	cerotoylcarnitine (C26)*	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Long Chain Saturated)
0.72	-	-	C-glycosyltryptophan	Amino Acid	Tryptophan Metabolism
-	-	0.42	cholesterol	Lipid	Sterol
0.47	-	-	choline	Lipid	Phospholipid Metabolism
-	0.61	-	cis-4-decenoate	Lipid	Medium Chain Fatty Acid
-	0.44	-	cis-4-decenoylcarnitine (C10:1)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Monounsaturated)
0.54	-	-	citrulline	Amino Acid	Urea cycle; Arginine and Proline Metabolism
0.61	-	-	creatinine	Amino Acid	Creatine Metabolism
0.47	-	-	cystathionine	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism
-	-	-0.53	cysteine	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism
-	-	0.47	cysteine sulfinic acid	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism
-	0.48	-	decanoylcarnitine (C10)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Medium Chain)
-	-	-0.42	dehydroepiandrosterone sulfate (DHEA-S)	Lipid	Androgenic Steroids
-	0.74	-	dihomolinoleate (20:2n6)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)
-	0.73	-	dihomolinolenate (20:3n3 or 3n6)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)
0.70	-	-	dimethylarginine (ADMA + SDMA)	Amino Acid	Urea cycle; Arginine and Proline Metabolism
-	0.50	-	docosadienoate (22:2n6)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)
-	0.70	-	docosahexaenoate (DHA; 22:6n3)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)
-	0.78	-	docosapentaenoate (DPA; 22:5n3)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)
-	0.54	-	docosatrienoate (22:3n3)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)
-	0.62	-	dodecadienoate (12:2)*	Lipid	Fatty Acid, Dicarboxylate
0.47	-	-	dopamine 3-O-sulfate	Amino Acid	Tyrosine Metabolism
-	0.47	-	eicosapentaenoate (EPA; 20:5n3)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)
-	0.57	-	eicosenoate (20:1n9 or 1n11)	Lipid	Long Chain Monounsaturated Fatty Acid
0.52	-	-	formiminoglutamate	Amino Acid	Histidine Metabolism



0.42	-	-	glucuronate	Carbohydrate	Aminosugar Metabolism
-	0.42	-	glutamate	Amino Acid	Glutamate Metabolism
-	0.47	-	glutamine conjugate of C6H10O2 (2)*	Partially Characterized Molecules	Partially Characterized Molecules
0.41	-	-	glutaryl carnitine (C5)	Amino Acid	Lysine Metabolism
-	0.65	-	glycerol	Lipid	Glycerolipid Metabolism
-	-	0.53	glycerophosphoethanolamine	Lipid	Phospholipid Metabolism
0.43	-	-	guaiacol sulfate	Xenobiotics	Benzoate Metabolism
-	-	0.42	heptanoate (7:0)	Lipid	Medium Chain Fatty Acid Long Chain Polyunsaturated Fatty Acid (n3 and n6)
-	0.74	-	hexadecadienoate (16:2n6)	Lipid	Fatty Acid, Dicarboxylate
-	0.47	-	hexadecanedioate (C16)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Medium Chain)
-	0.54	-	hexanoyl carnitine (C6)	Lipid	Fatty Acid Metabolism (Acyl Glutamine)
-	0.52	-	hexanoyl glutamine	Lipid	Urea cycle; Arginine and Proline Metabolism
0.57	-	-	homocitrulline	Amino Acid	Alanine and Aspartate Metabolism
0.69	-	-	hydroxyasparagine	Amino Acid	Lysine Metabolism
0.71	-	-	hydroxy-N6,N6,N6-trimethyllysine* hydroxypalmitoyl sphingomyelin	Amino Acid	Sphingomyelins
-	-	0.42	(d18:1/16:0(OH))**	Lipid	Histidine Metabolism
0.46	-	-	imidazole lactate	Amino Acid	Tryptophan Metabolism
0.64	-	-	indole lactate	Amino Acid	Leucine, Isoleucine and Valine Metabolism
0.42	-	-	isoleucine	Amino Acid	Leucine, Isoleucine and Valine Metabolism
-	-	0.59	isovalerate (C5)	Amino Acid	Tryptophan Metabolism
0.59	-	-	kynurenine	Amino Acid	Glycolysis, Gluconeogenesis, and Pyruvate Metabolism
0.45	-	-	lactate	Carbohydrate	Medium Chain Fatty Acid Fatty Acid Metabolism (Acyl Carnitine, Medium Chain)
-	0.43	-	laurate (12:0)	Lipid	Eicosanoid
-	0.49	-	lauryl carnitine (C12)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)
-	-	0.63	leukotriene B4	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)
-	0.80	-	linoleate (18:2n6)	Lipid	Endocannabinoid
-	0.72	-	linolenate (18:3n3 or 3n6)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Polyunsaturated)
-	0.54	-	linoleoyl ethanolamide	Lipid	Long Chain Saturated Fatty Acid
-	0.41	-	linoleoyl carnitine (C18:2)*	Lipid	Methionine, Cysteine, SAM and Taurine Metabolism
-	0.74	-	margarate (17:0)	Lipid	Methionine, Cysteine, SAM and Taurine Metabolism
0.44	-	-	methionine sulfone	Amino Acid	Chemical
-	-	0.61	methionine sulfoxide	Amino Acid	Long Chain Saturated Fatty Acid
0.44	-	-	methylnaphthyl sulfate (2)*	Xenobiotics	Long Chain Monounsaturated Fatty Acid
-	0.70	-	myristate (14:0)	Lipid	
-	0.61	-	myristoleate (14:1n5)	Lipid	

-	0.51	-	myristoleoylcarnitine (C14:1)*	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Monounsaturated)
-	-	0.47	myristoyl dihydrosphingomyelin (d18:0/14:0)*	Lipid	Dihydrosphingomyelins
-	0.53	-	myristoylcarnitine (C14)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Long Chain Saturated)
0.60	-	-	N,N,N-trimethyl-alanylproline betaine (TMAP)	Amino Acid	Urea cycle; Arginine and Proline Metabolism
0.73	-	-	N,N-dimethyl-pro-pro	Peptide	Modified Peptides
0.57	-	-	N1-methylinosine	Nucleotide	Purine Metabolism, (Hypo)Xanthine/Inosine containing
0.60	-	-	N2,N2-dimethylguanosine	Nucleotide	Purine Metabolism, Guanine containing
0.56	-	-	N2,N5-diacetylornithine	Amino Acid	Urea cycle; Arginine and Proline Metabolism
0.58	-	-	N6,N6,N6-trimethyllysine	Amino Acid	Lysine Metabolism
0.69	-	-	N6-acetyllysine	Amino Acid	Lysine Metabolism
0.65	-	-	N6-carbamoylthreonyladenosine	Nucleotide	Purine Metabolism, Adenine containing
0.69	-	-	N-acetylalanine	Amino Acid	Alanine and Aspartate Metabolism
0.65	-	-	N-acetylglucosamine/N-acetylgalactosamine	Carbohydrate	Aminosugar Metabolism
0.42	-	-	N-acetyl-isoputrescine*	Amino Acid	Polyamine Metabolism
0.65	-	-	N-acetylneuraminate	Carbohydrate	Aminosugar Metabolism
0.50	-	-	N-acetylputrescine	Amino Acid	Polyamine Metabolism
0.67	-	-	N-acetylserine	Amino Acid	Glycine, Serine and Threonine Metabolism
0.66	-	-	N-acetyltaurine	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism
0.73	-	-	N-acetylthreonine	Amino Acid	Glycine, Serine and Threonine Metabolism
0.42	-	-	N-acetylvaline	Amino Acid	Leucine, Isoleucine and Valine Metabolism
0.50	-	-	N-delta-acetylornithine	Amino Acid	Urea cycle; Arginine and Proline Metabolism
0.55	-	-	N-formylmethionine	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism
-	0.46	-	N-linoleoyltaurine*	Lipid	Endocannabinoid
-	0.63	-	N-oleoyltaurine	Lipid	Endocannabinoid
-	0.58	-	nonadecanoate (19:0)	Lipid	Long Chain Saturated Fatty Acid
0.50	-	-	o-cresol sulfate	Xenobiotics	Benzoate Metabolism
-	0.48	-	octadecanedioate (C18)	Lipid	Fatty Acid, Dicarboxylate
-	0.51	-	octanoylcarnitine (C8)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Medium Chain)
-	0.80	-	oleate/vaccenate (18:1)	Lipid	Long Chain Monounsaturated Fatty Acid
-	0.66	-	oleoyl ethanolamide	Lipid	Endocannabinoid
-	0.54	-	oleoylcarnitine (C18)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Monounsaturated)
0.51	-	-	ornithine	Amino Acid	Urea cycle; Arginine and Proline Metabolism
0.71	-	-	orotidine	Nucleotide	Pyrimidine Metabolism, Orotate containing
0.63	-	-	O-sulfo-L-tyrosine	Xenobiotics	Chemical
-	0.80	-	palmitate (16:0)	Lipid	Long Chain Saturated Fatty Acid

-	0.70	-	palmitoleate (16:1n7)	Lipid	Long Chain Monounsaturated Fatty Acid
-	0.55	-	palmitoleoylcarnitine (C16:1)*	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Monounsaturated)
-	-	0.52	palmitoyl dihydrosphingomyelin (d18:0/16:0)*	Lipid	Dihydrosphingomyelins
-	0.56	-	palmitoyl ethanolamide	Lipid	Endocannabinoid
-	-	0.53	palmitoyl sphingomyelin (d18:1/16:0)	Lipid	Sphingomyelins
-	0.50	-	palmitoylcarnitine (C16)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Long Chain Saturated)
0.48	-	-	pantothenate (Vitamin B5)	Cofactors and Vitamins	Pantothenate and CoA Metabolism
-	0.51	-	pentadecanoate (15:0)	Lipid	Long Chain Saturated Fatty Acid
0.44	-	-	phenylalanine	Amino Acid	Phenylalanine Metabolism
0.63	-	-	phenyllactate (PLA)	Amino Acid	Phenylalanine Metabolism
0.58	-	-	picolinoylglycine	Lipid	Fatty Acid Metabolism (Acyl Glycine)
-	-	-0.53	pregnen-diol disulfate*	Lipid	Pregnenolone Steroids
-	-	-0.42	pregnenediol sulfate (C21H34O5S)*	Lipid	Pregnenolone Steroids
-	-	-0.52	pregnenetriol disulfate*	Lipid	Pregnenolone Steroids
-	0.42	-0.45	pregnenetriol sulfate*	Lipid	Pregnenolone Steroids
-	-	-0.46	pregnenolone sulfate	Lipid	Pregnenolone Steroids
0.44	-	-	prolylglycine	Peptide	Dipeptide
0.45	-	-	prolylhydroxyproline	Amino Acid	Urea cycle; Arginine and Proline Metabolism
0.77	-	-	pseudouridine	Nucleotide	Pyrimidine Metabolism, Uracil containing
0.55	-	-	pyroglutamine*	Amino Acid	Glutamate Metabolism
-	-	-0.43	pyruvate	Carbohydrate	Glycolysis, Gluconeogenesis, and Pyruvate Metabolism
0.41	-	-	quinolinate	Cofactors and Vitamins	Nicotinate and Nicotinamide Metabolism
0.46	-	-	retinol (Vitamin A)	Cofactors and Vitamins	Vitamin A Metabolism
0.49	-	-	ribitol	Carbohydrate	Pentose Metabolism
0.49	-	-	S-adenosylhomocysteine (SAH)	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism
0.42	-	-	sebacate (C10-DC)	Lipid	Fatty Acid, Dicarboxylate
-	-	0.56	sphingomyelin (d17:1/16:0, d18:1/15:0, d16:1/17:0)*	Lipid	Sphingomyelins
-	-	0.49	sphingomyelin (d18:1/14:0, d16:1/16:0)*	Lipid	Sphingomyelins
-	-	0.59	sphingomyelin (d18:1/17:0, d17:1/18:0, d19:1/16:0)	Lipid	Sphingomyelins
-	-	0.53	sphingomyelin (d18:1/18:1, d18:2/18:0)	Lipid	Sphingomyelins
-	-	0.55	sphingomyelin (d18:1/19:0, d19:1/18:0)*	Lipid	Sphingomyelins
-	-	0.51	sphingomyelin (d18:1/20:0, d16:1/22:0)*	Lipid	Sphingomyelins
-	-	0.51	sphingomyelin (d18:1/20:1, d18:2/20:0)*	Lipid	Sphingomyelins
-	-	0.57	sphingomyelin (d18:1/21:0, d17:1/22:0, d16:1/23:0)*	Lipid	Sphingomyelins

-	-	0.56	sphingomyelin (d18:1/22:1, d18:2/22:0, d16:1/24:1)*	Lipid	Sphingomyelins
-	-	0.57	sphingomyelin (d18:2/14:0, d18:1/14:1)*	Lipid	Sphingomyelins
-	-	0.56	sphingomyelin (d18:2/16:0, d18:1/16:1)*	Lipid	Sphingomyelins
-	-	0.42	sphingomyelin (d18:2/18:1)*	Lipid	Sphingomyelins
-	-	0.59	sphingomyelin (d18:2/21:0, d16:2/23:0)*	Lipid	Sphingomyelins
-	-	0.66	sphingomyelin (d18:2/23:0, d18:1/23:1, d17:1/24:1)*	Lipid	Sphingomyelins
-	-	0.52	sphingomyelin (d18:2/23:1)*	Lipid	Sphingomyelins
-	-	0.45	sphingomyelin (d18:2/24:1, d18:1/24:2)*	Lipid	Sphingomyelins
-	0.65	-	stearate (18:0)	Lipid	Long Chain Saturated Fatty Acid
-	0.59	-	stearidonate (18:4n3)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)
-	-	0.44	stearoyl sphingomyelin (d18:1/18:0)	Lipid	Sphingomyelins
0.44	-	-	suberate (C8-DC)	Lipid	Fatty Acid, Dicarboxylate
0.57	-	-	succinylcarnitine (C4)	Energy	TCA Cycle
0.53	-	-	sulfate*	Xenobiotics	Chemical
-	0.46	-	tetradecadienedioate (C14:2-DC)*	Lipid	Fatty Acid, Dicarboxylate
-	0.59	-	tetradecadienoate (14:2)*	Lipid	Fatty Acid, Dicarboxylate
-	0.50	-	tetradecanedioate (C14)	Lipid	Fatty Acid, Dicarboxylate
-	-	-0.44	thioprolin	Xenobiotics	Chemical
-	-	0.46	tricosanoyl sphingomyelin (d18:1/23:0)*	Lipid	Sphingomyelins
-	0.42	-	tridecenedioate (C13:1-DC)*	Lipid	Fatty Acid, Dicarboxylate
0.44	-	-	tyramine O-sulfate	Amino Acid	Tyrosine Metabolism
0.40	-	-	undecanedioate (C11-DC)	Lipid	Fatty Acid, Dicarboxylate
0.45	-	-	urea	Amino Acid	Urea cycle; Arginine and Proline Metabolism
-	0.41	-	urocortisol glucuronide (4) aka tetrahydrocortisol glucuronide (5)	Lipid	Corticosteroids
0.65	-	-	vanillactate	Amino Acid	Tyrosine Metabolism
0.54	-	-	xanthosine	Nucleotide	Purine Metabolism, (Hypo)Xanthine/Inosine containing

Principal component analysis (PCA) was performed on 874 metabolites followed by a varimax rotation in 434 participants. The first three axes (i.e., principal component) each explained 9.63, 4.79, and 4.69 percent variance of metabolites, respectively. Metabolites with scores > 0.40 or ≤ -0.40 are shown here. Metabolites are ordered alphabetically. According to the Metabolomics Standards Initiative,<sup>1</sup> metabolites with Level 1 identification were labeled by their chemical names; metabolites at Level 2 were indicated by "\*" after chemical name; metabolites at Level 3 were indicated by "\*\*\*" after chemical name; and unknown metabolites were labeled as "X - " followed by numbers.

**Table S3. Characteristics of the analysis sample (n=1,082)**

Age, years	51.0 (9.1)
Women, n (%)	589 (54.4%)
Systolic blood pressure (SBP), mmHg	126.0 (17.4)
Diastolic blood pressure (DBP), mmHg	80.7 (10.7)
Hypertension (self-reported or SBP/DBP≥140/90 mmHg)	299 (27.6%)
Body mass index (BMI), kg/m <sup>2</sup>	23.8 (3.2)
Estimated glomerular filtration rate (eGFR)*, mL/min/1.73m <sup>2</sup>	76.7 (14.4)
Low-density lipoprotein cholesterol, mg/dL	125.5 (34.2)
Province, n (%)	
Guangxi	304 (28.1%)
Guizhou	227 (21.0%)
Henan	225 (20.8%)
Hunan	326 (30.1%)
Urbanization index <sup>†</sup>	68.7 (16.5)
Per capita household income <sup>‡</sup> , 1000 yuan	11.0 (17.0)
Completed high school education, n (%)	308 (28.5%)
Total energy <sup>§</sup> , kcal	2001.3 (645.7)
Animal-source food consumption <sup>§</sup> , %kcal	21.5 (19.2)
Sodium consumption <sup>§</sup> , mg	3667.7 (2330.9)
Physical activity <sup>  </sup> , METS/week	114.0 (196.3)
Ever smoking, n (%)	459 (42.4%)
Drank alcohol last year, n (%)	321 (29.7%)
Sample with gut microbiota data, n (%)	1,003 (92.7%)
Sample with plasma metabolites data, n (%)	434 (43.1%)
Sample with both microbiota and metabolites data, n (%)	355 (32.8%)

Mean (SD) or n (%) as noted. For income, physical activity, animal-source food consumption, and sodium consumption, median (interquartile range) are presented.

\* eGFR was calculated based on the Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI) equation.

† Urbanization index encompasses 12 components of urbanization, including population density, sanitation, and health infrastructure.

‡ Per capita household income was estimated by dividing the total household income by the number of household members.

§ Dietary intakes were measured by 3-consecutive 24h dietary recalls and household food inventories.

|| Physical activity was estimated by 7-day physical activity (occupational, transportation, domestic, and leisure activities) recalls in METS.

**Table S4. Associations between gut microbial within-person diversity ( $\alpha$ -diversity) measures with systolic and diastolic blood pressure (SBP and DBP)**

	SBP					DBP			
	Mean (SD)	Model 1		Model 2		Model 1		Model 2	
		$\beta$ Coefficient (95% CI)	P value	$\beta$ Coefficient (95% CI)	P value	$\beta$ Coefficient (95% CI)	P value	$\beta$ Coefficient (95% CI)	P value
Shannon index*	2.59 (0.30)	0.90 (-2.52, 4.33)	0.60	0.51 (-2.83, 3.86)	0.76	-0.52 (-2.72, 1.68)	0.64	-0.83 (-2.96, 1.31)	0.45
Richness†	99.14 (27.51)	0.01 (-0.03, 0.05)	0.59	0.01 (-0.03, 0.05)	0.64	-4E-04 (-0.02, 0.02)	0.97	-1E-03 (-0.02, 0.02)	0.91

n=1,003. Model 1 was adjusted for age, sex, provinces, urbanization index (tertiles:  $\leq 58.8$ , 58.8-78.8,  $>78.8$ ), per capita household income (tertiles:  $\leq 7.2$ , 7.2-18,  $>18$ ), education, total energy intake, animal-source food consumption, sodium consumption, physical activity (tertiles:  $\leq 75$ , 75-192,  $>192$ ), smoking, alcohol intake, and estimated glomerular filtration rate (eGFR). Model 2 was additionally adjusted for BMI.

\*Shannon index at genus level was calculated using  $-\sum p_i \ln p_i$ , where  $p_i$  is the proportional abundance of genera  $i$ .

†Richness measured the number of distinct genera per subject with rarefaction.

**Table S5. Association between gut microbial principal coordinates analysis (PCoA) axes with systolic and diastolic blood pressure (SBP and DBP, mmHg), Coefficient (95% CI)**

	Taxa contributing to each axis		Eigen-value	Variance explained	SBP		DBP	
					Model 1	Model 2	Model 1	Model 2
MDS1	<i>Prevotella</i>	<i>Bacteroides</i>	4.91	8.61%	18.08	16.97	3.27	2.53
	<i>Ralstonia</i>	<i>Unassigned</i>			(-15.40,	(-15.70,	(-18.27,	(18.33,
	<i>S24-7</i>	<i>Comamonadaceae</i>			51.56)	49.64)	24.80)	23.40)
	<i>Delftia</i>	<i>Rikenellaceae</i>						
	<i>Parabacteroides</i>	<i>RF39</i>						
MDS 2	<i>Ralstonia</i>	<i>Akkermansia</i>	3.18	5.58%	6.01	4.80	-4.89	-5.67
	<i>Delftia</i>	<i>Comamonadaceae</i>			(-27.13,	(-27.57,	(-26.20,	(-26.34,
	<i>Bacteroides</i>	<i>Prevotella</i>			39.16)	37.18)	16.41)	14.99)
	<i>Lachnospira</i>	<i>Lactococcus</i>						
	<i>Faecalibacterium</i>	<i>Phascolarctobacterium</i>						
MDS3	<i>Lactococcus</i>	<i>YS2</i>	2.02	3.54%	15.45	5.81	3.96	-2.97
	<i>Eggerthella</i>	<i>Bifidobacterium</i>			(-30.06,	(-38.69,	(-25.31,	(-31.37,
	<i>Catenibacterium</i>	<i>Peptococcus</i>			60.97)	50.30)	33.22)	25.44)
	<i>Leuconostocaceae</i>	<i>Adlercreutzia</i>						
	<i>Pseudoramibacter_</i>	<i>Fusobacterium</i>						
<i>Eubacterium</i>								
MDS4	<i>Adlercreutzia</i>	<i>Rothia</i>	1.80	3.16%	52.94	38.90	16.60	6.47
	<i>Enterobacteriaceae_other</i>	<i>Fusobacterium</i>			(15.61,	(2.19,	(-7.47,	(-17.01,
	<i>Leuconostocaceae</i>	<i>Coprococcus</i>			90.27)**	75.61) *	40.67)	29.95)
	<i>Serratia</i>	<i>Eggerthella</i>						
	<i>Enterobacteriaceae</i>	<i>Ralstonia</i>						

MDS, multidimensional scaling. PCo were derived from PCoA of 1,008 taxa based on Bray-Curtis distance matrix in microbiota analysis sample (n=1,003). Coefficient indicates SBP and DBP (mmHg) associated with each 1 unit increase in microbiota pattern score. Contributing taxa include taxa with the top 10 highest absolute scores for the respective PCo. Taxa are vertically ordered by their absolute values of scores (descending). A full list of scores is shown in Table S1. Model 1 was adjusted for age, sex, provinces, urbanization index (tertiles: ≤58.8, 58.8-78.8, >78.8), per capita household income (tertiles: ≤7.2, 7.2-18, >18), education, total energy intake, animal-source food consumption, sodium consumption, physical activity (tertiles: ≤75, 75-192, >192), smoking, alcohol intake, and estimated glomerular filtration rate (eGFR). Model 2 was additionally adjusted for BMI. “\*” indicates p-value < 0.05; “\*\*” indicates p-value<0.01.

Table S6. Association between specific taxa with systolic and diastolic blood pressure (SBP and DBP)

Kingdom	Phylum	Class	Order	Family	Genus	SBP										DBP												
						Model 1					Model 2					Model 1			Model 2									
						Mean(SD) or %	Coef.	95% CI	p-value	q-value	Coef.	95% CI	p-value	q-value	Coef.	95% CI	p-value	q-value	Coef.	95% CI	p-value	q-value	Rare					
Archaea	[Parvarchaeota]	[Parvarchaeae]	WCHD3-30			0.10%	-	-9.22	-41.24	22.79	0.57	1.00	-10.06	-41.30	21.18	0.53	1.00	-3.10	-23.69	17.48	0.77	0.96	-3.70	-23.64	16.24	0.72	0.97	Yes
Archaea	Crenarchaeota	Thaumarchaeota	Cenarchaeales	Cenarchaeaceae	Nitrosopumilus	0.20%	-	18.26	-4.43	40.94	0.11	1.00	14.61	-7.55	36.77	0.20	1.00	13.52	-1.06	28.09	0.07	0.95	10.93	-3.22	25.07	0.13	0.96	Yes
Archaea	Crenarchaeota	Thaumarchaeota	Nitrososphaerales	Nitrososphaeraceae	Candidatus Nitrososphaera	0.60%	-	1.25	-11.82	14.32	0.85	1.00	1.32	-11.43	14.07	0.84	1.00	-2.00	-10.40	6.40	0.64	0.95	-1.93	-10.07	6.20	0.64	0.96	Yes
Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Halococcus	0.20%	-	-15.51	-38.20	7.18	0.18	1.00	-10.77	-32.96	11.41	0.34	1.00	-6.48	-21.08	8.11	0.38	0.95	-3.07	-17.24	11.10	0.67	0.96	Yes
Archaea	Euryarchaeota	Methanobacteria	Methanobacteriales	Methanobacteriaceae	Methanobrevibacter	0.32	0.55	-0.41	-2.26	1.45	0.67	1.00	-0.18	-1.99	1.63	0.85	1.00	0.16	-1.03	1.35	0.79	0.96	0.34	-0.82	1.49	0.56	0.96	No
Archaea	Euryarchaeota	Methanobacteria	Methanobacteriales	Methanobacteriaceae	Methanosphaera	0.22	0.47	0.03	-2.19	2.26	0.98	1.00	0.36	-1.81	2.54	0.74	1.00	0.25	-1.18	1.68	0.73	0.96	0.49	-0.89	1.88	0.48	0.96	No
Archaea	Euryarchaeota	Thermoplasmata	E2	[Methanomassiliicoccaceae]	vadinCA11	0.20%	-	15.89	-6.71	38.49	0.17	1.00	17.17	-4.88	39.22	0.13	1.00	8.80	-5.73	23.34	0.23	0.95	9.74	-4.34	23.82	0.17	0.96	Yes
Bacteria	[Caldithrix]	KSB1	Ucn15732			1.00%	-	2.93	-7.21	13.08	0.57	1.00	2.52	-7.38	12.42	0.62	1.00	0.48	-6.05	7.00	0.89	0.97	0.19	-6.13	6.52	0.95	0.99	Yes
Bacteria	[Thermi]	Deinococci	Deinococcales	Deinococcaceae	Deinococcus	2.19%	-	3.76	-3.17	10.70	0.29	1.00	3.22	-3.55	9.99	0.35	1.00	1.67	-2.79	6.13	0.46	0.95	1.28	-3.05	5.60	0.56	0.96	Yes
Bacteria	[Thermi]	Deinococci	Deinococcales	Trueperaceae	B-42	1.40%	-	-4.57	-13.24	4.10	0.30	1.00	-5.79	-14.25	2.67	0.18	1.00	-3.04	-8.62	2.53	0.28	0.95	-3.90	-9.30	1.50	0.16	0.96	Yes
Bacteria	[Thermi]	Deinococci	Deinococcales	Trueperaceae	Truepera	0.30%	-	0.94	-17.55	19.44	0.92	1.00	0.96	-17.09	19.00	0.92	1.00	3.38	-8.51	15.26	0.58	0.95	3.41	-8.11	14.92	0.56	0.96	Yes
Bacteria	[Thermi]	Deinococci	Thermales	Thermaceae	Meiothermus	0.10%	-	-1.66	-33.69	30.37	0.92	1.00	1.69	-29.58	32.95	0.92	1.00	3.95	-16.64	24.54	0.71	0.95	6.31	-13.64	26.27	0.53	0.96	Yes
Bacteria	[Thermi]	Deinococci	Thermales	Thermaceae	Thermus	1.99%	-	4.38	-2.80	11.56	0.23	1.00	3.78	-3.23	10.79	0.29	1.00	1.61	-3.01	6.22	0.50	0.95	1.19	-3.28	5.67	0.60	0.96	Yes
Bacteria	Acidobacteria	[Chloracidobacteria]	PK29			0.60%	-	-6.72	-19.89	6.45	0.32	1.00	-5.85	-18.70	7.01	0.37	1.00	-2.51	-10.98	5.95	0.56	0.95	-1.85	-10.06	6.36	0.66	0.96	Yes
Bacteria	Acidobacteria	[Chloracidobacteria]	RB41	Ellin6075		3.49%	-	-0.18	-5.76	5.40	0.95	1.00	-0.30	-5.74	5.15	0.91	1.00	-1.44	-5.03	2.14	0.43	0.95	-1.51	-4.98	1.97	0.40	0.96	Yes
Bacteria	Acidobacteria	[Chloracidobacteria]	RB41			1.99%	-	-2.42	-9.70	4.86	0.51	1.00	-3.17	-10.28	3.94	0.38	1.00	-6.02	-10.69	-1.35	0.01	0.95	-6.55	-11.07	-2.03	0.00	0.92	Yes
Bacteria	Acidobacteria	[Chloracidobacteria]				0.20%	-	8.23	-14.48	30.94	0.48	1.00	4.04	-18.15	26.24	0.72	1.00	5.04	-9.56	19.64	0.50	0.95	2.06	-12.10	16.23	0.77	0.97	Yes
Bacteria	Acidobacteria	Acidobacteria-5				1.00%	-	1.43	-8.71	11.57	0.78	1.00	0.22	-9.67	10.12	0.96	1.00	-0.80	-7.32	5.72	0.81	0.96	-1.66	-7.97	4.66	0.61	0.96	Yes
Bacteria	Acidobacteria	Acidobacteria-6	CCU21			0.30%	-	-0.76	-19.27	17.75	0.94	1.00	-4.79	-22.88	13.30	0.60	1.00	-2.71	-14.60	9.19	0.66	0.95	-5.57	-17.11	5.97	0.34	0.96	Yes
Bacteria	Acidobacteria	Acidobacteria-6	iii1-15	mb2424		1.20%	-	-1.18	-10.60	8.24	0.81	1.00	-1.20	-10.39	8.00	0.80	1.00	-0.08	-6.14	5.98	0.98	0.99	-0.06	-5.93	5.81	0.98	1.00	Yes
Bacteria	Acidobacteria	Acidobacteria-6	iii1-15	RB40		0.70%	-	9.74	-2.40	21.87	0.12	1.00	10.23	-1.61	22.07	0.09	1.00	5.14	-2.66	12.95	0.20	0.95	5.50	-2.06	13.06	0.15	0.96	Yes
Bacteria	Acidobacteria	Acidobacteria-6	iii1-15			4.69%	-	1.67	-3.19	6.53	0.50	1.00	1.49	-3.25	6.23	0.54	1.00	0.41	-2.72	3.53	0.80	0.96	0.30	-2.73	3.33	0.85	0.98	Yes
Bacteria	Acidobacteria	Acidobacteriia	Acidobacteriales	Acidobacteriaceae	Edaphobacter	0.20%	-	3.92	-18.74	26.58	0.73	1.00	2.26	-19.85	24.37	0.84	1.00	-9.65	-24.20	4.91	0.19	0.95	-10.84	-24.94	3.25	0.13	0.96	Yes
Bacteria	Acidobacteria	Acidobacteriia	Acidobacteriales	Acidobacteriaceae	Terriglobus	0.60%	-	16.15	2.97	29.34	0.02	0.99	13.76	0.87	26.65	0.04	1.00	7.72	-0.77	16.21	0.07	0.95	6.03	-2.21	14.27	0.15	0.96	Yes
Bacteria	Acidobacteria	Acidobacteriia	Acidobacteriales	Acidobacteriaceae		0.80%	-	6.64	-4.70	17.98	0.25	1.00	4.73	-6.35	15.81	0.40	1.00	4.11	-3.18	11.40	0.27	0.95	2.76	-4.31	9.84	0.44	0.96	Yes
Bacteria	Acidobacteria	Acidobacteriia	Acidobacteriales	Koribacteraceae	Candidatus Koribacter	2.09%	-	3.95	-3.14	11.04	0.27	1.00	3.23	-3.68	10.15	0.36	1.00	1.00	-3.56	5.56	0.67	0.95	0.50	-3.92	4.92	0.82	0.97	Yes
Bacteria	Acidobacteria	Acidobacteriia	Acidobacteriales	Koribacteraceae		2.79%	-	5.08	-1.05	11.22	0.10	1.00	4.29	-1.82	10.39	0.17	1.00	1.89	-2.06	5.84	0.35	0.95	0.96	-2.94	4.86	0.63	0.96	Yes
Bacteria	Acidobacteria	DA052	Ellin6513			1.99%	-	1.35	-5.90	8.60	0.71	1.00	1.71	-5.36	8.79	0.63	1.00	-0.17	-4.83	4.49	0.94	0.98	0.10	-4.41	4.62	0.96	0.99	Yes
Bacteria	Acidobacteria	Holophagae	Holophagales			0.30%	-	6.65	-11.88	25.18	0.48	1.00	4.39	-13.70	22.49	0.63	1.00	9.25	-2.65	21.16	0.13	0.95	7.70	-3.84	19.24	0.19	0.96	Yes
Bacteria	Acidobacteria	iii1-8	32-20			0.70%	-	-3.21	-15.42	8.99	0.61	1.00	-3.20	-15.11	8.71	0.60	1.00	-6.04	-13.88	1.80	0.13	0.95	-6.03	-13.62	1.57	0.12	0.96	Yes
Bacteria	Acidobacteria	iii1-8	DS-18			1.60%	-	-4.42	-12.56	3.72	0.29	1.00	-4.89	-12.84	3.05	0.23	1.00	-3.61	-8.85	1.62	0.18	0.95	-3.94	-9.01	1.13	0.13	0.96	Yes
Bacteria	Acidobacteria	PAUC37f				0.20%	-	6.26	-16.37	28.90	0.59	1.00	0.05	-22.10	22.21	1.00	1.00	6.29	-8.25	20.84	0.40	0.95	1.87	-12.27	16.01	0.80	0.97	Yes
Bacteria	Acidobacteria	RB25				0.10%	-	-17.87	-49.79	14.04	0.27	1.00	-19.23	-50.36	11.91	0.23	1.00	-17.33	-37.83	3.17	0.10	0.95	-18.32	-38.17	1.54	0.07	0.96	Yes
Bacteria	Acidobacteria	Solibacteres	JH-WHS99			0.10%	-	-0.97	-32.91	30.98	0.95	1.00	-1.79	-32.96	29.38	0.91	1.00	11.77	-8.75	32.30	0.26	0.95	11.21	-8.67	31.09	0.27	0.96	Yes
Bacteria	Acidobacteria	Solibacteres	Solibacterales	PAUC26f		0.20%	-	-1.94	-24.59	20.71	0.87	1.00	-3.60	-25.70	18.51	0.75	1.00	1.51	-13.05	16.07	0.84	0.96	0.31	-13.80	14.42	0.97	0.99	Yes
Bacteria	Acidobacteria	Solibacteres	Solibacterales	Solibacteraceae	Candidatus Solibacter	0.80%	-	-6.81	-18.27	4.66	0.24	1.00	-6.69	-17.88	4.49	0.24	1.00	-8.05	-15.41	-0.69	0.03	0.95	-7.96	-15.09	-0.83	0.03	0.96	Yes
Bacteria	Acidobacteria	Solibacteres	Solibacterales	Solibacteraceae		0.30%	-	1.42	-17.12	19.96	0.88	1.00	0.67	-17.42	18.76	0.94	1.00	3.22	-8.70	15.14	0.60	0.95	2.72	-8.82	14.27	0.64	0.96	Yes
Bacteria	Acidobacteria	Solibacteres	Solibacterales			2.19%	-	0.26	-6.69	7.20	0.94	1.00	-0.25	-7.03	6.53	0.94	1.00	0.08	-4.39	4.55	0.97	0.99	-0.27	-4.60	4.06	0.90	0.99	Yes
Bacteria	Acidobacteria	Sva0725	Sva0725			0.60%	-	-0.82	-14.00	12.36	0.90	1.00	-1.70	-14.57	11.16	0.79	1.00	-2.34	-10.81	6.13	0.59	0.95	-2.94	-11.14	5.27	0.48	0.96	Yes
Bacteria	Acidobacteria					0.30%	-	-7.41	-26.05	11.23	0.44	1.00	-8.98	-27.18	9.21	0.33	1.00	-1.75	-13.74	10.23	0.77	0.96	-2.89	-14.50	8.73	0.63	0.96	Yes
Bacteria	Actinobacteria	Acidimicrobiia	Acidimicrobiales	AKIW874		0.30%	-	-10.05	-28.59	8.49	0.29	1.00	-12.31	-30.41	5.78	0.18	1.00	-3.17	-15.09	8.76	0.60	0.95	-4.75	-16.31	6.81	0.42	0.96	Yes
Bacteria	Actinobacteria	Acidimicrobiia	Acidimicrobiales	C111		2.09%	-	-2.89	-10.03	4.25	0.43	1.00	-3.33	-10.29	3.64	0.35	1.00	-1.44	-6.03									



Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Cellulomonadaceae	Other	0.40%	-	0.84	-15.24	16.92	0.92	1.00	0.56	-15.13	16.25	0.94	1.00	0.46	-9.88	10.80	0.93	0.98	0.28	-9.73	10.30	0.96	0.99	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Corynebacteriaceae	Corynebacterium	0.51	0.33	0.98	-2.09	4.05	0.53	1.00	1.22	-1.78	4.22	0.42	1.00	0.28	-1.70	2.25	0.78	0.96	0.43	-1.48	2.35	0.66	0.96	No
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Dermabacteraceae	Brachybacterium	11.17%	-	-0.09	-3.33	3.15	0.96	1.00	-0.08	-3.24	3.08	0.96	1.00	0.60	-1.48	2.68	0.57	0.95	0.62	-1.40	2.63	0.55	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Dermabacteraceae	Other	0.10%	-	-4.95	-36.97	27.08	0.76	1.00	-10.41	-41.68	20.87	0.51	1.00	11.80	-8.78	32.37	0.26	0.95	7.94	-12.03	27.90	0.44	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Dermabacteraceae	Actinomycetales	3.59%	-	-1.68	-7.15	3.80	0.55	1.00	-1.61	-6.95	3.72	0.55	1.00	-2.70	-6.21	0.82	0.13	0.95	-2.65	-6.05	0.76	0.13	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Dermacoccaceae	Dermacoccus	4.09%	-	-0.15	-5.26	4.97	0.96	1.00	-1.50	-6.51	3.50	0.56	1.00	-1.33	-4.61	1.96	0.43	0.95	-2.30	-5.49	0.90	0.16	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Dermatophilaceae	Dermatophilus	11.76%	-	-1.09	-4.27	2.09	0.50	1.00	-0.97	-4.08	2.13	0.54	1.00	-0.63	-2.68	1.42	0.55	0.95	-0.54	-2.53	1.44	0.59	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Dermatophilaceae	Other	1.69%	-	-2.40	-10.29	5.49	0.55	1.00	-2.27	-9.97	5.42	0.56	1.00	-1.10	-6.17	3.97	0.67	0.95	-1.00	-5.91	3.91	0.69	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Dietziaceae	Other	0.20%	-	5.61	-17.30	28.52	0.63	1.00	6.52	-15.83	28.87	0.57	1.00	6.53	-8.19	21.26	0.38	0.95	7.22	-7.04	21.49	0.32	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Frankiaceae	Other	0.20%	-	4.29	-18.35	26.93	0.71	1.00	5.27	-16.82	27.36	0.64	1.00	6.98	-7.56	21.53	0.35	0.95	7.72	-6.37	21.82	0.28	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Frankiaceae	Actinomycetales	0.90%	-	2.83	-7.93	13.59	0.61	1.00	3.57	-6.93	14.07	0.51	1.00	5.95	-0.96	12.85	0.09	0.95	6.48	-0.21	13.17	0.06	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Geodermatophilaceae	Geodermatophilus	0.70%	-	-5.37	-17.53	6.80	0.39	1.00	-6.34	-18.21	5.54	0.30	1.00	0.21	-7.61	8.04	0.96	0.98	-0.46	-8.04	7.13	0.91	0.99	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Geodermatophilaceae	Modestobacter	1.99%	-	-1.25	-8.51	6.02	0.74	1.00	-1.94	-9.03	5.15	0.59	1.00	-2.71	-7.38	1.95	0.25	0.95	-3.19	-7.71	1.34	0.17	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Geodermatophilaceae	Other	1.30%	-	-0.24	-9.23	8.74	0.96	1.00	-0.90	-9.67	7.86	0.84	1.00	-5.09	-10.86	0.67	0.08	0.95	-5.55	-11.13	0.04	0.05	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Geodermatophilaceae	Actinomycetales	0.40%	-	11.23	-4.83	27.29	0.17	1.00	13.57	-2.10	29.25	0.09	1.00	8.87	-1.45	19.19	0.09	0.95	10.57	0.57	20.57	0.04	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Gordoniaceae	Gordonia	1.69%	-	-3.10	-10.90	4.69	0.44	1.00	-3.48	-11.08	4.13	0.37	1.00	-2.38	-7.39	2.63	0.35	0.95	-2.63	-7.49	2.22	0.29	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Intrasporangiaceae	Arsenicococcus	0.10%	-	26.35	-5.52	58.23	0.11	1.00	29.08	-2.02	60.18	0.07	1.00	14.27	-6.23	34.77	0.17	0.95	16.21	-3.65	36.07	0.11	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Intrasporangiaceae	Kytococcus	0.10%	-	-4.39	-36.41	27.64	0.79	1.00	-4.57	-35.82	26.67	0.77	1.00	1.87	-18.72	22.45	0.86	0.96	1.75	-18.19	21.70	0.86	0.98	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Intrasporangiaceae	Other	8.67%	-	0.06	-3.54	3.65	0.98	1.00	0.31	-3.20	3.82	0.86	1.00	-0.24	-2.56	2.07	0.84	0.96	-0.06	-2.30	2.18	0.96	0.99	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Intrasporangiaceae	Phycococcus	1.99%	-	-1.63	-8.88	5.61	0.66	1.00	-1.79	-8.85	5.28	0.62	1.00	-0.42	-5.07	4.24	0.86	0.96	-0.52	-5.03	3.99	0.82	0.97	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Intrasporangiaceae	Terracoccus	0.10%	-	-9.09	-41.11	22.94	0.58	1.00	-10.63	-41.88	20.62	0.50	1.00	-4.69	-25.28	15.90	0.65	0.95	-5.79	-25.74	14.16	0.57	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Intrasporangiaceae	Actinomycetales	8.18%	-	-2.28	-6.00	1.44	0.23	1.00	-2.37	-6.00	1.25	0.20	1.00	-1.17	-3.56	1.22	0.34	0.95	-1.23	-3.55	1.09	0.30	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Jonesiaceae	Other	0.10%	-	26.29	-5.71	58.30	0.11	1.00	29.09	-2.14	60.31	0.07	1.00	8.81	-11.79	29.41	0.40	0.95	10.81	-9.15	30.76	0.29	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Kineosporiaceae	Kineosporia	0.20%	-	-1.46	-24.25	21.33	0.90	1.00	0.05	-22.19	22.29	1.00	1.00	-1.42	-16.07	13.23	0.85	0.96	-0.33	-14.53	13.87	0.96	0.99	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Kineosporiaceae	Other	0.80%	-	7.49	-3.89	18.87	0.20	1.00	6.49	-4.63	17.60	0.25	1.00	5.28	-2.04	12.60	0.16	0.95	4.58	-2.52	11.67	0.21	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Kineosporiaceae	Actinomycetales	1.40%	-	1.88	-6.89	10.65	0.67	1.00	2.37	-6.18	10.93	0.59	1.00	-0.63	-6.27	5.01	0.83	0.96	-0.26	-5.72	5.20	0.93	0.99	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Agrococcus	1.00%	-	-5.74	-15.91	4.43	0.27	1.00	-5.00	-14.93	4.93	0.32	1.00	-2.43	-8.97	4.12	0.47	0.95	-1.90	-8.24	4.44	0.56	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Agromyces	1.89%	-	-2.38	-9.87	5.11	0.53	1.00	-2.15	-9.46	5.16	0.56	1.00	-0.40	-5.22	4.42	0.87	0.96	-0.22	-4.88	4.45	0.93	0.99	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Candidatus Aquiluna	0.40%	-	-5.13	-21.10	10.85	0.53	1.00	-5.09	-20.68	10.49	0.52	1.00	3.39	-6.87	13.66	0.52	0.95	3.44	-6.51	13.38	0.50	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Candidatus Rhodoluna	0.60%	-	-7.92	-20.99	5.16	0.23	1.00	-5.97	-18.74	6.80	0.36	1.00	0.81	-7.60	9.22	0.85	0.96	2.22	-5.94	10.37	0.59	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Cryocolla	7.68%	-	-1.68	-5.51	2.15	0.39	1.00	-1.38	-5.12	2.36	0.47	1.00	-0.67	-3.14	1.79	0.59	0.95	-0.45	-2.83	1.94	0.71	0.97	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Curtobacterium	4.79%	-	-2.66	-7.42	2.09	0.27	1.00	-3.02	-7.66	1.62	0.20	1.00	-3.00	-6.06	0.05	0.05	0.95	-3.25	-6.21	-0.30	0.03	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Frigoribacterium	0.20%	-	-12.88	-35.62	9.87	0.27	1.00	-12.51	-34.70	9.68	0.27	1.00	-10.04	-24.66	4.57	0.18	0.95	-9.76	-23.92	4.40	0.18	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Leucobacter	12.36%	-	-0.04	-3.16	3.08	0.98	1.00	-0.07	-3.12	2.97	0.96	1.00	-0.43	-2.44	1.57	0.67	0.95	-0.45	-2.40	1.49	0.65	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Microbacterium	10.67%	-	1.55	-1.72	4.82	0.35	1.00	0.77	-2.43	3.97	0.64	1.00	-0.08	-2.18	2.03	0.94	0.98	-0.63	-2.67	1.41	0.54	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Other	4.79%	-	-0.37	-5.09	4.36	0.88	1.00	-0.84	-5.45	3.77	0.72	1.00	1.08	-1.96	4.12	0.49	0.95	0.75	-2.19	3.70	0.62	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Pseudoclavibacter	1.69%	-	-1.19	-9.11	6.72	0.77	1.00	-1.27	-8.99	6.46	0.75	1.00	-0.75	-5.84	4.34	0.77	0.96	-0.81	-5.74	4.12	0.75	0.97	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Salinibacterium	0.80%	-	2.12	-9.33	13.57	0.72	1.00	2.89	-8.28	14.07	0.61	1.00	1.95	-5.41	9.31	0.60	0.95	2.54	-4.59	9.67	0.49	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Actinomycetales	5.78%	-	-1.31	-5.65	3.03	0.55	1.00	-1.70	-5.93	2.54	0.43	1.00	-0.48	-3.27	2.31	0.74	0.96	-0.74	-3.45	1.96	0.59	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micrococcaceae	Arthrobacter	9.97%	-	-0.39	-3.81	3.02	0.82	1.00	0.17	-3.16	3.50	0.92	1.00	-1.32	-3.51	0.88	0.24	0.95	-0.91	-3.03	1.22	0.40	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micrococcaceae	Kocuria	0.15	0.27	3.47	-0.38	7.32	0.08	0.99	2.84	-0.92	6.61	0.14	1.00	1.74	-0.74	4.22	0.17	0.95	1.30	-1.10	3.71	0.29	0.96	No
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micrococcaceae	Microbispora	3.79%	-	0.69	-4.67	6.05	0.80	1.00	0.02	-5.21	5.25	0.99	1.00	0.31	-3.13	3.76	0.86	0.96	-0.14	-3.47	3.20	0.94	0.99	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micrococcaceae	Micrococcus	13.16%	-	2.65	-0.35	5.65	0.08	0.99	2.66	-0.27	5.58	0.08	1.00	1.96	0.04	3.89	0.05	0.95	1.98	0.11	3.84	0.04	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micrococcaceae	Nesterenkonia	5.58%	-	-0.66	-5.07	3.75	0.77	1.00	-0.67	-4.97	3.63	0.76	1.00	0.92	-1.91	3.76	0.52	0.95	0.92	-1.83	3.67	0.51	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micrococcaceae	Other	1.00%	-	0.42	-9.78	10.63	0.94	1.00	-0.29	-10.25	9.66	0.95	1.00	-1.91	-8.47	4.65	0.57	0.95	-2.42	-8.77	3.93	0.46	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micrococcaceae	Rothia*	0.83	0.44	1.25	-1.08	3.59	0.29	1.00	0.75	-1.54	3.04	0.52	1.00	0.64	-0.87	2.14	0.40	0.95	0.28	-1.18	1.74	0.71	0.97	No
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micrococcaceae	Actinomycetales	22.93%	-	-0.69	-3.10	1.71	0.57	1.00	-0.91	-3.27	1.44	0.45	1.00	-0.73	-2.28	0.82	0.35	0.95	-0.92	-2.42	0.58	0.23	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micromonosporaceae	Actinoplanes	0.50%	-	1.32	-13.13	15.78	0.86	1.00	2.1															

Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Propionibacteriaceae		0.10	0.17	-1.10	-7.20	5.00	0.72	1.00	-1.66	-7.62	4.29	0.58	1.00	-0.68	-4.60	3.24	0.73	0.96	-1.06	-4.87	2.74	0.58	0.96	No
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Pseudonocardiaceae	Actinomycetospora	2.29%	-	4.45	-2.46	11.35	0.21	1.00	3.53	-3.21	10.27	0.30	1.00	0.39	-4.05	4.83	0.86	0.96	-0.24	-4.55	4.06	0.91	0.99	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Pseudonocardiaceae	Amycolatopsis	0.60%	-	-4.62	-17.71	8.47	0.49	1.00	-3.10	-15.88	9.67	0.63	1.00	-3.35	-11.76	5.06	0.44	0.95	-2.25	-10.41	5.90	0.59	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Pseudonocardiaceae	Jiangella	0.20%	-	-12.60	-35.30	10.09	0.28	1.00	-13.66	-35.80	8.48	0.23	1.00	-6.27	-20.86	8.33	0.40	0.95	-6.99	-21.13	7.15	0.33	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Pseudonocardiaceae	Pseudonocardia	2.69%	-	-5.91	-12.19	0.37	0.07	0.99	-6.21	-12.33	-0.08	0.05	1.00	-2.37	-6.41	1.67	0.25	0.95	-2.56	-6.48	1.35	0.20	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Pseudonocardiaceae	Saccharopolyspora	1.30%	-	-4.34	-13.32	4.63	0.34	1.00	-5.23	-13.99	3.53	0.24	1.00	-0.67	-6.45	5.10	0.82	0.96	-1.29	-6.89	4.30	0.65	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Pseudonocardiaceae	Thermobispora	0.20%	-	18.29	-4.31	40.90	0.11	1.00	13.62	-8.48	35.73	0.23	1.00	10.23	-4.31	24.77	0.17	0.95	6.90	-7.21	21.02	0.34	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Pseudonocardiaceae		1.10%	-	4.38	-5.46	14.23	0.38	1.00	4.92	-5.15	14.98	0.34	1.00	2.89	-3.44	9.22	0.37	0.95	2.45	-3.97	8.88	0.45	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Ruaniaceae	Other	0.20%	-	6.20	-16.59	29.00	0.59	1.00	7.63	-14.61	29.88	0.50	1.00	5.97	-8.68	20.62	0.42	0.95	7.03	-7.17	21.22	0.33	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Sporichthyaceae		0.20%	-	-12.60	-35.30	10.09	0.28	1.00	-13.66	-35.80	8.48	0.23	1.00	-6.27	-20.86	8.33	0.40	0.95	-6.99	-21.13	7.15	0.33	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Streptomycetaceae	Streptomyces	3.09%	-	-0.74	-6.63	5.14	0.80	1.00	-0.34	-6.08	5.40	0.91	1.00	-0.97	-4.75	2.81	0.61	0.95	-0.67	-4.34	2.99	0.72	0.97	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Streptosporangiaceae	Nonomuraea	0.20%	-	-10.94	-33.63	11.75	0.34	1.00	-11.36	-33.50	10.78	0.31	1.00	-8.74	-23.32	5.84	0.24	0.95	-9.00	-23.13	5.13	0.21	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Streptosporangiaceae	Other	0.60%	-	17.03	3.86	30.20	0.01	0.99	14.25	1.36	27.13	0.03	1.00	9.31	0.83	17.78	0.03	0.95	7.34	-0.89	15.58	0.08	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Streptosporangiaceae		0.10%	-	28.40	-3.51	60.31	0.08	0.99	22.12	-9.08	53.32	0.16	1.00	15.72	-4.81	36.24	0.13	0.95	11.24	-8.68	31.17	0.27	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Thermomonosporaceae	Actinomadura	0.50%	-	10.41	-4.00	24.83	0.16	1.00	7.99	-6.10	22.07	0.27	1.00	0.53	-8.74	9.81	0.91	0.97	-1.18	-10.18	7.81	0.80	0.97	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Williamsiaceae	Williamsia	0.20%	-	-1.56	-24.19	21.08	0.89	1.00	-1.15	-23.24	20.94	0.92	1.00	-8.50	-23.04	6.04	0.25	0.95	-8.18	-22.27	5.91	0.25	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Yaniellaceae	Yaniella	3.49%	-	-6.06	-11.56	-0.56	0.03	0.99	-4.13	-9.53	1.27	0.13	1.00	-1.44	-4.98	2.10	0.43	0.95	-0.01	-3.46	3.44	1.00	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales			9.07%	-	1.41	-2.12	4.95	0.43	1.00	1.21	-2.24	4.66	0.49	1.00	-0.25	-2.52	2.02	0.83	0.96	-0.39	-2.59	1.81	0.73	0.97	Yes
Bacteria	Actinobacteria	Actinobacteria	Bifidobacteriales	Bifidobacteriaceae	Bifidobacterium	2.71	0.63	0.46	-1.35	2.27	0.62	1.00	0.57	-1.19	2.34	0.53	1.00	-0.31	-1.47	0.85	0.60	0.95	-0.24	-1.37	0.88	0.67	0.96	No
Bacteria	Actinobacteria	Actinobacteria	Bifidobacteriales	Bifidobacteriaceae	Other	12.76%	-	-1.06	-4.12	2.00	0.50	1.00	-1.02	-4.02	1.97	0.50	1.00	-0.38	-2.34	1.59	0.71	0.95	-0.41	-2.32	1.51	0.68	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Bifidobacteriales	Bifidobacteriaceae	Scardovia	0.11	0.19	2.21	-3.06	7.48	0.41	1.00	2.37	-2.78	7.51	0.37	1.00	0.34	-3.05	3.73	0.84	0.96	0.50	-2.78	3.79	0.76	0.97	No
Bacteria	Actinobacteria	Actinobacteria	Bifidobacteriales	Bifidobacteriaceae		7.78%	-	-0.20	-3.99	3.59	0.92	1.00	-0.61	-4.31	3.09	0.75	1.00	0.79	-1.64	3.23	0.52	0.95	0.52	-1.84	2.88	0.67	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Coriobacteriales	Coriobacteriaceae	Adlercreutzia†	1.50	0.56	-2.52	-4.47	-0.57	0.01	0.99	-2.53	-4.44	-0.62	0.01	1.00	-1.38	-2.64	-0.12	0.03	0.95	-1.39	-2.61	-0.17	0.03	0.96	No
Bacteria	Actinobacteria	Actinobacteria	Coriobacteriales	Coriobacteriaceae	Atopobium	0.26	0.27	2.86	-0.85	6.57	0.13	1.00	2.76	-0.86	6.38	0.14	1.00	1.18	-1.21	3.57	0.33	0.95	1.11	-1.20	3.43	0.34	0.96	No
Bacteria	Actinobacteria	Actinobacteria	Coriobacteriales	Coriobacteriaceae	Collinsella	0.61	0.46	0.42	-1.82	2.67	0.71	1.00	-0.13	-2.33	2.07	0.91	1.00	0.51	-0.93	1.96	0.49	0.95	0.12	-1.28	1.53	0.87	0.98	No
Bacteria	Actinobacteria	Actinobacteria	Coriobacteriales	Coriobacteriaceae	Eggerthella†	1.52	0.54	0.47	-1.79	2.74	0.68	1.00	0.60	-1.62	2.82	0.59	1.00	-0.53	-1.98	0.93	0.48	0.95	-0.51	-1.93	0.91	0.48	0.96	No
Bacteria	Actinobacteria	Actinobacteria	Coriobacteriales	Coriobacteriaceae	Other	0.20%	-	18.18	-4.48	40.85	0.12	1.00	14.45	-1.70	36.60	0.20	1.00	15.58	1.02	30.13	0.04	0.95	12.94	-1.19	27.07	0.07	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Coriobacteriales	Coriobacteriaceae	Slackia	0.65	0.50	0.78	-1.26	2.83	0.45	1.00	0.63	-1.37	2.62	0.54	1.00	0.88	-0.43	2.19	0.19	0.95	0.77	-0.51	2.04	0.24	0.96	No
Bacteria	Actinobacteria	Actinobacteria	Coriobacteriales	Coriobacteriaceae		1.76	0.41	-1.80	-4.30	0.70	0.16	1.00	-1.72	-4.17	0.72	0.17	1.00	-0.93	-2.54	0.68	0.26	0.95	-0.87	-2.43	0.69	0.27	0.96	No
Bacteria	Actinobacteria	Actinobacteria	MB-A2-108	0319-7L14		0.90%	-	-3.72	-14.44	6.99	0.50	1.00	-2.35	-12.82	8.12	0.66	1.00	-8.11	-14.98	-1.24	0.02	0.95	-7.12	-13.78	-0.45	0.04	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	MB-A2-108			0.20%	-	-12.60	-35.30	10.09	0.28	1.00	-13.66	-35.80	8.48	0.23	1.00	-6.27	-20.86	8.33	0.40	0.95	-6.99	-21.13	7.15	0.33	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Nitрилiruptoria	Euzebyales	Euzebyaceae	0.60%	-	9.31	-3.78	22.40	0.16	1.00	5.37	-7.46	18.20	0.41	1.00	3.61	-4.81	12.03	0.40	0.95	0.79	-7.40	8.98	0.85	0.98	Yes
Bacteria	Actinobacteria	Actinobacteria	Nitрилiruptoria	Nitрилiruptorales	Nitрилiruptoraceae	2.59%	-	0.45	-5.93	6.83	0.89	1.00	-0.01	-6.23	6.22	1.00	1.00	2.09	-2.01	6.19	0.32	0.95	1.77	-2.20	5.74	0.38	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	OPB41			0.90%	-	-4.21	-15.02	6.59	0.44	1.00	-5.11	-15.65	5.43	0.34	1.00	-4.56	-11.50	2.38	0.20	0.95	-5.19	-11.91	1.54	0.13	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Rubrobacteria	Rubrobacterales	Rubrobacteraceae	20.74%	-	1.13	-1.42	3.67	0.39	1.00	1.35	-1.14	3.84	0.29	1.00	0.50	-1.14	2.14	0.55	0.95	0.63	-0.96	2.22	0.44	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Rubrobacteria	Rubrobacterales	Rubrobacteraceae	0.10%	-	-11.25	-43.23	20.73	0.49	1.00	-11.11	-42.31	20.09	0.48	1.00	-6.49	-27.04	14.07	0.54	0.95	-6.35	-26.27	13.57	0.53	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Thermoleophilia	Gaiellales	AK1AB1_02E	0.40%	-	2.86	-13.15	18.87	0.73	1.00	-0.18	-15.83	15.46	0.98	1.00	4.79	-5.50	15.08	0.36	0.95	2.64	-7.34	12.63	0.60	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Thermoleophilia	Gaiellales	Gaiellaceae	2.49%	-	0.24	-6.27	6.75	0.94	1.00	0.01	-6.35	6.36	1.00	1.00	-2.30	-6.48	1.88	0.28	0.95	-2.46	-6.51	1.59	0.23	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Thermoleophilia	Gaiellales		0.40%	-	3.03	-13.02	19.08	0.71	1.00	2.20	-13.46	17.87	0.78	1.00	-0.57	-10.89	9.76	0.91	0.97	-1.14	-11.14	8.86	0.82	0.97	Yes
Bacteria	Actinobacteria	Actinobacteria	Thermoleophilia	Solirubrobacterales	Conexibacteraceae	1.30%	-	0.46	-8.58	9.51	0.92	1.00	-0.43	-9.25	8.40	0.92	1.00	-4.21	-10.02	1.59	0.15	0.95	-4.83	-10.45	0.80	0.09	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Thermoleophilia	Solirubrobacterales	Other	0.10%	-	-13.84	-45.92	18.23	0.40	1.00	-16.09	-47.39	15.21	0.31	1.00	-5.98	-26.61	14.64	0.57	0.95	-7.57	-27.55	12.42	0.46	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Thermoleophilia	Solirubrobacterales	Patulibacteraceae	0.20%	-	7.02	-15.78	29.81	0.55	1.00	10.38	-11.88	32.64	0.36	1.00	0.47	-14.19	15.12	0.95	0.98	2.88	-11.33	17.09	0.69	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Thermoleophilia	Solirubrobacterales	Patulibacteraceae	1.50%	-	6.23	-2.08	14.54	0.14	1.00	5.05	-3.07	13.17	0.22	1.00	-0.28	-5.63	5.07	0.92	0.97	-1.12	-6.31	4.07	0.67	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	Thermoleophilia	Solirubrobacterales	Solirubrobacteraceae	2.89%	-	0.92	-5.18	7.01	0.77	1.00	0.99	-4.96	6.93	0.75	1.00	0.23	-3.69	4.15	0.91	0.97	0.29	-3.50	4.09	0.88	0.98	Yes
Bacteria	Actinobacteria	Actinobacteria	Thermoleophilia	Solirubrobacterales		5.18%	-	-1.12	-5.70	3.46	0.63	1.00	-1.48	-5.95	2.99	0.52	1.00	-1.47	-4.42	1.47	0.33	0.95	-1.71	-4.56	1.14	0.24	0.96	Yes
Bacteria	Actinobacteria	Actinobacteria	AD3	ABS-6		0.30%	-	3.71	-14.78	22.20	0.69	1.00	4.98	-13.06	23.02	0.59	1.00	5.66	-6.23	17.54	0.35	0.95	6.57	-4.94	18.09	0.26	0.96	Yes
Bacteria	Armatimonadetes	[Fimbriimonadia]	[Fimbriimonadales]	[Fimbriimonadaceae]	Fimbriimonas	1.89%	-	1.68	-5.73	9.09	0.66	1.00	1.19	-6.04	8.43	0.75	1.00	-0.04	-4.80	4.73	0.99	0.99	-0.37	-4.99	4.24	0.87	0.98	Yes
Bacteria	Armatimonadetes	[Fimbriimonadia]	[Fimbriimonadales]	[Fimbriimonadaceae]		1.30%	-	-4.22	-13.26	4.81	0.36	1.																

Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Paraprevotellaceae]	CF231	13.26%	-	-0.33	-3.41	2.76	0.84	1.00	0.02	-3.00	3.03	0.99	1.00	-0.38	-2.36	1.61	0.71	0.95	-0.12	-2.05	1.80	0.90	0.99	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Paraprevotellaceae]	Other	0.20%	-	-7.63	-30.32	15.06	0.51	1.00	-10.92	-33.08	11.23	0.33	1.00	0.54	-14.05	15.13	0.94	0.98	-1.82	-15.97	12.33	0.80	0.97	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Paraprevotellaceae]	Paraprevotella	0.18	0.34	1.12	-1.91	4.15	0.47	1.00	0.42	-2.54	3.38	0.78	1.00	0.71	-1.23	2.66	0.47	0.95	0.22	-1.67	2.11	0.82	0.97	No
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Paraprevotellaceae]	YRC22	3.09%	-	1.09	-4.78	6.95	0.72	1.00	1.43	-4.30	7.15	0.62	1.00	-1.67	-5.44	2.10	0.39	0.95	-1.41	-5.07	2.24	0.45	0.96	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Paraprevotellaceae]		14.46%	-	0.25	-2.67	3.17	0.87	1.00	0.76	-2.10	3.61	0.60	1.00	-0.08	-1.95	1.80	0.94	0.98	0.30	-1.52	2.12	0.75	0.97	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	BA008		0.40%	-	12.63	-3.31	28.57	0.12	1.00	11.03	-4.53	26.59	0.16	1.00	12.41	2.18	22.64	0.02	0.95	11.29	1.37	21.20	0.03	0.96	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Bacteroidaceae	5-7N15	2.39%	-	-4.77	-11.39	1.86	0.16	1.00	-3.50	-9.98	2.98	0.29	1.00	-2.73	-6.99	1.53	0.21	0.95	-1.82	-5.95	2.32	0.39	0.96	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Bacteroidaceae	Bacteroides	2.12	0.61	0.96	-0.75	2.68	0.27	1.00	0.96	-0.72	2.64	0.26	1.00	-0.14	-1.24	0.97	0.81	0.96	-0.15	-1.22	0.92	0.78	0.97	No
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Bacteroidaceae	BF311	0.60%	-	-10.25	-23.38	2.88	0.13	1.00	-11.31	-24.12	1.50	0.08	1.00	-3.67	-12.12	4.78	0.39	0.95	-4.43	-12.61	3.76	0.29	0.96	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Bacteroidaceae	Other	0.10%	-	32.42	0.54	64.30	0.05	0.99	31.06	-0.05	62.17	0.05	1.00	37.86	17.46	58.27	0.00	0.14	36.94	17.17	56.70	0.00	0.13	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Bacteroidaceae		1.79%	-	-0.58	-8.23	7.07	0.88	1.00	0.25	-7.21	7.72	0.95	1.00	-0.94	-5.86	3.98	0.71	0.95	-0.33	-5.10	4.43	0.89	0.99	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	BS11		1.79%	-	-4.12	-11.89	3.66	0.30	1.00	-4.78	-12.37	2.81	0.22	1.00	-0.64	-5.64	4.36	0.80	0.96	-1.10	-5.95	3.74	0.66	0.96	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Marinilabiaceae		1.30%	-	-1.75	-10.80	7.29	0.70	1.00	-0.38	-9.21	8.46	0.93	1.00	-3.38	-9.19	2.43	0.25	0.95	-2.41	-8.05	3.22	0.40	0.96	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Other		0.70%	-	-3.36	-15.48	8.77	0.59	1.00	-3.92	-15.75	7.91	0.52	1.00	0.55	-7.24	8.35	0.89	0.97	0.15	-7.41	7.70	0.97	0.99	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	p-2534-18B5		0.20%	-	13.55	-9.04	36.13	0.24	1.00	17.10	-4.94	39.15	0.13	1.00	-3.94	-18.46	10.59	0.59	0.95	-1.43	-15.52	12.66	0.84	0.98	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae	Dysgonomonas	1.30%	-	3.51	-5.43	12.46	0.44	1.00	4.13	-4.60	12.86	0.35	1.00	2.08	-3.67	7.83	0.48	0.95	2.53	-3.04	8.10	0.37	0.96	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae	Paludibacter	1.30%	-	1.62	-7.33	10.56	0.72	1.00	1.70	-7.03	10.43	0.70	1.00	-2.28	-8.03	3.47	0.44	0.95	-2.21	-7.78	3.36	0.44	0.96	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae	Parabacteroides	0.82	0.58	0.42	-1.39	2.23	0.65	1.00	0.37	-1.40	2.14	0.68	1.00	-0.10	-1.26	1.07	0.87	0.96	-0.13	-1.26	1.00	0.82	0.97	No
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae	Porphyromonas	21.83%	-	-0.28	-2.77	2.20	0.82	1.00	-0.31	-2.74	2.11	0.80	1.00	-0.13	-1.73	1.47	0.87	0.96	-0.14	-1.69	1.40	0.85	0.98	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae	Tannerella	0.70%	-	0.09	-12.11	12.28	0.99	1.00	-0.99	-12.89	10.91	0.87	1.00	-0.12	-7.96	7.72	0.98	0.99	-0.88	-8.48	6.72	0.82	0.97	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae		2.69%	-	1.68	-4.64	8.00	0.60	1.00	2.87	-3.31	9.04	0.36	1.00	-0.58	-4.64	3.49	0.78	0.96	0.27	-3.67	4.21	0.89	0.99	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Prevotellaceae	Prevotella	1.45	0.79	1.09	-0.24	2.42	0.11	1.00	0.87	-0.44	2.17	0.19	1.00	0.49	-0.36	1.35	0.26	0.95	0.33	-0.50	1.16	0.44	0.96	No
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Prevotellaceae		0.10%	-	21.50	-10.39	53.39	0.19	1.00	23.04	-8.08	54.15	0.15	1.00	-8.43	-28.94	12.08	0.42	0.95	-7.32	-27.20	12.56	0.47	0.96	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	RF16		2.79%	-	-0.14	-6.37	6.08	0.96	1.00	0.95	-5.13	7.03	0.76	1.00	-1.84	-5.84	2.16	0.37	0.95	-1.07	-4.95	2.81	0.59	0.96	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Rikenellaceae	AF12	3.89%	-	-0.37	-5.61	4.86	0.89	1.00	-1.15	-6.27	3.96	0.66	1.00	-0.27	-3.64	3.10	0.88	0.96	-0.81	-4.08	2.45	0.63	0.96	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Rikenellaceae	Blvii28	0.20%	-	5.19	-17.47	27.84	0.65	1.00	5.30	-16.80	27.41	0.64	1.00	-2.80	-17.36	11.77	0.71	0.95	-2.75	-16.86	11.36	0.70	0.97	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Rikenellaceae	Rikenella	1.00%	-	3.31	-6.92	13.54	0.53	1.00	2.02	-7.97	12.01	0.69	1.00	0.70	-5.88	7.28	0.83	0.96	-0.21	-6.59	6.16	0.95	0.99	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Rikenellaceae		0.46	0.45	0.76	-1.51	3.02	0.51	1.00	0.75	-1.46	2.97	0.50	1.00	0.52	-0.93	1.98	0.48	0.95	0.52	-0.89	1.93	0.47	0.96	No
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	S24-7		0.59	0.74	0.47	-0.93	1.87	0.51	1.00	0.38	-0.99	1.75	0.59	1.00	-0.07	-0.97	0.83	0.87	0.96	-0.13	-1.00	0.75	0.78	0.97	No
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	SB-1		0.10%	-	5.94	-26.07	37.96	0.72	1.00	12.94	-18.35	44.23	0.42	1.00	4.16	-16.42	24.75	0.69	0.95	9.13	-10.84	29.10	0.37	0.96	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales			0.16	0.34	1.55	-1.45	4.54	0.31	1.00	1.04	-1.88	3.97	0.48	1.00	-0.40	-2.33	1.53	0.68	0.95	-0.75	-2.61	1.12	0.43	0.96	No
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cyclobacteriaceae		2.19%	-	0.43	-6.52	7.38	0.90	1.00	0.39	-6.39	7.17	0.91	1.00	-1.13	-5.60	3.33	0.62	0.95	-1.15	-5.47	3.18	0.60	0.96	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Adhaeribacter	0.80%	-	-5.29	-16.71	6.12	0.36	1.00	-4.94	-16.08	6.19	0.38	1.00	-2.47	-9.80	4.87	0.51	0.95	-2.18	-9.29	4.93	0.55	0.96	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Dyadobacter	0.10%	-	6.37	-26.07	38.81	0.70	1.00	11.03	-20.65	42.70	0.49	1.00	1.94	-18.92	22.80	0.86	0.96	5.28	-14.94	25.50	0.61	0.96	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Hymenobacter	0.60%	-	-3.28	-16.40	9.84	0.62	1.00	-5.07	-19.09	8.95	0.48	1.00	-3.53	-11.96	4.91	0.41	0.95	-6.62	-15.56	2.33	0.15	0.96	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Larkinella	0.40%	-	2.18	-14.08	18.44	0.79	1.00	0.58	-15.29	16.45	0.94	1.00	3.65	-6.80	14.10	0.49	0.95	2.53	-7.60	12.66	0.62	0.96	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Leadbetterella	1.20%	-	-2.64	-12.05	6.78	0.58	1.00	-2.95	-12.14	6.24	0.53	1.00	-1.92	-7.97	4.14	0.53	0.95	-2.10	-7.97	3.76	0.48	0.96	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Pontibacter	0.30%	-	-10.43	-29.03	8.16	0.27	1.00	-10.10	-28.24	8.04	0.27	1.00	-5.03	-16.99	6.93	0.41	0.95	-4.76	-16.35	6.82	0.42	0.96	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Rhodocyclophaga	0.20%	-	-18.79	-41.39	3.80	0.10	1.00	-18.04	-40.08	4.01	0.11	1.00	-8.28	-22.82	6.25	0.26	0.95	-7.70	-21.79	6.38	0.28	0.96	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Runella	0.10%	-	1.15	-30.84	33.13	0.94	1.00	-1.39	-32.60	29.82	0.93	1.00	1.86	-18.70	22.42	0.86	0.96	0.05	-19.88	19.97	1.00	1.00	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae		3.59%	-	-0.75	-6.24	4.75	0.79	1.00	-2.02	-7.39	3.35	0.46	1.00	-2.09	-5.62	1.44	0.24	0.95	-2.99	-6.41	0.44	0.09	0.96	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Flammeovirgaceae	Roseivirga	0.60%	-	-3.77	-16.89	9.35	0.57	1.00	-1.31	-14.13	11.50	0.84	1.00	-1.67	-10.10	6.76	0.70	0.95	0.09	-8.09	8.27	0.98	1.00	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Flammeovirgaceae		1.99%	-	-5.79	-13.14	1.57	0.12	1.00	-4.94	-12.12	2.24	0.18	1.00	-2.61	-7.35	2.12	0.28	0.95	-2.01	-6.59	2.58	0.39	0.96	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	[Weeksellaceae]	Chryseobacterium	4.09%	-	3.21	-1.89	8.31	0.22	1.00	2.57	-2.41	7.55	0.31	1.00	2.84	-0.44	6.11	0.09	0.95	2.39	-0.79	5.57	0.14	0.96	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	[Weeksellaceae]	Cloacibacterium	2.79%	-	2.49	-3.64	8.63	0.43	1.00	2.18	-3.81	8.17	0.47	1.00	2.40	-1.54	6.35	0.23	0.95	2.19	-1.63	6.01	0.26	0.96	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	[Weeksellaceae]	Elizabethkingia	1.10%	-	2.30	-7.39	11.99	0.64	1.00	1.27	-8.19	10.73	0.79	1.00	4.00	-2.23	10.22	0.21	0.95	3.27	-2.77	9.30	0.29	0.96	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	[Weeksellaceae]	Other	0.10%	-	12.41	-19.53	44.34	0.45	1.00	10.49	-20.67	41.65	0.51	1.00	17.03	-3.47	37.54	0.10	0.95	15.73	-4.14	35.61	0.12	0.96	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	[Weeksellaceae]	Wautersiella	0.10%	-	-17.53	-49.54	14.47	0.28	1.00	-19.96	-51.19	11.27	0.21	1.00	-2.65	-23.24	17.94	0.80	0.96	-4.41	-24.36	15.54	0.66	0.96	Yes
B																												

Bacteria	Chlorobi	BSV26	A89			0.20%	-	2.87	-19.74	25.48	0.80	1.00	-1.25	-23.35	20.84	0.91	1.00	9.15	-5.38	23.67	0.22	0.95	6.21	-7.88	20.31	0.39	0.96	Yes
Bacteria	Chlorobi	Ignavibacteria	Ignavibacteriales	[Melioribacteraceae]		0.30%	-	0.86	-17.70	19.41	0.93	1.00	3.38	-14.73	21.50	0.71	1.00	-8.40	-20.32	3.52	0.17	0.95	-6.61	-18.17	4.95	0.26	0.96	Yes
Bacteria	Chlorobi	Ignavibacteria	Ignavibacteriales	Ignavibacteriaceae		1.60%	-	5.83	-2.23	13.89	0.16	1.00	5.72	-2.15	13.59	0.15	1.00	2.19	-3.00	7.38	0.41	0.95	2.13	-2.90	7.15	0.41	0.96	Yes
Bacteria	Chlorobi	OPB56				1.50%	-	-3.19	-11.66	5.27	0.46	1.00	-3.77	-12.02	4.49	0.37	1.00	-1.32	-6.76	4.12	0.63	0.95	-1.70	-6.97	3.57	0.53	0.96	Yes
Bacteria	Chlorobi	SJA-28				1.60%	-	-1.46	-9.66	6.74	0.73	1.00	-1.94	-9.94	6.06	0.63	1.00	-1.74	-7.01	3.53	0.52	0.95	-2.05	-7.15	3.06	0.43	0.96	Yes
Bacteria	Chloroflexi	Anaerolineae	A31			0.70%	-	-11.83	-23.94	0.29	0.06	0.99	-12.60	-24.42	-0.79	0.04	1.00	-5.34	-13.13	2.46	0.18	0.95	-5.87	-13.42	1.68	0.13	0.96	Yes
Bacteria	Chloroflexi	Anaerolineae	Anaerolineales	Anaerolinaceae	Longilinea	0.40%	-	0.68	-15.41	16.78	0.93	1.00	0.04	-15.67	15.74	1.00	1.00	3.74	-6.61	14.08	0.48	0.95	3.31	-6.71	13.33	0.52	0.96	Yes
Bacteria	Chloroflexi	Anaerolineae	Anaerolineales	Anaerolinaceae	SHD-231	0.20%	-	-2.67	-25.33	19.98	0.82	1.00	-3.33	-25.43	18.78	0.77	1.00	1.64	-12.92	16.21	0.82	0.96	1.17	-12.94	15.28	0.87	0.98	Yes
Bacteria	Chloroflexi	Anaerolineae	Anaerolineales	Anaerolinaceae	T78	0.20%	-	-9.18	-31.79	13.43	0.43	1.00	-6.37	-28.44	15.70	0.57	1.00	-5.97	-20.50	8.57	0.42	0.95	-3.94	-18.03	10.15	0.58	0.96	Yes
Bacteria	Chloroflexi	Anaerolineae	Anaerolineales	Anaerolinaceae		0.10%	-	12.41	-19.53	44.34	0.45	1.00	10.49	-20.67	41.65	0.51	1.00	17.03	-3.47	37.54	0.10	0.95	15.73	-4.14	35.61	0.12	0.96	Yes
Bacteria	Chloroflexi	Anaerolineae	Ardenscatenales	Ardenscatenaceae	Ardenscatena	0.20%	-	-12.60	-35.30	10.09	0.28	1.00	-13.66	-35.80	8.48	0.23	1.00	-6.27	-20.86	8.33	0.40	0.95	-6.99	-21.13	7.15	0.33	0.96	Yes
Bacteria	Chloroflexi	Anaerolineae	Caldilineales	Caldilineaceae	Caldilinea	0.30%	-	-14.51	-33.07	4.05	0.13	1.00	-16.46	-34.57	1.66	0.07	1.00	-4.96	-16.90	6.99	0.42	0.95	-6.31	-17.88	5.26	0.28	0.96	Yes
Bacteria	Chloroflexi	Anaerolineae	Caldilineales	Caldilineaceae		1.69%	-	-4.62	-12.55	3.32	0.25	1.00	-5.10	-12.84	2.65	0.20	1.00	-2.40	-7.50	2.71	0.36	0.95	-2.71	-7.66	2.24	0.28	0.96	Yes
Bacteria	Chloroflexi	Anaerolineae				0.40%	-	-2.33	-18.49	13.83	0.78	1.00	-4.27	-20.05	11.50	0.60	1.00	-2.51	-12.90	7.88	0.63	0.95	-3.89	-13.96	6.18	0.45	0.96	Yes
Bacteria	Chloroflexi	Anaerolineae	DRC31			0.90%	-	-7.48	-18.30	3.35	0.18	1.00	-7.87	-18.43	2.70	0.14	1.00	-4.09	-11.05	2.87	0.25	0.95	-4.32	-11.07	2.42	0.21	0.96	Yes
Bacteria	Chloroflexi	Anaerolineae	envOPS12			0.70%	-	-2.25	-14.54	10.03	0.72	1.00	-3.33	-15.33	8.66	0.59	1.00	-2.04	-9.94	5.86	0.61	0.95	-2.78	-10.43	4.88	0.48	0.96	Yes
Bacteria	Chloroflexi	Anaerolineae	GCA004			0.20%	-	-2.68	-25.34	19.97	0.82	1.00	-4.57	-26.68	17.54	0.69	1.00	5.94	-8.62	20.50	0.42	0.95	4.66	-9.46	18.77	0.52	0.96	Yes
Bacteria	Chloroflexi	Anaerolineae	H39			0.20%	-	-12.60	-35.30	10.09	0.28	1.00	-13.66	-35.80	8.48	0.23	1.00	-6.27	-20.86	8.33	0.40	0.95	-6.99	-21.13	7.15	0.33	0.96	Yes
Bacteria	Chloroflexi	Anaerolineae	OPB11			0.10%	-	32.42	0.54	64.30	0.05	0.99	31.06	-0.05	62.17	0.05	1.00	37.86	17.46	58.27	0.00	0.14	36.94	17.17	56.70	0.00	0.13	Yes
Bacteria	Chloroflexi	Anaerolineae	S0208			0.30%	-	-5.16	-23.61	13.29	0.58	1.00	-6.02	-24.02	11.98	0.51	1.00	-7.42	-19.27	4.43	0.22	0.95	-8.01	-19.50	3.47	0.17	0.96	Yes
Bacteria	Chloroflexi	Anaerolineae	SBR1031	A4b		1.79%	-	2.24	-5.52	10.00	0.57	1.00	0.64	-6.94	8.23	0.87	1.00	1.13	-3.86	6.11	0.66	0.95	0.01	-4.83	4.85	1.00	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	SBR1031	SHA-31		0.10%	-	-13.84	-45.92	18.23	0.40	1.00	-16.09	-47.39	15.21	0.31	1.00	-5.98	-26.61	14.64	0.57	0.95	-7.57	-27.55	12.42	0.46	0.96	Yes
Bacteria	Chloroflexi	Anaerolineae	SHA-20			0.10%	-	12.41	-19.53	44.34	0.45	1.00	10.49	-20.67	41.65	0.51	1.00	17.03	-3.47	37.54	0.10	0.95	15.73	-4.14	35.61	0.12	0.96	Yes
Bacteria	Chloroflexi	Anaerolineae				0.90%	-	1.49	-9.32	12.30	0.79	1.00	1.77	-8.77	12.32	0.74	1.00	4.37	-2.57	11.32	0.22	0.95	4.59	-2.13	11.32	0.18	0.96	Yes
Bacteria	Chloroflexi	C0119				0.20%	-	-0.23	-22.88	22.42	0.98	1.00	0.36	-21.74	22.46	0.97	1.00	2.96	-11.60	17.52	0.69	0.95	3.41	-10.70	17.51	0.64	0.96	Yes
Bacteria	Chloroflexi	Chloroflexi	[Roseiflexales]	[Roseiflexaceae]	Roseiflexus	0.30%	-	4.85	-13.68	23.37	0.61	1.00	0.77	-17.34	18.89	0.93	1.00	3.84	-8.07	15.75	0.53	0.95	0.93	-10.63	12.49	0.87	0.98	Yes
Bacteria	Chloroflexi	Chloroflexi	AKIW781			0.20%	-	-12.60	-35.30	10.09	0.28	1.00	-13.66	-35.80	8.48	0.23	1.00	-6.27	-20.86	8.33	0.40	0.95	-6.99	-21.13	7.15	0.33	0.96	Yes
Bacteria	Chloroflexi	Chloroflexi	Herpetosiphonales			0.20%	-	-12.60	-35.30	10.09	0.28	1.00	-13.66	-35.80	8.48	0.23	1.00	-6.27	-20.86	8.33	0.40	0.95	-6.99	-21.13	7.15	0.33	0.96	Yes
Bacteria	Chloroflexi	Dehalococcoidetes	Dehalococcoidales	Dehalococcoidaceae		0.10%	-	-7.70	-39.68	24.29	0.64	1.00	-4.16	-35.38	27.07	0.79	1.00	1.73	-18.83	22.29	0.87	0.96	4.28	-15.65	24.21	0.67	0.96	Yes
Bacteria	Chloroflexi	Ellin6529				2.19%	-	3.21	-3.70	10.11	0.36	1.00	2.72	-4.02	9.46	0.43	1.00	2.26	-2.18	6.70	0.32	0.95	1.92	-2.38	6.23	0.38	0.96	Yes
Bacteria	Chloroflexi	Gitt-GS-136				1.10%	-	-8.93	-18.80	0.95	0.08	0.99	-9.27	-18.91	0.36	0.06	1.00	-5.72	-12.07	0.63	0.08	0.95	-5.93	-12.08	0.22	0.06	0.96	Yes
Bacteria	Chloroflexi	Ktedonobacteria	Ktedonobacterales	Ktedonobacteraceae		0.10%	-	-6.03	-38.01	25.96	0.71	1.00	-5.08	-36.29	26.13	0.75	1.00	1.52	-19.04	22.08	0.88	0.97	2.23	-17.70	22.15	0.83	0.97	Yes
Bacteria	Chloroflexi	Ktedonobacteria	Thermogemmatissporales	Thermogemmatissporaceae		0.10%	-	-11.76	-44.15	20.63	0.48	1.00	-14.29	-45.90	17.32	0.38	1.00	-0.70	-21.53	20.13	0.95	0.98	-2.50	-22.68	17.68	0.81	0.97	Yes
Bacteria	Chloroflexi	S085				0.40%	-	1.94	-14.13	18.00	0.81	1.00	-1.84	-17.55	13.87	0.82	1.00	0.46	-9.87	10.79	0.93	0.98	-2.22	-12.25	7.80	0.66	0.96	Yes
Bacteria	Chloroflexi	Thermomicrobia	AKYG1722			0.20%	-	-12.60	-35.30	10.09	0.28	1.00	-13.66	-35.80	8.48	0.23	1.00	-6.27	-20.86	8.33	0.40	0.95	-6.99	-21.13	7.15	0.33	0.96	Yes
Bacteria	Chloroflexi	Thermomicrobia	JG30-KF-CM45			3.59%	-	1.83	-3.62	7.29	0.51	1.00	1.32	-4.01	6.65	0.63	1.00	1.85	-1.65	5.36	0.30	0.95	1.49	-1.91	4.89	0.39	0.96	Yes
Bacteria	Chloroflexi	TK10	AKYG885	5B-12		0.20%	-	8.23	-14.48	30.94	0.48	1.00	4.04	-18.15	26.24	0.72	1.00	5.04	-9.56	19.64	0.50	0.95	2.06	-12.10	16.23	0.77	0.97	Yes
Bacteria	Chloroflexi	TK10	AKYG885	Dolo_23		0.50%	-	-5.33	-19.84	9.17	0.47	1.00	-4.94	-19.09	9.21	0.49	1.00	1.95	-7.38	11.27	0.68	0.95	2.26	-6.77	11.29	0.62	0.96	Yes
Bacteria	Chloroflexi	TK10	B07_WMSP1			0.20%	-	26.63	4.05	49.20	0.02	0.99	23.26	1.21	45.32	0.04	1.00	16.85	2.34	31.37	0.02	0.95	14.46	0.38	28.55	0.04	0.96	Yes
Bacteria	Chloroflexi	TK17	mle1-48			0.70%	-	-8.64	-20.88	3.61	0.17	1.00	-9.15	-21.10	2.80	0.13	1.00	-7.12	-14.99	0.74	0.08	0.95	-7.44	-15.06	0.18	0.06	0.96	Yes
Bacteria	Chloroflexi					0.20%	-	-12.60	-35.30	10.09	0.28	1.00	-13.66	-35.80	8.48	0.23	1.00	-6.27	-20.86	8.33	0.40	0.95	-6.99	-21.13	7.15	0.33	0.96	Yes
Bacteria	Cyanobacteria	4C0d-2	MLE1-12			0.70%	-	-3.48	-15.65	8.69	0.58	1.00	-2.52	-14.40	9.35	0.68	1.00	0.54	-7.29	8.36	0.89	0.97	1.26	-6.32	8.84	0.74	0.97	Yes
Bacteria	Cyanobacteria	4C0d-2	SM1D11			0.20%	-	-14.99	-37.84	7.86	0.20	1.00	-19.50	-41.81	2.82	0.09	1.00	-5.31	-20.01	9.38	0.48	0.95	-8.50	-22.76	5.75	0.24	0.96	Yes
Bacteria	Cyanobacteria	4C0d-2	YS2			0.39	0.60	-0.23	-2.04	1.58	0.81	1.00	-0.17	-1.94	1.61	0.85	1.00	0.33	-0.83	1.49	0.58	0.95	0.33	-0.80	1.47	0.56	0.96	No
Bacteria	Cyanobacteria	Chloroplast	Chlorophyta	Trebouxiophyceae	Coccomyxa	0.50%	-	0.66	-13.78	15.09	0.93	1.00	1.73	-12.36	15.81	0.81	1.00	-1.29	-10.56	7.99	0.79	0.96	-0.52	-9.51	8.47	0.91	0.99	Yes
Bacteria	Cyanobacteria	Chloroplast	Chlorophyta			0.10%	-	-9.63	-41.60	22.34	0.55	1.00	-12.56	-43.76	18.63	0.43	1.00	-2.27	-22.82	18.29	0.83	0.96	-4.34	-24.26	15.58	0.67	0.96	Yes
Bacteria	Cyanobacteria	Chloroplast	Streptophyta			0.34	0.47	0.20	-1.96	2.36	0.86	1.00	0.18	-1.93	2.29	0.86	1.00	-0.06	-1.45	1.33	0.93	0.98	-0.05	-1.40	1.30	0.94	0.99	No
Bacteria	Cyanobacteria	ML635J-21				0.10%	-	12.41	-19.53	44.34	0.45	1.00	10.49	-20.67	41.65	0.51	1.00	17.03	-3.47	37.54	0.10	0.95	15.73	-4.14	35.61	0.12	0.96	Yes
Bacteria	Cyanobacteria	Oscillatoriophycideae	Chroococcales	Xenococcaceae		0.10%	-	-13.84	-45.92	18.23	0.40	1.00	-															

