Supplementary Table 4. Bacterial taxa identified by mNGS using an RPM ratio metric

*re-classified to a higher taxonomic rank because reads aligned equally well to multiple different organisms that shared the same species, genus or family

[#]positive result according to an RPM (reads per million) ratio ≥ 10, where the RPM ratio = RPM(sample) / RPM(NTC)

[&]reads correspond to the *Streptococcus agalactiae* PC

Abbreviations: PC, positive control; CSF, cerebrospinal fluid; mNGS, metagenomic next-generation sequencing; RPM, reads per million

			Normalized Reads Per million	
species	**genus**	**family**	**DNA PC**	**DNA Patient CSF**
*	Brucella	Brucellaceae	0.0	15.7[#]
Brucella melitensis	Brucella	Brucellaceae	0.0	1.6
Streptococcus agalactiae	Streptococcus	Streptococcaceae	3,264.1[#]	0.0
Klebsiella pneumoniae	Klebsiella	Enterobacteriaceae	52.9[#]	0.0
*	*	Enterobacteriaceae	0.1	0.0
Escherichia coli	Escherichia	Enterobacteriaceae	0.0	0.0
Propionibacterium acnes	Propionibacterium	Propionibacteriaceae	0.0	0.0
*	Streptococcus	Streptococcaceae	8.7	0.0
*	Klebsiella	Enterobacteriaceae	41.6[#]	0.0
*	*	*	0.0	0.0
Streptococcus suis	Streptococcus	Streptococcaceae	16.2[#&]	0.0
Streptococcus salivarius	Streptococcus	Streptococcaceae	1.0	0.0
Streptococcus pyogenes	Streptococcus	Streptococcaceae	30.7[#&]	0.0
Serratia marcescens	Serratia	Enterobacteriaceae	2.3	0.0
Lactococcus lactis	Lactococcus	Streptococcaceae	0.4	0.0
*	Escherichia	Enterobacteriaceae	0.0	0.0
Pseudomonas sp. TKP	Pseudomonas	Pseudomonadaceae	0.1	0.0
*	Pseudomonas	Pseudomonadaceae	0.2	0.0
Streptococcus macedonicus	Streptococcus	Streptococcaceae	18.2[#&]	0.0
Enterobacter cloacae	Enterobacter	Enterobacteriaceae	0.4	0.0
Klebsiella oxytoca	Klebsiella	Enterobacteriaceae	0.7	0.0
Thermoanaerobacterium thermosaccha	Thermoanaerobacterium	Thermoanaerobacterales	0.2	0.0
Streptococcus sp. VT 162	Streptococcus	Streptococcaceae	0.6	0.0
Enterococcus faecium	Enterococcus	Enterococcaceae	0.1	0.1
Pseudomonas protegens	Pseudomonas	Pseudomonadaceae	3.0	0.1
Micrococcus luteus	Micrococcus	Micrococcaceae	0.0	0.0