Bacteria	Firmicutes	Bacilli	Bacillales	Other	Other	0.34	0.41	-2.65	-5.13	-0.17	0.04	0.99	-2.46	-4.89	-0.04	0.05	1.00	-0.91	-2.51	0.69	0.26	0.95	-0.79	-2.34	0.76	0.32	0.96	No
Bacteria	Firmicutes	Bacilli	Bacillales	Paenibacillaceae	Ammoniphilus	0.30%	-	-7.41	-25.95	11.14	0.43	1.00	-7.31	-25.41	10.78	0.43	1.00	-2.50	-14.42	9.43	0.68	0.95	-2.39	-13.95	9.16	0.68	0.96	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Paenibacillaceae	Aneurinibacillus	0.50%	-	17.53	3.26	31.79	0.02	0.99	16.09	2.16	30.02	0.02	1.00	3.19	-6.01	12.38	0.50	0.95	2.16	-6.75	11.07	0.63	0.96	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Paenibacillaceae	Brevibacillus	2.59%	-	-1.05	-7.56	5.45	0.75	1.00	-1.61	-7.95	4.74	0.62	1.00	1.75	-2.43	5.93	0.41	0.95	1.37	-2.68	5.42	0.51	0.96	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Paenibacillaceae	Cohnella	0.10%	-	-2.95	-35.22	29.31	0.86	1.00	3.52	-28.01	35.04	0.83	1.00	-13.88	-34.61	6.84	0.19	0.95	-9.27	-29.39	10.85	0.37	0.96	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Paenibacillaceae	Other	0.70%	-	5.18	-6.97	17.32	0.40	1.00	5.49	-6.36	17.34	0.36	1.00	-1.40	-9.21	6.41	0.73	0.96	-1.17	-8.73	6.40	0.76	0.97	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Paenibacillaceae	Paenibacillus	5.58%	-	-0.01	-4.46	4.43	1.00	1.00	-0.71	-5.05	3.63	0.75	1.00	0.51	-2.34	3.37	0.73	0.96	0.03	-2.74	2.80	0.98	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Paenibacillaceae	Paenibacillus	1.79%	-	3.54	-4.10	11.19	0.36	1.00	3.42	-4.04	10.88	0.37	1.00	1.41	-3.51	6.32	0.57	0.95	1.34	-3.42	6.10	0.58	0.96	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Planococcaceae	Lysinibacillus	0.90%	-	-1.41	-12.16	9.34	0.80	1.00	0.17	-10.33	10.67	0.97	1.00	-1.50	-8.42	5.41	0.67	0.95	-0.38	-7.09	6.32	0.91	0.99	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Planococcaceae	Other	6.68%	-	1.45	-2.59	5.50	0.48	1.00	1.63	-2.32	5.58	0.42	1.00	-0.74	-3.34	1.86	0.58	0.95	-0.61	-3.13	1.92	0.64	0.96	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Planococcaceae	Planomicrobium	1.89%	-	1.16	-6.27	8.59	0.76	1.00	1.61	-5.63	8.86	0.66	1.00	5.11	0.35	9.88	0.04	0.95	5.46	0.84	10.07	0.02	0.96	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Planococcaceae	Rummeliibacillus	0.90%	-	-4.94	-15.68	5.80	0.37	1.00	-3.67	-14.16	6.81	0.49	1.00	-2.55	-9.45	4.35	0.47	0.95	-1.65	-8.34	5.05	0.63	0.96	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Planococcaceae	Solibacillus	0.30%	-	-5.60	-24.21	13.02	0.56	1.00	-8.22	-26.40	9.95	0.37	1.00	-2.64	-14.61	9.33	0.67	0.95	-4.53	-16.13	7.07	0.44	0.96	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Planococcaceae	Sporosarcina	2.59%	-	-3.62	-10.02	2.77	0.27	1.00	-2.16	-8.41	4.10	0.50	1.00	-3.79	-7.90	0.32	0.07	0.95	-2.74	-6.73	1.25	0.18	0.96	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Planococcaceae	Other	4.79%	-	-2.91	-7.68	1.85	0.23	1.00	-2.85	-7.55	1.85	0.23	1.00	-2.24	-5.31	0.82	0.15	0.95	-2.37	-5.37	0.63	0.12	0.96	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Sporolactobacillaceae	Other	0.90%	-	-3.91	-14.60	6.79	0.47	1.00	-2.71	-13.16	7.73	0.61	1.00	-0.29	-7.17	6.59	0.93	0.98	0.58	-6.09	7.25	0.86	0.98	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Sporolactobacillaceae	Sporolactobacillus	0.10%	-	-13.54	-45.60	18.53	0.41	1.00	-8.79	-40.12	22.53	0.58	1.00	-4.30	-24.92	16.32	0.68	0.95	-0.84	-20.84	19.16	0.93	0.99	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Staphylococcaceae	Jeotgalicoccus	9.97%	-	-3.46	-6.86	-0.05	0.05	0.99	-2.87	-6.20	0.46	0.09	1.00	-1.62	-3.81	0.57	0.15	0.95	-1.19	-3.32	0.93	0.27	0.96	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Staphylococcaceae	Macrococcus	17.35%	-	-1.96	-4.65	0.73	0.15	1.00	-2.17	-4.80	0.47	0.11	1.00	0.21	-1.52	1.94	0.81	0.96	0.03	-1.65	1.71	0.97	0.99	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Staphylococcaceae	Other	0.40%	-	-13.75	-29.81	2.32	0.09	1.00	-13.73	-29.41	1.94	0.09	1.00	-5.56	-15.90	4.78	0.29	0.95	-5.52	-15.54	4.49	0.28	0.96	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Staphylococcaceae	Salinicoccus	5.48%	-	-0.42	-4.87	4.03	0.85	1.00	1.12	-3.24	5.49	0.61	1.00	-1.83	-4.69	1.03	0.21	0.95	-0.74	-3.52	2.05	0.60	0.96	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Staphylococcaceae	Staphylococcus	16.05%	-	0.60	-2.18	3.37	0.67	1.00	0.93	-1.78	3.64	0.50	1.00	0.08	-1.70	1.87	0.93	0.98	0.34	-1.39	2.07	0.70	0.97	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Thermoactinomycetaceae	Planifilum	1.00%	-	-1.01	-11.22	9.19	0.85	1.00	-0.38	-10.34	9.58	0.94	1.00	-0.80	-7.36	5.76	0.81	0.96	-0.34	-6.69	6.02	0.92	0.99	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Thermoactinomycetaceae	Other	0.40%	-	-2.86	-19.05	13.32	0.73	1.00	-4.91	-20.71	10.89	0.54	1.00	0.20	-10.21	10.60	0.97	0.99	-1.24	-11.33	8.85	0.81	0.97	Yes
Bacteria	Firmicutes	Bacilli	Bacillales			0.18	0.30	0.21	-3.14	3.55	0.90	1.00	0.30	-2.97	3.56	0.86	1.00	-0.19	-2.35	1.96	0.86	0.96	-0.16	-2.25	1.93	0.88	0.98	No
Bacteria	Firmicutes	Bacilli	Gemellales	Gemellaceae	Gemella	7.18%	-	0.29	-3.63	4.21	0.88	1.00	0.13	-3.70	3.95	0.95	1.00	1.30	-1.21	3.82	0.31	0.95	1.19	-1.24	3.63	0.34	0.96	Yes
Bacteria	Firmicutes	Bacilli	Gemellales	Gemellaceae	Other	0.50%	-	-9.81	-24.10	4.49	0.18	1.00	-9.23	-23.18	4.72	0.19	1.00	-3.10	-12.30	6.09	0.51	0.95	-2.67	-11.58	6.24	0.56	0.96	Yes
Bacteria	Firmicutes	Bacilli	Gemellales	Gemellaceae		1.04	0.31	2.05	-1.29	5.38	0.23	1.00	1.83	-1.43	5.08	0.27	1.00	1.64	-0.50	3.79	0.13	0.95	1.46	-0.62	3.54	0.17	0.96	No
Bacteria	Firmicutes	Bacilli	Haloplasmatales	Haloplasmataceae		0.20%	-	25.07	2.48	47.65	0.03	0.99	22.67	0.62	44.73	0.04	1.00	3.65	-10.91	18.20	0.62	0.95	1.94	-12.16	16.05	0.79	0.97	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Aerococcaceae	Aerococcus	4.49%	-	3.06	-1.85	7.97	0.22	1.00	3.54	-1.25	8.33	0.15	1.00	0.09	-3.07	3.25	0.95	0.98	0.45	-2.61	3.51	0.77	0.97	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Aerococcaceae	Alkalibacterium	0.40%	-	-12.97	-28.99	3.05	0.11	1.00	-14.76	-30.40	0.87	0.06	1.00	-6.85	-17.15	3.46	0.19	0.95	-8.12	-18.11	1.86	0.11	0.96	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Aerococcaceae	Alloiooccus	3.89%	-	-1.35	-6.63	3.92	0.61	1.00	-0.54	-5.69	4.61	0.84	1.00	0.60	-2.79	3.99	0.73	0.96	1.19	-2.10	4.47	0.48	0.96	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Aerococcaceae	Facklamia	11.86%	-	-1.61	-4.75	1.53	0.32	1.00	-0.86	-3.93	2.22	0.58	1.00	-1.39	-3.41	0.63	0.18	0.95	-0.85	-2.81	1.12	0.40	0.96	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Aerococcaceae	Marinilactibacillus	0.90%	-	-1.44	-12.17	9.28	0.79	1.00	-0.33	-10.80	10.14	0.95	1.00	-2.92	-9.82	3.97	0.41	0.95	-2.12	-8.80	4.56	0.53	0.96	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Aerococcaceae	Other	0.27	0.30	1.45	-1.98	4.88	0.41	1.00	1.32	-2.03	4.67	0.44	1.00	1.15	-1.05	3.36	0.30	0.95	1.05	-1.08	3.19	0.33	0.96	No
Bacteria	Firmicutes	Bacilli	Lactobacillales	Aerococcaceae	Other	9.87%	-	-4.01	-7.48	-0.55	0.02	0.99	-2.99	-6.39	0.41	0.08	1.00	-1.23	-3.46	1.01	0.28	0.95	-0.47	-2.64	1.70	0.67	0.96	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Carnobacteriaceae	Carnobacterium	0.80%	-	-1.70	-13.04	9.64	0.77	1.00	-4.03	-15.11	7.05	0.48	1.00	1.09	-6.20	8.38	0.77	0.96	-0.55	-7.63	6.52	0.88	0.98	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Carnobacteriaceae	Granulicatella	0.15	0.21	4.58	-0.34	9.50	0.07	0.99	3.41	-1.40	8.23	0.16	1.00	1.35	-1.81	4.52	0.40	0.95	0.52	-2.55	3.60	0.74	0.97	No
Bacteria	Firmicutes	Bacilli	Lactobacillales	Carnobacteriaceae	Other	0.10%	-	-4.21	-36.21	27.79	0.80	1.00	-5.67	-36.90	25.55	0.72	1.00	-1.52	-22.09	19.05	0.88	0.97	-2.52	-22.45	17.42	0.80	0.97	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Enterococcaceae	Enterococcus	0.30	0.34	-0.83	-3.80	2.15	0.59	1.00	-1.28	-4.18	1.62	0.39	1.00	-1.04	-2.95	0.88	0.29	0.95	-1.37	-3.22	0.49	0.15	0.96	No
Bacteria	Firmicutes	Bacilli	Lactobacillales	Enterococcaceae	Other	6.38%	-	0.79	-3.34	4.92	0.71	1.00	0.90	-3.13	4.94	0.66	1.00	-0.55	-3.21	2.10	0.68	0.95	-0.46	-3.03	2.12	0.73	0.97	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Enterococcaceae	Vagococcus	3.49%	-	0.11	-5.42	5.65	0.97	1.00	0.22	-5.26	5.70	0.94	1.00	1.48	-2.08	5.04	0.41	0.95	1.37	-2.13	4.86	0.44	0.96	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Enterococcaceae	Other	2.29%	-	-1.35	-8.14	5.45	0.70	1.00	-0.67	-7.30	5.97	0.84	1.00	-2.07	-6.44	2.29	0.35	0.95	-1.58	-5.81	2.65	0.46	0.96	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Lactobacillaceae	Lactobacillus*	2.08	0.60	1.67	-0.07	3.40	0.06	0.99	1.61	-0.08	3.30	0.06	1.00	1.18	0.07	2.29	0.04	0.95	1.13	0.05	2.21	0.04	0.96	No
Bacteria	Firmicutes	Bacilli	Lactobacillales	Lactobacillaceae	Other	2.79%	-	-1.38	-7.48	4.72	0.66	1.00	-0.88	-6.83	5.07	0.77	1.00	-1.94	-5.86	1.98	0.33	0.95	-1.58	-5.38	2.22	0.42	0.96	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Lactobacillaceae	Pediococcus	14.76%	-	0.25	-2.61	3.11	0.86	1.00	0.06	-2.73	2.86	0.97	1.00	0.33	-1.51	2.17	0.73	0.96	0.21	-1.58	1.99	0.82	0.97	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Lactobacillaceae	Other	0.33	0.48	-0.87	-2.96	1.23	0.42	1.00	-0.67	-2.72	1.38	0.52	1.00	0.26	-1.08	1.61	0.70	0.95	0.40	-0.90	1.71	0.54	0.96	No
Bacteria	Firmicutes	Bacilli	Lactobacillales	Leuconostocaceae	Fructobacillus	0.50%	-	-3.38	-17.71	10.94	0.64	1.00	-2.49	-16.47	11.48	0.73	1.00	-1.74	-10.95	7.46	0.71	0.95	-1.11	-10.03	7.82	0.81	0.97	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Leuconostocaceae	Leuconostoc	0.55																						

Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]	ph2	11.76%	-	1.62	-1.52	4.76	0.31	1.00	2.23	-0.84	5.30	0.15	1.00	1.27	-0.75	3.28	0.22	0.95	1.71	-0.25	3.67	0.09	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]	Sedimentibacter	0.30%	-	8.80	-9.77	27.37	0.35	1.00	8.57	-9.54	26.69	0.35	1.00	4.73	-7.21	16.67	0.44	0.95	4.56	-7.01	16.12	0.44	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]	Tissierella_Soehngenia	2.09%	-	0.65	-6.43	7.74	0.86	1.00	0.84	-6.08	7.75	0.81	1.00	1.10	-3.46	5.65	0.64	0.95	1.23	-3.18	5.65	0.58	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]	WAL_1855D	0.25	0.38	0.65	-2.14	3.45	0.65	1.00	0.73	-1.99	3.46	0.60	1.00	0.87	-0.93	2.66	0.34	0.95	0.94	-0.80	2.68	0.29	0.96	No
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]		4.59%	-	-4.71	-9.59	0.17	0.06	0.99	-3.85	-8.62	0.93	0.11	1.00	-2.35	-5.49	0.79	0.14	0.95	-1.71	-4.76	1.33	0.27	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]		17.35%	-	2.76	0.07	5.44	0.04	0.99	2.52	-0.10	5.14	0.06	1.00	2.36	0.64	4.08	0.01	0.95	2.20	0.53	3.87	0.01	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Christensenellaceae	Christensenella	0.12	0.20	0.21	-4.96	5.38	0.94	1.00	0.31	-4.74	5.35	0.91	1.00	1.49	-1.83	4.81	0.38	0.95	1.54	-1.68	4.76	0.35	0.96	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Christensenellaceae		0.45	0.45	1.06	-1.26	3.38	0.37	1.00	1.21	-1.06	3.47	0.30	1.00	0.42	-1.07	1.92	0.58	0.95	0.54	-0.90	1.99	0.46	0.96	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Alkaliphilus	0.70%	-	-7.62	-19.80	4.56	0.22	1.00	-4.58	-16.50	7.34	0.45	1.00	-0.49	-8.32	7.35	0.90	0.97	1.72	-5.90	9.33	0.66	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Caloramator	0.40%	-	-1.52	-17.72	14.67	0.85	1.00	1.12	-14.69	16.94	0.89	1.00	-1.27	-11.68	9.14	0.81	0.96	0.62	-9.48	10.72	0.90	0.99	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Candidatus Arthromitus	2.79%	-	0.16	-6.02	6.35	0.96	1.00	-0.15	-6.18	5.89	0.96	1.00	-1.78	-5.75	2.20	0.38	0.95	-1.98	-5.83	1.87	0.31	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Clostridiisalibacter	0.10%	-	-15.38	-47.34	16.58	0.35	1.00	-12.43	-43.62	18.77	0.43	1.00	-5.29	-25.85	15.26	0.61	0.95	-3.16	-23.08	16.76	0.76	0.97	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Clostridium	1.80	0.51	0.27	-1.77	2.30	0.80	1.00	-0.19	-2.18	1.80	0.85	1.00	0.49	-0.82	1.80	0.46	0.95	0.19	-1.08	1.46	0.77	0.97	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Other	1.08	0.40	0.01	-2.59	2.61	0.99	1.00	0.13	-2.41	2.67	0.92	1.00	0.14	-1.54	1.81	0.87	0.96	0.23	-1.39	1.85	0.78	0.97	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Proteiniclasticum	0.90%	-	-4.41	-15.19	6.38	0.42	1.00	-4.11	-14.63	6.41	0.44	1.00	-3.13	-10.06	3.80	0.38	0.95	-2.92	-9.63	3.80	0.39	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Sarcina	4.99%	-	-0.89	-5.59	3.80	0.71	1.00	-1.00	-5.58	3.57	0.67	1.00	-1.22	-4.24	1.79	0.43	0.95	-1.28	-4.20	1.64	0.39	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	SMB53	1.08	0.35	1.63	-1.29	4.56	0.27	1.00	1.83	-1.03	4.68	0.21	1.00	1.75	-0.13	3.63	0.07	0.95	1.91	0.09	3.73	0.04	0.96	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Tindallia_Anoxynatronum	0.20%	-	5.27	-17.29	27.84	0.65	1.00	8.93	-13.11	30.96	0.43	1.00	-1.59	-16.10	12.91	0.83	0.96	1.03	-13.03	15.10	0.89	0.99	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae		3.15	0.32	3.19	-0.07	6.46	0.06	0.99	3.35	0.16	6.53	0.04	1.00	1.60	-0.50	3.70	0.14	0.95	1.73	-0.31	3.76	0.10	0.96	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Dehalobacteriaceae	Dehalobacterium	0.13	0.26	1.63	-2.32	5.57	0.42	1.00	1.62	-2.23	5.48	0.41	1.00	1.62	-0.91	4.16	0.21	0.95	1.62	-0.84	4.08	0.20	0.96	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Dehalobacteriaceae		2.59%	-	-1.03	-7.44	5.38	0.75	1.00	-0.55	-6.81	5.71	0.86	1.00	-1.13	-5.26	2.99	0.59	0.95	-0.78	-4.78	3.21	0.70	0.97	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	EtOH8		2.39%	-	2.82	-3.86	9.51	0.41	1.00	3.21	-3.31	9.73	0.33	1.00	-1.13	-5.43	3.17	0.61	0.95	-0.84	-5.01	3.32	0.69	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Eubacteriaceae	Anaerofustus	0.12	0.20	2.00	-3.26	7.25	0.46	1.00	1.25	-3.89	6.39	0.63	1.00	0.42	-2.96	3.80	0.81	0.96	-0.14	-3.42	3.14	0.93	0.99	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Eubacteriaceae	Pseudoramibacter_Eubacterium	0.49	0.48	1.75	-0.68	4.18	0.16	1.00	1.92	-0.44	4.29	0.11	1.00	-0.36	-1.92	1.20	0.65	0.95	-0.26	-1.77	1.25	0.74	0.97	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Gracilibacteraceae	Lutispora	0.10%	-	28.40	-3.51	60.31	0.08	0.99	22.12	-9.08	53.32	0.16	1.00	15.72	-4.81	36.24	0.13	0.95	11.24	-8.68	31.17	0.27	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	[Ruminococcus]	2.69	0.26	-2.31	-6.39	1.76	0.27	1.00	-2.05	-6.04	1.94	0.31	1.00	-1.46	-4.08	1.16	0.27	0.95	-1.34	-3.89	1.20	0.30	0.96	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Anaerostipes	1.01	0.44	-1.77	-4.14	0.60	0.14	1.00	-1.74	-4.07	0.58	0.14	1.00	-1.20	-2.73	0.33	0.12	0.95	-1.15	-2.64	0.33	0.13	0.96	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Blautia†	3.34	0.31	-2.32	-5.92	1.28	0.21	1.00	-1.97	-5.49	1.55	0.27	1.00	-0.15	-2.47	2.16	0.90	0.97	0.09	-2.16	2.33	0.94	0.99	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Butyrivibrio	2.39%	-	-3.95	-10.56	2.66	0.24	1.00	-3.69	-10.14	2.77	0.26	1.00	-2.33	-6.58	1.92	0.28	0.95	-2.13	-6.25	1.99	0.31	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Catonella	0.90%	-	4.35	-6.40	15.09	0.43	1.00	1.34	-9.18	11.86	0.80	1.00	3.42	-3.48	10.33	0.33	0.95	1.27	-5.45	7.98	0.71	0.97	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Clostridium	0.30%	-	6.49	-12.09	25.07	0.49	1.00	6.99	-11.13	25.12	0.45	1.00	3.76	-8.18	15.71	0.54	0.95	4.14	-7.43	15.71	0.48	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Coprococcus†	3.03	0.32	-3.27	-6.58	0.04	0.05	0.99	-3.26	-6.49	-0.02	0.05	1.00	-1.70	-3.82	0.43	0.12	0.95	-1.73	-3.80	0.33	0.10	0.96	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Dorea	2.39	0.24	-1.50	-5.64	2.65	0.48	1.00	-2.18	-6.22	1.87	0.29	1.00	-1.62	-4.28	1.04	0.23	0.95	-2.12	-4.70	0.47	0.11	0.96	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Epulopiscium	0.44	0.43	-0.95	-3.30	1.41	0.43	1.00	-0.55	-2.85	1.75	0.64	1.00	-0.72	-2.23	0.79	0.35	0.95	-0.42	-1.89	1.05	0.57	0.96	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Lachnobacterium	1.20%	-	2.37	-6.91	11.66	0.62	1.00	1.06	-8.01	10.13	0.82	1.00	-1.65	-7.62	4.31	0.59	0.95	-2.59	-8.38	3.19	0.38	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Lachnospira	1.66	0.50	0.06	-1.99	2.12	0.95	1.00	-0.23	-2.24	1.79	0.83	1.00	-1.09	-2.41	0.23	0.10	0.95	-1.31	-2.59	-0.03	0.05	0.96	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Moryella	1.69%	-	5.99	-1.84	13.82	0.13	1.00	7.06	-0.58	14.70	0.07	1.00	5.09	0.06	10.12	0.05	0.95	5.86	0.99	10.74	0.02	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Oribacterium	16.05%	-	1.46	-1.28	4.21	0.30	1.00	1.05	-1.63	3.73	0.44	1.00	1.25	-0.51	3.02	0.16	0.95	0.97	-0.74	2.68	0.26	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Other	1.66	0.24	-2.88	-7.11	1.35	0.18	1.00	-3.16	-7.30	0.98	0.13	1.00	-0.35	-3.07	2.37	0.80	0.96	-0.62	-3.26	2.02	0.65	0.96	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Pseudobutyrvibrio	0.70%	-	-2.53	-14.80	9.73	0.69	1.00	-1.95	-13.92	10.02	0.75	1.00	-3.19	-11.07	4.70	0.43	0.95	-2.76	-10.40	4.88	0.48	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Roseburia	0.55	0.36	0.54	-2.26	3.35	0.70	1.00	0.19	-2.55	2.93	0.89	1.00	-1.17	-2.97	0.64	0.20	0.95	-1.42	-3.16	0.33	0.11	0.96	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Shuttleworthia	0.80%	-	-4.37	-15.77	7.03	0.45	1.00	-4.43	-15.55	6.69	0.43	1.00	1.27	-6.06	8.60	0.73	0.96	1.24	-5.86	8.34	0.73	0.97	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae		3.05	0.22	-1.36	-6.04	3.32	0.57	1.00	-1.19	-5.75	3.38	0.61	1.00	-0.19	-3.20	2.82	0.90	0.97	-0.09	-3.01	2.83	0.95	0.99	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Other	Other	2.40	0.34	1.31	-1.72	4.34	0.40	1.00	1.70	-1.26	4.66	0.26	1.00	2.12	0.17	4.06	0.03	0.95	2.41	0.52	4.29	0.01	0.96	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Peptococcaceae	Desulfurispora	0.40%	-	1.76	-14.28	17.79	0.83	1.00	7.29	-8.42	23.00	0.36	1.00	-4.16	-14.47	6.14	0.43	0.95	-0.23	-10.26	9.81	0.96	0.99	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Peptococcaceae	Other	0.20%	-	-11.24	-33.95	11.47	0.33	1.00	-6.80	-29.00	15.39	0.55	1.00	-10.38	-24.98	4.21	0.16	0.95	-7.22	-21.38	6.95	0.32	0.96	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Peptococcaceae	Peptococcus	0.60	0.61	0.41	-1.36	2.17	0.65	1.00	0.60	-1.12	2.33	0.49	1.00	0.05	-1.09	1.18	0.93	0.98	0.21	-0.89	1.31	0.71	0.97	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Peptococcaceae	rc4-4	3.09%	-	3.04	-2.84	8.92	0.31	1.00	2.63	-3.11	8.37	0.37	1.00	-0.28	-4.07	3.50	0.88	0.97	-0.57	-4.23	3.10			

Bacteria	Firmicutes	Clostridia	Clostridiales			3.38	0.24	0.72	-3.54	4.97	0.74	1.00	0.55	-3.61	4.71	0.80	1.00	1.25	-1.49	3.98	0.37	0.95	1.18	-1.47	3.84	0.38	0.96	No
Bacteria	Firmicutes	Clostridia	MBA08			0.30%	-	1.11	-17.62	19.83	0.91	1.00	0.29	-17.98	18.57	0.98	1.00	0.30	-11.73	12.34	0.96	0.98	-0.22	-11.88	11.45	0.97	0.99	Yes
Bacteria	Firmicutes	Clostridia	Natranaerobiales	ML1228J-1		0.20%	-	-5.96	-28.59	16.68	0.61	1.00	-3.96	-26.05	18.13	0.73	1.00	-1.19	-15.74	13.36	0.87	0.96	0.28	-13.82	14.38	0.97	0.99	Yes
Bacteria	Firmicutes	Clostridia	OPB54			0.20%	-	7.94	-14.81	30.70	0.49	1.00	10.12	-12.08	32.33	0.37	1.00	7.13	-7.50	21.75	0.34	0.95	8.69	-5.48	22.86	0.23	0.96	Yes
Bacteria	Firmicutes	Clostridia	Other	Other	Other	1.69%	-	5.15	-2.72	13.03	0.20	1.00	3.66	-4.04	11.36	0.35	1.00	1.62	-3.45	6.68	0.53	0.95	0.56	-4.36	5.47	0.82	0.97	Yes
Bacteria	Firmicutes	Clostridia	Thermoanaerobacteriales	Caldicellulosiruptoraceae	Caldicellulosiruptor	0.50%	-	13.96	-0.53	28.45	0.06	0.99	13.95	-0.18	28.09	0.05	1.00	10.83	1.52	20.13	0.02	0.95	10.84	1.82	19.85	0.02	0.96	Yes
Bacteria	Firmicutes	Clostridia	Thermoanaerobacteriales	Thermodesulfobiaceae	Coprothermobacter	0.30%	-	-2.77	-21.31	15.77	0.77	1.00	-2.65	-20.74	15.44	0.77	1.00	-0.69	-12.61	11.22	0.91	0.97	-0.60	-12.15	10.95	0.92	0.99	Yes
Bacteria	Firmicutes	Clostridia				1.10%	-	-0.18	-9.89	9.52	0.97	1.00	-0.66	-10.13	8.81	0.89	1.00	-1.67	-7.91	4.56	0.60	0.95	-2.01	-8.06	4.03	0.51	0.96	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	[Eubacterium]	2.17	0.58	-2.24	-3.99	-0.49	0.01	0.99	-1.88	-3.59	-0.17	0.03	1.00	-0.86	-1.98	0.27	0.14	0.95	-0.60	-1.70	0.49	0.28	0.96	No
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Allobaculum	17.55%	-	1.13	-1.56	3.83	0.41	1.00	0.78	-1.85	3.42	0.56	1.00	-0.20	-1.93	1.54	0.82	0.96	-0.43	-2.11	1.25	0.62	0.96	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Bulleidia	0.65	0.41	1.56	-0.91	4.04	0.22	1.00	1.47	-0.95	3.88	0.23	1.00	1.24	-0.36	2.83	0.13	0.95	1.18	-0.36	2.72	0.13	0.96	No
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Catenibacterium	0.95	0.85	-0.18	-1.46	1.10	0.78	1.00	-0.23	-1.48	1.01	0.71	1.00	0.29	-0.53	1.12	0.48	0.95	0.25	-0.55	1.04	0.54	0.96	No
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	cc_115	4.69%	-	0.12	-4.70	4.95	0.96	1.00	0.57	-4.14	5.28	0.81	1.00	1.59	-1.51	4.69	0.31	0.95	1.92	-1.08	4.92	0.21	0.96	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Coprobacillus	0.40	0.43	1.61	-0.89	4.11	0.21	1.00	1.44	-1.00	3.88	0.25	1.00	-0.01	-1.61	1.60	0.99	1.00	-0.11	-1.67	1.44	0.89	0.99	No
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Erysipelothrix	3.39%	-	-2.06	-7.72	3.60	0.48	1.00	-1.34	-6.87	4.18	0.63	1.00	-0.59	-4.23	3.05	0.75	0.96	-0.07	-3.60	3.46	0.97	0.99	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Holdemania	0.34	0.34	-0.43	-3.56	2.69	0.79	1.00	-0.21	-3.25	2.84	0.89	1.00	-0.54	-2.54	1.47	0.60	0.95	-0.37	-2.32	1.58	0.71	0.97	No
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Other	3.39%	-	5.03	-0.56	10.62	0.08	0.99	5.98	0.52	11.43	0.03	1.00	0.85	-2.75	4.44	0.64	0.95	1.53	-1.96	5.01	0.39	0.96	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	p-75-a5	11.17%	-	-0.60	-3.82	2.61	0.71	1.00	-0.68	-3.81	2.46	0.67	1.00	-0.54	-2.61	1.53	0.61	0.95	-0.59	-2.59	1.41	0.56	0.96	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	PSB-M-3	0.70%	-	1.44	-10.69	13.57	0.82	1.00	-0.31	-12.16	11.53	0.96	1.00	2.45	-5.34	10.25	0.54	0.95	1.20	-6.35	8.76	0.75	0.97	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	RFN20	1.79%	-	2.65	-5.01	10.31	0.50	1.00	3.33	-4.14	10.80	0.38	1.00	-1.29	-6.21	3.64	0.61	0.95	-0.79	-5.56	3.99	0.75	0.97	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Sharpea	6.28%	-	4.02	-0.15	8.18	0.06	0.99	3.01	-1.07	7.09	0.15	1.00	3.17	0.49	5.84	0.02	0.95	2.46	-0.14	5.06	0.06	0.96	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Other	2.83	0.38	-0.72	-3.40	1.96	0.60	1.00	-0.93	-3.55	1.69	0.49	1.00	-1.74	-3.46	-0.02	0.05	0.95	-1.90	-3.57	-0.24	0.03	0.96	No
Bacteria	Firmicutes	Other	Other	Other	Other	0.20%	-	-5.93	-28.60	16.74	0.61	1.00	-2.52	-24.66	19.62	0.82	1.00	-4.84	-19.41	9.73	0.51	0.95	-2.38	-16.51	11.75	0.74	0.97	Yes
Bacteria	Fusobacteria	Fusobacteriia	Fusobacteriales	Fusobacteriaceae	Cetobacterium	15.55%	-	0.87	-1.95	3.68	0.55	1.00	0.39	-2.37	3.15	0.78	1.00	1.06	-0.75	2.87	0.25	0.95	0.67	-1.09	2.43	0.45	0.96	Yes
Bacteria	Fusobacteria	Fusobacteriia	Fusobacteriales	Fusobacteriaceae	Fusobacterium*	0.40	0.59	2.44	0.60	4.28	0.01	0.99	1.76	-0.05	3.57	0.06	1.00	0.31	-0.88	1.49	0.61	0.95	-0.21	-1.37	0.95	0.72	0.97	No
Bacteria	Fusobacteria	Fusobacteriia	Fusobacteriales	Fusobacteriaceae	Psychrylobacter	0.30%	-	-9.40	-27.95	9.15	0.32	1.00	-7.04	-25.16	11.07	0.45	1.00	-9.10	-21.02	2.82	0.13	0.95	-7.38	-18.94	4.18	0.21	0.96	Yes
Bacteria	Fusobacteria	Fusobacteriia	Fusobacteriales	Fusobacteriaceae	u114	0.20%	-	10.35	-12.28	32.98	0.37	1.00	6.73	-15.37	28.84	0.55	1.00	8.37	-6.18	22.91	0.26	0.95	5.84	-8.26	19.95	0.42	0.96	Yes
Bacteria	Fusobacteria	Fusobacteriia	Fusobacteriales	Fusobacteriaceae	Other	0.80%	-	8.72	-2.63	20.06	0.13	1.00	9.07	-2.00	20.14	0.11	1.00	3.08	-4.22	10.38	0.41	0.95	3.35	-3.73	10.42	0.35	0.96	Yes
Bacteria	Fusobacteria	Fusobacteriia	Fusobacteriales	Leptotrichiaceae	Leptotrichia	3.59%	-	3.14	-2.32	8.60	0.26	1.00	1.47	-3.88	6.82	0.59	1.00	-0.29	-3.80	3.23	0.87	0.96	-1.50	-4.92	1.91	0.39	0.96	Yes
Bacteria	Fusobacteria	Fusobacteriia	Fusobacteriales	Leptotrichiaceae	Sneathia	1.69%	-	-6.93	-14.78	0.92	0.08	0.99	-6.57	-14.23	1.10	0.09	1.00	-2.92	-7.97	2.14	0.26	0.95	-2.65	-7.55	2.24	0.29	0.96	Yes
Bacteria	Fusobacteria	Fusobacteriia	Fusobacteriales			0.10%	-	-29.28	-61.20	2.64	0.07	0.99	-25.22	-56.40	5.95	0.11	1.00	-25.78	-46.27	-5.29	0.01	0.95	-22.87	-42.75	-2.99	0.02	0.96	Yes
Bacteria	Gemmatimonadetes	Gemm-1				3.99%	-	1.47	-3.72	6.65	0.58	1.00	2.49	-2.58	7.56	0.34	1.00	0.82	-2.51	4.16	0.63	0.95	1.57	-1.67	4.80	0.34	0.96	Yes
Bacteria	Gemmatimonadetes	Gemm-2				0.20%	-	-12.38	-35.20	10.45	0.29	1.00	-15.72	-38.00	6.56	0.17	1.00	-3.00	-17.68	11.68	0.69	0.95	-5.42	-19.65	8.82	0.46	0.96	Yes
Bacteria	Gemmatimonadetes	Gemm-3				1.40%	-	-3.30	-11.98	5.38	0.46	1.00	-3.45	-11.92	5.01	0.42	1.00	-2.82	-8.39	2.76	0.32	0.95	-2.90	-8.31	2.50	0.29	0.96	Yes
Bacteria	Gemmatimonadetes	Gemm-4				0.20%	-	2.44	-20.34	25.22	0.83	1.00	0.42	-21.81	22.66	0.97	1.00	6.15	-8.49	20.79	0.41	0.95	4.73	-9.46	18.92	0.51	0.96	Yes
Bacteria	Gemmatimonadetes	Gemm-5				1.30%	-	-3.81	-12.81	5.19	0.41	1.00	-4.34	-13.12	4.44	0.33	1.00	-2.09	-7.88	3.69	0.48	0.95	-2.45	-8.06	3.15	0.39	0.96	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes	C114			0.40%	-	-2.33	-18.49	13.83	0.78	1.00	-4.27	-20.05	11.50	0.60	1.00	-2.51	-12.90	7.88	0.63	0.95	-3.89	-13.96	6.18	0.45	0.96	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes	Ellin5290			0.50%	-	-0.81	-15.26	13.65	0.91	1.00	-1.88	-15.99	12.22	0.79	1.00	-7.75	-17.03	1.53	0.10	0.95	-8.51	-17.50	0.49	0.06	0.96	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes	Gemmatimonadales	Ellin5301		0.40%	-	-1.53	-17.61	14.55	0.85	1.00	0.41	-15.29	16.11	0.96	1.00	-0.77	-11.11	9.57	0.88	0.97	0.63	-9.39	10.66	0.90	0.99	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes	Gemmatimonadales	Gemmatimonadaceae	Gemmatimonas	0.20%	-	6.80	-15.90	29.51	0.56	1.00	9.08	-13.08	31.25	0.42	1.00	0.91	-13.69	15.51	0.90	0.97	2.53	-11.62	16.68	0.73	0.97	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes	Gemmatimonadales	Other	Other	0.30%	-	-2.38	-20.88	16.11	0.80	1.00	-4.31	-22.36	13.74	0.64	1.00	-2.13	-14.02	9.76	0.73	0.96	-3.50	-15.02	8.02	0.55	0.96	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes	Gemmatimonadales			0.60%	-	-0.72	-13.86	12.41	0.91	1.00	2.40	-10.45	15.24	0.71	1.00	2.08	-6.36	10.52	0.63	0.95	4.34	-3.85	12.54	0.30	0.96	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes	KD8-87			0.60%	-	5.53	-7.57	18.63	0.41	1.00	4.16	-8.63	16.95	0.52	1.00	0.12	-8.30	8.55	0.98	0.99	-0.83	-8.99	7.34	0.84	0.98	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes	N1423WL			0.20%	-	-22.16	-44.73	0.41	0.05	0.99	-20.10	-42.14	1.93	0.07	1.00	-18.63	-33.12	-4.14	0.01	0.95	-17.14	-31.19	-3.09	0.02	0.96	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes				2.79%	-	1.76	-4.36	7.89	0.57	1.00	0.96	-5.02	6.94	0.75	1.00	-3.12	-7.05	0.82	0.12	0.95	-3.68	-7.49	0.13	0.06	0.96	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes				0.60%	-	5.44	-7.69	18.57	0.42	1.00	5.53	-7.28	18.34	0.40	1.00	4.58	-3.86	13.02	0.29	0.95	4.67	-3.50	12.85	0.26	0.96	Yes
Bacteria	GN02	BD1-5				0.10%	-	-17.53	-49.54	14.47	0.28	1.00	-19.96	-51.19	11.27	0.21	1.00	-2.65	-23.24	17.94	0.80	0.96	-4.41	-24.36	15.54	0.66	0.96	Yes
Bacteria	GN04	GN15				0.20%	-	-12.06	-34.66	10.54	0.30	1.00	-7.20	-29.30	14.90	0.52	1.00	-3.65	-18.18	10.89	0.62	0.95	-0.12	-14.23	13.99	0.99	1.00	Yes
Bacteria	Lentisphaerae	[Lentisphaeria]	Victivallales	Victivallaceae		6.78%	-																					

Bacteria	Planctomycetes	Planctomycetia	Gemmatales	Gemmataceae	Gemmata	1.00%	-	-1.10	-11.42	9.22	0.83	1.00	-1.13	-11.20	8.95	0.83	1.00	-1.43	-8.06	5.20	0.67	0.95	-1.40	-7.83	5.03	0.67	0.96	Yes
Bacteria	Planctomycetes	Planctomycetia	Gemmatales	Gemmataceae		0.90%	-	0.27	-10.59	11.13	0.96	1.00	-0.15	-10.74	10.45	0.98	1.00	-0.78	-7.76	6.20	0.83	0.96	-1.03	-7.80	5.73	0.77	0.97	Yes
Bacteria	Planctomycetes	Planctomycetia	Gemmatales	Isosphaeraceae	Nostocoida	0.10%	-	12.41	-19.53	44.34	0.45	1.00	10.49	-20.67	41.65	0.51	1.00	17.03	-3.47	37.54	0.10	0.95	15.73	-4.14	35.61	0.12	0.96	Yes
Bacteria	Planctomycetes	Planctomycetia	Gemmatales	Isosphaeraceae		0.30%	-	4.20	-14.32	22.72	0.66	1.00	3.86	-14.21	21.93	0.68	1.00	-4.66	-16.57	7.24	0.44	0.95	-4.87	-16.40	6.66	0.41	0.96	Yes
Bacteria	Planctomycetes	Planctomycetia	Pirellulales	Pirellulaceae	A17	0.60%	-	-3.79	-16.93	9.34	0.57	1.00	-3.85	-16.67	8.96	0.56	1.00	0.55	-7.90	8.99	0.90	0.97	0.54	-7.64	8.73	0.90	0.99	Yes
Bacteria	Planctomycetes	Planctomycetia	Pirellulales	Pirellulaceae	Pirellula	0.20%	-	-12.60	-35.30	10.09	0.28	1.00	-13.66	-35.80	8.48	0.23	1.00	-6.27	-20.86	8.33	0.40	0.95	-6.99	-21.13	7.15	0.33	0.96	Yes
Bacteria	Planctomycetes	Planctomycetia	Pirellulales	Pirellulaceae		0.40%	-	-0.47	-16.51	15.58	0.95	1.00	-2.35	-18.01	13.31	0.77	1.00	5.93	-4.37	16.24	0.26	0.95	4.62	-5.37	14.62	0.36	0.96	Yes
Bacteria	Planctomycetes	Planctomycetia	Planctomycetales	Planctomycetaceae	Planctomyces	0.80%	-	-1.91	-13.43	9.61	0.75	1.00	-2.60	-13.84	8.64	0.65	1.00	-1.58	-8.98	5.82	0.68	0.95	-2.03	-9.21	5.14	0.58	0.96	Yes
Bacteria	Planctomycetes	vadinHA49			DH61	0.30%	-	6.96	-11.50	25.43	0.46	1.00	7.50	-10.52	25.51	0.41	1.00	3.20	-8.67	15.07	0.60	0.95	3.58	-7.92	15.08	0.54	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	BD7-3			0.80%	-	-0.31	-11.65	11.04	0.96	1.00	-1.94	-13.02	9.14	0.73	1.00	-0.84	-8.13	6.46	0.82	0.96	-1.98	-9.05	5.09	0.58	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Caulobacterales	Caulobacteraceae	Asticcacaulis	0.50%	-	-4.51	-18.89	9.87	0.54	1.00	-8.93	-22.99	5.14	0.21	1.00	-1.88	-11.12	7.37	0.69	0.95	-5.01	-13.99	3.97	0.27	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Caulobacterales	Caulobacteraceae	Brevundimonas	3.89%	-	1.86	-3.39	7.12	0.49	1.00	1.69	-3.43	6.82	0.52	1.00	1.20	-2.18	4.58	0.49	0.95	1.09	-2.19	4.36	0.51	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Caulobacterales	Caulobacteraceae	Mycoplana	7.08%	-	0.68	-3.28	4.65	0.74	1.00	0.29	-3.59	4.16	0.88	1.00	-0.77	-3.32	1.77	0.55	0.95	-1.05	-3.52	1.42	0.40	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Caulobacterales	Caulobacteraceae	Phenylobacterium	4.69%	-	4.38	-0.39	9.16	0.07	0.99	3.56	-1.11	8.22	0.14	1.00	2.28	-0.79	5.35	0.15	0.95	1.70	-1.29	4.68	0.26	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Caulobacterales	Caulobacteraceae		15.75%	-	0.33	-2.48	3.15	0.82	1.00	0.25	-2.50	3.00	0.86	1.00	-0.58	-2.39	1.23	0.53	0.95	-0.63	-2.38	1.13	0.48	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Caulobacterales			0.10%	-	3.39	-28.64	35.42	0.84	1.00	7.87	-23.40	39.14	0.62	1.00	8.00	-12.59	28.59	0.45	0.95	11.24	-8.71	31.20	0.27	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Ellin329			1.30%	-	5.06	-3.93	14.05	0.27	1.00	5.10	-3.67	13.87	0.25	1.00	1.71	-4.07	7.49	0.56	0.95	1.75	-3.85	7.35	0.54	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Kiloniellales	Kiloniellaceae	Thalassospira	0.50%	-	-3.39	-17.77	10.99	0.64	1.00	-3.38	-17.40	10.65	0.64	1.00	-2.68	-11.92	6.56	0.57	0.95	-2.67	-11.62	6.29	0.56	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Kiloniellales			0.50%	-	3.21	-11.13	17.54	0.66	1.00	4.82	-9.18	18.81	0.50	1.00	0.12	-9.09	9.34	0.98	0.99	1.28	-7.65	10.22	0.78	0.97	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Other	Other	Other	0.20%	-	-6.59	-29.22	16.03	0.57	1.00	-7.16	-29.24	14.91	0.52	1.00	-3.64	-18.19	10.90	0.62	0.95	-4.02	-18.11	10.08	0.58	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	RF32			9.47%	-	-0.89	-4.39	2.61	0.62	1.00	-0.77	-4.18	2.65	0.66	1.00	-0.75	-3.00	1.50	0.51	0.95	-0.65	-2.83	1.53	0.56	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Aurantimonadaceae		1.60%	-	5.74	-2.37	13.85	0.17	1.00	5.87	-2.05	13.78	0.15	1.00	0.97	-4.25	6.19	0.72	0.96	1.08	-3.98	6.13	0.68	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bartonellaceae	Bartonella	0.60%	-	-5.99	-19.19	7.21	0.37	1.00	-6.21	-19.09	6.67	0.34	1.00	-0.42	-8.91	8.07	0.92	0.98	-0.53	-8.75	7.70	0.90	0.99	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bartonellaceae	Other	0.50%	-	-8.48	-22.78	5.81	0.24	1.00	-11.32	-25.28	2.64	0.11	1.00	-1.79	-10.98	7.41	0.70	0.95	-3.77	-12.69	5.16	0.41	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bartonellaceae		0.20%	-	4.38	-18.29	27.05	0.70	1.00	3.67	-18.45	25.79	0.75	1.00	5.22	-9.35	19.79	0.48	0.95	4.75	-9.36	18.87	0.51	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Beijerinckiaceae	Other	0.30%	-	18.40	-0.11	36.91	0.05	0.99	16.68	-1.39	34.75	0.07	1.00	2.62	-9.30	14.54	0.67	0.95	1.42	-10.14	12.97	0.81	0.97	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Beijerinckiaceae		1.89%	-	-2.90	-10.39	4.58	0.45	1.00	-3.57	-10.88	3.73	0.34	1.00	-1.58	-6.39	3.23	0.52	0.95	-2.04	-6.70	2.63	0.39	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bradyrhizobiaceae	Balneimonas	1.10%	-	2.77	-6.99	12.54	0.58	1.00	1.93	-7.61	11.46	0.69	1.00	-3.39	-9.67	2.88	0.29	0.95	-3.98	-10.06	2.10	0.20	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bradyrhizobiaceae	Bosea	0.30%	-	0.22	-18.21	18.65	0.98	1.00	-1.33	-19.32	16.65	0.88	1.00	1.62	-10.23	13.47	0.79	0.96	0.52	-10.97	12.00	0.93	0.99	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bradyrhizobiaceae	Bradyrhizobium	0.50%	-	3.59	-10.84	18.02	0.63	1.00	4.56	-9.51	18.64	0.52	1.00	5.82	-3.44	15.09	0.22	0.95	6.51	-2.47	15.49	0.16	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bradyrhizobiaceae		0.19	0.33	4.04	0.94	7.15	0.01	0.99	3.67	0.63	6.70	0.02	1.00	2.52	0.52	4.51	0.01	0.95	2.21	0.27	4.15	0.03	0.96	No
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Brucellaceae	Ochrobactrum	4.69%	-	-4.07	-8.88	0.75	0.10	1.00	-4.18	-8.88	0.52	0.08	1.00	-3.17	-6.27	-0.08	0.04	0.95	-3.24	-6.24	-0.24	0.03	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Brucellaceae	Other	1.40%	-	-0.57	-9.28	8.14	0.90	1.00	0.79	-7.71	9.30	0.85	1.00	-1.25	-6.85	4.35	0.66	0.95	-0.28	-5.71	5.15	0.92	0.99	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Brucellaceae		0.90%	-	-12.65	-23.34	-1.96	0.02	0.99	-13.83	-24.26	-3.40	0.01	1.00	-10.43	-17.29	-3.57	0.00	0.95	-11.27	-17.91	-4.62	0.00	0.30	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Hyphomicrobiaceae	Devosia	9.67%	-	1.03	-2.45	4.52	0.56	1.00	1.42	-1.98	4.83	0.41	1.00	-0.39	-2.63	1.85	0.73	0.96	-0.10	-2.27	2.07	0.93	0.99	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Hyphomicrobiaceae	Hyphomicrobium	3.49%	-	2.23	-3.30	7.77	0.43	1.00	2.24	-3.16	7.65	0.42	1.00	-1.64	-5.20	1.92	0.37	0.95	-1.61	-5.06	1.84	0.36	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Hyphomicrobiaceae	Other	0.20%	-	-12.60	-35.30	10.09	0.28	1.00	-13.66	-35.80	8.48	0.23	1.00	-6.27	-20.86	8.33	0.40	0.95	-6.99	-21.13	7.15	0.33	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Hyphomicrobiaceae	Pedomicrobium	0.40%	-	-10.84	-26.94	5.26	0.19	1.00	-12.22	-27.93	3.48	0.13	1.00	-3.61	-13.97	6.74	0.49	0.95	-4.58	-14.61	5.46	0.37	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Hyphomicrobiaceae	Rhodoplanes	3.89%	-	0.27	-4.98	5.53	0.92	1.00	0.15	-4.98	5.27	0.96	1.00	1.85	-1.53	5.22	0.28	0.95	1.77	-1.50	5.04	0.29	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Hyphomicrobiaceae		2.39%	-	-0.98	-7.70	5.74	0.78	1.00	-2.00	-8.56	4.56	0.55	1.00	-1.22	-5.54	3.10	0.58	0.95	-1.93	-6.11	2.26	0.37	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Methylobacteriaceae	Methylobacterium	5.18%	-	0.51	-4.10	5.11	0.83	1.00	0.45	-4.05	4.94	0.85	1.00	-0.64	-3.60	2.32	0.67	0.95	-0.67	-3.54	2.20	0.65	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Methylobacteriaceae		5.08%	-	0.85	-3.77	5.48	0.72	1.00	0.44	-4.08	4.95	0.85	1.00	1.52	-1.45	4.49	0.32	0.95	1.24	-1.64	4.12	0.40	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Methylocystaceae	Methylopila	0.40%	-	2.37	-13.67	18.41	0.77	1.00	0.73	-14.93	16.38	0.93	1.00	1.98	-8.33	12.29	0.71	0.95	0.83	-9.16	10.83	0.87	0.98	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Methylocystaceae	Methylosinus	0.80%	-	3.18	-8.24	14.60	0.59	1.00	3.03	-8.11	14.18	0.59	1.00	-0.49	-7.83	6.85	0.90	0.97	-0.59	-7.70	6.53	0.87	0.98	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Methylocystaceae	Other	1.00%	-	4.19	-5.97	14.35	0.42	1.00	6.00	-3.93	15.92	0.24	1.00	0.19	-6.35	6.72	0.95	0.98	1.49	-4.85	7.83	0.64	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Methylocystaceae	Pleomorphomonas	1.10%	-	3.73	-5.99	13.45	0.45	1.00	3.05	-6.44	12.54	0.53	1.00	0.14	-6.11	6.40	0.96	0.98	-0.34	-6.40	5.72	0.91	0.99	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Methylocystaceae		0.30%	-	-18.20	-36.69	0.28	0.05	0.99	-17.53	-35.57	0.50	0.06	1.00	-12.81	-24.69	-0.94	0.03	0.95	-12.31	-23.82	-0.80	0.04	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Other	Other	11.37%	-	1.17	-2.05	4.39	0.47	1.00	1.12	-2.02	4.													



Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae		22.33%	-	0.23	-2.26	2.72	0.86	1.00	0.01	-2.43	2.44	1.00	1.00	0.76	-0.84	2.36	0.35	0.95	0.57	-0.99	2.12	0.48	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Acetobacteraceae	Acetobacter	2.89%	-	0.14	-5.94	6.23	0.96	1.00	-0.32	-6.26	5.61	0.91	1.00	1.96	-1.95	5.87	0.33	0.95	1.65	-2.14	5.44	0.39	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Acetobacteraceae	Gluconobacter	0.60%	-	-4.92	-18.05	8.20	0.46	1.00	-5.31	-18.12	7.49	0.42	1.00	-1.40	-9.84	7.04	0.74	0.96	-1.68	-9.85	6.50	0.69	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Acetobacteraceae	Other	0.80%	-	1.36	-10.20	12.91	0.82	1.00	1.42	-9.86	12.70	0.80	1.00	-0.79	-8.22	6.64	0.83	0.96	-0.72	-7.92	6.48	0.84	0.98	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Acetobacteraceae	Roseococcus	0.40%	-	-1.10	-17.23	15.04	0.89	1.00	-0.30	-16.04	15.45	0.97	1.00	5.80	-4.56	16.17	0.27	0.95	6.39	-3.65	16.44	0.21	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Acetobacteraceae	Roseomonas	0.40%	-	-4.63	-20.64	11.38	0.57	1.00	-3.21	-18.83	12.42	0.69	1.00	-2.50	-12.79	7.79	0.63	0.95	-1.47	-11.44	8.51	0.77	0.97	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Acetobacteraceae		10.07%	-	-1.85	-5.20	1.50	0.28	1.00	-1.67	-4.93	1.60	0.32	1.00	-0.26	-2.42	1.89	0.81	0.96	-0.12	-2.21	1.96	0.91	0.99	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae	Azospirillum	1.00%	-	2.58	-7.60	12.75	0.62	1.00	1.90	-8.03	11.83	0.71	1.00	-3.72	-10.26	2.81	0.26	0.95	-4.20	-10.53	2.14	0.19	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae	Inquilinus	0.20%	-	-12.60	-35.30	10.09	0.28	1.00	-13.66	-35.80	8.48	0.23	1.00	-6.27	-20.86	8.33	0.40	0.95	-6.99	-21.13	7.15	0.33	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae	Other	0.40%	-	2.35	-13.69	18.39	0.77	1.00	0.68	-14.98	16.34	0.93	1.00	-0.30	-10.61	10.01	0.95	0.98	-1.48	-11.47	8.52	0.77	0.97	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae	Phaeospirillum	0.10%	-	-9.17	-41.17	22.83	0.57	1.00	-2.70	-33.97	28.58	0.87	1.00	-8.85	-29.42	11.72	0.40	0.95	-4.19	-24.16	15.77	0.68	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae	Skermanella	1.20%	-	5.16	-4.15	14.47	0.28	1.00	4.77	-4.71	14.25	0.32	1.00	-1.84	-7.83	4.14	0.55	0.95	-3.33	-9.38	2.72	0.28	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae		6.88%	-	-1.16	-5.24	2.91	0.58	1.00	-2.08	-6.07	1.90	0.31	1.00	-0.79	-3.41	1.84	0.56	0.95	-1.43	-3.97	1.11	0.27	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae		1.40%	-	-2.80	-11.45	5.85	0.53	1.00	-2.40	-10.84	6.05	0.58	1.00	-2.17	-7.73	3.39	0.44	0.95	-1.86	-7.25	3.53	0.50	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales	mitochondria	Other	16.15%	-	3.16	0.41	5.92	0.02	0.99	3.41	0.73	6.10	0.01	1.00	1.39	-0.39	3.16	0.13	0.95	1.58	-0.14	3.30	0.07	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales	Pelagibacteraceae		0.40%	-	-3.66	-19.76	12.45	0.66	1.00	-1.60	-17.33	14.12	0.84	1.00	2.83	-7.53	13.18	0.59	0.95	4.35	-5.69	14.39	0.40	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales	Rickettsiaceae	Wolbachia	4.29%	-	-5.11	-10.14	-0.07	0.05	0.99	-4.56	-9.47	0.36	0.07	1.00	-2.71	-5.94	0.53	0.10	0.95	-2.31	-5.45	0.83	0.15	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales			0.40%	-	11.77	-4.24	27.79	0.15	1.00	12.79	-2.83	28.42	0.11	1.00	8.10	-2.19	18.40	0.12	0.95	8.84	-1.13	18.82	0.08	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Erythrobacteraceae	Erythrobacter	2.49%	-	6.04	-0.47	12.56	0.07	0.99	6.25	-0.10	12.61	0.05	1.00	1.13	-3.07	5.32	0.60	0.95	1.28	-2.78	5.35	0.54	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Erythrobacteraceae	Other	0.30%	-	-19.65	-38.14	-1.16	0.04	0.99	-19.33	-37.37	-1.29	0.04	1.00	-9.74	-21.64	2.15	0.11	0.95	-9.47	-21.00	2.05	0.11	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Erythrobacteraceae		5.08%	-	-0.03	-4.65	4.60	0.99	1.00	0.04	-4.48	4.56	0.99	1.00	1.30	-1.67	4.27	0.39	0.95	1.36	-1.52	4.24	0.35	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	Kaistobacter	3.69%	-	-1.70	-7.19	3.79	0.54	1.00	-1.90	-7.25	3.46	0.49	1.00	-3.38	-6.91	0.14	0.06	0.95	-3.50	-6.91	-0.09	0.04	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	Novosphingobium	4.09%	-	1.28	-3.88	6.44	0.63	1.00	0.42	-4.62	5.46	0.87	1.00	0.52	-2.80	3.84	0.76	0.96	-0.07	-3.29	3.14	0.96	0.99	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	Other	1.89%	-	6.22	-1.25	13.69	0.10	1.00	6.11	-1.18	13.40	0.10	1.00	4.62	-0.18	9.42	0.06	0.95	4.56	-0.09	9.21	0.05	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	Sphingobium	1.99%	-	-0.35	-7.67	6.97	0.93	1.00	-1.60	-8.75	5.55	0.66	1.00	0.68	-4.03	5.38	0.78	0.96	-0.20	-4.76	4.37	0.93	0.99	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	Sphingomonas	21.04%	-	2.22	-0.30	4.73	0.08	0.99	1.99	-0.46	4.45	0.11	1.00	0.83	-0.79	2.45	0.31	0.95	0.69	-0.88	2.26	0.39	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	Sphingopyxis	2.89%	-	-5.56	-11.58	0.46	0.07	0.99	-4.99	-10.86	0.89	0.10	1.00	-3.65	-7.52	0.22	0.06	0.95	-3.24	-6.99	0.51	0.09	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae		8.57%	-	-0.58	-4.21	3.05	0.75	1.00	-0.58	-4.12	2.96	0.75	1.00	-0.66	-2.99	1.67	0.58	0.95	-0.65	-2.91	1.61	0.57	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales			0.70%	-	-13.58	-25.65	-1.50	0.03	0.99	-13.56	-25.34	-1.78	0.02	1.00	-9.64	-17.40	-1.88	0.01	0.95	-9.61	-17.13	-2.09	0.01	0.96	Yes
Bacteria	Proteobacteria	Alphaproteobacteria				2.49%	-	-1.84	-8.34	4.65	0.58	1.00	-1.24	-7.58	5.10	0.70	1.00	-3.17	-7.34	1.00	0.14	0.95	-2.73	-6.77	1.32	0.19	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	A21b	EB1003		0.40%	-	6.58	-9.64	22.81	0.43	1.00	2.40	-13.48	18.28	0.77	1.00	-1.16	-11.59	9.28	0.83	0.96	-4.18	-14.31	5.95	0.42	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	A21b	UD5		0.10%	-	-14.35	-46.50	17.81	0.38	1.00	-13.76	-45.13	17.62	0.39	1.00	-13.51	-34.17	7.16	0.20	0.95	-13.08	-33.10	6.94	0.20	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	ASSO-13			2.79%	-	2.46	-3.70	8.62	0.43	1.00	2.19	-3.83	8.20	0.48	1.00	-0.81	-4.77	3.15	0.69	0.95	-1.00	-4.84	2.84	0.61	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Alcaligenaceae	Achromobacter	14.46%	-	3.32	0.44	6.19	0.02	0.99	3.25	0.44	6.05	0.02	1.00	1.88	0.03	3.73	0.05	0.95	1.84	0.05	3.64	0.04	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Alcaligenaceae	Oligella	3.49%	-	-0.99	-6.65	4.68	0.73	1.00	0.37	-5.17	5.90	0.90	1.00	-0.54	-4.18	3.10	0.77	0.96	0.43	-3.11	3.96	0.81	0.97	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Alcaligenaceae	Other	0.80%	-	-5.53	-16.92	5.86	0.34	1.00	-4.43	-15.54	6.69	0.44	1.00	-3.29	-10.62	4.03	0.38	0.95	-2.49	-9.59	4.61	0.49	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Alcaligenaceae	Sutterella	0.53	0.47	1.91	-0.27	4.08	0.09	1.00	1.60	-0.54	3.74	0.14	1.00	0.23	-1.17	1.63	0.75	0.96	-0.04	-1.41	1.33	0.96	0.99	No
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Alcaligenaceae		4.59%	-	-4.37	-9.30	0.57	0.08	0.99	-2.88	-7.71	1.96	0.24	1.00	-4.06	-7.23	-0.90	0.01	0.95	-2.99	-6.08	0.09	0.06	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Burkholderiaceae	Burkholderia	8.57%	-	1.49	-2.16	5.14	0.42	1.00	1.63	-1.93	5.20	0.37	1.00	0.92	-1.43	3.26	0.44	0.95	1.03	-1.25	3.30	0.38	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Burkholderiaceae	Lautropia	7.48%	-	1.02	-2.87	4.90	0.61	1.00	-0.03	-3.83	3.77	0.99	1.00	-0.72	-3.22	1.78	0.57	0.95	-1.46	-3.89	0.96	0.24	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Burkholderiaceae	Pandoraea	0.40%	-	-4.97	-20.97	11.03	0.54	1.00	-6.66	-22.27	8.96	0.40	1.00	2.42	-7.86	12.71	0.64	0.95	1.22	-8.75	11.19	0.81	0.97	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Burkholderiaceae	Salinispora	0.20%	-	20.06	-2.53	42.66	0.08	0.99	20.98	-1.06	43.01	0.06	1.00	5.76	-8.78	20.30	0.44	0.95	6.40	-7.69	20.49	0.37	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Burkholderiaceae		1.30%	-	0.84	-8.12	9.81	0.85	1.00	0.30	-8.45	9.05	0.95	1.00	2.35	-3.41	8.11	0.42	0.95	1.98	-3.60	7.57	0.49	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Azohydromonas	0.40%	-	17.64	1.63	33.64	0.03	0.99	17.01	1.40	32.63	0.03	1.00	7.94	-2.36	18.24	0.13	0.95	7.50	-2.48	17.48	0.14	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Brachymonas	0.20%	-	-5.87	-28.55	16.81	0.61	1.00	-7.34	-29.47	14.79	0.52	1.00	1.62	-12.96	16.20	0.83	0.96	0.62	-13.51	14.76	0.93	0.99	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Comamonas	24.03%	-	1.18	-1.23	3.59	0.34	1.00	1.15	-1.20	3.50	0.34	1.00	0.02	-1.53	1.57	0.98	0.99	0.01	-1.49	1.51	0.99	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Delftia	0.57	0.70	0.19	-1.32	1.69	0.81	1.00	0.28	-1.19	1.75	0.71	1.00	0.16	-0.81	1.13	0.75	0.96	0.24	-0.70	1.18	0.62	0.96	No
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Hydrogenophaga	6.18%	-	1.72	-2.49	5.93	0.42	1.00	2.29	-1.82	6.40	0.27	1.0											

Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Neisseriaceae	Kingella	0.60%	-	5.69	-7.41	18.79	0.39	1.00	3.69	-9.11	16.48	0.57	1.00	4.47	-3.95	12.89	0.30	0.95	3.04	-5.12	11.21	0.46	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Neisseriaceae	Microvirgula	0.90%	-	8.40	-2.36	19.16	0.13	1.00	8.31	-2.19	18.81	0.12	1.00	1.27	-5.65	8.20	0.72	0.96	1.22	-5.49	7.93	0.72	0.97	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Neisseriaceae	Neisseria	20.24%	-	-0.27	-2.80	2.27	0.84	1.00	-0.39	-2.86	2.08	0.76	1.00	-1.75	-3.38	-0.13	0.03	0.95	-1.83	-3.40	-0.26	0.02	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Neisseriaceae	Other	0.10%	-	14.68	-17.27	46.63	0.37	1.00	9.84	-21.36	41.05	0.54	1.00	23.02	2.53	43.52	0.03	0.95	19.57	-0.31	39.46	0.05	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Neisseriaceae	Vogesella	0.30%	-	0.21	-18.27	18.70	0.98	1.00	-1.55	-19.59	16.49	0.87	1.00	-7.03	-18.90	4.85	0.25	0.95	-8.29	-19.80	3.21	0.16	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Neisseriaceae		5.68%	-	0.09	-4.34	4.52	0.97	1.00	0.37	-3.96	4.69	0.87	1.00	-1.14	-3.99	1.70	0.43	0.95	-0.94	-3.69	1.82	0.51	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Nitrosomonadales	Nitrosomonadaceae		1.60%	-	-4.89	-12.99	3.21	0.24	1.00	-5.25	-13.15	2.66	0.19	1.00	-2.42	-7.63	2.79	0.36	0.95	-2.66	-7.71	2.38	0.30	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Other	Other	Other	1.20%	-	0.23	-9.07	9.54	0.96	1.00	0.13	-8.95	9.21	0.98	1.00	-1.89	-7.87	4.09	0.54	0.95	-1.95	-7.74	3.85	0.51	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Procabacteriales	Procabacteriaceae		0.20%	-	0.31	-22.32	22.95	0.98	1.00	-0.43	-22.51	21.66	0.97	1.00	5.25	-9.30	19.80	0.48	0.95	4.75	-9.34	18.85	0.51	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	C39	0.80%	-	5.91	-5.53	17.34	0.31	1.00	5.87	-5.29	17.03	0.30	1.00	-1.10	-8.46	6.26	0.77	0.96	-1.12	-8.25	6.00	0.76	0.97	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Candidatus Accumulibacter	0.40%	-	-2.75	-18.83	13.33	0.74	1.00	0.65	-15.07	16.38	0.93	1.00	4.02	-6.32	14.35	0.45	0.95	6.46	-3.56	16.49	0.21	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Dechloromonas	6.78%	-	-0.97	-5.00	3.06	0.64	1.00	-1.26	-5.20	2.67	0.53	1.00	-1.38	-3.97	1.21	0.30	0.95	-1.58	-4.09	0.93	0.22	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Dok59	2.29%	-	7.18	0.43	13.93	0.04	0.99	5.49	-1.11	12.10	0.10	1.00	3.28	-1.06	7.63	0.14	0.95	2.07	-2.15	6.29	0.34	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Hydrogenophilus	1.69%	-	0.98	-6.85	8.82	0.81	1.00	1.62	-6.03	9.27	0.68	1.00	1.57	-3.47	6.61	0.54	0.95	2.04	-2.84	6.92	0.41	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	K82	0.10%	-	21.50	-10.39	53.39	0.19	1.00	23.04	-8.08	54.15	0.15	1.00	-8.43	-28.94	12.08	0.42	0.95	-7.32	-27.20	12.56	0.47	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Methyloversatilis	1.69%	-	0.98	-6.84	8.81	0.81	1.00	-0.07	-7.71	7.57	0.99	1.00	1.35	-3.68	6.39	0.60	0.95	0.61	-4.27	5.49	0.81	0.97	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Other	3.79%	-	4.71	-0.58	10.01	0.08	0.99	4.48	-0.69	9.64	0.09	1.00	-0.45	-3.86	2.95	0.79	0.96	-0.61	-3.91	2.69	0.72	0.97	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Propionivibrio	0.10%	-	-20.56	-52.47	11.35	0.21	1.00	-15.32	-46.50	15.86	0.34	1.00	20.77	0.28	41.26	0.05	0.95	24.61	4.76	44.46	0.02	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Sterolibacterium	0.20%	-	7.41	-15.20	30.02	0.52	1.00	4.46	-17.62	26.54	0.69	1.00	1.55	-12.99	16.09	0.83	0.96	-0.57	-14.67	13.53	0.94	0.99	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Sulfuritalea	1.10%	-	-1.20	-10.91	8.51	0.81	1.00	-2.25	-11.73	7.22	0.64	1.00	-0.70	-6.94	5.54	0.83	0.96	-1.44	-7.49	4.61	0.64	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Thauera	4.49%	-	0.73	-4.14	5.59	0.77	1.00	0.60	-4.15	5.35	0.80	1.00	0.54	-2.59	3.67	0.74	0.96	0.46	-2.57	3.49	0.77	0.97	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Zoogloea	12.06%	-	0.68	-2.47	3.83	0.67	1.00	0.29	-2.79	3.36	0.86	1.00	0.27	-1.76	2.29	0.80	0.96	0.00	-1.96	1.96	1.00	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae		5.18%	-	-1.37	-5.98	3.24	0.56	1.00	-1.55	-6.05	2.95	0.50	1.00	-0.50	-3.46	2.47	0.74	0.96	-0.61	-3.48	2.26	0.68	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	SC-I-84			3.69%	-	-1.53	-6.95	3.90	0.58	1.00	-2.35	-7.64	2.94	0.38	1.00	-1.59	-5.07	1.90	0.37	0.95	-2.16	-5.54	1.22	0.21	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Thiobacterales	Other	Other	0.30%	-	-3.17	-21.63	15.28	0.74	1.00	0.42	-17.62	18.45	0.96	1.00	-1.17	-13.03	10.70	0.85	0.96	1.42	-10.09	12.93	0.81	0.97	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Thiobacterales			2.49%	-	-0.93	-7.48	5.61	0.78	1.00	0.62	-5.78	7.02	0.85	1.00	-2.38	-6.59	1.82	0.27	0.95	-1.27	-5.35	2.82	0.54	0.96	Yes
Bacteria	Proteobacteria	Betaproteobacteria				2.79%	-	-0.83	-7.05	5.38	0.79	1.00	-1.78	-7.84	4.29	0.57	1.00	-3.90	-7.89	0.09	0.06	0.95	-4.56	-8.42	-0.70	0.02	0.96	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	[Entotheonellales]	[Entotheonellaceae]	Candidatus Entothe	0.30%	-	-8.35	-26.86	10.17	0.38	1.00	-6.51	-24.58	11.57	0.48	1.00	-7.40	-19.30	4.50	0.22	0.95	-6.05	-17.58	5.49	0.30	0.96	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Bdellovibrionales	Bacteriovoracaceae	Bacteriovorax	0.50%	-	-5.26	-19.66	9.13	0.47	1.00	-2.87	-16.93	11.19	0.69	1.00	-1.09	-10.34	8.17	0.82	0.96	0.62	-8.36	9.59	0.89	0.99	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Bdellovibrionales	Bacteriovoracaceae		0.10%	-	-13.84	-45.92	18.23	0.40	1.00	-16.09	-47.39	15.21	0.31	1.00	-5.98	-26.61	14.64	0.57	0.95	-7.57	-27.55	12.42	0.46	0.96	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Bdellovibrionales	Bdellovibrionaceae	Bdellovibrio	0.80%	-	0.44	-10.99	11.86	0.94	1.00	-1.48	-12.64	9.68	0.79	1.00	1.75	-5.59	9.10	0.64	0.95	0.42	-6.70	7.54	0.91	0.99	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	BPC076			0.40%	-	-22.88	-38.85	-6.92	0.01	0.99	-22.04	-37.62	-6.46	0.01	1.00	-8.12	-18.42	2.17	0.12	0.95	-7.50	-17.48	2.47	0.14	0.96	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfarculales	Desulfarculaceae		0.10%	-	-8.64	-41.05	23.77	0.60	1.00	-7.12	-38.74	24.51	0.66	1.00	4.36	-16.48	25.19	0.68	0.95	5.45	-14.74	25.64	0.60	0.96	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfobacterales	Desulfobacteraceae	Desulfococcus	0.40%	-	6.40	-9.67	22.48	0.43	1.00	6.53	-9.15	22.21	0.41	1.00	4.68	-5.65	15.01	0.37	0.95	4.76	-5.25	14.77	0.35	0.96	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfobacterales	Desulfobacteraceae	Desulfotignum	0.10%	-	15.00	-17.35	47.34	0.36	1.00	13.52	-18.05	45.09	0.40	1.00	8.96	-11.83	29.76	0.40	0.95	7.92	-12.23	28.08	0.44	0.96	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfobacterales	Desulfobacteraceae		0.70%	-	6.15	-5.99	18.30	0.32	1.00	4.81	-7.05	16.67	0.43	1.00	5.08	-2.73	12.88	0.20	0.95	4.15	-3.42	11.71	0.28	0.96	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfobacterales	Desulfobulbaceae	Desulfobulbus	0.60%	-	-6.17	-19.32	6.98	0.36	1.00	-6.72	-19.55	6.11	0.30	1.00	-0.67	-9.12	7.79	0.88	0.96	-1.06	-9.26	7.13	0.80	0.97	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfobacterales	Desulfobulbaceae		1.10%	-	1.50	-8.28	11.29	0.76	1.00	1.49	-8.05	11.04	0.76	1.00	-0.77	-7.06	5.52	0.81	0.96	-0.79	-6.88	5.30	0.80	0.97	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfovibrionales	Desulfomicrobiaceae	Desulfomicrobium	0.20%	-	-0.87	-23.51	21.77	0.94	1.00	-1.54	-23.63	20.54	0.89	1.00	1.87	-12.69	16.42	0.80	0.96	1.42	-12.68	15.52	0.84	0.98	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfovibrionales	Desulfovibrionaceae	Bilophila	0.15	0.25	0.48	-3.62	4.58	0.82	1.00	0.58	-3.46	4.63	0.78	1.00	-0.25	-2.89	2.38	0.85	0.96	-0.24	-2.82	2.34	0.85	0.98	No
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfovibrionales	Desulfovibrionaceae	Desulfovibrio	0.20	0.31	0.84	-2.50	4.17	0.62	1.00	0.77	-2.48	4.02	0.64	1.00	-0.26	-2.40	1.88	0.81	0.96	-0.30	-2.37	1.78	0.78	0.97	No
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfovibrionales	Desulfovibrionaceae		9.07%	-	3.25	-0.33	6.82	0.07	0.99	3.60	0.10	7.10	0.04	1.00	2.10	-0.20	4.40	0.07	0.95	2.28	0.05	4.51	0.05	0.96	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfuromonadales	Geobacteraceae	Geobacter	2.59%	-	-3.75	-10.11	2.61	0.25	1.00	-4.61	-10.81	1.60	0.15	1.00	-3.10	-7.19	0.98	0.14	0.95	-3.70	-7.66	0.26	0.07	0.96	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfuromonadales	Geobacteraceae		0.60%	-	9.24	-3.90	22.38	0.17	1.00	10.50	-2.32	23.32	0.11	1.00	4.82	-3.63	13.27	0.26	0.95	5.73	-2.46	13.92	0.17	0.96	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	FAC87			0.10%	-	12.41	-19.53	44.34	0.45	1.00	10.49	-20.67	41.65	0.51	1.00	17.03	-3.47	37.54	0.10	0.95	15.73	-4.14	35.61	0.12	0.96	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	GMD14H09			4.69%	-	-0.88	-5.80	4.04	0.73	1.00	0.27	-4.54	5.08	0.91	1.00	-2.10	-5.26	1.06	0.19	0.95	-1.28	-4.35	1.79	0.41	0.96	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	MBNT15			0.40%	-	-13.86	-29.86	2.15	0.09	1.00	-15.35	-30.96	0.27	0.05	1.00	-3.66	-13.96	6.64	0.49	0.95	-4.69	-14.68	5.29	0.36	0.96	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	MIZ46			0.10%	-	-11.25	-43.23	20.73	0.49	1.00	-11.11	-42.31	20.09	0.48	1.00	-6.49</										

Bacteria	Proteobacteria	Epsilonproteobacteria	Campylobacterales	Helicobacteraceae	Helicobacter	2.59%	-	-4.75	-11.18	1.68	0.15	1.00	-5.94	-12.22	0.33	0.06	1.00	-1.20	-5.33	2.94	0.57	0.95	-2.02	-6.03	1.99	0.32	0.96	Yes
Bacteria	Proteobacteria	Epsilonproteobacteria	Campylobacterales	Helicobacteraceae	Other	1.10%	-	1.58	-8.24	11.40	0.75	1.00	1.82	-7.76	11.41	0.71	1.00	0.91	-5.40	7.22	0.78	0.96	1.13	-4.99	7.25	0.72	0.97	Yes
Bacteria	Proteobacteria	Epsilonproteobacteria	Campylobacterales	Helicobacteraceae	Sulfuricurvum	3.99%	-	1.58	-3.67	6.83	0.55	1.00	2.42	-2.71	7.54	0.36	1.00	0.00	-3.37	3.38	1.00	1.00	0.62	-2.66	3.89	0.71	0.97	Yes
Bacteria	Proteobacteria	Epsilonproteobacteria	Campylobacterales	Helicobacteraceae	Sulfurimonas	0.70%	-	1.93	-10.29	14.15	0.76	1.00	2.35	-9.58	14.28	0.70	1.00	1.00	-6.86	8.86	0.80	0.96	1.34	-6.28	8.95	0.73	0.97	Yes
Bacteria	Proteobacteria	Epsilonproteobacteria	Campylobacterales	Helicobacteraceae	Other	5.48%	-	-0.06	-4.61	4.48	0.98	1.00	0.04	-4.39	4.47	0.99	1.00	-0.41	-3.33	2.51	0.78	0.96	-0.31	-3.14	2.52	0.83	0.97	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	[Marinicellales]	[Marinicellaceae]	Marinicella	0.30%	-	-11.58	-30.03	6.88	0.22	1.00	-12.37	-30.37	5.64	0.18	1.00	-9.00	-20.86	2.86	0.14	0.95	-9.53	-21.01	1.96	0.10	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	[Marinicellales]	[Marinicellaceae]	Other	0.80%	-	-0.89	-12.33	10.55	0.88	1.00	0.26	-10.91	11.42	0.96	1.00	-2.53	-9.88	4.82	0.50	0.95	-1.71	-8.83	5.42	0.64	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Aeromonadales	Aeromonadaceae	Tolumonas	0.60%	-	3.98	-9.05	17.02	0.55	1.00	4.07	-8.65	16.79	0.53	1.00	1.27	-7.11	9.65	0.77	0.96	1.34	-6.78	9.46	0.75	0.97	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Aeromonadales	Aeromonadaceae	Other	6.98%	-	1.96	-2.10	6.03	0.34	1.00	2.53	-1.43	6.50	0.21	1.00	0.87	-1.75	3.48	0.52	0.95	1.28	-1.26	3.81	0.32	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Aeromonadales	Succinivibrionaceae	Anaerobiospirillum	0.10%	-	-14.35	-46.50	17.81	0.38	1.00	-13.76	-45.13	17.62	0.39	1.00	-13.51	-34.17	7.16	0.20	0.95	-13.08	-33.10	6.94	0.20	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Aeromonadales	Succinivibrionaceae	Ruminobacter	0.30%	-	-9.59	-28.07	8.89	0.31	1.00	-14.43	-32.49	3.63	0.12	1.00	-3.19	-15.07	8.69	0.60	0.95	-6.64	-18.18	4.90	0.26	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Aeromonadales	Succinivibrionaceae	Succinivibrio	16.25%	-	1.40	-1.40	4.20	0.33	1.00	1.28	-1.46	4.01	0.36	1.00	0.91	-0.89	2.71	0.32	0.95	0.83	-0.92	2.57	0.35	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Aeromonadales	Succinivibrionaceae	Other	1.40%	-	-4.46	-13.07	4.15	0.31	1.00	-4.47	-12.86	3.93	0.30	1.00	-1.36	-6.90	4.18	0.63	0.95	-1.34	-6.71	4.02	0.62	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	[Chromatiaceae]	Alkalimonas	0.10%	-	-17.35	-49.30	14.61	0.29	1.00	-19.50	-50.68	11.68	0.22	1.00	-3.93	-24.49	16.62	0.71	0.95	-5.44	-25.36	14.47	0.59	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	[Chromatiaceae]	Other	0.20%	-	-13.48	-36.19	9.24	0.24	1.00	-15.12	-37.28	7.04	0.18	1.00	-2.90	-17.51	11.71	0.70	0.95	-4.08	-18.24	10.07	0.57	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	[Chromatiaceae]	Rheinheimera	1.40%	-	1.43	-7.17	10.04	0.74	1.00	-0.24	-8.65	8.16	0.95	1.00	2.05	-3.47	7.58	0.47	0.95	0.87	-4.49	6.24	0.75	0.97	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	[Chromatiaceae]	Other	0.60%	-	-3.19	-16.40	10.03	0.64	1.00	0.18	-12.75	13.10	0.98	1.00	-0.87	-9.36	7.63	0.84	0.96	1.53	-6.72	9.79	0.72	0.97	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	125ds10	Other	0.30%	-	6.65	-11.88	25.18	0.48	1.00	4.39	-13.70	22.49	0.63	1.00	9.25	-2.65	21.16	0.13	0.95	7.70	-3.84	19.24	0.19	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	211ds20	Other	0.30%	-	-6.08	-24.70	12.54	0.52	1.00	-4.42	-22.59	13.76	0.63	1.00	-7.41	-19.37	4.55	0.22	0.95	-6.17	-17.76	5.43	0.30	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Agarivorans	0.20%	-	-4.07	-26.72	18.58	0.72	1.00	-6.74	-28.85	15.36	0.55	1.00	-1.74	-16.30	12.82	0.81	0.96	-3.65	-17.77	10.46	0.61	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Alteromonas	2.69%	-	0.96	-5.35	7.28	0.76	1.00	1.66	-4.50	7.82	0.60	1.00	-1.41	-5.47	2.65	0.50	0.95	-0.91	-4.84	3.03	0.65	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	BD2-13	0.10%	-	-9.27	-41.25	22.71	0.57	1.00	-13.16	-44.38	18.05	0.41	1.00	-9.61	-30.16	10.95	0.36	0.95	-12.42	-32.34	7.50	0.22	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Candidatus Endobugula	2.29%	-	0.28	-6.65	7.21	0.94	1.00	1.88	-4.89	8.66	0.59	1.00	0.39	-4.07	4.84	0.86	0.96	1.53	-2.79	5.85	0.49	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Cellvibrio	1.79%	-	-0.85	-8.48	6.78	0.83	1.00	0.80	-6.66	8.25	0.83	1.00	-2.02	-6.92	2.88	0.42	0.95	-0.84	-5.60	3.91	0.73	0.97	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Glaciecola	1.69%	-	-3.65	-11.54	4.24	0.36	1.00	-2.07	-9.78	5.64	0.60	1.00	-1.54	-6.61	3.54	0.55	0.95	-0.39	-5.32	4.53	0.88	0.98	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Marinimicrobium	0.50%	-	-4.86	-19.29	9.58	0.51	1.00	-3.71	-17.79	10.38	0.61	1.00	-3.05	-12.33	6.23	0.52	0.95	-2.23	-11.23	6.76	0.63	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Marinobacter	8.28%	-	-2.02	-3.78	3.74	0.99	1.00	0.49	-3.18	4.16	0.79	1.00	0.31	-2.11	2.72	0.80	0.96	0.67	-1.67	3.02	0.57	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Microbulbifer	1.40%	-	1.11	-6.66	10.89	0.64	1.00	2.75	-5.81	11.32	0.53	1.00	2.08	-3.56	7.72	0.47	0.95	2.56	-2.90	8.03	0.36	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Other	0.60%	-	-4.25	-17.41	8.90	0.53	1.00	-1.91	-14.76	10.94	0.77	1.00	-3.43	-11.88	5.03	0.43	0.95	-1.73	-9.93	6.47	0.68	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Other	1.99%	-	-1.09	-8.41	6.24	0.77	1.00	-0.11	-7.26	7.04	0.98	1.00	-2.06	-6.76	2.65	0.39	0.95	-1.35	-5.92	3.21	0.56	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Colwelliaceae	Thalassomonas	0.10%	-	0.73	-31.30	32.76	0.96	1.00	0.85	-30.40	32.10	0.96	1.00	8.93	-11.65	29.52	0.39	0.95	9.01	-10.93	28.96	0.38	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Colwelliaceae	Other	0.80%	-	-5.52	-16.86	5.81	0.34	1.00	-4.41	-15.48	6.66	0.43	1.00	-1.98	-9.27	5.31	0.59	0.95	-1.16	-8.23	5.90	0.75	0.97	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	HTCC2188	HTCC	0.70%	-	-3.59	-15.72	8.54	0.56	1.00	-3.97	-15.80	7.87	0.51	1.00	-3.97	-11.77	3.83	0.32	0.95	-4.23	-11.78	3.32	0.27	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	HTCC2188	Other	0.20%	-	-7.21	-29.99	15.57	0.53	1.00	-4.98	-27.22	17.26	0.66	1.00	-7.69	-22.33	6.95	0.30	0.95	-6.03	-20.22	8.17	0.40	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Idiomarinaceae	Idiomarina	1.10%	-	-3.36	-13.11	6.40	0.50	1.00	-0.46	-10.01	9.10	0.93	1.00	-4.39	-10.65	1.88	0.17	0.95	-2.32	-8.41	3.78	0.46	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Idiomarinaceae	Pseudidiomarina	0.50%	-	-3.38	-17.79	11.04	0.65	1.00	-2.00	-16.07	12.07	0.78	1.00	-4.91	-14.17	4.35	0.30	0.95	-3.93	-12.91	5.05	0.39	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Idiomarinaceae	Other	2.19%	-	-2.52	-9.55	4.51	0.48	1.00	-0.46	-7.35	6.42	0.89	1.00	-1.37	-5.89	3.15	0.55	0.95	0.10	-4.30	4.49	0.96	0.99	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Moritellaceae	Moritella	0.20%	-	11.39	-11.18	33.96	0.32	1.00	11.48	-10.54	33.50	0.31	1.00	9.87	-4.63	24.37	0.18	0.95	9.97	-4.08	24.02	0.16	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	OM60	Other	2.89%	-	-0.56	-6.60	5.48	0.86	1.00	-2.04	-7.95	3.87	0.50	1.00	1.45	-2.43	5.33	0.46	0.95	0.40	-3.37	4.17	0.83	0.97	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Psychromonadaceae	Psychromonas	1.10%	-	1.26	-8.54	11.06	0.80	1.00	-0.14	-9.71	9.42	0.98	1.00	4.63	-1.66	10.93	0.15	0.95	3.66	-2.44	9.77	0.24	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Psychromonadaceae	Other	0.20%	-	5.26	-17.60	28.11	0.65	1.00	2.16	-20.16	24.47	0.85	1.00	3.13	-11.57	17.82	0.68	0.95	0.89	-13.36	15.14	0.90	0.99	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Shewanellaceae	Shewanella	4.49%	-	-5.75	-10.72	-0.78	0.02	0.99	-5.84	-10.68	-0.99	0.02	1.00	-2.55	-5.75	0.64	0.12	0.95	-2.59	-5.69	0.51	0.10	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Other	Other	0.70%	-	-1.00	-13.19	11.19	0.87	1.00	-2.48	-14.38	9.42	0.68	1.00	-1.68	-9.52	6.15	0.67	0.95	-2.71	-10.31	4.88	0.48	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Cardiobacteriales	Cardiobacteriaceae	Cardiobacterium	5.58%	-	0.81	-3.59	5.21	0.72	1.00	1.43	-2.87	5.73	0.51	1.00	0.92	-1.91	3.75	0.52	0.95	1.38	-1.36	4.12	0.32	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Chromatiales	Ectothiorhodospiraceae	Halorhodospira	0.20%	-	-12.60	-35.30	10.09	0.28	1.00	-13.66	-35.80	8.48	0.23	1.00	-6.27	-20.86	8.33	0.40	0.95	-6.99	-21.13	7.15	0.33	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Chromatiales	Ectothiorhodospiraceae	Other	0.40%	-	-0.99	-17.06	15.07	0.90	1.00	0.84	-14.84	16.52	0.92	1.00	-0.19	-10.52	10.14	0.97	0.99	1.11	-8.90	11.12	0.83	0.97	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Chromatiales	Halothiobacillaceae	Thiovirga	1.10%	-	-0.83	-10.58	8.91	0.87	1.00	-3.00	-12.53	6.53	0.54	1.00	-0.26	-6.52	6.01	0.94	0.98	-1.79	-7.87	4.29	0.56	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Chromatiales	Other	Other	0.40%	-	1.29	-14.78																			

Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Alcanivoracaceae	Alcanivorax	1.40%	-	-2.46	-11.17	6.25	0.58	1.00	-1.83	-10.33	6.67	0.67	1.00	-4.56	-10.16	1.03	0.11	0.95	-4.11	-9.53	1.31	0.14	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae	Candidatus Portiera	1.40%	-	-4.42	-13.26	4.41	0.33	1.00	-3.86	-12.48	4.77	0.38	1.00	-3.09	-8.77	2.59	0.29	0.95	-2.69	-8.19	2.81	0.34	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae	Chromohalobacter	1.20%	-	-1.97	-11.37	7.43	0.68	1.00	-0.14	-9.32	9.05	0.98	1.00	-0.72	-6.77	5.32	0.81	0.96	0.60	-5.27	6.46	0.84	0.98	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae	Cobetia	0.10%	-	-17.53	-49.54	14.47	0.28	1.00	-19.96	-51.19	11.27	0.21	1.00	-2.65	-23.24	17.94	0.80	0.96	-4.41	-24.36	15.54	0.66	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae	Haererehalobacter	0.90%	-	3.86	-6.95	14.66	0.48	1.00	5.24	-5.31	15.78	0.33	1.00	4.36	-2.58	11.31	0.22	0.95	5.35	-1.38	12.07	0.12	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae	Halomonas	21.14%	-	-0.08	-2.62	2.46	0.95	1.00	0.42	-2.06	2.90	0.74	1.00	-0.37	-2.00	1.26	0.66	0.95	0.00	-1.59	1.58	1.00	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae	Other	0.10%	-	-12.69	-44.91	19.52	0.44	1.00	-10.79	-42.23	20.65	0.50	1.00	-14.08	-34.78	6.61	0.18	0.95	-12.74	-32.80	7.32	0.21	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae	Other	1.10%	-	-1.38	-11.07	8.32	0.78	1.00	-1.75	-11.21	7.71	0.72	1.00	-0.67	-6.90	5.56	0.83	0.96	-0.91	-6.95	5.13	0.77	0.97	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Oceanospirillaceae	Marinobacterium	0.30%	-	-6.89	-25.46	11.67	0.47	1.00	-6.01	-24.13	12.11	0.52	1.00	-4.94	-16.88	6.99	0.42	0.95	-4.31	-15.87	7.25	0.46	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Oceanospirillaceae	Marinomonas	0.10%	-	-17.53	-49.54	14.47	0.28	1.00	-19.96	-51.19	11.27	0.21	1.00	-2.65	-23.24	17.94	0.80	0.96	-4.41	-24.36	15.54	0.66	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Oceanospirillaceae	Other	0.10%	-	-18.32	-50.26	13.61	0.26	1.00	-16.35	-47.52	14.82	0.30	1.00	-10.92	-31.45	9.61	0.30	0.95	-9.50	-29.39	10.40	0.35	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Saccharospirillaceae	ML110J-20	1.20%	-	-0.17	-9.58	9.24	0.97	1.00	0.95	-8.23	10.14	0.84	1.00	-1.65	-7.69	4.40	0.59	0.95	-0.84	-6.71	5.02	0.78	0.97	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Saccharospirillaceae	Saccharospirillum	0.90%	-	-1.44	-12.26	9.37	0.79	1.00	0.08	-10.48	10.63	0.99	1.00	-1.61	-8.56	5.34	0.65	0.95	-0.52	-7.26	6.22	0.88	0.98	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Saccharospirillaceae	Other	1.00%	-	-0.91	-11.24	9.42	0.86	1.00	0.75	-9.34	10.84	0.88	1.00	-2.13	-8.77	4.51	0.53	0.95	-0.95	-7.39	5.49	0.77	0.97	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	SUP05	Other	0.10%	-	7.17	-24.76	39.10	0.66	1.00	7.65	-23.50	38.80	0.63	1.00	9.56	-10.96	30.08	0.36	0.95	9.93	-9.94	29.81	0.33	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Other	Other	0.30%	-	-10.77	-29.26	7.72	0.25	1.00	-10.02	-28.06	8.02	0.28	1.00	-0.85	-12.75	11.04	0.89	0.97	-0.29	-11.81	11.23	0.96	0.99	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Other	Other	Other	3.69%	-	2.77	-2.60	8.15	0.31	1.00	2.44	-2.80	7.69	0.36	1.00	1.17	-2.29	4.63	0.51	0.95	0.94	-2.41	4.29	0.58	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Actinobacillus	10.27%	-	2.51	-0.84	5.85	0.14	1.00	1.79	-1.50	5.07	0.29	1.00	0.66	-1.49	2.81	0.55	0.95	0.06	-2.04	2.15	0.96	0.99	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Aggregatibacter	16.45%	-	-1.70	-4.44	1.03	0.22	1.00	-1.76	-4.43	0.91	0.20	1.00	-1.10	-2.86	0.66	0.22	0.95	-1.13	-2.83	0.58	0.19	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Gallibacterium	0.20%	-	-12.60	-35.30	10.09	0.28	1.00	-13.66	-35.80	8.48	0.23	1.00	-6.27	-20.86	8.33	0.40	0.95	-6.99	-21.13	7.15	0.33	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Haemophilus	0.28	0.38	1.06	-1.63	3.74	0.44	1.00	0.89	-1.74	3.51	0.51	1.00	0.51	-1.21	2.24	0.56	0.95	0.38	-1.30	2.05	0.66	0.96	No
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Mannheimia	0.70%	-	-4.52	-16.71	7.68	0.47	1.00	-1.42	-13.36	10.51	0.81	1.00	-2.52	-10.36	5.32	0.53	0.95	-0.30	-7.91	7.32	0.94	0.99	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Other	1.40%	-	5.77	-2.94	14.48	0.19	1.00	5.47	-3.03	13.97	0.21	1.00	4.86	-0.74	10.45	0.09	0.95	4.66	-0.76	10.08	0.09	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Pasteurella	0.20%	-	11.77	-10.86	34.39	0.31	1.00	13.22	-8.86	35.29	0.24	1.00	-8.65	-23.19	5.89	0.24	0.95	-7.61	-21.70	6.49	0.29	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Other	1.10%	-	0.50	-9.23	10.23	0.92	1.00	1.41	-8.09	10.91	0.77	1.00	-3.91	-10.17	2.34	0.22	0.95	-3.26	-9.32	2.80	0.29	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Other	1.10%	-	-3.33	-13.09	6.44	0.50	1.00	-4.06	-13.59	5.47	0.40	1.00	-2.66	-8.94	3.61	0.41	0.95	-3.17	-9.25	2.92	0.31	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Moraxellaceae	Acinetobacter	0.56	0.49	0.17	-1.93	2.27	0.88	1.00	0.38	-1.67	2.43	0.72	1.00	-0.11	-1.46	1.24	0.88	0.96	0.05	-1.25	1.36	0.94	0.99	No
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Moraxellaceae	Enhydrobacter	7.38%	-	-2.43	-6.29	1.43	0.22	1.00	-2.17	-5.94	1.59	0.26	1.00	-0.58	-3.06	1.91	0.65	0.95	-0.39	-2.79	2.02	0.75	0.97	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Moraxellaceae	Moraxella	2.69%	-	-2.24	-8.53	4.05	0.48	1.00	-1.70	-7.84	4.44	0.59	1.00	1.28	-2.77	5.32	0.54	0.95	1.69	-2.22	5.61	0.40	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Moraxellaceae	Other	0.60%	-	-2.94	-16.18	10.30	0.66	1.00	-1.81	-14.73	11.11	0.78	1.00	0.25	-8.26	8.76	0.95	0.98	1.09	-7.16	9.34	0.80	0.97	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Moraxellaceae	Psychrobacter	7.08%	-	-1.72	-5.80	2.36	0.41	1.00	-1.59	-5.57	2.40	0.43	1.00	-0.61	-3.24	2.01	0.65	0.95	-0.50	-3.05	2.04	0.70	0.97	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Moraxellaceae	Other	17.05%	-	2.72	-0.03	5.48	0.05	0.99	2.43	-0.26	5.12	0.08	1.00	0.78	-0.99	2.56	0.39	0.95	0.58	-1.14	2.31	0.51	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Pseudomonadaceae	Other	0.80%	-	3.99	-7.41	15.40	0.49	1.00	3.92	-7.21	15.05	0.49	1.00	2.77	-4.56	10.10	0.46	0.95	2.72	-4.38	9.83	0.45	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Pseudomonadaceae	Pseudomonas	18.64%	-	1.49	-1.12	4.10	0.26	1.00	1.49	-1.06	4.04	0.25	1.00	0.84	-0.84	2.52	0.32	0.95	0.85	-0.77	2.48	0.30	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Pseudomonadaceae	Other	7.78%	-	-0.23	-4.09	3.64	0.91	1.00	-0.12	-3.89	3.65	0.95	1.00	-0.87	-3.35	1.61	0.49	0.95	-0.79	-3.19	1.62	0.52	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Pseudomonadaceae	Pseudomonas	0.20%	-	-11.86	-34.65	10.93	0.31	1.00	-8.29	-30.55	13.97	0.47	1.00	-11.27	-25.91	3.36	0.13	0.95	-8.71	-22.91	5.49	0.23	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Thiotrichales	Piscirickettsiaceae	Methylophaga	1.99%	-	-2.96	-10.40	4.48	0.44	1.00	-0.92	-8.21	6.36	0.80	1.00	-4.41	-9.19	0.37	0.07	0.95	-2.97	-7.61	1.68	0.21	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Thiotrichales	Piscirickettsiaceae	Other	1.99%	-	3.16	-4.18	10.50	0.40	1.00	1.73	-5.44	8.90	0.64	1.00	0.57	-4.15	5.29	0.81	0.96	-0.43	-5.01	4.15	0.85	0.98	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Thiotrichales	Other	Other	0.20%	-	16.41	-6.20	39.02	0.15	1.00	14.87	-7.19	36.94	0.19	1.00	10.72	-3.81	25.26	0.15	0.95	9.68	-4.41	23.76	0.18	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Other	Other	0.30%	-	-10.00	-28.59	8.60	0.29	1.00	-7.24	-25.40	10.92	0.43	1.00	-5.15	-17.11	6.80	0.40	0.95	-3.19	-14.79	8.40	0.59	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Pseudoalteromonadaceae	Pseudoalteromonas	3.09%	-	-3.39	-9.26	2.47	0.26	1.00	-3.24	-8.96	2.48	0.27	1.00	-1.08	-4.85	2.69	0.57	0.95	-0.96	-4.61	2.70	0.61	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Pseudoalteromonadaceae	Other	6.28%	-	-0.71	-4.92	3.51	0.74	1.00	-0.96	-5.08	3.15	0.65	1.00	-0.42	-3.13	2.29	0.76	0.96	-0.60	-3.23	2.03	0.65	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Vibrionaceae	Aliivibrio	0.30%	-	7.04	-11.43	25.51	0.45	1.00	8.96	-9.07	26.98	0.33	1.00	-4.67	-16.54	7.20	0.44	0.95	-3.28	-14.79	8.23	0.58	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Vibrionaceae	Enterovibrio	0.30%	-	-9.48	-28.03	9.07	0.32	1.00	-8.53	-26.63	9.57	0.36	1.00	-9.08	-21.00	2.83	0.14	0.95	-8.41	-19.96	3.13	0.15	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Vibrionaceae	Other	1.60%	-	-1.43	-9.53	6.67	0.73	1.00	-1.94	-9.85	5.96	0.63	1.00	1.40	-3.80	6.61	0.60	0.95	1.06	-3.98	6.11	0.68	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Vibrionaceae	Photobacterium	1.40%	-	0.00	-8.61	8.60	1.00	1.00	-1.24	-9.64	7.16	0.77	1.00	3.13	-2.40	8.66	0.27	0.95	2.24	-3.12	7.60	0.41	0.96	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Vibrionaceae	Salinivibrio	8.37%	-	-1.21	-4.88	2.46	0.52	1.00	-1.42	-5.01	2.16	0.44	1.00	-0.17	-2.54	2.19	0.88	0.97	-0.32	-2.61	1.97	0.79	0.97	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Vibrionaceae	Vibrio	5.98%	-	0.29	-4.04	4.62	0.89	1.00	-0.08	-4.31														

Bacteria	Spirochaetes	Spirochaetes	Spirochaetales	Spirochaetales	Spirochaetales	Treponema	3.59%	-	-2.01	-7.45	3.43	0.47	1.00	-2.12	-7.42	3.19	0.43	1.00	-2.63	-6.12	0.86	0.14	0.95	-2.70	-6.09	0.68	0.12	0.96	Yes
Bacteria	Spirochaetes	Spirochaetes	Spirochaetales	Spirochaetales	Spirochaetales	Spirochaetales	0.20%	-	-7.88	-30.56	14.80	0.50	1.00	-7.24	-29.37	14.89	0.52	1.00	-3.33	-17.92	11.25	0.65	0.95	-2.89	-17.01	11.24	0.69	0.96	Yes
Bacteria	Synergistetes	Synergistia	Synergistales	Synergistales	Synergistales	Anaerobaculum	0.30%	-	-11.32	-29.77	7.14	0.23	1.00	-11.16	-29.17	6.85	0.22	1.00	-5.65	-17.52	6.22	0.35	0.95	-5.51	-17.01	5.99	0.35	0.96	Yes
Bacteria	Synergistetes	Synergistia	Synergistales	Synergistales	Synergistales	Dethiosulfovibrionaceae	0.40%	-	-9.32	-25.38	6.75	0.26	1.00	-7.32	-23.01	8.37	0.36	1.00	-1.44	-11.78	8.89	0.78	0.96	0.00	-10.02	10.02	1.00	1.00	Yes
Bacteria	Synergistetes	Synergistia	Synergistales	Synergistales	Synergistales	Dethiosulfovibrionaceae	0.20%	-	-17.80	-40.39	4.79	0.12	1.00	-14.93	-36.99	7.13	0.18	1.00	-5.64	-20.18	8.90	0.45	0.95	-3.54	-17.64	10.55	0.62	0.96	Yes
Bacteria	Synergistetes	Synergistia	Synergistales	Synergistales	Synergistales	Dethiosulfovibrionaceae	2.19%	-	-2.32	-9.23	4.60	0.51	1.00	-3.08	-9.83	3.67	0.37	1.00	0.21	-4.24	4.66	0.93	0.98	-0.31	-4.62	4.00	0.89	0.99	Yes
Bacteria	Synergistetes	Synergistia	Synergistales	Synergistales	Synergistales	Dethiosulfovibrionaceae	0.30%	-	-4.75	-23.26	13.76	0.61	1.00	-8.70	-26.78	9.38	0.35	1.00	4.60	-7.29	16.50	0.45	0.95	1.82	-9.73	13.37	0.76	0.97	Yes
Bacteria	Synergistetes	Synergistia	Synergistales	Synergistales	Synergistales	Synergistaceae	1.00%	-	-1.77	-11.95	8.40	0.73	1.00	-1.78	-11.71	8.14	0.72	1.00	-4.64	-11.17	1.90	0.16	0.95	-4.65	-10.98	1.68	0.15	0.96	Yes
Bacteria	Synergistetes	Synergistia	Synergistales	Synergistales	Synergistales	Synergistaceae	0.60%	-	-6.31	-19.38	6.75	0.34	1.00	-4.32	-17.08	8.44	0.51	1.00	1.43	-6.98	9.83	0.74	0.96	2.86	-5.29	11.01	0.49	0.96	Yes
Bacteria	Synergistetes	Synergistia	Synergistales	Synergistales	Synergistales	Thermovirgaceae	0.30%	-	-7.75	-26.23	10.72	0.41	1.00	-8.98	-27.01	9.05	0.33	1.00	-7.87	-19.75	4.00	0.19	0.95	-8.71	-20.22	2.79	0.14	0.96	Yes
Bacteria	Tenericutes	CK-1C4-19					0.60%	-	9.91	-3.19	23.01	0.14	1.00	11.65	-1.13	24.43	0.07	1.00	4.64	-3.79	13.06	0.28	0.95	5.89	-2.28	14.05	0.16	0.96	Yes
Bacteria	Tenericutes	Mollicutes	Acholeplasmatales	Acholeplasmatales	Acholeplasmatales	Acholeplasmataceae	0.50%	-	-16.53	-30.93	-2.14	0.02	0.99	-14.77	-28.83	-0.72	0.04	1.00	-8.31	-17.57	0.95	0.08	0.95	-7.05	-16.04	1.93	0.12	0.96	Yes
Bacteria	Tenericutes	Mollicutes	Acholeplasmatales	Acholeplasmatales	Acholeplasmatales	Acholeplasmataceae	0.10%	-	-17.43	-49.53	14.67	0.29	1.00	-18.55	-49.87	12.77	0.25	1.00	-5.22	-25.87	15.42	0.62	0.95	-6.05	-26.05	13.95	0.55	0.96	Yes
Bacteria	Tenericutes	Mollicutes	Acholeplasmatales	Acholeplasmatales	Acholeplasmatales	Acholeplasmataceae	0.20%	-	-2.17	-24.89	20.55	0.85	1.00	4.11	-18.12	26.34	0.72	1.00	-2.66	-17.26	11.94	0.72	0.96	1.81	-12.38	16.00	0.80	0.97	Yes
Bacteria	Tenericutes	Mollicutes	Anaeroplasmatales	Anaeroplasmatales	Anaeroplasmatales	Anaeroplasmataceae	3.09%	-	0.04	-5.80	5.87	0.99	1.00	-0.37	-6.06	5.32	0.90	1.00	-2.46	-6.21	1.28	0.20	0.95	-2.74	-6.36	0.89	0.14	0.96	Yes
Bacteria	Tenericutes	Mollicutes	Anaeroplasmatales	Anaeroplasmatales	Anaeroplasmatales	Anaeroplasmataceae	1.50%	-	2.12	-6.24	10.49	0.62	1.00	2.87	-5.29	11.04	0.49	1.00	2.08	-3.30	7.46	0.45	0.95	2.64	-2.58	7.85	0.32	0.96	Yes
Bacteria	Tenericutes	Mollicutes	Entomoplasmatales	Entomoplasmatales	Entomoplasmatales	Entomoplasmataceae	1.00%	-	1.45	-8.72	11.62	0.78	1.00	1.32	-8.60	11.24	0.79	1.00	-0.16	-6.70	6.38	0.96	0.98	-0.25	-6.58	6.09	0.94	0.99	Yes
Bacteria	Tenericutes	Mollicutes	Mycoplasmatales	Mycoplasmatales	Mycoplasmatales	Mycoplasmataceae	0.20%	-	-3.84	-26.39	18.72	0.74	1.00	-1.04	-23.06	20.98	0.93	1.00	-17.04	-31.50	-2.58	0.02	0.95	-15.04	-29.06	-1.01	0.04	0.96	Yes
Bacteria	Tenericutes	Mollicutes	Mycoplasmatales	Mycoplasmatales	Mycoplasmatales	Mycoplasmataceae	3.49%	-	-1.38	-6.93	4.16	0.62	1.00	-1.93	-7.34	3.49	0.48	1.00	0.79	-2.78	4.35	0.66	0.95	0.41	-3.04	3.87	0.81	0.97	Yes
Bacteria	Tenericutes	Mollicutes	Mycoplasmatales	Mycoplasmatales	Mycoplasmatales	Mycoplasmataceae	0.80%	-	5.52	-5.87	16.90	0.34	1.00	5.18	-5.93	16.29	0.36	1.00	0.41	-6.91	7.74	0.91	0.97	0.18	-6.92	7.27	0.96	0.99	Yes
Bacteria	Tenericutes	Mollicutes	Mycoplasmatales	Mycoplasmatales	Mycoplasmatales	Mycoplasmataceae	0.10%	-	-9.17	-41.17	22.83	0.57	1.00	-2.70	-33.97	28.58	0.87	1.00	-8.85	-29.42	11.72	0.40	0.95	-4.19	-24.16	15.77	0.68	0.96	Yes
Bacteria	Tenericutes	Mollicutes	RF39†				2.02	0.58	-0.30	-2.09	1.48	0.74	1.00	-0.02	-1.77	1.72	0.98	1.00	-0.45	-1.60	0.70	0.44	0.95	-0.24	-1.35	0.88	0.68	0.96	No
Bacteria	Tenericutes	Mollicutes	RsaHF231				0.50%	-	0.74	-13.76	15.24	0.92	1.00	-1.63	-15.79	12.53	0.82	1.00	4.86	-4.46	14.17	0.31	0.95	3.18	-5.85	12.22	0.49	0.96	Yes
Bacteria	Tenericutes	Mollicutes					3.89%	-	-0.26	-5.53	5.01	0.92	1.00	-0.30	-5.45	4.84	0.91	1.00	-0.70	-4.09	2.69	0.68	0.95	-0.72	-4.00	2.57	0.67	0.96	Yes
Bacteria	Tenericutes	RF3	ML615J-28				6.48%	-	-1.35	-5.49	2.78	0.52	1.00	-1.17	-5.20	2.87	0.57	1.00	-1.19	-3.84	1.47	0.38	0.95	-1.03	-3.60	1.54	0.43	0.96	Yes
Bacteria	Thermotogae	Thermotogae	Thermotogales	Thermotogales	Thermotogales	Thermotogaceae	0.10%	-	-9.37	-41.32	22.59	0.57	1.00	-2.51	-33.75	28.72	0.87	1.00	-5.13	-25.67	15.41	0.62	0.95	-0.24	-20.18	19.70	0.98	1.00	Yes
Bacteria	TM6	SBRH58					0.40%	-	5.56	-10.49	21.62	0.50	1.00	2.96	-12.73	18.64	0.71	1.00	8.72	-1.58	19.03	0.10	0.95	6.91	-3.09	16.91	0.18	0.96	Yes
Bacteria	TM6	SJA-4					0.40%	-	-17.58	-33.68	-1.47	0.03	0.99	-16.10	-31.82	-0.38	0.04	1.00	-11.15	-21.50	-0.80	0.03	0.95	-10.06	-20.10	-0.02	0.05	0.96	Yes
Bacteria	TM7	TM7-1					0.20%	-	-12.60	-35.30	10.09	0.28	1.00	-13.66	-35.80	8.48	0.23	1.00	-6.27	-20.86	8.33	0.40	0.95	-6.99	-21.13	7.15	0.33	0.96	Yes
Bacteria	TM7	TM7-3	CW040		F16		5.58%	-	-0.53	-4.99	3.93	0.82	1.00	-1.10	-5.45	3.25	0.62	1.00	0.44	-2.43	3.31	0.76	0.96	0.05	-2.73	2.83	0.97	0.99	Yes
Bacteria	TM7	TM7-3	CW040				13.16%	-	2.65	-0.34	5.64	0.08	0.99	2.64	-0.28	5.55	0.08	1.00	0.91	-1.01	2.84	0.35	0.95	0.92	-0.95	2.78	0.34	0.96	Yes
Bacteria	TM7	TM7-3	EW055				0.90%	-	-3.86	-14.57	6.85	0.48	1.00	-4.20	-14.64	6.25	0.43	1.00	0.98	-5.90	7.87	0.78	0.96	0.75	-5.93	7.42	0.83	0.97	Yes
Bacteria	TM7	TM7-3	I025		Rs-045		11.86%	-	2.66	-0.46	5.78	0.09	1.00	2.29	-0.76	5.33	0.14	1.00	2.19	0.19	4.19	0.03	0.95	1.93	-0.01	3.88	0.05	0.96	Yes
Bacteria	TM7	TM7-3	I025				0.90%	-	-3.17	-13.93	7.60	0.56	1.00	-4.75	-15.26	5.76	0.37	1.00	-2.68	-9.60	4.24	0.45	0.95	-3.82	-10.53	2.89	0.26	0.96	Yes
Bacteria	TM7	TM7-3					0.43	0.37	2.09	-0.65	4.82	0.14	1.00	2.28	-0.39	4.95	0.09	1.00	0.67	-1.09	2.43	0.46	0.95	0.81	-0.90	2.52	0.35	0.96	No
Bacteria	TM7	TM7-3					0.20%	-	-12.60	-35.30	10.09	0.28	1.00	-13.66	-35.80	8.48	0.23	1.00	-6.27	-20.86	8.33	0.40	0.95	-6.99	-21.13	7.15	0.33	0.96	Yes
Bacteria	TPD-58						0.20%	-	-1.39	-24.06	21.29	0.90	1.00	-2.78	-24.91	19.34	0.80	1.00	2.62	-11.96	17.19	0.72	0.96	1.62	-12.50	15.74	0.82	0.97	Yes
Bacteria	Verrucomicrobia	[Methylacidiphilae]	Methylacidiphilales	Methylacidiphilales	Methylacidiphilales	LD19	0.10%	-	7.29	-24.67	39.26	0.65	1.00	7.29	-23.89	38.48	0.65	1.00	-0.08	-20.63	20.47	0.99	1.00	-0.11	-20.02	19.80	0.99	1.00	Yes
Bacteria	Verrucomicrobia	[Pedosphaerae]	[Pedosphaerales]	[Pedosphaerales]	[Pedosphaerales]	Pedosphaera	0.30%	-	12.58	-6.05	31.21	0.19	1.00	7.92	-10.31	26.14	0.39	1.00	-1.29	-13.28	10.69	0.83	0.96	-4.68	-16.32	6.96	0.43	0.96	Yes
Bacteria	Verrucomicrobia	[Pedosphaerae]	[Pedosphaerales]	[Pedosphaerales]	[Pedosphaerales]	auto67_4W	0.50%	-	-4.81	-19.15	9.52	0.51	1.00	-5.87	-19.86	8.12	0.41	1.00	-2.48	-11.69	6.74	0.60	0.95	-3.20	-12.13	5.73	0.48	0.96	Yes
Bacteria	Verrucomicrobia	[Pedosphaerae]	[Pedosphaerales]	[Pedosphaerales]	[Pedosphaerales]	Ellin515	1.10%	-	4.39	-5.39	14.18	0.38	1.00	1.24	-8.35	10.83	0.80	1.00	1.58	-4.72	7.87	0.62	0.95	-0.68	-6.80	5.44	0.83	0.97	Yes
Bacteria	Verrucomicrobia	[Pedosphaerae]	[Pedosphaerales]	[Pedosphaerales]	[Pedosphaerales]	Ellin517	0.50%	-	-3.68	-18.01	10.65	0.61	1.00	-4.22	-18.20	9.76	0.55	1.00	-3.57	-12.78	5.65	0.45	0.95	-3.94	-12.86	4.98	0.39	0.96	Yes
Bacteria	Verrucomicrobia	[Pedosphaerae]	[Pedosphaerales]	[Pedosphaerales]	[Pedosphaerales]	OPB35	0.10%	-	-13.84	-45.92	18.23	0.40	1.00	-16.09	-47.39	15.21	0.31	1.00	-5.98	-26.61	14.64	0.57	0.95	-7.57	-27.55	12.42	0.46	0.96	Yes
Bacteria	Verrucomicrobia	[Pedosphaerae]	[Pedosphaerales]	[Pedosphaerales]	[Pedosphaerales]	R4-41B	0.50%	-	-5.92	-20.35	8.51	0.42	1.00	-6.10	-20.18	7.99	0.40	1.00	-1.78	-11.06	7.50	0.71	0.95	-1.87	-10.87	7.12	0.68	0.96	Yes
Bacteria	Verrucomicrobia	[Pedosphaerae]	[Pedosphaerales]	[Pedosphaerales]	[Pedosphaerales]		0.50%	-	-11.82	-26.11	2.47	0.10	1.00	-12.81	-26.75	1.13	0.07	1.00	-2.39	-11.59	6.80	0.61	0.95	-3.11	-12.02	5.81	0.49	0.96	Yes
Bacteria	Verrucomicrobia	[Chthoniobacteriales]	[Chthoniobacteriales]	[Chthoniobacteriales]	[Chthoniobacteriales]	Candidatus Xiphi	0.70%	-	-2.90	-15.05	9.26	0.64	1.00	-3.29	-15.15	8.56	0.59	1.00	-3.02	-10.83	4.79	0.45	0.95	-3.29	-10.86	4.27	0.39	0.96	Yes
Bacteria	Verrucomicrobia	[Spartobacteria]	[Chthoniobacteriales]	[Chthoniobacteriales]	[Chthoniobacteriales]	Chthoniobacter	0.30%	-	2.81	-15.70	21.31	0.77	1																

**Table S7. Post-hoc analysis of the associations between gut microbial within-person diversity ( $\alpha$ -diversity) measures with systolic and diastolic blood pressure (SBP and DBP)**

	Mean (SD)	SBP		DBP	
		$\beta$ Coefficient (95% CI)	P value	$\beta$ Coefficient (95% CI)	P value
Shannon index*	2.59 (0.30)	0.80 (-2.59, 4.19)	0.64	-0.57 (-2.76, 1.62)	0.61
Richness†	99.14 (27.51)	0.01 (-0.03, 0.04)	0.71	-0.002 (-0.03, 0.02)	0.88

n=1,003. Model was adjusted for age, sex, provinces, urbanization index (tertiles:  $\leq 58.8$ , 58.8-78.8,  $>78.8$ ), per capita household income (tertiles:  $\leq 7.2$ , 7.2-18,  $>18$ ), education, total energy intake, animal-source food consumption, sodium consumption, physical activity (tertiles:  $\leq 75$ , 75-192,  $>192$ ), smoking, alcohol intake, estimated glomerular filtration rate (eGFR), and low-density lipoprotein cholesterol.

\*Shannon index at genus level was calculated using  $-\sum p_i \ln p_i$ , where  $p_i$  is the proportional abundance of genera  $i$ .

†Richness measured the number of distinct genera per subject with rarefaction.

**Table S8. Post-hoc analysis of the association between gut microbial principal coordinates analysis (PCoA) axes with systolic and diastolic blood pressure (SBP and DBP, mmHg), Coefficient (95% CI)**

Taxa contributing to each axis			Eigen-value	Variance explained	SBP	DBP
MDS1	<i>Prevotella</i>	<i>Bacteroides</i>	4.91	8.61%	13.67	1.18
	<i>Ralstonia</i>	<i>Unassigned</i>			(-19.51, 46.85)	(-20.27, 22.63)
	<i>S24-7</i>	<i>Comamonadaceae</i>				
	<i>Delftia</i>	<i>Rikenellaceae</i>				
	<i>Parabacteroides</i>	<i>RF39</i>				
MDS 2	<i>Ralstonia</i>	<i>Akkermansia</i>	3.18	5.58%	4.44	-5.64
	<i>Delftia</i>	<i>Comamonadaceae</i>			(-28.36, 37.24)	(-26.83, 15.56)
	<i>Bacteroides</i>	<i>Prevotella</i>				
	<i>Lachnospira</i>	<i>Lactococcus</i>				
	<i>Faecalibacterium</i>	<i>Phascolarctobacterium</i>				
MDS3	<i>Lactococcus</i>	<i>YS2</i>	2.02	3.54%	-6.99	0.04
	<i>Eggerthella</i>	<i>Bifidobacterium</i>			(-52.17, 38.19)	(-29.16, 29.23)
	<i>Catenibacterium</i>	<i>Peptococcus</i>				
	<i>Leuconostocaceae</i>	<i>Adlercreutzia</i>				
	<i>Pseudoramibacter_</i>	<i>Fusobacterium</i>				
	<i>Eubacterium</i>					
MDS4	<i>Adlercreutzia</i>	<i>Rothia</i>	1.80	3.16%	55.78	17.92
	<i>Enterobacteriaceae_other</i>	<i>Fusobacterium</i>			(18.85, 92.71)**	(-6.03, 41.87)
	<i>Leuconostocaceae</i>	<i>Coprococcus</i>				
	<i>Serratia</i>	<i>Eggerthella</i>				
	<i>Enterobacteriaceae</i>	<i>Ralstonia</i>				

MDS, multidimensional scaling. PCo were derived from PCoA of 1,008 taxa based on Bray-Curtis distance matrix in microbiota analysis sample (n=1,003). Coefficient indicates SBP and DBP (mmHg) associated with each 1 unit increase in microbiota pattern score. Contributing taxa include taxa with the top 10 highest absolute scores for the respective PCo. Taxa are vertically ordered by their absolute values of scores (descending). A full list of scores is shown in Table S1. Model was adjusted for age, sex, provinces, urbanization index (tertiles: ≤58.8, 58.8-78.8, >78.8), per capita household income (tertiles: ≤7.2, 7.2-18, >18), education, total energy intake, animal-source food consumption, sodium consumption, physical activity (tertiles: ≤75, 75-192, >192), smoking, alcohol intake, estimated glomerular filtration rate (eGFR), and low-density lipoprotein cholesterol. “\*\*” indicates p-value < 0.05; “\*\*\*” indicates p-value<0.01. The association between the overall gut microbiota with SBP (p-value=0.001) and DBP (p-value=0.009) was assessed by permutational multivariate analysis of variance (PERMANOVA) with 999 permutations.

Table S9. Post-hoc analysis of the association between specific taxa with systolic and diastolic blood pressure (SBP and DBP)

Kingdom	Phylum	Class	Order	Family	Genus	Mean(SD) or %	SBP					DBP						
							Coef.	95% CI	p-value	q-value	Coef.	95% CI	p-value	q-value	Rare			
Archaea	[Parvarchaeota]	[Parvarchaea]	WCHD3-30			0.10% -		-10.97	-42.66	20.71	0.50	1.00	-3.93	-24.40	16.55	0.71	1.00	Yes
Archaea	Crenarchaeota	Thaumarchaeota	Cenarchaeales	Cenarchaeaceae	Nitrosopumilus	0.20% -		20.51	-1.94	42.96	0.07	0.99	14.58	0.08	29.09	0.05	1.00	Yes
Archaea	Crenarchaeota	Thaumarchaeota	Nitrososphaerales	Nitrososphaeraceae	Candidatus Nitrososphaera	0.60% -		-0.47	-13.42	12.48	0.94	1.00	-2.82	-11.18	5.55	0.51	1.00	Yes
Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Halococcus	0.20% -		-16.22	-38.67	6.23	0.16	1.00	-6.81	-21.33	7.70	0.36	1.00	Yes
Archaea	Euryarchaeota	Methanobacteria	Methanobacteriales	Methanobacteriaceae	Methanobrevibacter	0.32	0.55	-0.29	-2.12	1.55	0.76	1.00	0.22	-0.97	1.41	0.72	1.00	No
Archaea	Euryarchaeota	Methanobacteria	Methanobacteriales	Methanobacteriaceae	Methanosphaera	0.22	0.47	0.22	-1.99	2.42	0.85	1.00	0.34	-1.08	1.76	0.64	1.00	No
Archaea	Euryarchaeota	Thermoplasmata	E2	[Methanomassiliicoccaceae]	vadinCA11	0.20% -		16.06	-6.30	38.42	0.16	1.00	8.88	-5.57	23.34	0.23	1.00	Yes
Bacteria	[Caldithrix]	KSB1	Ucn15732			1.00% -		3.18	-6.86	13.22	0.53	1.00	0.59	-5.90	7.08	0.86	1.00	Yes
Bacteria	[Thermi]	Deinococci	Deinococcales	Deinococcaceae	Deinococcus	2.19% -		3.21	-3.66	10.08	0.36	1.00	1.41	-3.03	5.85	0.53	1.00	Yes
Bacteria	[Thermi]	Deinococci	Deinococcales	Trueperaceae	B-42	1.40% -		-4.29	-12.87	4.29	0.33	1.00	-2.91	-8.45	2.64	0.30	1.00	Yes
Bacteria	[Thermi]	Deinococci	Deinococcales	Trueperaceae	Truepera	0.30% -		1.04	-17.26	19.33	0.91	1.00	3.42	-8.40	15.24	0.57	1.00	Yes
Bacteria	[Thermi]	Deinococci	Thermales	Thermaceae	Meiothermus	0.10% -		0.71	-30.99	32.42	0.96	1.00	5.07	-15.42	25.56	0.63	1.00	Yes
Bacteria	[Thermi]	Deinococci	Thermales	Thermaceae	Thermus	1.99% -		4.55	-2.55	11.66	0.21	1.00	1.69	-2.91	6.28	0.47	1.00	Yes
Bacteria	Acidobacteria	[Chloracidobacteria]	PK29			0.60% -		8.52	-13.95	30.99	0.46	1.00	5.18	-9.34	19.70	0.48	1.00	Yes
Bacteria	Acidobacteria	[Chloracidobacteria]	RB41	Ellin6075		3.49% -		-5.70	-18.73	7.34	0.39	1.00	-2.03	-10.46	6.39	0.64	1.00	Yes
Bacteria	Acidobacteria	[Chloracidobacteria]	RB41			1.99% -		0.10	-5.42	5.62	0.97	1.00	-1.31	-4.88	2.26	0.47	1.00	Yes
Bacteria	Acidobacteria	[Chloracidobacteria]				0.20% -		-2.33	-9.54	4.88	0.53	1.00	-5.98	-10.62	-1.34	0.01	1.00	Yes
Bacteria	Acidobacteria	Acidobacteria-5				1.00% -		0.12	-9.92	10.17	0.98	1.00	-1.42	-7.91	5.08	0.67	1.00	Yes
Bacteria	Acidobacteria	Acidobacteria-6	CCU21			0.30% -		-1.02	-19.33	17.29	0.91	1.00	-2.83	-14.66	9.00	0.64	1.00	Yes
Bacteria	Acidobacteria	Acidobacteria-6	iii1-15	mb2424		1.20% -		-0.75	-10.08	8.57	0.87	1.00	0.12	-5.91	6.15	0.97	1.00	Yes
Bacteria	Acidobacteria	Acidobacteria-6	iii1-15	RB40		0.70% -		9.28	-2.73	21.29	0.13	1.00	4.93	-2.84	12.69	0.21	1.00	Yes
Bacteria	Acidobacteria	Acidobacteria-6	iii1-15			4.69% -		1.24	-3.57	6.06	0.61	1.00	0.21	-2.90	3.32	0.90	1.00	Yes
Bacteria	Acidobacteria	Acidobacteria	Acidobacteriales	Acidobacteriaceae	Edaphobacter	0.20% -		0.42	-22.05	22.88	0.97	1.00	-11.34	-25.84	3.16	0.13	1.00	Yes
Bacteria	Acidobacteria	Acidobacteria	Acidobacteriales	Acidobacteriaceae	Terriglobus	0.60% -		15.46	2.41	28.51	0.02	0.99	7.40	-1.05	15.84	0.09	1.00	Yes
Bacteria	Acidobacteria	Acidobacteria	Acidobacteriales	Acidobacteriaceae		0.80% -		5.99	-5.24	17.21	0.30	1.00	3.81	-3.45	11.06	0.30	1.00	Yes
Bacteria	Acidobacteria	Acidobacteria	Acidobacteriales	Koribacteraceae	Candidatus Koribacter	2.09% -		2.59	-4.45	9.63	0.47	1.00	0.36	-4.19	4.91	0.88	1.00	Yes
Bacteria	Acidobacteria	Acidobacteria	Acidobacteriales	Koribacteraceae		2.79% -		4.16	-1.93	10.25	0.18	1.00	1.45	-2.48	5.39	0.47	1.00	Yes
Bacteria	Acidobacteria	DA052	Ellin6513			1.99% -		1.54	-5.64	8.71	0.67	1.00	-0.08	-4.72	4.55	0.97	1.00	Yes
Bacteria	Acidobacteria	Holophagae	Holophagales			0.30% -		6.32	-12.02	24.65	0.50	1.00	9.10	-2.74	20.94	0.13	1.00	Yes
Bacteria	Acidobacteria	iii1-8	32-20			0.70% -		-5.37	-17.47	6.74	0.38	1.00	-7.07	-14.89	0.74	0.08	1.00	Yes
Bacteria	Acidobacteria	iii1-8	DS-18			1.60% -		-4.69	-12.75	3.36	0.25	1.00	-3.74	-8.95	1.46	0.16	1.00	Yes
Bacteria	Acidobacteria	PAUC37f				0.20% -		3.77	-18.65	26.19	0.74	1.00	5.13	-9.35	19.62	0.49	1.00	Yes
Bacteria	Acidobacteria	RB25				0.10% -		-15.68	-47.27	15.91	0.33	1.00	-16.31	-36.71	4.09	0.12	1.00	Yes
Bacteria	Acidobacteria	Solibacteres	JH-WHS99			0.10% -		0.53	-31.08	32.14	0.97	1.00	12.48	-7.93	32.89	0.23	1.00	Yes
Bacteria	Acidobacteria	Solibacteres	Solibacterales	PAUC26f		0.20% -		-0.88	-23.29	21.54	0.94	1.00	2.01	-12.47	16.50	0.79	1.00	Yes
Bacteria	Acidobacteria	Solibacteres	Solibacterales	Solibacteraceae	Candidatus Solibacter	0.80% -		-7.99	-19.34	3.37	0.17	1.00	-8.61	-15.93	-1.29	0.02	1.00	Yes
Bacteria	Acidobacteria	Solibacteres	Solibacterales	Solibacteraceae		0.30% -		2.39	-15.95	20.74	0.80	1.00	3.68	-8.18	15.53	0.54	1.00	Yes
Bacteria	Acidobacteria	Solibacteres	Solibacterales			2.19% -		-0.04	-6.92	6.83	0.99	1.00	-0.06	-4.50	4.38	0.98	1.00	Yes
Bacteria	Acidobacteria	Sva0725	Sva0725			0.60% -		-0.39	-13.43	12.65	0.95	1.00	-2.14	-10.56	6.29	0.62	1.00	Yes
Bacteria	Acidobacteria					0.30% -		-8.02	-26.47	10.42	0.39	1.00	-2.04	-13.96	9.88	0.74	1.00	Yes
Bacteria	Actinobacteria	Acidimicrobia	Acidimicrobiales	AKIW874		0.30% -		-11.54	-29.89	6.81	0.22	1.00	-3.86	-15.73	8.00	0.52	1.00	Yes
Bacteria	Actinobacteria	Acidimicrobia	Acidimicrobiales	C111		2.09% -		-2.53	-9.59	4.53	0.48	1.00	-1.27	-5.84	3.29	0.58	1.00	Yes
Bacteria	Actinobacteria	Acidimicrobia	Acidimicrobiales	EB1017		0.30% -		14.85	-3.40	33.10	0.11	1.00	9.43	-2.37	21.22	0.12	1.00	Yes
Bacteria	Actinobacteria	Acidimicrobia	Acidimicrobiales	Iamiaceae	Iamia	0.70% -		-4.45	-16.51	7.62	0.47	1.00	-2.24	-10.04	5.56	0.57	1.00	Yes
Bacteria	Actinobacteria	Acidimicrobia	Acidimicrobiales	koll13		0.70% -		5.58	-6.57	17.72	0.37	1.00	3.45	-4.41	11.30	0.39	1.00	Yes
Bacteria	Actinobacteria	Acidimicrobia	Acidimicrobiales	Microthrixaceae		0.20% -		23.33	1.00	45.66	0.04	0.99	8.37	-6.08	22.82	0.26	1.00	Yes
Bacteria	Actinobacteria	Acidimicrobia	Acidimicrobiales	OCS155		0.80% -		3.61	-7.61	14.83	0.53	1.00	6.28	-0.96	13.52	0.09	1.00	Yes
Bacteria	Actinobacteria	Acidimicrobia	Acidimicrobiales	Other	Other	0.20% -		-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Actinobacteria	Acidimicrobia	Acidimicrobiales	ZA3409c		0.10% -		0.22	-31.53	31.96	0.99	1.00	4.26	-16.25	24.77	0.68	1.00	Yes
Bacteria	Actinobacteria	Acidimicrobia	Acidimicrobiales			3.39% -		3.11	-2.46	8.69	0.27	1.00	0.74	-2.86	4.35	0.69	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	ACK-M1		1.69% -		-0.14	-7.88	7.61	0.97	1.00	2.38	-2.62	7.39	0.35	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Actinomycetaceae	Actinomyces	1.37	0.29	3.94	0.40	7.48	0.03	0.99	1.93	-0.36	4.21	0.10	1.00	No
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Actinomycetaceae	Arcanobacterium	0.50% -		-16.65	-30.82	-2.47	0.02	0.99	-8.48	-17.65	0.69	0.07	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Actinomycetaceae	Mobiluncus	6.88% -		1.11	-2.84	5.05	0.58	1.00	0.41	-2.14	2.96	0.75	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Actinomycetaceae	N09	0.60% -		-6.49	-19.49	6.51	0.33	1.00	-3.37	-11.77	5.04	0.43	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Actinomycetaceae	Other	0.10% -		10.47	-21.19	42.14	0.52	1.00	9.42	-11.05	29.88	0.37	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Actinomycetaceae	Trueperella	0.50% -		0.05	-14.19	14.29	0.99	1.00	-0.70	-9.90	8.50	0.88	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Actinomycetaceae	Varibaculum	5.18% -		-2.85	-7.37	1.67	0.22	1.00	0.39	-2.53	3.31	0.79	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Actinomycetaceae		0.25	0.26	-0.58	-4.48	3.31	0.77	1.00	-1.35	-3.86	1.17	0.29	1.00	No
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Actinospicaceae		0.20% -		3.96	-18.48	26.41	0.73	1.00	8.86	-5.63	23.36	0.23	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Actinosynnemataceae	Lentzea	0.20% -		11.03	-11.58	33.63	0.34	1.00	2.91	-11.70	17.52	0.70	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Actinosynnemataceae	Other	0.20% -		8.52	-13.95	30.99	0.46	1.00	5.18	-9.34	19.70	0.48	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Actinosynnemataceae	Saccharothrix	0.20% -		-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Beutenbergiaceae	Other	0.20% -		12.91	-9.45	35.26	0.26	1.00	11.97	-2.46	26.41	0.10	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Beutenbergiaceae	Salana	0.50% -		-7.55	-21.71	6.61	0.30</							



Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Bogoriellaceae	Georgenia	0.80%	-	-9.00	-20.28	2.28	0.12	1.00	-3.82	-11.12	3.47	0.30	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Brevibacteriaceae	Brevibacterium	11.67%	-	-2.19	-5.34	0.97	0.17	1.00	-1.53	-3.56	0.51	0.14	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Cellulomonadaceae	Cellulomonas	2.19%	-	1.15	-5.72	8.03	0.74	1.00	-0.20	-4.64	4.24	0.93	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Cellulomonadaceae	Demequina	1.99%	-	1.14	-6.05	8.34	0.76	1.00	1.82	-2.83	6.47	0.44	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Cellulomonadaceae	Other	0.40%	-	-1.97	-17.92	13.98	0.81	1.00	-0.86	-11.17	9.45	0.87	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Corynebacteriaceae	Corynebacterium	0.51	0.33	0.93	-2.11	3.97	0.55	1.00	0.25	-1.71	2.22	0.80	1.00	No
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Dermabacteraceae	Brachybacterium	11.17%	-	-0.28	-3.48	2.93	0.87	1.00	0.52	-1.56	2.59	0.63	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Dermabacteraceae	Other	0.10%	-	-5.13	-36.81	26.56	0.75	1.00	11.72	-8.75	32.18	0.26	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Dermabacteraceae	Other	3.59%	-	-2.41	-7.83	3.01	0.38	1.00	-3.05	-6.55	0.45	0.09	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Dermacoccaceae	Dermacoccus	4.09%	-	-0.24	-5.30	4.82	0.93	1.00	-1.37	-4.64	1.90	0.41	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Dermatophilaceae	Dermatophilus	11.76%	-	-1.60	-4.75	1.56	0.32	1.00	-0.87	-2.91	1.17	0.40	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Dermatophilaceae	Other	1.69%	-	-2.38	-10.18	5.43	0.55	1.00	-1.09	-6.13	3.96	0.67	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Dietziaceae	Other	0.20%	-	3.95	-18.73	26.63	0.73	1.00	5.76	-8.89	20.41	0.44	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Frankiaceae	Other	0.20%	-	6.04	-16.37	28.45	0.60	1.00	7.81	-6.66	22.29	0.29	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Frankiaceae	Other	0.90%	-	2.95	-7.70	13.60	0.59	1.00	6.00	-0.87	12.87	0.09	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Geodermatophilaceae	Geodermatophilus	0.70%	-	-6.14	-18.18	5.90	0.32	1.00	-0.15	-7.93	7.64	0.97	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Geodermatophilaceae	Modestobacter	1.99%	-	-0.93	-8.12	6.26	0.80	1.00	-2.57	-7.21	2.08	0.28	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Geodermatophilaceae	Other	1.30%	-	-0.24	-9.13	8.65	0.96	1.00	-5.09	-10.83	0.64	0.08	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Geodermatophilaceae	Other	0.40%	-	10.80	-5.09	26.70	0.18	1.00	8.67	-1.59	18.94	0.10	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Gordoniaceae	Gordonia	1.69%	-	-1.86	-9.60	5.87	0.64	1.00	-1.80	-6.80	3.20	0.48	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Intrasporangiaceae	Arsenicococcus	0.10%	-	25.85	-5.68	57.39	0.11	1.00	14.04	-6.35	34.43	0.18	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Intrasporangiaceae	Kytococcus	0.10%	-	-7.60	-39.30	24.11	0.64	1.00	0.37	-20.13	20.86	0.97	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Intrasporangiaceae	Other	8.67%	-	-0.30	-3.86	3.26	0.87	1.00	-0.41	-2.71	1.89	0.73	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Intrasporangiaceae	Phycococcus	1.99%	-	-1.55	-8.71	5.62	0.67	1.00	-0.38	-5.01	4.25	0.87	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Intrasporangiaceae	Terracoccus	0.10%	-	-7.60	-39.29	24.10	0.64	1.00	-3.99	-24.47	16.49	0.70	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Intrasporangiaceae	Other	8.18%	-	-2.72	-6.40	0.97	0.15	1.00	-1.37	-3.75	1.01	0.26	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Jonesiaceae	Other	0.10%	-	27.51	-4.15	59.18	0.09	1.00	9.38	-11.10	29.87	0.37	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Kineosporiaceae	Kineosporia	0.20%	-	-2.16	-24.71	20.39	0.85	1.00	-1.75	-16.32	12.83	0.81	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Kineosporiaceae	Other	0.80%	-	6.87	-4.39	18.14	0.23	1.00	4.99	-2.29	12.27	0.18	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Kineosporiaceae	Other	1.40%	-	2.03	-6.65	10.70	0.65	1.00	-0.56	-6.17	5.04	0.84	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Agrococcus	1.00%	-	-5.02	-15.09	5.06	0.33	1.00	-2.09	-8.60	4.43	0.53	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Agromyces	1.89%	-	-3.25	-10.67	4.17	0.39	1.00	-0.81	-5.60	3.99	0.74	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Candidatus Aquiluna	0.40%	-	-5.80	-21.60	10.01	0.47	1.00	3.08	-7.13	13.30	0.55	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Candidatus Rhodoluna	0.60%	-	-8.43	-21.36	4.50	0.20	1.00	0.57	-7.79	8.94	0.89	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Cryocola	7.68%	-	-1.37	-5.16	2.42	0.48	1.00	-0.53	-2.98	1.92	0.67	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Curtobacterium	4.79%	-	-3.21	-7.92	1.49	0.18	1.00	-3.27	-6.30	-0.23	0.04	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Frigoribacterium	0.20%	-	-12.98	-35.48	9.52	0.26	1.00	-10.09	-24.63	4.44	0.17	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Leucobacter	12.36%	-	-0.43	-3.53	2.66	0.78	1.00	-0.62	-2.62	1.38	0.54	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Microbacterium	10.67%	-	1.57	-1.67	4.80	0.34	1.00	-0.07	-2.16	2.02	0.95	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Other	4.79%	-	-0.97	-5.65	3.71	0.68	1.00	0.80	-2.23	3.82	0.60	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Pseudoclavibacter	1.69%	-	-1.59	-9.42	6.24	0.69	1.00	-0.94	-6.00	4.12	0.72	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Salinibacterium	0.80%	-	2.16	-9.17	13.48	0.71	1.00	1.96	-5.36	9.28	0.60	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Microbacteriaceae	Other	5.78%	-	-1.87	-6.17	2.42	0.39	1.00	-0.74	-3.52	2.04	0.60	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micrococcaceae	Arthrobacter	9.97%	-	-0.58	-3.96	2.79	0.73	1.00	-1.40	-3.58	0.77	0.21	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micrococcaceae	Kocuria	0.15	0.27	2.95	-0.87	6.77	0.13	1.00	1.50	-0.97	3.96	0.23	1.00	No
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micrococcaceae	Microbispora	3.79%	-	0.46	-4.84	5.76	0.86	1.00	0.21	-3.22	3.63	0.91	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micrococcaceae	Micrococcus	13.16%	-	2.33	-0.64	5.30	0.12	1.00	1.82	-0.10	3.73	0.06	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micrococcaceae	Nesterenkonia	5.58%	-	-0.47	-4.83	3.89	0.83	1.00	1.01	-1.81	3.83	0.48	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micrococcaceae	Other	1.00%	-	0.71	-9.39	10.80	0.89	1.00	-1.78	-8.30	4.75	0.59	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micrococcaceae	Rothia*	0.83	0.44	1.40	-0.91	3.71	0.24	1.00	0.71	-0.79	2.20	0.35	1.00	No
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micrococcaceae	Other	22.93%	-	-0.77	-3.16	1.61	0.52	1.00	-0.77	-2.31	0.77	0.33	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micromonosporaceae	Actinoplanes	0.50%	-	2.34	-11.97	16.64	0.75	1.00	2.70	-6.55	11.94	0.57	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micromonosporaceae	Catenuloplanes	0.40%	-	-8.77	-24.87	7.33	0.29	1.00	-2.99	-13.40	7.42	0.57	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micromonosporaceae	Other	0.90%	-	13.16	2.53	23.79	0.02	0.99	4.06	-2.82	10.95	0.25	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Micromonosporaceae	Other	0.60%	-	-4.39	-17.33	8.55	0.51	1.00	-3.97	-12.33	4.39	0.35	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Mycobacteriaceae	Mycobacterium	7.48%	-	-0.02	-3.88	3.85	0.99	1.00	-0.53	-3.02	1.97	0.68	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Nakamurellaceae	Other	1.50%	-	-1.72	-9.98	6.54	0.68	1.00	-1.37	-6.71	3.97	0.61	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Nocardiaceae	Rhodococcus	0.25	0.40	2.41	-0.29	5.11	0.08	1.00	1.26	-0.48	3.01	0.16	1.00	No
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Nocardiodiaceae	Aeromicrobium	1.30%	-	-3.77	-12.72	5.19	0.41	1.00	-1.52	-7.31	4.27	0.61	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Nocardiodiaceae	Friedmanniella	0.30%	-	4.42	-13.98	22.81	0.64	1.00	0.14	-11.75	12.03	0.98	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Nocardiodiaceae	Kribbella	0.60%	-	-8.58	-21.55	4.39	0.19	1.00	-3.58	-11.97	4.80	0.40	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Nocardiodiaceae	Nocardioides	1.50%	-	4.71	-3.53	12.95	0.26	1.00	-0.33	-5.66	5.00	0.90	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Nocardiodiaceae	Propionicimonas	7.78%	-	0.60	-3.18	4.38	0.75	1.00	-0.22	-2.66	2.22	0.86	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Nocardiodiaceae	Other	7.38%	-	2.12	-1.72	5.95	0.28	1.00	1.84	-0.63	4.32	0.14	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Nocardiodiaceae	Other	1.00%	-	1.17	-8.91	11.24	0.82	1.00	-1.17	-7.68	5.34	0.72	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Nocardiodiaceae	Prauseria	0.10%	-	12.59	-19.02	44.21	0.43	1.00	16.03	-4.38	36.44	0.12	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Nocardiodiaceae	Thermobifida	1.00%	-	6.78	-3.27	16.83	0.19	1.00	2.38	-4.12	8.88	0.47	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Nocardiodiaceae	Other	0.50%	-	-1.81	-15.95	12.34	0.80	1.00	-2.50	-11.64	6.64	0.59	1.00	Yes

Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Other	Other	7.08%	-	-0.07	-4.08	3.95	0.97	1.00	0.29	-2.30	2.89	0.82	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Promicromonosporaceae	Cellulosimicrobium	1.50%	-	1.19	-7.14	9.52	0.78	1.00	-3.54	-8.92	1.84	0.20	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Promicromonosporaceae	Promicromonospora	0.40%	-	-9.57	-25.40	6.26	0.24	1.00	-4.81	-15.04	5.43	0.36	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Promicromonosporaceae	Xylanimicrobium	0.70%	-	-5.89	-17.87	6.09	0.34	1.00	-2.18	-9.93	5.56	0.58	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Propionibacteriaceae	Luteococcus	0.20%	-	-14.52	-37.01	7.96	0.21	1.00	-2.52	-17.07	12.02	0.73	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Propionibacteriaceae	Microlunatus	1.79%	-	-1.25	-8.79	6.29	0.74	1.00	-1.87	-6.75	3.00	0.45	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Propionibacteriaceae	Other	0.20%	-	11.59	-10.78	33.96	0.31	1.00	2.72	-11.74	17.19	0.71	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Propionibacteriaceae	Propionibacterium	6.68%	-	2.38	-1.65	6.40	0.25	1.00	2.20	-0.41	4.80	0.10	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Propionibacteriaceae	Tessaracoccus	0.70%	-	2.95	-9.11	15.02	0.63	1.00	2.07	-5.73	9.87	0.60	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Propionibacteriaceae	Other	0.10	0.17	-2.08	-8.13	3.97	0.50	1.00	-1.14	-5.05	2.77	0.57	1.00	No
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Pseudonocardiaceae	Actinomycetospora	2.29%	-	4.61	-2.22	11.44	0.19	1.00	0.47	-3.95	4.88	0.84	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Pseudonocardiaceae	Amycolatopsis	0.60%	-	-5.01	-17.96	7.93	0.45	1.00	-3.53	-11.90	4.83	0.41	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Pseudonocardiaceae	Jiangella	0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Pseudonocardiaceae	Pseudonocardia	2.69%	-	-4.92	-11.15	1.31	0.12	1.00	-1.91	-5.94	2.12	0.35	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Pseudonocardiaceae	Saccharopolyspora	1.30%	-	-4.36	-13.24	4.51	0.33	1.00	-0.68	-6.42	5.06	0.82	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Pseudonocardiaceae	Thermobispora	0.20%	-	18.54	-3.82	40.91	0.10	1.00	10.34	-4.11	24.80	0.16	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Pseudonocardiaceae	Other	1.10%	-	4.21	-5.53	13.95	0.40	1.00	2.80	-3.49	9.10	0.38	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Ruaniaceae	Other	0.20%	-	8.61	-13.96	31.18	0.45	1.00	7.11	-7.48	21.69	0.34	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Sporichthyaceae	Other	0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Streptomycetaceae	Streptomyces	3.09%	-	-0.51	-6.34	5.31	0.86	1.00	-0.86	-4.63	2.90	0.65	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Streptosporangiaceae	Nonomuraea	0.20%	-	-13.54	-36.01	8.93	0.24	1.00	-9.97	-24.49	4.55	0.18	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Streptosporangiaceae	Other	0.60%	-	16.98	3.95	30.01	0.01	0.99	9.29	0.86	17.71	0.03	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Streptosporangiaceae	Other	0.10%	-	31.11	-0.47	62.69	0.05	0.99	16.99	-3.43	37.41	0.10	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Thermomonosporaceae	Actinomadura	0.50%	-	10.84	-3.42	25.10	0.14	1.00	0.73	-8.49	9.96	0.88	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Williamsiaceae	Williamsia	0.20%	-	-3.02	-25.42	19.39	0.79	1.00	-9.19	-23.66	5.28	0.21	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Yaniellaceae	Yaniella	3.49%	-	-5.66	-11.10	-0.21	0.04	0.99	-1.25	-4.77	2.28	0.49	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Actinomycetales	Other	Other	9.07%	-	1.08	-2.42	4.58	0.54	1.00	-0.41	-2.67	1.85	0.72	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Bifidobacteriales	Bifidobacteriaceae	Bifidobacterium	2.71	0.63	0.69	-1.10	2.48	0.45	1.00	-0.21	-1.36	0.95	0.73	1.00	No
Bacteria	Actinobacteria	Actinobacteria	Bifidobacteriales	Bifidobacteriaceae	Other	12.76%	-	-1.13	-4.15	1.90	0.47	1.00	-0.41	-2.36	1.55	0.68	1.00	Yes
Bacteria	Actinobacteria	Actinobacteria	Bifidobacteriales	Bifidobacteriaceae	Scardovia	0.11	0.19	2.18	-3.04	7.39	0.41	1.00	0.33	-3.04	3.70	0.85	1.00	No
Bacteria	Actinobacteria	Actinobacteria	Bifidobacteriales	Bifidobacteriaceae	Other	7.78%	-	-0.75	-4.51	3.00	0.69	1.00	0.54	-1.89	2.97	0.66	1.00	Yes
Bacteria	Actinobacteria	Coriobacteriia	Coriobacteriales	Coriobacteriaceae	Adlercreutzia†	1.50	0.56	-2.52	-4.45	-0.58	0.01	0.99	-1.38	-2.63	-0.13	0.03	1.00	No
Bacteria	Actinobacteria	Coriobacteriia	Coriobacteriales	Coriobacteriaceae	Atopobium	0.26	0.27	2.38	-1.29	6.06	0.20	1.00	0.96	-1.42	3.33	0.43	1.00	No
Bacteria	Actinobacteria	Coriobacteriia	Coriobacteriales	Coriobacteriaceae	Collinsella	0.61	0.46	0.21	-2.02	2.44	0.85	1.00	0.41	-1.03	1.85	0.57	1.00	No
Bacteria	Actinobacteria	Coriobacteriia	Coriobacteriales	Coriobacteriaceae	Eggerthella†	1.52	0.54	0.11	-2.13	2.36	0.92	1.00	-0.70	-2.15	0.75	0.34	1.00	No
Bacteria	Actinobacteria	Coriobacteriia	Coriobacteriales	Coriobacteriaceae	Other	0.20%	-	17.49	-4.94	39.92	0.13	1.00	15.25	0.77	29.73	0.04	1.00	Yes
Bacteria	Actinobacteria	Coriobacteriia	Coriobacteriales	Coriobacteriaceae	Slackia	0.65	0.50	0.67	-1.35	2.69	0.52	1.00	0.83	-0.48	2.13	0.21	1.00	No
Bacteria	Actinobacteria	Coriobacteriia	Coriobacteriales	Coriobacteriaceae	Other	1.76	0.41	-2.05	-4.52	0.43	0.11	1.00	-1.04	-2.64	0.56	0.20	1.00	No
Bacteria	Actinobacteria	MB-A2-108	0319-7L14	Other	Other	0.90%	-	-4.49	-15.10	6.11	0.41	1.00	-8.48	-15.31	-1.64	0.02	1.00	Yes
Bacteria	Actinobacteria	MB-A2-108	Other	Other	Other	0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Actinobacteria	Nitriliruptoria	Euzebyales	Euzebyaceae	Euzebya	0.60%	-	8.77	-4.18	21.73	0.18	1.00	3.36	-5.02	11.73	0.43	1.00	Yes
Bacteria	Actinobacteria	Nitriliruptoria	Nitriliruptorales	Nitriliruptoraceae	Nitriliruptor	2.59%	-	-0.30	-6.62	6.02	0.92	1.00	1.75	-2.34	5.83	0.40	1.00	Yes
Bacteria	Actinobacteria	OPB41	Other	Other	Other	0.90%	-	-4.17	-14.86	6.52	0.44	1.00	-4.54	-11.44	2.36	0.20	1.00	Yes
Bacteria	Actinobacteria	Rubrobacteria	Rubrobacterales	Rubrobacteraceae	Rubrobacter	20.74%	-	1.22	-1.30	3.74	0.34	1.00	0.55	-1.08	2.18	0.51	1.00	Yes
Bacteria	Actinobacteria	Rubrobacteria	Rubrobacterales	Rubrobacteraceae	Other	0.10%	-	-14.09	-45.74	17.56	0.38	1.00	-7.82	-28.28	12.64	0.45	1.00	Yes
Bacteria	Actinobacteria	Thermoleophilia	Gaiellales	Gaiellales	AK1AB1_02E	0.40%	-	2.33	-13.51	18.17	0.77	1.00	4.54	-5.69	14.78	0.38	1.00	Yes
Bacteria	Actinobacteria	Thermoleophilia	Gaiellales	Gaiellaceae	Other	2.49%	-	0.21	-6.23	6.65	0.95	1.00	-2.31	-6.47	1.85	0.28	1.00	Yes
Bacteria	Actinobacteria	Thermoleophilia	Gaiellales	Gaiellales	Other	0.40%	-	2.83	-13.05	18.71	0.73	1.00	-0.66	-10.92	9.61	0.90	1.00	Yes
Bacteria	Actinobacteria	Thermoleophilia	Solirubrobacterales	Conexibacteraceae	Other	1.30%	-	0.12	-8.83	9.06	0.98	1.00	-4.38	-10.15	1.40	0.14	1.00	Yes
Bacteria	Actinobacteria	Thermoleophilia	Solirubrobacterales	Other	Other	0.10%	-	-12.98	-44.72	18.76	0.42	1.00	-5.58	-26.09	14.94	0.59	1.00	Yes
Bacteria	Actinobacteria	Thermoleophilia	Solirubrobacterales	Patulibacteraceae	Patulibacter	0.20%	-	7.62	-14.94	30.17	0.51	1.00	0.75	-13.83	15.33	0.92	1.00	Yes
Bacteria	Actinobacteria	Thermoleophilia	Solirubrobacterales	Patulibacteraceae	Other	1.50%	-	6.39	-1.84	14.61	0.13	1.00	-0.20	-5.52	5.12	0.94	1.00	Yes
Bacteria	Actinobacteria	Thermoleophilia	Solirubrobacterales	Solirubrobacteraceae	Other	2.89%	-	1.17	-4.86	7.20	0.70	1.00	0.35	-3.55	4.24	0.86	1.00	Yes
Bacteria	Actinobacteria	Thermoleophilia	Solirubrobacterales	Solirubrobacteraceae	Other	5.18%	-	-0.92	-5.46	3.61	0.69	1.00	-1.38	-4.31	1.55	0.35	1.00	Yes
Bacteria	AD3	ABS-6	Other	Other	Other	0.30%	-	1.47	-16.85	19.78	0.88	1.00	4.61	-7.22	16.45	0.44	1.00	Yes
Bacteria	Armatimonadetes	[Fimbrimonadia]	[Fimbrimonadales]	[Fimbrimonadaceae]	Fimbrimonas	1.89%	-	1.06	-6.28	8.39	0.78	1.00	-0.33	-5.07	4.41	0.89	1.00	Yes
Bacteria	Armatimonadetes	[Fimbrimonadia]	[Fimbrimonadales]	[Fimbrimonadaceae]	Other	1.30%	-	-3.12	-12.08	5.83	0.49	1.00	0.50	-5.28	6.29	0.86	1.00	Yes
Bacteria	Armatimonadetes	[Fimbrimonadia]	[Fimbrimonadales]	[Fimbrimonadaceae]	Other	0.50%	-	11.46	-2.73	25.65	0.11	1.00	0.27	-8.91	9.45	0.95	1.00	Yes
Bacteria	Armatimonadetes	0319-6E2	Other	Other	Other	0.90%	-	-9.09	-19.79	1.62	0.10	1.00	-5.69	-12.61	1.22	0.11	1.00	Yes
Bacteria	Armatimonadetes	Armatimonadia	Armatimonadales	Armatimonadaceae	Armatimonas	0.10%	-	-7.59	-39.24	24.06	0.64	1.00	0.78	-19.67	21.24	0.94	1.00	Yes
Bacteria	Armatimonadetes	Armatimonadia	Armatimonadales	Armatimonadaceae	Other	0.60%	-	-3.37	-16.44	9.71	0.61	1.00	0.28	-8.18	8.73	0.95	1.00	Yes
Bacteria	Armatimonadetes	Chthonomonadetes	Chthonomonadales	Chthonomonadaceae	Other	0.10%	-	13.40	-18.19	45.00	0.41	1.00	17.50	-2.89	37.90	0.09	1.00	Yes
Bacteria	Armatimonadetes	SJA-176	RB046	Other	Other	0.30%	-	18.70	0.39	37.01	0.05	0.99	10.54	-1.29	22.38	0.08	1.00	Yes
Bacteria	Bacteroidetes	[Rhodothermi]	[Rhodothermales]	[Balneolaceae]	Balneola	1.60%	-	2.80	-5.29	10.89	0.50	1.00	2.23	-2.99	7.46	0.40	1.00	Yes
Bacteria	Bacteroidetes	[Rhodothermi]	[Rhodothermales]	[Balneolaceae]	KSA1	1.30%	-	-1.50	-10.40	7.41	0.74	1.00	-1.62	-7.37	4.13	0.58	1.00	Yes
Bacteria	Bacteroidetes	[Rhodothermi]	[Rhodothermales]	Rhodothermaceae	Other	0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Bacteroidetes	[Saprospirae]	[Saprospirales]	Chitinophagaceae	Chitinophaga	0.40%	-	-0.61	-16.51	15.29	0.94	1.00	6.27	-4.00	16.53	0.23	1.00	Yes
Bacteria	Bacteroidetes	[Saprospirae]	[Saprospirales]	Chitinophagaceae	Flaviumibacter	0.40%	-	8.89	-7.03	24.80	0.27	1.00	-3.24	-13.53	7.05	0.54	1.00	Yes

Bacteria	Bacteroidetes	[Saprosirae]	[Saprosirales]	Chitinophagaceae	Flavisolibacter	0.50%	-	1.00	-13.33	15.32	0.89	1.00	0.94	-8.32	10.19	0.84	1.00	Yes
Bacteria	Bacteroidetes	[Saprosirae]	[Saprosirales]	Chitinophagaceae	Niabella	0.50%	-	7.10	-7.16	21.37	0.33	1.00	4.67	-4.55	13.89	0.32	1.00	Yes
Bacteria	Bacteroidetes	[Saprosirae]	[Saprosirales]	Chitinophagaceae	Niastella	0.10%	-	-12.98	-44.72	18.76	0.42	1.00	-5.58	-26.09	14.94	0.59	1.00	Yes
Bacteria	Bacteroidetes	[Saprosirae]	[Saprosirales]	Chitinophagaceae	Other	0.20%	-	25.96	3.63	48.29	0.02	0.99	-6.87	-21.33	7.59	0.35	1.00	Yes
Bacteria	Bacteroidetes	[Saprosirae]	[Saprosirales]	Chitinophagaceae	Sediminibacterium	0.30%	-	1.54	-16.79	19.87	0.87	1.00	3.49	-8.35	15.34	0.56	1.00	Yes
Bacteria	Bacteroidetes	[Saprosirae]	[Saprosirales]	Chitinophagaceae	Segetibacter	0.40%	-	0.21	-15.88	16.30	0.98	1.00	-1.62	-12.02	8.78	0.76	1.00	Yes
Bacteria	Bacteroidetes	[Saprosirae]	[Saprosirales]	Chitinophagaceae		5.18%	-	0.50	-4.04	5.04	0.83	1.00	0.60	-2.34	3.53	0.69	1.00	Yes
Bacteria	Bacteroidetes	[Saprosirae]	[Saprosirales]	Saprosiraceae		4.69%	-	-0.40	-5.16	4.35	0.87	1.00	-0.55	-3.62	2.52	0.73	1.00	Yes
Bacteria	Bacteroidetes	[Saprosirae]	[Saprosirales]			0.60%	-	-8.60	-21.62	4.42	0.20	1.00	-3.22	-11.63	5.20	0.45	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Barnesiellaceae]	Other	0.40%	-	9.67	-6.21	25.55	0.23	1.00	9.10	-1.15	19.36	0.08	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Barnesiellaceae]		0.36	0.41	0.15	-2.33	2.63	0.91	1.00	0.53	-1.07	2.13	0.52	1.00	No
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Odoribacteraceae]	Butyricimonas	0.14	0.28	-0.90	-4.46	2.67	0.62	1.00	-1.33	-3.64	0.97	0.26	1.00	No
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Odoribacteraceae]	Odoribacter	0.16	0.29	0.12	-3.41	3.65	0.95	1.00	-0.75	-3.03	1.53	0.52	1.00	No
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Paraprevotellaceae]	[Prevotella]	0.38	0.48	1.71	-0.44	3.85	0.12	1.00	1.46	0.08	2.84	0.04	1.00	No
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Paraprevotellaceae]	CF231	13.26%	-	-0.63	-3.69	2.43	0.69	1.00	-0.52	-2.50	1.46	0.61	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Paraprevotellaceae]	Other	0.20%	-	-9.45	-31.91	13.01	0.41	1.00	-0.31	-14.83	14.21	0.97	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Paraprevotellaceae]	Paraprevotella	0.18	0.34	1.06	-1.94	4.06	0.49	1.00	0.69	-1.25	2.62	0.49	1.00	No
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Paraprevotellaceae]	YRC22	3.09%	-	1.22	-4.58	7.03	0.68	1.00	-1.60	-5.35	2.15	0.40	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	[Paraprevotellaceae]		14.46%	-	0.33	-2.56	3.22	0.82	1.00	-0.04	-1.90	1.83	0.97	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	BA008		0.40%	-	12.82	-2.95	28.59	0.11	1.00	12.49	2.32	22.67	0.02	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Bacteroidaceae	5-7N15	2.39%	-	-4.06	-10.63	2.50	0.22	1.00	-2.40	-6.64	1.84	0.27	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Bacteroidaceae	Bacteroides	2.12	0.61	0.89	-0.80	2.59	0.30	1.00	-0.17	-1.27	0.93	0.76	1.00	No
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Bacteroidaceae	BF311	0.60%	-	-10.44	-23.42	2.55	0.12	1.00	-3.76	-12.16	4.64	0.38	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Bacteroidaceae	Other	0.10%	-	31.03	-0.53	62.58	0.05	0.99	37.22	16.92	57.52	0.00	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Bacteroidaceae		1.79%	-	-0.16	-7.73	7.41	0.97	1.00	-0.74	-5.63	4.15	0.77	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	BS11		1.79%	-	-4.48	-12.18	3.21	0.25	1.00	-0.81	-5.79	4.16	0.75	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Marinilabiaceae		1.30%	-	-1.55	-10.50	7.40	0.73	1.00	-3.29	-9.07	2.49	0.26	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Other	Other	0.70%	-	-1.33	-13.36	10.70	0.83	1.00	1.51	-6.26	9.29	0.70	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	p-2534-18B5		0.20%	-	13.66	-8.69	36.00	0.23	1.00	-3.89	-18.33	10.56	0.60	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae	Dysgonomonas	1.30%	-	2.82	-6.04	11.68	0.53	1.00	1.76	-3.97	7.48	0.55	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae	Paludibacter	1.30%	-	1.23	-7.62	10.08	0.79	1.00	-2.47	-8.18	3.25	0.40	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae	Parabacteroides	0.82	0.58	0.21	-1.59	2.00	0.82	1.00	-0.20	-1.36	0.96	0.74	1.00	No
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae	Porphyromonas	21.83%	-	-0.50	-2.96	1.96	0.69	1.00	-0.23	-1.82	1.36	0.77	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae	Tannerella	0.70%	-	-0.83	-12.90	11.25	0.89	1.00	-0.55	-8.35	7.25	0.89	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae		2.69%	-	2.04	-4.21	8.30	0.52	1.00	-0.41	-4.45	3.63	0.84	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Prevotellaceae	Prevotella	1.45	0.79	1.20	-0.12	2.51	0.08	0.99	0.55	-0.31	1.40	0.21	1.00	No
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Prevotellaceae		0.10%	-	22.54	-9.01	54.09	0.16	1.00	-7.94	-28.35	12.46	0.45	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	RF16		2.79%	-	0.09	-6.07	6.25	0.98	1.00	-1.73	-5.71	2.25	0.39	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Rikenellaceae	AF12	3.89%	-	-1.19	-6.39	4.00	0.65	1.00	-0.66	-4.01	2.70	0.70	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Rikenellaceae	Blvii28	0.20%	-	3.24	-19.19	25.67	0.78	1.00	-3.72	-18.22	10.77	0.61	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Rikenellaceae	Rikenella	1.00%	-	1.38	-8.78	11.53	0.79	1.00	-0.21	-6.78	6.35	0.95	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Rikenellaceae		0.46	0.45	0.48	-1.76	2.73	0.67	1.00	0.39	-1.06	1.84	0.59	1.00	No
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	S24-7		0.59	0.74	0.20	-1.19	1.59	0.77	1.00	-0.20	-1.10	0.70	0.66	1.00	No
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	SB-1		0.10%	-	7.56	-24.13	39.24	0.64	1.00	4.92	-15.55	25.40	0.64	1.00	Yes
Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales			0.16	0.34	1.46	-1.50	4.43	0.33	1.00	-0.44	-2.36	1.48	0.65	1.00	No
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cyclobacteriaceae		2.19%	-	0.23	-6.65	7.10	0.95	1.00	-1.23	-5.67	3.22	0.59	1.00	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Adhaeribacter	0.80%	-	-6.33	-17.63	4.96	0.27	1.00	-2.95	-10.25	4.35	0.43	1.00	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Dyadobacter	0.10%	-	3.42	-28.70	35.54	0.83	1.00	0.56	-20.20	21.31	0.96	1.00	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Hymenobacter	0.60%	-	-4.02	-17.01	8.96	0.54	1.00	-3.88	-12.27	4.51	0.36	1.00	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Larkinella	0.40%	-	1.24	-14.85	17.34	0.88	1.00	3.21	-7.19	13.61	0.54	1.00	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Leadbetterella	1.20%	-	-1.48	-10.81	7.85	0.76	1.00	-1.38	-7.41	4.65	0.65	1.00	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Pontibacter	0.30%	-	-12.53	-30.95	5.88	0.18	1.00	-6.02	-17.92	5.89	0.32	1.00	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Rhodocytophaga	0.20%	-	-21.38	-43.75	0.99	0.06	0.99	-9.50	-23.97	4.97	0.20	1.00	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Runella	0.10%	-	0.50	-31.14	32.14	0.98	1.00	1.55	-18.90	22.00	0.88	1.00	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae		3.59%	-	-0.64	-6.08	4.80	0.82	1.00	-2.04	-5.56	1.47	0.25	1.00	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Flammeovirgaceae	Roseivirga	0.60%	-	-3.48	-16.45	9.50	0.60	1.00	-1.53	-9.92	6.86	0.72	1.00	Yes
Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Flammeovirgaceae		1.99%	-	-5.65	-12.92	1.63	0.13	1.00	-2.55	-7.25	2.16	0.29	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	[Weeksellaceae]	Chryseobacterium	4.09%	-	2.71	-2.34	7.76	0.29	1.00	2.61	-0.66	5.87	0.12	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	[Weeksellaceae]	Cloacibacterium	2.79%	-	1.93	-4.15	8.00	0.53	1.00	2.14	-1.79	6.06	0.28	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	[Weeksellaceae]	Elizabethkingia	1.10%	-	2.57	-7.02	12.15	0.60	1.00	4.12	-2.07	10.31	0.19	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	[Weeksellaceae]	Other	0.10%	-	13.40	-18.19	45.00	0.41	1.00	17.50	-2.89	37.90	0.09	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	[Weeksellaceae]	Wautersiella	0.10%	-	-18.81	-50.48	12.86	0.24	1.00	-3.25	-23.73	17.23	0.76	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	[Weeksellaceae]		2.69%	-	-3.61	-9.83	2.60	0.25	1.00	0.18	-3.84	4.20	0.93	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Cryomorphaceae	Brumimicrobium	0.30%	-	-8.52	-26.93	9.89	0.36	1.00	-5.83	-17.73	6.07	0.34	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Cryomorphaceae	Crocinitomix	1.00%	-	-4.48	-14.64	5.67	0.39	1.00	-3.51	-10.07	3.05	0.29	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Cryomorphaceae	Fluviicola	0.40%	-	-3.63	-19.61	12.34	0.66	1.00	-3.84	-14.16	6.48	0.47	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Cryomorphaceae		1.99%	-	0.58	-6.61	7.76	0.87	1.00	-0.85	-5.50	3.79	0.72	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Aequorivita	1.99%	-	-1.82	-9.11	5.47	0.62	1.00	-1.55	-6.26	3.16	0.52	1.00	Yes

Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Capnocytophaga	1.20%	-	2.40	-6.81	11.60	0.61	1.00	2.72	-3.23	8.67	0.37	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Flavobacterium	1.89%	-	-3.88	-11.21	3.45	0.30	1.00	-1.60	-6.34	3.14	0.51	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Gelidibacter	1.10%	-	-0.36	-10.05	9.34	0.94	1.00	0.77	-5.49	7.04	0.81	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Leeuwenhoekella	1.10%	-	-1.45	-11.14	8.25	0.77	1.00	-3.34	-9.60	2.92	0.30	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Muricauda	1.10%	-	-2.25	-11.97	7.46	0.65	1.00	-2.36	-8.63	3.92	0.46	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Myroides	0.90%	-	-6.19	-16.95	4.57	0.26	1.00	-0.97	-7.93	6.00	0.79	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Psychroflexus	0.60%	-	-2.90	-15.87	10.07	0.66	1.00	-4.02	-12.40	4.36	0.35	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae		3.49%	-	-4.08	-9.71	1.55	0.16	1.00	-2.70	-6.33	0.94	0.15	1.00	Yes
Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales			0.60%	-	-1.29	-14.34	11.76	0.85	1.00	-5.55	-13.98	2.88	0.20	1.00	Yes
Bacteria	Bacteroidetes	Sphingobacteriia	Sphingobacteriales	Sphingobacteriaceae	Pedobacter	0.20%	-	-13.29	-35.75	9.18	0.25	1.00	-3.64	-18.17	10.88	0.62	1.00	Yes
Bacteria	Bacteroidetes	Sphingobacteriia	Sphingobacteriales	Sphingobacteriaceae	Sphingobacterium	4.19%	-	0.55	-4.51	5.62	0.83	1.00	0.66	-2.61	3.93	0.69	1.00	Yes
Bacteria	Bacteroidetes	Sphingobacteriia	Sphingobacteriales	Sphingobacteriaceae		3.09%	-	-2.48	-8.28	3.33	0.40	1.00	-3.09	-6.83	0.66	0.11	1.00	Yes
Bacteria	Bacteroidetes	Sphingobacteriia	Sphingobacteriales			1.79%	-	-5.03	-12.63	2.56	0.19	1.00	-1.86	-6.77	3.05	0.46	1.00	Yes
Bacteria	Bacteroidetes	VC2_1_Bac22				0.10%	-	-3.20	-34.87	28.47	0.84	1.00	-0.19	-20.66	20.28	0.99	1.00	Yes
Bacteria	BRC1	NPL-UPA2				0.40%	-	-4.21	-20.13	11.71	0.60	1.00	-4.73	-15.01	5.55	0.37	1.00	Yes
Bacteria	BRC1	PRR-11				1.00%	-	1.48	-8.67	11.62	0.78	1.00	-1.23	-7.79	5.33	0.71	1.00	Yes
Bacteria	Chlamydiae	Chlamydia	Chlamydiales	Parachlamydiaceae	Candidatus Protochlamydia	0.30%	-	-14.74	-33.14	3.66	0.12	1.00	-7.80	-19.70	4.09	0.20	1.00	Yes
Bacteria	Chlamydiae	Chlamydia	Chlamydiales	Parachlamydiaceae	Other	0.10%	-	-6.46	-38.54	25.62	0.69	1.00	5.39	-15.35	26.12	0.61	1.00	Yes
Bacteria	Chlamydiae	Chlamydia	Chlamydiales	Rhabdochlamydiaceae	Candidatus Rhabdochlamydia	0.40%	-	-14.13	-29.97	1.71	0.08	1.00	-6.91	-17.15	3.34	0.19	1.00	Yes
Bacteria	Chlorobi	BSV26	A89			0.20%	-	0.93	-21.46	23.31	0.94	1.00	8.24	-6.22	22.70	0.26	1.00	Yes
Bacteria	Chlorobi	Ignavibacteria	Ignavibacteriales	[Melioribacteraceae]		0.30%	-	0.86	-17.50	19.22	0.93	1.00	-8.40	-20.25	3.46	0.16	1.00	Yes
Bacteria	Chlorobi	Ignavibacteria	Ignavibacteriales	Ignavibacteriaceae		1.60%	-	5.72	-2.26	13.70	0.16	1.00	2.14	-3.02	7.30	0.42	1.00	Yes
Bacteria	Chlorobi	OPB56				1.50%	-	-2.56	-10.93	5.82	0.55	1.00	-1.02	-6.44	4.39	0.71	1.00	Yes
Bacteria	Chlorobi	SJA-28				1.60%	-	-1.45	-9.56	6.66	0.73	1.00	-1.74	-6.98	3.50	0.52	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	A31			0.70%	-	-10.33	-22.34	1.67	0.09	1.00	-4.63	-12.40	3.13	0.24	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	Anaerolineales	Anaerolinaceae	Longilinea	0.40%	-	0.74	-15.19	16.66	0.93	1.00	3.76	-6.53	14.05	0.47	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	Anaerolineales	Anaerolinaceae	SHD-231	0.20%	-	-0.65	-23.08	21.78	0.95	1.00	2.60	-11.90	17.09	0.73	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	Anaerolineales	Anaerolinaceae	T78	0.20%	-	-9.23	-31.59	13.14	0.42	1.00	-5.99	-20.44	8.47	0.42	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	Anaerolineales	Anaerolinaceae		0.10%	-	13.40	-18.19	45.00	0.41	1.00	17.50	-2.89	37.90	0.09	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	Ardenscatenales	Ardenscatenaceae	Ardenscatena	0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	Caldilineales	Caldilineaceae	Caldilinea	0.30%	-	-14.33	-32.70	4.03	0.13	1.00	-4.87	-16.75	7.01	0.42	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	Caldilineales	Caldilineaceae		1.69%	-	-3.95	-11.81	3.91	0.32	1.00	-2.09	-7.17	2.99	0.42	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	CFB-26			0.40%	-	-2.23	-18.23	13.76	0.78	1.00	-2.47	-12.80	7.86	0.64	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	DRC31			0.90%	-	-7.30	-18.01	3.41	0.18	1.00	-4.01	-10.93	2.92	0.26	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	envOPS12			0.70%	-	-1.93	-14.09	10.23	0.76	1.00	-1.89	-9.74	5.97	0.64	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	GCA004			0.20%	-	-1.20	-23.62	21.23	0.92	1.00	6.64	-7.85	21.13	0.37	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	H39			0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	OPB11			0.10%	-	31.03	-0.53	62.58	0.05	0.99	37.22	16.92	57.52	0.00	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	S0208			0.30%	-	-5.01	-23.26	13.24	0.59	1.00	-7.35	-19.14	4.44	0.22	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	SBR1031	A4b		1.79%	-	2.65	-5.03	10.33	0.50	1.00	1.32	-3.64	6.28	0.60	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	SBR1031	SHA-31		0.10%	-	-12.98	-44.72	18.76	0.42	1.00	-5.58	-26.09	14.94	0.59	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae	SHA-20			0.10%	-	13.40	-18.19	45.00	0.41	1.00	17.50	-2.89	37.90	0.09	1.00	Yes
Bacteria	Chloroflexi	Anaerolineae				0.90%	-	0.45	-10.25	11.16	0.93	1.00	3.89	-3.02	10.81	0.27	1.00	Yes
Bacteria	Chloroflexi	C0119				0.20%	-	1.81	-20.62	24.23	0.87	1.00	3.92	-10.57	18.42	0.60	1.00	Yes
Bacteria	Chloroflexi	Chloroflexi	[Roseiflexales]	[Roseiflexaceae]	Roseiflexus	0.30%	-	5.25	-13.08	23.58	0.57	1.00	4.03	-7.81	15.88	0.50	1.00	Yes
Bacteria	Chloroflexi	Chloroflexi	AKIW781			0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Chloroflexi	Chloroflexi	Herpetosiphonales			0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Chloroflexi	Dehalococcoidetes	Dehalococcoidales	Dehalococcoidaceae		0.10%	-	-7.23	-38.87	24.41	0.65	1.00	1.95	-18.50	22.40	0.85	1.00	Yes
Bacteria	Chloroflexi	Ellin6529				2.19%	-	2.50	-4.34	9.34	0.47	1.00	1.93	-2.49	6.35	0.39	1.00	Yes
Bacteria	Chloroflexi	Gitt-GS-136				1.10%	-	-9.02	-18.79	0.75	0.07	0.99	-5.76	-12.08	0.55	0.07	1.00	Yes
Bacteria	Chloroflexi	Ktedonobacteria	Ktedonobacterales	Ktedonobacteraceae		0.10%	-	-7.59	-39.24	24.06	0.64	1.00	0.78	-19.67	21.24	0.94	1.00	Yes
Bacteria	Chloroflexi	Ktedonobacteria	Thermogemmatissporales	Thermogemmatissporaceae		0.10%	-	-12.38	-44.43	19.66	0.45	1.00	-0.99	-21.70	19.72	0.93	1.00	Yes
Bacteria	Chloroflexi	S085				0.40%	-	1.79	-14.11	17.69	0.83	1.00	0.39	-9.88	10.67	0.94	1.00	Yes
Bacteria	Chloroflexi	Thermomicrobia	AKYG1722			0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Chloroflexi	Thermomicrobia	JG30-KF-CM45			3.59%	-	1.30	-4.11	6.71	0.64	1.00	1.60	-1.89	5.10	0.37	1.00	Yes
Bacteria	Chloroflexi	TK10	AKYG885	5B-12		0.20%	-	8.52	-13.95	30.99	0.46	1.00	5.18	-9.34	19.70	0.48	1.00	Yes
Bacteria	Chloroflexi	TK10	AKYG885	Dolo_23		0.50%	-	-5.52	-19.86	8.83	0.45	1.00	1.86	-7.41	11.14	0.69	1.00	Yes
Bacteria	Chloroflexi	TK10	B07_WMSP1			0.20%	-	24.27	1.91	46.64	0.03	0.99	15.76	1.30	30.21	0.03	1.00	Yes
Bacteria	Chloroflexi	TK17	mle1-48			0.70%	-	-8.20	-20.31	3.92	0.18	1.00	-6.92	-14.74	0.91	0.08	1.00	Yes
Bacteria	Chloroflexi					0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Cyanobacteria	4C0d-2	MLE1-12			0.70%	-	-3.81	-15.85	8.23	0.53	1.00	0.38	-7.40	8.16	0.92	1.00	Yes
Bacteria	Cyanobacteria	4C0d-2	SM1D11			0.20%	-	-16.16	-38.77	6.44	0.16	1.00	-5.87	-20.49	8.75	0.43	1.00	Yes
Bacteria	Cyanobacteria	4C0d-2	YS2			0.39	0.60	-0.26	-2.05	1.53	0.77	1.00	0.31	-0.84	1.47	0.59	1.00	No
Bacteria	Cyanobacteria	Chloroplast	Chlorophyta	Trebouxiophyceae	Coccomyxa	0.50%	-	2.46	-11.84	16.76	0.74	1.00	-0.44	-9.68	8.80	0.92	1.00	Yes
Bacteria	Cyanobacteria	Chloroplast	Chlorophyta			0.10%	-	-9.17	-40.80	22.46	0.57	1.00	-2.05	-22.49	18.39	0.84	1.00	Yes
Bacteria	Cyanobacteria	Chloroplast	Streptophyta			0.34	0.47	0.07	-2.08	2.21	0.95	1.00	-0.12	-1.50	1.26	0.86	1.00	No
Bacteria	Cyanobacteria	ML635J-21				0.10%	-	13.40	-18.19	45.00	0.41	1.00	17.50	-2.89	37.90	0.09	1.00	Yes
Bacteria	Cyanobacteria	Oscillatoriophyceidae	Chroococcales	Xenococcaceae		0.10%	-	-12.98	-44.72	18.76	0.42	1.00	-5.58	-26.09	14.94	0.59	1.00	Yes

Bacteria	Cyanobacteria	Oscillatoriothycidaceae	Oscillatoriales	Phormidiaceae	Other	0.10%	-	-8.84	-40.80	23.12	0.59	1.00	-6.62	-27.27	14.03	0.53	1.00	Yes
Bacteria	Cyanobacteria	Oscillatoriothycidaceae	Oscillatoriales	Phormidiaceae	Phormidium	0.10%	-	-16.60	-48.30	15.11	0.30	1.00	-9.72	-30.21	10.77	0.35	1.00	Yes
Bacteria	Cyanobacteria	Synechococcophycidaceae	Synechococcales	Synechococcaceae	Synechococcus	0.90%	-	1.11	-9.51	11.73	0.84	1.00	-0.53	-7.40	6.33	0.88	1.00	Yes
Bacteria	Deferribacteres	Deferribacteres	Deferribacterales	Deferribacteraceae	Mucispirillum	3.69%	-	0.87	-4.62	6.35	0.76	1.00	0.44	-3.10	3.99	0.81	1.00	Yes
Bacteria	Elusimicrobia	Elusimicrobia	Elusimicrobiales	Elusimicrobiaceae		4.29%	-	-0.32	-5.33	4.69	0.90	1.00	0.55	-2.69	3.79	0.74	1.00	Yes
Bacteria	Elusimicrobia	Elusimicrobia	FAC88			0.10%	-	-23.98	-55.58	7.61	0.14	1.00	-3.26	-23.70	17.18	0.75	1.00	Yes
Bacteria	Elusimicrobia	Endomicrobia				0.10%	-	-1.62	-33.29	30.06	0.92	1.00	7.84	-12.62	28.31	0.45	1.00	Yes
Bacteria	FBP					1.20%	-	-0.99	-10.19	8.21	0.83	1.00	-0.01	-5.95	5.94	1.00	1.00	Yes
Bacteria	FCPU426					0.20%	-	3.70	-18.67	26.06	0.75	1.00	6.11	-8.34	20.56	0.41	1.00	Yes
Bacteria	Fibrobacteres	Fibrobacteria	Fibrobacterales	Fibrobacteraceae	Fibrobacter	1.10%	-	-5.15	-14.76	4.46	0.29	1.00	-5.53	-11.74	0.67	0.08	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	[Exiguobacteraceae]	Exiguobacterium	4.79%	-	2.15	-2.59	6.89	0.37	1.00	-0.04	-3.10	3.03	0.98	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	[Thermicanaceae]	Thermicanus	0.40%	-	-0.40	-16.22	15.43	0.96	1.00	-3.89	-14.12	6.33	0.46	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Alicyclobacillaceae	Alicyclobacillus	0.10%	-	-18.13	-50.14	13.87	0.27	1.00	-7.39	-28.08	13.30	0.48	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Alicyclobacillaceae	Alicyclobacillus	0.30%	-	1.43	-17.00	19.85	0.88	1.00	0.52	-11.39	12.42	0.93	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Alicyclobacillaceae	Alicyclobacillus	0.10%	-	-11.71	-43.55	20.13	0.47	1.00	-12.28	-32.84	8.29	0.24	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Bacillaceae	Anaerobacillus	3.99%	-	1.98	-3.16	7.12	0.45	1.00	1.33	-1.99	4.65	0.43	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Bacillaceae	Anoxybacillus	23.33%	-	0.20	-2.22	2.61	0.87	1.00	0.07	-1.49	1.63	0.93	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Bacillaceae	Bacillus	0.30	0.42	-1.07	-3.68	1.54	0.42	1.00	-0.01	-1.70	1.67	0.99	1.00	No
Bacteria	Firmicutes	Bacilli	Bacillales	Bacillaceae	Geobacillus	10.07%	-	-1.43	-4.82	1.97	0.41	1.00	0.06	-2.13	2.26	0.95	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Bacillaceae	Natronobacillus	1.30%	-	-9.67	-18.62	-0.72	0.03	0.99	-5.46	-11.25	0.33	0.06	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Bacillaceae	Oceanobacillus	0.10%	-	-4.43	-36.08	27.21	0.78	1.00	-4.78	-25.23	15.67	0.65	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Bacillaceae	Other	3.99%	-	-1.01	-6.19	4.16	0.70	1.00	-1.44	-4.79	1.90	0.40	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Bacillaceae	Virgibacillus	0.50%	-	-2.42	-16.71	11.86	0.74	1.00	-3.22	-12.45	6.01	0.49	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Bacillaceae	Other	5.98%	-	1.66	-2.55	5.88	0.44	1.00	-1.30	-4.02	1.43	0.35	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Other	Other	0.34	0.41	-2.57	-5.03	-0.12	0.04	0.99	-0.87	-2.46	0.72	0.28	1.00	No
Bacteria	Firmicutes	Bacilli	Bacillales	Paenibacillaceae	Ammoniphilus	0.30%	-	-7.09	-25.43	11.26	0.45	1.00	-2.35	-14.21	9.51	0.70	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Paenibacillaceae	Aneurinibacillus	0.50%	-	14.97	0.81	29.14	0.04	0.99	1.96	-7.22	11.13	0.68	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Paenibacillaceae	Brevibacillus	2.59%	-	-0.07	-6.52	6.37	0.98	1.00	2.22	-1.94	6.39	0.29	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Paenibacillaceae	Cohnella	0.10%	-	2.69	-29.32	34.69	0.87	1.00	-11.30	-31.98	9.37	0.28	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Paenibacillaceae	Other	0.70%	-	5.15	-6.87	17.16	0.40	1.00	-1.41	-9.18	6.35	0.72	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Paenibacillaceae	Paenibacillus	5.58%	-	0.02	-4.37	4.42	0.99	1.00	0.53	-2.31	3.37	0.71	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Paenibacillaceae	Paenibacillus	1.79%	-	4.27	-3.29	11.84	0.27	1.00	1.75	-3.14	6.64	0.48	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Planococcaceae	Lysinibacillus	0.90%	-	-1.28	-11.92	9.35	0.81	1.00	-1.44	-8.32	5.43	0.68	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Planococcaceae	Other	6.68%	-	1.48	-2.52	5.48	0.47	1.00	-0.73	-3.32	1.86	0.58	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Planococcaceae	Planomicrobium	1.89%	-	1.35	-6.00	8.70	0.72	1.00	5.20	0.46	9.94	0.03	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Planococcaceae	Rummelibacillus	0.90%	-	-3.72	-14.35	6.92	0.49	1.00	-1.98	-8.85	4.90	0.57	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Planococcaceae	Solibacillus	0.30%	-	-5.11	-23.53	13.31	0.59	1.00	-2.41	-14.31	9.49	0.69	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Planococcaceae	Sporosarcina	2.59%	-	-3.65	-9.98	2.68	0.26	1.00	-3.80	-7.89	0.28	0.07	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Planococcaceae	Other	4.79%	-	-2.36	-7.08	2.36	0.33	1.00	-1.99	-5.04	1.06	0.20	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Sporolactobacillaceae	Other	0.90%	-	-4.21	-14.79	6.38	0.44	1.00	-0.43	-7.27	6.42	0.90	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Sporolactobacillaceae	Sporolactobacillus	0.10%	-	-13.37	-45.10	18.35	0.41	1.00	-4.22	-24.73	16.29	0.69	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Staphylococcaceae	Jeotgalicoccus	9.97%	-	-3.12	-6.50	0.25	0.07	0.99	-1.47	-3.65	0.72	0.19	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Staphylococcaceae	Macrococcus	17.35%	-	-1.81	-4.47	0.86	0.18	1.00	0.28	-1.44	2.01	0.75	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Staphylococcaceae	Other	0.40%	-	-12.46	-28.37	3.45	0.12	1.00	-4.95	-15.24	5.33	0.34	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Staphylococcaceae	Salinicoccus	5.48%	-	0.14	-4.27	4.55	0.95	1.00	-1.58	-4.42	1.27	0.28	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Staphylococcaceae	Staphylococcus	16.05%	-	0.76	-1.99	3.51	0.59	1.00	0.16	-1.62	1.93	0.86	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Thermoactinomycetaceae	Planifilum	1.00%	-	-1.45	-11.55	8.65	0.78	1.00	-1.00	-7.53	5.52	0.76	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Thermoactinomycetaceae	Other	0.40%	-	-3.42	-19.44	12.59	0.68	1.00	-0.06	-10.41	10.29	0.99	1.00	Yes
Bacteria	Firmicutes	Bacilli	Bacillales	Other	Other	0.18	0.30	0.13	-3.18	3.44	0.94	1.00	-0.23	-2.37	1.91	0.83	1.00	No
Bacteria	Firmicutes	Bacilli	Gemellales	Gemellaceae	Gemella	7.18%	-	0.35	-3.52	4.22	0.86	1.00	1.33	-1.17	3.84	0.30	1.00	Yes
Bacteria	Firmicutes	Bacilli	Gemellales	Gemellaceae	Other	0.50%	-	-11.85	-26.01	2.31	0.10	1.00	-4.05	-13.21	5.11	0.39	1.00	Yes
Bacteria	Firmicutes	Bacilli	Gemellales	Gemellaceae	Other	1.04	0.31	1.66	-1.65	4.96	0.33	1.00	1.46	-0.67	3.60	0.18	1.00	No
Bacteria	Firmicutes	Bacilli	Haloplasmatales	Haloplasmataceae	Other	0.20%	-	26.96	4.61	49.31	0.02	0.99	4.53	-9.96	19.01	0.54	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Aerococcaceae	Aerococcus	4.49%	-	3.00	-1.86	7.85	0.23	1.00	0.06	-3.08	3.20	0.97	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Aerococcaceae	Alkalibacterium	0.40%	-	-11.97	-27.83	3.89	0.14	1.00	-6.38	-16.63	3.88	0.22	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Aerococcaceae	Alloicoccus	3.89%	-	-1.29	-6.51	3.93	0.63	1.00	0.63	-2.74	4.00	0.72	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Aerococcaceae	Facklamia	11.86%	-	-1.49	-4.60	1.62	0.35	1.00	-1.34	-3.35	0.67	0.19	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Aerococcaceae	Marinilactibacillus	0.90%	-	-1.20	-11.81	9.41	0.82	1.00	-2.81	-9.67	4.05	0.42	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Aerococcaceae	Other	0.27	0.30	1.31	-2.08	4.70	0.45	1.00	1.09	-1.10	3.28	0.33	1.00	No
Bacteria	Firmicutes	Bacilli	Lactobacillales	Aerococcaceae	Other	9.87%	-	-4.04	-7.47	-0.61	0.02	0.99	-1.24	-3.46	0.98	0.27	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Carnobacteriaceae	Carnobacterium	0.80%	-	-0.69	-11.92	10.53	0.90	1.00	1.57	-5.69	8.82	0.67	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Carnobacteriaceae	Granulicatella	0.15	0.21	4.10	-0.77	8.98	0.10	1.00	1.13	-2.02	4.28	0.48	1.00	No
Bacteria	Firmicutes	Bacilli	Lactobacillales	Carnobacteriaceae	Other	0.10%	-	-5.15	-36.81	26.51	0.75	1.00	-1.96	-22.42	18.50	0.85	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Enterococcaceae	Enterococcus	0.30	0.34	-1.14	-4.08	1.81	0.45	1.00	-1.18	-3.08	0.72	0.22	1.00	No
Bacteria	Firmicutes	Bacilli	Lactobacillales	Enterococcaceae	Other	6.38%	-	0.99	-3.10	5.08	0.63	1.00	-0.46	-3.10	2.18	0.73	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Enterococcaceae	Vagococcus	3.49%	-	0.34	-5.13	5.82	0.90	1.00	1.59	-1.95	5.13	0.38	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Enterococcaceae	Other	2.29%	-	-1.17	-7.89	5.56	0.73	1.00	-1.99	-6.33	2.35	0.37	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Lactobacillaceae	Lactobacillus*	2.08	0.60	1.69	-0.03	3.40	0.05	0.99	1.19	0.08	2.30	0.04	1.00	No

Bacteria	Firmicutes	Bacilli	Lactobacillales	Lactobacillaceae	Other	2.79%	-	-0.77	-6.81	5.28	0.80	1.00	-1.66	-5.56	2.25	0.40	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Lactobacillaceae	Pediococcus	14.76%	-	0.24	-2.59	3.07	0.87	1.00	0.32	-1.51	2.16	0.73	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Lactobacillaceae		0.33	0.48	-0.86	-2.93	1.21	0.42	1.00	0.27	-1.07	1.61	0.70	1.00	No
Bacteria	Firmicutes	Bacilli	Lactobacillales	Leuconostocaceae	Fructobacillus	0.50%	-	-3.06	-17.23	11.11	0.67	1.00	-1.59	-10.75	7.57	0.73	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Leuconostocaceae	Leuconostoc	0.55	0.52	-0.10	-2.06	1.86	0.92	1.00	0.45	-0.82	1.71	0.49	1.00	No
Bacteria	Firmicutes	Bacilli	Lactobacillales	Leuconostocaceae	Oenococcus	0.10%	-	-10.97	-42.66	20.71	0.50	1.00	-3.93	-24.40	16.55	0.71	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Leuconostocaceae	Other	4.09%	-	4.53	-0.60	9.67	0.08	1.00	1.07	-2.25	4.40	0.53	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Leuconostocaceae	Weissella	20.54%	-	1.71	-0.78	4.20	0.18	1.00	1.46	-0.14	3.07	0.07	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Leuconostocaceae*		1.22	0.72	0.47	-1.06	2.00	0.55	1.00	0.30	-0.69	1.30	0.55	1.00	No
Bacteria	Firmicutes	Bacilli	Lactobacillales	Other	Other	0.12	0.21	0.99	-3.76	5.74	0.68	1.00	0.52	-2.55	3.59	0.74	1.00	No
Bacteria	Firmicutes	Bacilli	Lactobacillales	Streptococcaceae	Streptococcus	1.15	0.69	-0.35	-1.88	1.19	0.66	1.00	0.08	-0.91	1.07	0.87	1.00	No
Bacteria	Firmicutes	Bacilli	Lactobacillales	Streptococcaceae	Other	1.10%	-	2.61	-6.98	12.21	0.59	1.00	2.03	-4.17	8.23	0.52	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales	Streptococcaceae	Streptococcus	2.83	0.40	0.38	-2.20	2.95	0.77	1.00	-0.08	-1.75	1.58	0.92	1.00	No
Bacteria	Firmicutes	Bacilli	Lactobacillales	Streptococcaceae		0.60%	-	-3.15	-16.14	9.84	0.63	1.00	-4.63	-13.02	3.76	0.28	1.00	Yes
Bacteria	Firmicutes	Bacilli	Lactobacillales			11.07%	-	-1.53	-4.75	1.69	0.35	1.00	-0.25	-2.33	1.83	0.81	1.00	Yes
Bacteria	Firmicutes	Bacilli	Other	Other		1.89%	-	-5.22	-12.56	2.11	0.16	1.00	-2.98	-7.72	1.76	0.22	1.00	Yes
Bacteria	Firmicutes	Bacilli	Turicibacterales	Turicibacteraceae	Turicibacter	2.23	0.40	0.87	-1.69	3.43	0.51	1.00	0.02	-1.64	1.68	0.98	1.00	No
Bacteria	Firmicutes	Clostridia		[Acidaminobacteraceae]	Fusibacter	0.30%	-	3.07	-15.24	21.37	0.74	1.00	-2.58	-14.41	9.25	0.67	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	[Mogibacteriaceae]	Anaerovorax	19.24%	-	1.75	-0.78	4.28	0.18	1.00	0.51	-1.13	2.15	0.54	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	[Mogibacteriaceae]	Mogibacterium	0.47	0.35	0.02	-2.88	2.91	0.99	1.00	0.55	-1.32	2.42	0.56	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	[Mogibacteriaceae]		1.03	0.27	0.00	-3.78	3.78	1.00	1.00	0.87	-1.57	3.31	0.48	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]	Anaerococcus	20.24%	-	2.81	0.16	5.47	0.04	0.99	2.39	0.68	4.10	0.01	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]	Finegoldia	0.10	0.18	-0.46	-2.98	2.05	0.72	1.00	1.01	-0.61	2.63	0.22	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]	Gallicola	5.18%	-	-1.11	-6.63	4.41	0.69	1.00	0.65	-2.91	4.22	0.72	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]	GW-34	1.69%	-	0.66	-3.89	5.20	0.78	1.00	1.86	-1.08	4.79	0.21	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]	Helcococcus	0.70%	-	-2.58	-10.36	5.19	0.51	1.00	1.19	-3.84	6.21	0.64	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]	Other	0.40%	-	-5.45	-17.47	6.56	0.37	1.00	-0.44	-8.21	7.32	0.91	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]	Parvimonas	0.25	0.28	-0.36	-16.31	15.60	0.97	1.00	5.20	-5.11	15.51	0.32	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]	Peptoniphilus	0.15	0.24	1.22	-2.42	4.87	0.51	1.00	0.78	-1.57	3.14	0.51	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]	pH2	11.76%	-	3.25	-1.00	7.50	0.13	1.00	0.87	-1.88	3.62	0.54	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]	Sedimentibacter	0.30%	-	1.71	-1.40	4.82	0.28	1.00	1.31	-0.70	3.31	0.20	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]	Tissierella_Soehngenia	2.09%	-	8.76	-9.62	27.13	0.35	1.00	4.71	-7.16	16.59	0.44	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]	WAL_1855D	0.25	0.38	1.23	-5.79	8.25	0.73	1.00	1.37	-3.16	5.90	0.55	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]		4.59%	-	0.77	-2.00	3.53	0.59	1.00	0.92	-0.86	2.71	0.31	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	[Tissierellaceae]		17.35%	-	-4.58	-9.41	0.25	0.06	0.99	-2.29	-5.41	0.84	0.15	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Christensenellaceae	Christensenella	0.12	0.20	0.53	-4.59	5.64	0.84	1.00	1.64	-1.67	4.94	0.33	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Christensenellaceae		0.45	0.45	0.80	-1.50	3.10	0.50	1.00	0.30	-1.19	1.79	0.69	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Alkaliphilus	0.70%	-	-7.64	-19.69	4.41	0.21	1.00	-0.50	-8.29	7.30	0.90	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Caloramator	0.40%	-	-3.40	-19.43	12.64	0.68	1.00	-2.15	-12.52	8.21	0.68	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Candidatus Arthromitus	2.79%	-	-0.72	-6.85	5.41	0.82	1.00	-2.20	-6.16	1.76	0.28	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Clostridiisalibacter	0.10%	-	-14.64	-46.27	16.98	0.36	1.00	-4.95	-25.39	15.50	0.63	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Clostridium	1.80	0.51	0.07	-1.94	2.09	0.94	1.00	0.40	-0.90	1.70	0.55	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Other	1.08	0.40	-0.31	-2.89	2.26	0.81	1.00	-0.02	-1.68	1.65	0.99	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Proteiniclasticum	0.90%	-	-4.84	-15.51	5.83	0.37	1.00	-3.33	-10.23	3.56	0.34	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Sarcina	4.99%	-	-0.39	-5.04	4.25	0.87	1.00	-0.99	-3.99	2.02	0.52	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	SMB53	1.08	0.35	1.49	-1.40	4.39	0.31	1.00	1.69	-0.18	3.55	0.08	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	Tindallia_Anoxynatronum	0.20%	-	5.47	-16.85	27.79	0.63	1.00	-1.50	-15.93	12.93	0.84	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Clostridiaceae		3.15	0.32	3.04	-0.19	6.27	0.07	0.99	1.53	-0.56	3.62	0.15	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Dehalobacteriaceae	Dehalobacterium	0.13	0.26	1.74	-2.17	5.64	0.38	1.00	1.68	-0.85	4.20	0.19	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Dehalobacteriaceae		2.59%	-	-0.84	-7.18	5.51	0.80	1.00	-1.05	-5.14	3.05	0.62	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	EtOH8		2.39%	-	2.80	-3.81	9.41	0.41	1.00	-1.14	-5.41	3.13	0.60	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Eubacteriaceae	Anaerofustis	0.12	0.20	1.21	-4.00	6.43	0.65	1.00	0.05	-3.32	3.42	0.98	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Eubacteriaceae	Pseudoramibacter_Eubacteriu	0.49	0.48	1.27	-1.14	3.68	0.30	1.00	-0.60	-2.15	0.96	0.45	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Gracilibacteraceae	Lutispora	0.10%	-	31.11	-0.47	62.69	0.05	0.99	16.99	-3.43	37.41	0.10	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	[Ruminococcus]	2.69	0.26	-2.52	-6.56	1.51	0.22	1.00	-1.56	-4.17	1.05	0.24	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Anaerostipes	1.01	0.44	-1.92	-4.27	0.43	0.11	1.00	-1.27	-2.79	0.25	0.10	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Blautia†	3.34	0.31	-3.04	-6.61	0.53	0.10	1.00	-0.48	-2.79	1.83	0.68	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Butyrivibrio	2.39%	-	-3.88	-10.42	2.67	0.25	1.00	-2.29	-6.52	1.94	0.29	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Catonella	0.90%	-	4.21	-6.42	14.84	0.44	1.00	3.36	-3.51	10.23	0.34	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Clostridium	0.30%	-	5.80	-12.58	24.19	0.54	1.00	3.44	-8.44	15.32	0.57	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Coproccocus†	3.03	0.32	-3.37	-6.64	-0.10	0.04	0.99	-1.74	-3.86	0.37	0.11	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Dorea	2.39	0.24	-1.64	-5.74	2.46	0.43	1.00	-1.69	-4.34	0.96	0.21	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Epulopiscium	0.44	0.43	-0.90	-3.23	1.42	0.45	1.00	-0.70	-2.21	0.80	0.36	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Lachnobacterium	1.20%	-	2.14	-7.04	11.33	0.65	1.00	-1.76	-7.70	4.17	0.56	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Lachnospira	1.66	0.50	-0.02	-2.05	2.01	0.98	1.00	-1.13	-2.44	0.18	0.09	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Moryella	1.69%	-	5.08	-2.68	12.84	0.20	1.00	4.67	-0.34	9.68	0.07	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Oribacterium	16.05%	-	1.56	-1.15	4.28	0.26	1.00	1.30	-0.45	3.05	0.15	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Other	1.66	0.24	-2.83	-7.02	1.35	0.18	1.00	-0.33	-3.03	2.38	0.81	1.00	No

Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Pseudobutyrvibrio	0.70%	-	-0.76	-12.92	11.40	0.90	1.00	-2.36	-10.22	5.49	0.56	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Roseburia	0.55	0.36	0.25	-2.53	3.02	0.86	1.00	-1.31	-3.10	0.49	0.15	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae	Shuttleworthia	0.80%	-	-4.75	-16.03	6.53	0.41	1.00	1.09	-6.20	8.38	0.77	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Lachnospiraceae		3.05	0.22	-1.64	-6.27	2.99	0.49	1.00	-0.32	-3.31	2.67	0.83	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Other	Other	2.40	0.34	1.41	-1.59	4.41	0.36	1.00	2.16	0.23	4.10	0.03	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Peptococcaceae	Desulfurispora	0.40%	-	2.45	-13.42	18.32	0.76	1.00	-3.84	-14.09	6.41	0.46	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Peptococcaceae	Other	0.20%	-	-13.06	-35.54	9.41	0.25	1.00	-11.25	-25.76	3.27	0.13	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Peptococcaceae	Peptococcus	0.60	0.61	0.54	-1.20	2.28	0.54	1.00	0.11	-1.02	1.24	0.85	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Peptococcaceae	rc4-4	3.09%	-	2.46	-3.36	8.28	0.41	1.00	-0.56	-4.32	3.21	0.77	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Peptococcaceae	Sporotomaculum	1.20%	-	1.88	-7.36	11.13	0.69	1.00	-0.85	-6.82	5.12	0.78	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Peptococcaceae		0.12	0.21	-0.52	-5.46	4.42	0.84	1.00	0.89	-2.30	4.09	0.58	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Peptostreptococcaceae	Filifactor	1.30%	-	2.99	-5.91	11.90	0.51	1.00	1.09	-4.67	6.84	0.71	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Peptostreptococcaceae	Other	21.44%	-	0.50	-1.97	2.98	0.69	1.00	0.09	-1.51	1.69	0.91	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Peptostreptococcaceae	Peptostreptococcus	0.30	0.36	2.88	0.04	5.73	0.05	0.99	1.84	0.00	3.68	0.05	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Peptostreptococcaceae		1.34	0.42	-0.04	-2.55	2.46	0.97	1.00	0.13	-1.49	1.75	0.87	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Ruminococcaceae	Anaerotruncus	17.85%	-	-0.43	-3.07	2.22	0.75	1.00	-0.94	-2.65	0.77	0.28	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Ruminococcaceae	Ethanoligenens	0.30%	-	-10.37	-28.73	7.98	0.27	1.00	-5.16	-17.03	6.70	0.39	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Ruminococcaceae	Faecalibacterium	2.31	0.45	0.10	-2.12	2.33	0.93	1.00	-0.80	-2.23	0.64	0.28	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Ruminococcaceae	Oscillospira	1.45	0.36	0.47	-2.51	3.46	0.76	1.00	-0.57	-2.50	1.36	0.56	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Ruminococcaceae	Other	0.45	0.53	-2.31	-4.31	-0.32	0.02	0.99	-1.13	-2.42	0.16	0.09	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Ruminococcaceae	Ruminococcus	2.49	0.37	-2.09	-4.83	0.66	0.14	1.00	-1.69	-3.47	0.08	0.06	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Ruminococcaceae		3.02	0.36	0.17	-2.62	2.95	0.90	1.00	-0.23	-2.03	1.57	0.80	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Veillonellaceae	Acidaminococcus	7.78%	-	0.14	-3.66	3.95	0.94	1.00	0.87	-1.59	3.33	0.49	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Veillonellaceae	Anaerovibrio	0.40%	-	-4.69	-20.67	11.28	0.56	1.00	-3.03	-13.36	7.29	0.56	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Veillonellaceae	Dialister	12.86%	-	-0.53	-3.54	2.48	0.73	1.00	0.00	-1.95	1.94	1.00	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Veillonellaceae	Megamonas	0.71	0.57	1.69	-0.07	3.45	0.06	0.99	0.70	-0.44	1.84	0.23	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Veillonellaceae	Megasphaera	0.25	0.41	1.75	-0.77	4.28	0.17	1.00	0.68	-0.95	2.32	0.41	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Veillonellaceae	Mitsuokella	13.06%	-	1.37	-1.66	4.39	0.38	1.00	0.32	-1.64	2.27	0.75	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Veillonellaceae	Other	3.09%	-	0.45	-5.35	6.26	0.88	1.00	1.72	-2.03	5.46	0.37	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Veillonellaceae	Phascolarctobacterium	0.51	0.48	1.73	-0.36	3.83	0.10	1.00	-0.07	-1.43	1.28	0.91	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Veillonellaceae	Selenomonas	0.50%	-	0.72	-13.56	15.00	0.92	1.00	-7.11	-16.33	2.11	0.13	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Veillonellaceae	Succiniclasticum	0.30%	-	-11.57	-29.95	6.81	0.22	1.00	-5.33	-17.21	6.56	0.38	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales	Veillonellaceae	Veillonella*	0.42	0.46	1.08	-1.16	3.31	0.34	1.00	0.37	-1.07	1.81	0.62	1.00	No
Bacteria	Firmicutes	Clostridia	Clostridiales	Veillonellaceae		8.97%	-	2.01	-1.48	5.51	0.26	1.00	0.74	-1.52	3.00	0.52	1.00	Yes
Bacteria	Firmicutes	Clostridia	Clostridiales			3.38	0.24	0.79	-3.42	5.00	0.71	1.00	1.28	-1.44	4.00	0.36	1.00	No
Bacteria	Firmicutes	Clostridia	MBA08			0.30%	-	3.11	-15.43	21.66	0.74	1.00	1.25	-10.74	13.23	0.84	1.00	Yes
Bacteria	Firmicutes	Clostridia	Natranaerobiales	ML1228J-1		0.20%	-	-6.68	-29.07	15.71	0.56	1.00	-1.53	-16.00	12.94	0.84	1.00	Yes
Bacteria	Firmicutes	Clostridia	OPB54			0.20%	-	7.50	-15.01	30.01	0.51	1.00	6.92	-7.62	21.47	0.35	1.00	Yes
Bacteria	Firmicutes	Clostridia	Other	Other	Other	1.69%	-	4.71	-3.08	12.51	0.24	1.00	1.41	-3.63	6.45	0.58	1.00	Yes
Bacteria	Firmicutes	Clostridia	Thermoanaerobacterales	Caldicellulosiruptoraceae	Caldicellulosiruptor	0.50%	-	14.47	0.13	28.80	0.05	0.99	11.07	1.81	20.32	0.02	1.00	Yes
Bacteria	Firmicutes	Clostridia	Thermoanaerobacterales	Thermodesulfobiaceae	Coprothermobacter	0.30%	-	-2.47	-20.81	15.87	0.79	1.00	-0.55	-12.41	11.30	0.93	1.00	Yes
Bacteria	Firmicutes	Clostridia				1.10%	-	0.64	-8.97	10.25	0.90	1.00	-1.29	-7.50	4.92	0.68	1.00	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	[Eubacterium]	2.17	0.58	-2.38	-4.11	-0.65	0.01	0.99	-0.92	-2.04	0.20	0.11	1.00	No
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Allobaculum	17.55%	-	0.80	-1.87	3.47	0.56	1.00	-0.36	-2.08	1.37	0.69	1.00	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Bulleidia	0.65	0.41	1.21	-1.25	3.66	0.34	1.00	1.07	-0.52	2.66	0.19	1.00	No
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Catenibacterium	0.95	0.85	-0.10	-1.37	1.17	0.88	1.00	0.33	-0.49	1.15	0.43	1.00	No
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	cc_115	4.69%	-	-0.06	-4.83	4.71	0.98	1.00	1.51	-1.58	4.59	0.34	1.00	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Coprobacillus	0.40	0.43	1.43	-1.05	3.90	0.26	1.00	-0.09	-1.69	1.50	0.91	1.00	No
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Erysipelothrix	3.39%	-	-2.00	-7.60	3.60	0.48	1.00	-0.56	-4.18	3.06	0.76	1.00	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Holdemania	0.34	0.34	-0.59	-3.68	2.50	0.71	1.00	-0.61	-2.61	1.39	0.55	1.00	No
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Other	3.39%	-	4.85	-0.68	10.38	0.09	1.00	0.76	-2.82	4.34	0.68	1.00	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	p-75-a5	11.17%	-	-0.74	-3.92	2.45	0.65	1.00	-0.60	-2.66	1.45	0.57	1.00	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	PSB-M-3	0.70%	-	1.53	-10.47	13.53	0.80	1.00	2.49	-5.26	10.25	0.53	1.00	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	RFN20	1.79%	-	2.73	-4.85	10.30	0.48	1.00	-1.25	-6.15	3.65	0.62	1.00	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae	Sharpea	6.28%	-	4.55	0.43	8.68	0.03	0.99	3.42	0.76	6.08	0.01	1.00	Yes
Bacteria	Firmicutes	Erysipelotrichi	Erysipelotrichales	Erysipelotrichaceae		2.83	0.38	-0.67	-3.32	1.98	0.62	1.00	-1.72	-3.43	-0.01	0.05	1.00	No
Bacteria	Firmicutes	Other	Other	Other		0.20%	-	-5.59	-28.02	16.84	0.62	1.00	-4.68	-19.18	9.81	0.53	1.00	Yes
Bacteria	Fusobacteria	Fusobacteriia	Fusobacteriales	Fusobacteriaceae	Cetobacterium	15.55%	-	0.93	-1.85	3.72	0.51	1.00	1.09	-0.71	2.89	0.24	1.00	Yes
Bacteria	Fusobacteria	Fusobacteriia	Fusobacteriales	Fusobacteriaceae	Fusobacterium*	0.40	0.59	2.11	0.29	3.94	0.02	0.99	0.15	-1.03	1.33	0.80	1.00	No
Bacteria	Fusobacteria	Fusobacteriia	Fusobacteriales	Fusobacteriaceae	Psychrilyobacter	0.30%	-	-8.77	-27.13	9.59	0.35	1.00	-8.80	-20.66	3.05	0.15	1.00	Yes
Bacteria	Fusobacteria	Fusobacteriia	Fusobacteriales	Fusobacteriaceae	u114	0.20%	-	10.30	-12.09	32.69	0.37	1.00	8.34	-6.12	22.81	0.26	1.00	Yes
Bacteria	Fusobacteria	Fusobacteriia	Fusobacteriales	Fusobacteriaceae		0.80%	-	9.09	-2.14	20.32	0.11	1.00	3.26	-4.01	10.52	0.38	1.00	Yes
Bacteria	Fusobacteria	Fusobacteriia	Fusobacteriales	Leptotrichiaceae	Leptotrichia	3.59%	-	3.23	-2.17	8.63	0.24	1.00	-0.25	-3.74	2.25	0.89	1.00	Yes
Bacteria	Fusobacteria	Fusobacteriia	Fusobacteriales	Leptotrichiaceae	Sneathia	1.69%	-	-6.82	-14.59	0.95	0.09	1.00	-2.86	-7.89	2.16	0.26	1.00	Yes
Bacteria	Fusobacteria	Fusobacteriia	Fusobacteriales			0.10%	-	-29.97	-61.54	1.61	0.06	0.99	-26.10	-46.48	-5.72	0.01	1.00	Yes
Bacteria	Gemmatimonadetes	Gemm-1				3.99%	-	1.77	-3.36	6.90	0.50	1.00	0.96	-2.35	4.28	0.57	1.00	Yes
Bacteria	Gemmatimonadetes	Gemm-2				0.20%	-	-13.13	-35.72	9.45	0.25	1.00	-3.35	-17.96	11.25	0.65	1.00	Yes
Bacteria	Gemmatimonadetes	Gemm-3				1.40%	-	-3.66	-12.24	4.93	0.40	1.00	-2.99	-8.53	2.56	0.29	1.00	Yes

Bacteria	Gemmatimonadetes	Gemm-4				0.20%	-	2.11	-20.43	24.65	0.85	1.00	6.00	-8.56	20.56	0.42	1.00	Yes
Bacteria	Gemmatimonadetes	Gemm-5				1.30%	-	-3.21	-12.12	5.70	0.48	1.00	-1.81	-7.57	3.94	0.54	1.00	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes	C114			0.40%	-	-2.23	-18.23	13.76	0.78	1.00	-2.47	-12.80	7.86	0.64	1.00	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes	Ellin5290			0.50%	-	-2.50	-16.82	11.82	0.73	1.00	-8.56	-17.80	0.68	0.07	1.00	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes	Gemmatimonadales	Ellin5301		0.40%	-	-2.03	-17.94	13.89	0.80	1.00	-1.00	-11.28	9.28	0.85	1.00	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes	Gemmatimonadales	Gemmatimonadaceae	Gemmatimonas	0.20%	-	5.74	-16.73	28.21	0.62	1.00	0.41	-14.12	14.93	0.96	1.00	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes	Gemmatimonadales	Other	Other	0.30%	-	-2.87	-21.16	15.43	0.76	1.00	-2.36	-14.18	9.47	0.70	1.00	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes	Gemmatimonadales			0.60%	-	0.14	-12.86	13.14	0.98	1.00	2.49	-5.91	10.89	0.56	1.00	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes	KD8-87			0.60%	-	6.18	-6.78	19.14	0.35	1.00	0.42	-7.96	8.81	0.92	1.00	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes	N1423WL			0.20%	-	-22.69	-45.02	-0.36	0.05	0.99	-18.88	-33.29	-4.47	0.01	1.00	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes				2.79%	-	1.90	-4.16	7.96	0.54	1.00	-3.06	-6.97	0.86	0.13	1.00	Yes
Bacteria	Gemmatimonadetes	Gemmatimonadetes				0.60%	-	4.70	-8.29	17.70	0.48	1.00	4.24	-4.16	12.63	0.32	1.00	Yes
Bacteria	GN02	BD1-5				0.10%	-	-18.81	-50.48	12.86	0.24	1.00	-3.25	-23.73	17.23	0.76	1.00	Yes
Bacteria	GN04	GN15				0.20%	-	-10.45	-32.82	11.92	0.36	1.00	-2.89	-17.35	11.57	0.70	1.00	Yes
Bacteria	Lentisphaerae	[Lentisphaeria]	Victivallales	Victivallaceae		6.78%	-	1.46	-2.55	5.47	0.47	1.00	-0.07	-2.66	2.52	0.96	1.00	Yes
Bacteria	Lentisphaerae	[Lentisphaeria]	Z20	R4-45B		0.20%	-	21.00	-1.49	43.48	0.07	0.99	2.43	-12.13	16.98	0.74	1.00	Yes
Bacteria	Nitrospirae	Nitrospira	Nitrospirales	[Thermodesulfobivriaceae]	DCE29	1.99%	-	0.62	-6.60	7.83	0.87	1.00	-1.44	-6.10	3.22	0.54	1.00	Yes
Bacteria	Nitrospirae	Nitrospira	Nitrospirales	[Thermodesulfobivriaceae]	GOUTA19	1.20%	-	-8.59	-17.75	0.57	0.07	0.99	-3.92	-9.85	2.00	0.19	1.00	Yes
Bacteria	Nitrospirae	Nitrospira	Nitrospirales	[Thermodesulfobivriaceae]		0.20%	-	4.09	-18.42	26.61	0.72	1.00	12.12	-2.41	26.65	0.10	1.00	Yes
Bacteria	Nitrospirae	Nitrospira	Nitrospirales	O319-6A21		1.50%	-	2.27	-6.03	10.57	0.59	1.00	-1.90	-7.26	3.47	0.49	1.00	Yes
Bacteria	Nitrospirae	Nitrospira	Nitrospirales	FW		0.10%	-	-11.71	-43.55	20.13	0.47	1.00	-12.28	-32.84	8.29	0.24	1.00	Yes
Bacteria	Nitrospirae	Nitrospira	Nitrospirales	Nitrospiraceae	Nitrospira	3.39%	-	-1.21	-6.74	4.33	0.67	1.00	-0.35	-3.93	3.23	0.85	1.00	Yes
Bacteria	Nitrospirae	Nitrospira	Nitrospirales	Nitrospiraceae		0.30%	-	-1.28	-19.56	17.01	0.89	1.00	3.19	-8.63	15.00	0.60	1.00	Yes
Bacteria	NKB19	TSBW08				0.40%	-	3.60	-12.31	19.52	0.66	1.00	2.54	-7.74	12.83	0.63	1.00	Yes
Bacteria	OD1	ZB2				0.40%	-	-13.20	-29.05	2.66	0.10	1.00	-8.18	-18.43	2.07	0.12	1.00	Yes
Bacteria	OP1	MSBL6				0.30%	-	-3.64	-22.01	14.74	0.70	1.00	0.74	-11.14	12.61	0.90	1.00	Yes
Bacteria	OP8	OP8_1				0.40%	-	10.71	-5.17	26.60	0.19	1.00	9.76	-0.50	20.02	0.06	1.00	Yes
Bacteria	OP9	OPB46	OPB72	TIBD11		0.30%	-	-10.63	-28.96	7.69	0.26	1.00	-5.08	-16.93	6.77	0.40	1.00	Yes
Bacteria	Other	Other	Other	Other	Other	0.20%	-	-0.74	-23.21	21.73	0.95	1.00	-0.85	-15.37	13.67	0.91	1.00	Yes
Bacteria	Planctomycetes	[Brocadiae]	Brocadiales	Brocadaceae	Candidatus Jettenia	0.20%	-	-6.81	-29.14	15.53	0.55	1.00	-4.22	-18.65	10.21	0.57	1.00	Yes
Bacteria	Planctomycetes	C6	d113			0.10%	-	-11.71	-43.55	20.13	0.47	1.00	-12.28	-32.84	8.29	0.24	1.00	Yes
Bacteria	Planctomycetes	OM190	agg27			0.20%	-	-2.50	-24.92	19.92	0.83	1.00	4.65	-9.84	19.14	0.53	1.00	Yes
Bacteria	Planctomycetes	OM190	CL500-15			0.80%	-	-2.21	-13.52	9.09	0.70	1.00	-4.15	-11.45	3.15	0.27	1.00	Yes
Bacteria	Planctomycetes	Phycisphaerae	Phycisphaerae			0.10%	-	-7.30	-39.00	24.39	0.65	1.00	0.65	-19.83	21.14	0.95	1.00	Yes
Bacteria	Planctomycetes	Phycisphaerae	Phycisphaerales	Phycisphaeraeae		0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Planctomycetes	Phycisphaerae	Phycisphaerales			0.40%	-	-4.79	-20.62	11.04	0.55	1.00	0.99	-9.24	11.22	0.85	1.00	Yes
Bacteria	Planctomycetes	Phycisphaerae	Pla1			0.10%	-	13.40	-18.19	45.00	0.41	1.00	17.50	-2.89	37.90	0.09	1.00	Yes
Bacteria	Planctomycetes	Phycisphaerae	WD2101			0.30%	-	6.06	-12.35	24.46	0.52	1.00	-2.93	-14.83	8.96	0.63	1.00	Yes
Bacteria	Planctomycetes	Pla4				0.20%	-	-1.05	-23.55	21.44	0.93	1.00	8.37	-6.16	22.89	0.26	1.00	Yes
Bacteria	Planctomycetes	Planctomycetia	Gemmatales	Gemmataceae	Gemmata	1.00%	-	-0.23	-10.45	9.98	0.96	1.00	-1.02	-7.63	5.58	0.76	1.00	Yes
Bacteria	Planctomycetes	Planctomycetia	Gemmatales	Gemmataceae		0.90%	-	0.63	-10.11	11.38	0.91	1.00	-0.61	-7.56	6.33	0.86	1.00	Yes
Bacteria	Planctomycetes	Planctomycetia	Gemmatales	Isosphaeraceae	Nostocoida	0.10%	-	13.40	-18.19	45.00	0.41	1.00	17.50	-2.89	37.90	0.09	1.00	Yes
Bacteria	Planctomycetes	Planctomycetia	Gemmatales	Isosphaeraceae		0.30%	-	3.79	-14.54	22.11	0.69	1.00	-4.86	-16.70	6.98	0.42	1.00	Yes
Bacteria	Planctomycetes	Planctomycetia	Pirellulales	Pirellulaceae	A17	0.60%	-	-4.47	-17.47	8.53	0.50	1.00	0.23	-8.17	8.63	0.96	1.00	Yes
Bacteria	Planctomycetes	Planctomycetia	Pirellulales	Pirellulaceae	Pirellula	0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Planctomycetes	Planctomycetia	Pirellulales	Pirellulaceae		0.40%	-	0.19	-15.68	16.07	0.98	1.00	6.24	-4.01	16.50	0.23	1.00	Yes
Bacteria	Planctomycetes	Planctomycetia	Planctomycetales	Planctomycetaceae	Planctomyces	0.80%	-	-1.33	-12.73	10.07	0.82	1.00	-1.31	-8.68	6.06	0.73	1.00	Yes
Bacteria	Planctomycetes	vadinHA49	DH61			0.30%	-	5.93	-12.34	24.20	0.52	1.00	2.72	-9.09	14.53	0.65	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	BD7-3			0.80%	-	-0.39	-11.61	10.84	0.95	1.00	-0.87	-8.13	6.38	0.81	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Caulobacterales	Caulobacteraceae	Asticcacaulis	0.50%	-	-4.35	-18.57	9.88	0.55	1.00	-1.80	-10.99	7.39	0.70	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Caulobacterales	Caulobacteraceae	Brevundimonas	3.89%	-	1.71	-3.49	6.91	0.52	1.00	1.13	-2.24	4.49	0.51	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Caulobacterales	Caulobacteraceae	Mycoplana	7.08%	-	0.74	-3.19	4.66	0.71	1.00	-0.75	-3.29	1.79	0.56	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Caulobacterales	Caulobacteraceae	Phenylobacterium	4.69%	-	4.19	-0.54	8.92	0.08	1.00	2.19	-0.86	5.25	0.16	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Caulobacterales	Caulobacteraceae		15.75%	-	-0.05	-2.84	2.74	0.97	1.00	-0.76	-2.56	1.04	0.41	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Caulobacterales	Caulobacteraceae		0.10%	-	5.65	-26.05	37.36	0.73	1.00	9.07	-11.41	29.55	0.39	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Ellin329			1.30%	-	5.52	-3.38	14.41	0.22	1.00	1.93	-3.83	7.68	0.51	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Kiloniellales	Kiloniellaceae	Thalassospira	0.50%	-	-4.11	-18.34	10.12	0.57	1.00	-3.01	-12.21	6.18	0.52	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Kiloniellales	Kiloniellales		0.50%	-	3.65	-10.53	17.84	0.61	1.00	0.33	-8.84	9.50	0.94	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Other	Other	Other	0.20%	-	-6.25	-28.64	16.14	0.58	1.00	-3.48	-17.95	10.99	0.64	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	RF32			9.47%	-	-1.27	-4.74	2.19	0.47	1.00	-0.93	-3.17	1.31	0.41	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Aurantimonadaceae		1.60%	-	6.53	-1.50	14.56	0.11	1.00	1.34	-3.86	6.53	0.61	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bartonellaceae	Bartonella	0.60%	-	-4.44	-17.52	8.64	0.51	1.00	0.31	-8.14	8.77	0.94	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bartonellaceae	Other	0.50%	-	-7.00	-21.16	7.16	0.33	1.00	-1.09	-10.24	8.07	0.82	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bartonellaceae		0.20%	-	5.18	-17.25	27.61	0.65	1.00	5.59	-8.90	20.09	0.45	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Beijerinckiaceae	Other	0.30%	-	18.59	0.28	36.90	0.05	0.99	2.71	-9.15	14.56	0.65	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Beijerinckiaceae		1.89%	-	-3.23	-10.63	4.18	0.39	1.00	-1.73	-6.52	3.06	0.48	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bradyrhizobiaceae	Balneimonas	1.10%	-	2.99	-6.68	12.65	0.54	1.00	-3.29	-9.54	2.95	0.30	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bradyrhizobiaceae	Bosea	0.30%	-	0.94	-17.29	19.18	0.92	1.00	1.96	-9.83	13.74	0.74	1.00	Yes



Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bradyrhizobiaceae	Bradyrhizobium	0.50%	-	4.30	-9.97	18.58	0.55	1.00	6.16	-3.06	15.38	0.19	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bradyrhizobiaceae		0.19	0.33	3.79	0.71	6.86	0.02	0.99	2.40	0.41	4.39	0.02	1.00	No
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Brucellaceae	Ochrobactrum	4.69%	-	-3.57	-8.34	1.20	0.14	1.00	-2.94	-6.02	0.14	0.06	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Brucellaceae	Other	1.40%	-	-0.92	-9.54	7.70	0.83	1.00	-1.42	-6.99	4.15	0.62	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Brucellaceae		0.90%	-	-13.21	-23.79	-2.63	0.01	0.99	-10.69	-17.52	-3.87	0.00	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Hyphomicrobiaceae	Devosia	9.67%	-	0.77	-2.68	4.23	0.66	1.00	-0.51	-2.75	1.72	0.65	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Hyphomicrobiaceae	Hyphomicrobium	3.49%	-	2.59	-2.89	8.07	0.35	1.00	-1.47	-5.02	2.07	0.41	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Hyphomicrobiaceae	Other	0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Hyphomicrobiaceae	Pedomicrobium	0.40%	-	-12.10	-28.03	3.83	0.14	1.00	-4.21	-14.51	6.10	0.42	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Hyphomicrobiaceae	Rhodoplanes	3.89%	-	0.20	-4.99	5.40	0.94	1.00	1.82	-1.54	5.17	0.29	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Hyphomicrobiaceae		2.39%	-	-0.59	-7.23	6.06	0.86	1.00	-1.04	-5.34	3.26	0.64	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Methylobacteriaceae	Methylobacterium	5.18%	-	0.95	-3.61	5.51	0.68	1.00	-0.43	-3.38	2.51	0.77	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Methylobacteriaceae		5.08%	-	0.27	-4.31	4.85	0.91	1.00	1.25	-1.71	4.21	0.41	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Methylocystaceae	Methylolipia	0.40%	-	2.67	-13.20	18.53	0.74	1.00	2.12	-8.13	12.38	0.68	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Methylocystaceae	Methylosinus	0.80%	-	3.36	-7.94	14.66	0.56	1.00	-0.41	-7.71	6.90	0.91	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Methylocystaceae	Other	1.00%	-	4.26	-5.80	14.31	0.41	1.00	0.22	-6.28	6.72	0.95	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Methylocystaceae	Pleomorphanomonas	1.10%	-	4.11	-5.51	13.73	0.40	1.00	0.32	-5.90	6.54	0.92	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Methylocystaceae		0.30%	-	-19.10	-37.38	-0.81	0.04	0.99	-13.23	-25.05	-1.42	0.03	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Other	Other	11.37%	-	1.10	-2.08	4.28	0.50	1.00	-0.23	-2.28	1.83	0.83	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Phyllobacteriaceae	Aminobacter	1.10%	-	-11.35	-20.99	-1.72	0.02	0.99	-6.13	-12.36	0.10	0.05	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Phyllobacteriaceae	Other	4.99%	-	-0.39	-5.05	4.28	0.87	1.00	1.42	-1.59	4.43	0.36	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Phyllobacteriaceae	Phyllobacterium	24.23%	-	1.13	-1.25	3.50	0.35	1.00	0.57	-0.97	2.10	0.47	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Phyllobacteriaceae		5.68%	-	0.19	-4.13	4.51	0.93	1.00	-0.82	-3.62	1.97	0.56	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Rhizobiaceae	Agrobacterium	10.97%	-	-0.26	-3.45	2.93	0.87	1.00	0.25	-1.81	2.31	0.81	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Rhizobiaceae	Kaistia	0.90%	-	-1.76	-12.47	8.95	0.75	1.00	-3.92	-10.84	2.99	0.27	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Rhizobiaceae	Other	0.40%	-	-0.69	-16.68	15.29	0.93	1.00	-2.20	-12.53	8.13	0.68	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Rhizobiaceae	Rhizobium	3.29%	-	-2.97	-8.61	2.66	0.30	1.00	-1.69	-5.34	1.95	0.36	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Rhizobiaceae		4.79%	-	1.82	-2.87	6.51	0.45	1.00	-0.75	-3.78	2.28	0.63	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Rhodobiaceae	Affifella	0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Xanthobacteraceae	Blastochloris	0.30%	-	14.50	-3.81	32.82	0.12	1.00	7.41	-4.43	19.25	0.22	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Xanthobacteraceae	Labrys	0.50%	-	5.42	-8.82	19.67	0.46	1.00	2.08	-7.13	11.29	0.66	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Xanthobacteraceae	Other	0.90%	-	1.56	-9.08	12.20	0.77	1.00	-4.66	-11.53	2.21	0.18	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales			17.15%	-	-0.59	-3.25	2.08	0.67	1.00	-0.59	-2.31	1.13	0.50	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Hyphomonadaceae	Maricaulis	0.20%	-	2.95	-19.36	25.27	0.80	1.00	3.63	-10.79	18.05	0.62	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Hyphomonadaceae	Oceanicaulis	1.10%	-	-0.95	-10.69	8.79	0.85	1.00	0.43	-5.87	6.72	0.89	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Hyphomonadaceae		3.79%	-	-4.48	-9.79	0.84	0.10	1.00	-3.26	-6.69	0.18	0.06	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	Amaricoccus	3.29%	-	-1.07	-6.71	4.56	0.71	1.00	-0.53	-4.17	3.11	0.77	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	Anaerospora	0.60%	-	-3.15	-16.14	9.84	0.63	1.00	-0.02	-8.42	8.37	1.00	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	Loktanelia	0.90%	-	-1.87	-12.50	8.76	0.73	1.00	-1.91	-8.78	4.96	0.58	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	Marivita	0.60%	-	-5.42	-18.35	7.52	0.41	1.00	-6.91	-15.27	1.44	0.10	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	Other	7.18%	-	-0.80	-4.75	3.15	0.69	1.00	0.34	-2.21	2.89	0.79	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	Paracoccus	8.67%	-	1.96	-1.66	5.58	0.29	1.00	1.01	-1.33	3.35	0.40	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	Rhodobacter	6.28%	-	-2.15	-6.26	1.96	0.31	1.00	-2.42	-5.07	0.24	0.07	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	Rubellimicrobium	1.79%	-	-4.04	-11.75	3.66	0.30	1.00	-0.36	-5.34	4.63	0.89	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae		22.33%	-	0.01	-2.46	2.48	0.99	1.00	0.65	-0.94	2.25	0.42	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Acetobacteraceae	Acetobacter	2.89%	-	0.34	-5.68	6.36	0.91	1.00	2.05	-1.83	5.94	0.30	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Acetobacteraceae	Gluconobacter	0.60%	-	-3.72	-16.72	9.27	0.57	1.00	-0.84	-9.24	7.56	0.84	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Acetobacteraceae	Other	0.80%	-	0.42	-11.02	11.86	0.94	1.00	-1.23	-8.63	6.16	0.74	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Acetobacteraceae	Roseococcus	0.40%	-	-1.00	-16.96	14.97	0.90	1.00	5.85	-4.46	16.16	0.27	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Acetobacteraceae	Roseomonas	0.40%	-	-3.78	-19.62	12.07	0.64	1.00	-2.10	-12.34	8.14	0.69	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Acetobacteraceae		10.07%	-	-1.90	-5.21	1.41	0.26	1.00	-0.29	-2.43	1.86	0.79	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae	Azospirillum	1.00%	-	1.82	-8.25	11.90	0.72	1.00	-4.08	-10.59	2.42	0.22	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae	Inquilinus	0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae	Other	0.40%	-	1.80	-14.07	17.86	0.82	1.00	-0.56	-10.81	9.70	0.92	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae	Phaeospirillum	0.10%	-	-7.52	-39.19	24.14	0.64	1.00	-8.08	-28.54	12.38	0.44	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae	Skermanella	1.20%	-	4.03	-5.19	13.26	0.39	1.00	-2.38	-8.35	3.58	0.43	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae		6.88%	-	-1.26	-5.30	2.77	0.54	1.00	-0.83	-3.44	1.78	0.53	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales			1.40%	-	-1.15	-11.71	5.41	0.47	1.00	-2.33	-7.87	3.20	0.41	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales	mitochondria	Other	16.15%	-	3.26	0.54	5.99	0.02	0.99	1.43	-0.33	3.20	0.11	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales	Pelagibacteraceae		0.40%	-	-3.57	-19.51	12.36	0.66	1.00	2.86	-7.43	13.16	0.59	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales	Rickettsiaceae	Wolbachia	4.29%	-	-5.17	-10.15	-0.19	0.04	0.99	-2.74	-5.95	0.48	0.10	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales			0.40%	-	14.01	-1.85	29.88	0.08	1.00	9.16	-1.09	19.42	0.08	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Erythrobacteraceae	Erythrobacter	2.49%	-	5.69	-0.76	12.14	0.08	1.00	0.96	-3.21	5.13	0.65	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Erythrobacteraceae	Other	0.30%	-	-18.87	-37.17	-0.57	0.04	0.99	-9.37	-21.21	2.46	0.12	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Erythrobacteraceae		5.08%	-	-0.12	-4.70	4.46	0.96	1.00	1.25	-1.70	4.21	0.41	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	Kaistobacter	3.69%	-	-1.81	-7.24	3.62	0.51	1.00	-3.44	-6.94	0.07	0.05	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	Novosphingobium	4.09%	-	1.55	-3.56	6.65	0.55	1.00	0.65	-2.65	3.95	0.70	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	Other	1.89%	-	6.14	-1.25	13.53	0.10	1.00	4.59	-0.19	9.36	0.06	1.00	Yes

Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	Sphingobium	1.99%	-	-0.75	-8.00	6.49	0.84	1.00	0.49	-4.19	5.17	0.84	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	Sphingomonas	21.04%	-	2.13	-0.36	4.61	0.09	1.00	0.79	-0.82	2.40	0.34	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	Sphingopyxis	2.89%	-	-5.72	-11.68	0.24	0.06	0.99	-3.73	-7.58	0.12	0.06	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae		8.57%	-	-0.99	-4.58	2.61	0.59	1.00	-0.85	-3.17	1.47	0.47	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales			0.70%	-	-13.06	-25.01	-1.10	0.03	0.99	-9.40	-17.11	-1.68	0.02	1.00	Yes
Bacteria	Proteobacteria	Alphaproteobacteria				2.49%	-	-1.66	-8.08	4.77	0.61	1.00	-3.08	-7.23	1.07	0.15	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	A21b	EB1003		0.40%	-	4.53	-11.55	20.61	0.58	1.00	-2.13	-12.52	8.26	0.69	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	A21b	UD5		0.10%	-	-11.71	-43.55	20.13	0.47	1.00	-12.28	-32.84	8.29	0.24	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	ASSO-13			2.79%	-	1.66	-4.44	7.77	0.59	1.00	-1.19	-5.13	2.76	0.55	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Alcaligenaceae	Achromobacter	14.46%	-	3.13	0.28	5.97	0.03	0.99	1.79	-0.05	3.63	0.06	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Alcaligenaceae	Oligella	3.49%	-	-0.64	-6.24	4.97	0.82	1.00	-0.38	-4.00	3.24	0.84	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Alcaligenaceae	Other	0.80%	-	-4.87	-16.14	6.41	0.40	1.00	-2.99	-10.27	4.30	0.42	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Alcaligenaceae	Sutterella	0.53	0.47	1.62	-0.54	3.78	0.14	1.00	0.09	-1.30	1.49	0.90	1.00	No
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Alcaligenaceae		4.59%	-	-4.42	-9.30	0.46	0.08	0.99	-4.09	-7.24	-0.94	0.01	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Burkholderiaceae	Burkholderia	8.57%	-	1.65	-1.97	5.26	0.37	1.00	0.99	-1.35	3.32	0.41	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Burkholderiaceae	Lautropia	7.48%	-	0.61	-3.24	4.46	0.76	1.00	-0.91	-3.40	1.57	0.47	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Burkholderiaceae	Pandoraea	0.40%	-	-3.73	-19.57	12.11	0.64	1.00	3.01	-7.23	13.24	0.56	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Burkholderiaceae	Salinispora	0.20%	-	20.38	-1.97	42.73	0.07	0.99	5.91	-8.55	20.38	0.42	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Burkholderiaceae		1.30%	-	0.78	-8.09	9.65	0.86	1.00	2.32	-3.41	8.05	0.43	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Azohydromonas	0.40%	-	17.79	1.96	33.62	0.03	0.99	8.01	-2.23	18.26	0.13	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Brachymonas	0.20%	-	-4.81	-27.26	17.63	0.67	1.00	2.11	-12.39	16.62	0.77	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Comamonas	24.03%	-	1.20	-1.18	3.58	0.32	1.00	0.03	-1.51	1.57	0.97	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Delftia	0.57	0.70	0.25	-1.24	1.74	0.74	1.00	0.19	-0.77	1.15	0.70	1.00	No
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Hydrogenophaga	6.18%	-	1.50	-2.66	5.67	0.48	1.00	-1.24	-3.94	1.45	0.36	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Hylemonella	0.20%	-	3.77	-18.65	26.19	0.74	1.00	5.13	-9.35	19.62	0.49	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Limnochabans	0.30%	-	0.60	-17.70	18.91	0.95	1.00	-6.57	-18.40	5.25	0.28	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Methylibium	0.70%	-	-0.86	-12.90	11.18	0.89	1.00	-1.08	-8.86	6.70	0.78	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Other	20.74%	-	-0.48	-2.98	2.01	0.70	1.00	-0.51	-2.13	1.10	0.53	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Rubrivivax	0.20%	-	-8.15	-31.18	14.87	0.49	1.00	-2.85	-17.74	12.03	0.71	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Tepidimonas	1.50%	-	9.29	1.03	17.55	0.03	0.99	4.64	-0.70	9.99	0.09	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae		0.41	0.47	0.88	-1.27	3.02	0.42	1.00	0.18	-1.21	1.56	0.80	1.00	No
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Other	Other	0.40%	-	4.05	-11.77	19.87	0.62	1.00	-2.61	-12.83	7.61	0.62	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Oxalobacteraceae	Cupriavidus	2.59%	-	-2.92	-9.24	3.39	0.36	1.00	-1.05	-5.13	3.03	0.61	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Oxalobacteraceae	Janthinobacterium	1.79%	-	5.27	-2.29	12.83	0.17	1.00	3.07	-1.81	7.96	0.22	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Oxalobacteraceae	Other	22.53%	-	1.68	-0.72	4.08	0.17	1.00	0.63	-0.93	2.18	0.43	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Oxalobacteraceae	Oxalobacter	22.43%	-	-0.64	-3.09	1.81	0.61	1.00	-0.56	-2.14	1.02	0.48	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Oxalobacteraceae	Polynucleobacter	0.60%	-	-1.04	-14.03	11.95	0.88	1.00	-2.51	-10.91	5.88	0.56	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Oxalobacteraceae	Ralstonia†	1.06	0.70	0.72	-0.75	2.19	0.33	1.00	0.43	-0.52	1.38	0.37	1.00	No
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Oxalobacteraceae		7.68%	-	-0.92	-4.67	2.83	0.63	1.00	-0.63	-3.05	1.79	0.61	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales			2.69%	-	2.84	-3.35	9.03	0.37	1.00	-0.05	-4.05	3.95	0.98	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Ellin6067			2.79%	-	-1.48	-7.57	4.61	0.63	1.00	-0.35	-4.29	3.59	0.86	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Gallionellales	Gallionellaceae	Gallionella	0.60%	-	4.32	-8.65	17.28	0.51	1.00	3.09	-5.29	11.47	0.47	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Hydrogenophilales	Hydrogenophilaceae	Thiobacillus	1.99%	-	3.55	-3.60	10.70	0.33	1.00	1.37	-3.25	5.99	0.56	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Methylophilales	Methylophilaceae	Methylotenera	3.19%	-	6.45	0.80	12.09	0.03	0.99	0.50	-3.16	4.16	0.79	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Methylophilales	Methylophilaceae		1.50%	-	7.78	-0.49	16.06	0.07	0.99	5.65	0.30	11.00	0.04	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Methylophilales			0.10%	-	-3.73	-35.36	27.90	0.82	1.00	11.41	-9.02	31.84	0.27	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	MND1			2.89%	-	-2.54	-8.55	3.47	0.41	1.00	-3.35	-7.23	0.52	0.09	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Neisseriaceae	Chromobacterium	0.50%	-	-0.16	-14.43	14.10	0.98	1.00	-4.90	-14.11	4.32	0.30	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Neisseriaceae	Eikenella	0.80%	-	-10.51	-21.69	0.68	0.07	0.99	-3.36	-10.60	3.88	0.36	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Neisseriaceae	Kingella	0.60%	-	7.06	-5.91	20.03	0.29	1.00	5.11	-3.27	13.50	0.23	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Neisseriaceae	Microvirgula	0.90%	-	8.04	-2.61	18.69	0.14	1.00	1.10	-5.79	7.99	0.75	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Neisseriaceae	Neisseria	20.24%	-	-0.24	-2.75	2.26	0.85	1.00	-1.74	-3.36	-0.12	0.03	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Neisseriaceae	Other	0.10%	-	10.43	-21.23	42.10	0.52	1.00	21.08	0.66	41.51	0.04	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Neisseriaceae	Vogesella	0.30%	-	2.15	-16.16	20.45	0.82	1.00	-6.13	-17.96	5.69	0.31	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Neisseriaceae		5.68%	-	0.55	-3.83	4.94	0.80	1.00	-0.93	-3.77	1.90	0.52	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Nitrosomonadales	Nitrosomonadaceae		1.60%	-	-6.05	-14.08	1.98	0.14	1.00	-2.97	-8.16	2.22	0.26	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Other	Other	Other	1.20%	-	0.42	-8.78	9.63	0.93	1.00	-1.80	-7.75	4.15	0.55	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Procabacteriales	Procabacteriaceae		0.20%	-	0.12	-22.28	22.51	0.99	1.00	5.16	-9.31	19.63	0.48	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	C39	0.80%	-	5.77	-5.54	17.09	0.32	1.00	-1.16	-8.48	6.15	0.76	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Candidatus Accumulibacter	0.40%	-	-2.56	-18.47	13.36	0.75	1.00	4.11	-6.17	14.39	0.43	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Dechloromonas	6.78%	-	-1.00	-4.99	2.99	0.62	1.00	-1.39	-3.97	1.18	0.29	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Dok59	2.29%	-	7.45	0.78	14.13	0.03	0.99	3.41	-0.91	7.73	0.12	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Hydrogenophilus	1.69%	-	1.75	-6.01	9.51	0.66	1.00	1.93	-3.08	6.94	0.45	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	K82	0.10%	-	22.54	-9.01	54.09	0.16	1.00	-7.94	-28.35	12.46	0.45	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Methyloversatilis	1.69%	-	0.58	-7.17	8.32	0.88	1.00	1.17	-3.84	6.17	0.65	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Other	3.79%	-	4.67	-0.57	9.91	0.08	1.00	-0.47	-3.86	2.92	0.78	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Propionivibrio	0.10%	-	-21.64	-53.21	9.93	0.18	1.00	20.27	-0.11	40.65	0.05	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Sterolibacterium	0.20%	-	4.66	-17.75	27.06	0.68	1.00	0.25	-14.23	14.73	0.97	1.00	Yes

Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Sulfuritalea	1.10%	-	-0.41	-10.02	9.20	0.93	1.00	-0.33	-6.54	5.88	0.92	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Thauera	4.49%	-	1.27	-3.55	6.09	0.61	1.00	0.79	-2.32	3.91	0.62	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Zoogloea	12.06%	-	0.65	-2.47	3.76	0.68	1.00	0.25	-1.76	2.27	0.81	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae		5.18%	-	-1.23	-5.79	3.33	0.60	1.00	-0.43	-3.38	2.52	0.77	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	SC-I-84			3.69%	-	-0.91	-6.28	4.46	0.74	1.00	-1.30	-4.77	2.17	0.46	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Thiobacterales	Other	Other	0.30%	-	-3.17	-21.43	15.09	0.73	1.00	-1.16	-12.96	10.64	0.85	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria	Thiobacterales			2.49%	-	-0.38	-6.87	6.10	0.91	1.00	-2.13	-6.31	2.06	0.32	1.00	Yes
Bacteria	Proteobacteria	Betaproteobacteria				2.79%	-	-1.37	-7.52	4.78	0.66	1.00	-4.15	-8.12	-0.19	0.04	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	[Entotheonellales]	[Entotheonellaceae]	Candidatus Entothe	0.30%	-	-9.38	-27.70	8.94	0.32	1.00	-7.88	-19.72	3.95	0.19	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Bdellovibrionales	Bacteriovoraceae	Bacteriovorax	0.50%	-	-5.11	-19.35	9.14	0.48	1.00	-1.01	-10.22	8.19	0.83	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Bdellovibrionales	Bacteriovoraceae		0.10%	-	-12.98	-44.72	18.76	0.42	1.00	-5.58	-26.09	14.94	0.59	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Bdellovibrionales	Bdellovibrionaceae	Bdellovibrio	0.80%	-	0.32	-10.99	11.62	0.96	1.00	1.70	-5.61	9.00	0.65	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	BPC076			0.40%	-	-19.98	-35.84	-4.12	0.01	0.99	-6.74	-17.02	3.53	0.20	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfarculales	Desulfarculaceae		0.10%	-	-6.46	-38.54	25.62	0.69	1.00	5.39	-15.35	26.12	0.61	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfobacterales	Desulfobacteraceae	Desulfococcus	0.40%	-	6.33	-9.57	22.23	0.43	1.00	4.65	-5.63	14.92	0.38	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfobacterales	Desulfobacteraceae	Desulfotignum	0.10%	-	13.76	-18.25	45.77	0.40	1.00	8.38	-12.30	29.07	0.43	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfobacterales	Desulfobacteraceae		0.70%	-	5.76	-6.25	17.78	0.35	1.00	4.89	-2.87	12.65	0.22	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfobacterales	Desulfobulbaceae	Desulfobulbus	0.60%	-	-7.15	-20.16	5.87	0.28	1.00	-1.13	-9.54	7.29	0.79	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfobacterales	Desulfobulbaceae		1.10%	-	1.71	-7.97	11.38	0.73	1.00	-0.68	-6.93	5.58	0.83	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfovibrionales	Desulfomicrobiaceae	Desulfomicrobium	0.20%	-	0.94	-21.47	23.35	0.93	1.00	2.72	-11.76	17.20	0.71	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfovibrionales	Desulfovibrionaceae	Bilophila	0.15	0.25	0.20	-3.86	4.25	0.92	1.00	-0.39	-3.01	2.23	0.77	1.00	No
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfovibrionales	Desulfovibrionaceae	Desulfovibrio	0.20	0.31	0.38	-2.93	3.68	0.82	1.00	-0.48	-2.61	1.66	0.66	1.00	No
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfovibrionales	Desulfovibrionaceae		9.07%	-	3.25	-0.28	6.79	0.07	0.99	2.10	-0.18	4.39	0.07	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfuromonadales	Geobacteraceae	Geobacter	2.59%	-	-4.30	-10.59	1.99	0.18	1.00	-3.36	-7.43	0.70	0.10	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Desulfuromonadales	Geobacteraceae		0.60%	-	9.80	-3.20	22.80	0.14	1.00	5.09	-3.32	13.49	0.24	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	FAC87			0.10%	-	13.40	-18.19	45.00	0.41	1.00	17.50	-2.89	37.90	0.09	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	GMD14H09			4.69%	-	-0.84	-5.70	4.03	0.74	1.00	-2.08	-5.22	1.06	0.19	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	MBNT15			0.40%	-	-14.50	-30.33	1.34	0.07	0.99	-3.96	-14.21	6.29	0.45	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	MIZ46			0.10%	-	-14.09	-45.74	17.56	0.38	1.00	-7.82	-28.28	12.64	0.45	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Myxococcales	Cystobacterineae		0.20%	-	-21.56	-43.95	0.83	0.06	0.99	-15.75	-30.21	-1.29	0.03	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Myxococcales	Haliangiaceae	Haliangium	0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Myxococcales	Haliangiaceae		1.89%	-	-0.66	-8.13	6.82	0.86	1.00	0.88	-3.95	5.71	0.72	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Myxococcales	Myxococcaceae	Anaeromyxobacter	0.10%	-	-6.46	-38.54	25.62	0.69	1.00	5.39	-15.35	26.12	0.61	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Myxococcales	Myxococcaceae		0.70%	-	1.93	-10.20	14.06	0.76	1.00	2.18	-5.65	10.02	0.58	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Myxococcales	Nannocystaceae	Plesiocystis	0.40%	-	3.92	-12.00	19.85	0.63	1.00	10.96	0.69	21.22	0.04	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Myxococcales	OM27		1.20%	-	5.12	-4.08	14.32	0.27	1.00	4.79	-1.16	10.73	0.11	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Myxococcales	Other	Other	0.30%	-	7.16	-11.27	25.60	0.45	1.00	5.55	-6.37	17.46	0.36	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Myxococcales	Polyangiaceae	Other	0.10%	-	-14.09	-45.74	17.56	0.38	1.00	-7.82	-28.28	12.64	0.45	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Myxococcales	Polyangiaceae		1.20%	-	2.61	-6.68	11.89	0.58	1.00	4.29	-1.71	10.29	0.16	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Myxococcales			5.18%	-	-1.41	-5.99	3.16	0.55	1.00	-2.54	-5.49	0.41	0.09	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	NB1-j	NB1-i		0.40%	-	2.32	-13.52	18.16	0.77	1.00	6.14	-4.09	16.36	0.24	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	NB1-j			0.30%	-	8.10	-10.21	26.41	0.39	1.00	-1.89	-13.73	9.95	0.75	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Other	Other	Other	0.10%	-	-10.97	-42.66	20.71	0.50	1.00	-3.93	-24.40	16.55	0.71	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Spirobaillales			0.80%	-	1.10	-10.19	12.38	0.85	1.00	1.23	-6.05	8.52	0.74	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Syntrophobacteriales	Syntrophaceae	Syntrophus	0.20%	-	1.38	-21.19	23.94	0.90	1.00	-0.80	-15.39	13.78	0.91	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Syntrophobacteriales	Syntrophaceae		0.10%	-	46.11	14.51	77.70	0.00	0.99	26.34	5.90	46.78	0.01	0.88	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Syntrophobacteriales	Syntrophobacteraceae	Syntrophobacter	0.50%	-	-3.11	-17.30	11.08	0.67	1.00	2.44	-6.73	11.61	0.60	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria	Syntrophobacteriales	Syntrophobacteraceae		3.29%	-	-1.52	-7.12	4.09	0.60	1.00	-0.43	-4.05	3.19	0.82	1.00	Yes
Bacteria	Proteobacteria	Deltaproteobacteria				0.50%	-	-1.25	-15.43	12.94	0.86	1.00	-1.41	-10.57	7.76	0.76	1.00	Yes
Bacteria	Proteobacteria	Epsilonproteobacteria	Campylobacterales	Campylobacteraceae	Arcobacter	5.08%	-	2.87	-1.72	7.46	0.22	1.00	3.03	0.06	5.99	0.05	1.00	Yes
Bacteria	Proteobacteria	Epsilonproteobacteria	Campylobacterales	Campylobacteraceae	Campylobacter	3.49%	-	-2.30	-7.77	3.16	0.41	1.00	0.56	-2.97	4.09	0.76	1.00	Yes
Bacteria	Proteobacteria	Epsilonproteobacteria	Campylobacterales	Campylobacteraceae	Sulfurospirillum	0.10%	-	29.92	-1.74	61.58	0.06	0.99	15.88	-4.59	36.35	0.13	1.00	Yes
Bacteria	Proteobacteria	Epsilonproteobacteria	Campylobacterales	Campylobacteraceae		1.40%	-	0.93	-7.62	9.49	0.83	1.00	-1.17	-6.70	4.36	0.68	1.00	Yes
Bacteria	Proteobacteria	Epsilonproteobacteria	Campylobacterales	Helicobacteraceae	Flexispira	1.10%	-	1.34	-8.25	10.93	0.78	1.00	-3.44	-9.63	2.75	0.28	1.00	Yes
Bacteria	Proteobacteria	Epsilonproteobacteria	Campylobacterales	Helicobacteraceae	Helicobacter	2.59%	-	-5.13	-11.49	1.23	0.11	1.00	-1.37	-5.49	2.74	0.51	1.00	Yes
Bacteria	Proteobacteria	Epsilonproteobacteria	Campylobacterales	Helicobacteraceae	Other	1.10%	-	1.96	-7.75	11.67	0.69	1.00	1.09	-5.19	7.37	0.73	1.00	Yes
Bacteria	Proteobacteria	Epsilonproteobacteria	Campylobacterales	Helicobacteraceae	Sulfuricurvum	3.99%	-	2.03	-3.16	7.22	0.44	1.00	0.21	-3.14	3.57	0.90	1.00	Yes
Bacteria	Proteobacteria	Epsilonproteobacteria	Campylobacterales	Helicobacteraceae	Sulfurimonas	0.70%	-	2.56	-9.54	14.66	0.68	1.00	1.29	-6.52	9.11	0.75	1.00	Yes
Bacteria	Proteobacteria	Epsilonproteobacteria	Campylobacterales	Helicobacteraceae		5.48%	-	-0.12	-4.61	4.38	0.96	1.00	-0.44	-3.34	2.47	0.77	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	[Marinicellales]	[Marinicellaceae]	Marinicella	0.30%	-	-12.73	-30.99	5.54	0.17	1.00	-9.54	-21.34	2.26	0.11	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	[Marinicellales]	[Marinicellaceae]		0.80%	-	-1.29	-12.61	10.03	0.82	1.00	-2.72	-10.03	4.59	0.47	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Aeromonadales	Aeromonadaceae	Tolomonas	0.60%	-	3.32	-9.58	16.22	0.61	1.00	0.96	-7.37	9.30	0.82	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Aeromonadales	Aeromonadaceae		6.98%	-	2.09	-1.93	6.12	0.31	1.00	0.93	-1.67	3.53	0.48	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Aeromonadales	Succinivibrionaceae	Anaerobiospirillum	0.10%	-	-11.71	-43.55	20.13	0.47	1.00	-12.28	-32.84	8.29	0.24	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Aeromonadales	Succinivibrionaceae	Ruminobacter	0.30%	-	-7.92	-26.22	10.37	0.40	1.00	-2.41	-14.23	9.42	0.69	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Aeromonadales	Succinivibrionaceae	Succinivibrio	16.25%	-	1.66	-1.11	4.43	0.24	1.00	1.03	-0.76	2.82	0.26	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Aeromonadales	Succinivibrionaceae		1.40%	-	-3.90	-12.42	4.62	0.37	1.00	-1.10	-6.60	4.41	0.70	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	[Chromatiaceae]	Alkalimonas	0.10%	-	-17.65	-49.27	13.96	0.27	1.00	-4.08	-24.52	16.36	0.70	1.00	Yes

Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	[Chromatiaceae]	Other	0.20%	-	-15.01	-37.48	7.47	0.19	1.00	-3.62	-18.15	10.92	0.63	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	[Chromatiaceae]	Rheinheimera	1.40%	-	0.35	-8.17	8.87	0.94	1.00	1.55	-3.96	7.05	0.58	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	[Chromatiaceae]		0.60%	-	-3.34	-16.41	9.73	0.62	1.00	-0.94	-9.39	7.51	0.83	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	125ds10		0.30%	-	6.32	-12.02	24.65	0.50	1.00	9.10	-2.74	20.94	0.13	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	211ds20		0.30%	-	-4.41	-22.85	14.03	0.64	1.00	-6.63	-18.54	5.28	0.27	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Agarivorans	0.20%	-	-6.42	-28.85	16.01	0.57	1.00	-2.84	-17.34	11.65	0.70	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Alteromonas	2.69%	-	0.26	-5.99	6.52	0.93	1.00	-1.74	-5.78	2.30	0.40	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	BD2-13	0.10%	-	-6.04	-37.71	25.64	0.71	1.00	-8.10	-28.56	12.37	0.44	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Candidatus Endobugula	2.29%	-	0.47	-6.38	7.33	0.89	1.00	0.48	-3.95	4.91	0.83	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Cellvibrio	1.79%	-	-0.70	-8.25	6.85	0.86	1.00	-1.95	-6.83	2.93	0.43	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Glaciecola	1.69%	-	-3.83	-11.63	3.98	0.34	1.00	-1.62	-6.67	3.42	0.53	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Marinimicrobium	0.50%	-	-3.17	-17.47	11.13	0.66	1.00	-2.26	-11.50	6.98	0.63	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Marinobacter	8.28%	-	-0.38	-4.10	3.35	0.84	1.00	0.14	-2.27	2.54	0.91	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Microbulbifer	1.40%	-	1.88	-6.81	10.56	0.67	1.00	1.97	-3.64	7.58	0.49	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae	Other	0.60%	-	-5.40	-18.42	7.61	0.42	1.00	-3.97	-12.38	4.45	0.36	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Alteromonadaceae		1.99%	-	-0.26	-7.51	6.99	0.94	1.00	-1.67	-6.36	3.01	0.48	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Colwelliaceae	Thalassomonas	0.10%	-	3.77	-27.94	35.49	0.82	1.00	10.37	-10.11	30.86	0.32	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Colwelliaceae		0.80%	-	-5.51	-16.73	5.70	0.33	1.00	-1.98	-9.23	5.28	0.59	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	HTCC2188	HTCC	0.70%	-	-5.66	-17.68	6.37	0.36	1.00	-4.95	-12.72	2.82	0.21	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	HTCC2188		0.20%	-	-5.01	-27.57	17.55	0.66	1.00	-6.67	-21.24	7.91	0.37	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Idiomarinaceae	Idiomarina	1.10%	-	-3.56	-13.21	6.09	0.47	1.00	-4.48	-10.72	1.75	0.16	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Idiomarinaceae	Pseudidiomarina	0.50%	-	-2.73	-16.99	11.53	0.71	1.00	-4.61	-13.82	4.61	0.33	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Idiomarinaceae		2.19%	-	-2.62	-9.58	4.34	0.46	1.00	-1.42	-5.92	3.08	0.54	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Moritellaceae	Moritella	0.20%	-	9.32	-13.03	31.67	0.41	1.00	8.90	-5.53	23.34	0.23	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	OM60		2.89%	-	-1.03	-7.01	4.95	0.73	1.00	1.23	-2.64	5.09	0.53	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Psychromonadaceae	Psychromonas	1.10%	-	0.18	-9.52	9.89	0.97	1.00	4.14	-2.13	10.40	0.20	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Psychromonadaceae		0.20%	-	3.29	-19.33	25.92	0.78	1.00	2.21	-12.42	16.83	0.77	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales	Shewanellaceae	Shewanella	4.49%	-	-5.61	-10.53	-0.70	0.03	0.99	-2.49	-5.67	0.69	0.12	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Alteromonadales			0.70%	-	-0.49	-12.56	11.57	0.94	1.00	-1.45	-9.24	6.35	0.72	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Cardiobacteriales	Cardiobacteriaceae	Cardiobacterium	5.58%	-	0.86	-3.50	5.21	0.70	1.00	0.95	-1.87	3.76	0.51	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Chromatiales	Ectothiorhodospiraceae	Halorhodospira	0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Chromatiales	Ectothiorhodospiraceae	Other	0.40%	-	-0.70	-16.60	15.19	0.93	1.00	-0.05	-10.32	10.22	0.99	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Chromatiales	Halothiobacillaceae	Thiovirga	1.10%	-	-1.51	-11.16	8.14	0.76	1.00	-0.57	-6.81	5.66	0.86	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Chromatiales	Other	Other	0.40%	-	1.07	-14.84	16.97	0.90	1.00	0.76	-9.52	11.03	0.89	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Chromatiales			0.50%	-	-3.26	-17.43	10.90	0.65	1.00	0.10	-9.06	9.25	0.98	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Buchnera	3.39%	-	5.06	-0.47	10.59	0.07	0.99	0.02	-3.56	3.60	0.99	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Citrobacter	1.50%	-	7.20	-1.11	15.51	0.09	1.00	1.67	-3.70	7.05	0.54	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Escherichia	0.13	0.24	4.20	-0.03	8.43	0.05	0.99	2.25	-0.49	4.98	0.11	1.00	No
Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Klebsiella	1.60%	-	2.60	-5.40	10.59	0.52	1.00	0.11	-5.05	5.28	0.97	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Other*	0.70	0.56	0.65	-1.27	2.57	0.51	1.00	-0.23	-1.47	1.02	0.72	1.00	No
Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Plesiomonas	0.20%	-	-18.81	-41.21	3.59	0.10	1.00	-3.64	-18.14	10.85	0.62	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Proteus	5.78%	-	-0.22	-4.50	4.05	0.92	1.00	0.48	-2.28	3.24	0.73	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Providencia	0.30%	-	10.28	-8.12	28.69	0.27	1.00	9.26	-2.63	21.15	0.13	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Serratia*	0.36	0.47	0.69	-1.55	2.94	0.54	1.00	-0.37	-1.82	1.08	0.61	1.00	No
Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Trabulsilla	0.30%	-	-7.47	-25.72	10.79	0.42	1.00	-4.39	-16.19	7.41	0.47	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae*		2.48	0.59	2.45	0.70	4.20	0.01	0.99	0.60	-0.53	1.73	0.30	1.00	No
Bacteria	Proteobacteria	Gammaproteobacteria	HOC36			1.99%	-	1.95	-5.22	9.11	0.59	1.00	-1.02	-5.65	3.61	0.66	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	HTCC2188	HTCC2089		0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Legionellales	Coxiellaceae	Aquicella	0.20%	-	-5.67	-27.98	16.64	0.62	1.00	3.59	-10.83	18.00	0.63	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Legionellales	Coxiellaceae	Rickettsiella	0.20%	-	0.67	-21.71	23.05	0.95	1.00	-3.11	-17.57	11.35	0.67	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Legionellales	Coxiellaceae		0.30%	-	-11.69	-30.11	6.72	0.21	1.00	-7.26	-19.17	4.64	0.23	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Legionellales	Francisellaceae		0.50%	-	-3.90	-18.20	10.40	0.59	1.00	-4.09	-13.33	5.15	0.39	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Legionellales	Legionellaceae	Legionella	0.50%	-	2.93	-11.30	17.16	0.69	1.00	6.15	-3.03	15.34	0.19	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Legionellales			1.60%	-	-0.66	-8.67	7.35	0.87	1.00	-3.60	-8.77	1.57	0.17	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Methylococcales	Crenotrichaceae	Crenothrix	2.79%	-	-2.69	-8.85	3.46	0.39	1.00	-3.93	-7.90	0.04	0.05	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Methylococcales	Methylococcaceae	Methylocaldum	0.40%	-	19.51	3.67	35.34	0.02	0.99	1.26	-9.00	11.52	0.81	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Methylococcales	Methylococcaceae	Methylomonas	0.30%	-	0.60	-17.70	18.91	0.95	1.00	-6.57	-18.40	5.25	0.28	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Methylococcales	Methylococcaceae	Other	0.40%	-	1.87	-14.10	17.83	0.82	1.00	3.86	-6.45	14.17	0.46	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Methylococcales			0.10%	-	-29.27	-60.94	2.40	0.07	0.99	-4.67	-25.17	15.83	0.65	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Alcanivoracaceae	Alcanivorax	1.40%	-	-3.11	-11.73	5.51	0.48	1.00	-4.87	-10.44	0.69	0.09	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae	Candidatus Portiera	1.40%	-	-4.36	-13.10	4.38	0.33	1.00	-3.06	-8.71	2.59	0.29	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae	Chromohalobacter	1.20%	-	-2.43	-11.73	6.88	0.61	1.00	-0.94	-6.95	5.08	0.76	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae	Cobetia	0.10%	-	-18.81	-50.48	12.86	0.24	1.00	-3.25	-23.73	17.23	0.76	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae	Haererehalobacter	0.90%	-	4.28	-6.41	14.97	0.43	1.00	4.57	-2.34	11.47	0.19	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae	Halomonas	21.14%	-	-0.34	-2.85	2.17	0.79	1.00	-0.49	-2.11	1.13	0.55	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae	Other	0.10%	-	-11.52	-43.40	20.36	0.48	1.00	-13.54	-34.13	7.05	0.20	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae		1.10%	-	-0.55	-10.14	9.05	0.91	1.00	-0.28	-6.48	5.92	0.93	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Oceanospirillaceae	Marinobacterium	0.30%	-	-7.40	-25.76	10.97	0.43	1.00	-5.18	-17.05	6.69	0.39	1.00	Yes

Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Oceanospirillaceae	Marinomonas	0.10%	-	-18.81	-50.48	12.86	0.24	1.00	-3.25	-23.73	17.23	0.76	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Oceanospirillaceae		0.10%	-	-17.87	-49.47	13.72	0.27	1.00	-10.71	-31.13	9.71	0.30	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Saccharospirillaceae	ML110J-20	1.20%	-	-0.40	-9.71	8.90	0.93	1.00	-1.76	-7.77	4.26	0.57	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Saccharospirillaceae	Saccharospirillum	0.90%	-	-1.74	-12.44	8.96	0.75	1.00	-1.74	-8.66	5.17	0.62	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Saccharospirillaceae		1.00%	-	-1.56	-11.78	8.66	0.76	1.00	-2.44	-9.04	4.17	0.47	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	SUP05		0.10%	-	4.79	-26.82	36.39	0.77	1.00	8.45	-11.97	28.87	0.42	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales			0.30%	-	-12.35	-30.65	5.95	0.19	1.00	-1.59	-13.43	10.25	0.79	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Other	Other	Other	3.69%	-	2.74	-2.58	8.06	0.31	1.00	1.16	-2.28	4.59	0.51	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Actinobacillus	10.27%	-	2.34	-0.97	5.65	0.17	1.00	0.58	-1.56	2.72	0.60	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Aggregatibacter	16.45%	-	-1.71	-4.42	1.00	0.22	1.00	-1.11	-2.86	0.65	0.22	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Gallibacterium	0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Haemophilus	0.28	0.38	1.11	-1.55	3.77	0.41	1.00	0.54	-1.18	2.26	0.54	1.00	No
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Mannheimia	0.70%	-	-3.38	-15.46	8.69	0.58	1.00	-1.99	-9.79	5.81	0.62	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Other	1.40%	-	5.78	-2.84	14.39	0.19	1.00	4.86	-0.71	10.42	0.09	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Pasteurella	0.20%	-	13.13	-9.25	35.52	0.25	1.00	-8.02	-22.48	6.45	0.28	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae		1.10%	-	0.08	-9.55	9.71	0.99	1.00	-4.11	-10.33	2.10	0.19	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales			1.10%	-	-2.49	-12.17	7.18	0.61	1.00	-2.27	-8.52	3.97	0.48	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Moraxellaceae	Acinetobacter	0.56	0.49	0.01	-2.07	2.09	0.99	1.00	-0.18	-1.52	1.16	0.79	1.00	No
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Moraxellaceae	Enhydrobacter	7.38%	-	-2.22	-6.04	1.60	0.26	1.00	-0.48	-2.95	1.99	0.70	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Moraxellaceae	Moraxella	2.69%	-	-2.39	-8.61	3.83	0.45	1.00	1.21	-2.81	5.23	0.56	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Moraxellaceae	Other	0.60%	-	-4.15	-17.26	8.95	0.53	1.00	-0.32	-8.79	8.15	0.94	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Moraxellaceae	Psychrobacter	7.08%	-	-1.79	-5.83	2.24	0.38	1.00	-0.65	-3.26	1.96	0.63	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Moraxellaceae		17.05%	-	2.34	-0.40	5.07	0.09	1.00	0.60	-1.17	2.37	0.51	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Pseudomonadaceae	Other	0.80%	-	3.41	-7.87	14.70	0.55	1.00	2.50	-4.79	9.79	0.50	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Pseudomonadaceae	Pseudomonas	18.64%	-	1.57	-1.02	4.15	0.23	1.00	0.88	-0.79	2.55	0.30	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Pseudomonadaceae		7.78%	-	-0.40	-4.23	3.42	0.84	1.00	-0.95	-3.42	1.52	0.45	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	PYR10d3			0.20%	-	-9.71	-32.27	12.86	0.40	1.00	-10.27	-24.85	4.30	0.17	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Thiotrichales	Piscirickettsiaceae	Methylophaga	1.99%	-	-3.13	-10.49	4.23	0.40	1.00	-4.49	-9.24	0.26	0.06	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Thiotrichales	Piscirickettsiaceae		1.99%	-	3.91	-3.36	11.18	0.29	1.00	0.92	-3.78	5.62	0.70	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Thiotrichales			0.20%	-	18.08	-4.29	40.46	0.11	1.00	11.51	-2.95	25.97	0.12	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Other	Other	0.30%	-	-8.57	-26.97	9.84	0.36	1.00	-4.48	-16.38	7.42	0.46	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Pseudoalteromonadaceae	Pseudoalteromonas	3.09%	-	-4.09	-9.89	1.72	0.17	1.00	-1.40	-5.16	2.35	0.46	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Pseudoalteromonadaceae		6.28%	-	-1.31	-5.49	2.87	0.54	1.00	-0.71	-3.41	1.99	0.61	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Vibrionaceae	Allivibrio	0.30%	-	6.20	-12.08	24.48	0.51	1.00	-5.07	-16.88	6.74	0.40	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Vibrionaceae	Enterovibrio	0.30%	-	-9.35	-27.70	9.00	0.32	1.00	-9.02	-20.87	2.83	0.14	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Vibrionaceae	Other	1.60%	-	-2.30	-10.33	5.72	0.57	1.00	1.00	-4.19	6.18	0.71	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Vibrionaceae	Photobacterium	1.40%	-	-0.14	-8.65	8.38	0.97	1.00	3.06	-2.43	8.56	0.27	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Vibrionaceae	Salinivibrio	8.37%	-	-1.31	-4.94	2.33	0.48	1.00	-0.22	-2.57	2.13	0.85	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Vibrionaceae	Vibrio	5.98%	-	0.55	-3.74	4.83	0.80	1.00	0.45	-2.32	3.22	0.75	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Vibrionales	Vibrionaceae		1.20%	-	-0.80	-10.00	8.39	0.86	1.00	-1.03	-6.98	4.91	0.73	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Xanthomonadales	Sinobacteraceae	Nevskia	0.20%	-	3.69	-18.64	26.03	0.75	1.00	4.72	-9.12	19.15	0.52	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Xanthomonadales	Sinobacteraceae	Steroidobacter	2.89%	-	0.23	-5.83	6.28	0.94	1.00	1.19	-2.72	5.10	0.55	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Xanthomonadales	Sinobacteraceae		5.48%	-	-2.45	-6.98	2.08	0.29	1.00	-1.66	-4.59	1.26	0.26	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Xanthomonadales	Xanthomonadaceae	Arenimonas	0.40%	-	1.63	-14.21	17.48	0.84	1.00	4.03	-6.20	14.27	0.44	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Xanthomonadales	Xanthomonadaceae	Dokdonella	3.99%	-	-0.07	-5.27	5.13	0.98	1.00	-0.87	-4.23	2.50	0.61	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Xanthomonadales	Xanthomonadaceae	Ignatzschineria	0.10%	-	0.71	-30.99	32.42	0.96	1.00	5.07	-15.42	25.56	0.63	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Xanthomonadales	Xanthomonadaceae	Luteibacter	0.40%	-	-12.37	-28.20	3.47	0.13	1.00	-8.24	-18.47	2.00	0.11	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Xanthomonadales	Xanthomonadaceae	Luteimonas	11.37%	-	-0.18	-3.34	2.99	0.91	1.00	-0.38	-2.42	1.67	0.72	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Xanthomonadales	Xanthomonadaceae	Lysobacter	6.98%	-	1.77	-2.17	5.72	0.38	1.00	1.17	-1.38	3.72	0.37	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Xanthomonadales	Xanthomonadaceae	Other	6.18%	-	-4.29	-8.53	-0.05	0.05	0.99	-2.46	-5.20	0.28	0.08	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Xanthomonadales	Xanthomonadaceae	Pseudoxanthomonas	4.19%	-	0.73	-4.29	5.76	0.77	1.00	-1.51	-4.75	1.74	0.36	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Xanthomonadales	Xanthomonadaceae	Rhodanobacter	0.30%	-	7.48	-10.78	25.75	0.42	1.00	1.15	-10.66	12.95	0.85	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Xanthomonadales	Xanthomonadaceae	Stenotrophomonas	7.98%	-	-0.01	-3.68	3.67	1.00	1.00	-0.18	-2.56	2.20	0.88	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Xanthomonadales	Xanthomonadaceae	Thermomonas	15.85%	-	-1.56	-4.35	1.22	0.27	1.00	-1.58	-3.38	0.21	0.08	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Xanthomonadales	Xanthomonadaceae	Xanthomonas	0.20%	-	-13.31	-35.82	9.19	0.25	1.00	-5.02	-19.57	9.53	0.50	1.00	Yes
Bacteria	Proteobacteria	Gammaproteobacteria	Xanthomonadales	Xanthomonadaceae		0.34	0.40	0.60	-1.90	3.09	0.64	1.00	0.41	-1.20	2.02	0.61	1.00	No
Bacteria	Proteobacteria	Gammaproteobacteria				0.40%	-	0.29	-15.55	16.14	0.97	1.00	2.92	-7.32	13.16	0.58	1.00	Yes
Bacteria	Proteobacteria	TA18	CV90			0.10%	-	13.40	-18.19	45.00	0.41	1.00	17.50	-2.89	37.90	0.09	1.00	Yes
Bacteria	Proteobacteria	TA18	PHOS-HD29			0.30%	-	-0.34	-18.60	17.93	0.97	1.00	0.25	-11.56	12.05	0.97	1.00	Yes
Bacteria	Proteobacteria					0.60%	-	1.85	-11.17	14.86	0.78	1.00	-5.50	-13.90	2.90	0.20	1.00	Yes
Bacteria	Proteobacteria	SBR1093	VHS-B5-50			0.30%	-	-7.79	-26.18	10.60	0.41	1.00	-6.88	-18.76	5.00	0.26	1.00	Yes
Bacteria	Spirochaetes	[Brevinematae]	[Brevinematales]	Brevinemataceae		0.30%	-	-9.75	-28.25	8.76	0.30	1.00	-1.69	-13.65	10.28	0.78	1.00	Yes
Bacteria	Spirochaetes	Spirochaetes	Sphaerochaetales	Sphaerochaetaceae	Other	0.10%	-	22.54	-9.01	54.09	0.16	1.00	-7.94	-28.35	12.46	0.45	1.00	Yes
Bacteria	Spirochaetes	Spirochaetes	Sphaerochaetales	Sphaerochaetaceae	Sphaerochaeta	0.30%	-	15.45	-2.92	33.82	0.10	1.00	1.32	-10.57	13.20	0.83	1.00	Yes
Bacteria	Spirochaetes	Spirochaetes	Spirochaetales	Spirochaetaceae	Treponema	3.59%	-	-1.72	-7.11	3.66	0.53	1.00	-2.50	-5.97	0.98	0.16	1.00	Yes
Bacteria	Spirochaetes	Spirochaetes	Spirochaetales	Spirochaetaceae		0.20%	-	-8.79	-31.23	13.65	0.44	1.00	-3.76	-18.27	10.75	0.61	1.00	Yes
Bacteria	Synergistetes	Synergistia	Synergistales	Anaerobaculaceae	Anaerobaculum	0.30%	-	-9.90	-28.18	8.37	0.29	1.00	-4.99	-16.80	6.83	0.41	1.00	Yes
Bacteria	Synergistetes	Synergistia	Synergistales	Dethiosulfovibrionaceae	HA73	0.40%	-	-11.15	-27.06	4.76	0.17	1.00	-2.30	-12.59	7.99	0.66	1.00	Yes

Bacteria	Synergistetes	Synergistia	Synergistales	Dethiosulfovibrionaceae	PD-UASB-13	0.20%	-	-16.41	-38.77	5.95	0.15	1.00	-4.99	-19.45	9.48	0.50	1.00	Yes
Bacteria	Synergistetes	Synergistia	Synergistales	Dethiosulfovibrionaceae	Pyramidobacter	2.19%	-	-1.96	-8.80	4.89	0.57	1.00	0.38	-4.05	4.80	0.87	1.00	Yes
Bacteria	Synergistetes	Synergistia	Synergistales	Dethiosulfovibrionaceae	TG5	0.30%	-	-6.00	-24.31	12.32	0.52	1.00	4.02	-7.81	15.86	0.50	1.00	Yes
Bacteria	Synergistetes	Synergistia	Synergistales	Synergistaceae	Other	1.00%	-	-3.49	-13.58	6.60	0.50	1.00	-5.46	-11.97	1.05	0.10	1.00	Yes
Bacteria	Synergistetes	Synergistia	Synergistales	Synergistaceae		0.60%	-	-5.29	-18.23	7.64	0.42	1.00	1.91	-6.45	10.27	0.65	1.00	Yes
Bacteria	Synergistetes	Synergistia	Synergistales	Thermovirgaceae		0.30%	-	-8.43	-26.71	9.86	0.37	1.00	-8.19	-20.00	3.62	0.17	1.00	Yes
Bacteria	Tenericutes	CK-1C4-19				0.60%	-	8.84	-4.13	21.81	0.18	1.00	4.14	-4.25	12.52	0.33	1.00	Yes
Bacteria	Tenericutes	Mollicutes	Acholeplasmatales	Acholeplasmataceae	Acholeplasma	0.50%	-	-15.79	-30.03	-1.54	0.03	0.99	-7.96	-17.17	1.25	0.09	1.00	Yes
Bacteria	Tenericutes	Mollicutes	Acholeplasmatales	Acholeplasmataceae	Other	0.10%	-	-14.69	-46.48	17.09	0.36	1.00	-3.93	-24.48	16.61	0.71	1.00	Yes
Bacteria	Tenericutes	Mollicutes	Acholeplasmatales			0.20%	-	0.46	-22.05	22.96	0.97	1.00	-1.43	-15.97	13.11	0.85	1.00	Yes
Bacteria	Tenericutes	Mollicutes	Anaeroplasmatales	Anaeroplasmataceae	Anaeroplasma	3.09%	-	-0.05	-5.82	5.72	0.99	1.00	-2.50	-6.23	1.22	0.19	1.00	Yes
Bacteria	Tenericutes	Mollicutes	Anaeroplasmatales	Anaeroplasmataceae		1.50%	-	1.71	-6.57	9.99	0.69	1.00	1.89	-3.46	7.24	0.49	1.00	Yes
Bacteria	Tenericutes	Mollicutes	Entomoplasmatales			1.00%	-	0.61	-9.46	10.67	0.91	1.00	-0.56	-7.06	5.95	0.87	1.00	Yes
Bacteria	Tenericutes	Mollicutes	Mycoplasmatales	Mycoplasmataceae	Candidatus Hepatoplasma	0.20%	-	-3.66	-25.97	18.66	0.75	1.00	-16.95	-31.33	-2.57	0.02	1.00	Yes
Bacteria	Tenericutes	Mollicutes	Mycoplasmatales	Mycoplasmataceae	Mycoplasma	3.49%	-	-1.69	-7.18	3.80	0.55	1.00	0.65	-2.90	4.19	0.72	1.00	Yes
Bacteria	Tenericutes	Mollicutes	Mycoplasmatales	Mycoplasmataceae	Ureaplasma	0.80%	-	5.87	-5.39	17.14	0.31	1.00	0.58	-6.70	7.87	0.88	1.00	Yes
Bacteria	Tenericutes	Mollicutes	Mycoplasmatales	Mycoplasmataceae		0.10%	-	-7.52	-39.19	24.14	0.64	1.00	-8.08	-28.54	12.38	0.44	1.00	Yes
Bacteria	Tenericutes	Mollicutes	RF39†			2.02	0.58	-0.54	-2.30	1.23	0.55	1.00	-0.56	-1.70	0.58	0.33	1.00	No
Bacteria	Tenericutes	Mollicutes	RsaHF231			0.50%	-	-1.84	-16.22	12.54	0.80	1.00	3.67	-5.62	12.96	0.44	1.00	Yes
Bacteria	Tenericutes	Mollicutes				3.89%	-	-0.02	-5.24	5.19	0.99	1.00	-0.59	-3.96	2.78	0.73	1.00	Yes
Bacteria	Tenericutes	RF3	ML615J-28			6.48%	-	-1.33	-5.42	2.76	0.52	1.00	-1.18	-3.82	1.47	0.38	1.00	Yes
Bacteria	Thermotogae	Thermotogae	Thermotogales	Thermotogaceae	Thermotoga	0.10%	-	-7.75	-39.37	23.87	0.63	1.00	-4.37	-24.81	16.06	0.67	1.00	Yes
Bacteria	TM6	SBRH58				0.40%	-	6.40	-9.49	22.28	0.43	1.00	9.12	-1.14	19.37	0.08	1.00	Yes
Bacteria	TM6	SJA-4				0.40%	-	-16.77	-32.70	-0.83	0.04	0.99	-10.77	-21.07	-0.47	0.04	1.00	Yes
Bacteria	TM7	TM7-1				0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	TM7	TM7-3	CW040	F16		5.58%	-	-0.54	-4.95	3.87	0.81	1.00	0.44	-2.42	3.29	0.76	1.00	Yes
Bacteria	TM7	TM7-3	CW040			13.16%	-	2.39	-0.57	5.36	0.11	1.00	0.79	-1.12	2.71	0.42	1.00	Yes
Bacteria	TM7	TM7-3	EW055			0.90%	-	-4.06	-14.66	6.53	0.45	1.00	0.89	-5.96	7.73	0.80	1.00	Yes
Bacteria	TM7	TM7-3	I025	Rs-045		11.86%	-	2.70	-0.39	5.78	0.09	1.00	2.21	0.21	4.20	0.03	1.00	Yes
Bacteria	TM7	TM7-3	I025			0.90%	-	-4.18	-14.84	6.48	0.44	1.00	-3.16	-10.04	3.73	0.37	1.00	Yes
Bacteria	TM7	TM7-3				0.43	0.37	1.83	-0.89	4.54	0.19	1.00	0.55	-1.21	2.30	0.54	1.00	No
Bacteria	TM7					0.20%	-	-13.60	-36.05	8.86	0.23	1.00	-6.73	-21.25	7.78	0.36	1.00	Yes
Bacteria	TPD-58					0.20%	-	1.35	-21.11	23.81	0.91	1.00	3.91	-10.61	18.42	0.60	1.00	Yes
Bacteria	Verrucomicrobia	[Methylacidiphilae]	Methylacidiphilales	LD19		0.10%	-	8.04	-23.58	39.67	0.62	1.00	0.27	-20.17	20.71	0.98	1.00	Yes
Bacteria	Verrucomicrobia	[Pedosphaerae]	[Pedosphaerales]	[Pedosphaeraeae]	Pedosphaera	0.30%	-	10.09	-8.37	28.55	0.28	1.00	-2.48	-14.42	9.45	0.68	1.00	Yes
Bacteria	Verrucomicrobia	[Pedosphaerae]	[Pedosphaerales]	auto67_4W		0.50%	-	-5.71	-19.89	8.47	0.43	1.00	-2.90	-12.07	6.27	0.53	1.00	Yes
Bacteria	Verrucomicrobia	[Pedosphaerae]	[Pedosphaerales]	Ellin515		1.10%	-	4.24	-5.44	13.92	0.39	1.00	1.51	-4.75	7.76	0.64	1.00	Yes
Bacteria	Verrucomicrobia	[Pedosphaerae]	[Pedosphaerales]	Ellin517		0.50%	-	-4.24	-18.42	9.94	0.56	1.00	-3.83	-12.99	5.33	0.41	1.00	Yes
Bacteria	Verrucomicrobia	[Pedosphaerae]	[Pedosphaerales]	OPB35		0.10%	-	-12.98	-44.72	18.76	0.42	1.00	-5.58	-26.09	14.94	0.59	1.00	Yes
Bacteria	Verrucomicrobia	[Pedosphaerae]	[Pedosphaerales]	R4-41B		0.50%	-	-4.42	-18.72	9.87	0.54	1.00	-1.08	-10.32	8.16	0.82	1.00	Yes
Bacteria	Verrucomicrobia	[Pedosphaerae]	[Pedosphaerales]			0.50%	-	-13.16	-27.30	0.99	0.07	0.99	-3.02	-12.17	6.13	0.52	1.00	Yes
Bacteria	Verrucomicrobia	[Spartobacteria]	[Chthoniobacterales]	[Chthoniobacteraceae]	Candidatus Xiphi	0.70%	-	-1.14	-13.18	10.91	0.85	1.00	-2.20	-9.98	5.59	0.58	1.00	Yes
Bacteria	Verrucomicrobia	[Spartobacteria]	[Chthoniobacterales]	[Chthoniobacteraceae]	Chthoniobacter	0.30%	-	1.38	-16.95	19.70	0.88	1.00	-1.79	-13.63	10.05	0.77	1.00	Yes
Bacteria	Verrucomicrobia	[Spartobacteria]	[Chthoniobacterales]	[Chthoniobacteraceae]	DA101	1.40%	-	-1.08	-9.62	7.47	0.80	1.00	-2.30	-7.83	3.22	0.41	1.00	Yes
Bacteria	Verrucomicrobia	[Spartobacteria]	[Chthoniobacterales]	[Chthoniobacteraceae]		0.20%	-	-22.05	-44.40	0.29	0.05	0.99	-16.98	-31.41	-2.55	0.02	1.00	Yes
Bacteria	Verrucomicrobia	Opitutae	[Cerasicoccales]	[Cerasicocaceae]		0.90%	-	-4.07	-14.83	6.69	0.46	1.00	-2.61	-9.57	4.34	0.46	1.00	Yes
Bacteria	Verrucomicrobia	Opitutae	Opitiales	Opitaceae	Opitutus	0.40%	-	7.92	-7.87	23.72	0.33	1.00	7.82	-2.38	18.02	0.13	1.00	Yes
Bacteria	Verrucomicrobia	Opitutae	Opitiales	Opitaceae		0.40%	-	1.21	-14.83	17.24	0.88	1.00	1.86	-8.50	12.22	0.72	1.00	Yes
Bacteria	Verrucomicrobia	Verruco-5	WCHB1-41	RFP12		2.29%	-	0.69	-6.15	7.53	0.84	1.00	-1.98	-6.40	2.43	0.38	1.00	Yes
Bacteria	Verrucomicrobia	Verrucomicrobiae	Verrucomicrobiales	Verrucomicrobiaceae	Akkermansia	0.98	0.75	-0.52	-1.90	0.86	0.46	1.00	0.08	-0.81	0.97	0.86	1.00	No
Bacteria	Verrucomicrobia	Verrucomicrobiae	Verrucomicrobiales	Verrucomicrobiaceae	Luteolibacter	0.40%	-	-8.07	-23.92	7.77	0.32	1.00	-3.36	-13.60	6.89	0.52	1.00	Yes
Bacteria	Verrucomicrobia	Verrucomicrobiae	Verrucomicrobiales	Verrucomicrobiaceae	Prostheco bacter	0.20%	-	-5.53	-27.92	16.86	0.63	1.00	-8.18	-22.64	6.28	0.27	1.00	Yes
Bacteria	Verrucomicrobia	Verrucomicrobiae	Verrucomicrobiales	Verrucomicrobiaceae	Verrucomicrobium	0.10%	-	13.40	-18.19	45.00	0.41	1.00	17.50	-2.89	37.90	0.09	1.00	Yes
Bacteria	Verrucomicrobia	Verrucomicrobiae	Verrucomicrobiales	Verrucomicrobiaceae		1.50%	-	-3.57	-11.82	4.68	0.40	1.00	-1.16	-6.50	4.17	0.67	1.00	Yes
Bacteria	WPS-2					1.30%	-	2.71	-6.17	11.60	0.55	1.00	2.94	-2.80	8.68	0.32	1.00	Yes
Bacteria	WS3	PRR-12	LD1-PA13			0.40%	-	4.41	-11.46	20.28	0.59	1.00	8.11	-2.14	18.35	0.12	1.00	Yes
Bacteria	WS3	PRR-12	Sediment-1	PRR-10		0.50%	-	3.61	-10.56	17.77	0.62	1.00	-4.40	-13.56	4.75	0.35	1.00	Yes
Bacteria	WWE1	[Cloacamonae]	[WWE1]	[Cloacamonaceae]	Candidatus Cloacamonas	0.10%	-	-6.46	-38.54	25.62	0.69	1.00	5.39	-15.35	26.12	0.61	1.00	Yes
Unassigned	Other	Other	Other	Other	Other	0.69	0.44	0.69	-1.74	3.13	0.58	1.00	0.24	-1.33	1.81	0.77	1.00	No

Coef., coefficient; CI, confidence interval; q-value, false discovery rate-adjusted p-value. Rare taxa are taxa present in less than 25% of the sample and were categorized to binary variables (present/absence). Relative abundance of non-rare taxa was log10 transformed.

Model adjusted for age, sex, provinces, urbanization index (tertiles: ≤58.8, 58.8-78.8, >78.8), per capita household income (tertiles: ≤7.2, 7.2-18, >18), education, total energy intake, animal-source food consumption, sodium consumption, physical activity (tertiles: ≤75, 75-192, >192), smoking, alcohol intake, estimated glomerular filtration rate (eGFR), and low-density lipoprotein cholesterol.

\* Taxa with factor loadings >0.4 for principal coordinate 4. † Taxa with factor loadings <-0.4 for principal coordinate 4.

**Table S10. Association between individual metabolites (<25% values below detection limits) with systolic and diastolic blood pressure (SBP and DBP)**

Metabolites	Class	Pathway	SBP												DBP												Platform	RI	Mass	PUBCHEM	CAS	KEGG
			Model 1				Model 2				Model 1				Model 2																	
			Mean	SD	Coef.	95% CI	p-value	q-value	Coef.	95% CI	p-value	q-value	Coef.	95% CI	p-value	q-value	Coef.	95% CI	p-value	q-value												
(14 or 15)-methylpalmitate (a17:0 or i17:0)	Lipid	Fatty Acid, Branched	0.01	0.45	0.64	-2.71	4.00	0.71	0.88	0.73	-2.57	4.03	0.66	0.88	-0.30	-2.34	1.74	0.77	0.92	-0.24	-2.22	1.75	0.82	0.94	LC/MS Neg	5695	269.25	17903417				
(16 or 17)-methylstearate (a19:0 or i19:0)	Lipid	Fatty Acid, Branched	0.04	1.01	0.64	-0.92	2.19	0.42	0.75	0.73	-0.79	2.26	0.34	0.73	0.33	-0.62	1.27	0.50	0.80	0.40	-0.52	1.32	0.39	0.78	LC/MS Neg	5993	297.28	3083779	2724-59-6			
(2 or 3)-decanoate (10:1n8 or n7)	Lipid	Medium Chain Fatty Acid	-0.01	0.70	2.36	0.19	4.52	0.03	0.26	2.18	0.04	4.31	0.05	0.35	1.26	-0.06	2.58	0.06	0.34	1.12	-0.16	2.41	0.09	0.48	LC/MS Neg	4976	169.12	NA				
(2,4 or 2,5)-dimethylphenol sulfate	Xenobiotics	Food Component/Plant	-0.65	2.45	0.49	-0.23	1.22	0.18	0.55	0.48	-0.24	1.19	0.19	0.61	-0.05	-0.49	0.40	0.84	0.95	-0.06	-0.49	0.37	0.78	0.93	LC/MS Neg	3474	201.02	NA				
(N(1) + N(8))-acetylspermidine	Amino Acid	Polyamine Metabolism	0.01	0.50	0.19	-2.86	3.25	0.90	0.96	0.52	-2.48	3.53	0.73	0.90	0.44	-1.42	2.30	0.64	0.86	0.70	-1.12	2.51	0.45	0.82	LC/MS Pos Early	3080	188.18	NA				
(R)-3-hydroxybutyrylcarnitine	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Hydroxy)	-0.04	1.07	1.44	0.02	2.87	0.05	0.29	1.25	-0.15	2.65	0.08	0.44	0.66	-0.21	1.53	0.14	0.49	0.51	-0.34	1.35	0.24	0.70	LC/MS Pos Early	2400	248.15	53481617				
(S)-3-hydroxybutyrylcarnitine	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Hydroxy)	0.02	0.76	1.21	-0.82	3.24	0.24	0.62	1.24	-0.76	3.24	0.22	0.64	0.21	-1.02	1.45	0.74	0.91	0.24	-0.96	1.45	0.69	0.89	LC/MS Pos Early	2340	248.15	NA				
(S)-a-Amino-omega-caprolactam	Xenobiotics	Food Component/Plant	-0.10	0.45	2.74	-0.83	6.30	0.13	0.48	2.44	-1.08	5.95	0.17	0.59	1.38	-0.79	3.55	0.21	0.59	1.14	-0.97	3.26	0.29	0.73	LC/MS Pos Early	2332	129.10	NA				
1-(1-enyl-oleoyl)-GPE (P-18:1)*	Lipid	Lysoplasmalogen	0.03	0.58	-2.34	-4.94	0.27	0.08	0.37	-2.31	-4.87	0.25	0.08	0.44	-1.77	-3.35	-0.19	0.03	0.23	-1.75	-3.29	-0.21	0.03	0.27	LC/MS Pos Late	1566	464.31	NA				
1-(1-enyl-palmitoyl)-2-arachidonoyl-GPC (P-16:0/20:4)*	Lipid	Plasmalogen	0.00	0.45	4.95	1.61	8.29	4.E-03	0.09	4.65	1.36	7.95	0.01	0.12	1.25	-0.80	3.30	0.23	0.61	1.01	-0.99	3.01	0.32	0.75	LC/MS Pos Late	2154	766.57	NA				
1-(1-enyl-palmitoyl)-2-arachidonoyl-GPE (P-16:0/20:4)*	Lipid	Plasmalogen	-0.01	0.59	2.22	-0.35	4.79	0.09	0.40	1.32	-1.26	3.90	0.31	0.72	1.30	-0.26	2.86	0.10	0.44	0.60	-0.96	2.15	0.45	0.82	LC/MS Pos Late	2270	724.53	NA				
1-(1-enyl-palmitoyl)-2-linoleoyl-GPC (P-16:0/18:2)*	Lipid	Plasmalogen	0.03	0.43	2.71	-0.83	6.26	0.13	0.48	3.38	-0.12	6.88	0.06	0.40	0.95	-1.22	3.11	0.39	0.73	1.42	-0.69	3.54	0.19	0.63	LC/MS Pos Late	2226	742.57	NA				
1-(1-enyl-palmitoyl)-2-linoleoyl-GPE (P-16:0/18:2)*	Lipid	Plasmalogen	-0.02	0.52	0.76	-1.88	3.39	0.57	0.81	0.47	-2.12	3.07	0.72	0.90	0.37	-1.24	1.97	0.65	0.87	0.14	-1.42	1.71	0.86	0.94	LC/MS Pos Late	2351	700.53	NA				
1-(1-enyl-palmitoyl)-2-oleoyl-GPC (P-16:0/18:1)*	Lipid	Plasmalogen	0.00	0.41	0.36	-3.36	4.08	0.85	0.94	1.84	-1.89	5.57	0.33	0.73	-0.48	-2.74	1.79	0.68	0.89	0.61	-1.64	2.86	0.59	0.88	LC/MS Pos Late	2443	744.59	NA				
1-(1-enyl-palmitoyl)-2-oleoyl-GPE (P-16:0/18:1)*	Lipid	Plasmalogen	0.00	0.47	-0.38	-3.57	2.81	0.81	0.93	0.80	-3.94	2.35	0.62	0.85	-0.24	-2.18	1.70	0.81	0.94	-0.55	-2.45	1.34	0.57	0.86	LC/MS Pos Late	2600	702.54	NA				
1-(1-enyl-palmitoyl)-2-palmitoleoyl-GPC (P-16:0/16:1)*	Lipid	Plasmalogen	-0.10	0.62	0.21	-2.25	2.68	0.86	0.94	0.79	-1.65	3.23	0.52	0.80	0.04	-1.46	1.54	0.96	0.99	0.48	-0.99	1.95	0.52	0.85	LC/MS Pos Late	2218	716.56	NA				
1-(1-enyl-palmitoyl)-2-palmitoyl-GPC (P-16:0/16:0)*	Lipid	Plasmalogen	0.00	0.41	3.82	0.20	7.45	0.04	0.27	4.20	0.63	7.77	0.02	0.23	2.03	-0.18	4.24	0.07	0.37	2.30	0.14	4.45	0.04	0.31	LC/MS Pos Late	2454	718.57	11146967				
1-(1-enyl-palmitoyl)-GPE (P-16:0)*	Lipid	Lysoplasmalogen	0.00	0.44	1.19	-2.36	4.74	0.51	0.78	1.94	-1.57	5.45	0.28	0.69	-0.19	-2.35	1.97	0.86	0.96	0.36	-1.76	2.47	0.74	0.91	LC/MS Pos Late	1547	480.34	10917802				
1-(1-enyl-palmitoyl)-GPE (P-16:0)*	Lipid	Lysoplasmalogen	0.03	0.56	-0.78	-3.53	1.97	0.58	0.81	-1.07	-3.78	1.64	0.44	0.77	-0.52	-2.19	1.15	0.54	0.82	-0.75	-2.37	0.88	0.37	0.76	LC/MS Pos Late	1558	438.30	NA				
1-(1-enyl-stearoyl)-2-arachidonoyl-GPE (P-18:0/20:4)*	Lipid	Plasmalogen	-0.01	0.60	1.75	-0.77	4.28	0.17	0.54	1.31	-1.18	3.81	0.30	0.70	0.45	-1.09	1.99	0.57	0.84	0.09	-1.41	1.60	0.90	0.96	LC/MS Pos Late	2511	752.56	9547058				
1-(1-enyl-stearoyl)-2-linoleoyl-GPE (P-18:0/18:2)*	Lipid	Plasmalogen	0.01	0.51	-0.22	-3.16	2.73	0.89	0.96	-0.15	-3.05	2.75	0.92	0.97	-0.29	-2.08	1.51	0.75	0.91	-0.25	-2.00	1.50	0.78	0.93	LC/MS Pos Late	2633	728.56	NA				
1-(1-enyl-stearoyl)-2-oleoyl-GPE (P-18:0/18:1)	Lipid	Plasmalogen	-0.05	0.59	-0.98	-3.49	1.53	0.44	0.76	-1.16	-3.63	1.31	0.36	0.74	-0.83	-2.36	0.70	0.29	0.65	-0.97	-2.46	0.52	0.20	0.65	LC/MS Pos Late	2950	730.57	NA	144371-68-6			
1-(1-enyl-stearoyl)-GPE (P-18:0)*	Lipid	Lysoplasmalogen	0.03	0.56	-1.42	-4.15	1.31	0.31	0.66	-1.12	-3.81	1.57	0.41	0.76	-1.33	-2.99	0.33	0.12	0.46	-1.11	-2.73	0.51	0.18	0.62	LC/MS Pos Late	1649	466.33	NA				
1,2,3-benzenetriol sulfate (2)	Xenobiotics	Chemical	-0.64	3.23	-0.27	-0.75	0.21	0.27	0.64	-0.27	-0.75	0.20	0.26	0.67	-0.12	-0.42	0.17	0.41	0.74	-0.13	-0.41	0.16	0.38	0.77	LC/MS Neg	1709	204.98	NA				
1,2-dilinoleoyl-GPC (18:2/18:2)	Lipid	Phosphatidylcholine (PC)	0.00	0.46	1.70	-1.63	5.04	0.32	0.67	2.15	-1.14	5.43	0.20	0.62	0.67	-1.37	2.70	0.52	0.81	0.99	-0.99	2.97	0.33	0.75	LC/MS Pos Late	2006	782.57	5288075	998-06-1			
1,2-dipalmitoyl-GPC (16:0/16:0)	Lipid	Phosphatidylcholine (PC)	0.00	0.28	7.65	2.14	13.17	0.01	0.11	8.62	3.19	14.04	2.E-03	0.09	2.09	-1.29	5.48	0.22	0.60	2.79	-0.51	6.09	0.10	0.50	LC/MS Pos Late	2365	734.57	452110	63-89-8			
1,5-anhydroglucitol (1,5-AG)	Carbohydrate	Glycolysis, Gluconeogenesis, and Pyruvate Metabolism	-0.14	0.86	0.09	-1.70	1.88	0.92	0.97	0.57	-1.21	2.34	0.53	0.80	-0.55	-1.64	0.53	0.32	0.67	-0.21	-1.27	0.86	0.70	0.89	LC/MS Neg	802	163.06	64960	154-58-5	C07326		
10-heptadecenoate (17:1n7)	Lipid	Long Chain Monounsaturated Fatty Acid	-0.02	0.67	2.68	0.46	4.90	0.02	0.18	2.49	0.30	4.67	0.03	0.26	1.94	0.60	3.29	5.E-03	0.08	1.80	0.48	3.11	0.01	0.15	LC/MS Neg	5555	267.23	5312435	29743-97-3			
10-nonadecenoate (19:1n9)	Lipid	Long Chain Monounsaturated Fatty Acid	0.03	0.76	1.78	-0.17	3.73	0.07	0.35	1.76	-0.16	3.67	0.07	0.43	1.21	0.02	2.39	0.05	0.30	1.19	0.04	2.34	0.04	0.34	LC/MS Neg	5780	295.26	5312513	73033-09-7			
10-undecenoate (11:1n1)	Lipid	Medium Chain Fatty Acid	-0.03	0.82	-0.01	-1.86	1.84	0.99	1.00	0.21	-1.61	2.04	0.82	0.93	0.23	-0.90	1.36	0.69	0.89	0.40	-0.70	1.50	0.47	0.83	LC/MS Neg	5085.8	183.14	14891	1333-28-4	C13910		
11beta-hydroxyandrostosterone glucuronide	Lipid	Androgenic Steroids	-0.10	0.92	1.60	-0.09	3.29	0.06	0.33	1.41	-0.26	3.08	0.10	0.47	1.29	0.27	2.32	0.01	0.14	1.14	0.14	2.15	0.03	0.27	LC/MS Neg	4228	481.24	NA				
13-HODE + 9-HODE	Lipid	Fatty Acid, Monohydroxy	0.05	1.09	-0.23	-1.62	1.16	0.74	0.90	-0.31	-1.67	1.06	0.66	0.87	0.24	-0.60	1.09	0.57	0.84	0.19	-0.63	1.01	0.66	0.88	LC/MS Neg	5275	295.23	43013				
16a-hydroxy DHEA 3-sulfate	Lipid	Androgenic Steroids	-0.07	1.26	0.84	-0.49	2.17	0.21	0.59	0.57	-0.75	1.89	0.40	0.76	0.34	-0.47	1.15	0.40	0.74	0.13	-0.66	0.92	0.75	0.91	LC/MS Neg	4240	383.15	NA				
16-hydroxypalmitate	Lipid	Fatty Acid, Monohydroxy	0.00	0.60	2.92	0.32	5.53	0.03	0.23	3.24	0.68	5.80	0.01	0.18	1.48	-0.10	3.07	0.07	0.35	1.73	0.18	3.27	0.03	0.28	LC/MS Neg	5236.2	271.23	10466	506-13-8	C18218		
17alpha-hydroxypregnenolone 3-sulfate	Lipid	Pregnenolone Steroids	-0.29	1.18	0.53	-0.92	1.98	0.47	0.78	0.93	-0.50	2.37	0.20	0.62	-0.31	-1.20	0.57	0.48	0.79	-0.03	-0.89	0.84	0.95	0.98	LC/MS Neg	4800	411.18	152971	28901-70-4			
1-arachidonoyl-GPA (20:4)	Lipid	Lysophospholipid	-0.06	0.99	-0.62	-2.24	1.00	0.45	0.76	-0.10	-1.72	1.52	0.91	0.96	-0.85	-1.83	0.14	0.09	0.41	-0.46	-1.44	0.51	0.35	0.75	LC/MS Neg	5499	457.24	NA	799268-65-8			
1-arachidonoyl-GPC* (20:4)*	Lipid	Lysophospholipid	0.00	0.46	4.2																											

1-stearoyl-2-arachidonoyl-GPC (18:0/20:4)	Lipid	Phosphatidylcholine (PC)	-0.02	0.42	6.08	2.52	9.64	9.E-04	0.03	5.01	1.44	8.58	0.01	0.12	3.11	0.93	5.28	0.01	0.09	2.23	0.07	4.40	0.04	0.34	LC/MS Pos Late	2300	810.60	16219824	35418-59-8
1-stearoyl-2-arachidonoyl-GPE (18:0/20:4)	Lipid	Phosphatidylethanolamine (PE)	-0.01	0.51	2.28	-0.72	5.28	0.14	0.48	1.50	-1.48	4.48	0.32	0.72	0.95	-0.87	2.78	0.31	0.66	0.36	-1.44	2.15	0.70	0.89	LC/MS Polar	756	766.54	5289133	
1-stearoyl-2-arachidonoyl-GPI (18:0/20:4)	Lipid	Phosphatidylinositol (PI)	-0.01	0.37	4.45	0.25	8.65	0.04	0.27	3.74	-0.42	7.89	0.08	0.44	3.08	0.53	5.62	0.02	0.17	2.53	0.03	5.02	0.05	0.35	LC/MS Polar	870	885.55	NA	383907-33-3
1-stearoyl-2-docosahexaenoyl-GPC (18:0/22:6)	Lipid	Phosphatidylcholine (PC)	-0.02	0.50	2.05	-1.03	5.13	0.19	0.56	0.87	-2.23	3.97	0.58	0.84	1.77	-0.10	3.64	0.06	0.35	0.88	-0.99	2.74	0.36	0.75	LC/MS Pos Late	2197	834.60	NA	59403-52-0
1-stearoyl-2-docosahexaenoyl-GPE (18:0/22:6)*	Lipid	Phosphatidylethanolamine (PE)	-0.12	0.83	0.63	-1.20	2.45	0.50	0.78	-0.22	-2.06	1.62	0.81	0.93	-0.05	-1.15	1.06	0.94	0.98	-0.72	-1.83	0.39	0.20	0.65	LC/MS Pos Late	2317	792.55	9546798	
1-stearoyl-2-linoleoyl-GPC (18:0/18:2)*	Lipid	Phosphatidylcholine (PC)	0.00	0.22	5.16	-1.70	12.02	0.14	0.49	4.21	-2.56	10.98	0.22	0.64	4.10	-0.07	8.26	0.05	0.33	3.35	-0.72	7.42	0.11	0.53	LC/MS Pos Late	2380	786.60	NA	
1-stearoyl-2-linoleoyl-GPE (18:0/18:2)*	Lipid	Phosphatidylethanolamine (PE)	0.01	0.73	1.16	-0.95	3.27	0.28	0.65	0.53	-1.58	2.63	0.62	0.85	0.67	-0.62	1.95	0.31	0.66	0.19	-1.08	1.45	0.77	0.93	LC/MS Pos Late	2522	744.55	9546749	
1-stearoyl-2-linoleoyl-GPI (18:0/18:2)	Lipid	Phosphatidylinositol (PI)	0.00	0.38	1.22	-2.80	5.24	0.55	0.80	1.88	-2.08	5.85	0.35	0.73	1.29	-1.15	3.73	0.30	0.65	1.80	-0.58	4.19	0.14	0.57	LC/MS Polar	910	861.55	NA	
1-stearoyl-2-oleoyl-GPC (18:0/18:1)	Lipid	Phosphatidylcholine (PC)	0.02	0.47	1.86	-1.53	5.25	0.28	0.65	1.45	-1.90	4.79	0.40	0.76	0.29	-1.78	2.36	0.78	0.93	-0.03	-2.05	1.99	0.98	0.99	LC/MS Pos Late	2644	788.62	NA	56421-10-4
1-stearoyl-2-oleoyl-GPE (18:0/18:1)	Lipid	Phosphatidylethanolamine (PE)	-0.06	0.84	0.63	-1.21	2.46	0.50	0.78	-0.13	-1.98	1.72	0.89	0.96	-0.05	-1.17	1.06	0.92	0.98	-0.66	-1.77	0.46	0.25	0.70	LC/MS Pos Late	2858	746.57	NA	
1-stearoyl-GPC (18:0)	Lipid	Lysophospholipid	0.01	0.38	2.75	-1.38	6.88	0.19	0.56	2.55	-1.52	6.61	0.22	0.64	1.93	-0.58	4.44	0.13	0.49	1.77	-0.68	4.21	0.16	0.59	LC/MS Pos Late	1606	524.37	497299	19420-57-6
1-stearoyl-GPE (18:0)	Lipid	Lysophospholipid	-0.01	0.47	1.46	-1.80	4.73	0.38	0.72	1.44	-1.77	4.65	0.38	0.75	0.56	-1.43	2.54	0.58	0.84	0.54	-1.40	2.47	0.58	0.87	LC/MS Pos Late	1626	482.32	9547068	9547068
1-stearoyl-GPG (18:0)	Lipid	Lysophospholipid	-0.52	1.24	1.58	0.35	2.80	0.01	0.14	1.40	0.19	2.61	0.02	0.24	0.83	0.08	1.57	0.03	0.23	0.69	-0.04	1.42	0.06	0.40	LC/MS Neg	5816	511.30	NA	
1-stearoyl-GPI (18:0)	Lipid	Lysophospholipid	-0.02	0.57	-0.71	-3.34	1.92	0.60	0.82	-0.54	-3.12	2.05	0.68	0.89	0.71	-0.89	2.31	0.38	0.72	0.85	-0.71	2.40	0.28	0.72	LC/MS Neg	5794	599.32	NA	796963-93-4
2,3-dihydroxy-5-methylthio-4-pentenoate (DMTPA)*	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	0.02	0.39	7.88	3.11	12.66	1.E-03	0.04	6.51	1.73	11.29	0.01	0.14	2.98	0.05	5.91	0.05	0.30	1.85	-1.04	4.75	0.21	0.67	LC/MS Neg	1156	177.02	NA	
2,3-dihydroxyisovalerate	Xenobiotics	Food Component/Plant	0.25	1.39	-0.14	-1.24	0.97	0.81	0.92	-0.16	-1.25	0.92	0.77	0.92	0.67	0.00	1.34	0.05	0.31	0.65	0.00	1.31	0.05	0.36	LC/MS Polar	1050	133.05	677	1756-18-9
2,4-di-tert-butylphenol	Xenobiotics	Chemical	0.01	0.34	2.75	-1.85	7.35	0.24	0.61	2.66	-1.86	7.18	0.25	0.66	2.28	-0.51	5.08	0.11	0.45	2.22	-0.50	4.94	0.11	0.53	LC/MS Neg	5780	205.16	NA	
2,6-dihydroxybenzoic acid	Xenobiotics	Benzoate Metabolism	0.03	0.92	0.51	-1.15	2.16	0.55	0.80	0.57	-1.06	2.20	0.49	0.79	-0.33	-1.34	0.68	0.52	0.81	-0.28	-1.26	0.70	0.58	0.87	LC/MS Neg	2580.5	153.02	NA	
21-hydroxypregnenolone disulfate	Lipid	Pregnenolone Steroids	-0.04	0.78	0.69	-1.48	2.86	0.53	0.79	1.23	-0.92	3.38	0.26	0.68	0.33	-0.99	1.65	0.62	0.85	0.73	-0.57	2.02	0.27	0.71	LC/MS Neg	3935	245.07	134595	1164-98-3
2-aminoadipate	Amino Acid	Lysine Metabolism	-0.04	0.48	3.51	0.28	6.73	0.03	0.26	2.25	-1.01	5.51	0.18	0.59	1.99	0.03	3.95	0.05	0.30	1.00	-0.97	2.96	0.32	0.75	LC/MS Neg	639.2	160.06	469	542-32-5;11
2-aminobutyrate	Amino Acid	Glutathione Metabolism	0.00	0.44	-1.20	-4.73	2.33	0.50	0.78	-1.48	-4.95	1.99	0.40	0.76	-0.58	-2.73	1.57	0.60	0.84	-0.79	-2.89	1.30	0.46	0.82	LC/MS Pos Early	2059	104.07	439691	1492-24-6
2-aminooctanoate	Lipid	Fatty Acid, Amino	-0.05	0.78	1.03	-0.93	2.98	0.30	0.66	0.27	-1.70	2.24	0.79	0.92	1.30	0.11	2.48	0.03	0.24	0.74	-0.44	1.92	0.22	0.68	LC/MS Pos Early	3160	146.12	227939	1115-90-8
2-aminophenol sulfate	Xenobiotics	Chemical	-0.05	0.86	-0.67	-2.44	1.09	0.45	0.76	-0.70	-2.44	1.03	0.43	0.77	-0.08	-1.16	0.99	0.88	0.97	-0.11	-1.16	0.94	0.84	0.94	LC/MS Neg	3385	158.12	69522	644-90-6
2-arachidonoylglycerol (20:4)	Lipid	Chemical	0.00	1.60	-0.29	-1.23	0.65	0.54	0.80	-0.32	-1.24	0.60	0.49	0.79	-0.29	-0.86	0.28	0.32	0.68	-0.31	-0.86	0.24	0.27	0.71	LC/MS Neg	1677	188.00	181670	
2'-deoxyuridine	Nucleotide	Monoacylglycerol	-0.27	1.09	0.50	-0.90	1.91	0.48	0.78	0.27	-1.12	1.66	0.70	0.89	0.23	-0.63	1.08	0.60	0.84	0.04	-0.80	0.88	0.92	0.96	LC/MS Neg	6170	303.23	5282280	53847-30-6
2'-hydroxy-3-methylvalerate	Amino Acid	Pyrimidine Metabolism, Uracil containing	0.00	0.58	1.37	-1.34	4.08	0.32	0.67	2.33	-0.37	5.03	0.09	0.45	-0.34	-1.99	1.31	0.68	0.89	0.35	-1.28	1.98	0.68	0.89	LC/MS Neg	1586	227.07	13712	951-78-0
2-hydroxyadipate	Lipid	Leucine, Isoleucine and Valine Metabolism	0.09	0.83	0.69	-1.37	2.75	0.51	0.78	0.80	-1.23	2.82	0.44	0.77	0.59	-0.66	1.84	0.36	0.70	0.67	-0.55	1.89	0.28	0.72	LC/MS Neg	1800	131.07	164623	488-15-3
2-hydroxybutyrate/2-hydroxyisobutyrate	Amino Acid	Fatty Acid, Dicarboxylate	-0.46	1.21	1.20	-0.07	2.48	0.06	0.33	0.94	-0.32	2.20	0.14	0.55	0.54	-0.24	1.32	0.17	0.55	0.34	-0.42	1.10	0.38	0.77	LC/MS Polar	3000	161.05	193530	18294-85-4
2-hydroxydecanoate	Lipid	Glutathione Metabolism	-0.02	0.64	0.26	-2.16	2.68	0.83	0.94	-0.19	-2.58	2.20	0.88	0.96	0.04	-1.43	1.52	0.96	0.99	-0.30	-1.74	1.14	0.68	0.89	LC/MS Polar	1258	103.04	NA	
2-hydroxyfluorene sulfate	Xenobiotics	Fatty Acid, Monohydroxy	0.09	0.70	0.21	-2.37	1.94	0.85	0.94	-0.26	-2.38	1.86	0.81	0.93	0.24	-1.07	1.55	0.72	0.91	0.20	-1.08	1.48	0.76	0.92	LC/MS Neg	4840	187.13	21488	5393-81-7
2-hydroxyglutarate	Lipid	Tobacco Metabolite	-0.15	1.43	0.07	-1.14	1.28	0.91	0.96	0.08	-1.11	1.26	0.90	0.96	-0.35	-1.09	0.38	0.35	0.70	-0.35	-1.07	0.36	0.34	0.75	LC/MS Neg	4372	261.02	NA	
2-hydroxyheptanoate*	Lipid	Fatty Acid, Dicarboxylate	0.00	0.53	-0.50	-3.44	2.44	0.74	0.90	-0.29	-3.18	2.61	0.85	0.95	0.39	-1.40	2.18	0.67	0.88	0.55	-1.19	2.29	0.53	0.85	LC/MS Pos Early	958	131.03	43	40951-21-1
2-hydroxyhippurate (salicylurate)	Xenobiotics	Fatty Acid, Monohydroxy	0.03	0.48	-1.94	-1.54	1.26	0.23	0.61	-1.77	-4.92	1.38	0.27	0.69	-1.17	-2.11	1.78	0.87	0.96	-0.03	-1.92	1.87	0.98	0.99	LC/MS Polar	925	145.09	2750949	
2-hydroxyisovalerate	Lipid	Benzoate Metabolism	-0.07	0.20	0.79	0.03	1.55	0.04	0.28	0.65	-0.10	1.40	0.09	0.45	0.20	-0.26	0.67	0.39	0.73	0.09	-0.36	0.54	0.69	0.89	LC/MS Neg	2184	194.05	10253	487-54-7
2-hydroxynervonate*	Lipid	Fatty Acid, Monohydroxy	-0.20	0.70	-1.52	-3.77	0.73	0.19	0.55	-1.52	-3.74	0.69	0.18	0.59	0.08	-1.30	1.45	0.91	0.97	0.06	-1.28	1.40	0.93	0.97	LC/MS Neg	5211	215.17	97783	2984-55-6
2-hydroxyoctanoate	Lipid	Fatty Acid, Monohydroxy	0.07	0.79	-1.30	-3.29	0.68	0.20	0.57	-1.01	-2.97	0.94	0.31	0.71	-0.96	-2.17	0.25	0.12	0.47	-0.74	-1.92	0.44	0.22	0.68	LC/MS Neg	6345	381.34	5312783	
2-hydroxypalmitate	Lipid	Fatty Acid, Monohydroxy	0.00	0.73	0.69	-1.41	2.80	0.52	0.79	0.34	-1.74	2.42	0.75	0.91	0.85	-0.43	2.13	0.19	0.57	0.58	-0.67	1.83	0.36	0.75	LC/MS Neg	3736.8	159.10	94180	617-73-2
2-hydroxyphenylacetate	Amino Acid	Fatty Acid, Monohydroxy	0.02	0.44	1.25	-2.25	4.75	0.48	0.78	1.85	-1.60	5.30	0.29	0.70	1.40	-0.73	3.52	0.20	0.57	1.85	-0.22	3.92	0.08	0.46	LC/MS Neg	5511.2	271.23	92836	764-67-0
2-hydroxysebacic acid	Lipid	Phenylalanine Metabolism	-0.24	0.79	0.97	-1.00	2.94	0.33	0.69	1.25	-0.68	3.19	0.20	0.62	-0.11	-1.31	1.09	0.85	0.95	0.10	-1.07	1.27	0.86	0.95	LC/MS Polar	858.6	151.04	11970	614-75-5
2-hydroxystearate	Lipid	Fatty Acid, Dicarboxylate	0.04	1.21	0.14	-1.35	1.63	0.86	0.94	0.07	-1.40	1.53	0.93	0.97	0.13	-0.78	1.03	0.78	0.93	0.07	-0.81	0.95	0.87	0.95	LC/MS Neg	1392	217.11	NA	
2-keto-3-deoxy-gluconate	Xenobiotics	Fatty Acid, Monohydroxy	0.01	0.47	-0.45	-3.68	2.79	0.79	0.92	0.09	-3.11	3.29	0.96	0.98	0.80	-1.17	2.77	0.42	0.74	1.21	-0.71	3.13	0.22	0.68	LC/MS Neg	5695	299.26	69417	629-22-1
2-ketocaprylate	Amino Acid	Food Component/Plant	-0.04	0.55	3.00	0.08	5.92	0.04	0.29	2.44	-0.45	5.33	0.10	0.47	1.50	-0.28	3.27	0.10	0.43	1.07	-0.66	2.81	0.23	0.69	LC/MS Polar	1900	177.04	161227	17510-99-5
2-linoleoylglycerol (18:2)	Lipid	Leucine, Isoleucine and Valine Metabolism	-0.49	1.44	0.89	-0.21	1.98	0.11	0.44	0.78	-0.29	1.86	0.15	0.57	0.40	-0.26	1.07	0.2											





branched-chain, straight-chain, or cyclopropyl 12:1 fatty acid*	Partially Characterized Molecules	Partially Characterized Molecules	-0.05	0.92	1.65	0.03	3.27	0.05	0.29	1.62	0.02	3.21	0.05	0.35	0.76	-0.23	1.75	0.13	0.49	0.73	-0.23	1.70	0.13	0.56	LC/MS Neg	5263	197.16	NA	
butyrate/isobutyrate (4:0)	Lipid	Short Chain Fatty Acid	-0.03	0.76	-1.01	-3.01	1.00	0.32	0.68	-1.43	-3.41	0.56	0.16	0.58	-0.37	-1.59	0.85	0.55	0.83	-0.68	-1.87	0.52	0.27	0.71	LC/MS Neg	1024	87.05	NA	
butyrylcarnitine (C4)	Lipid	Fatty Acid Metabolism (also BCAA Metabolism)	-0.18	1.11	-0.21	-1.58	1.16	0.76	0.90	-0.53	-1.88	0.83	0.44	0.77	0.21	-0.62	1.05	0.61	0.85	-0.02	-0.83	0.80	0.97	0.99	LC/MS Pos Early	2860	232.15	439829 25576-40-3 C02862	
caffeic acid sulfate	Xenobiotics	Food Component/Plant	-0.37	2.04	0.23	-0.52	0.98	0.55	0.80	0.11	-0.63	0.86	0.76	0.92	0.25	-0.21	0.71	0.28	0.64	0.16	-0.29	0.60	0.49	0.84	LC/MS Polar	1307	258.99	NA	
caprate (10:0)	Lipid	Medium Chain Fatty Acid	0.03	0.35	3.52	-0.73	0.78	0.10	0.42	3.93	-0.26	8.11	0.07	0.41	1.52	-1.07	4.11	0.25	0.63	1.82	-0.70	4.35	0.16	0.59	LC/MS Neg	5090.7	171.14	2969 334-48-5 C01571	
caproate (6:0)	Lipid	Medium Chain Fatty Acid	0.02	0.45	0.00	-3.39	3.39	1.00	1.00	-0.01	-3.35	3.32	0.99	1.00	-0.36	-2.42	1.70	0.73	0.91	-0.37	-2.37	1.64	0.72	0.90	LC/MS Neg	2713.7	115.08	8892 142-62-1 C01585	
caprylate (8:0)	Lipid	Medium Chain Fatty Acid	-0.02	0.37	2.23	-1.82	6.28	0.28	0.65	2.23	-1.76	6.21	0.27	0.69	0.76	-1.71	3.23	0.54	0.83	0.76	-1.84	3.16	0.53	0.85	LC/MS Neg	4362	143.11	379 124-07-2 C06423	
carboxyethyl-GABA	Amino Acid	Glutamate Metabolism	-0.25	0.76	-0.61	-2.70	1.48	0.57	0.81	-0.58	-2.64	1.48	0.58	0.84	-0.76	-2.03	0.51	0.24	0.62	-0.73	-1.97	0.50	0.24	0.70	LC/MS Pos Early	2085	176.09	2572 908055	
carnitine	Lipid	Carnitine Metabolism	-0.01	0.26	6.36	0.73	11.99	0.03	0.22	6.21	0.67	11.75	0.03	0.26	3.43	0.00	6.86	0.05	0.31	3.32	-0.02	6.66	0.05	0.36	LC/MS Pos Early	1978	162.11	10917 461-05-2 C00318	
carotene diol (1)	Cofactors and Vitamins	Vitamin A Metabolism	-0.13	0.86	1.17	-0.67	3.00	0.21	0.59	1.42	-0.38	3.23	0.12	0.52	0.52	-0.60	1.63	0.36	0.71	0.71	-0.38	1.79	0.20	0.65	LC/MS Pos Late	1720	568.43	NA	
carotene diol (2)	Cofactors and Vitamins	Vitamin A Metabolism	-0.11	0.94	0.39	-1.27	2.06	0.64	0.86	0.65	-1.00	2.29	0.44	0.77	0.27	-0.75	1.28	0.60	0.84	0.46	-0.53	1.45	0.36	0.76	LC/MS Pos Late	1904	568.43	NA	
catechol sulfate	Xenobiotics	Benzoate Metabolism	-0.03	1.06	-0.19	-1.65	1.26	0.79	0.92	0.66	-1.49	1.37	0.93	0.97	-0.50	-1.38	0.38	0.26	0.63	-0.40	-1.26	0.46	0.36	0.75	LC/MS Neg	1906	188.99	3083879 4918-96-1	
ceramide (d18:1/20:0, d16:1/22:0, d20:1/18:0)*	Lipid	Ceramides	-0.80	1.35	-0.63	-1.83	0.57	0.30	0.66	-1.04	-2.23	0.15	0.09	0.45	0.20	-0.53	0.93	0.58	0.84	-0.09	-0.81	0.63	0.81	0.93	LC/MS Pos Late	3920	594.58	NA	
ceramide (d18:2/24:1, d18:1/24:2)*	Lipid	Ceramides	-0.26	1.08	0.85	-0.64	2.35	0.26	0.63	0.46	-1.02	1.95	0.54	0.81	0.39	-0.52	1.30	0.40	0.73	0.09	-0.80	0.98	0.84	0.94	LC/MS Pos Late	3858	646.61	NA	
cerotylcarnitine (C26)*	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Long Chain Saturated)	-0.02	0.66	4.29	2.02	6.56	2.E-04	0.02	3.91	1.66	6.16	7.E-04	0.06	3.10	1.72	4.47	1.E-05	3.E-03	2.81	1.46	4.16	5.E-05	0.01	LC/MS Pos Late	1649	540.50	NA	
C-glycosyltryptophan	Amino Acid	Tryptophan Metabolism	-0.02	0.34	5.28	-0.15	10.72	0.06	0.33	4.69	-0.67	10.05	0.09	0.45	1.48	-1.83	4.80	0.38	0.72	1.02	-2.21	4.25	0.54	0.85	LC/MS Neg	1777	365.14	10981970 180509-18-6	
chenodeoxycholate	Lipid	Primary Bile Acid Metabolism	0.26	1.50	0.00	-1.00	1.00	0.99	1.00	0.08	-0.90	1.07	0.87	0.96	-0.07	-0.68	0.54	0.81	0.94	-0.01	-0.61	0.58	0.96	0.98	LC/MS Neg	5264	391.29	10133 474-24-9;47-C02528	
chiro-inositol	Lipid	Inositol Metabolism	-0.43	2.03	0.37	-0.39	1.14	0.34	0.69	0.30	-0.46	1.05	0.44	0.77	0.16	-0.31	0.63	0.51	0.81	0.10	-0.36	0.55	0.68	0.89	LC/MS Polar	3191.2	225.06	NA 643-12-9 C19891	
cholate	Lipid	Primary Bile Acid Metabolism	0.32	1.88	-0.59	-1.40	1.22	0.15	0.50	-0.64	-1.43	0.16	0.12	0.50	-0.41	-0.90	0.08	0.10	0.45	-0.44	-0.92	0.04	0.07	0.44	LC/MS Neg	5165	407.28	221493 81-25-4 C00695	
cholesterol	Lipid	Sterol	-0.01	0.33	8.48	3.89	13.07	3.E-04	0.02	7.67	3.12	12.22	1.E-03	0.06	4.80	2.00	7.60	8.E-04	0.03	0.43	4.16	1.41	6.91	3.E-03	0.11	LC/MS Pos Late	2707	369.35	11025495 57-88-5 C00187
cholesterol sulfate	Lipid	Sterol	-0.08	0.82	1.93	0.07	3.79	0.04	0.28	1.87	0.05	3.70	0.04	0.34	1.04	-0.09	2.17	0.07	0.36	1.00	-0.10	2.10	0.08	0.45	LC/MS Neg	6625	465.30	NA	
choline	Lipid	Phospholipid Metabolism	0.01	0.33	-1.18	-5.98	3.61	0.63	0.85	-0.41	-5.15	4.32	0.86	0.96	-0.79	-3.70	2.13	0.60	0.84	-0.22	-3.07	2.63	0.88	0.95	LC/MS Pos Early	1961	104.11	305 67-48-1 C00114	
cinnamoylglycine	Xenobiotics	Food Component/Plant	-0.38	2.23	-0.18	-0.89	0.52	0.61	0.83	-0.01	-0.71	0.69	0.99	1.00	-0.23	-0.66	0.20	0.30	0.65	-0.09	-0.52	0.33	0.66	0.89	LC/MS Neg	3127	204.07	709625 16534-24-0	
cis-3,4-methyleneheptanoic acid	Lipid	Fatty Acid, Branched	0.01	1.01	-0.36	-1.93	1.21	0.65	0.86	-0.75	-2.31	0.80	0.34	0.73	0.01	-0.95	0.96	0.99	0.99	-0.29	-1.23	0.65	0.55	0.85	LC/MS Neg	3718	141.09	NA	
cis-3,4-methyleneheptanoyl carnitine	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Medium Chain)	-0.11	1.07	0.43	-1.06	1.92	0.57	0.81	-0.06	-1.54	1.43	0.94	0.97	0.39	-0.51	1.30	0.39	0.73	0.02	-0.87	0.92	0.96	0.98	LC/MS Pos Late	870	286.20	NA	
cis-3,4-methyleneheptanoyl glycine	Lipid	Fatty Acid Metabolism (Acyl Glycine)	-0.21	1.28	0.14	-1.06	1.35	0.81	0.93	-0.16	-1.36	1.03	0.79	0.92	0.14	-0.59	0.87	0.71	0.90	-0.10	-0.82	0.62	0.79	0.93	LC/MS Neg	3765	198.11	NA	
cis-4-decenoate	Lipid	Medium Chain Fatty Acid	0.06	0.83	2.63	0.80	4.46	0.01	0.09	2.59	0.79	4.40	5.E-03	0.12	2.06	0.95	3.17	3.E-04	0.01	2.03	0.95	3.11	2.E-04	0.02	LC/MS Neg	4886	169.12	NA	
cis-4-decenoylcarnitine (C10:1)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Monounsaturated)	-0.14	1.26	1.67	0.45	2.89	0.01	0.12	1.74	0.53	2.94	5.E-03	0.12	1.48	0.74	2.22	9.E-05	0.01	1.53	0.81	2.24	3.E-05	0.01	LC/MS Pos Late	1057	314.23	NA 98930-66-6	
cis-urocanate	Amino Acid	Histidine Metabolism	0.13	0.86	-1.19	-3.02	6.84	0.20	0.58	-1.22	-3.02	0.58	0.18	0.60	-0.31	-1.42	0.81	0.59	0.84	-0.33	-1.42	0.75	0.55	0.85	LC/MS Neg	1200	137.04	1549103 7699-35-6	
citrate	Energy	TCA Cycle	0.00	0.37	0.64	-3.56	4.84	0.77	0.91	0.49	-3.64	4.62	0.82	0.93	1.59	-0.96	4.14	0.22	0.60	1.47	-1.02	3.95	0.25	0.70	LC/MS Neg	582	191.02	311 77-92-9 C00158	
citrulline	Amino Acid	Urea cycle; Arginine and Proline Metabolism	0.01	0.34	3.24	-1.57	8.06	0.19	0.55	4.23	-0.52	8.98	0.08	0.44	-0.30	-3.23	2.64	0.84	0.95	0.43	-2.44	3.30	0.77	0.92	LC/MS Pos Early	1520	176.10	9750 372-75-8 C00327	
corticosterone	Lipid	Corticosteroids	-0.56	1.44	-1.21	-2.26	-0.17	0.02	0.21	-0.82	-1.87	0.24	0.13	0.53	-1.39	-2.02	-0.76	2.E-05	4.E-03	-1.11	-1.74	-0.48	6.E-04	0.03	LC/MS Neg	5040	345.21	5753 50-22-6 C02140	
cortisol	Lipid	Corticosteroids	-0.13	0.79	-0.13	-2.05	1.79	0.90	0.96	0.48	-1.43	2.39	0.62	0.85	-0.49	-1.65	0.68	0.41	0.74	-0.04	-1.19	1.11	0.95	0.98	LC/MS Neg	4710	361.20	5754 50-23-7 C00735	
cortisone	Lipid	Corticosteroids	-0.12	0.72	0.18	-1.93	2.30	0.87	0.94	0.49	-1.60	2.57	0.65	0.86	-0.52	-1.81	0.76	0.42	0.74	-0.29	-1.55	0.96	0.65	0.88	LC/MS Neg	4575	359.19	222786 53-06-5 C00762	
cortolone glucuronide (1)	Lipid	Corticosteroids	-0.19	0.83	2.67	0.83	4.52	5.E-03	0.09	1.81	-0.09	3.71	0.06	0.41	2.33	1.22	3.44	4.E-05	0.01	1.69	0.56	2.83	4.E-03	0.11	LC/MS Neg	4606	541.27	NA	
creatine	Amino Acid	Creatine Metabolism	-0.09	0.71	1.06	-1.27	3.39	0.37	0.72	0.45	-1.87	2.76	0.71	0.89	0.47	-0.95	1.89	0.51	0.81	0.00	-1.39	1.40	0.99	1.00	LC/MS Pos Early	1947	132.08	586 57-00-1 C00300	
creatinine	Amino Acid	Creatine Metabolism	0.01	0.24	12.16	2.00	22.32	0.02	0.19	12.40	2.42	22.39	0.02	0.19	5.87	-0.32	12.06	0.06	0.35	6.01	-0.01	12.03	0.05	0.36	LC/MS Pos Early	2055	114.07	588 60-27-5 C00791	
cystathionine	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	-0.11	0.86	1.98	0.09	3.86	0.04	0.28	1.72	-0.14	3.57	0.07	0.43	0.76	-0.39	1.91	0.19	0.57	0.56	-0.56	1.68	0.33	0.75	LC/MS Pos Early	2270	223.07	439258 535-34-2 C02291	
cysteine	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	-0.05	0.53	2.01	-0.90	4.91	0.17	0.54	1.58	-1.29	4.45	0.28	0.69	2.06	0.30	3.82	0.02	0.19	1.73	0.01	3.46	0.05	0.35	LC/MS Pos Early	1475	122.03	5862 52-90-4;56-E C00097	
cysteine s-sulfate	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	0.01	0.40	-3.30	-7.02	4.42	0.08	0.37	-3.13	-																		

gamma-CEHC glucuronide*	Cofactors and Vitamins	Tocopherol Metabolism	-0.40	1.17	0.95	-0.41	2.31	0.17	0.54	0.54	-0.81	1.90	0.43	0.77	0.53	-0.30	1.35	0.21	0.59	0.21	-0.60	1.03	0.61	0.88	LC/MS Neg	2500	439.16	NA	
gamma-glutamyl-2-aminobutyrate	Peptide	Gamma-glutamyl Amino Acid	-0.36	1.55	0.58	-0.40	1.56	0.25	0.62	0.44	-0.53	1.42	0.37	0.74	0.63	0.03	1.23	0.04	0.27	0.53	-0.06	1.11	0.08	0.45	LC/MS Pos Early	2380	233.11	NA	16869-42-4
gamma-glutamylalanine	Peptide	Gamma-glutamyl Amino Acid	-0.15	1.17	0.69	-0.61	1.99	0.30	0.66	0.41	-0.88	1.70	0.53	0.80	1.04	0.25	1.82	0.01	0.12	0.83	0.06	1.60	0.04	0.30	LC/MS Pos Early	1986	219.10	440103	5875-41-2
gamma-glutamyl-alpha-lysine	Peptide	Gamma-glutamyl Amino Acid	-0.07	0.75	0.81	-1.22	2.83	0.43	0.75	0.44	-1.57	2.44	0.67	0.88	1.12	-0.11	2.35	0.08	0.38	0.83	-0.37	2.04	0.17	0.61	LC/MS Pos Early	2784	276.16	65254	
gamma-glutamylcitrulline*	Peptide	Gamma-glutamyl Amino Acid	-0.15	1.07	0.67	-0.75	2.10	0.35	0.70	0.65	-0.75	2.05	0.36	0.74	0.69	-0.17	1.55	0.12	0.47	0.67	-0.17	1.51	0.12	0.54	LC/MS Pos Early	1644	305.15	NA	
gamma-glutamyl-epsilon-lysine	Peptide	Gamma-glutamyl Amino Acid	-0.10	1.04	0.50	-0.98	1.99	0.51	0.78	0.37	-1.10	1.84	0.62	0.85	0.60	-0.31	1.50	0.20	0.57	0.49	-0.39	1.37	0.27	0.72	LC/MS Pos Early	2725	276.16	7015685	17105-15-6
gamma-glutamylglutamate	Peptide	Gamma-glutamyl Amino Acid	-0.05	0.88	0.92	-0.84	2.68	0.31	0.66	0.73	-1.01	2.46	0.41	0.76	0.52	-0.55	1.59	0.34	0.69	0.37	-0.68	1.42	0.49	0.84	LC/MS Pos Early	1775	277.10	92865	1116-22-9 C05282
gamma-glutamylglutamine	Peptide	Gamma-glutamyl Amino Acid	-0.35	1.50	0.32	-0.69	1.33	0.53	0.79	0.37	-0.63	1.36	0.47	0.78	0.48	-0.13	1.09	0.12	0.47	0.52	-0.08	1.11	0.09	0.48	LC/MS Pos Early	1430	276.12	150914	10148-81-9 C05283
gamma-glutamylglycine	Peptide	Gamma-glutamyl Amino Acid	-0.11	0.74	0.39	-1.62	2.40	0.70	0.88	0.41	-1.57	2.39	0.68	0.89	0.67	-0.55	1.90	0.28	0.64	0.69	-0.50	1.88	0.26	0.70	LC/MS Pos Early	1535	205.08	165527	1948-29-4
gamma-glutamylhistidine	Peptide	Gamma-glutamyl Amino Acid	-0.03	0.59	0.93	-1.61	3.47	0.47	0.78	0.54	-1.97	3.04	0.67	0.88	0.97	-0.57	2.52	0.22	0.59	0.68	-0.83	2.19	0.38	0.77	LC/MS Pos Early	2740	285.12	7017195	37460-15-4
gamma-glutamylisoleucine*	Peptide	Gamma-glutamyl Amino Acid	-0.09	0.76	1.40	-0.60	3.41	0.17	0.54	0.73	-1.28	2.74	0.47	0.78	0.56	-0.67	1.78	0.37	0.72	0.03	-1.18	1.24	0.96	0.98	LC/MS Pos Early	2940	261.14	14253342	
gamma-glutamylleucine	Peptide	Gamma-glutamyl Amino Acid	-0.02	0.62	1.40	-1.05	3.85	0.26	0.63	0.55	-1.90	3.00	0.66	0.88	0.99	-0.50	2.47	0.19	0.57	0.34	-1.14	1.81	0.65	0.88	LC/MS Pos Early	2991	261.14	151023	2566-39-4
gamma-glutamylmethionine	Peptide	Gamma-glutamyl Amino Acid	-0.15	0.89	1.16	-0.54	2.86	0.18	0.55	0.87	-0.80	2.55	0.31	0.71	1.24	0.22	2.27	0.02	0.17	1.03	0.02	2.03	0.05	0.35	LC/MS Pos Early	2640	279.10	7009567	17663-87-5
gamma-glutamylphenylalanine	Peptide	Gamma-glutamyl Amino Acid	-0.03	0.57	1.74	-0.96	4.44	0.20	0.58	0.89	-1.81	3.59	0.52	0.80	0.73	-0.22	2.37	0.38	0.72	0.06	-1.57	1.69	0.94	0.97	LC/MS Pos Early	2992	295.13	111299	7432-24-8
gamma-glutamylthreonine	Peptide	Gamma-glutamyl Amino Acid	-0.02	0.51	1.67	-1.31	4.66	0.27	0.64	1.28	-1.66	4.23	0.39	0.76	1.05	-0.76	2.87	0.25	0.63	0.75	-1.03	2.52	0.41	0.79	LC/MS Pos Early	1750	249.11	76078708	5652-48-2
gamma-glutamyltyrosine	Peptide	Gamma-glutamyl Amino Acid	-0.04	0.52	2.33	-0.65	5.31	0.13	0.46	1.10	-1.91	4.11	0.47	0.78	1.51	-0.30	3.33	0.10	0.44	0.56	-1.26	2.37	0.55	0.85	LC/MS Neg	1240	309.11	94340	7432-23-7
gamma-glutamylvaline	Peptide	Gamma-glutamyl Amino Acid	-0.06	0.70	1.77	-0.38	3.93	0.11	0.43	0.91	-1.27	3.08	0.41	0.76	1.01	-0.31	2.32	0.13	0.49	0.33	-0.98	1.65	0.62	0.88	LC/MS Pos Early	2700	247.13	7015683	2746-34-1
gamma-tocopherol/beta-tocopherol	Cofactors and Vitamins	Tocopherol Metabolism	-0.47	1.69	0.45	-0.51	1.41	0.36	0.71	0.30	-0.64	1.25	0.53	0.80	0.21	-0.37	0.79	0.47	0.78	0.10	-0.47	0.67	0.74	0.91	LC/MS Pos Late	2384	416.36	NA	
gluconate	Xenobiotics	Food Component/Plant	0.08	0.82	-1.01	-2.95	0.94	0.31	0.67	-1.34	-3.26	0.58	0.17	0.59	0.31	-0.87	1.50	0.60	0.84	0.06	-1.10	1.22	0.92	0.96	LC/MS Polar	2922	195.05	10690	527-07-1 C00257
glucose	Carbohydrate	Glycolysis, Gluconeogenesis, and Pyruvate Metabolism	0.02	0.30	4.97	-0.04	9.98	0.05	0.31	3.32	-1.71	8.34	0.20	0.61	3.86	0.82	6.89	0.01	0.14	2.61	-0.41	5.63	0.09	0.48	LC/MS Polar	2342	225.06	79025	50-99-7 C00031
glucuronate	Carbohydrate	Aminosugar Metabolism	-0.04	0.69	2.35	0.05	4.64	0.05	0.29	2.05	-0.21	4.32	0.08	0.44	0.86	-0.54	2.26	0.23	0.61	0.64	-0.73	2.00	0.36	0.75	LC/MS Polar	3233.3	193.04	444791	207300-70-7 C00191
glu-gly-asn-val**	Peptide	Polypeptide	-0.19	1.21	0.40	-0.89	1.70	0.54	0.80	2.02	-1.06	1.50	0.74	0.90	0.33	-0.46	1.12	0.41	0.74	0.19	-0.58	0.96	0.63	0.88	LC/MS Pos Early	2655	418.19	NA	
glutamate	Amino Acid	Glutamate Metabolism	0.02	0.52	1.22	-1.83	4.26	0.43	0.75	0.45	-2.58	3.47	0.77	0.92	0.11	-1.74	1.97	0.90	0.97	-0.49	-2.31	1.33	0.60	0.88	LC/MS Pos Early	1500	148.06	611	56-86-0 C00025
glutamate, gamma-methyl ester	Amino Acid	Glutamate Metabolism	-0.04	0.44	1.92	-1.56	5.40	0.28	0.64	2.30	-1.13	5.73	0.19	0.61	0.70	-1.42	2.82	0.52	0.81	0.97	-1.09	3.04	0.35	0.75	LC/MS Pos Early	2170	162.08	68662	1499-55-4;1499-55-4
glutamine	Amino Acid	Glutamate Metabolism	-0.26	1.20	0.38	-0.89	1.65	0.55	0.80	0.52	-0.73	1.77	0.42	0.76	0.51	-0.26	1.28	0.19	0.57	0.61	-0.14	1.36	0.11	0.53	LC/MS Pos Early	1291	147.08	5961	56-85-9 C00064
glutamine conjugate of C6H10O2 (1)*	Partially Characterized Molecules	Partially Characterized Molecules	-0.08	1.16	0.23	-1.08	1.54	0.73	0.90	0.37	-0.92	1.66	0.57	0.83	0.23	-0.57	1.03	0.57	0.84	0.33	-0.44	1.11	0.40	0.78	LC/MS Neg	2406	241.12	NA	
glutamine conjugate of C6H10O2 (2)*	Partially Characterized Molecules	Partially Characterized Molecules	-0.18	1.71	0.35	-0.55	1.26	0.44	0.75	0.33	-0.55	1.22	0.46	0.77	0.55	0.01	1.10	0.05	0.30	0.54	0.00	1.07	0.05	0.35	LC/MS Neg	2528	241.12	NA	
glutarate (C5-DC)	Lipid	Fatty Acid, Dicarboxylate	0.03	0.88	0.86	-0.89	2.61	0.33	0.69	0.99	-0.73	2.72	0.26	0.68	0.44	-0.62	1.51	0.41	0.74	0.55	-0.49	1.58	0.30	0.74	LC/MS Polar	2900	131.03	743	110-94-1 C00489
glutaroylcarnitine (C5)	Amino Acid	Lysine Metabolism	0.03	0.63	0.49	-2.20	3.18	0.72	0.89	0.64	-2.01	3.28	0.64	0.86	0.11	-1.52	1.74	0.89	0.97	0.22	-1.37	1.81	0.79	0.93	LC/MS Pos Early	2393	276.14	71464488	102636-82-8
glycerate	Carbohydrate	Glycolysis, Gluconeogenesis, and Pyruvate Metabolism	-0.02	0.38	-0.57	-4.73	3.59	0.79	0.92	-0.08	-4.18	4.01	0.97	0.99	-0.26	-2.79	2.27	0.84	0.95	0.10	-2.37	2.57	0.93	0.97	LC/MS Polar	2070.4	105.02	752	600-19-1 C00258
glycerol	Lipid	Glycerolipid Metabolism	0.01	0.62	2.31	-0.14	4.76	0.06	0.33	1.91	-0.52	4.33	0.12	0.52	1.87	-0.39	3.36	0.01	0.14	1.56	0.11	3.02	0.04	0.30	LC/MS Neg	758	91.04	753	56-81-5 C00116
glycerol 3-phosphate	Lipid	Glycerolipid Metabolism	-0.19	1.09	-0.79	-2.22	0.64	0.28	0.65	-0.46	-1.88	0.95	0.52	0.80	-0.34	-1.21	0.53	0.44	0.75	-0.10	-0.95	0.75	0.82	0.94	LC/MS Pos Early	580	173.02	754	29849-82-9 C00093
glycerophosphoethanolamine	Lipid	Phospholipid Metabolism	0.01	0.36	-2.54	-6.72	1.64	0.23	0.61	-1.91	-6.04	2.22	0.36	0.74	-1.86	-4.40	0.68	0.15	0.51	-1.38	-3.86	1.10	0.27	0.72	LC/MS Pos Early	659	216.06	123874	33049-08-0 C01233
glycerophosphoglycerol	Lipid	Glycerolipid Metabolism	-0.29	1.29	-0.21	-1.39	0.97	0.73	0.90	-0.44	-1.60	0.73	0.46	0.77	-0.06	-0.78	0.66	0.87	0.96	-0.23	-0.93	0.47	0.51	0.85	LC/MS Polar	2430	245.04	439964	C03274
glycerophosphoinositol*	Lipid	Phospholipid Metabolism	-0.17	0.71	-0.86	-3.02	1.30	0.43	0.75	-0.39	-2.53	1.75	0.72	0.90	-0.10	-1.41	1.22	0.89	0.97	0.27	-1.02	1.55	0.68	0.89	LC/MS Neg	630	333.06	167572	16824-65-0
glycerophosphorylcholine (GPC)	Lipid	Phospholipid Metabolism	0.00	0.31	0.52	-4.58	5.62	0.84	0.94	1.56	-3.48	6.60	0.54	0.81	1.05	-2.05	4.15	0.51	0.81	1.83	-1.20	4.87	0.24	0.70	LC/MS Pos Early	672	258.11	71920	28319-77-9 C00670
glycine	Amino Acid	Glycine, Serine and Threonine Metabolism	0.03	0.35	-1.45	-5.84	2.93	0.52	0.78	-0.49	-4.84	3.85	0.82	0.94	-1.74	-4.41	0.92	0.20	0.58	-1.03	-3.64	1.58	0.44	0.81	LC/MS Pos Early	1375	76.04	750	56-40-6 C00037
glycine conjugate of C10H14O2 (1)*	Partially Characterized Molecules	Partially Characterized Molecules	-0.65	1.54	0.57	-0.45	1.59	0.27	0.64	0.27	-0.75	1.29	0.60	0.84	0.44	-0.18	1.06	0.16	0.54	0.21	-0.40	0.83	0.49	0.84	LC/MS Neg	4335	222.11	NA	
glycochenodeoxycholate	Lipid	Primary Bile Acid Metabolism	0.11	1.51	-0.10	-1.16	0.95	0.85	0.94	0.07	-0.97	1.11	0.90	0.96	-0.07	-0													

leukotriene B4	Lipid	Eicosanoid	-0.37	2.04	-0.36	-1.12	0.41	0.36	0.71	-0.41	-1.17	0.35	0.29	0.69	-0.17	-0.64	0.29	0.46	0.77	-0.21	-0.67	0.24	0.36	0.75	LC/MS Neg	5186	335.22	5280492	71160-24-2	C02165
lignoceryl sphingomyelin (d18:1/24:0)	Lipid	Sphingomyelins	-0.05	0.53	6.37	3.59	9.14	9.E-06	0.01	5.61	2.83	8.39	9.E-05	0.02	4.86	3.19	6.52	0.00	2.E-05	4.29	2.63	5.94	0.00	6.E-04	LC/MS Pos Late	3437	815.70	NA	60037-60-7	
lignocercylcarnitine (C24)*	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Long Chain Saturated)	-0.01	0.63	2.35	-0.04	4.74	0.05	0.32	1.79	-0.59	4.16	0.14	0.55	1.97	0.52	3.42	0.01	0.11	1.54	0.11	2.96	0.03	0.30	LC/MS Pos Late	1603	512.47	NA		
linoleate (18:2n6)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)	-0.05	0.64	2.85	0.54	5.16	0.02	0.17	2.58	0.29	4.86	0.03	0.26	2.66	1.27	4.06	2.E-04	0.01	2.46	1.09	3.82	4.E-04	0.03	LC/MS Neg	5535	279.23	5280450	60-33-3	C01595
linolenate (18:3n3 or 3n6)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)	-0.05	0.87	0.62	-1.11	2.35	0.48	0.78	0.42	-1.29	2.12	0.63	0.85	0.94	-0.11	1.99	0.08	0.38	0.79	-0.23	1.81	0.13	0.56	LC/MS Neg	5450	277.22	5280934		C06426
linoleoyl ethanolamide	Lipid	Endocannabinoid	0.03	1.16	0.80	-0.51	2.11	0.23	0.60	0.28	-1.03	1.60	0.67	0.88	0.60	-0.19	1.40	0.14	0.49	0.21	-0.58	1.00	0.60	0.88	LC/MS Neg	6150	322.28	5283446	68171-52-8	
linoleoylcarnitine (C18:2)*	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Polyunsaturated)	0.01	0.50	3.23	0.02	6.44	0.05	0.30	3.98	0.81	7.14	0.01	0.18	1.56	-0.40	3.52	0.12	0.47	2.10	0.18	4.01	0.03	0.29	LC/MS Pos Late	1430	424.34	6450015	36816-10-1	
linoleoylcholine*	Lipid	Fatty Acid Metabolism (Acyl Choline)	-0.01	0.79	-0.61	-2.52	1.30	0.53	0.79	-0.02	-1.92	1.89	0.99	1.00	-0.13	-1.29	1.04	0.83	0.95	0.33	-0.82	1.47	0.58	0.87	LC/MS Pos Late	1388	366.34	NA		
lysine	Amino Acid	Lysine Metabolism	0.00	0.24	3.11	-3.23	9.45	0.34	0.69	2.02	-4.24	8.29	0.53	0.80	1.09	-2.78	4.95	0.58	0.84	0.22	-3.56	4.00	0.91	0.96	LC/MS Pos Early	2850	147.11	5962	56-87-1	C00047
malate	Energy	TCA Cycle	0.05	0.57	0.71	-2.19	3.61	0.63	0.85	1.00	-1.85	3.86	0.49	0.79	1.13	-0.63	2.90	0.21	0.58	1.35	-3.37	3.07	0.12	0.55	LC/MS Neg	615.6	133.01	525	6915-15-7	C00149
maleate	Lipid	Fatty Acid, Dicarboxylate	0.06	0.53	0.85	-2.05	3.75	0.57	0.81	0.46	-2.40	3.32	0.75	0.91	1.37	-0.40	3.13	0.13	0.48	1.07	-0.65	2.79	0.22	0.68	LC/MS Polar	2640	115.00	444266	110-16-7	C01384
malonate	Lipid	Fatty Acid Synthesis	-0.25	1.29	0.42	-0.78	1.62	0.50	0.78	0.17	-1.01	1.36	0.77	0.92	0.51	-0.21	1.24	0.17	0.54	0.34	-0.38	1.05	0.36	0.75	LC/MS Polar	3447	103.00	867	141-82-2;26	C00383
maltose	Carbohydrate	Glycogen Metabolism	0.00	0.83	-0.41	-2.28	1.45	0.66	0.87	-0.78	-2.62	1.06	0.41	0.76	-0.12	-1.25	1.02	0.84	0.95	-0.39	-1.50	0.71	0.48	0.84	LC/MS Polar	3329.4	387.11	10991489	6363-53-7	C00208
mannitol/sorbitol	Carbohydrate	Fructose, Mannose and Galactose Metabolism	0.20	1.02	0.14	-1.38	1.66	0.86	0.94	0.09	-1.40	1.59	0.90	0.96	0.70	-0.22	1.63	0.13	0.49	0.67	-0.23	1.57	0.15	0.58	LC/MS Polar	2320	181.07	5780		C00794
mannose	Carbohydrate	Fructose, Mannose and Galactose Metabolism	-0.02	0.43	2.06	-1.51	5.64	0.26	0.63	0.90	-2.67	4.47	0.62	0.85	1.44	-0.73	3.61	0.19	0.57	0.56	-1.58	2.71	0.61	0.88	LC/MS Polar	2200	225.06	18950	3458-28-4	C00159
margarate (17:0)	Lipid	Long Chain Saturated Fatty Acid	0.04	0.52	2.60	-0.24	5.44	0.07	0.35	2.29	-0.51	5.09	0.11	0.50	2.01	0.29	3.74	0.02	0.19	1.77	0.09	3.46	0.04	0.32	LC/MS Neg	5731	269.25	10465	506-12-7	
metabolonic lactone sulfate	Partially Characterized Molecules	Partially Characterized Molecules	-0.03	1.10	1.30	-0.08	2.67	0.06	0.33	4.47	-0.96	1.90	0.52	0.80	1.00	0.16	1.83	0.02	0.17	0.37	-0.49	1.23	0.40	0.78	LC/MS Neg	4800	427.21	NA		
methionine	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	-0.01	0.30	2.50	-2.68	7.69	0.34	0.69	1.75	-3.37	6.87	0.50	0.79	2.21	-0.95	5.36	0.17	0.54	1.62	-1.46	4.70	0.30	0.74	LC/MS Pos Early	2526	150.06	6137	63-68-3	C00073
methionine sulfone	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	-0.01	0.72	0.46	-1.77	2.69	0.69	0.87	4.00	-1.79	2.59	0.72	0.90	-0.77	-2.13	0.58	0.26	0.63	-0.81	-2.13	0.51	0.23	0.69	LC/MS Pos Early	1250	182.05	69961	820-10-0	
methionine sulfoxide	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	0.02	0.62	-1.47	-4.00	1.07	0.26	0.63	-1.28	-3.78	1.22	0.31	0.72	-0.97	-2.50	0.57	0.22	0.59	-0.82	-2.32	0.68	0.28	0.72	LC/MS Pos Early	1272	166.05	158980	3226-65-1	C02989
methyl glucopyranoside (alpha + beta)	Xenobiotics	Food Component/Plant	0.01	1.20	0.61	-0.68	1.89	0.36	0.71	1.00	-0.28	2.27	0.13	0.52	-0.06	-0.84	0.72	0.88	0.97	0.23	-0.54	1.00	0.56	0.86	LC/MS Neg	1070	193.07	NA		
methyl-4-hydroxybenzoate sulfate	Xenobiotics	Benzoate Metabolism	0.27	2.34	-0.34	-1.03	3.35	0.33	0.68	-0.31	-0.98	0.37	0.37	0.74	-0.13	-0.55	0.29	0.54	0.82	-0.11	-0.51	0.30	0.60	0.88	LC/MS Neg	2873	231.00	NA		
methylaphthyl sulfate (2)*	Xenobiotics	Chemical	-1.13	2.68	0.31	-0.38	0.99	0.38	0.72	0.24	-0.43	0.92	0.48	0.78	-0.08	-0.50	0.34	0.71	0.90	-0.13	-0.54	0.28	0.53	0.85	LC/MS Neg	4163	237.02	NA		
methylsuccinate	Amino Acid	Leucine, Isoleucine and Valine Metabolism	0.02	0.54	0.31	-2.52	3.13	0.83	0.94	-0.11	-2.89	2.68	0.94	0.98	0.83	-0.88	2.55	0.34	0.69	0.53	-1.14	2.21	0.53	0.85	LC/MS Polar	2800	131.03	10349	498-21-5	
myo-inositol	Lipid	Inositol Metabolism	-0.15	0.80	0.92	-1.06	2.90	0.36	0.71	1.00	-0.95	2.95	0.32	0.72	0.29	-0.92	1.49	0.64	0.86	0.35	-0.83	1.52	0.56	0.86	LC/MS Polar	3506.3	225.06	892	87-89-8	C00137
myristate (14:0)	Lipid	Long Chain Saturated Fatty Acid	0.04	0.50	4.58	1.57	7.58	3.E-03	0.07	4.17	1.20	7.13	0.01	0.12	2.84	1.02	4.67	2.E-03	0.05	2.54	0.75	4.32	0.01	0.13	LC/MS Neg	5440	227.20	11005	544-63-8	C06424
myristoleate (14:1n5)	Lipid	Long Chain Monounsaturated Fatty Acid	0.00	0.82	2.51	0.69	4.33	0.01	0.12	2.67	0.88	4.46	4.E-03	0.11	1.43	0.32	2.54	0.01	0.13	1.56	0.48	2.64	5.E-03	0.12	LC/MS Neg	5346.9	225.19	5281119	544-64-9	C08322
myristoleoylcarnitine (C14:1)*	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Monounsaturated)	0.00	1.01	1.52	0.01	3.02	0.05	0.30	1.87	0.38	3.35	0.01	0.18	1.16	0.25	2.07	0.01	0.14	1.42	0.53	2.31	2.E-03	0.08	LC/MS Pos Late	1316	370.29	90659872	889848-55-9	
myristoyl dihydroxyphenylethanol	Lipid	Dihydroxyphenylethanol	-0.07	0.62	3.16	0.69	5.62	0.01	0.14	2.25	-0.24	4.74	0.08	0.44	2.08	0.58	3.58	0.01	0.10	1.37	-0.13	2.87	0.07	0.44	LC/MS Pos Late	2060	677.56	NA		
myristoylcarnitine (C14)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Long Chain Saturated)	-0.12	0.90	2.96	1.27	4.64	6.E-04	0.03	3.01	1.35	4.66	4.E-04	0.05	2.19	1.17	3.21	3.E-05	4.E-03	2.22	1.22	3.21	1.E-05	4.E-03	LC/MS Pos Late	1350	372.31	6426854	18822-89-4	
N(6),N(6)-dimethyllysine	Amino Acid	Lysine Metabolism	-0.06	0.89	-0.88	-2.62	0.86	0.32	0.67	-0.72	-2.44	0.99	0.41	0.76	-0.82	-1.87	0.24	0.13	0.49	-0.70	-1.73	0.33	0.18	0.62	LC/MS Pos Early	2833	175.14	NA		
N,N,N-trimethyl-5-aminovaleate	Amino Acid	Urea cycle: Arginine and Proline Metabolism	0.02	0.68	1.26	-1.01	3.53	0.28	0.64	1.31	-0.92	3.55	0.25	0.66	-0.39	-1.77	0.99	0.58	0.84	-0.35	-1.69	1.00	0.61	0.88	LC/MS Pos Early	2186	160.13	NA		
N,N,N-trimethyl-alanylproline betaine (TMAP)	Amino Acid	Urea cycle: Arginine and Proline Metabolism	-0.01	0.39	4.77	-0.07	9.62	0.05	0.32	4.56	-0.20	9.33	0.06	0.40	2.02	-0.94	4.97	0.18	0.56	1.85	-1.02	4.73	0.21	0.66	LC/MS Pos Early	2344	229.15	NA		
N,N-dimethylalanine	Amino Acid	Alanine and Aspartate Metabolism	-0.18	1.08	-0.10	-1.54	1.34	0.89	0.96	0.19	-1.24	1.61	0.80	0.93	-0.66	-1.53	0.22	0.14	0.49	-0.44	-1.30	0.41	0.31	0.74	LC/MS Pos Early	1378	118.09	NA		
N,N-dimethyl-pro	Peptide	Modified Peptides	0.00	0.35	7.62	1.83	13.40	0.01	0.13	7.90	2.21	13.58	0.01	0.13	1.67	-1.88	5.22	0.35	0.70	1.88	-1.57	5.34	0.28	0.72	LC/MS Pos Early	2402	241.15	NA		
N1-Methyl-2-pyridone-5-carboxamide	Cofactors and Vitamins	Nicotinate and Nicotinamide Metabolism	-0.09	0.91	1.66	-0.06	3.39	0.06	0.33	1.03	-0.71	2.76	0.24	0.66	0.35	-0.70	1.40	0.52	0.81	-0.18	-1.22	0.87	0.74	0.91	LC/MS Pos Early	1250	153.07	69698	701-44-0	C05842
N1-Methyl-4-pyridone-3-carboxamide	Cofactors and Vitamins	Nicotinate and Nicotinamide Metabolism	-0.21	1.10	0.93	-0.46	2.31	0.19	0.56	0.47	-0.91	1.86	0.50	0.79	0.34	-0.51	1.19	0.43	0.75	-0.01	-0.85	0.82	0.97	0.99	LC/MS Pos Early	1260	153.07	440810	769-49-3	C05843
N1-methylinosine	Nucleotide	Purine Metabolism, (Hypo)Xanthine/Inosine containing	-0.01	0.47	2.94	-0.64	6.52	0.11	0.43	2.88	-0.64	6.40	0.11	0.50	0.43	-1.75	2.62	0.70	0.90	0.39	-1.74	2.51	0.72	0.90	LC/MS Pos Early	1430	283.10	65095	20245-33-4	
N2,N2-dimethylguanosine	Nucleotide	Purine Metabolism, Guanine containing	0.00	0.35	8.74	3.99	13.49	3.E-04	0.02	8.09	3.40	12.78	8.E-04	0.06	3.27	0.35	6.18	0.03	0.23	2.76	-0.09	5.61	0.06	0.39	LC/MS Pos Early	2210	312.13	92919	2140-67-2	
N2,N5-diacetylornithine	Amino Acid	Urea cycle: Arginine and Proline Metabolism	-0.28	1.09	0.55	-0.99	2.09	0.49	0.78	0.78	-0.74	2.30	0.31	0.72	-0.72	-1.65	0.22	0.13	0.49	-0.54	-1.46	0.37	0.24	0.70	LC/MS Neg	1367	215.10	10398396	39825-23-5	
N2-acetyl,N6,N6-dimethyllysine	Amino Acid	Lysine Metabolism	0.13	1.26	-0.71	-1.93	0.51	0.25	0.63	-0.50	-1.70	0.70	0.42	0.76	-0.82	-1.56	-0.08	0.03	0.23	-0.66	-1.38	0.06	0.07	0.44	LC/MS Pos Early	2180	217.15	NA		
N2-acetyllysine	Amino Acid	Lysine Metabolism	-0.23	0.78	2.13	0.11	4.16	0.04	0.27	2.02	0.03	4.02	0.05	0.35	0.59	-0.65	1.83	0.35	0.70	0.50	-0.70	1.71	0.41	0.79	LC/MS Polar	3372.6	187.11	92907	1946-82-3	C12989

oleoylcarnitine (C18)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Monounsaturated)	0.01	0.48	1.58	-1.68	4.83	0.34	0.69	2.08	-1.13	5.28	0.20	0.62	0.84	-1.15	2.82	0.41	0.74	1.20	-0.73	3.14	0.22	0.68	LC/MS Pos Late	1423	426.36	6441392	38677-66-6
oleoylcholine	Lipid	Fatty Acid Metabolism (Acyl Choline)	-0.02	0.84	-0.75	-2.58	1.09	0.43	0.75	-0.13	-1.97	1.70	0.89	0.96	-0.59	-1.70	0.53	0.30	0.66	-0.13	-1.23	0.98	0.82	0.94	LC/MS Pos Late	1449	368.35	NA	
ornithine	Amino Acid	Urea cycle; Arginine and Proline Metabolism	0.00	0.48	1.42	-1.97	4.81	0.41	0.74	1.48	-1.85	4.82	0.88	0.75	-0.35	-2.41	1.72	0.74	0.91	-0.31	-2.32	1.70	0.76	0.92	LC/MS Pos Early	2800	133.10	6262	3184-13-2 C00077
orotate	Nucleotide	Pyrimidine Metabolism, Orotate containing	0.03	0.50	0.01	-3.06	3.08	0.99	1.00	0.66	-2.38	3.70	0.67	0.88	0.43	-1.44	2.30	0.65	0.87	0.92	-0.91	2.75	0.32	0.75	LC/MS Polar	1638.1	155.01	967	50887-69-9 C00295
orotidine	Nucleotide	Pyrimidine Metabolism, Orotate containing	-0.03	0.50	3.35	-0.28	6.97	0.07	0.35	2.68	-0.90	6.26	0.14	0.55	0.06	-2.15	2.27	0.96	0.89	-0.48	-2.64	1.69	0.67	0.89	LC/MS Polar	2250	287.05	92751	314-50-9
O-sulfo-L-tyrosine	Xenobiotics	Chemical	0.01	0.41	4.42	0.30	5.54	0.04	0.27	4.36	0.31	8.42	0.04	0.30	1.43	-1.09	3.95	0.27	0.63	1.38	-1.07	3.83	0.27	0.71	LC/MS Neg	990	260.02	514186	
oxalate (ethanedioate)	Cofactors and Vitamins	Ascorbate and Aldarate Metabolism	-0.01	0.43	-1.93	-5.58	1.72	0.30	0.66	-1.49	-5.09	2.11	0.42	0.76	-1.43	-3.65	0.79	0.21	0.58	-1.10	-3.26	1.07	0.32	0.75	LC/MS Neg	603	88.99	971	144-62-7 C00209
oxindolylalanine	Amino Acid	Tryptophan Metabolism	-0.04	0.48	-1.07	-4.18	2.05	0.50	0.78	-1.93	-5.02	1.16	0.22	0.64	-0.28	-2.18	1.61	0.77	0.92	-0.93	-2.79	0.93	0.32	0.75	LC/MS Pos Early	2755	221.09	NA	
palmitate (16:0)	Lipid	Long Chain Saturated Fatty Acid	0.00	0.47	4.50	1.37	7.63	5.E-03	0.09	3.97	0.88	7.07	0.01	0.18	3.52	1.63	5.42	3.E-04	0.01	3.13	1.27	4.98	1.E-03	0.05	LC/MS Neg	5618	255.23	985	57-10-3 C00249
palmitoleate (16:1n7)	Lipid	Long Chain Monounsaturated Fatty Acid	0.00	0.82	2.69	0.86	4.51	4.E-03	0.09	2.58	0.78	4.38	0.01	0.12	1.79	0.68	2.90	2.E-03	0.04	1.71	0.63	2.79	2.E-03	0.08	LC/MS Neg	5475	253.22	445638	373-49-9 C08362
palmitoleoylcarnitine (C16:1)*	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Monounsaturated)	-0.02	0.74	2.37	0.31	4.43	0.02	0.21	2.63	0.60	4.66	0.01	0.17	1.66	0.41	2.91	0.01	0.11	1.85	0.63	3.07	3.E-03	0.11	LC/MS Pos Late	1357	398.33	71464547	
palmitoyl dihydroshpingomyelin (d18:0/16:0)*	Lipid	Dihydroshpingomyelins	-0.01	0.35	5.66	1.18	10.14	0.01	0.15	5.66	1.16	9.97	0.01	0.18	4.02	1.30	6.74	4.E-03	0.08	3.94	1.29	6.59	4.E-03	0.11	LC/MS Pos Late	2290	705.59	9939965	
palmitoyl ethanolamide	Lipid	Endocannabinoid	-0.01	0.59	2.46	-0.15	5.07	0.07	0.33	1.80	-0.79	4.40	0.17	0.59	1.44	-0.15	3.03	0.08	0.38	0.93	-0.63	2.50	0.24	0.70	LC/MS Neg	6300	298.28	4671	544-31-0 C16512
palmitoyl sphingomyelin (d18:1/16:0)	Lipid	Sphingomyelins	-0.02	0.22	7.12	0.10	14.14	0.05	0.29	7.99	1.09	14.90	0.02	0.24	5.16	0.90	9.43	0.02	0.17	5.81	1.66	9.96	0.01	0.13	LC/MS Pos Late	2168	703.57	9939941	6254-89-3
palmitoylcarnitine (C16)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Long Chain Saturated)	0.01	0.45	7.26	3.97	10.56	2.E-05	0.01	6.95	3.71	10.20	3.E-05	0.02	3.63	1.60	5.65	5.E-04	0.02	3.37	1.40	5.34	9.E-04	0.05	LC/MS Pos Late	1425	400.34	461	6865-14-1 C02990
palmitoylcholine	Lipid	Fatty Acid Metabolism (Acyl Choline)	-0.02	0.79	-0.08	-2.02	1.87	0.94	0.98	0.46	-1.47	2.39	0.64	0.86	-0.16	-1.34	1.03	0.80	0.93	0.24	-0.92	1.40	0.69	0.89	LC/MS Pos Late	1482	342.34	151731	
palmitoyl-sphingosine-phosphoethanolamine (d18:1/16:0)	Lipid	Ceramide Pes	-0.43	0.95	0.84	-0.85	2.53	0.33	0.68	0.91	-0.75	2.57	0.28	0.69	0.31	-0.72	1.34	0.55	0.83	0.37	-0.63	1.37	0.47	0.83	LC/MS Pos Late	2172	661.53	NA	
pantothenate (Vitamin B5)	Cofactors and Vitamins	Pantothenate and CoA Metabolism	0.00	0.39	7.77	3.63	11.91	3.E-04	0.02	6.86	2.74	10.97	1.E-03	0.06	2.73	0.18	5.28	0.04	0.26	1.98	-0.53	4.48	0.12	0.55	LC/MS Neg	1498.7	218.10	6613	137-08-6 C00864
p-cresol glucuronide*	Amino Acid	Tyrosine Metabolism	-0.38	2.14	-0.52	-1.23	0.19	0.15	0.50	-0.45	-1.15	0.26	0.21	0.64	-0.40	-0.83	0.04	0.07	0.37	-0.34	-0.77	0.08	0.11	0.53	LC/MS Neg	2420	283.08	154035	17680-99-8
p-cresol sulfate	Xenobiotics	Benzoate Metabolism	-0.24	1.51	-1.46	-2.47	0.44	0.01	0.09	-1.28	-2.29	-0.27	0.01	0.18	-1.01	-1.62	-0.39	1.E-03	0.04	-0.87	-1.48	-0.27	5.E-03	0.12	LC/MS Neg	2890	187.01	4615423	3233-57-7
pelargonate (9:0)	Lipid	Medium Chain Fatty Acid	0.03	0.30	-0.68	-5.85	4.48	0.79	0.92	-0.87	-5.95	4.21	0.74	0.90	-2.37	-5.51	0.76	0.14	0.49	-2.51	-5.56	0.54	0.11	0.53	LC/MS Neg	4798	157.12	8158	112-05-0 C01601
pentadecanoate (15:0)	Lipid	Long Chain Saturated Fatty Acid	-0.01	0.30	2.86	-2.06	7.78	0.25	0.63	2.56	-2.28	7.39	0.30	0.70	1.49	-1.50	4.48	0.33	0.69	1.26	-1.65	4.18	0.40	0.78	LC/MS Neg	5521	241.22	13849	1002-84-2;11 C16537
perfluorooctanesulfonate (PFOS)	Xenobiotics	Chemical	0.01	1.37	-1.66	-2.96	0.37	0.01	0.14	-1.70	-2.98	-0.43	0.01	0.15	-0.85	-1.64	-0.06	0.03	0.26	-0.88	-1.65	-0.11	0.02	0.27	LC/MS Neg	5233	498.93	74483	1763-23-1 C18142
perfluorooctanoate (PFOA)	Xenobiotics	Chemical	-0.07	0.79	-0.32	-2.32	1.67	0.75	0.90	-0.60	-2.57	1.37	0.55	0.81	-1.04	-2.25	0.17	0.09	0.41	-1.26	-2.44	-0.08	0.04	0.31	LC/MS Neg	5130	412.97	9554	
phenol sulfate	Amino Acid	Tyrosine Metabolism	0.06	0.86	0.57	-1.21	2.35	0.53	0.79	0.54	-1.21	2.29	0.54	0.81	0.67	-0.41	1.76	0.22	0.60	0.65	-0.41	1.70	0.23	0.69	LC/MS Neg	2156	172.99	74426	937-34-8 C02180
phenylacetylglutamine	Peptide	Acetylated Peptides	-0.02	1.16	-1.16	-2.53	2.00	0.09	0.40	-1.10	-2.44	0.24	0.11	0.50	-0.95	-1.78	-0.12	0.02	0.20	-0.90	-1.71	-1.00	0.03	0.28	LC/MS Neg	2330	263.10	92258	28047-15-6 C04148
phenylalanine	Amino Acid	Phenylalanine Metabolism	0.01	0.24	3.52	-3.03	10.07	0.29	0.66	1.75	-4.76	8.27	0.60	0.84	2.66	-1.32	6.65	0.19	0.57	1.29	-2.63	5.21	0.52	0.85	LC/MS Pos Early	2878	166.09	6140	63-91-2 C00079
phenylalanyl-glycine	Peptide	Dipeptide	-0.74	1.30	0.01	-1.19	1.21	0.99	1.00	-0.18	-1.36	1.01	0.77	0.92	-0.14	-0.87	0.59	0.71	0.90	-0.28	-1.00	0.43	0.43	0.80	LC/MS Pos Early	2898	223.11	98207	721-90-4
phenylactate (PLA)	Amino Acid	Phenylalanine Metabolism	0.02	0.53	0.99	-2.23	4.21	0.55	0.80	0.65	-2.52	3.82	0.69	0.89	2.02	0.06	3.97	0.04	0.29	1.75	-0.15	3.66	0.07	0.44	LC/MS Neg	2208	165.06	3848	828-01-3 C05607
phosphate	Energy	Oxidative Phosphorylation	0.01	0.11	6.05	-8.45	20.55	0.41	0.74	5.72	-8.55	19.98	0.43	0.77	4.35	-4.47	13.17	0.33	0.69	4.13	-4.46	12.72	0.35	0.75	LC/MS Neg	608	96.97	1061	7664-38-2 C00009
phosphocholine	Lipid	Phospholipid Metabolism	-0.03	0.49	-1.35	-4.40	1.71	0.39	0.72	-1.48	-4.49	1.52	0.33	0.73	-0.27	-2.13	1.59	0.77	0.92	-0.38	-2.19	1.43	0.68	0.89	LC/MS Pos Early	700	184.07	1014	72556-74-2 C00588
phytanate	Xenobiotics	Food Component/Plant	0.04	0.97	1.47	-0.08	3.01	0.06	0.33	1.83	0.31	3.36	0.02	0.22	0.06	-0.88	1.01	0.89	0.97	0.33	-0.59	1.26	0.48	0.83	LC/MS Neg	5908	311.30	26840	14721-66-5 C01607
picolinate	Amino Acid	Tryptophan Metabolism	-0.29	1.12	0.23	-1.18	1.65	0.75	0.90	0.18	-1.21	1.57	0.80	0.93	-0.37	-1.23	0.49	0.40	0.73	-0.41	-1.25	0.43	0.34	0.75	LC/MS Pos Early	910	124.04	1018	98-98-6 C10164
picolinoylglycine	Lipid	Fatty Acid Metabolism (Acyl Glycine)	-0.14	0.87	3.34	1.41	5.28	8.E-04	0.03	2.75	0.81	4.69	0.01	0.12	1.44	0.25	2.62	0.02	0.17	0.95	-0.23	2.13	0.11	0.53	LC/MS Neg	1829	179.05	NA	
pipicolate	Amino Acid	Lysine Metabolism	0.21	1.11	-0.03	-1.50	1.43	0.96	0.99	-0.17	-1.61	1.28	0.82	0.93	0.09	-0.80	0.98	0.84	0.95	-0.01	-0.87	0.86	0.99	0.99	LC/MS Pos Early	2200	130.09	849	4043-87-2 C00408
pregnen-20-ol-20-one disulfate*	Lipid	Pregnenolone Steroids	0.00	0.99	0.74	-1.12	2.60	0.43	0.75	1.12	-0.72	2.96	0.23	0.65	0.30	-0.83	1.44	0.60	0.84	0.58	-0.52	1.69	0.30	0.74	LC/MS Neg	3868	238.08	NA	
pregnenediol sulfate (C21H34O5S)*	Lipid	Pregnenolone Steroids	-0.07	0.92	0.80	-1.15	2.75	0.42	0.75	1.49	-0.45	3.43	0.13	0.53	0.30	-0.89	1.48	0.63	0.85	0.80	-0.37	1.97	0.18	0.62	LC/MS Neg	5000	397.21	NA	1247-64-9
pregnenetriol disulfate*	Lipid	Pregnenolone Steroids	-0.02	0.94	1.12	-0.77	3.01	0.24	0.62	1.10	-0.76	2.96	0.25	0.66	0.98	-0.16	2.13	0.09	0.41	0.96	-0.15	2.08	0.09	0.48	LC/MS Neg	3515	246.07	NA	
pregnenetriol sulfate*	Lipid	Pregnenolone Steroids	-0.12	0.84	0.93	-1.16	3.02	0.38	0.72	1.04	-1.02	3.10	0.32																

succinylcarnitine (C4)	Energy	TCA Cycle	-0.04	0.48	2.14	-1.41	5.69	0.24	0.61	1.48	-2.03	4.99	0.41	0.76	1.16	-1.00	3.32	0.29	0.65	0.66	-1.46	2.77	0.54	0.85	LC/MS Pos Early	2291	262.13	71464481	256928-74-2	
sucrose	Carbohydrate	Disaccharides and Oligosaccharides	-0.39	1.74	0.51	-0.39	1.41	0.27	0.63	0.45	-0.43	1.34	0.32	0.72	0.32	-0.23	0.87	0.25	0.63	0.28	-0.26	0.81	0.31	0.75	LC/MS Polar	3092	387.11	5988	57-50-1	C00089
sulfate*	Xenobiotics	Chemical	-0.01	0.26	1.28	-4.92	7.48	0.69	0.87	0.38	-5.74	6.49	0.90	0.96	-1.12	-4.89	2.65	0.56	0.83	-1.82	-5.50	1.85	0.33	0.75	LC/MS Neg	616	96.96	1118	14808-79-8	C00059
tartrate	Xenobiotics	Food Component/Plant	-0.56	1.82	-0.13	-0.98	0.71	0.76	0.90	-0.22	-1.05	0.61	0.60	0.84	0.11	-0.41	0.62	0.69	0.89	0.04	-0.46	0.54	0.88	0.95	LC/MS Neg	615.3	149.01	444305	87-69-4;61010	C00898
tartronate (hydroxymalonate)	Xenobiotics	Food Component/Plant	-0.09	0.76	0.45	-1.65	2.56	0.67	0.87	0.75	-1.33	2.82	0.48	0.78	-0.21	-0.80	0.76	0.42	0.74	-0.30	-1.55	0.95	0.63	0.88	LC/MS Neg	610	119.00	45	80-69-3	C02287
taurine	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	-0.11	0.60	-0.89	-3.64	1.87	0.53	0.79	-0.36	-3.09	2.36	0.79	0.93	-1.35	-3.03	0.32	0.11	0.46	-0.96	-2.60	0.67	0.25	0.70	LC/MS Pos Early	660	126.02	1123	107-35-7	C00245
taurochenodeoxycholate	Lipid	Primary Bile Acid Metabolism	-0.81	2.42	-0.06	-0.71	0.60	0.87	0.94	0.00	-0.64	0.65	0.99	1.00	-0.01	-0.41	0.39	0.96	0.99	0.03	-0.35	0.42	0.87	0.95	LC/MS Neg	5250	498.29	387316	6009-98-9	C05465
taurochenodeoxycholic acid 3-sulfate	Lipid	Secondary Bile Acid Metabolism	-0.44	1.64	0.33	-0.62	1.28	0.49	0.78	0.35	-0.58	1.29	0.46	0.77	0.10	-0.48	0.67	0.74	0.91	0.11	-0.46	0.67	0.71	0.90	LC/MS Neg	4800	288.62	NA		
taurochenolate sulfate*	Lipid	Secondary Bile Acid Metabolism	-0.02	0.98	0.53	-1.00	2.06	0.50	0.78	0.47	-1.04	1.97	0.54	0.81	0.66	-0.27	1.59	0.17	0.54	0.60	-0.30	1.51	0.19	0.64	LC/MS Neg	4750	279.61	NA		
taurothiocholate 3-sulfate	Lipid	Secondary Bile Acid Metabolism	-1.02	2.23	-0.43	-1.11	0.25	0.21	0.58	-0.41	-1.08	0.25	0.22	0.64	-0.21	-0.63	0.20	0.31	0.67	-0.20	-0.60	0.20	0.33	0.75	LC/MS Neg	5027	280.62	440071	64936-83-0	C03642
tetradecadienedioate (C14:2-DC)*	Lipid	Fatty Acid, Dicarboxylate	-0.01	1.09	0.23	-1.19	1.65	0.75	0.90	0.57	-0.84	1.98	0.43	0.77	0.40	-0.47	1.26	0.37	0.71	0.66	-0.19	1.51	0.13	0.56	LC/MS Neg	3172	253.14	NA		
tetradecadienoate (C14:2)*	Lipid	Fatty Acid, Dicarboxylate	-0.04	0.91	2.35	0.71	3.99	5.E-03	0.09	2.44	0.83	4.05	3.E-03	0.10	1.40	0.40	2.40	0.01	0.09	1.47	0.50	2.44	3.E-03	0.11	LC/MS Neg	5315	223.17	NA		
tetradecanedioate (C14)	Lipid	Fatty Acid, Dicarboxylate	0.07	0.89	1.55	-0.18	3.29	0.08	0.37	1.80	0.09	3.51	0.04	0.31	0.94	-0.12	2.00	0.08	0.38	1.13	0.10	2.15	0.03	0.29	LC/MS Neg	3985	257.18	13185	821-38-5	
tetrahydrocortisone glucuronide (5)	Lipids	Corticosteroids	-0.23	1.00	2.07	0.50	3.63	0.01	0.13	1.50	-0.08	3.08	0.06	0.41	1.65	0.70	2.60	7.E-04	0.02	1.22	0.27	2.17	0.01	0.18	LC/MS Neg	4697	539.25	NA		
thioprolin	Xenobiotics	Chemical	-0.02	0.61	3.04	0.47	5.60	0.02	0.19	2.69	0.17	5.22	0.04	0.31	1.16	-0.41	2.72	0.15	0.51	0.89	-0.64	2.42	0.25	0.70	LC/MS Pos Early	1250	134.03	93176	34592-47-4	
threonate	Cofactors and Vitamins	Ascorbate and Aldarate Metabolism	-0.01	0.56	-3.28	-6.03	-0.54	0.02	0.19	-2.94	-5.65	-0.23	0.03	0.29	-1.62	-3.29	0.06	0.06	0.34	-1.36	-3.00	2.28	0.10	0.52	LC/MS Polar	2384	135.03	151152	70753-61-6	C01620
threonine	Amino Acid	Glycine, Serine and Threonine Metabolism	0.00	0.33	1.99	-2.51	6.50	0.39	0.72	1.61	-2.83	6.05	0.48	0.78	1.05	-1.69	3.80	0.45	0.76	0.73	-1.94	3.41	0.59	0.88	LC/MS Pos Early	1514	120.07	6288	72-19-5	C00188
threonylphenylalanine	Peptide	Dipeptide	-0.38	1.48	0.00	-1.10	1.10	1.00	1.00	0.05	-1.03	1.13	0.93	0.97	-0.43	-1.09	0.24	0.21	0.59	-0.38	-1.03	2.26	0.24	0.70	LC/MS Pos Early	3077	267.13	4099799	16875-27-7	
throxine	Amino Acid	Tyrosine Metabolism	-0.13	0.89	0.61	-1.07	2.29	0.48	0.78	0.72	-0.93	2.38	0.39	0.76	1.07	0.05	2.09	0.04	0.27	1.15	0.16	2.14	0.02	0.26	LC/MS Neg	4808	775.68	5819	51-48-9	C01829
tiglyl carnitine (C5)	Amino Acid	Leucine, Isoleucine and Valine Metabolism	-0.10	0.90	1.68	-0.04	3.41	0.06	0.33	1.50	-0.20	3.21	0.08	0.44	0.19	-0.86	1.25	0.72	0.91	0.05	-0.98	1.08	0.92	0.96	LC/MS Pos Early	2962	244.15	22833596	64191-86-2	
trans-urocanate	Amino Acid	Histidine Metabolism	-0.01	0.45	-2.88	-6.20	0.45	0.09	0.39	-2.80	-6.07	0.47	0.09	0.46	-1.19	-3.22	0.84	0.25	0.63	-1.14	-3.11	0.83	0.26	0.70	LC/MS Neg	777.7	137.04	736715	104-98-3	C00785
tricosanoyl sphingomyelin (d18:1/23:0)*	Lipid	Sphingomyelins	-0.05	0.51	7.56	4.52	10.61	2.E-06	2.E-03	6.53	3.43	9.62	4.E-05	0.02	4.95	3.11	6.79	0.00	8.E-05	4.12	2.26	5.98	2.E-05	4.E-03	LC/MS Pos Late	3200	801.68	NA		
tridecenedioate (C13:1-DC)*	Lipid	Fatty Acid, Dicarboxylate	-0.14	1.29	0.56	-0.69	1.80	0.38	0.72	0.71	-0.52	1.94	0.26	0.68	0.51	-0.25	1.27	0.19	0.57	0.62	-0.12	1.36	0.10	0.51	LC/MS Neg	3121	241.14	NA		
trigonelline (N'-methylnicotinate)	Cofactors and Vitamins	Nicotinate and Nicotinamide Metabolism	0.02	1.25	0.19	-1.09	1.47	0.77	0.91	0.12	-1.14	1.38	0.85	0.95	0.05	-0.73	0.83	0.90	0.97	0.01	-0.75	0.76	0.99	0.99	LC/MS Pos Early	1388	138.05	5570	535-83-1	C01004
trimethylamine N-oxide	Lipid	Phospholipid Metabolism	-0.03	0.94	-0.36	-2.03	1.31	0.67	0.87	-0.57	-2.21	1.08	0.50	0.79	-0.52	-1.54	0.49	0.31	0.67	-0.68	-1.67	0.31	0.18	0.62	LC/MS Pos Early	2100	76.08	1145	1184-78-7	C01104
tryptophan	Amino Acid	Tryptophan Metabolism	0.00	0.28	1.55	-3.89	6.98	0.58	0.81	-0.64	-4.73	6.01	0.81	0.93	1.02	-2.29	4.33	0.55	0.83	0.31	-2.93	3.54	0.85	0.94	LC/MS Pos Early	2986	205.10	6305	73-22-3	C00078
tryptophan betaine	Amino Acid	Tryptophan Metabolism	-0.09	1.41	0.84	-0.26	1.94	0.13	0.48	0.61	-0.48	1.70	0.27	0.68	0.30	-0.37	0.97	0.37	0.72	0.13	-0.53	0.79	0.70	0.89	LC/MS Pos Early	2673	247.14	442106	20671-76-5	C09213
tyramine O-sulfate	Amino Acid	Tyrosine Metabolism	0.20	1.53	-0.03	-1.04	0.98	0.95	0.98	-0.10	-1.09	0.89	0.84	0.95	0.15	-0.46	0.77	0.63	0.85	0.10	-0.50	0.70	0.74	0.91	LC/MS Neg	1565	216.03	153005	30223-92-8	
tyr-asn	Peptide	Dipeptide	-0.40	1.56	0.12	-0.96	1.20	0.83	0.94	0.08	-0.98	1.14	0.88	0.96	-0.39	-1.05	0.26	0.24	0.62	-0.42	-1.06	0.22	0.20	0.64	LC/MS Neg	1544	294.11	NA		
tyrosine	Amino Acid	Tyrosine Metabolism	0.00	0.29	4.31	-0.89	9.51	0.10	0.42	2.10	-3.17	7.36	0.43	0.77	2.76	-0.40	5.92	0.09	0.40	1.02	-2.15	4.19	0.53	0.85	LC/MS Pos Early	2430	182.08	6057	60-18-4	C00082
undecanedioate (C11-DC)	Lipid	Fatty Acid, Dicarboxylate	0.07	0.66	-0.05	-2.51	2.42	0.97	0.99	-0.16	-2.59	2.26	0.90	0.96	0.58	-0.92	2.08	0.45	0.76	0.49	-2.07	1.95	0.51	0.85	LC/MS Neg	2440	215.13	15816	1852-04-6	
undecanoate (11:0)	Lipid	Medium Chain Fatty Acid	0.04	0.21	2.10	-4.92	9.12	0.56	0.80	2.03	-4.87	8.93	0.56	0.82	-1.38	-5.66	2.89	0.53	0.81	-1.44	-5.60	2.72	0.50	0.84	LC/MS Neg	5219.2	185.15	8180	334-48-5	C17715
uracil	Nucleotide	Pyrimidine Metabolism, Uracil containing	-0.08	0.59	-1.88	-4.44	0.69	0.15	0.50	-1.55	-4.08	0.98	0.23	0.64	-0.93	-2.49	0.64	0.24	0.62	-0.67	-2.19	0.86	0.39	0.78	LC/MS Polar	10899.7	111.02	1174	66-22-8	C00106
urate	Nucleotide	Purine Metabolism, (Hypo)Xanthine/Inosine containing	-0.03	0.29	5.70	0.33	11.08	0.04	0.27	4.06	-1.31	9.43	0.14	0.54	3.28	0.01	6.55	0.05	0.31	2.00	-1.24	5.24	0.23	0.69	LC/MS Neg	757.1	167.02	1175	69-93-2;12010	C00366
urea	Amino Acid	Urea cycle; Arginine and Proline Metabolism	-0.01	0.51	-0.32	-3.40	2.76	0.84	0.94	-0.37	-3.40	2.66	0.81	0.93	-1.24	-3.11	0.63	0.19	0.57	-1.28	-3.10	0.53	0.17	0.60	LC/MS Pos Early	700	121.07	1176	57-13-6	C00086
uridine	Nucleotide	Pyrimidine Metabolism, Uracil containing	0.01	0.32	0.20	-4.71	5.11	0.93	0.98	-0.67	-5.52	4.18	0.79	0.92	-0.68	-3.67	2.31	0.66	0.87	-1.36	-4.28	1.56	0.36	0.75	LC/MS Neg	1457.6	243.06	6029	58-96-8	C00299
(5)	Lipid	Corticosteroids	-0.14	0.91	1.74	0.01	3.48	0.05	0.30	1.33	-0.39	3.05	0.13	0.53	1.58	0.53	2.63	3.E-03	0.07	1.27	0.23	2.30	0.02	0.21	LC/MS Neg	4678	541.26	NA		
ursodeoxycholate	Lipid	Secondary Bile Acid Metabolism	-0.11	1.56	-0.21	-1.18	0.76	0.68	0.87	-0.12	-1.08	0.84	0.81	0.93	-0.24	-0.82	0.35	0.43	0.75	-0.17	-0.74	0.41	0.57	0.86	LC/MS Neg	5055	391.29	31401	128-13-2	C07880
valine	Amino Acid	Leucine, Isoleucine and Valine Metabolism	0.00	0.26	3.48	-2.54	9.50	0.26	0.63	0.15	-6.04	6.34	0.96	0.98	3.81	0.16	7.45	0.04	0.28	1.36	-2.36	5.08	0.47	0.83	LC/MS Pos Early	2479	118.09	6287	72-18-4	C00183
valylleucine	Peptide	Dipeptide	-0.06	1.70	-0.43	-1.33	0.48	0.35	0.70	-0.43	-1.32	0.45	0.34	0.73	0.13	-0.42	0.68	0.64	0.86	0.12	-0.41	0.66	0.65	0.88	LC/MS Pos Early	3138	231.17	352039	22906-55-4	
vanillactate	Amino Acid	Tyrosine Metabolism	-0.14	0.87	0.72	-1.29	2.73	0.48	0.78	0.94	-1.03	2.92	0.35	0.73	-0.39	-1.62	0.83	0.53	0.81	-0.22	-1.42	0.97	0.71	0.90	LC/MS Neg	1625	211.06	160637	2475-56-1	
vanillic acid glycine	Xenobiotics	Food Component/Plant	-0.27	1.36	-0.04	-1.17	1.09	0.95	0.98	-0.03	-1.14	1.08	0.96	0.98	0.16	-0.53	0.85	0.65	0.86	0.16	-0.50	0.83	0.63	0.88	LC/MS Neg	1674	224.06	NA		
vanillylmandelate (VMA)	Amino Acid	Tyrosine Metabolism	-0.05	0.64	2.42	-1.10	4.99	0.06	0.33	2																				

X - 16935	-0.03	0.81	1.10	-0.78	2.97	0.25	0.63	1.15	-0.69	2.99	0.22	0.64	1.08	-0.06	2.21	0.06	0.35	1.11	0.01	2.22	0.05	0.35	LC/MS Neg	4471	447.28	NA
X - 16938	-0.17	0.81	0.74	-1.12	2.61	0.43	0.75	0.81	-1.03	2.64	0.39	0.76	1.14	-0.99	1.28	0.80	0.94	0.19	-0.91	1.30	0.73	0.90	LC/MS Neg	2000	233.10	NA
X - 16964	-0.20	0.95	1.42	-0.23	3.07	0.09	0.40	1.21	-0.42	2.84	0.15	0.55	1.08	0.08	2.09	0.03	0.26	0.92	-0.06	1.90	0.07	0.41	LC/MS Neg	3034	174.06	NA
X - 17010	0.12	1.01	-0.74	-2.29	0.80	0.35	0.70	-0.80	-2.33	0.72	0.30	0.70	-0.30	-1.24	0.64	0.53	0.81	-0.35	-1.26	0.57	0.46	0.82	LC/MS Neg	3178	189.11	NA
X - 17357	-0.22	0.91	1.04	-0.64	2.72	0.22	0.59	0.88	-0.77	2.53	0.30	0.70	0.94	-0.07	1.96	0.07	0.36	0.83	-0.16	1.82	0.10	0.52	LC/MS Neg	4098	541.27	NA
X - 17438	-0.51	1.51	-0.63	-1.65	0.38	0.22	0.59	-0.50	-1.50	0.51	0.33	0.73	-0.35	-0.96	0.27	0.27	0.63	-0.24	-0.84	0.36	0.44	0.81	LC/MS Neg	1950	245.14	NA
X - 17685	-1.03	2.71	-0.19	-0.77	0.40	0.53	0.79	-0.23	-0.81	0.34	0.42	0.76	-0.10	-0.46	0.25	0.57	0.84	-0.14	-0.49	0.20	0.42	0.80	LC/MS Neg	2575	233.01	NA
X - 18886	-0.24	1.17	0.11	-1.29	1.50	0.88	0.95	-0.17	-1.54	1.21	0.81	0.93	0.64	-0.21	1.48	0.14	0.49	0.43	-0.40	1.26	0.30	0.74	LC/MS Neg	1870	217.11	NA
X - 18899	-0.04	0.82	0.34	-1.55	2.22	0.73	0.89	0.19	-1.66	2.05	0.84	0.94	0.31	-0.84	1.45	0.60	0.84	0.20	-0.91	1.32	0.72	0.90	LC/MS Neg	3730	337.14	NA
X - 18901	-0.02	1.15	0.49	-0.91	1.89	0.49	0.78	0.95	-0.45	2.34	0.18	0.60	-0.07	-0.92	0.78	0.87	0.97	0.26	-0.58	1.10	0.55	0.85	LC/MS Neg	3800	211.02	NA
X - 18913	0.15	0.94	0.97	-0.66	2.61	0.24	0.61	0.71	-0.90	2.33	0.38	0.75	1.01	0.02	2.00	0.05	0.30	0.81	-0.16	1.78	0.10	0.52	LC/MS Neg	4538	185.12	NA
X - 18921	-0.14	1.12	0.09	-1.28	1.47	0.90	0.96	0.01	-1.35	1.36	0.99	1.00	0.49	-0.34	1.33	0.25	0.63	0.43	-0.39	1.24	0.30	0.74	LC/MS Neg	4870	193.12	NA
X - 18922	-0.17	0.91	-0.96	-2.63	0.71	0.26	0.63	-1.32	-2.97	0.33	0.12	0.50	-0.19	-1.20	0.83	0.72	0.91	-0.45	-1.45	0.54	0.37	0.76	LC/MS Neg	4928	299.19	NA
X - 19141	-0.04	1.01	2.98	1.48	4.48	1.E-04	0.01	2.80	1.32	4.29	2.E-04	0.04	1.77	0.86	2.69	2.E-04	0.01	1.63	0.74	2.53	4.E-04	0.03	LC/MS Neg	3705	415.20	NA
X - 21258	-0.06	1.41	0.84	-0.27	1.94	0.14	0.49	0.75	-0.34	1.84	0.18	0.59	-0.03	-0.70	0.65	0.93	0.98	-0.09	-0.75	0.56	0.78	0.93	LC/MS Neg	3915	213.02	NA
X - 21285	-0.37	1.28	0.56	-0.74	1.85	0.40	0.73	0.72	-0.55	2.00	0.27	0.68	0.00	-0.79	0.79	1.00	1.00	0.12	-0.65	0.89	0.76	0.92	LC/MS Neg	4500	365.14	NA
X - 21286	-0.05	0.97	-1.73	-3.33	-0.13	0.03	0.26	-1.59	-3.17	-0.01	0.05	0.35	-0.86	-1.72	0.12	0.08	0.40	-0.75	-1.71	0.20	0.12	0.55	LC/MS Neg	1550	164.04	NA
X - 21310	-0.11	0.96	-2.05	-3.63	-0.46	0.01	0.14	-1.29	-3.75	-0.63	0.01	0.12	-0.76	-1.73	0.21	0.13	0.48	-0.87	-1.81	0.08	0.07	0.44	LC/MS Neg	2235	233.98	NA
X - 21319	-0.02	1.22	-0.11	-1.38	1.16	0.86	0.94	-0.28	-1.54	0.97	0.65	0.87	-0.01	-0.78	0.76	0.98	0.99	-0.15	-0.90	0.61	0.70	0.89	LC/MS Neg	4238.4	165.09	NA
X - 21339	-0.14	0.99	0.10	-1.45	1.64	0.90	0.96	-0.01	-1.53	1.51	0.99	1.00	0.42	-0.53	1.36	0.39	0.72	0.33	-0.59	1.25	0.48	0.83	LC/MS Neg	5105	453.32	NA
X - 21342	-0.06	0.42	3.08	-0.59	6.76	0.10	0.42	2.52	-1.11	6.15	0.17	0.59	2.43	0.20	4.65	0.03	0.24	2.00	-0.18	4.18	0.07	0.44	LC/MS Neg	5149	385.17	NA
X - 21353	-0.05	0.78	2.95	1.03	4.88	3.E-03	0.07	2.90	1.01	4.79	3.E-03	0.09	1.86	0.69	3.03	2.E-03	0.05	1.82	0.68	2.96	2.E-03	0.08	LC/MS Neg	5196	239.17	NA
X - 21364	-0.04	0.74	1.75	-0.49	4.00	0.13	0.46	1.47	-0.74	3.68	0.19	0.61	0.92	-0.44	2.29	0.18	0.56	0.70	-0.64	2.03	0.30	0.74	LC/MS Neg	3757	213.09	NA
X - 21410	-0.84	1.99	0.32	-0.45	1.10	0.41	0.74	0.19	-0.58	0.95	0.64	0.86	-0.01	-0.48	0.46	0.97	0.99	-0.12	-0.58	0.35	0.62	0.88	LC/MS Neg	3921	385.17	NA
X - 21441	-0.04	0.90	1.92	0.21	3.64	0.03	0.23	2.04	0.35	3.73	0.02	0.22	1.51	0.47	2.55	4.E-03	0.08	1.59	0.58	2.60	2.E-03	0.08	LC/MS Neg	3025.4	294.11	NA
X - 21467	0.00	0.63	-1.34	-3.77	1.09	0.28	0.65	-2.41	-4.84	0.02	0.05	0.37	-0.45	-1.93	1.03	0.55	0.83	-1.24	-2.71	0.23	0.10	0.50	LC/MS Neg	4041	262.62	NA
X - 21470	0.00	1.07	0.52	-1.02	2.05	0.51	0.78	0.60	-0.90	2.11	0.43	0.77	0.02	-0.91	0.95	0.96	0.99	0.09	-0.82	0.99	0.85	0.94	LC/MS Neg	3249	232.06	NA
X - 21471	-0.33	1.22	-0.19	-1.65	1.28	0.80	0.92	-0.59	-2.05	0.86	0.42	0.76	0.05	-0.84	0.95	0.90	0.97	-0.25	-1.13	0.62	0.57	0.87	LC/MS Neg	4039	295.11	NA
X - 21607	-0.05	0.79	1.26	-0.68	3.21	0.20	0.58	1.51	-0.41	3.42	0.12	0.52	1.39	0.21	2.56	0.02	0.18	1.58	0.43	2.72	0.01	0.14	LC/MS Neg	4529	167.11	NA
X - 21628	-0.51	1.56	0.10	-0.89	1.08	0.85	0.94	0.27	-0.70	1.24	0.58	0.84	-0.28	-0.88	0.31	0.35	0.70	-0.15	-0.73	0.44	0.62	0.88	LC/MS Neg	2270	697.26	NA
X - 21733	-0.15	1.31	-1.44	-2.62	-0.26	0.02	0.18	-1.24	-2.41	-0.07	0.04	0.31	-0.96	-1.68	-0.24	0.01	0.11	-0.81	-1.52	-0.11	0.02	0.26	LC/MS Neg	2716	248.06	NA
X - 21736	0.01	0.95	-0.05	-1.72	1.62	0.95	0.98	-0.56	-2.22	1.10	0.51	0.80	0.58	-0.44	1.59	0.26	0.63	0.20	-0.80	1.20	0.69	0.89	LC/MS Neg	3345	183.14	NA
X - 21785	-0.04	0.47	2.92	-0.56	6.40	0.10	0.42	1.98	-1.49	5.44	0.26	0.68	0.31	-1.82	2.43	0.78	0.92	-0.45	-2.54	1.64	0.67	0.89	LC/MS Neg	765	189.04	NA
X - 21796	0.03	0.57	-1.16	-3.87	1.55	0.40	0.73	-1.21	-3.87	1.46	0.37	0.74	-0.57	-2.22	1.08	0.50	0.81	-0.60	-2.21	1.00	0.46	0.83	LC/MS Neg	1625	138.06	NA
X - 21821	-0.67	1.73	0.18	-0.73	1.08	0.70	0.88	0.26	-0.63	1.15	0.57	0.83	0.06	-0.49	0.61	0.83	0.95	0.12	-0.41	0.66	0.66	0.88	LC/MS Neg	2930	243.08	NA
X - 21829	-0.30	1.18	1.00	-0.33	2.32	0.14	0.49	0.56	-0.77	1.89	0.41	0.76	0.92	-0.11	1.73	0.03	0.21	0.59	-0.21	1.39	0.15	0.58	LC/MS Neg	3440	245.14	NA
X - 21834	-0.40	1.62	1.01	0.03	1.99	0.04	0.28	1.03	0.07	1.99	0.04	0.30	-0.25	-0.85	0.34	0.40	0.74	-0.24	-0.82	0.34	0.41	0.79	LC/MS Neg	3720	229.02	NA
X - 22162	0.03	0.48	-0.15	-3.63	3.33	0.93	0.98	0.31	-3.13	3.74	0.86	0.96	-1.98	-4.09	0.13	0.07	0.35	-1.64	-3.70	0.43	0.12	0.55	LC/MS Pos Early	960	150.06	NA
X - 22771	-0.08	0.81	0.41	-1.62	2.45	0.69	0.87	-0.14	-2.16	1.88	0.89	0.96	0.81	-0.43	2.04	0.20	0.58	0.40	-0.81	1.62	0.52	0.85	LC/MS Neg	2180	160.04	NA
X - 22776	-0.08	1.41	-0.64	-1.76	0.48	0.26	0.63	-0.79	-1.90	0.31	0.16	0.58	-0.38	-1.06	0.30	0.27	0.63	-0.49	-1.16	0.17	0.15	0.58	LC/MS Neg	3615	252.04	NA
X - 22802	-0.02	0.76	-2.57	-4.53	-0.60	0.01	0.14	-2.27	-4.21	-0.33	0.02	0.24	-1.13	-2.33	0.07	0.06	0.35	-0.90	-2.08	0.27	0.13	0.56	LC/MS Neg	5290	395.24	NA
X - 23276	-0.08	0.85	0.57	-1.28	2.41	0.54	0.80	0.56	-1.26	2.37	0.55	0.81	0.08	-1.10	1.20	0.89	0.97	0.07	-1.02	1.16	0.90	0.96	LC/MS Neg	4957.5	329.23	NA
X - 23587	-0.28	1.42	-0.12	-1.24	1.00	0.83	0.94	-0.23	-1.34	0.87	0.68	0.88	-0.52	-1.20	0.16	0.13	0.49	-0.61	-1.27	0.05	0.07	0.44	LC/MS Pos Early	1230	132.10	NA
X - 23593	-0.01	0.81	0.54	-1.41	2.49	0.59	0.82	0.49	-1.43	2.40	0.62	0.85	0.89	-0.29	2.08	0.14	0.49	0.85	-0.31	2.00	0.15	0.58	LC/MS Pos Early	1531	191.10	NA
X - 23636	-0.19	1.08	0.43	-0.99	1.85	0.55	0.80	0.59	-0.82	1.99	0.41	0.76	0.60	-0.27	1.46	0.17	0.55	0.71	-0.13	1.56	0.10	0.50	LC/MS Pos Early	1129	249.11	NA
X - 23639	0.01	0.55	1.58	-1.25	4.40	0.27	0.64	2.42	-0.38	5.22	0.09	0.45	0.21	-1.51	1.93	0.81	0.94	0.83	-0.86	2.52	0.33	0.75	LC/MS Pos Early	1640	134.08	NA
X - 23644	-0.11	1.19	0.04	-1.28	1.36	0.95	0.98	-0.06	-1.36	1.24	0.93	0.97	0.12	-0.68	0.93	0.76	0.92	0.05	-0.74	0.83	0.91	0.96	LC/MS Pos Early	983	146.08	NA
X - 23659	-0.19	0.94	0.28	-1.47	2.03	0.75	0.90	-0.28	-2.02	1.46	0.75	0.91	0.09	-0.97	1.16	0.87	0.96	-0.34	-1.39	0.71	0.53	0.85	LC/MS Pos Early	2449	143.12	NA
X - 23739	-0.08	0.71	-0.11	-2.25	2.03	0.92	0.97	-0.26	-2.36	1.85	0.81	0.93	0.73	-0.56	2.03	0.27	0.63	0.62	-0.64	1.89	0.33	0.75	LC/MS Pos Early	1286	262.10	NA
X - 23780	-0.03	1.19	-0.30	-1.59	1.00	0.65	0.86</																			

Table S11. Association between individual metabolites [25-50% values below detection limits (BLD), reference=BLD] with systolic and diastolic blood pressure (SBP and DBP)

Metabolites	Super-pathway	Sub-pathway	SBP												DBP												Platform	R1	R2	MASS	PUBCHEM CAS	KEGG																				
			Overall		Model 1				Model 2				Overall		Model 1				Model 2																																	
			Below median	Above median	Below median	Above median	p-value	q-value	Coef.	95% CI	p-value	q-value	Coef.	95% CI	Below median	Above median	p-value	q-value	Coef.	95% CI	p-value	q-value	Coef.	95% CI																												
12,13-DHAPOME	Lipid	Fatty Acid, Dihydroxy	24.65%	38.25%	37.10%	0.63	0.85	1.43	-2.24	5.31	0.95	-1.13	-4.02	3.76	0.95	0.59	0.94	1.57	-2.24	5.38	0.42	-0.02	-3.84	3.81	0.95	0.70	0.90	-0.49	-2.70	1.75	0.67	-0.96	-3.19	1.30	0.41	-1.89	2.73	0.78	LCMS Neg	313	23843	10236635	263399-35-5	C14829								
1-methylxanthine	Xenobiotics	Xanthine Metabolism	32.49%	34.10%	33.41%	0.74	0.90	-1.09	-3.50	1.91	0.95	-1.66	-5.20	2.08	0.97	0.70	0.92	1.96	-3.50	1.91	0.41	-0.49	-2.70	1.75	0.67	-0.96	-3.19	1.30	0.41	-1.89	2.73	0.78	LCMS Neg	1569	165.014	80220	6136-37-4	C16358														
1-palmitoyl-GPG (16:0)	Lipid	Lysophospholipid	32.49%	34.10%	33.41%	0.74	0.90	-1.09	-3.50	1.91	0.95	-1.66	-5.20	2.08	0.97	0.70	0.92	1.96	-3.50	1.91	0.41	-0.49	-2.70	1.75	0.67	-0.96	-3.19	1.30	0.41	-1.89	2.73	0.78	LCMS Neg	5590	483.2784	3300276																
21-hydroxypregnenolone monosulfate (1)	Lipid	Pregnenolone Steroids	29.03%	35.02%	35.94%	0.93	0.98	1.70	-4.49	3.09	0.72	-0.29	-4.12	3.54	0.88	0.89	0.96	-0.85	-4.58	2.88	0.66	-0.49	-3.96	3.58	0.88	0.64	0.86	-1.11	-3.41	1.20	0.34	-0.57	-2.90	1.76	0.63	0.55	0.86	-1.22	-3.46	1.03	0.29	-0.49	-2.76	1.77	0.63	LCMS Neg	4624	411.8468	174681	88378-34-1		
2-ethylphenylsulfate	Xenobiotics	Benzoate Metabolism	38.02%	30.88%	31.14%	0.44	0.75	1.69	-2.00	5.38	0.37	-0.75	-4.46	2.95	0.69	0.34	0.73	2.13	-1.50	5.77	0.25	-0.19	-3.13	1.55	0.69	0.94	0.98	-0.39	-2.64	1.87	0.74	-0.57	-2.31	2.20	0.96	0.99	0.99	-0.05	-2.25	2.14	0.96	0.14	-2.06	2.34	0.96	LCMS Neg	3416	201.0227	NA			
2-methoxyhydroquinone sulfate (1)	Xenobiotics	Benzoate Metabolism	25.58%	37.56%	36.87%	0.45	0.76	1.39	-2.50	6.28	0.48	-0.88	-4.78	3.02	0.66	0.40	0.76	1.58	-2.25	5.41	0.42	-0.78	-4.61	3.06	0.66	0.13	0.49	2.25	-0.11	4.61	0.66	0.60	-1.77	2.97	0.62	0.09	0.49	2.40	1.00	0.70	0.40	-1.62	2.99	0.62	LCMS Neg	1526	218.99704	NA				
2-methoxyseroinol sulfate	Xenobiotics	Chemical	25.12%	38.71%	36.18%	0.19	0.55	1.24	-2.64	6.12	0.53	-1.99	-5.90	1.92	0.32	0.13	0.52	1.43	-2.38	5.24	0.46	-1.21	-5.95	1.72	0.32	0.76	0.92	0.59	-1.78	2.96	0.62	-0.17	-2.56	2.21	0.89	0.62	0.88	0.73	-1.57	3.04	0.53	-0.27	-2.59	2.06	0.89	LCMS Neg	1863	218.99688	NA	1446269-78-8		
3-(4-hydroxyphenyl)propionate sulfate	Xenobiotics	Benzoate Metabolism	39.40%	29.95%	30.65%	0.30	0.66	-1.75	-6.35	0.85	0.13	-1.77	-5.35	1.81	0.33	0.29	0.70	-2.78	-6.32	0.76	0.12	-1.65	-5.17	1.87	0.33	0.33	0.69	-1.40	-3.59	0.79	0.21	-1.40	-3.58	0.78	0.21	0.33	0.74	-1.42	-3.55	0.71	0.19	-1.31	-3.43	0.82	0.21	LCMS Neg	1294	245.01253	187488	86321-32-6		
3-(4-hydroxyphenyl)propionate sulfate	Xenobiotics	Benzoate Metabolism	42.63%	26.96%	30.41%	0.31	0.66	-1.87	-5.56	1.82	0.32	-1.72	-6.32	0.89	0.14	0.16	0.59	-1.76	-6.39	1.87	0.34	-3.44	-7.00	1.12	0.14	0.82	0.94	-1.11	-2.36	1.15	0.92	-0.68	-2.88	1.52	0.54	0.47	0.83	-0.03	-2.22	1.17	0.98	-1.23	-3.37	0.92	0.54	LCMS Neg	1670	165.05571	10394		C01744	
3-acetylphenol sulfate	Xenobiotics	Chemical	35.94%	32.72%	31.34%	0.97	0.99	-0.20	-3.79	3.39	0.91	0.30	-3.41	4.01	0.87	0.93	0.97	0.34	-3.87	3.19	0.85	0.37	-3.28	4.01	0.87	0.66	0.87	1.00	-1.18	3.19	0.37	0.35	-1.90	2.61	0.76	0.71	0.89	0.90	-1.22	3.03	0.40	-0.40	-1.79	2.60	0.76	LCMS Neg	2477	215.00196	NA			
3-ethylcatechol sulfate (1)	Xenobiotics	Food Component/Plant	47.47%	26.27%	26.27%	0.85	0.94	-0.70	-4.41	3.00	0.71	0.50	-3.19	4.20	0.79	0.80	0.93	-0.65	-4.29	2.99	0.72	0.72	-2.91	4.35	0.79	0.92	0.98	0.28	-1.98	2.53	0.81	0.45	-1.80	2.70	0.69	0.85	0.95	0.31	-1.88	2.51	0.78	0.62	-1.57	2.81	0.69	LCMS Neg	3422	217.01761	NA			
3-hydroxydecanedioate*	Lipid	Fatty Acid, Dicarboxylate	35.71%	31.80%	32.49%	0.91	0.96	0.70	-3.02	4.42	0.71	-0.01	-3.77	3.75	1.00	0.76	0.91	1.14	-2.52	4.80	0.54	-0.13	-3.82	3.57	1.00	0.74	0.91	0.89	-1.37	3.15	0.44	0.35	-1.94	2.64	0.76	0.51	0.85	1.23	-0.97	3.44	0.27	-0.26	-1.96	2.49	0.76	LCMS Neg	2260	245.13969	NA			
3-methyladipate	Lipid	Fatty Acid, Dicarboxylate	29.03%	37.10%	33.87%	0.74	0.90	-1.46	-5.27	2.34	0.45	-0.53	-4.40	3.34	0.79	0.88	0.96	-0.97	-4.72	2.78	0.61	-0.58	-4.39	3.22	0.79	0.34	0.69	-1.71	-4.02	1.00	0.15	-0.84	-3.20	1.51	0.48	0.51	0.84	-1.34	-3.59	0.92	0.25	-0.89	-3.18	1.40	0.48	LCMS Polar	2825	159.06628	12292	422955		
4-cholesten-3-one	Lipid	Sterol	25.81%	37.79%	36.41%	0.61	0.83	1.94	-2.00	6.98	0.33	0.90	-5.10	4.98	0.69	0.41	0.78	2.13	-1.74	6.41	0.41	1.35	-2.65	3.35	0.66	0.33	0.69	1.76	-0.64	4.15	0.15	1.46	-1.01	3.93	0.25	0.23	0.69	1.91	-0.42	4.23	0.11	-1.30	-0.60	4.21	0.25	LCMS Pos Late	2512	305.3465	91477	601-57-0	C00569	
4-methoxycummin	Xenobiotics	Drug - Cardiovascular	45.62%	26.59%	27.88%	0.41	0.74	1.08	-4.71	2.94	0.56	1.67	-1.95	5.29	0.37	0.40	0.76	-1.40	-4.97	2.17	0.44	1.39	-2.17	4.95	0.37	0.71	0.90	-0.83	-3.04	1.39	0.46	0.12	-2.09	2.32	0.92	0.60	0.88	-1.07	-3.22	1.08	0.33	0.30	-1.00	-2.24	2.05	0.92	LCMS Neg	2470	161.02241	54682930	1076-38-6	C20414
4-methoxyphenol sulfate	Xenobiotics	Tyrosine Metabolism	28.57%	38.87%	34.56%	0.38	0.72	1.73	-1.08	6.53	0.37	2.71	-1.14	6.56	0.17	0.47	0.78	1.21	-2.53	4.95	0.53	2.36	-4.14	6.15	0.17	0.78	0.92	0.80	-1.51	3.11	0.50	0.66	-1.89	3.01	0.58	0.93	0.97	0.40	-1.86	2.65	0.73	0.39	-1.50	2.68	0.58	LCMS Neg	2420	203.00196	NA	3233-61-8		
4-vinylguaiacol sulfate	Xenobiotics	Food Component/Plant	31.80%	34.33%	33.87%	0.85	0.94	-0.88	-4.57	2.81	0.64	-1.00	-4.72	2.73	0.60	0.79	0.92	-1.27	-4.91	2.36	0.49	-0.81	-4.47	2.86	0.60	0.99	1.00	1.16	-2.09	2.41	0.89	0.03	-2.24	2.30	0.98	0.96	0.98	-1.14	-2.33	2.05	0.27	-1.20	-2.48	0.98	LCMS Neg	3354	229.01761	NA				
5-acetylamino-6-amino-3-methyluracil	Xenobiotics	Xanthine Metabolism	41.47%	29.26%	29.26%	0.54	0.80	-2.03	-5.67	1.60	0.27	-1.10	-4.82	2.53	0.54	0.70	0.89	-1.43	-5.02	1.16	0.43	-1.11	-4.72	2.51	0.54	0.32	0.68	-1.66	-3.87	0.55	0.14	-0.45	-2.68	1.78	0.69	0.55	0.86	-1.20	-3.36	0.96	0.20	-0.42	-2.60	1.75	0.69	LCMS Polar	1710	197.06801	88299	1196513-01-1	C16366	
5alpa-androstan-3alpa,17alpa-diol monosulfate	Lipid	Androgenic Steroids	32.72%	34.10%	33.18%	0.99	1.00	0.07	-3.60	3.74	0.97	0.26	-3.44	3.97	0.89	0.96	0.98	0.98	-0.51	-4.14	3.11	0.78	-1.00	-3.75	3.54	0.89	0.86	0.96	0.47	-1.77	2.70	0.68	-0.11	-2.37	2.14	0.92	0.92	0.97	0.03	-2.16	2.21	0.98	-0.39	-2.59	1.81	0.92	LCMS Neg	5208	371.18976	NA		
5alpa-androstan-3alpa,17beta-diol disulfate	Lipid	Androgenic Steroids	37.10%	31.34%	31.57%	0.50	0.78	-2.18	-6.82	1.46	0.24	-0.88	-4.51	2.75	0.64	0.45	0.77	-2.20	-5.97	3.18	0.64	0.75	0.91	-0.72	-2.94	1.50	0.52	-0.77	-2.96	1.47	0.51	0.80	0.93	-0.74	-2.90	1.42	0.50	-0.38	-2.54	1.78	0.51	LCMS Neg	4275	225.06965	NA							
5alpa-androstan-3alpa,17beta-diol monosulfate (2)	Lipid	Androgenic Steroids	34.56%	32.95%	32.49%	0.68	0.87	-1.62	-5.24	2.01	0.38	-0.62	-4.26	3.03	0.74	0.61	0.84	-1.55	-5.11	2.01	0.39	0.68	-0.58	-3.52	3.68	0.74	0.64	0.86	-1.05	-3.26	1.15	0.35	-0.63	-2.85	1.59	0.58	0.61	0.88	-1.00	-3.15	1.14	0.36	-1.00	-2.27	2.07	0.58	LCMS Neg	5080	371.18976	NA		
6-bromotyrophane	Amino Acid	Tryptophan Metabolism	32.26%	36.18%	31.57%	0.11	0.44	-1.11	-4.72	2.51	0.55	-3.85	-7.57	-0.13	0.04	0.16	0.58	-0.87	-4.43	2.69	0.63	-3.45	-7.12	0.22	0.04	0.16	0.54	-0.50	-2.70	1.70	0.66	-2.11	-4.38	1.16	0.07	0.23	0.69	-0.32	-2.46	1.83	0.77	-1.80	-4.01	0.41	0.07	LCMS Neg	3565	280.93311	NA			
7-hydroxycholesterol (alpha or beta)	Lipid	Tyrosol	30.18%	35.48%	34.33%	0.43	0.75	0.71	-3.02	4.44	0.71	2.45	-1.38	6.28	0.21	0.32	0.72	1.21	-2.46	4.88	0.52	2.87	-0.90	6.84	0.21	0.03	0.25	1.07	-2.08	2.43	0.88	2.69	0.38	5.01	0.02	0.02	0.22	0.55	-1.14	3.05	0.34	0.34										



X - 24972	29.72%	34.10%	36.18%	0.26	0.63	3.13	-0.63	6.89	0.10	2.05	-1.65	5.75	0.28	0.45	0.77	2.36	-1.36	6.09	0.21	1.02	-2.67	4.70	0.28	0.24	0.62	1.01	-1.28	3.30	0.39	1.95	-0.30	4.20	0.09	0.57	0.87	0.43	-1.82	2.67	0.71	1.16	-1.06	3.38	0.09	LC/MS Neg	3880	385.16936	NA
X - 25433	26.96%	36.41%	36.64%	0.22	0.59	-2.96	-6.75	0.83	0.13	-0.41	-4.20	3.39	0.83	0.28	0.69	-2.23	-5.98	1.52	0.24	0.39	-3.37	4.14	0.83	0.64	0.86	-0.63	-2.95	1.68	0.59	-1.12	-3.44	1.19	0.34	0.88	0.95	-0.07	-2.34	2.19	0.95	-0.51	-2.78	1.76	0.34	LC/MS Neg	4046	287.61162	NA

Coef., coefficient; CI, confidence interval; q-value, false discovery rate-adjusted p-value; RI, retention index.

According to the Metabolomics Standards Initiative,<sup>1</sup> metabolites with Level 1 identification were labeled by their chemical names; metabolites at Level 2 were indicated by \*\*\* after chemical name; metabolites at Level 3 were indicated by \*\*\*\* after chemical name; and unknown metabolites were labeled as "X - " followed by numbers. The overall statistical significance was assessed using a Wald test. Model 1 was adjusted for age, sex, provinces, batch, urbanization index (tertiles: ≤64.2, 64.2-81.5, >81.5), per capita household income (tertiles: ≤10, 10-21.6, >21.6), education, total energy intake, animal-source food consumption, sodium consumption, physical activity (tertiles: ≤57.4, 57.4-152, >152), smoking, alcohol intake, and Estimated glomerular filtration rate (eGFR). Model 2 was additionally adjusted for BMI.

**Table S12. Association between individual metabolites (>50% values below detection limits (BLD), reference=BLD) with systolic and diastolic blood pressure (SBP and DBP)**

Metabolites	Class	Pathway	BLD	SBP										DBP										Platform	RI	Mass	PUBCHEM	CAS	KEGG	
				Model 1					Model 2					Model 1					Model 2											
				Coef.	95% CI	p-value	q-value	Coef.	95% CI	p-value	q-value	Coef.	95% CI	p-value	q-value	Coef.	95% CI	p-value	q-value											
1,3,7-trimethylurate	Xenobiotics	Xanthine Metabolism	70.97%	-0.96	-4.30	2.38	0.57	0.81	-1.07	-4.35	2.22	0.52	0.80	0.13	-1.90	2.17	0.90	0.97	0.05	-1.93	2.03	0.96	0.98	LC/MS Neg	1985	209.06801	79437			
1,3-dimethylurate	Xenobiotics	Xanthine Metabolism	63.59%	-0.87	-4.05	2.30	0.59	0.82	-0.99	-4.12	2.13	0.53	0.80	-0.66	-2.59	1.28	0.50	0.81	-0.75	-2.63	1.13	0.43	0.80	LC/MS Neg	1671.4	195.05236	70346			
1,7-dimethylurate	Xenobiotics	Xanthine Metabolism	50.69%	-1.02	-4.06	2.01	0.51	0.78	-0.77	-3.76	2.22	0.61	0.85	-1.24	-3.08	0.61	0.19	0.57	-1.04	-2.84	0.75	0.25	0.70	LC/MS Neg	1578.6	195.05236	91611			
2-hydroxyacetaminophen sulfate*	Xenobiotics	Drug - Analgesics, Anesthetics	91.24%	1.93	-3.39	7.26	0.48	0.78	2.14	-3.09	7.38	0.42	0.76	0.75	-2.49	4.00	0.65	0.86	0.91	-2.24	4.07	0.57	0.87	LC/MS Neg	1674	246.00778	86290013			
2-hydroxyibuprofen	Xenobiotics	Drug - Analgesics, Anesthetics	98.62%	7.36	-5.53	20.24	0.26	0.63	6.80	-5.87	19.48	0.29	0.70	1.43	-6.42	9.28	0.72	0.90	1.01	-6.64	8.65	0.80	0.93	LC/MS Neg	3462	221.11831	10443535			
2-methoxyacetaminophen glucuronide*	Xenobiotics	Drug - Analgesics, Anesthetics	94.70%	-1.10	-7.83	5.63	0.75	0.90	-0.24	-6.87	6.40	0.94	0.98	0.61	-3.49	4.71	0.77	0.92	1.28	-2.72	5.27	0.53	0.85	LC/MS Neg	1633	356.0987	14367271			
2-methoxyacetaminophen sulfate*	Xenobiotics	Drug - Analgesics, Anesthetics	95.39%	-0.46	-7.65	6.73	0.90	0.96	-0.23	-7.31	6.84	0.95	0.98	1.08	-3.30	5.46	0.63	0.86	1.26	-3.00	5.51	0.56	0.86	LC/MS Neg	1949	260.02343	86290014			
3-(cystein-S-yl)acetaminophen*	Xenobiotics	Drug - Analgesics, Anesthetics	97.24%	2.68	-6.51	11.87	0.57	0.81	3.16	-5.88	12.20	0.49	0.79	2.24	-3.35	7.83	0.43	0.75	2.61	-2.83	8.05	0.35	0.75	LC/MS Pos Early	2420	271.07471	5233914			
3-(methylthio)acetaminophen sulfate*	Xenobiotics	Drug - Analgesics, Anesthetics	88.71%	0.78	-4.05	5.60	0.75	0.90	1.02	-3.73	5.77	0.67	0.88	0.35	-2.59	3.29	0.81	0.94	0.54	-2.32	3.40	0.71	0.90	LC/MS Neg	2265	276.00509	NA			
3-(N-acetyl-L-cystein-S-yl) acetaminophen	Xenobiotics	Drug - Analgesics, Anesthetics	95.16%	-0.22	-7.23	6.78	0.95	0.98	0.43	-6.47	7.32	0.90	0.96	1.02	-3.24	5.29	0.64	0.86	1.52	-2.63	5.68	0.47	0.83	LC/MS Neg	2094	311.07072	83967			
3-ethylcatechol sulfate (2)	Xenobiotics	Food Component/Plant	70.97%	-1.67	-5.02	1.68	0.33	0.68	-1.29	-4.59	2.01	0.44	0.77	-0.30	-2.34	1.74	0.77	0.92	-0.01	-2.00	1.98	0.99	1.00	LC/MS Neg	3555	217.01761	NA			
3-hydroxy-2-methylpyridine sulfate	Xenobiotics	Chemical	54.84%	-0.42	-3.46	2.62	0.79	0.92	-0.08	-3.07	2.92	0.96	0.98	0.02	-1.83	1.88	0.98	0.99	0.29	-1.52	2.09	0.76	0.91	LC/MS Neg	1854	188.00252	NA			
3-methylxanthine	Xenobiotics	Xanthine Metabolism	62.21%	-0.58	-3.79	2.63	0.72	0.89	-0.55	-3.70	2.61	0.73	0.90	-0.23	-2.18	1.73	0.82	0.94	-0.20	-2.10	1.70	0.84	0.94	LC/MS Neg	1700	165.0418	70639			
4-acetamidophenol	Xenobiotics	Drug - Analgesics, Anesthetics	88.48%	0.30	-4.40	5.00	0.90	0.96	0.80	-3.82	5.43	0.73	0.90	0.60	-2.26	3.45	0.68	0.89	0.98	-1.81	3.77	0.49	0.84	LC/MS Neg	2173.7	150.05605	1983			
4-acetamidophenylglucuronide	Xenobiotics	Drug - Analgesics, Anesthetics	91.71%	1.26	-4.22	6.74	0.65	0.86	1.74	-3.66	7.13	0.53	0.80	0.16	-3.18	3.50	0.92	0.98	0.52	-2.73	3.77	0.75	0.91	LC/MS Neg	1400	326.08814	83944			
4-acetaminophen sulfate	Xenobiotics	Drug - Analgesics, Anesthetics	84.79%	2.41	-1.79	6.61	0.26	0.63	2.66	-1.48	6.79	0.21	0.63	1.26	-1.30	3.82	0.34	0.69	1.44	-1.05	3.93	0.26	0.70	LC/MS Neg	1792	230.01287	83939			
5-acetyl-amino-6-formylamino-3-methyluracil	Xenobiotics	Xanthine Metabolism	74.42%	-1.28	-4.70	2.15	0.46	0.77	-1.28	-4.65	2.08	0.45	0.77	-0.51	-2.60	1.57	0.63	0.86	-0.52	-2.54	1.51	0.62	0.88	LC/MS Polar	1424	225.06292	108214			
5alpha-pregnan-3beta-ol,20-one sulfate	Lipid	Progesterin Steroids	76.50%	0.67	-2.87	4.22	0.71	0.88	0.74	-2.75	4.22	0.68	0.88	1.53	-0.62	3.68	0.16	0.54	1.58	-0.51	3.68	0.14	0.57	LC/MS Neg	5136	397.20541	NA			
7-hydroxyindole sulfate	Amino Acid	Tryptophan Metabolism	63.36%	3.07	-0.06	6.21	0.05	0.32	2.83	-0.26	5.92	0.07	0.43	1.04	-0.87	2.96	0.29	0.65	0.85	-1.01	2.72	0.37	0.76	LC/MS Neg	1765	212.0023	NA			
acesulfame	Xenobiotics	Food Component/Plant	61.29%	-0.70	-3.79	2.38	0.66	0.86	-0.52	-3.55	2.52	0.74	0.90	0.12	-1.76	2.00	0.90	0.97	0.26	-1.57	2.09	0.78	0.93	LC/MS Neg	1581	161.98665	36573			
amoxicillin	Xenobiotics	Drug - Antibiotic	98.85%	-2.12	-16.09	11.85	0.77	0.91	0.00	-13.79	13.78	1.00	1.00	-3.94	-12.43	4.56	0.36	0.71	-2.33	-10.63	5.97	0.58	0.87	LC/MS Neg	2365	364.09726	2171			
biliverdin	Cofactors and Vitamins	Hemoglobin and Porphyrin Metabolism	56.45%	-1.89	-4.94	1.16	0.22	0.59	-1.65	-4.65	1.36	0.28	0.69	-0.36	-2.22	1.50	0.70	0.90	-0.17	-1.98	1.64	0.85	0.95	LC/MS Pos Late	1016	583.25512	5353439			
caffeine	Xenobiotics	Xanthine Metabolism	53.23%	-1.56	-4.58	1.47	0.31	0.67	-1.58	-4.55	1.40	0.30	0.70	-0.54	-2.39	1.30	0.56	0.84	-0.56	-2.36	1.23	0.54	0.85	LC/MS Pos Early	2106	195.08766	2519			
chenodeoxycholic acid sulfate (1)	Lipid	Secondary Bile Acid Metabolism	65.21%	-0.82	-4.01	2.37	0.61	0.83	-0.47	-3.61	2.67	0.77	0.92	0.67	-1.27	2.61	0.50	0.80	0.94	-0.95	2.83	0.33	0.74	LC/MS Neg	4548	235.11739	NA			
cotinine	Xenobiotics	Tobacco Metabolite	55.76%	-0.79	-3.83	2.25	0.61	0.83	-0.48	-3.48	2.51	0.75	0.91	-0.85	-2.70	1.00	0.37	0.71	-0.62	-2.42	1.19	0.50	0.84	LC/MS Pos Early	2213	177.10224	854019			
desmethylnaproxen sulfate	Xenobiotics	Drug - Analgesics, Anesthetics	99.77%	-19.81	-50.90	11.28	0.21	0.58	-14.20	-44.94	16.54	0.36	0.74	-27.25	-46.03	-8.48	5.E-03	0.08	-23.08	-41.48	-4.68	0.01	0.19	LC/MS Neg	2250	295.02818	184679			
diclofenac	Xenobiotics	Drug - Analgesics, Anesthetics	97.47%	-2.49	-12.12	7.14	0.61	0.83	-2.58	-12.05	6.89	0.59	0.84	1.66	-4.21	7.52	0.58	0.84	1.59	-4.12	7.29	0.58	0.87	LC/MS Neg	4903	294.0094	NA			
equol sulfate	Xenobiotics	Food Component/Plant	66.36%	3.50	0.31	6.68	0.03	0.25	3.14	0.00	6.29	0.05	0.36	2.61	0.67	4.55	0.01	0.11	2.34	0.45	4.23	0.02	0.20	LC/MS Neg	3630	321.04383	NA			
estrone 3-sulfate	Lipid	Estrogenic Steroids	54.15%	2.04	-0.96	5.04	0.18	0.55	2.42	-0.53	5.37	0.11	0.50	1.16	-0.67	2.98	0.21	0.60	1.45	-0.33	3.22	0.11	0.53	LC/MS Neg	4417.3	349.11152	3001028			
ethyl glucuronide	Xenobiotics	Chemical	92.17%	2.29	-3.34	7.92	0.42	0.75	1.80	-3.75	7.35	0.52	0.80	2.98	-0.44	6.40	0.09	0.40	2.61	-0.72	5.95	0.12	0.56	LC/MS Neg	793	221.06667	152226			
glucuronide of C10H18O2 (1)*	Partially Characterized Molecules	Partially Characterized Molecules	90.55%	3.43	-1.67	8.52	0.19	0.55	3.30	-1.71	8.31	0.20	0.61	2.61	-0.49	5.70	0.10	0.43	2.51	-0.51	5.52	0.10	0.52	LC/MS Neg	2728	345.1555	NA			
glucuronide of C10H18O2 (7)*	Partially Characterized Molecules	Partially Characterized Molecules	75.12%	0.47	-3.00	3.94	0.79	0.92	0.31	-3.11	3.72	0.86	0.96	0.53	-1.58	2.64	0.62	0.86	0.40	-1.65	2.46	0.70	0.89	LC/MS Neg	3790	345.1555	NA			
glycodeoxycholate	Lipid	Secondary Bile Acid Metabolism	50.00%	-0.64	-3.62	2.35	0.67	0.87	-0.83	-3.77	2.10	0.58	0.83	-0.74	-2.55	1.08	0.42	0.75	-0.89	-2.65	0.88	0.32	0.74	LC/MS Neg	5281	448.30684	3035026			
glycolithocholate	Lipid	Secondary Bile Acid Metabolism	51.84%	0.19	-2.79	3.18	0.90	0.96	-0.16	-3.11	2.78	0.91	0.96	0.60	-1.22	2.42	0.52	0.81	0.33	-1.45	2.10	0.72	0.90	LC/MS Neg	5357.1	432.31193	115245			
glycosyl ceramide (d18:1/20:0, d16:1/22:0)*	Lipid	Hexosylceramides (HCER)	51.84%	-0.62	-4.04	2.79	0.72	0.89	-0.17	-3.53	3.20	0.92	0.97	0.79	-1.28	2.87	0.45	0.76	1.15	-0.87	3.17	0.26	0.71	LC/MS Pos Late	3414	756.6348	NA			
glycosyl-N-behenoyl-sphingadienine (d18:2/22:0)*	Lipid	Hexosylceramides (HCER)	47.70%	0.09	-3.21	3.39	0.96	0.98	0.69	-2.57	3.95	0.68	0.88	0.55	-1.46	2.55	0.59	0.85	1.01	-0.95	2.97	0.31	0.74	LC/MS Pos Late	3420	782.65045	NA			
heme	Cofactors and Vitamins	Hemoglobin and Porphyrin Metabolism	78.57%	-1.61	-5.27	2.05	0.39	0.72	-2.07	-5.67	1.54	0.26	0.68	-0.62	-2.85	1.61	0.58	0.84	-0.97	-3.14	1.20	0.38	0.77	LC/MS Pos Late	1124	616.1762	26945			
HEPES	Xenobiotics	Chemical	99.77%	-11.79	-42.91	19.32	0.46	0.76	-7.25	-37.95	23.46	0.64	0.86	-12.46	-31.38	6.46	0.20	0.58	-9.00	-27.49	9.48	0.34	0.74	LC/MS Neg	1022	237.09145	23831			
hydroxycotinine	Xenobiotics	Tobacco Metabolite	72.58%	1.05	-2.30	4.41	0.54	0.80	1.33	-1.97	4.64	0.43	0.77	0.60	-1.45	2.64	0.57	0.84	0.81	-1.18	2.80	0.42	0.80	LC/MS Pos Early	2030	193.09716	10219774			
ibuprofen	Xenobiotics	Drug - Analgesics, Anesthetics	96.77%	3.92	-4.61	12.46	0.37	0.71	3.34	-5.06	11.74	0.44	0.77	2.84	-2.35	8.04	0.28	0.65	2.40	-2.66	7.46	0.35	0.75	LC/MS Neg	4925	205.1234	3672			
indoleacetyl carnitine*	Amino Acid	Tryptophan Metabolism	58.29%	0.32	-2.84	3.48	0.84	0.94	0.09	-3.02	3.20	0.96	0.98	0.15	-1.78	2.07	0.88	0.96	-0.03	-1.91	1.84	0.97	0.99	LC/MS Pos Early	3114	319.16524	NA			
indoleacetylglutamine	Amino Acid	Tryptophan Metabolism	55.76%	-0.09	-3.21	3.02	0.95	0.98	-0.23	-3.30	2.84	0.88	0.96	-0.04	-1.94	1.86	0.97	0.99	-0.14	-1.99	1.70	0.88	0.95	LC/MS Neg	2535	302.11463	25200879			
isoleucylglycine	Peptide	Dipeptide	50.00%	-3.64	-6.75																									

X - 22509	80.41%	-1.25	-5.04	2.53	0.51	0.78	-1.78	-5.51	1.95	0.35	0.73	-0.07	-2.37	2.24	0.95	0.99	-0.46	-2.71	1.78	0.68	0.89	LC/MS Neg	3562	473.14626	NA
X - 22520	55.76%	-2.42	-5.42	0.59	0.11	0.44	-2.07	-5.03	0.90	0.17	0.59	-1.77	-3.60	0.06	0.06	0.33	-1.50	-3.28	0.28	0.10	0.50	LC/MS Neg	4389	263.62842	NA
X - 23583	54.61%	1.04	-2.05	4.13	0.51	0.78	1.00	-2.04	4.04	0.52	0.80	0.18	-1.71	2.06	0.85	0.95	0.15	-1.68	1.98	0.87	0.95	LC/MS Pos Early	1112	116.07069	NA
X - 23662	75.12%	0.38	-3.07	3.83	0.83	0.94	1.25	-2.17	4.67	0.47	0.78	0.45	-1.65	2.55	0.67	0.88	1.12	-0.94	3.18	0.29	0.73	LC/MS Pos Early	2622	159.14892	NA
X - 24295	49.54%	-0.58	-3.61	2.45	0.71	0.88	-0.42	-3.41	2.56	0.78	0.92	0.07	-1.77	1.92	0.94	0.98	0.19	-1.61	1.99	0.83	0.94	LC/MS Neg	1152	217.07139	NA
X - 24344	62.90%	0.09	-3.05	3.23	0.96	0.98	0.57	-2.52	3.67	0.72	0.90	-0.10	-2.01	1.81	0.92	0.98	0.28	-1.59	2.14	0.77	0.93	LC/MS Neg	3620	217.01742	NA
X - 25217	70.05%	-0.49	-3.84	2.86	0.77	0.91	-0.58	-3.88	2.71	0.73	0.90	-0.05	-2.09	1.99	0.96	0.99	-0.13	-2.11	1.86	0.90	0.96	LC/MS Pos Early	1423	146.06342	NA
X - 25265	99.54%	-10.32	-32.28	11.64	0.36	0.71	-9.26	-30.87	12.35	0.40	0.76	-7.23	-20.60	6.13	0.29	0.65	-6.42	-19.44	6.59	0.33	0.74	LC/MS Pos Early	517.4	346.00908	NA
X - 25406	49.08%	-1.59	-4.60	1.42	0.30	0.66	-2.17	-5.14	0.80	0.15	0.57	0.16	-1.67	2.00	0.86	0.96	-0.27	-2.06	1.52	0.77	0.92	LC/MS Neg	3645.6	201.11322	NA

Coef., coefficient; CI, confidence interval; q-value, false discovery rate-adjusted p-value; RI, retention index.

According to the Metabolomics Standards Initiative,<sup>1</sup> metabolites with Level 1 identification were labeled by their chemical names; metabolites at Level 2 were indicated by "\*" after chemical name; metabolites at Level 3 were indicated by "\*\*\*" after chemical name; and unknown metabolites were labeled as "X - " followed by numbers.

Model 1 was adjusted for age, sex, provinces, batch, urbanization index (tertiles: ≤64.2, 64.2-81.5, >81.5), per capita household income (tertiles: ≤10, 10-21.6, >21.6), education, total energy intake, animal-source food consumption, sodium consumption, physical activity (tertiles: ≤57.4, 57.4-152, >152), smoking, alcohol intake, and estimated glomerular filtration rate (eGFR). Model 2 was additionally adjusted for BMI.

**Table S13. Post-hoc analysis of the association between metabolite patterns with systolic and diastolic blood pressure (SBP and DBP, mmHg), Coefficient (95% CI)**

Metabolites contributing to each pattern			Eigen value	Variance explained	SBP	DBP
Pattern 1 (nucleotide, amino acid, and peptide)	pseudouridine; 2,3-dihydroxy-5-methylthio-4-pentenoate (DMTPA); N-acetylthreonine; N,N-dimethyl-pro-pro; C-glycosyltryptophan;	orotidine; hydroxy-N6,N6,N6-trimethyllysine; 5,6-dihydrouridine; dimethylarginine (ADMA + SDMA); N6-acetyllysine	84.19	9.63%	2.29 (0.26, 4.32)*	0.51 (-0.74, 1.75)
Pattern 2 (lipids, especially long chain fatty acids)	linoleate (18:2n6); palmitate (16:0); oleate/vaccenate (18:1); 10-heptadecenoate (17:1n7); docosapentaenoate (DPA; 22:5n3); hexadecadienoate (16:2n6);	10-nonadecenoate (19:1n9); margarate (17:0); dihomolinoleate (20:2n6); dihomolinolenate (20:3n3 or 3n6)	41.83	4.79%	1.87 (0.36, 3.38)*	1.52 (0.61, 2.44)**
Pattern 3 (sphingomyelins, eicosanoid, and short-chain fatty acids, and branched-chain amino acids)	sphingomyelin (d18:2/23:0, d18:1/23:1, d17:1/24:1); 3-methyl-2-oxobutyrate; leukotriene B4; 5-HETE; methionine sulfoxide; butyrate/isobutyrate (4:0);	4-methyl-2-oxopentanoate; 1-(1-enyl-oleoyl)-GPE (P-18:1); 1-(1-enyl-palmitoyl)-GPE (P-16:0); 3-methyl-2-oxovalerate	40.99	4.69%	-1.08 (-2.98, 0.81)	-0.62 (-1.78, 0.53)

Patterns were derived from principal component analysis followed by a varimax rotation of 874 metabolites in the metabolomics analysis sample (n=434). Coefficient (95% confidence interval) indicates SBP and DBP (mmHg) associated with each 1SD increase in metabolites pattern score in linear regression. Contributing metabolites are metabolites with the top 10 highest absolute loadings for the respective pattern. Metabolites are vertically ordered by their absolute values of loading (descending). The factor loading for each metabolite contributing to each pattern is listed in Table S2. Model was adjusted for age, sex, provinces, batch, urbanization index (tertiles:  $\leq 64.2$ , 64.2-81.5,  $>81.5$ ), per capita household income (tertiles:  $\leq 10$ , 10-21.6,  $>21.6$ ), education, total energy intake, animal-source food consumption, sodium consumption, physical activity (tertiles:  $\leq 57.4$ , 57.4-152,  $>152$ ), smoking, alcohol intake, estimated glomerular filtration rate (eGFR), and low-density lipoprotein cholesterol.

“\*” indicates p-value < 0.05; “\*\*” indicates p-value<0.01

**Table S14. Post-hoc analysis of the association between individual metabolites with systolic and diastolic blood pressure (SBP & DBP)**

Metabolites	Class	Pathway	SBP				DBP				Platform	RI	Mass	PUBCHEM	CAS	KEGG	
			Coef.	95% CI	p-value	q-value	Coef.	95% CI	p-value	q-value							
(14 or 15)-methylpalmitate (a17:0 or i17:0)	Lipid	Fatty Acid, Branched	1.10	-2.20	4.41	0.51	0.81	-0.04	-2.06	1.98	0.97	0.99	LC/MS Neg	5695	269.25	17903417	
(16 or 17)-methylstearate (a19:0 or i19:0)	Lipid	Fatty Acid, Branched	0.93	-0.60	2.46	0.24	0.58	0.49	-0.44	1.43	0.30	0.67	LC/MS Neg	5993	297.28	3083779	2724-59-6
(2 or 3)-decanoate (10:1n8 or n7)	Lipid	Medium Chain Fatty Acid	2.06	-0.07	4.19	0.06	0.33	1.08	-0.22	2.39	0.10	0.46	LC/MS Neg	4976	169.12	NA	
(2,4 or 2,5)-dimethylphenol sulfate	Xenobiotics	Food Component/Plant	0.61	-0.10	1.33	0.09	0.38	0.02	-0.42	0.46	0.92	0.97	LC/MS Neg	3474	201.02	NA	
(N1) + N(8)-acetylsermidine	Amino Acid	Polyamine Metabolism	1.19	-1.86	4.23	0.44	0.76	1.03	-0.82	2.89	0.27	0.65	LC/MS Pos Early	3080	188.18	NA	
(R)-3-hydroxybutyrylcarnitine	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Hydroxy)	1.58	0.19	2.98	0.03	0.26	0.73	-0.13	1.58	0.10	0.44	LC/MS Pos Early	2400	248.15	53481617	
(S)-3-hydroxybutyrylcarnitine	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Hydroxy)	1.86	-0.15	3.87	0.07	0.36	0.56	-0.67	1.79	0.37	0.71	LC/MS Pos Early	2340	248.15	NA	
(S)-a-Amino-omega-caprolactam	Xenobiotics	Food Component/Plant	3.29	-0.22	6.80	0.07	0.35	1.69	-0.45	3.84	0.12	0.50	LC/MS Pos Early	2332	129.10	NA	
1-(1-enyl-oleoyl)-GPE (P-18:1)*	Lipid	Lysoplasmalogen	-3.15	-5.73	-0.57	0.02	0.21	-2.26	-3.83	-0.69	0.00	0.10	LC/MS Pos Late	1566	464.31	NA	
1-(1-enyl-palmitoyl)-2-arachidonoyl-GPC (P-16:0/20:4)*	Lipid	Plasmalogen	3.60	0.20	7.00	0.04	0.28	0.37	-1.72	2.45	0.73	0.89	LC/MS Pos Late	2154	766.57	NA	
1-(1-enyl-palmitoyl)-2-arachidonoyl-GPE (P-16:0/20:4)*	Lipid	Plasmalogen	1.21	-1.39	3.80	0.36	0.70	0.70	-0.88	2.29	0.38	0.72	LC/MS Pos Late	2270	724.53	NA	
1-(1-enyl-palmitoyl)-2-linoleoyl-GPC (P-16:0/18:2)*	Lipid	Plasmalogen	1.87	-1.66	5.40	0.30	0.66	0.43	-1.72	2.59	0.69	0.88	LC/MS Pos Late	2226	742.57	NA	
1-(1-enyl-palmitoyl)-2-linoleoyl-GPE (P-16:0/18:2)*	Lipid	Plasmalogen	0.46	-2.14	3.06	0.73	0.91	0.18	-1.41	1.76	0.83	0.93	LC/MS Pos Late	2351	700.53	NA	
1-(1-enyl-palmitoyl)-2-oleoyl-GPC (P-16:0/18:1)*	Lipid	Plasmalogen	-0.58	-4.26	3.11	0.76	0.92	-1.02	-3.26	1.23	0.37	0.71	LC/MS Pos Late	2443	744.59	NA	
1-(1-enyl-palmitoyl)-2-oleoyl-GPE (P-16:0/18:1)*	Lipid	Plasmalogen	-0.67	-3.81	2.48	0.68	0.89	-0.42	-2.33	1.50	0.67	0.87	LC/MS Pos Late	2600	702.54	NA	
1-(1-enyl-palmitoyl)-2-palmitoleoyl-GPC (P-16:0/16:1)*	Lipid	Plasmalogen	0.13	-2.30	2.55	0.92	0.97	0.00	-1.48	1.48	1.00	1.00	LC/MS Pos Late	2218	716.56	NA	
1-(1-enyl-palmitoyl)-2-palmitoyl-GPC (P-16:0/16:0)*	Lipid	Plasmalogen	2.11	-1.61	5.82	0.27	0.61	1.03	-1.24	3.30	0.37	0.71	LC/MS Pos Late	2454	718.57	11146967	
1-(1-enyl-palmitoyl)-GPE (P-16:0)*	Lipid	Lysoplasmalogen	-0.39	-3.98	3.20	0.83	0.94	-1.16	-3.34	1.03	0.30	0.67	LC/MS Pos Late	1547	480.34	10917802	
1-(1-enyl-palmitoyl)-GPE (P-16:0)*	Lipid	Lysoplasmalogen	-2.11	-4.88	0.66	0.14	0.47	-1.31	-3.00	0.38	0.13	0.51	LC/MS Pos Late	1558	438.30	NA	
1-(1-enyl-stearoyl)-2-arachidonoyl-GPE (P-18:0/20:4)*	Lipid	Plasmalogen	0.67	-1.88	3.23	0.60	0.86	-0.23	-1.79	1.33	0.77	0.91	LC/MS Pos Late	2511	752.56	9547058	
1-(1-enyl-stearoyl)-2-linoleoyl-GPE (P-18:0/18:2)*	Lipid	Plasmalogen	-0.70	-3.61	2.21	0.64	0.87	-0.59	-2.36	1.19	0.52	0.81	LC/MS Pos Late	2633	728.56	NA	
1-(1-enyl-stearoyl)-2-oleoyl-GPE (P-18:0/18:1)	Lipid	Plasmalogen	-1.45	-3.93	1.03	0.25	0.60	-1.11	-2.62	0.40	0.15	0.54	LC/MS Pos Late	2950	730.57	NA	144371-68-6
1-(1-enyl-stearoyl)-GPE (P-18:0)*	Lipid	Lysoplasmalogen	-2.71	-5.46	0.03	0.05	0.33	-2.12	-3.79	-0.45	0.01	0.17	LC/MS Pos Late	1649	466.33	NA	
1,2,3-benzenetriol sulfate (2)	Xenobiotics	Chemical	-0.22	-0.69	0.26	0.36	0.71	-0.10	-0.39	0.19	0.52	0.81	LC/MS Neg	1709	204.98	NA	
1,2-dilinoeloyl-GPC (18:2/18:2)	Lipid	Phosphatidylcholine (PC)	1.48	-1.80	4.77	0.37	0.71	0.53	-1.47	2.53	0.60	0.85	LC/MS Pos Late	2006	782.57	5288075	998-06-1
1,2-dipalmitoyl-GPC (16:0/16:0)	Lipid	Phosphatidylcholine (PC)	5.40	-0.21	11.00	0.06	0.33	0.69	-2.75	4.12	0.69	0.88	LC/MS Pos Late	2365	734.57	452110	63-89-8
1,5-anhydroglucitol (1,5-AG)	Carbohydrate	Glycolysis, Gluconeogenesis, and Pyruvate Metabolism	0.64	-1.14	2.42	0.48	0.79	-0.23	-1.32	0.85	0.67	0.87	LC/MS Neg	802	163.06	64960	154-58-5
10-heptadecenoate (17:1n7)	Lipid	Long Chain Monounsaturated Fatty Acid	2.69	0.51	4.87	0.02	0.21	1.94	0.62	3.27	0.00	0.10	LC/MS Neg	5555	267.23	5312435	29743-97-3
10-nonadecenoate (19:1n9)	Lipid	Long Chain Monounsaturated Fatty Acid	2.06	0.14	3.98	0.04	0.28	1.37	0.20	2.54	0.02	0.23	LC/MS Neg	5780	295.26	5312513	73033-09-7
10-undecenoate (11:1n1)	Lipid	Medium Chain Fatty Acid	0.52	-1.32	2.36	0.58	0.85	0.53	-0.59	1.65	0.36	0.70	LC/MS Neg	5085.8	183.14	14891	1333-28-4
11beta-hydroxyandrostosterone glucuronide	Lipid	Androgenic Steroids	1.20	-0.48	2.88	0.16	0.50	1.06	0.04	2.08	0.04	0.30	LC/MS Neg	4228	481.24	NA	
13-HODE + 9-HODE	Lipid	Fatty Acid, Monohydroxy	-0.69	-2.07	0.69	0.33	0.68	-0.01	-0.86	0.83	0.98	0.99	LC/MS Neg	5275	295.23	43013	
16a-hydroxy DHEA 3-sulfate	Lipid	Androgenic Steroids	0.86	-0.45	2.17	0.20	0.55	0.34	-0.45	1.14	0.40	0.74	LC/MS Neg	4240	383.15	NA	
16-hydroxypalmitate	Lipid	Fatty Acid, Monohydroxy	2.72	0.16	5.28	0.04	0.28	1.38	-0.19	2.94	0.08	0.42	LC/MS Neg	5236.2	271.23	10466	506-13-8
17alpha-hydroxypregnenolone 3-sulfate	Lipid	Pregnenolone Steroids	0.69	-0.74	2.11	0.34	0.69	-0.23	-1.10	0.64	0.61	0.85	LC/MS Neg	4800	411.18	152971	28901-70-4
1-arachidonoyl-GPA (20:4)	Lipid	Lysophospholipid	-0.34	-1.94	1.25	0.67	0.89	-0.70	-1.67	0.27	0.16	0.55	LC/MS Neg	5499	457.24	NA	799268-65-8
1-arachidonoyl-GPC* (20:4)*	Lipid	Lysophospholipid	2.72	-0.60	6.04	0.11	0.42	1.18	-0.85	3.21	0.25	0.65	LC/MS Pos Late	1460	544.34	NA	
1-arachidonoyl-GPE (20:4n6)*	Lipid	Lysophospholipid	4.42	0.88	7.96	0.01	0.20	2.51	0.35	4.67	0.02	0.23	LC/MS Pos Late	1470	502.29	42607465	
1-arachidonoyl-GPI* (20:4)*	Lipid	Lysophospholipid	2.40	-1.04	5.84	0.17	0.52	2.94	0.85	5.02	0.01	0.11	LC/MS Neg	5482	619.29	NA	
1-arachidonoylglycerol (20:4)	Lipid	Monoacylglycerol	1.27	-0.17	2.70	0.08	0.37	0.95	0.07	1.82	0.03	0.27	LC/MS Neg	6250	303.23	5282281	35474-99-8
1-carboxyethylisoleucine	Amino Acid	Leucine, Isoleucine and Valine Metabolism	0.96	-0.98	2.90	0.33	0.68	0.76	-0.42	1.94	0.21	0.60	LC/MS Neg	2628	202.11	NA	
1-carboxyethylleucine	Amino Acid	Leucine, Isoleucine and Valine Metabolism	0.80	-1.31	2.90	0.46	0.77	0.22	-1.06	1.50	0.74	0.89	LC/MS Neg	2663	202.11	NA	
1-carboxyethylphenylalanine	Amino Acid	Phenylalanine Metabolism	3.10	0.51	5.70	0.02	0.22	1.79	0.21	3.38	0.03	0.24	LC/MS Neg	2844	236.09	NA	
1-carboxyethyltyrosine	Amino Acid	Tyrosine Metabolism	1.35	-0.38	3.07	0.13	0.46	0.44	-0.61	1.50	0.41	0.74	LC/MS Neg	1846	252.09	NA	
1-carboxyethylvaline	Amino Acid	Leucine, Isoleucine and Valine Metabolism	1.19	-1.27	3.65	0.34	0.69	0.47	-1.03	1.97	0.53	0.82	LC/MS Neg	2008	188.09	NA	
1-dihomo-linolenylglycerol (20:3)	Lipid	Monoacylglycerol	1.44	0.05	2.82	0.04	0.29	1.29	0.46	2.13	0.00	0.08	LC/MS Neg	6400	305.25	NA	
1-dihomo-linolenylglycerol (20:2)	Lipid	Monoacylglycerol	1.40	0.14	2.66	0.03	0.27	1.21	0.45	1.98	0.00	0.07	LC/MS Neg	6800	307.26	NA	
1-docosahexaenoylglycerol (22:6)	Lipid	Monoacylglycerol	0.27	-0.66	1.20	0.57	0.84	0.30	-0.27	0.86	0.30	0.67	LC/MS Neg	6150	309.22	NA	
1-lignoceryl-GPC (24:0)	Lipid	Lysophospholipid	1.36	-0.38	3.10	0.13	0.46	0.74	-0.32	1.81	0.17	0.56	LC/MS Pos Late	1907	608.46	NA	325171-59-3
1-linolenylglycerol (18:3)	Lipid	Monoacylglycerol	0.91	-0.33	2.15	0.15	0.49	0.89	0.13	1.64	0.02	0.23	LC/MS Neg	6214	277.22	53480978	124151-74-2
1-linolenyl-GPC (18:3)*	Lipid	Lysophospholipid	0.17	-2.29	2.63	0.89	0.96	0.02	-1.48	1.52	0.98	0.99	LC/MS Pos Late	1410	518.32	NA	
1-linolenyl-2-arachidonoyl-GPC (18:2/20:4n6)*	Lipid	Phosphatidylcholine (PC)	3.11	-0.19	6.41	0.07	0.35	1.13	-0.89	3.15	0.27	0.65	LC/MS Pos Late	1969	806.57	NA	
1-linolenyl-2-linolenyl-GPC (18:2/18:3)*	Lipid	Phosphatidylcholine (PC)	-0.48	-2.21	1.25	0.59	0.85	-0.03	-1.08	1.02	0.96	0.98	LC/MS Pos Late	1939	780.55	NA	
1-linolenylglycerol (18:2)	Lipid	Monoacylglycerol	1.35	-0.06	2.76	0.06	0.33	1.37	0.52	2.23	0.00	0.07	LC/MS Neg	6477	279.23	5283469	2277-28-3
1-linolenyl-GPA (18:2)*	Lipid	Lysophospholipid	-0.76	-2.72	1.21	0.45	0.76	-0.42	-1.62	0.78	0.49	0.80	LC/MS Neg	5483	433.24	NA	
1-linolenyl-GPE (18:2)	Lipid	Lysophospholipid	0.82	-3.38	5.01	0.70	0.91	1.01	-1.55	3.57	0.44	0.76	LC/MS Pos Late	1465	520.34	11988421	
1-linolenyl-GPE (18:2)*	Lipid	Lysophospholipid	1.92	-0.86	4.69	0.17	0.52	1.55	-0.14	3.23	0.07	0.40	LC/MS Pos Late	1482	478.29	52925130	
1-linolenyl-GPG (18:2)*	Lipid	Lysophospholipid	1.70	-0.18	3.57	0.08	0.36	1.88	0.75	3.02	0.00	0.05	LC/MS Neg	5516	507.27	NA	
1-linolenyl-GPI* (18:2)*	Lipid	Lysophospholipid	2.72	-0.13	5.56	0.06	0.34	2.57	0.85	4.30	0.00	0.09	LC/MS Neg	5494	595.29	NA	
1-methyl-4-imidazoleacetate	Amino Acid	Histidine Metabolism	2.23	-0.72	5.18	0.14	0.48	1.53	-0.27	3.32	0.10	0.44	LC/MS Pos Early	2064	141.07	75810	2625-49-2
1-methyl-5-imidazoleacetate	Amino Acid																

3-hydroxy-3-methylglutarate	Lipid	Mevalonate Metabolism	2.08	-1.27	5.44	0.22	0.57	1.38	-0.66	3.43	0.18	0.57	LC/MS Polar	2850	161.05	1662	503-49-1	C03761
3-hydroxyadipate*	Lipid	Fatty Acid, Dicarboxylate	-0.08	-1.62	1.45	0.91	0.96	0.65	-0.28	1.59	0.17	0.56	LC/MS Polar	3131	161.05	151913		
3-hydroxybutyrate (BHBA)	Lipid	Ketone Bodies	-0.06	-1.42	1.31	0.94	0.97	0.10	-0.74	0.93	0.82	0.93	LC/MS Polar	1444	103.04	441	625-72-9	C01089
3-hydroxybutyrylglycine	Lipid	Fatty Acid Metabolism (Acyl Glycine)	0.42	-0.95	1.80	0.54	0.83	0.16	-0.68	1.00	0.71	0.88	LC/MS Pos Early	978	162.08	NA		
3-hydroxydecanoate	Lipid	Fatty Acid, Monohydroxy	2.64	0.59	4.68	0.01	1.17	1.65	0.41	2.89	0.01	0.14	LC/MS Neg	4634.7	187.13	26612	5561-87-5	
3-hydroxyhexanoate	Lipid	Fatty Acid, Monohydroxy	2.42	0.15	4.69	0.04	0.28	1.60	0.21	2.98	0.02	0.23	LC/MS Neg	1725	131.07	151492	10191-24-9	
3-hydroxyhippurate	Xenobiotics	Benzoate Metabolism	-0.45	-1.19	0.29	0.23	0.58	-0.16	-0.61	0.30	0.50	0.80	LC/MS Neg	1687	194.05	450268	1637-75-8	
3-hydroxyisobutyrate	Amino Acid	Leucine, Isoleucine and Valine Metabolism	2.27	0.30	4.24	0.02	0.25	1.03	-0.18	2.23	0.09	0.44	LC/MS Polar	1619	103.04	87	2068-83-9	C06001
3-hydroxylaurate	Lipid	Fatty Acid, Monohydroxy	1.89	0.14	3.64	0.03	0.27	0.96	-0.11	2.03	0.08	0.42	LC/MS Neg	5175	215.17	94216	53941-38-1	
3-hydroxyoctanoate	Lipid	Fatty Acid, Monohydroxy	2.00	-0.20	4.21	0.08	0.36	1.80	0.46	3.14	0.01	0.13	LC/MS Neg	3446	159.10	26613	88930-08-9	
3-hydroxyoctanoyl carnitine (1)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Hydroxy)	2.58	1.05	4.11	0.00	0.07	1.42	0.49	2.36	0.00	0.08	LC/MS Pos Late	785	304.21	NA		
3-hydroxyoctanoyl carnitine (2)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Hydroxy)	2.29	0.74	3.84	0.00	0.11	1.41	0.46	2.35	0.00	0.09	LC/MS Pos Early	3490	304.21	NA		
3-hydroxypyridine sulfate	Xenobiotics	Chemical	0.64	-0.14	1.42	0.11	0.42	0.17	-0.31	0.64	0.49	0.80	LC/MS Neg	1595.5	173.99	NA	1955-23-3	
3-hydroxysebacate	Lipid	Fatty Acid, Monohydroxy	0.74	-0.50	1.98	0.24	0.58	0.71	-0.04	1.47	0.06	0.37	LC/MS Polar	2411	217.11	3017884	73141-46-5	
3-hydroxystachydrine*	Xenobiotics	Food Component/Plant	0.36	-0.05	0.76	0.09	0.37	0.28	0.03	0.52	0.03	0.26	LC/MS Pos Early	1049	160.10	442640		
3-indoleglyoxylic acid	Xenobiotics	Food Component/Plant	0.37	-3.00	3.73	0.83	0.94	-0.23	-2.28	1.82	0.83	0.93	LC/MS Neg	2150	188.03	NA		
3-indoxyl sulfate	Amino Acid	Tryptophan Metabolism	-2.07	-3.66	-0.48	0.01	0.17	-0.86	-1.83	0.12	0.08	0.42	LC/MS Neg	2222.2	212.00	10258	2642-37-7	
3-methoxycatechol sulfate (1)	Xenobiotics	Benzoate Metabolism	-0.37	-0.95	0.20	0.20	0.55	-0.17	-0.52	0.18	0.34	0.70	LC/MS Neg	2163	219.00	NA		
3-methoxytyramine sulfate	Amino Acid	Tyrosine Metabolism	0.54	-1.85	2.93	0.66	0.88	-0.46	-1.92	0.99	0.53	0.82	LC/MS Neg	1722	246.04	NA		
3-methoxytyrosine	Amino Acid	Tyrosine Metabolism	1.41	-1.55	4.38	0.35	0.69	0.18	-1.63	1.99	0.84	0.93	LC/MS Pos Early	2555	212.09	1670	300-48-1	
3-methyl catechol sulfate (1)	Xenobiotics	Benzoate Metabolism	0.52	-0.21	1.24	0.16	0.50	0.05	-0.39	0.49	0.83	0.93	LC/MS Neg	2790	203.00	NA		
3-methyl-2-oxobutyrate	Amino Acid	Leucine, Isoleucine and Valine Metabolism	1.19	0.21	2.17	0.02	0.21	0.57	-0.03	1.16	0.06	0.37	LC/MS Neg	1465	115.04	49	3715-29-5	C00141
3-methyl-2-oxovalerate	Amino Acid	Leucine, Isoleucine and Valine Metabolism	1.82	0.17	3.47	0.03	0.27	1.07	0.06	2.08	0.04	0.28	LC/MS Neg	2064.2	129.06	47	1460-34-0;51829-07-	C00671
3-methylglutaconate	Amino Acid	Leucine, Isoleucine and Valine Metabolism	1.74	-1.16	4.64	0.24	0.58	0.28	-1.49	2.05	0.76	0.90	LC/MS Polar	2700	99.05	1551553	5746-90-7	
3-methylglutaryl carnitine (2)	Amino Acid	Leucine, Isoleucine and Valine Metabolism	0.02	-1.14	1.19	0.97	0.99	-0.40	-1.11	0.31	0.27	0.65	LC/MS Pos Early	2687	290.16	128145		
3-methylisidine	Amino Acid	Histidine Metabolism	-0.08	-0.95	0.78	0.85	0.95	-0.36	-0.89	0.17	0.18	0.57	LC/MS Neg	906.3	168.08	64969	368-16-1	C01152
3-phenylpropionate (hydrocinamate)	Xenobiotics	Benzoate Metabolism	-0.24	-1.13	0.65	0.60	0.86	-0.24	-0.78	0.30	0.38	0.72	LC/MS Neg	2860	149.06	107	501-52-0	C05629
3-sulfo-L-alanine	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	-0.12	-1.25	1.01	0.83	0.94	0.20	-0.49	0.89	0.57	0.83	LC/MS Polar	2890	168.00	72886	498-40-8	C00506
3-ureidopropionate	Nucleotide	Pyrimidine Metabolism, Uracil containing	0.72	-1.58	3.01	0.54	0.83	0.29	-1.11	1.69	0.69	0.87	LC/MS Pos Early	875	133.06	111	462-88-4	C02642
4-acetamidobutanoate	Amino Acid	Polyamine Metabolism	-0.03	-0.63	0.56	0.91	0.96	-0.20	-0.56	0.17	0.29	0.65	LC/MS Pos Early	1350	146.08	18189	3025-96-5	C02946
4-acetylcatechol sulfate (1)	Xenobiotics	Food Component/Plant	-0.88	-1.97	0.21	0.11	0.44	-0.37	-1.04	0.29	0.27	0.65	LC/MS Neg	1774	203.00	NA		
4-acetylphenyl sulfate	Xenobiotics	Benzoate Metabolism	-0.46	-1.48	0.56	0.38	0.71	-0.35	-0.97	0.27	0.27	0.65	LC/MS Neg	2375	215.00	4684006		
4-allylcatechol sulfate	Xenobiotics	Benzoate Metabolism	-0.21	-1.11	0.69	0.65	0.88	-0.32	-0.87	0.23	0.25	0.65	LC/MS Neg	3597.7	229.02	NA		
4-allylphenol sulfate	Xenobiotics	Food Component/Plant	1.03	-0.04	2.11	0.06	0.33	-0.01	-0.67	0.65	0.97	0.99	LC/MS Neg	3805	213.02	NA		
4-ethylcatechol sulfate	Xenobiotics	Benzoate Metabolism	0.32	-0.34	0.99	0.34	0.69	0.04	-0.36	0.45	0.83	0.93	LC/MS Neg	3346	217.02	NA		
4-ethylphenyl sulfate	Xenobiotics	Benzoate Metabolism	-0.30	-0.94	0.34	0.36	0.70	-0.27	-0.66	0.13	0.18	0.57	LC/MS Neg	3580	201.02	NA	123-07-9	C13637
4-guanidinobutanoate	Amino Acid	Guanidino and Acetamido Metabolism	-0.13	-1.85	1.58	0.88	0.95	-0.68	-1.72	0.36	0.20	0.60	LC/MS Pos Early	2320	146.09	500	463-003;463-00-3	C01035
4-HDOHE	Lipid	Docosanoid	-0.85	-2.02	0.31	0.15	0.49	-0.44	-1.15	0.27	0.23	0.63	LC/MS Neg	5394	343.23	NA	9006-40-4	
4-hydroxycholethanolol	Xenobiotics	Chemical	-0.18	-1.16	0.79	0.71	0.91	0.06	-0.53	0.66	0.83	0.93	LC/MS Neg	4427	244.91	34217	28343-61-5	
4-hydroxyhippurate	Xenobiotics	Benzoate Metabolism	0.00	-1.35	1.36	1.00	1.00	0.10	-0.72	0.93	0.81	0.92	LC/MS Neg	1475	194.05	151012	2482-25-9	
4-hydroxyphenylacetate	Amino Acid	Phenylalanine Metabolism	0.20	-1.47	1.87	0.81	0.93	0.42	-0.60	1.43	0.42	0.75	LC/MS Neg	1361	151.04	127	156-38-7	C00642
4-hydroxyphenylpyruvate	Amino Acid	Tyrosine Metabolism	0.03	-1.80	1.86	0.97	0.99	-0.49	-1.60	0.63	0.39	0.89	LC/MS Neg	1690	179.03	979	156-39-8	C01179
4-imidazoleacetate	Amino Acid	Histidine Metabolism	-0.18	-1.84	1.49	0.84	0.94	-0.03	-1.05	0.99	0.95	0.98	LC/MS Pos Early	2055	127.05	96215	645-65-8	C02835
4-methyl-2-oxobutanoate	Amino Acid	Leucine, Isoleucine and Valine Metabolism	1.63	0.19	3.06	0.03	0.26	0.97	0.10	1.85	0.03	0.26	LC/MS Neg	2170	129.06	70	816-66-0	C00233
4-methylbenzenesulfonate	Xenobiotics	Chemical	-0.97	-4.06	2.12	0.54	0.83	-0.72	-2.61	1.16	0.45	0.77	LC/MS Neg	2350	171.01	6101	104-15-4	C06677
4-methylcatechol sulfate	Xenobiotics	Benzoate Metabolism	-1.12	-1.99	-0.25	0.01	0.17	-0.72	-1.25	-0.19	0.01	0.13	LC/MS Neg	2665	203.00	NA		
4-methylguaicol sulfate	Xenobiotics	Benzoate Metabolism	-0.61	-1.45	0.22	0.15	0.49	-0.46	-0.97	0.05	0.07	0.41	LC/MS Neg	2978	217.02	NA	756760-43-7	
4-vinylcatechol sulfate	Xenobiotics	Benzoate Metabolism	0.54	-0.13	1.22	0.11	0.44	0.19	-0.22	0.60	0.37	0.71	LC/MS Neg	3079.5	215.00	NA		
4-vinylphenol sulfate	Xenobiotics	Benzoate Metabolism	1.06	-0.15	2.27	0.09	0.37	0.52	-0.22	1.26	0.17	0.56	LC/MS Neg	3320	199.01	6426766	2628-17-3	C05627
5-(galactosylhydroxy)-L-lysine	Amino Acid	Lysine Metabolism	3.73	0.22	7.23	0.04	0.28	1.87	-0.28	0.41	0.09	0.43	LC/MS Pos Early	2755	325.16	NA	32448-36-5	
5,6-dihydrothymine	Nucleotide	Pyrimidine Metabolism, Thymine containing	1.85	-1.62	5.32	0.30	0.66	0.14	-1.98	2.26	0.90	0.95	LC/MS Neg	1637.8	127.05	93556	696-04-8	C00906
5,6-dihydroxyindole	Nucleotide	Pyrimidine Metabolism, Uracil containing	4.84	-0.11	9.79	0.06	0.33	1.75	-1.27	4.78	0.26	0.65	LC/MS Neg	1119	245.08	1119	245.08	1361384
5alpha-androstan-3alpha,17beta-diol monosulfate (1)	Lipid	Androgenic Steroids	0.62	-0.49	1.73	0.27	0.62	0.46	-0.21	1.14	0.18	0.57	LC/MS Neg	4925	371.19	NA		
5alpha-androstan-3beta,17alpha-diol disulfate	Lipid	Androgenic Steroids	-0.10	-1.03	0.83	0.84	0.94	0.05	-0.52	0.62	0.86	0.94	LC/MS Neg	4215	225.07	NA		
5alpha-androstan-3beta,17beta-diol disulfate	Lipid	Androgenic Steroids	0.90	-0.30	2.09	0.14	0.48	0.45	-0.28	1.18	0.22	0.63	LC/MS Neg	3880	225.07	242332	571-20-0	C12525
5alpha-androstan-3beta,17beta-diol monosulfate (2)	Lipid	Androgenic Steroids	0.52	-0.54	1.59	0.33	0.69	0.28	-0.37	0.93	0.40	0.74	LC/MS Neg	4685	371.19	NA		
5alpha-pregnan-3beta,20alpha-diol disulfate	Lipid	Progestin Steroids	-0.25	-1.38	0.89	0.67	0.89	-0.20	-0.89	0.50	0.57	0.83	LC/MS Neg	3962	239.09	NA		
5alpha-pregnan-3beta,20alpha-diol monosulfate (2)	Lipid	Progestin Steroids	-0.07	-1.09	0.95	0.89	0.96	-0.12	-0.74	0.50	0.70	0.88	LC/MS Neg	5060	399.22	NA		
5alpha-pregnan-3beta,20beta-diol monosulfate (1)	Lipid	Progestin Steroids	0.01	-1.08	1.11	0.98	0.99	0.01	-0.65	0.68	0.97	0.98	LC/MS Neg	5180	399.22	NA		
5alpha-pregnan-diol disulfate	Lipid	Progestin Steroids	0.04	-0.87	0.96	0.92	0.97	0.12	-0.43	0.68	0.66	0.87	LC/MS Neg	4310	239.09	5127902		
5-dodecenolate (12:1n7)	Lipid	Medium Chain Fatty Acid	2.12	0.50	3.74	0.01	0.17	1.27	0.28	2.26	0.01	0.17	LC/MS Neg	5224	197.15	5312378	2430-94-6	
5-dodecenoyl carnitine (C12:1)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Monounsaturated)	2.00	0.75	3.26	0.00	0.09	1.54	0.78	2.30	0.00	0.01	LC/MS Pos Late	1135	342.26	NA		
5-HEPE	Lipid	Eicosanoid	-0.39	-1.33	0.54	0.41	0.72	-0.37	-0.94	0.20	0.20	0.59	LC/MS Neg	5316	317.21	6439678	83952-40-3	
5-HETE	Lipid	Eicosanoid	-0.71	-1.80	0.39	0.21	0.55	-0.41	-1.07	0.26	0.23	0.63	LC/MS Neg	5382	319.23	5280733	73307-52-5	C04805
5-HETE	Lipid	Eicosanoid	-0.58	-1.54	0.38	0.24	0.58	-0.36	-0.95	0.22	0.22	0.62	LC/MS Neg	5444	321.24	5283143	88053-46-7	
5-hydroxyhexanoate	Lipid	Fatty Acid, Monohydroxy	0.56	-0.61	1.73	0.35	0.69	0.14	-0.57	0.85	0.70	0.88	LC/MS Neg	1267	131.07	170748	44843-89-2	
5-hydroxylysine	Amino Acid	Lysine Metabolism	1.78	-0.64	4.19	0.15	0.49	0.58	-0.90	2.06	0.44	0.77	LC/MS Pos Early	2790	163.11	1029	13204-98-3	C16741
5-methylthioadenosine (MTA)	Amino Acid	Polyamine Metabolism	2.22	0.25	4.20	0.03	0.26	0.82	-0.39									

cysteine	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	2.15	-0.71	5.00	0.14	0.48	2.14	0.40	3.87	0.02	0.20	LC/MS Pos Early	1475	122.03	5862	52-90-4:56-89-3	C00097
cysteine s-sulfate	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	-3.81	-7.46	-0.15	0.04	0.29	-1.70	-3.93	0.54	0.14	0.52	LC/MS Pos Early	565	201.98	115015	1637-71-4	C05824
cysteine sulfonic acid	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	-1.65	-4.16	0.87	0.20	0.55	-0.39	-1.93	1.15	0.62	0.85	LC/MS Pos Early	597	154.02	109	207121-48-0	C00606
cysteine-glutathione disulfide	Amino Acid	Glutathione Metabolism	-0.64	-2.04	0.75	0.37	0.71	-0.61	-1.46	0.24	0.16	0.55	LC/MS Pos Early	2465	427.10	4247235	13081-14-6	
cysteinylglycine disulfide*	Amino Acid	Glutathione Metabolism	1.99	-1.13	5.11	0.21	0.56	0.76	-1.14	2.66	0.43	0.76	LC/MS Pos Early	2547	298.05	NA	70555-24-7	
cystine	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	0.98	-2.70	4.66	0.60	0.66	1.54	-0.70	3.78	0.18	0.57	LC/MS Pos Early	2000	241.03	67678	56-89-3	C00491
decadienedioic acid (C10:2-DC)**	Lipid	Fatty Acid, Dicarboxylate	0.60	-0.63	1.84	0.34	0.69	0.57	-0.18	1.32	0.14	0.52	LC/MS Neg	1290	197.08	NA		
decanoylcarnitine (C10)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Medium Chain)	1.60	0.36	2.84	0.01	1.47	1.46	0.72	2.21	0.00	0.01	LC/MS Pos Late	1130	316.25	10245190	1492-27-9	
dehydroepiandrosterone sulfate (DHEA-S)	Lipid	Androgenic Steroids	1.33	-0.70	3.36	0.20	0.55	0.61	-0.63	1.85	0.33	0.69	LC/MS Neg	4745	367.16	12594	651-48-9	C04555
delta-CEHC	Cofactors and Vitamins	Tocopherol Metabolism	1.04	-0.11	2.19	0.08	0.36	0.39	-0.31	1.09	0.28	0.65	LC/MS Neg	3422	249.11	11536125	84599-16-6	
deoxycarnitine	Lipid	Carnitine Metabolism	2.64	-1.47	6.74	0.21	0.55	1.03	-1.48	3.53	0.42	0.75	LC/MS Pos Early	2052	146.12	134	6249-56-5	C01181
deoxycholate	Lipid	Secondary Bile Acid Metabolism	0.18	-0.74	1.09	0.71	0.91	0.18	-0.38	0.74	0.52	0.82	LC/MS Neg	5294	391.29	222528	83-44-3	C04483
deoxycholic acid (12 or 24)-sulfate*	Lipid	Secondary Bile Acid Metabolism	-0.34	-1.11	0.42	0.38	0.71	-0.12	-0.58	0.35	0.63	0.85	LC/MS Neg	4598	235.12	NA		
deoxycholic acid glucuronide	Lipid	Secondary Bile Acid Metabolism	0.72	-0.01	1.45	0.05	0.33	0.37	-0.08	0.82	0.10	0.46	LC/MS Neg	4819	567.32	NA		
dihomolinoleate (20:2n6)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)	2.37	0.39	4.35	0.02	0.22	1.75	0.55	2.96	0.00	0.10	LC/MS Neg	5730	307.26	6439848	2091-39-6	C16525
dihomolinolenate (20:3n3 or 3n6)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)	3.66	1.17	6.14	0.00	0.11	2.95	1.44	4.45	0.00	0.01	LC/MS Neg	5596	305.25	5280581	1706-64-5	C03242
dihomo-linolenoylcarnitine (C20:3n3 or 6)*	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Polyunsaturated)	1.83	-0.06	3.72	0.06	0.33	0.98	-0.17	2.13	0.10	0.44	LC/MS Pos Late	1392	450.36	NA		
dihomo-linolenoyl-choline	Lipid	Fatty Acid Metabolism (Acyl Choline)	0.20	-1.18	1.59	0.77	0.92	0.20	-0.65	1.04	0.65	0.87	LC/MS Pos Late	1424	392.35	NA		
dihomo-linoleoylcarnitine (C20:2)*	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Polyunsaturated)	1.61	-0.12	3.34	0.07	0.36	0.87	-0.18	1.93	0.11	0.46	LC/MS Pos Late	1436	452.37	NA		
dihydrocaffeate sulfate (2)	Xenobiotics	Food Component/Plant	-0.26	-1.08	0.56	0.53	0.03	0.02	-0.48	0.52	0.93	0.97	LC/MS Polar	1328	261.01	NA		
dihydroferulate	Xenobiotics	Food Component/Plant	-0.38	-1.25	0.50	0.40	0.71	0.10	-0.44	0.63	0.72	0.89	LC/MS Neg	1928	195.07	14340	1135-23-5	
dihydroorotate	Nucleotide	Pyrimidine Metabolism, Orotate containing	1.32	0.34	2.30	0.01	0.16	0.62	0.02	1.22	0.04	0.30	LC/MS Polar	1910	157.03	648	155-54-4	C00337
dimethylarginine (ADMA + SDMA)	Amino Acid	Urea cycle, Arginine and Proline Metabolism	4.42	-2.42	11.25	0.20	0.55	1.64	-2.53	5.81	0.44	0.76	LC/MS Pos Early	2850	203.15	123831	102783-24-4	C03626
dimethylglycine	Amino Acid	Glycine, Serine and Threonine Metabolism	2.70	-0.63	6.02	0.11	0.43	-0.04	-2.08	1.99	0.97	0.99	LC/MS Pos Early	1104	104.07	673	1118-68-9	C01026
docosadienoate (22:2n6)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)	1.03	-0.78	2.82	0.26	0.61	0.62	-0.47	1.72	0.26	0.65	LC/MS Neg	6034	335.30	5282807	7370-49-2	C16533
docosadiolate (C22-DC)	Lipid	Fatty Acid, Dicarboxylate	-0.66	-1.79	0.47	0.25	0.60	-1.32	-1.01	0.37	0.37	0.71	LC/MS Neg	5291.8	369.30	244872	605-56-6	C19625
docosahexaenoate (DHA; 22:6n3)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)	1.25	-1.16	3.65	0.31	0.67	1.10	-0.34	2.59	0.13	0.52	LC/MS Neg	5525	327.23	445580	6217-54-5	C06429
docosahexaenoylcholine	Lipid	Fatty Acid Metabolism (Acyl Choline)	-0.85	-2.20	0.51	0.22	0.57	-1.07	-0.99	0.66	0.69	0.88	LC/MS Pos Late	1378	414.34	NA		
docosapentaenoate (DPA; 22:5n3)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)	2.32	0.49	4.16	0.01	0.19	1.51	0.39	2.63	0.01	0.13	LC/MS Neg	5571	329.25	6441454	2234-74-4	C16513
docosapentaenoate (n6 DPA; 22:5n6)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)	1.78	-0.27	3.83	0.09	0.38	1.41	0.16	2.66	0.03	0.24	LC/MS Neg	5624.5	329.25	6441454	25182-74-5	C16513
docosatrienoate (22:3n3)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)	2.03	0.66	3.40	0.00	0.11	1.14	0.31	1.98	0.01	0.13	LC/MS Neg	5823	333.28	5312556	59708-86-0	C16534
dodecadienoate (12:2)*	Lipid	Fatty Acid, Dicarboxylate	2.73	0.68	4.77	0.01	0.16	1.38	0.13	2.63	0.03	0.26	LC/MS Neg	5146	195.14	NA		
dodecanedioate (C12)	Lipid	Fatty Acid, Dicarboxylate	1.81	0.13	3.49	0.03	0.27	1.18	0.15	2.20	0.02	0.23	LC/MS Neg	2990	229.14	12736	693-23-2	C02678
dodecenedioate (C12:1-DC)*	Lipid	Fatty Acid, Dicarboxylate	0.62	-0.59	1.82	0.31	0.68	0.81	0.07	1.54	0.03	0.26	LC/MS Neg	2700	227.13	NA		
dopamine 3-O-sulfate	Amino Acid	Tyrosine Metabolism	-0.12	-2.08	1.85	0.91	0.96	0.17	-1.03	1.37	0.78	0.91	LC/MS Neg	1556.2	232.03	122136		C13690
DSGEGDFXAEAGGVR*	Peptide	Fibrinogen Cleavage Peptide	0.64	-0.44	1.73	0.25	0.59	0.07	-0.60	0.73	0.84	0.93	LC/MS Neg	2535	731.32	NA		
eicosanedioate (C20-DC)	Lipid	Fatty Acid, Dicarboxylate	-0.52	-2.50	1.46	0.60	0.86	0.01	-1.20	1.21	0.99	0.99	LC/MS Neg	5200.9	341.27	75502	2424-92-2	
eicosapentaenoate (EPA; 20:5n3)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)	1.03	-0.70	2.76	0.24	0.58	0.24	-0.82	1.29	0.66	0.87	LC/MS Neg	5450	301.22	446284	10-2005-9;10417-94-	C06428
eicosenoate (20:1n9 or 1n11)	Lipid	Long Chain Monounsaturated Fatty Acid	-0.06	-1.66	1.53	0.94	0.97	0.29	-0.69	1.26	0.56	0.83	LC/MS Neg	5950	309.28	5282768		C16526
eicosenoylcarnitine (C20:1)*	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Monounsaturated)	-1.91	-3.52	-0.29	0.02	0.23	-1.15	-2.14	-0.17	0.02	0.23	LC/MS Pos Late	1484	454.39	NA		
epiandrosterone sulfate	Lipid	Androgenic Steroids	0.10	-1.22	1.42	0.88	0.96	0.10	-0.71	0.90	0.81	0.92	LC/MS Neg	4855	369.17	9929317	22229-22-7	
ergothioneine	Xenobiotics	Food Component/Plant	1.00	-0.24	2.23	0.11	0.44	0.19	-0.57	0.95	0.62	0.85	LC/MS Pos Early	850	230.10	3032311	58511-63-0	C05570
erucate (22:1n9)	Lipid	Long Chain Monounsaturated Fatty Acid	-1.38	-2.61	-0.14	0.03	0.26	-0.84	-1.60	-0.09	0.03	0.26	LC/MS Neg	6355.6	337.31	5281116	112-86-7	C08316
erythritol	Xenobiotics	Food Component/Plant	0.00	-2.44	2.45	1.00	1.00	0.74	-0.75	2.23	0.33	0.69	LC/MS Polar	1491	167.06	222285	149-32-6	C00503
erythronate*	Carbohydrate	Aminosugar Metabolism	3.35	-1.45	8.15	0.17	0.52	1.60	-1.33	4.53	0.28	0.65	LC/MS Polar	2186	135.03	2781043	88759-55-1	
ethyl-alpha-glucopyranose	Xenobiotics	Food Component/Plant	-1.50	-5.55	2.54	0.47	0.77	-1.37	-3.83	1.10	0.28	0.65	LC/MS Pos Early	1189	226.13	NA		
ethyl-beta-glucopyranoside	Xenobiotics	Food Component/Plant	0.56	-0.24	1.37	0.17	0.52	0.30	-0.20	0.79	0.24	0.64	LC/MS Neg	1578	207.09	NA		
ethylmalonate	Amino Acid	Leucine, Isoleucine and Valine Metabolism	0.63	-1.50	2.77	0.56	0.84	0.80	-0.50	2.10	0.23	0.63	LC/MS Polar	2785	131.03	11756	601-75-2	
etiocolanalone glucuronide	Lipid	Androgenic Steroids	0.21	-1.27	1.70	0.78	0.92	-0.14	-1.05	0.76	0.76	0.90	LC/MS Neg	4915	465.25	270605		621890
eugenol sulfate	Xenobiotics	Food Component/Plant	0.50	-0.18	1.19	0.15	0.49	0.21	-0.21	0.63	0.32	0.69	LC/MS Neg	3782	243.03	180632	95480-60-7	
Fibrinopeptide A (2-15)	Peptide	Fibrinogen Cleavage Peptide	0.41	-1.07	1.89	0.59	0.85	-0.11	-1.01	0.80	0.82	0.93	LC/MS Neg	2120	653.27	NA		
Fibrinopeptide A (3-15)	Peptide	Fibrinogen Cleavage Peptide	0.48	-0.80	1.76	0.46	0.77	0.25	-0.53	1.03	0.53	0.82	LC/MS Neg	2419	595.75	NA		
Fibrinopeptide A (4-15)	Peptide	Fibrinogen Cleavage Peptide	-0.03	-1.17	1.10	0.95	0.98	0.05	-0.64	0.74	0.89	0.95	LC/MS Neg	2570	552.24	NA		
Fibrinopeptide B (1-11)	Peptide	Fibrinogen Cleavage Peptide	0.19	-0.87	1.25	0.73	0.91	-0.32	-0.97	0.32	0.33	0.69	LC/MS Pos Early	3071	617.95	NA		
Fibrinopeptide B (1-12)	Peptide	Fibrinogen Cleavage Peptide	0.32	-0.65	1.29	0.52	0.82	-0.05	-0.65	0.54	0.86	0.94	LC/MS Neg	2366	661.25	NA		
Fibrinopeptide B (1-13)	Peptide	Fibrinogen Cleavage Peptide	-0.05	-0.62	0.52	0.86	0.95	-0.17	-0.51	0.18	0.35	0.70	LC/MS Neg	2482	696.77	NA		
Fibrinopeptide B (1-9)	Peptide	Fibrinogen Cleavage Peptide	0.15	-1.73	2.03	0.87	0.95	-0.14	-1.29	1.01	0.81	0.92	LC/MS Neg	905	314.44	NA		
forminoglutamate	Amino Acid	Histidine Metabolism	1.46	-0.43	3.35	0.13	0.46	0.32	-0.83	1.48	0.58	0.83	LC/MS Pos Early	1880	175.07	439233	816-90-0	C00439
fructose	Carbohydrate	Fructose, Mannose and Galactose Metabolism	-1.68	-3.98	0.62	0.15	0.49	-0.09	-1.49	1.32	0.90	0.95	LC/MS Polar	2655	225.06	5984	57-48-7	C00095
fumarate	Energy	TCA Cycle	1.60	-1.40	4.60	0.30	0.66	1.46	-0.37	3.29	0.12	0.48	LC/MS Polar	3084	115.00	444972	100-17-8	C00122
gamma-CEHC	Cofactors and Vitamins	Tocopherol Metabolism	1.18	-0.17	2.52	0.09	0.37	0.46	-0.36	1.28	0.27	0.65	LC/MS Neg	3843	263.13	133098	178167-74-4	
gamma-CEHC glucuronide*	Cofactors and Vitamins	Tocopherol Metabolism	0.98	-0.35	2.32	0.15	0.49	0.55	-0.26	1.37	0.18	0.57	LC/MS Neg	2500	439.16	NA		
gamma-glutamyl-2-aminobutyrate	Peptide	Gamma-glutamyl Amino Acid	0.62	-0.35	1.58	0.21	0.56	0.64	0.06	1.23	0.03	0.26	LC/MS Pos Early	2380	233.11	NA	16869-42-4	
gamma-glutamylalanine	Peptide	Gamma-glutamyl Amino Acid	0.37	-0.92	1.66	0.58	0.84	0.86	0.08	1.64	0.03	0.26	LC/MS Pos Early	1986	219.10	440103	5875-41-2	
gamma-glutamyl-alpha-lysine	Peptide	Gamma-glutamyl Amino Acid	0.45	-1.56	2.45	0.66	0.88	0.91	-0.31	2.13	0.14	0.53	LC/MS Pos Early	2784	276.16	65254		
gamma-glutamylcitulline*	Peptide	Gamma-glutamyl Amino Acid	0.60	-0.80	2.00	0.40	0.71	0.65	-0.20	1.50	0.14	0.52	LC/MS Pos Early	1644	305.15	NA		
gamma-glutamyl-epsilon-lysine	Peptide	Gamma-glutamyl Amino Acid	0.29	-1.18	1.76	0.70	0.90	0.47	-0.42	1.37								

linoleoylcholine*	Lipid	Fatty Acid Metabolism (Acyl Choline)	-0.59	-2.46	1.29	0.54	0.83	-0.11	-1.25	1.04	0.85	0.94	LC/MS Pos Late	1388	366.34	NA		
lysine	Amino Acid	Lysine Metabolism	3.09	-3.15	9.33	0.33	0.68	1.08	-2.73	4.89	0.58	0.83	LC/MS Pos Early	2850	147.11		5962	56-87-1
malate	Energy	TCA Cycle	1.22	-1.64	4.08	0.40	0.72	1.41	-0.33	3.16	0.11	0.47	LC/MS Neg	615.6	133.01		525	6915-15-7
maleate	Lipid	Fatty Acid, Dicarboxylate	1.16	-1.70	4.02	0.43	0.74	1.56	-0.18	3.29	0.08	0.42	LC/MS Polar	2640	115.00		444266	110-16-7
malonate	Lipid	Fatty Acid Synthesis	0.30	-0.88	1.48	0.62	0.87	0.45	-0.27	1.17	0.22	0.62	LC/MS Polar	3447	103.00		867	141-82-2;26522-22-8
maltose	Carbohydrate	Glycogen Metabolism	-0.54	-2.38	1.29	0.56	0.84	-0.19	-1.31	0.92	0.73	0.89	LC/MS Polar	3329.4	387.11		10991489	6363-53-7
mannitol/sorbitol	Carbohydrate	Fructose, Mannose and Galactose Metabolism	0.07	-1.43	1.56	0.93	0.97	0.67	-0.24	1.58	0.15	0.54	LC/MS Polar	2320	181.07		5780	
mannose	Carbohydrate	Fructose, Mannose and Galactose Metabolism	1.63	-1.89	5.16	0.36	0.71	1.17	-0.98	3.32	0.29	0.65	LC/MS Polar	2200	225.06		18950	3458-28-4
margarate (17:0)	Lipid	Long Chain Saturated Fatty Acid	2.43	-0.37	5.22	0.09	0.38	1.91	0.20	3.61	0.03	0.26	LC/MS Neg	5731	269.25		10465	506-12-7
metabolonic lactone sulfate	Partially Characterized Molecules	Partially Characterized Molecules	1.14	-0.22	2.49	0.10	0.40	0.91	0.08	1.73	0.03	0.26	LC/MS Neg	4800	427.21	NA		
methionine	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	3.37	-1.74	8.48	0.20	0.55	2.69	-0.42	5.81	0.09	0.43	LC/MS Pos Early	2526	150.06		6137	63-68-3
methionine sulfone	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	0.45	-1.74	2.65	0.68	0.89	-0.77	-2.11	0.56	0.26	0.65	LC/MS Pos Early	1250	182.05		69961	820-10-0
methionine sulfoxide	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	-1.44	-3.92	1.05	0.26	0.60	-0.95	-2.47	0.56	0.22	0.62	LC/MS Pos Early	1272	166.05		158980	3226-65-1
methyl glucopyranoside (alpha + beta)	Xenobiotics	Food Component/Plant	0.97	-0.31	2.24	0.14	0.47	0.15	-0.63	0.92	0.71	0.89	LC/MS Neg	1070	193.07	NA		
methyl-4-hydroxybenzoate sulfate	Xenobiotics	Benzoate Metabolism	-0.34	-1.01	0.33	0.32	0.68	-0.13	-0.54	0.28	0.54	0.82	LC/MS Neg	2873	231.00	NA		
methylnaphthyl sulfate (2)*	Xenobiotics	Chemical	0.33	-0.35	1.00	0.34	0.69	-0.07	-0.48	0.35	0.75	0.90	LC/MS Neg	4163	237.02	NA		
methylsuccinate	Amino Acid	Leucine, Isoleucine and Valine Metabolism	0.37	-2.40	3.15	0.79	0.92	0.87	-0.82	2.56	0.31	0.68	LC/MS Polar	2800	131.03		10349	498-21-5
myo-inositol	Lipid	Inositol Metabolism	1.30	-0.65	3.26	0.19	0.54	0.50	-0.70	1.69	0.41	0.74	LC/MS Polar	3506.3	225.06		892	87-89-8
myristate (14:0)	Lipid	Long Chain Saturated Fatty Acid	4.55	1.60	7.50	0.00	0.10	2.84	1.04	4.64	0.00	0.07	LC/MS Neg	5440	227.20		11005	544-63-8
myristoleate (14:1n5)	Lipid	Long Chain Monounsaturated Fatty Acid	2.51	0.72	4.30	0.01	0.13	4.43	0.34	2.52	0.01	0.15	LC/MS Neg	5346.9	225.19		5281119	544-64-9
myristoleoylcarnitine (C14:1)*	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Monounsaturated)	1.77	0.29	3.25	0.02	0.22	1.30	0.40	2.20	0.00	0.10	LC/MS Pos Late	1316	370.29		90659872	889848-55-9
myristoyl dihydrospingomyelin (d18:0/14:0)*	Lipid	Dihydrospingomyelins	1.61	-1.01	4.22	0.23	0.58	1.23	-0.37	2.83	0.13	0.51	LC/MS Pos Late	2060	677.56	NA		
myristoylcarnitine (C14)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Long Chain Saturated)	2.88	1.22	4.55	0.00	0.06	2.13	1.13	3.14	0.00	0.01	LC/MS Pos Late	1350	372.31		6428654	18822-89-4
myristoyl-2-dimethyllysine	Amino Acid	Lysine Metabolism	-0.74	-2.45	0.97	0.39	0.71	-0.73	-1.77	0.34	0.17	0.56	LC/MS Pos Early	2833	175.14	NA		
N,N,N-trimethyl-5-aminovallate	Amino Acid	Lysine Metabolism	1.29	-0.94	3.51	0.26	0.61	-0.39	-1.75	0.98	0.58	0.83	LC/MS Pos Early	2186	160.13	NA		
N,N,N-trimethyl-L-alanylproline betaine (TMAP)	Amino Acid	Urea cycle, Arginine and Proline Metabolism	6.69	1.87	11.51	0.01	0.14	3.14	0.19	6.09	0.04	0.28	LC/MS Pos Early	2344	229.15	NA		
N,N-dimethylalanine	Amino Acid	Alanine and Aspartate Metabolism	0.31	-1.12	1.74	0.67	0.89	-0.43	-1.30	0.44	0.33	0.69	LC/MS Pos Early	1378	118.09	NA		
N,N-dimethyl-pro-pro	Peptide	Modified Peptides	9.19	3.47	14.91	0.00	0.08	2.57	-0.96	6.09	0.15	0.54	LC/MS Pos Early	2402	241.15	NA		
N1-Methyl-2-pyrindone-3-carboxamide	Cofactors and Vitamins	Nicotinate and Nicotinamide Metabolism	1.40	-0.30	3.11	0.11	0.42	0.19	-0.85	1.23	0.72	0.89	LC/MS Pos Early	1250	153.07		69698	701-44-0
N1-Methyl-4-pyrindone-3-carboxamide	Cofactors and Vitamins	Nicotinate and Nicotinamide Metabolism	0.56	-0.82	1.94	0.42	0.74	0.12	-0.72	0.97	0.77	0.91	LC/MS Pos Early	1260	153.07		440810	769-49-3
N1-methylinosine	Nucleotide	Purine Metabolism, (Hypo)Xanthine/Inosine containing	3.39	-0.12	6.91	0.06	0.33	0.68	-1.47	2.83	0.53	0.82	LC/MS Pos Early	1430	283.10		65095	20245-33-4
N2,N2-dimethylguanosine	Nucleotide	Purine Metabolism, Guanine containing	9.40	4.74	14.06	0.00	0.05	3.65	0.78	6.52	0.01	0.17	LC/MS Pos Early	2210	312.13		92919	2140-67-2
N2,N5-diacetylornithine	Amino Acid	Urea cycle, Arginine and Proline Metabolism	0.59	-0.93	2.10	0.44	0.76	-0.69	-1.61	0.24	0.14	0.53	LC/MS Neg	1367	215.10		10398396	39825-23-5
N2-acetyl,N6,N6-dimethyllysine	Amino Acid	Lysine Metabolism	-0.61	-1.81	0.59	0.32	0.68	-0.75	-1.48	-0.02	0.04	0.31	LC/MS Pos Early	2180	217.15	NA		
N2-acetyllysine	Amino Acid	Lysine Metabolism	2.28	0.29	4.27	0.02	0.26	0.69	-0.53	1.91	0.27	0.65	LC/MS Polar	3372.6	187.11		92907	1946-82-3
N6,N6,N6-trimethyllysine	Amino Acid	Lysine Metabolism	3.62	-0.03	7.27	0.05	0.32	1.06	-1.18	3.29	0.35	0.70	LC/MS Pos Early	2825	189.16		440120	23284-33-5
N6-acetyllysine	Amino Acid	Lysine Metabolism	5.70	-0.20	11.60	0.06	0.33	1.26	-2.35	4.87	0.49	0.80	LC/MS Neg	1059	187.11		92832	692-04-6
N6-carbamoylthreonyladenosine	Nucleotide	Purine Metabolism, Adenine containing	6.44	2.88	10.00	0.00	0.05	2.43	0.24	4.62	0.03	0.26	LC/MS Neg	2164	411.13		161466	24719-82-2
N6-carboxymethyllysine	Carbohydrate	Advanced Glycation End-product	-0.27	-1.90	1.35	0.74	0.91	-0.38	-1.37	0.61	0.46	0.77	LC/MS Pos Early	2500	205.12		123800	
N6-methyladenosine	Nucleotide	Purine Metabolism, Adenine containing	-1.19	-2.62	0.23	0.10	0.41	0.02	-0.85	0.89	0.97	0.99	LC/MS Pos Early	2264	282.12		1869	1867-73-8
N6-methyllysine	Amino Acid	Lysine Metabolism	-1.79	-3.43	-0.15	0.03	0.27	-1.35	-2.35	-0.35	0.01	0.13	LC/MS Pos Early	2836	161.13	NA		
N-acetyl-1-methylhistidine*	Amino Acid	Histidine Metabolism	1.84	0.44	3.25	0.01	0.17	0.02	-0.84	0.89	0.96	0.98	LC/MS Pos Early	2100	212.10		193270	
N-acetyl-2-aminooctanoate*	Lipid	Fatty Acid, Amino	0.58	-1.25	2.41	0.54	0.83	0.04	-1.08	1.16	0.94	0.98	LC/MS Neg	3943	200.13		95555	
N-acetylalanine	Amino Acid	Alanine and Aspartate Metabolism	9.04	2.08	16.00	0.01	0.17	5.09	0.84	9.34	0.02	0.22	LC/MS Polar	1564.8	130.05		88064	97-69-8
N-acetyllainin	Xenobiotics	Food Component/Plant	0.42	-0.41	1.24	0.32	0.68	0.04	-0.46	0.55	0.87	0.94	LC/MS Neg	1467	218.05	NA		
N-acetylarginine	Amino Acid	Urea cycle, Arginine and Proline Metabolism	4.33	1.12	7.55	0.01	0.16	1.90	-0.07	3.87	0.06	0.35	LC/MS Pos Early	2245	217.13		67427	155-84-0
N-acetylasparagine	Amino Acid	Alanine and Aspartate Metabolism	-0.35	-2.35	1.64	0.73	0.91	0.17	-1.04	1.39	0.78	0.91	LC/MS Pos Early	785	175.07		99715	4033-40-3
N-acetylaspartate (NAA)	Amino Acid	Alanine and Aspartate Metabolism	1.61	-3.03	6.25	0.49	0.80	0.63	-2.20	3.46	0.66	0.87	LC/MS Pos Early	880	176.06		65065	997-55-7;997-55-7
N-acetyl-beta-alanine	Nucleotide	Pyrimidine Metabolism, Uracil containing	2.29	-0.19	4.77	0.07	0.36	-0.32	-1.84	1.20	0.68	0.87	LC/MS Neg	773	130.05		76406	3025-95-4
N-acetylcarnosine	Amino Acid	Histidine Metabolism	3.35	0.76	5.95	0.01	0.17	2.22	0.64	3.80	0.01	0.11	LC/MS Pos Early	2141	269.12		9903482	56253-15-2
N-acetylglucosamine/N-acetylgalactosamine	Carbohydrate	Aminosugar Metabolism	3.06	-1.36	7.48	0.17	0.52	0.66	-2.04	3.36	0.63	0.86	LC/MS Pos Early	715	222.10		24139	
N-acetylglutamate	Amino Acid	Glutamate Metabolism	2.05	-0.86	4.96	0.17	0.51	1.01	-0.77	2.78	0.27	0.65	LC/MS Pos Early	1050	190.07		70914	
N-acetylglutamine	Amino Acid	Glutamate Metabolism	0.21	-1.56	1.99	0.81	0.93	-0.05	-1.14	1.03	0.93	0.97	LC/MS Pos Early	845	189.09		182230	2490-97-3
N-acetyllysine	Amino Acid	Glycine, Serine and Threonine Metabolism	0.33	-1.90	2.55	0.77	0.92	-0.28	-1.64	1.07	0.68	0.87	LC/MS Pos Early	826	118.05		10972	543-24-8
N-acetylhistidine	Amino Acid	Histidine Metabolism	1.56	-0.14	3.26	0.07	0.36	0.37	-0.67	1.41	0.48	0.79	LC/MS Pos Early	2065	198.09		75619	39145-52-3
N-acetylisoleucine	Amino Acid	Leucine, Isoleucine and Valine Metabolism	-0.34	-3.44	2.76	0.83	0.94	-0.14	-2.03	1.76	0.89	0.95	LC/MS Neg	2325	172.10		2802421	3077-46-1
N-acetyl-isoputrescine*	Amino Acid	Polyamine Metabolism	2.01	-1.03	5.05	0.19	0.55	1.26	-0.59	3.12	0.18	0.57	LC/MS Pos Early	2305	203.14	NA		
N-acetyllysine	Amino Acid	Leucine, Isoleucine and Valine Metabolism	0.60	-3.10	4.31	0.75	0.91	-0.10	-2.36	2.16	0.93	0.97	LC/MS Neg	2400	172.10		70912	1188-21-2
N-acetylmethionine	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	1.22	-0.58	3.02	0.18	0.53	-0.19	-1.29	0.90	0.73	0.89	LC/MS Neg	1787	190.05		448580	65-82-7
N-acetylnorleucine	Carbohydrate	Aminosugar Metabolism	2.42	-1.52	6.35	0.23	0.58	1.03	-1.37	3.43	0.40	0.74	LC/MS Pos Early	660	310.11		439197	131-48-6
N-acetylphenylalanine	Amino Acid	Phenylalanine Metabolism	0.09	-3.65	3.84	0.96	0.98	-1.19	-3.47	1.09	0.31	0.67	LC/MS Neg	2597	206.08		74839	2018



sphingomyelin (d18:1/20:0, d16:1/22:0)*	Lipid	Sphingomyelins	-1.54	-6.83	3.75	0.57	0.84	2.07	-1.16	5.29	0.21	0.60	LC/MS Pos Late	2685	759.64	NA		
sphingomyelin (d18:1/20:1, d18:2/20:0)*	Lipid	Sphingomyelins	-4.79	-9.56	-0.01	0.05	0.32	-1.66	-4.58	1.26	0.26	0.65	LC/MS Pos Late	2383	757.62	NA	222403-67-0	
sphingomyelin (d18:1/20:2, d18:2/20:1, d16:1/22:2)*	Lipid	Sphingomyelins	-0.22	-2.56	2.13	0.86	0.95	0.31	-1.12	1.74	0.67	0.87	LC/MS Pos Late	2039	755.61	NA		
sphingomyelin (d18:1/21:0, d17:1/22:0, d16:1/23:0)*	Lipid	Sphingomyelins	4.43	0.87	7.99	0.01	0.20	2.77	0.59	4.94	0.01	0.17	LC/MS Pos Late	2793	773.65	NA		
sphingomyelin (d18:1/22:1, d18:2/22:0, d16:1/24:1)*	Lipid	Sphingomyelins	-1.38	-6.51	3.75	0.60	0.86	0.26	-2.87	3.39	0.87	0.94	LC/MS Pos Late	2666	785.65	NA		
sphingomyelin (d18:1/22:2, d18:2/22:1, d16:1/24:2)*	Lipid	Sphingomyelins	-3.78	-6.62	-0.93	0.01	0.16	-2.52	-4.25	-0.79	0.00	0.10	LC/MS Pos Late	2209	783.64	NA		
sphingomyelin (d18:1/24:1, d18:2/24:0)*	Lipid	Sphingomyelins	-4.88	-8.84	-0.91	0.02	0.21	-2.81	-5.23	-0.39	0.02	0.23	LC/MS Pos Late	3033	813.68	NA	94359-13-4	
sphingomyelin (d18:2/14:0, d18:1/14:1)*	Lipid	Sphingomyelins	4.06	0.72	7.40	0.02	0.21	2.35	0.31	4.39	0.02	0.23	LC/MS Pos Late	1860	673.53	NA		
sphingomyelin (d18:2/16:0, d18:1/16:1)*	Lipid	Sphingomyelins	4.96	-0.50	10.41	0.07	0.36	3.26	-0.06	6.59	0.05	0.34	LC/MS Pos Late	2002	701.56	NA		
sphingomyelin (d18:2/18:1)*	Lipid	Sphingomyelins	-0.28	-4.19	3.62	0.89	0.96	0.51	-1.87	2.89	0.67	0.87	LC/MS Pos Late	1904	727.57	NA		
sphingomyelin (d18:2/21:0, d16:2/23:0)*	Lipid	Sphingomyelins	0.21	-1.95	2.38	0.85	0.95	0.37	-0.95	1.69	0.58	0.83	LC/MS Pos Late	2330	771.64	NA		
sphingomyelin (d18:2/23:0, d18:1/23:1, d17:1/24:1)*	Lipid	Sphingomyelins	3.14	-1.23	7.51	0.16	0.50	0.88	-1.80	3.55	0.52	0.81	LC/MS Pos Late	2845	799.67	NA		
sphingomyelin (d18:2/23:1)*	Lipid	Sphingomyelins	1.94	-0.31	4.19	0.09	0.38	0.46	-0.92	1.84	0.51	0.81	LC/MS Pos Late	2315	797.65	NA		
sphingomyelin (d18:2/24:1, d18:1/24:2)*	Lipid	Sphingomyelins	-3.11	-7.17	0.95	0.13	0.47	-2.45	-4.92	0.02	0.05	0.34	LC/MS Pos Late	2635	811.67	NA		
sphingomyelin (d18:2/24:2)*	Lipid	Sphingomyelins	3.99	1.87	6.11	0.00	0.05	2.48	1.19	3.77	0.00	0.02	LC/MS Pos Late	2215	809.65	NA		
sphingosine	Lipid	Sphingosines	0.12	-0.93	1.18	0.82	0.93	-0.26	-0.90	0.38	0.42	0.75	LC/MS Pos Late	1393	300.29	5353955	123-78-4	C00319
sphingosine 1-phosphate	Lipid	Sphingosines	-0.53	-3.07	2.01	0.68	0.89	-0.92	-2.47	0.63	0.24	0.64	LC/MS Polar	1850	378.24	5283560	26993-30-6	C06124
stachydrine	Xenobiotics	Food Component/Plant	0.51	-0.34	1.37	0.24	0.58	0.37	-0.15	0.89	0.16	0.56	LC/MS Pos Early	1440	144.10	115244	4136-37-2	C10172
stearate (18:0)	Lipid	Long Chain Saturated Fatty Acid	4.19	0.07	8.32	0.05	0.31	2.81	0.30	5.33	0.03	0.26	LC/MS Neg	5872	283.26	5281	57-11-4	C01530
stearidonate (18:4n3)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)	1.19	-0.32	2.69	0.12	0.45	0.44	-0.48	1.36	0.35	0.70	LC/MS Neg	5395	275.20	5312508	111174-40-4	C16300
stearoyl sphingomyelin (d18:1/18:0)	Lipid	Sphingomyelins	-0.47	-4.85	3.91	0.83	0.94	1.35	-1.32	4.02	0.32	0.68	LC/MS Pos Late	2400	731.61	6453725	85187-10-6;85187-10	C00550
stearoylcarnitine (C18)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Long Chain Saturated)	1.16	-1.75	4.07	0.43	0.75	0.63	-1.15	2.40	0.49	0.80	LC/MS Pos Late	1485	428.37	6428855	18822-91-8	
stearoylcholine*	Lipid	Fatty Acid Metabolism (Acyl Choline)	0.57	-1.44	2.59	0.58	0.84	1.04	-0.19	2.26	0.10	0.44	LC/MS Pos Late	1520	370.37	NA		
suberate (C8-DC)	Lipid	Fatty Acid, Dicarboxylate	1.60	-0.16	3.68	0.07	0.36	0.79	-0.29	1.86	0.15	0.54	LC/MS Polar	2577.6	173.08	10457	505-48-6	C08278
succinimide	Xenobiotics	Chemical	0.74	-1.79	3.27	0.57	0.84	0.81	-0.73	2.35	0.30	0.67	LC/MS Polar	2155	116.04	11439	123-56-8	C07273
succinylcarnitine (C4)	Energy	TCA Cycle	2.10	-1.39	5.59	0.24	0.58	1.15	-0.98	3.28	0.29	0.66	LC/MS Pos Early	2291	262.13	71464481	256928-74-2	
sucrose	Carbohydrate	Disaccharides and Oligosaccharides	0.49	-0.40	1.37	0.28	0.63	0.31	-0.23	0.85	0.27	0.65	LC/MS Polar	3092	387.11	5988	57-50-1	C00089
sulfate*	Xenobiotics	Chemical	2.89	-3.25	9.03	0.36	0.70	-0.21	-3.96	3.54	0.91	0.96	LC/MS Neg	616	96.96	1118	14808-79-8	C00059
tartarate	Xenobiotics	Food Component/Plant	-0.13	-0.96	0.70	0.76	0.92	0.11	-0.39	0.62	0.66	0.87	LC/MS Neg	615.3	149.01	444305	87-69-4;6106-24-7	C00898
tartrate (hydroxymalonate)	Xenobiotics	Food Component/Plant	0.65	-1.42	2.72	0.54	0.83	-0.41	-1.67	0.86	0.53	0.82	LC/MS Neg	610	119.00	45	80-69-3	C02287
taurine	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	-0.46	-3.18	2.26	0.74	0.91	-1.12	-2.78	0.53	0.18	0.57	LC/MS Pos Early	660	126.02	1123	107-35-7	C00245
taurochenodeoxycholate	Lipid	Primary Bile Acid Metabolism	0.10	-0.55	0.74	0.77	0.92	0.08	-0.32	0.47	0.71	0.88	LC/MS Neg	5250	498.29	387316	6009-98-9	C05465
taurochenodeoxycholic acid 3-sulfate	Lipid	Secondary Bile Acid Metabolism	0.62	-0.33	1.56	0.20	0.55	0.26	-0.32	0.83	0.38	0.70	LC/MS Neg	4800	288.62	NA		
taurochenolate sulfate*	Lipid	Secondary Bile Acid Metabolism	0.52	-0.98	2.03	0.50	0.80	0.65	-0.27	1.56	0.17	0.56	LC/MS Neg	4750	279.61	NA		
taurothiocholate 3-sulfate	Lipid	Secondary Bile Acid Metabolism	-0.34	-1.01	0.33	0.32	0.68	-0.16	-0.57	0.25	0.44	0.76	LC/MS Neg	5027	280.62	440071	64936-83-0	C03642
tetradecadienedioate (C14:2-DC)*	Lipid	Fatty Acid, Dicarboxylate	0.54	-0.87	1.95	0.45	0.76	0.59	-0.27	1.45	0.18	0.57	LC/MS Neg	3172	253.14	NA		
tetradecadienoate (14:2)*	Lipid	Fatty Acid, Dicarboxylate	2.24	0.63	3.85	0.01	0.14	1.34	0.35	2.32	0.01	0.13	LC/MS Neg	5315	223.17	NA		
tetradecanedioate (C14)	Lipid	Fatty Acid, Dicarboxylate	1.57	-0.14	3.28	0.07	0.36	0.95	-0.09	1.99	0.07	0.40	LC/MS Neg	3985	257.18	13185	821-38-5	
tetrahydrocortisone glucuronide (5)	Lipids	Corticosteroids	1.43	-0.16	3.03	0.08	0.37	1.31	0.35	2.28	0.01	0.13	LC/MS Neg	4697	539.25	NA		
thiopropine	Xenobiotics	Chemical	2.77	0.25	5.29	0.03	0.27	1.00	-0.54	2.55	0.20	0.60	LC/MS Pos Early	1250	134.03	93176	34592-47-4	
threonate	Cofactors and Vitamins	Ascorbate and Aldarate Metabolism	-2.80	-5.51	-0.08	0.04	0.30	-1.34	-3.00	0.32	0.11	0.47	LC/MS Polar	2384	135.03	151152	70753-61-6	C01620
threonine	Amino Acid	Glycine, Serine and Threonine Metabolism	3.17	-1.29	7.63	0.16	0.51	1.73	-0.99	4.45	0.21	0.61	LC/MS Pos Early	1514	120.07	6288	72-19-5	C00188
threoynphenylalanine	Peptide	Dipeptide	0.20	-0.88	1.29	0.71	0.91	-0.31	-0.97	0.35	0.36	0.70	LC/MS Pos Early	3077	267.13	4099799	16875-27-7	
thyroxine	Amino Acid	Tyrosine Metabolism	0.61	-1.04	2.27	0.47	0.78	1.07	0.07	2.08	0.04	0.28	LC/MS Neg	4808	775.68	5819	51-48-9	C01829
tiglyl carnitine (C5)	Amino Acid	Leucine, Isoleucine and Valine Metabolism	1.94	0.24	3.63	0.03	0.26	0.32	-0.72	1.37	0.54	0.82	LC/MS Pos Early	2962	244.15	22833596	64191-86-2	
trans-uroacnate	Amino Acid	Histidine Metabolism	-2.81	-6.08	0.46	0.09	0.38	-1.15	-3.15	0.84	0.26	0.65	LC/MS Neg	777.7	137.04	736715	104-98-3	C00785
tricosanoyl sphingomyelin (d18:1/23:0)*	Lipid	Sphingomyelins	6.10	2.68	9.52	0.00	0.05	4.24	2.16	6.32	0.00	0.01	LC/MS Pos Late	3200	801.68	NA		
tridecenedioate (C13:1-DC)*	Lipid	Fatty Acid, Dicarboxylate	0.55	-0.68	1.78	0.38	0.71	0.50	-0.25	1.25	0.19	0.58	LC/MS Neg	3121	241.14	NA		
trigonelline (N-methylnicotinate)	Cofactors and Vitamins	Nicotinate and Nicotinamide Metabolism	0.33	-0.93	1.59	0.60	0.86	0.13	-0.64	0.90	0.74	0.89	LC/MS Pos Early	1388	138.05	5570	535-83-1	C01004
trimethylamine N-oxide	Lipid	Phospholipid Metabolism	-0.10	-1.75	1.55	0.90	0.96	-0.39	-1.39	0.62	0.45	0.77	LC/MS Pos Early	2100	76.08	1145	1184-78-7	C01104
tryptophan	Amino Acid	Tryptophan Metabolism	1.93	-3.41	7.28	0.48	0.78	1.24	-2.02	4.50	0.46	0.77	LC/MS Pos Early	2986	205.10	6305	73-22-3	C00078
tryptophan betaine	Amino Acid	Tryptophan Metabolism	0.83	-0.25	1.91	0.13	0.47	0.29	-0.37	0.96	0.38	0.72	LC/MS Pos Early	2673	247.14	442106	20671-76-5	C09213
tyramine O-sulfate	Amino Acid	Tyrosine Metabolism	0.04	-0.95	1.03	0.93	0.97	0.20	-0.41	0.80	0.53	0.82	LC/MS Neg	1565	216.03	153005	30223-92-8	
tyr-asn	Peptide	Dipeptide	0.19	-0.87	1.25	0.73	0.91	-0.35	-1.00	0.29	0.29	0.65	LC/MS Neg	1544	294.11	NA		
tyrosine	Amino Acid	Tyrosine Metabolism	4.54	-0.57	9.65	0.08	0.37	2.86	-0.25	5.98	0.07	0.40	LC/MS Pos Early	2430	182.08	6057	60-18-4	C00082
undecanedioate (C11-DC)	Lipid	Fatty Acid, Dicarboxylate	0.20	-2.23	2.63	0.87	0.95	0.73	-0.75	2.21	0.34	0.69	LC/MS Neg	2440	215.13	15816	1852-04-6	
undecanoate (11:0)	Lipid	Medium Chain Fatty Acid	2.16	-4.74	9.07	0.54	0.83	-1.31	-5.52	2.90	0.54	0.82	LC/MS Neg	5219.2	185.15	8180	334-48-5	C17715
uracil	Nucleotide	Pyrimidine Metabolism, Uracil containing	-1.29	-3.83	1.26	0.32	0.68	-0.59	-2.14	0.97	0.46	0.77	LC/MS Polar	1089.7	111.02	1174	66-22-8	C00106
urate	Nucleotide	Purine Metabolism, (Hypo)Xanthine/Inosine containing	5.31	0.02	10.60	0.05	0.32	3.05	-0.17	6.28	0.06	0.37	LC/MS Neg	757.1	167.02	1175	69-93-2;120K5305	C00366
urea	Amino Acid	Urea cycle, Arginine and Proline Metabolism	0.04	-2.99	3.07	0.98	0.99	-1.05	-2.89	0.80	0.27	0.65	LC/MS Pos Early	700	121.07	1176	57-13-6	C00086
uridine	Nucleotide	Pyrimidine Metabolism, Uracil containing	-0.46	-5.31	4.38	0.85	0.95	-1.09	-4.05	1.86	0.47	0.78	LC/MS Neg	1457.6	243.06	6029	58-96-8	C00299
(5)	Lipid	Corticosteroids	1.18	-0.55	2.92	0.18	0.53	1.28	0.23	2.33	0.02	0.21	LC/MS Neg	4678	541.26	NA		
ursodeoxycholate	Lipid	Secondary Bile Acid Metabolism	-0.23	-1.19	0.72	0.63	0.87	-0.25	-0.83	0.33	0.41	0.74	LC/MS Neg	5055	391.29	31401	128-13-2	C07880
valine	Amino Acid	Leucine, Isoleucine and Valine Metabolism	2.68	-3.25	8.61	0.38	0.71	3.36	-0.25	6.96	0.07	0.38	LC/MS Pos Early	2479	118.09	6287	72-18-4	C00183
valylleucine	Peptide	Dipeptide	-0.27	-1.16	0.63	0.56	0.84	0.23	-0.32	0.77	0.41	0.74	LC/MS Pos Early	3138	231.17	352039	22906-55-4	
vanillactate	Amino Acid	Tyrosine Metabolism	0.94	-1.04	2.92	0.35	0.70	-0.26	-1.47	0.94	0.67	0.87	LC/MS Neg	1625	211.06	160637	2475-56-1	
vanillic acid glycine	Xenobiotics	Food Component/Plant	-0.02															

X - 23636				0.43	-0.97	1.83	0.55	0.83	0.60	-0.25	1.45	0.17	0.56	LC/MS Pos Early	1129	249.11	NA
X - 23639				2.27	-0.52	5.06	0.11	0.43	0.60	-1.11	2.31	0.49	0.80	LC/MS Pos Early	1640	134.08	NA
X - 23644				0.02	-1.28	1.32	0.98	0.99	0.11	-0.68	0.91	0.78	0.91	LC/MS Pos Early	983	146.08	NA
X - 23659				0.14	-1.58	1.87	0.87	0.95	0.00	-1.05	1.05	1.00	1.00	LC/MS Pos Early	2449	143.12	NA
X - 23739				-0.26	-2.36	1.85	0.81	0.93	0.66	-0.62	1.94	0.31	0.68	LC/MS Pos Early	1286	262.10	NA
X - 23780				-0.27	-1.54	1.01	0.68	0.89	-0.22	-1.00	0.56	0.58	0.83	LC/MS Pos Early	2190	144.10	NA
X - 23782				0.55	-0.91	2.01	0.46	0.77	0.12	-0.77	1.02	0.78	0.91	LC/MS Pos Late	1627	349.27	NA
X - 23974				-1.49	-3.78	0.81	0.20	0.55	-0.91	-2.31	0.49	0.20	0.60	LC/MS Neg	4995.3	197.12	NA
X - 24243				-0.85	-2.69	0.99	0.36	0.71	-0.61	-1.73	0.51	0.29	0.65	LC/MS Pos Early	1003	132.07	NA
X - 24309				1.13	-0.38	2.64	0.14	0.48	0.54	-0.38	1.46	0.25	0.65	LC/MS Neg	4430	321.15	NA
X - 24328				0.69	-0.88	2.26	0.39	0.71	-0.12	-1.08	0.84	0.81	0.92	LC/MS Neg	1361.7	161.08	NA
X - 24337				1.93	-0.04	3.89	0.05	0.33	0.97	-0.23	2.17	0.11	0.48	LC/MS Neg	1980	239.08	NA
X - 24408				3.11	0.90	5.32	0.01	0.13	0.87	-0.49	2.23	0.21	0.60	LC/MS Pos Early	874	177.09	NA
X - 24410				0.62	-0.45	1.70	0.26	0.60	0.51	-0.15	1.16	0.13	0.51	LC/MS Pos Early	881	116.07	NA
X - 24422				0.83	-0.08	1.73	0.07	0.36	0.31	-0.24	0.86	0.27	0.65	LC/MS Pos Early	1194	271.09	NA
X - 24425				-0.41	-3.04	2.23	0.76	0.92	0.66	-0.94	2.27	0.42	0.75	LC/MS Pos Early	2378	130.10	NA
X - 24455				-0.96	-3.12	1.20	0.38	0.71	-0.58	-1.89	0.74	0.39	0.73	LC/MS Pos Early	2641	237.09	NA
X - 24456				-0.20	-1.83	1.44	0.81	0.93	-0.27	-1.27	0.73	0.60	0.85	LC/MS Pos Early	2538	237.09	NA
X - 24544				1.43	-0.78	3.64	0.20	0.55	1.08	-0.27	2.42	0.12	0.48	LC/MS Neg	4448	411.18	NA
X - 24546				0.42	-0.82	1.67	0.51	0.81	0.21	-0.55	0.97	0.58	0.83	LC/MS Neg	3289	231.05	NA
X - 24556				-0.19	-1.55	1.17	0.79	0.92	-0.17	-1.00	0.66	0.69	0.88	LC/MS Neg	2318	283.12	NA
X - 24571				0.27	-0.54	1.07	0.51	0.82	0.11	-0.38	0.60	0.66	0.87	LC/MS Neg	4625	303.15	NA
X - 24588				4.26	1.54	6.97	0.00	0.09	2.85	1.20	4.50	0.00	0.04	LC/MS Neg	2350	485.17	NA
X - 24608				0.14	-1.43	1.70	0.87	0.95	0.71	-0.24	1.66	0.14	0.53	LC/MS Neg	3408	174.06	NA
X - 24748				-0.33	-2.37	1.72	0.75	0.92	0.16	-1.08	1.41	0.80	0.92	LC/MS Neg	4596	321.15	NA
X - 24765				-0.67	-3.76	2.42	0.67	0.89	-0.90	-2.78	0.98	0.35	0.70	LC/MS Pos Early	1800	83.02	NA
X - 24812				1.55	-0.06	3.17	0.06	0.33	0.30	-0.69	1.29	0.55	0.83	LC/MS Pos Early	2650	230.14	NA
X - 24813				3.51	-3.18	10.20	0.30	0.67	2.41	-1.67	6.49	0.25	0.65	LC/MS Neg	1286	202.05	NA
X - 24947				0.28	-1.33	1.89	0.73	0.91	0.17	-0.81	1.15	0.73	0.89	LC/MS Neg	4518	387.18	NA
X - 24949				0.68	-0.67	2.03	0.32	0.68	0.96	0.14	1.77	0.02	0.23	LC/MS Neg	4973	263.20	NA
X - 24952				1.21	-0.81	3.24	0.24	0.58	0.72	-0.51	1.96	0.25	0.65	LC/MS Neg	5310	413.20	NA
X - 25271				-0.28	-0.89	0.32	0.35	0.70	-0.32	-0.68	0.05	0.09	0.43	LC/MS Pos Early	1777	156.08	NA
X - 25279				0.89	0.03	1.75	0.04	0.30	0.08	-0.45	0.61	0.76	0.90	LC/MS Neg	3597	223.01	NA
X - 25343				0.96	-0.24	2.16	0.12	0.44	0.68	-0.05	1.41	0.07	0.38	LC/MS Pos Early	1043.1	226.08	NA
X - 25419				-0.12	-0.84	0.60	0.74	0.91	-0.10	-0.54	0.33	0.64	0.86	LC/MS Pos Early	1629.2	129.07	NA
X - 25420				1.55	-1.42	4.51	0.31	0.67	0.48	-1.33	2.29	0.60	0.85	LC/MS Pos Early	1712.4	147.02	NA
X - 25422				2.49	0.30	4.68	0.03	0.26	-0.28	-1.63	1.07	0.68	0.87	LC/MS Pos Early	1730.3	175.08	NA
X - 25432				-0.56	-1.53	0.41	0.26	0.61	0.04	-0.55	0.63	0.89	0.95	LC/MS Pos Early	2567.9	184.11	NA

Metabolites with 25-50% values below detection limits (BLD), reference=BLD																	
12,13-DIHOME	Lipid	Fatty Acid, Dihydroxy	Below median	-0.21	-2.11	1.69	0.83	0.94	0.19	-0.97	1.34	0.75	0.90	LC/MS Neg	5137	313.238	10236635 263399-35-5 C14829
1-methylxanthine	Xenobiotics	Xanthine Metabolism	Above median	-1.37	-4.68	1.95			0.93	-1.09	2.95		0.88	LC/MS Neg	1568.8	165.042	80220 6136-37-4 C16358
1-palmitoyl-GPG (16:0)*	Lipid	Lysophospholipid	Below median	-0.45	-2.26	1.36	0.62	0.87	-0.22	-1.32	0.88	0.69	0.70	LC/MS Neg	5570	483.273	3300276
21-hydroxypregnenolone monosulfate (1)	Lipid	Pregnenolone Steroids	Above median	-1.35	-4.66	1.97			0.95	-1.07	2.97		0.94	LC/MS Neg	4624	411.185	174681 88378-34-1
2-ethylphenylsulfate	Xenobiotics	Benzoate Metabolism	Below median	0.48	-1.37	2.32	0.61	0.86	0.53	-0.59	1.65	0.36	0.99	LC/MS Neg	3416	201.023	
2-methoxyhydroquinone sulfate (1)	Xenobiotics	Benzoate Metabolism	Above median	-1.44	-4.77	1.88			0.85	-1.17	2.88		0.89	LC/MS Neg	1526	218.997	
2-methoxyresorcinol sulfate	Xenobiotics	Chemical	Below median	-0.29	-2.11	1.53	0.75	0.92	-0.01	-1.12	1.10	0.98	0.97	LC/MS Neg	1863	218.997	1446269-78-8
3-(3-hydroxyphenyl)propio te sulfate	Xenobiotics	Benzoate Metabolism	Above median	-1.27	-4.64	2.10			0.94	-1.12	3.00		0.58	LC/MS Neg	1294	245.013	187488 86321-32-6
3-(4-hydroxyphenyl)propio te	Xenobiotics	Benzoate Metabolism	Below median	-0.94	-2.69	0.82	0.29	0.66	-0.71	-1.78	0.36	0.19	0.92	LC/MS Neg	1294	245.013	
3-acetylphenol sulfate	Xenobiotics	Chemical	Above median	-1.34	-4.65	1.97			0.96	-1.06	2.98		0.83	LC/MS Neg	1670	165.056	10394 501-97-3 C01744
3-ethylcatechol sulfate (1)	Xenobiotics	Food Component/Plant	Below median	-1.82	-5.18	1.53	0.13	0.47	-0.33	-1.40	0.75	0.55	0.87	LC/MS Neg	3422	217.018	
3-hydroxydodecanedioate*	Lipid	Fatty Acid, Dicarboxylate	Above median	0.08	-1.74	1.89	0.94	0.97	0.17	-0.94	1.28	0.76	0.87	LC/MS Neg	2477	215.002	
3-methyladipate	Lipid	Fatty Acid, Dicarboxylate	Below median	-1.39	-4.74	1.95			0.89	-1.15	2.93		0.80	LC/MS Polar	2865	159.066	12292 422955
4-cholesten-3-one	Lipid	Sterol	Above median	-0.31	-2.20	1.59	0.75	0.91	-0.41	-1.56	0.75	0.49	0.78	LC/MS Pos Late	2520	385.347	91477 601-57-0 C00599
4-hydroxycoumarin	Xenobiotics	Drug - Cardiovascular	Below median	-1.38	-4.69	1.94			0.93	-1.09	2.95		0.93	LC/MS Neg	2470	161.024	54682930 1076-38-6 C20414
4-methoxyphenol sulfate	Amino Acid	Tyrosine Metabolism	Above median	-0.01	-2.00	1.97	0.99	1.00	0.45	-0.76	1.66	0.47	0.87	LC/MS Neg	2412	203.002	3233-60-1
4-vinylguaiacol sulfate	Xenobiotics	Food Component/Plant	Below median	-1.37	-4.69	1.95			0.89	-1.13	2.92		0.99	LC/MS Neg	3354	229.018	
5-acetylamino-6-amino-3-methyluracil	Xenobiotics	Xanthine Metabolism	Above median	-1.24	-4.58	2.10			0.93	-1.11	2.97		0.93	LC/MS Polar	1710	197.068	88299 1196153-01-1 C16366
5alpha-androstan-3alpha,17alpha-diol monosulfate	Lipid	Androgenic Steroids	Below median	-0.34	-2.14	1.47	0.71	0.91	-0.13	-1.23	0.97	0.82	0.95	LC/MS Neg	5208	371.19	
5alpha-androstan-3alpha,17beta-diol disulfate	Lipid	Androgenic Steroids	Above median	-1.39	-4.70	1.93			0.93	-1.09	2.95		0.83	LC/MS Neg	4275	225.07	
5alpha-androstan-3alpha,17beta-diol monosulfate (2)	Lipid	Androgenic Steroids	Below median	-0.35	-2.13	1.43	0.70	0.90	-0.31	-1.40	0.77	0.57	0.87	LC/MS Neg	5080	371.19	
6-bromotryptophan	Amino Acid	Tryptophan Metabolism	Above median	-1.38	-4.70	1.93			0.92	-1.10	2.94		0.42	LC/MS Neg	3565	280.993	
7-hydroxycholesterol (alpha or beta)	Lipid	Sterol	Below median	-1.81	-3.64	0.01	0.05	0.32	-0.99	-2.11	0.13	0.08	0.23	LC/MS Pos Late	1930	367.336	107722
8-methoxykynure te	Amino Acid	Tryptophan Metabolism	Above median	-1.51	-4.82	1.81			1.31	0.17	2.46	0.02	0.71	LC/MS Neg	2825	218.046	
alpha-hydroxycaproate	Lipid	Fatty Acid, Monohydroxy	Below median	0.37	-1.50	2.23	0.70	0.90	0.52	-0.62	1.65	0.37	0.79	LC/MS Neg	1920	131.071	99824 6064-63-7
arachidonoylcarnitine (C20:4)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Polyunsaturated)	Above median	-1.46	-4.80	1.88			-0.40	-1.57	0.74	0.48	0.76	LC/MS Pos Late	1353	448.342	
arachidoylcarnitine (C20)*	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Long Chain Saturated)	Below median	-1.24	-4.62	2.15			1.10	-0.96	3.17		0.65	LC/MS Pos Late	1512	456.405	
asn-phe	Peptide	Dipeptide	Above median	-0.87	-2.76	1.02	0.37	0.71	-0.67	-1.82	0.48	0.26	0.87	LC/MS Neg	2064	278.115	
bilirubin degradation product, C17H18N2O4 (1)**	Partially Characterized Molecules	Partially Characterized Molecules	Below median	-1.36	-4.67	1.95			0.94	-1.07	2.96		0.57	LC/MS Neg	4611	313.119	
campesterol	Lipid	Sterol	Above median	-1.66	-3.55	0.22	0.08	0.37	-0.25	-1.40	0.91	0.68	0.88	LC/MS Pos Late	2873	383.367	173183 474-62-4 C01789
cys-gly, oxidized	Amino Acid	Glutathione Metabolism	Below median	-1.05	-4.37	2.27			0.98	-1.05	3.01		0.71	LC/MS Pos Early	2947	355.074	333293 7729-20-6
cysteinylglycine	Amino Acid	Glutathione Metabolism	Above median	-1.92	-3.78	-0.06	0.04	0.30	-0.78	-1.92	0.36	0.18	0.64	LC/MS Pos Early	2132	179.049	439498 19246-18-5 C01419
cytidine	Nucleotide	Pyrimidine Metabolism, Cytidine containing	Below median	-1.46	-4.80	1.88			1.15	-0.92	3.22		0.89	LC/MS Pos Early	2124	244.093	6175 65-46-3 C00475
daidzein sulfate (2)	Xenobiotics	Food Component/Plant	Above median	0.82	-1.00	2.64	0.38	0.71	0.20	-0.91	1.31	0.73	0.21	LC/MS Neg	3330	333.008	
dihydroferulic acid sulfate	Xenobiotics	Food Component/Plant	Below median	-1.39	-4.70	1.92			0.93	-1.09	2.95		0.88	LC/MS Neg	1372	275.023	
ectoine	Xenobiotics	Chemical	Above median	0.23	-1.61	2.07	0.81	0.93	-0.22	-1.34	0.90	0.70	0.91	LC/MS Pos Early	1980	143.082	126041 96702-03-3 C06231
ferulic acid 4-sulfate	Xenobiotics	Food Component/Plant	Below median	-1.48	-4.87	1.90			1.00	-1.07	3.06		0.86	LC/MS Neg	1200	273.007	6305574 86321-29-1
Fibrinopeptide A (3-16)	Peptide	Fibrin															

nicotil mide riboside	Cofactors and Vitamins	Monounsaturated) Nicotil te and Nicotil mide Metabolism	Above median Below median Above median	-0.81 -0.25 -1.34	-4.17 -2.05 -4.66	2.56 1.56 1.99	0.79 0.92	0.32 0.32 0.89	-0.71 -0.77 -1.14	3.39 1.42 2.91	0.56	0.83 LC/MS Pos Early	2040 255.098	439924 1341-23-7	C03150	
nisi te (24:6n3)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)	Below median Above median	-0.68 -1.36	-2.48 -4.67	1.13 1.95	0.46	0.77	0.10 -1.00	1.21 2.95	0.86	0.94 LC/MS Neg	5657 355.264	11792612 68378-49-4		
N-palmitoyl-sphingadienine (d18:2/16:0)*	Lipid	Ceramides	Below median Above median	0.65 -1.46	-1.23 -4.78	2.54 1.86	0.50	0.80	1.10 0.78	-0.05 -1.23	2.25 2.80	0.06	0.36 LC/MS Pos Late	2490 536.504		
N-stearoyl-sphingosine (d18:1/18:0)*	Lipid	Ceramides	Below median Above median	-0.41 -1.31	-2.39 -4.63	1.57 2.02	0.68	0.89	0.37 0.88	-0.84 -1.15	1.58 2.91	0.55	0.83 LC/MS Pos Late	3392 566.551	5283565 104404-17-3	
oleoyl-linoleoyl-glycerol (18:1/18:2) [1]	Lipid	Diacylglycerol	Below median Above median	-2.29 -1.62	-4.18 -4.91	-0.41 1.68	0.02	0.21	-0.73 0.86	-1.89 -1.16	0.43 2.88	0.22	0.62 LC/MS Pos Late	3115 636.556	106292-55-1	
oleoyl-linoleoyl-glycerol (18:1/18:2) [2]	Lipid	Diacylglycerol	Below median Above median	-3.76 -1.55	-5.73 -4.81	-1.78 1.71	0.00	0.05	-1.77 0.85	-2.98 -1.15	2.56 2.85	0.00	0.10 LC/MS Pos Late	3223 636.556	104346-53-4	
palmitoleoycholine	Lipid	Fatty Acid Metabolism (Acyl Choline)	Below median Above median	0.41 -1.35	-1.46 -4.66	2.29 1.97	0.66	0.89	0.44 0.96	-0.70 -1.06	1.59 2.98	0.45	0.77 LC/MS Pos Late	1385 340.321		
phenylacetate	Amino Acid	Phenylalanine Metabolism	Below median Above median	-0.57 -1.35	-2.35 -4.66	1.21 1.96	0.53	0.83	-0.41 0.95	-1.50 -1.07	0.68 2.97	0.46	0.77 LC/MS Neg	2150 91.0554	999 103-82-2	C07086
phenylacetylglutamate	Peptide	Acetylated Peptides	Below median Above median	-0.79 -1.27	-2.59 -4.59	1.00 2.05	0.39	0.71	-0.50 1.00	-1.60 -1.03	0.59 3.02	0.37	0.71 LC/MS Neg	1630 264.088	11579826	
phenylpyruvate	Amino Acid	Phenylalanine Metabolism	Below median Above median	-1.54 -1.55	-3.28 -4.85	0.20 1.76	0.08	0.37	-0.44 0.89	-1.51 -1.14	0.63 2.91	0.42	0.75 LC/MS Neg	2515 163.04	997 156-06-9	C00166
pimelate (C7-DC)	Lipid	Fatty Acid, Dicarboxylate	Below median Above median	-1.80 -0.64	-3.77 -4.04	0.17 2.76	0.07	0.36	-0.70 1.22	-1.91 -0.86	0.50 3.30	0.25	0.65 LC/MS Polar	2745 159.066	385 111-16-0	C02656
pimeloylcarnitine/3-methyladipoylcarnitine (C7-DC)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Dicarboxylate)	Below median Above median	0.34 -1.42	-1.43 -4.74	2.10 1.90	0.71	0.91	-0.43 0.99	-1.51 -1.03	0.65 3.02	0.43	0.76 LC/MS Pos Early	2773 304.175		
preg nediol-3-glucuronide	Lipid	Progesterin Steroids	Below median Above median	-0.60 -1.37	-2.43 -4.68	1.23 1.94	0.52	0.82	-0.45 0.93	-1.56 -1.08	0.67 2.95	0.43	0.76 LC/MS Neg	5145 495.296	123796 1852-49-9	
preg nolone/allopreg nolone sulfate	Lipid	Progesterin Steroids	Below median Above median	1.33 -1.27	-0.46 -4.57	3.12 2.04	0.14	0.48	0.31 0.96	-0.79 -1.06	1.40 2.98	0.58	0.83 LC/MS Neg	5160 397.205		
sphinganine	Lipid	Sphingolipid Synthesis	Below median Above median	-0.43 -1.28	-2.23 -4.62	1.38 2.05	0.64	0.87	0.15 0.90	-0.95 -1.13	1.25 2.94	0.79	0.91 LC/MS Pos Late	1413 302.305	3126 3102-56-5	C00836
sphinganine-1-phosphate	Lipid	Sphingolipid Synthesis	Below median Above median	-0.01 -1.37	-1.99 -4.81	1.97 2.07	0.99	1.00	-0.67 1.25	-1.88 -0.85	0.53 3.34	0.27	0.65 LC/MS Pos Late	1431 382.272	520 19794-97-9	
sphingomyelin (d17:1/14:0, d16:1/15:0)*	Lipid	Sphingomyelins	Below median Above median	-0.63 -1.44	-2.60 -4.76	1.34 1.88	0.53	0.83	0.72 1.01	-0.48 -1.01	1.91 3.04	0.24	0.64 LC/MS Pos Late	1950 661.528		
sphingomyelin (d17:2/16:0, d18:2/15:0)*	Lipid	Sphingomyelins	Below median Above median	0.60 -1.35	-1.31 -4.66	2.50 1.96	0.54	0.83	0.80 0.97	-0.36 -1.05	1.96 2.98	0.17	0.56 LC/MS Pos Late	1837 687.544		
suberoylcarnitine (C8-DC)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Dicarboxylate)	Below median Above median	0.34 -1.41	-1.42 -4.72	2.11 1.91	0.70	0.91	-0.61 1.00	-1.68 -1.03	0.47 3.02	0.27	0.65 LC/MS Pos Early	2964 318.191		
succi te	Energy	TCA Cycle	Below median Above median	-0.32 -1.32	-2.26 -4.65	1.61 2.01	0.74	0.91	0.06 0.92	-1.12 -1.11	1.24 2.96	0.92	0.96 LC/MS Neg	603 117.019	1110 110-15-6	C00042
taurocholate	Lipid	Primary Bile Acid Metabolism	Below median Above median	-2.35 -1.27	-4.10 -4.55	-0.60 2.02	0.01	0.16	-0.64 0.96	-1.71 -1.05	0.44 2.98	0.24	0.64 LC/MS Neg	5150 514.284	6675 145-42-6	C05122
taurodeoxycholate	Lipid	Secondary Bile Acid Metabolism	Below median Above median	-0.75 -1.33	-2.51 -4.64	1.01 1.98	0.40	0.72	-0.29 0.95	-1.36 -1.07	0.79 2.97	0.60	0.85 LC/MS Neg	5257.4 498.289	2733768 207737-97-1	C05463
theobromine	Xenobiotics	Xanthine Metabolism	Below median Above median	-0.79 -1.43	-2.59 -4.74	1.00 1.89	0.38	0.71	-0.58 0.89	-1.68 -1.12	0.51 2.91	0.29	0.66 LC/MS Pos Early	1600 181.072	5429 83-67-0	C07480
theophylline	Xenobiotics	Xanthine Metabolism	Below median Above median	-0.58 -1.43	-2.39 -4.74	1.23 1.89	0.53	0.83	-0.31 0.91	-1.41 -1.12	0.80 2.93	0.59	0.83 LC/MS Neg	2356.9 179.057	2153 58-55-9	C07130
thymol sulfate	Xenobiotics	Food Component/Plant	Below median Above median	0.47 -1.50	-1.45 -4.85	2.38 1.86	0.63	0.87	0.33 0.85	-0.84 -1.20	1.50 2.89	0.58	0.83 LC/MS Neg	4410 229.054	89-83-8	C09908
undecenoylcarnitine (C11:1)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Monounsaturated)	Below median Above median	-1.35 -1.20	-3.31 -4.51	0.61 2.12	0.18	0.52	-0.14 0.95	-1.33 -1.07	1.06 2.98	0.82	0.93 LC/MS Pos Late	1100 328.248		
valerate (5:0)	Lipid	Short Chain Fatty Acid	Below median Above median	0.08 -1.36	-1.78 -4.68	1.94 1.96	0.93	0.97	0.39 0.99	-0.74 -1.04	1.53 3.01	0.50	0.80 LC/MS Neg	1718 101.061	7991 109-52-4	C00803
valylglycine	Peptide	Dipeptide	Below median Above median	-1.21 -1.08	-3.04 -4.42	0.62 2.25	0.19	0.55	-0.52 1.06	-1.63 -0.98	0.60 3.10	0.37	0.71 LC/MS Neg	1506 173.093	136487 686-43-1	
X - 11381			Below median Above median	0.20 -1.40	-1.65 -4.72	2.05 1.92	0.83	0.94	-0.13 0.95	-1.25 -1.07	1.00 2.98	0.82	0.93 LC/MS Pos Early	2331 186.112		
X - 11407			Below median Above median	-1.10 -0.68	-3.18 -4.24	0.97 2.88	0.30	0.66	-1.10 1.63	-2.36 -0.54	0.16 3.79	0.09	0.43 LC/MS Neg	2108 186.113		
X - 11852			Below median Above median	1.80 -1.72	-0.03 -5.03	3.62 1.60	0.05	0.33	0.57 0.83	-0.55 -1.20	1.68 2.86	0.32	0.68 LC/MS Neg	3277.6 232.995		
X - 12007			Below median Above median	-0.25 -1.30	-2.06 -4.65	1.56 2.06	0.78	0.92	-0.11 0.97	-1.22 -1.08	0.99 3.01	0.84	0.93 LC/MS Neg	1357 222.992		
X - 12306			Below median Above median	-1.35 -1.32	-3.18 -4.62	0.47 1.99	0.15	0.48	-0.82 0.97	-1.93 -1.05	0.29 2.99	0.15	0.54 LC/MS Neg	2350 247.028		
X - 12726			Below median Above median	-1.25 -1.17	-3.15 -4.49	0.64 2.15	0.19	0.55	-0.69 1.05	-1.85 -0.98	0.46 3.07	0.24	0.64 LC/MS Neg	1942 233.013		
X - 12798			Below median Above median	-0.24 -1.37	-2.04 -4.68	1.55 1.95	0.79	0.92	0.01 0.94	-1.08 -1.09	1.11 2.96	0.98	0.99 LC/MS Pos Early	2011 240.102		
X - 12812			Below median Above median	-0.10 -1.40	-1.94 -4.73	1.74 1.94	0.91	0.96	-0.41 0.84	-1.53 -1.19	0.71 2.88	0.47	0.79 LC/MS Neg	2435 208.062		
X - 12818			Below median Above median	-0.03 -1.38	-1.87 -4.75	1.80 1.98	0.97	0.99	0.26 1.02	-0.86 -1.03	1.38 3.07	0.65	0.87 LC/MS Neg	2695 263.023		
X - 12849			Below median Above median	-2.14 -2.16	-4.04 -5.53	-0.23 1.21	0.03	0.26	-1.01 0.56	-2.17 -1.50	0.16 2.62	0.09	0.43 LC/MS Neg	4696 331.176		
X - 12851			Below median Above median	1.37 -1.64	-0.40 -4.96	3.14 1.69	0.13	0.47	0.36 0.87	-0.72 -1.16	1.44 2.90	0.52	0.81 LC/MS Neg	4844 311.666		
X - 12906			Below median Above median	-1.68 -1.28	-3.56 -4.58	0.19 2.03	0.08	0.37	-0.80 0.98	-1.94 -1.04	0.35 3.00	0.17	0.56 LC/MS Neg	793 158.046		
X - 13729			Below median Above median	0.70 -1.39	-1.07 -4.70	2.46 1.92	0.44	0.75	-0.11 0.94	-1.19 -1.08	0.97 2.96	0.84	0.93 LC/MS Neg	1745 241.977		
X - 14904			Below median Above median	-0.47 -1.02	-2.42 -4.64	1.48 2.60	0.64	0.87	-0.74 1.49	-1.92 -0.72	0.45 3.69	0.22	0.63 LC/MS Neg	4543 329.234		
X - 15245			Below median Above median	-1.21 -1.69	-3.00 -5.03	0.57 1.65	0.18	0.53	0.09 0.96	-1.01 -1.08	1.18 3.00	0.88	0.95 LC/MS Neg	568 233.03		
X - 16087			Below median Above median	-0.90 -1.68	-2.74 -5.05	0.94 1.69	0.34	0.69	-0.75 0.68	-1.87 -1.37	0.38 2.73	0.19	0.58 LC/MS Neg	4143 443.157		
X - 17301			Below median Above median	-1.64 -1.10	-3.48 -4.42	0.20 2.21	0.08	0.37	-0.69 1.05	-1.82 -0.98	0.44 3.07	0.23	0.63 LC/MS Pos Early	2911 179.118		
X - 17325			Below median Above median	-1.76 -1.57	-3.59 -4.88	0.77 1.73	0.06	0.33	-0.65 0.86	-1.77 -1.16	0.46 2.88	0.25	0.65 LC/MS Neg	2868 184.098		
X - 17367			Below median Above median	-1.36 -1.52	-3.16 -4.84	0.44 1.79	0.14	0.48	-0.50 0.88	-1.60 -1.14	0.60 2.90	0.37	0.71 LC/MS Neg	2710 182.083		
X - 17612			Below median Above median	0.82 -1.37	-1.04 -4.68	2.68 1.94	0.38	0.71	-0.27 0.93	-1.41 -1.09	0.86 2.95	0.64	0.86 LC/MS Neg	4308 567.319		
X - 17653			Below median Above median	-0.49 -1.34	-2.28 -4.65	1.29 1.98	0.59	0.85	-0.26 0.96	-1.35 -1.07	0.82 2.98	0.63	0.86 LC/MS Neg	5128 365.269		
X - 17654			Below median Above median	-0.18 -1.36	-2.02 -4.68	1.66 1.95	0.85	0.95	-0.85 0.99	-1.96 -1.03	0.27 3.00	0.14	0.52 LC/MS Neg	5200 365.269		
X - 17676			Below median Above median	1.58 -1.80	-0.35 -5.14	3.50 1.55	0.11	0.42	0.24 0.87	-0.94 -1.17	1.42 2.92	0.69	0.88 LC/MS Neg	1485 167.047		
X - 17686			Below median Above median	-1.35 -1.18	-3.12 -4.50	0.42 2.13	0.13	0.47	-1.05 1.08	-2.13 -0.94	0.03 3.10	0.06	0.34 LC/MS Neg	2614 259.028		
X - 17690			Below median Above median	-0.24 -1.33	-2.02 -4.66	1.54 2.01	0.79	0.92	0.69 0.80	-0.39 -1.23	1.78 2.83	0.21	0.60 LC/MS Neg	2904 245.049		
X - 21661			Below median Above median	-1.90 -1.95	-3.86 -5.30	0.05 1.40	0.06	0.33	-1.62 0.45	-2.80 -1.59	-0.43 2.48	0.01	0.13 LC/MS Neg	3034 259.009		
X - 23648																

glycosyl ceramide (d18:1/20:0, d16:1/22:0)*	Lipid	Hexosylceramides (HCER)	-0.70	-4.05	2.66	0.68	0.89	0.79	-1.26	2.83	0.45	0.77	LC/MS Pos Late	3414	756.635	NA			
glycosyl-N-behenoyl-sphingadine (d18:2/22:0)*	Lipid	Hexosylceramides (HCER)	0.12	-3.14	3.38	0.94	0.97	0.62	-1.37	2.60	0.54	0.82	LC/MS Pos Late	3420	782.65	NA			
heme	Cofactors and Vitamins	Hemoglobin and Porphyrin Metabolism	-1.52	-5.13	2.09	0.41	0.72	-0.55	-2.75	1.65	0.62	0.85	LC/MS Pos Late	1124	616.176		26945	14875-96-8	C00032
HEPES	Xenobiotics	Chemical	-10.41	-41.02	20.20	0.50	0.81	-11.37	-30.02	7.28	0.23	0.63	LC/MS Neg	1022	237.091		23831	7365-45-9	
hydroxycotinine	Xenobiotics	Tobacco Metabolite	1.07	-2.23	4.36	0.52	0.83	0.60	-1.41	2.61	0.56	0.83	LC/MS Pos Early	2030	193.097		10219774	34834-67-8	
ibuprofen	Xenobiotics	Drug - Analgesics, Anesthetics	3.72	-4.68	12.11	0.39	0.71	2.65	-2.47	7.77	0.31	0.68	LC/MS Neg	4925	205.123		3672	15687-27-1	D00126
indoleacetylserine*	Amino Acid	Tryptophan Metabolism	-0.08	-3.19	3.03	0.96	0.98	-0.06	-1.95	1.84	0.95	0.98	LC/MS Pos Early	3114	319.165	NA			
indoleacetylglutamine	Amino Acid	Tryptophan Metabolism	-0.28	-3.34	2.78	0.86	0.95	-0.13	-2.00	1.74	0.89	0.95	LC/MS Neg	2535	302.115		25200879		
isoleucylglycine	Peptide	Dipeptide	-3.15	-6.22	-0.07	0.05	0.30	-1.84	-3.71	0.04	0.06	0.34	LC/MS Neg	1992	187.109		342532	868-28-0	
isoursodeoxycholate sulfate (1)	Xenobiotics	Secondary Bile Acid Metabolism	-1.22	-4.25	1.80	0.43	0.74	-0.20	-2.05	1.64	0.83	0.93	LC/MS Neg	4095	471.242	NA			
maltol sulfate	Xenobiotics	Food Component/Plant	-1.44	-4.63	1.74	0.37	0.71	0.29	-1.65	2.23	0.77	0.90	LC/MS Neg	1544	204.982	NA			
metformin	Xenobiotics	Drug - Metabolic	5.73	-9.59	21.05	0.46	0.77	-1.26	-10.60	8.09	0.79	0.92	LC/MS Pos Early	2817	130.109		4091	1115-70-4	C07151
metronidazole	Xenobiotics	Drug - Antibiotic	-0.50	-5.34	4.35	0.84	0.94	-0.20	-3.16	2.75	0.89	0.95	LC/MS Pos Early	2046	172.072		4173	73334-05-1	D00409
N-(2-furoyl)glycine	Xenobiotics	Food Component/Plant	-0.11	-3.11	2.89	0.94	0.97	0.91	-0.91	2.74	0.33	0.69	LC/MS Neg	1525	168.03		21863	5657-19-2;5657-19-2	
N4-acetyl-5-hydroxysulfamethoxazole*	Xenobiotics	Drug - Antibiotic	14.05	-16.71	44.81	0.37	0.71	-0.24	-19.02	18.54	0.98	0.99	LC/MS Neg	1745	310.05	NA			
N4-acetylsulfamethoxazole*	Xenobiotics	Drug - Antibiotic	-4.63	-13.04	3.78	0.28	0.63	-2.22	-7.35	2.92	0.40	0.74	LC/MS Neg	2489	294.055		65280		C13061,D01601
N-acetylkynurenine (2)	Amino Acid	Tryptophan Metabolism	0.57	-2.43	3.58	0.71	0.91	0.35	-1.49	2.18	0.71	0.88	LC/MS Neg	2378	249.088	NA			
naproxen	Xenobiotics	Drug - Analgesics, Anesthetics	0.58	-20.99	22.15	0.96	0.98	-11.50	-24.61	1.61	0.09	0.43	LC/MS Neg	4155	229.087		156391	22204-53-1	C01517
paraxanthine	Xenobiotics	Xanthine Metabolism	-1.28	-4.26	1.69	0.40	0.71	-0.87	-2.68	0.95	0.35	0.70	LC/MS Neg	2279	179.057		4687	611-59-6	C13747
phenylacetylcarnitine	Peptide	Acetylated Peptides	0.74	-2.28	3.75	0.63	0.87	0.42	-1.42	2.26	0.65	0.87	LC/MS Pos Early	3092	280.154		101724840	287108-21-8	
phenylalanylalanine	Peptide	Dipeptide	-4.51	-7.47	-1.54	0.00	0.10	-2.01	-3.83	-0.19	0.03	0.26	LC/MS Pos Early	2909	237.123		5488196	3918-87-4	
piperine	Xenobiotics	Food Component/Plant	1.63	-2.44	5.71	0.43	0.74	-0.22	-2.71	2.27	0.86	0.94	LC/MS Pos Late	1168	286.144		638024	94-62-2	C03882
propyl 4-hydroxybenzoate sulfate	Xenobiotics	Benzoate Metabolism	-0.75	-3.79	2.29	0.63	0.87	0.76	-1.09	2.62	0.42	0.75	LC/MS Neg	3971	259.028	NA		162338-10-5	
pyrraline	Xenobiotics	Food Component/Plant	-1.52	-4.66	1.62	0.34	0.69	-1.17	-3.09	0.75	0.23	0.63	LC/MS Neg	2304	253.119		122228	74509-14-1	
ranitidine	Xenobiotics	Drug - Gastrointestinal	-19.09	-41.07	2.88	0.09	0.38	-6.13	-19.57	7.31	0.37	0.71	LC/MS Pos Early	2910	315.149		3001055	66357-59-3	D00422
ranitidine N-oxide*	Xenobiotics	Drug - Gastrointestinal	-19.09	-41.07	2.88	0.09	0.38	-6.13	-19.57	7.31	0.37	0.71	LC/MS Pos Early	2926	311.143		3033888		
saccharin	Xenobiotics	Food Component/Plant	0.51	-2.58	3.60	0.74	0.91	0.07	-1.81	1.96	0.94	0.97	LC/MS Neg	2000	181.992		5143	81-07-2	D01085
salicylic glucuronide*	Xenobiotics	Drug - Analgesics, Anesthetics	-1.82	-5.61	1.97	0.35	0.69	-0.25	-2.56	2.06	0.83	0.93	LC/MS Neg	1463	370.078	NA			
sulfamethoxazole	Xenobiotics	Drug - Antibiotic	-1.04	-10.46	8.37	0.83	0.94	-1.59	-7.33	4.16	0.59	0.83	LC/MS Neg	1941	252.045		5329		D00285,C07315,D00447
sulfate of piperine metabolite C16H19NO3 (3)*	Xenobiotics	Food Component/Plant	3.08	-0.04	6.21	0.05	0.33	0.14	-1.77	2.06	0.89	0.95	LC/MS Neg	4200	352.086	NA			
sulfate of piperine metabolite C18H21NO3 (3)*	Xenobiotics	Food Component/Plant	2.40	-0.85	5.65	0.15	0.48	-0.43	-2.41	1.56	0.67	0.87	LC/MS Neg	4630	378.102	NA			
syringol sulfate	Xenobiotics	Food Component/Plant	-0.61	-3.82	2.59	0.71	0.91	0.74	-1.21	2.70	0.46	0.77	LC/MS Neg	2395	233.013	NA		52904-67-3	
taurodeoxycholic acid 3-sulfate	Lipid	Secondary Bile Acid Metabolism	1.53	-1.48	4.53	0.32	0.68	-0.48	-2.31	1.36	0.61	0.85	LC/MS Neg	4855	288.62	NA			
taurohyocholate*	Lipid	Secondary Bile Acid Metabolism	-5.48	-10.32	-0.64	0.03	0.26	-1.82	-4.78	1.14	0.23	0.63	LC/MS Neg	5000	514.284	NA			
taurosodeoxycholate	Lipid	Secondary Bile Acid Metabolism	-1.01	-3.93	1.91	0.50	0.80	-0.62	-2.41	1.16	0.49	0.80	LC/MS Neg	5025	498.289		9848818	14605-22-2	
theanine	Xenobiotics	Food Component/Plant	-0.21	-3.75	3.33	0.91	0.96	1.10	-1.06	3.25	0.32	0.68	LC/MS Pos Early	2180	175.108		439378	3081-61-6	C01047
umbelliferone sulfate	Xenobiotics	Food Component/Plant	-1.47	-4.44	1.50	0.33	0.68	0.39	-1.42	2.21	0.67	0.87	LC/MS Neg	2440	240.981		129659	69526-88-1	
vanillic alcohol sulfate	Amino Acid	Tyrosine Metabolism	-1.07	-4.15	2.01	0.49	0.80	0.58	-1.29	2.46	0.54	0.82	LC/MS Neg	1808	233.013	NA		754920-02-0	
X - 12013			0.96	-2.16	4.09	0.54	0.83	0.66	-1.25	2.56	0.50	0.80	LC/MS Neg	2066	242.013	NA			
X - 12111			-1.23	-4.30	1.83	0.43	0.74	-1.49	-3.36	0.37	0.12	0.48	LC/MS Neg	877	142.051	NA			
X - 12221			0.83	-2.28	3.94	0.80	0.86	0.41	-1.49	2.31	0.67	0.87	LC/MS Neg	1467	203.998	NA			
X - 12261			-0.27	-4.64	4.10	0.90	0.96	-1.96	-4.62	0.70	0.15	0.54	LC/MS Neg	1853	258.008	NA			
X - 12407			1.26	-4.16	6.69	0.65	0.88	0.64	-2.67	3.95	0.70	0.88	LC/MS Neg	1873	204.981	NA			
X - 12543			-1.49	-4.92	1.94	0.39	0.71	-0.84	-2.93	1.25	0.43	0.76	LC/MS Neg	1409	181.051	NA			
X - 12544			1.09	-2.32	4.51	0.53	0.83	-0.20	-2.29	1.88	0.85	0.93	LC/MS Neg	3166.9	209.082	NA			
X - 12730			-0.12	-3.40	3.16	0.94	0.97	1.75	-0.25	3.74	0.09	0.43	LC/MS Neg	2048	203.997	NA			
X - 12738			0.04	-3.41	3.49	0.98	0.99	0.42	-1.68	2.52	0.70	0.88	LC/MS Neg	2389	230.997	NA			
X - 12830			1.05	-3.14	5.25	0.62	0.87	0.95	-1.61	3.50	0.47	0.78	LC/MS Neg	3197	372.113	NA			
X - 13726			2.34	-3.21	7.88	0.41	0.72	0.51	-2.87	3.90	0.77	0.90	LC/MS Neg	1532	379.035	NA			
X - 17343			-0.29	-4.31	3.73	0.89	0.96	2.54	0.10	4.98	0.04	0.30	LC/MS Neg	1326	190.966	NA			
X - 17655			-2.33	-5.39	0.73	0.14	0.47	-1.17	-3.03	0.70	0.22	0.62	LC/MS Neg	4169	421.061	NA			
X - 17673			-1.16	-4.31	1.99	0.47	0.78	-0.03	-1.95	1.89	0.97	0.99	LC/MS Neg	1294	148.973	NA			
X - 19183			-0.58	-3.68	2.52	0.71	0.91	-0.50	-2.39	1.39	0.61	0.85	LC/MS Neg	1665	230.05	NA			
X - 19438			0.43	-2.59	3.45	0.78	0.92	0.98	-0.86	2.82	0.29	0.66	LC/MS Neg	1209	217.072	NA			
X - 21788			-1.24	-4.23	1.75	0.42	0.73	-0.47	-2.29	1.36	0.62	0.85	LC/MS Neg	1165	180.034	NA			
X - 21807			-0.30	-3.54	2.94	0.86	0.95	0.81	-1.16	2.78	0.42	0.75	LC/MS Neg	2335	233.014	NA			
X - 22509			-1.18	-4.90	2.54	0.53	0.83	-0.02	-2.29	2.25	0.99	0.99	LC/MS Neg	3562	473.146	NA			
X - 22520			-1.92	-4.89	1.05	0.20	0.55	-1.50	-3.31	0.30	0.10	0.46	LC/MS Neg	4389	263.628	NA			
X - 23583			1.13	-1.90	4.17	0.46	0.77	0.23	-1.62	2.09	0.80	0.92	LC/MS Pos Early	1112	116.071	NA			
X - 23662			0.82	-2.57	4.22	0.63	0.87	0.70	-1.37	2.77	0.51	0.81	LC/MS Pos Early	2622	159.149	NA			
X - 24295			-0.63	-3.62	2.35	0.68	0.89	0.06	-1.76	1.88	0.95	0.98	LC/MS Neg	1152	217.071	NA			
X - 24344			-0.01	-3.10	3.07	0.99	1.00	-0.14	-2.02	1.75	0.89	0.95	LC/MS Neg	3620	217.017	NA			
X - 2521																			

**Table S15. Metabolic pathway not associated with systolic (SBP) or diastolic blood pressure (DBP)**

	SBP					DBP			
	m*	k*	Enrichment score*	p-value†	q-value†	k*	Enrichment score*	p-value†	q-value†
Benzoate Metabolism	30	0	--	--	--	1	0.77	1	1
Dihydrosphingomyelins	5	0	--	--	--	1	4.73	0.198	0.337
Dipeptide	14	1	1.93	0.418	0.496	0	--	--	--
Fatty Acid Metabolism (Acyl Carnitine, Monounsaturated)	9	0	--	--	--	2	5.38	0.054	0.131
Fatty Acid Metabolism (Acyl Carnitine, Short Chain)	1	1	27.36	0.038	0.103	0	--	--	--
Fatty Acid Metabolism (Acyl Glycine)	5	1	5.45	0.175	0.277	0	--	--	--
Histidine Metabolism	16	0	--	--	--	1	1.46	0.509	0.577
Long Chain Monounsaturated Fatty Acid	7	0	--	--	--	1	3.37	0.266	0.348
Long Chain Polyunsaturated Fatty Acid (n3 and n6)	16	2	3.47	0.119	0.270	2	3.00	0.149	0.317
Long Chain Saturated Fatty Acid	7	0	--	--	--	1	3.37	0.266	0.348
Lysophospholipid	27	0	--	--	--	1	0.85	1	1
Medium Chain Fatty Acid	11	0	--	--	--	1	2.14	0.386	0.469
Methionine, Cysteine, SAM and Taurine Metabolism	22	1	1.21	0.574	0.574	0	--	--	--
Pantothenate and CoA Metabolism	1	1	27.36	0.038	0.103	0	--	--	--
Partially Characterized Molecule	17	1	1.58	0.482	0.539	0	--	--	--
Purine Metabolism, Adenine containing	5	1	5.45	0.175	0.277	0	--	--	--
Purine Metabolism, Guanine containing	4	1	6.82	0.142	0.270	0	--	--	--
Sterol	7	1	3.88	0.236	0.320	1	3.37	0.266	0.348
Urea cycle; Arginine and Proline Metabolism	21	1	1.27	0.557	0.574	0	--	--	--
Vitamin A Metabolism	4	1	6.82	0.142	0.270	0	--	--	--

\* Enrichment score was calculated using  $(k/m)/[(n-k)/(N-m)]$ , where k is the number of metabolites associated with SBP or DBP in the pathway (false discovery rate adjusted p-value in linear regression Model 1 <0.05), m is the total number of tested metabolites in the pathway, n is the total number of known metabolites associated with SBP (n=34) or DBP (n=39), and N is the total number of known metabolites (N=904).

† P-value for each pathway was calculated using Fisher's exact test and false discovery rate adjusted (q-value) across eligible pathways (i.e., containing at least one metabolite associated with SBP or DBP).

**Table S16. Characteristics of the sub-sample (n=355)**

Age, years	51.7 (9.0)
Women, n (%)	214 (60.3%)
Systolic blood pressure (SBP), mmHg	123.5 (16.7)
Diastolic blood pressure (DBP), mmHg	79.8 (9.9)
Hypertension (self-reported or SBP/DBP $\geq$ 140/90 mmHg)	86 (24.2%)
Body mass index (BMI), kg/m <sup>2</sup>	23.8 (3.1)
Estimated glomerular filtration rate (eGFR)*, mL/min/1.73m <sup>2</sup>	76.7 (13.5)
Low-density lipoprotein cholesterol, mg/dL	123.9 (31.8)
Hunan province, n (%)	234 (65.9%)
Urbanization index <sup>†</sup>	72.2 (14.5)
Per capita household income <sup>‡</sup> , 1000 yuan	16.7 (19.3)
Completed high school education, n (%)	308 (32.1%)
Total energy <sup>§</sup> , kcal	1885.9 (621.1)
Animal-source food consumption <sup>§</sup> , %kcal	23.9 (16.3)
Sodium consumption <sup>§</sup> , mg	3696.9 (2276.8)
Physical activity <sup>  </sup> , METS/week	98.4 (171.0)
Ever smoking, n (%)	138 (38.9%)
Drank alcohol last year, n (%)	88 (24.8%)

Mean (SD) or n (%) as noted. For income, physical activity, animal-source food consumption, and sodium consumption, median (interquartile range) are presented.

\* eGFR was calculated based on the Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI) equation.

<sup>†</sup> Urbanization index encompasses 12 components of urbanization, including population density, sanitation, and health infrastructure.

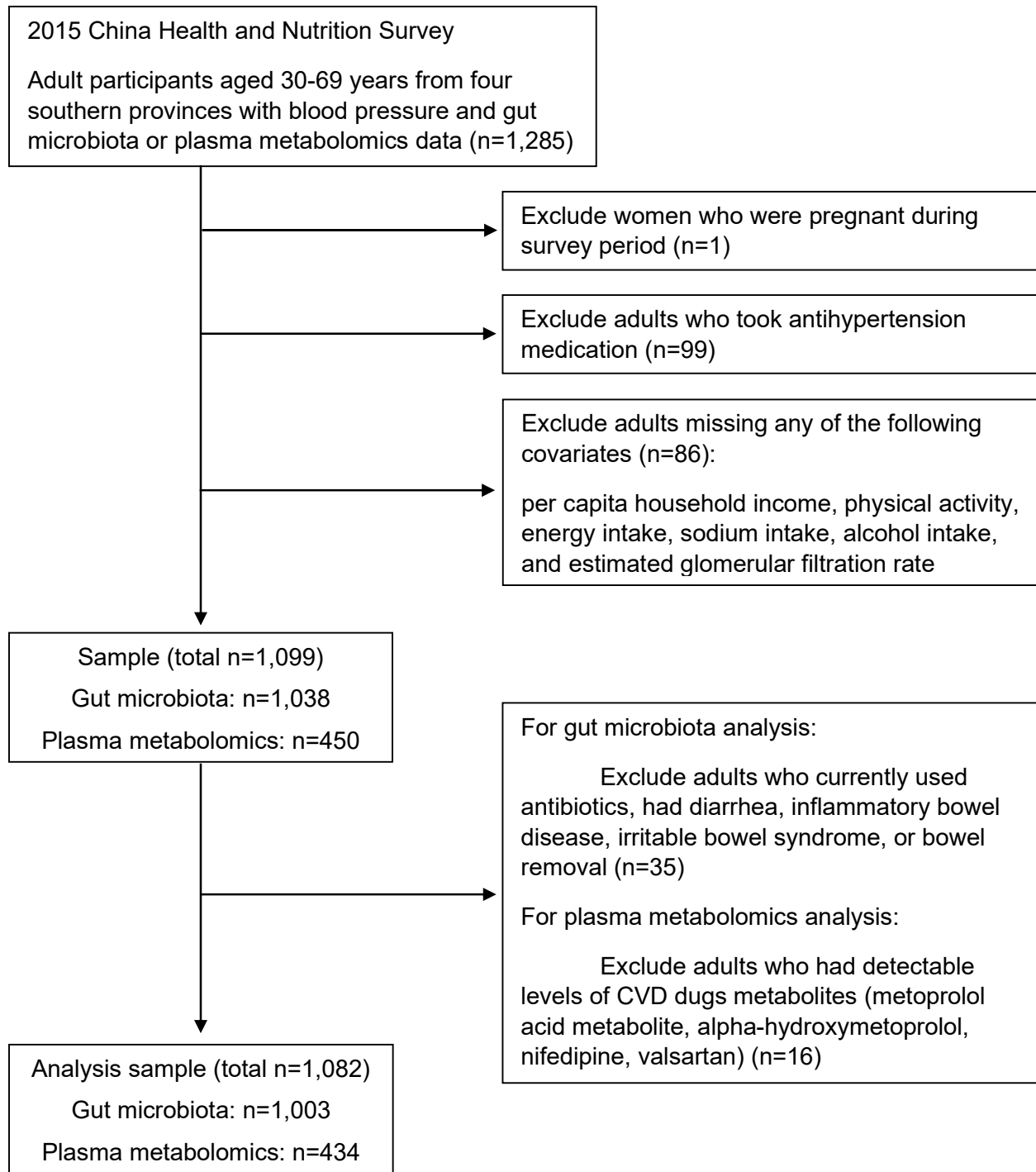
<sup>‡</sup> Per capita household income was estimated by dividing the total household income by the number of household members.

<sup>§</sup> Dietary intakes were measured by 3-consecutive 24h dietary recalls and household food inventories.

<sup>||</sup> Physical activity was estimated by 7-day physical activity (occupational, transportation, domestic, and leisure activities) recalls in METS.

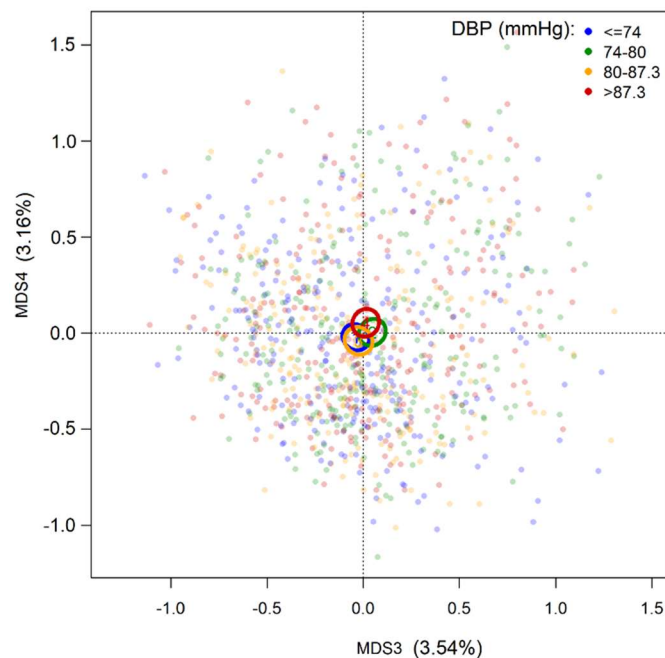
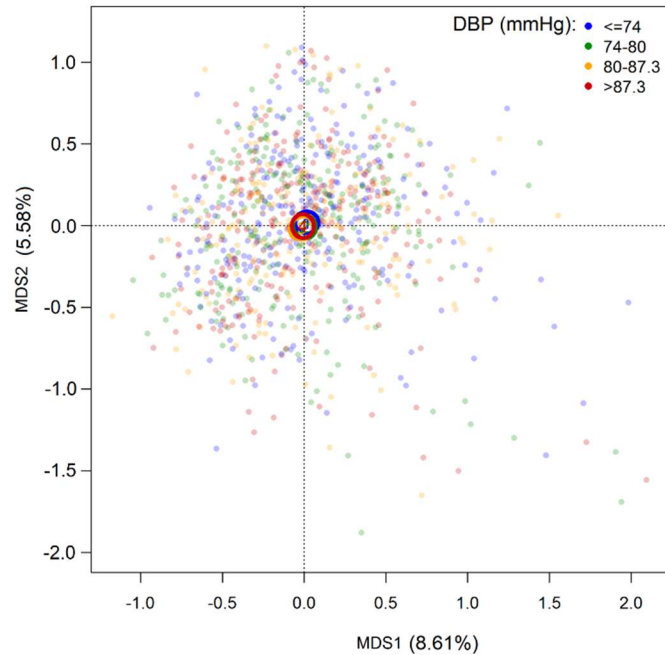
**Table S17. Association between the forth principal coordinate of the gut microbiota and individual metabolites associated with systolic or diastolic blood pressure**

Metabolites	Class	Pathway	Model 1				Model 2				Platform	RI	Mass	PUBCHEM	CAS	KEGG						
			Coef.	95% CI	p-value	q-value	Coef.	95% CI	p-value	q-value												
<b>Metabolites with ≤25% values below detection limits</b>																						
tricosanoyl sphingomyelin (d18:1/23:0)*	Lipid	Sphingomyelins	-0.003	-0.008	0.003	0.316	0.642	-0.003	-0.009	0.002	0.275	0.616	LC/MS Pos Late	3200	801.68441	NA						
lignoceroyl sphingomyelin (d18:1/24:0)	Lipid	Sphingomyelins	0.000	-0.005	0.005	0.918	0.935	0.000	-0.005	0.005	0.884	0.936	LC/MS Pos Late	3437	815.70006	NA	60037-60-7					
palmitoylcarnitine (C16)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Long Chain Saturated)	0.004	-0.001	0.010	0.127	0.596	0.004	-0.001	0.010	0.129	0.615	LC/MS Pos Late	1425	400.34214	461	6865-14-1	C02990				
1-myristoyl-2-arachidonoyl-GPC (14:0/20:4)*	Lipid	Phosphatidylcholine (PC)	0.001	-0.002	0.005	0.428	0.642	0.001	-0.002	0.005	0.450	0.668	LC/MS Pos Late	1914	754.53813	NA						
sphingomyelin (d18:2/24:2)*	Lipid	Sphingomyelins	-0.003	-0.007	0.001	0.152	0.596	-0.003	-0.007	0.001	0.153	0.615	LC/MS Pos Late	2215	809.65308	NA						
1-palmitoyl-2-linoleoyl-GPI (16:0/18:2)	Lipid	Phosphatidylinositol (PI)	0.007	0.002	0.012	0.005	0.270	0.007	0.002	0.012	0.006	0.324	LC/MS Polar	910	833.51845	NA						
1-palmitoyl-2-arachidonoyl-GPC (16:0/20:4n6)	Lipid	Phosphatidylcholine (PC)	0.003	-0.004	0.010	0.371	0.642	0.003	-0.004	0.010	0.386	0.662	LC/MS Pos Late	2091	782.26425	10747814	35418-58-7					
1-palmitoyl-2-arachidonoyl-GPI (16:0/20:4)*	Lipid	Phosphatidylinositol (PI)	0.004	-0.001	0.008	0.097	0.596	0.004	-0.001	0.008	0.101	0.615	LC/MS Polar	892	857.51855	NA						
sphingomyelin (d18:1/21:0, d17:1/22:0, d16:1/23:0)*	Lipid	Sphingomyelins	-0.001	-0.007	0.004	0.598	0.778	-0.002	-0.007	0.004	0.525	0.709	LC/MS Pos Late	2793	732.65311	NA						
behenoyl sphingomyelin (d18:1/22:0)*	Lipid	Sphingomyelins	-0.001	-0.007	0.006	0.833	0.900	-0.001	-0.008	0.006	0.782	0.845	LC/MS Pos Late	3083	787.66876	NA						
sphingomyelin (d18:1/14:0, d16:1/16:0)*	Lipid	Sphingomyelins	0.000	-0.006	0.007	0.910	0.935	0.000	-0.007	0.007	0.965	0.983	LC/MS Pos Late	1998	675.54355	11433862						
cerotylcarnitine (C26)*	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Long Chain Saturated)	0.003	-0.001	0.007	0.200	0.596	0.003	-0.001	0.007	0.205	0.615	LC/MS Pos Late	1649	540.49864	NA						
pantothenate (Vitamin B5)	Cofactors and Vitamins	Pantothenate and CoA Metabolism	0.002	-0.006	0.009	0.673	0.778	0.001	-0.006	0.009	0.691	0.794	LC/MS Neg	14987	218.10339	6613	137-08-6	C00864				
N2,N2-dimethylguanosine	Nucleotide	Purine Metabolism, Guanine containing	0.004	-0.004	0.013	0.327	0.642	0.004	-0.004	0.013	0.337	0.662	LC/MS Pos Early	2210	312.13025	92919	2140-67-2					
cholesterol	Lipid	Sterol	-0.002	-0.010	0.006	0.645	0.778	-0.002	-0.010	0.006	0.627	0.770	LC/MS Pos Late	2707	369.35159	11025495	57-88-5	C00187				
sphingomyelin (d18:2/14:0, d18:1/14:1)*	Lipid	Sphingomyelins	-0.002	-0.007	0.004	0.508	0.710	-0.002	-0.008	0.004	0.458	0.668	LC/MS Pos Late	1860	673.5279	NA						
adrenate (22:4n6)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)	0.002	-0.001	0.005	0.209	0.596	0.002	-0.001	0.005	0.215	0.615	LC/MS Neg	5678	331.26425	5497181	2091-25-0	C16527				
1-palmitoleoylglycerol (16:1)*	Lipid	Monoacylglycerol	0.002	0.000	0.004	0.094	0.596	0.002	0.000	0.004	0.097	0.615	LC/MS Neg	6094	253.21727	NA						
1-palmitoyl-2-palmitoleoyl-GPC (16:0/16:1)*	Lipid	Phosphatidylcholine (PC)	0.002	-0.001	0.006	0.210	0.596	0.002	-0.001	0.006	0.219	0.615	LC/MS Pos Late	2160	732.55378	NA						
myristoylcarnitine (C14)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Long Chain Saturated)	-0.002	-0.005	0.001	0.279	0.628	-0.002	-0.005	0.001	0.285	0.616	LC/MS Pos Late	1350	372.31084	6426854	18822-89-4					
tatty acid (1)*	Molecules	Partially Characterized Molecules	0.001	-0.001	0.004	0.323	0.642	0.001	-0.001	0.004	0.326	0.662	LC/MS Neg	4807	169.12303	NA						
sphingomyelin (d18:2/16:0, d18:1/16:1)*	Lipid	Sphingomyelins	-0.003	-0.011	0.006	0.513	0.710	-0.003	-0.012	0.005	0.478	0.679	LC/MS Pos Late	2002	701.5592	NA						
picolinoylglycine	Lipid	Fatty Acid Metabolism (Acyl Glycine)	0.002	-0.001	0.006	0.135	0.596	0.003	-0.001	0.006	0.140	0.615	LC/MS Neg	1829	179.00464	NA						
N6-carbamoylthreonyladenosine	Nucleotide	Purine Metabolism, Adenine containing	0.004	-0.003	0.010	0.253	0.596	0.004	-0.003	0.010	0.260	0.615	LC/MS Neg	2164	411.12698	161466	24719-82-2					
dihomolinolenate (20:3n3 or 3n6)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)	0.002	-0.002	0.006	0.360	0.642	0.002	-0.002	0.006	0.373	0.662	LC/MS Neg	5596	305.2486	5280581	17046-59-2	C03242				
1-stearoyl-2-arachidonoyl-GPC (18:0/20:4)	Lipid	Phosphatidylcholine (PC)	0.000	-0.006	0.007	0.892	0.935	0.000	-0.006	0.007	0.923	0.959	LC/MS Pos Late	2300	810.60074	16219824	35418-59-8					
acetylcarnitine (C2)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Short Chain)	0.003	-0.004	0.009	0.425	0.642	0.003	-0.004	0.010	0.412	0.662	LC/MS Pos Early	2282	204.12304	1	5080-50-2	C02571				
retinol (Vitamin A)	Cofactors and Vitamins	Vitamin A Metabolism	0.004	-0.001	0.010	0.105	0.596	0.004	-0.001	0.010	0.109	0.615	LC/MS Pos Late	1636	269.22639	445354	68-26-8	C00473				
arginate*	Amino Acid	Urea cycle; Arginine and Proline Metabolism	0.002	-0.002	0.006	0.238	0.596	0.002	-0.002	0.007	0.248	0.615	LC/MS Pos Early	2150	170.10297	160437	157-07-3					
2,3-dihydroxy-5-methylthio-4-pentenoate (DMTPA)*	Amino Acid	Methionine, Cysteine, SAM and Taurine Metabolism	0.005	-0.003	0.013	0.241	0.596	0.005	-0.003	0.013	0.252	0.615	LC/MS Neg	1156	177.0227	NA						
laurylcarnitine (C12)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Medium Chain)	-0.001	-0.003	0.001	0.401	0.642	-0.001	-0.003	0.001	0.411	0.662	LC/MS Pos Late	1235	344.27954	10427569	25518-54-1					
corticosterone	Lipid	Corticosteroids	0.000	-0.002	0.001	0.649	0.778	0.000	-0.002	0.001	0.678	0.794	LC/MS Neg	5040	345.20713	5753	50-22-6	C02140				
cortolone glucuronide (1)	Lipid	Corticosteroids	-0.001	-0.004	0.002	0.635	0.778	-0.001	-0.004	0.002	0.579	0.755	LC/MS Neg	4606	541.26594	NA						
behenoyl dihydrosphingomyelin (d18:0/22:0)*	Lipid	Dihydrosphingomyelins	-0.001	-0.003	0.002	0.675	0.778	-0.001	-0.004	0.002	0.587	0.755	LC/MS Pos Late	3150	789.68441	NA						
cis-4-decenoylcarnitine (C10:1)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Monounsaturated)	0.000	-0.002	0.003	0.677	0.778	0.000	-0.002	0.003	0.671	0.794	LC/MS Pos Late	1057	314.23259	NA	98930-66-6					
linoleate (18:2n6)	Lipid	Long Chain Polyunsaturated Fatty Acid (n3 and n6)	0.002	-0.002	0.006	0.425	0.642	0.002	-0.002	0.006	0.429	0.662	LC/MS Neg	5535	279.23295	5280450	60-33-3	C01595				
decanoylcarnitine (C10)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Medium Chain)	-0.001	-0.003	0.001	0.421	0.642	-0.001	-0.003	0.001	0.429	0.662	LC/MS Pos Late	1130	316.24824	10245190	1492-27-9					
palmitate (16:0)	Lipid	Long Chain Saturated Fatty Acid	0.002	-0.003	0.008	0.375	0.642	0.002	-0.003	0.008	0.382	0.662	LC/MS Neg	5618	255.23295	985	57-10-3	C00249				
cis-4-decenoate	Lipid	Medium Chain Fatty Acid	0.000	-0.003	0.004	0.785	0.865	0.000	-0.003	0.004	0.781	0.845	LC/MS Neg	4886	169.12304	NA						
5-dodecenoylcarnitine (C12:1)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Monounsaturated)	-0.001	-0.003	0.001	0.254	0.596	-0.001	-0.003	0.001	0.262	0.615	LC/MS Pos Late	1135	342.26389	NA						
1-dihomo-linoleoylglycerol (20:2)	Lipid	Monoacylglycerol	0.002	0.000	0.004	0.099	0.596	0.002	0.000	0.004	0.103	0.615	LC/MS Neg	6800	307.26423	NA						
octanoylcarnitine (C8)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Medium Chain)	-0.001	-0.003	0.002	0.699	0.786	-0.001	-0.003	0.002	0.711	0.800	LC/MS Pos Late	950	288.21694	123701	3671-77-0	C02838				
1-linoleoylglycerol (18:2)	Lipid	Monoacylglycerol	0.001	-0.001	0.004	0.251	0.596	0.001	-0.001	0.004	0.262	0.615	LC/MS Neg	6477	279.23293	5283469	2277-28-3					
1-dihomo-linolenylglycerol (20:3)	Lipid	Monoacylglycerol	0.002	-0.001	0.004	0.157	0.596	0.002	-0.001	0.004	0.163	0.615	LC/MS Neg	6400	305.24858	NA						
tetrahydrocortisone glucuronide (5)	Lipids	Corticosteroids	-0.002	-0.004	0.001	0.229	0.596	-0.002	-0.005	0.001	0.201	0.615	LC/MS Neg	4697	539.25002	NA						
hexanoylcarnitine (C6)	Lipid	Fatty Acid Metabolism (Acyl Carnitine, Medium Chain)	0.001	-0.002	0.004	0.506	0.710	0.001	-0.002	0.004	0.496	0.687	LC/MS Pos Early	3358	260.18564	6426853	6920-35-0					
1-arachidonoyl-GPI* (20:4)*	Lipid	Lysophospholipid	0.000	-0.006	0.006	0.985	0.985	0.000	-0.006	0.006	0.995	0.995	LC/MS Neg	5482	619.28888	NA						
2-palmitoleoylglycerol (16:1)*	Lipid	Monoacylglycerol	0.001	-0.001	0.003	0.152	0.596	0.001	-0.001	0.003	0.158	0.615	LC/MS Neg	6016	253.21727	NA						
hydantoin-5-propionate	Amino Acid	Histidine Metabolism	-0.003	-0.005	0.000	0.038	0.596	-0.003	-0.005	0.000	0.037	0.615	LC/MS Polar	2080	171.04113	782	5624-26-0	C05565				
p-cresol sulfate	Xenobiotics	Benzate Metabolism	-0.002	-0.004	0.000	0.016	0.432	-0.002	-0.004	0.000	0.017	0.459	LC/MS Neg	2890	187.00705	4615423	3233-57-7					
palmitoleate (16:1n7)	Lipid	Long Chain Monounsaturated Fatty Acid	0.001	-0.002	0.004	0.375	0.642	0.001	-0.002	0.004	0.375	0.662	LC/MS Neg	5475	253.2173	445638	373-49-9	C08362				
<b>Metabolites with 25-50% values below detection limits (BLD), reference=BLD</b>																						
linoleoyl-linoleoyl-glycerol (18:2/18:2) [1]*	Lipid	Diacylglycerol				Below median		0.005	-0.002	0.012			0.118	0.615	LC/MS Pos Late	2720	634.54051	NA				
linoleoyl-linoleoyl-glycerol (18:2/18:2) [1]*	Lipid	Diacylglycerol				Above median		-0.001	-0.008	0.006												
oleoyl-linoleoyl-glycerol (18:1/18:2) [2]	Lipid	Diacylglycerol				Below median		0.003	-0.004	0.010	0.631	0.778	0.00322	-0.004	0.01	0.626	0.7695	LC/MS Pos Late	3223	636.55616	NA	104346-53-4
oleoyl-linoleoyl-glycerol (18:1/18:2) [2]	Lipid	Diacylglycerol				Above median		0.001	-0.006	0.008			0.001	-0.006	0.009							
<b>Metabolites with &gt;50% values BLD, reference=BLD</b>																						
phenylalanylalanine	Peptide</																					



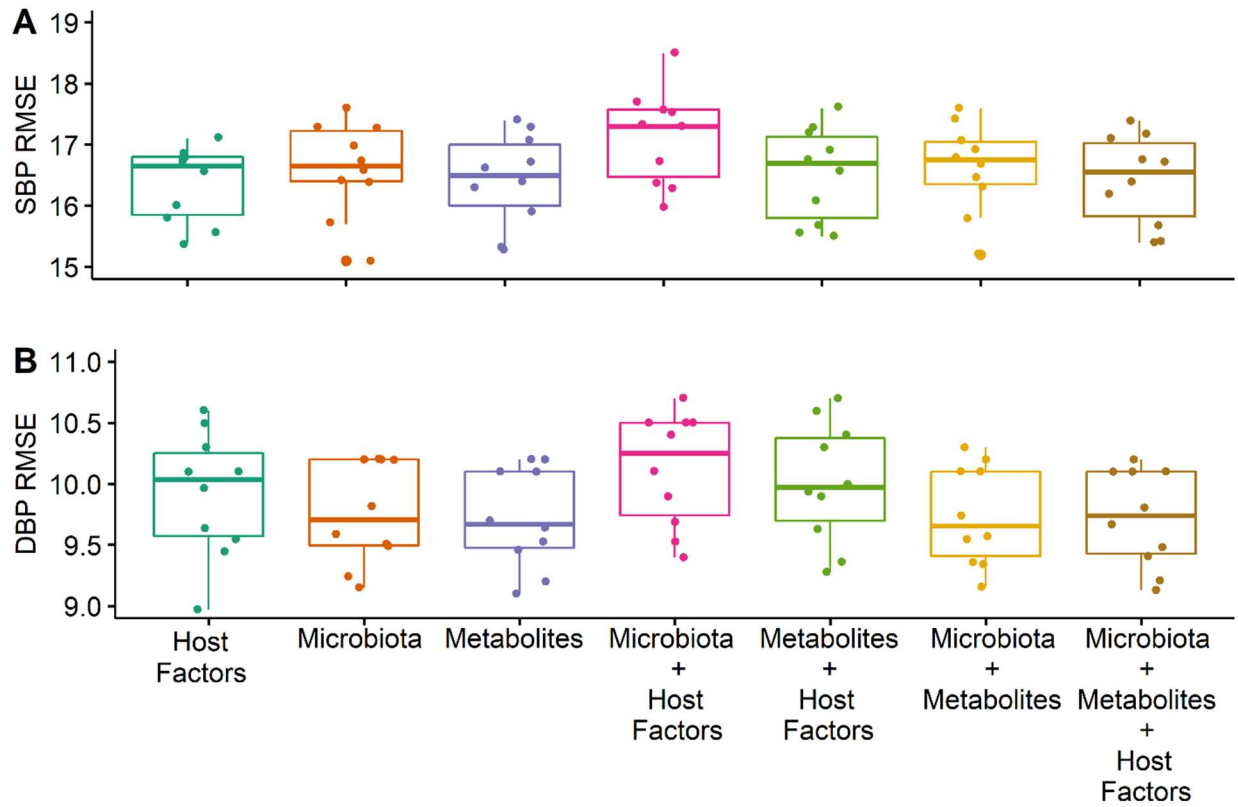
**Figure S1. Sample flow chart.**





**Figure S2. Microbial between-person diversity ( $\beta$ -diversity) assessed using principal coordinate analysis (PCoA) by diastolic blood pressure (DBP)**

MDS, multidimensional scaling. Centroids illustrate the 95% CI for the mean location of each DBP quartile. In permutational multivariate analysis of variance (PERMANOVA), DBP had  $R^2$  of 0.14% and p-value of 0.026 in Model 1 and 0.046 in Model 2. Model 1 was adjusted for age, sex, provinces, urbanization index (tertiles:  $\leq 64.2$ , 64.2-81.5,  $> 81.5$ ), per-capita household income (tertiles:  $\leq 10$ , 10-21.6,  $> 21.6$ ), education, total energy intake, animal-source food, sodium, physical activity (tertiles:  $\leq 57.4$ , 57.4-152,  $> 152$ ), smoking, alcohol, and estimated glomerular filtration rate. Model 2 was additionally adjusted for BMI.



**Figure S3. Root mean square errors (RMSE) for (A) systolic blood pressure (SBP) and (B) diastolic blood pressure (DBP) estimated by random forest regression with 5 iterations of 2-fold cross-validation (5x2cv).**

N=434. X axis shows the data input in each random forest regression. Host factor data included age, sex, provinces, batch, urbanization index, per capita household income, education, total energy intake, animal-source food consumption, sodium consumption, physical activity, smoking, alcohol intake, and estimated glomerular filtration rate (eGFR). Microbiota data included all 1,008 taxa. Metabolite data included all 1,104 metabolites.