Streptococcus infantarius	Streptococcus	Streptococcaceae	0.5	0.0
Staphylococcus epidermidis	Staphylococcus	Staphylococcaceae	0.0	0.0
Enterobacter asburiae	Enterobacter	Enterobacteriaceae	0.2	0.0
Cupriavidus metallidurans	Cupriavidus	Burkholderiaceae	0.0	0.0
Pseudomonas putida	Pseudomonas	Pseudomonadaceae	0.1	0.0
Enterococcus casseliflavus	Enterococcus	Enterococcaceae	0.1	0.1
Streptococcus mitis	Streptococcus	Streptococcaceae	0.6	0.0
Streptococcus equi	Streptococcus	Streptococcaceae	5.2	0.0
Salmonella enterica	Salmonella	Enterobacteriaceae	4.9	0.0
Streptococcus oralis	Streptococcus	Streptococcaceae	0.5	0.0
Klebsiella variicola	Klebsiella	Enterobacteriaceae	4.3	0.0
Burkholderia lata	Burkholderia	Burkholderiaceae	0.3	0.0
Pseudomonas stutzeri	Pseudomonas	Pseudomonadaceae	0.0	0.0
Streptococcus pneumoniae	Streptococcus	Streptococcaceae	0.4	0.0
Streptococcus dysgalactiae	Streptococcus	Streptococcaceae	3.7	0.0
*	Burkholderia	Burkholderiaceae	0.1	0.0
Pseudomonas fluorescens	Pseudomonas	Pseudomonadaceae	0.4	0.0
Acinetobacter guillouiae	Acinetobacter	Moraxellaceae	0.1	0.0
Veillonella parvula	Veillonella	Veillonellaceae	0.1	0.0
Xanthomonas campestris	Xanthomonas	Xanthomonadaceae	0.1	0.1
Exiguobacterium sp. AT1b	Exiguobacterium		0.1	0.0
Pseudomonas pseudoalcaligenes	Pseudomonas	Pseudomonadaceae	0.0	0.0
Streptococcus pasteurianus	Streptococcus	Streptococcaceae	2.8	0.0
Rothia dentocariosa	Rothia	Micrococcaceae	0.1	0.0
*	*	Streptococcaceae	2.6	0.0
Delftia acidovorans	Delftia	Comamonadaceae	0.5	0.0
*	Propionibacterium	Propionibacteriaceae	0.0	0.0
Acinetobacter baumannii	Acinetobacter	Moraxellaceae	0.0	0.0
Streptococcus parasanguinis	Streptococcus	Streptococcaceae	0.0	0.0
Pseudomonas sp. WCS374	Pseudomonas	Pseudomonadaceae	0.8	0.0
Enterobacter aerogenes	Enterobacter	Enterobacteriaceae	2.3	0.0
Stenotrophomonas maltophilia	Stenotrophomonas	Xanthomonadaceae	0.2	0.0
Alicyclobacillus acidocaldarius	Alicyclobacillus	Alicyclobacillaceae	0.2	0.0
Haemophilus influenzae	Haemophilus	Pasteurellaceae	0.1	0.0
Rothia mucilaginosa	Rothia	Micrococcaceae	0.0	0.0
Staphylococcus xylosus	Staphylococcus	Staphylococcaceae	0.2	0.0
Acidovorax sp. JS42	Acidovorax	Comamonadaceae	0.1	0.0
*	Rahnella	Enterobacteriaceae	1.8	0.0
Streptococcus pseudopneumoniae	Streptococcus	Streptococcaceae	0.3	0.0
Streptococcus thermophilus	Streptococcus	Streptococcaceae	0.1	0.0
Pseudomonas aeruginosa	Pseudomonas	Pseudomonadaceae	0.1	0.0

Corynebacterium kroppenstedtii	Corynebacterium	Corynebacteriaceae	1.6	0.0
Staphylococcus haemolyticus	Staphylococcus	Staphylococcaceae	0.0	0.0
Serratia sp. SCBI	Serratia	Enterobacteriaceae	1.5	0.0
*	Enterococcus	Enterococcaceae	0.1	0.0
Staphylococcus warneri	Staphylococcus	Staphylococcaceae	0.0	0.0
Burkholderia cepacia	Burkholderia	Burkholderiaceae	0.1	0.1
*	Corynebacterium	Corynebacteriaceae	0.0	0.0
Comamonas testosteroni	Comamonas	Comamonadaceae	0.0	0.0
Bifidobacterium thermophilum	Bifidobacterium	Bifidobacteriaceae	1.3	0.0
*	Lactobacillus	Lactobacillaceae	0.2	0.0
Thermoanaerobacterium xylanolyticum	Thermoanaerobacterium	Thermoanaerobacterales	0.1	0.0
Ralstonia pickettii	Ralstonia	Burkholderiaceae	0.1	0.0
Meiothermus ruber	Meiothermus	Thermaceae	0.0	0.0
Acidovorax ebreus	Acidovorax	Comamonadaceae	0.7	0.0
Micrococcus sp. V7	Micrococcus	Micrococcaceae	0.2	0.0
Leuconostoc mesenteroides	Leuconostoc	Leuconostocaceae	0.0	0.0
Bacillus halodurans	Bacillus	Bacillaceae	0.7	0.0
Corynebacterium variabile	Corynebacterium	Corynebacteriaceae	0.3	0.0
*	Acidovorax	Comamonadaceae	0.1	0.0
Bifidobacterium bifidum	Bifidobacterium	Bifidobacteriaceae	0.0	0.0
Rhizobium sp. IRBG74	Rhizobium	Rhizobiaceae	0.0	0.0
*	Acinetobacter	Moraxellaceae	0.0	0.0
Acinetobacter calcoaceticus	Acinetobacter	Moraxellaceae	1.0	0.0
Chroococcidiopsis thermalis	Chroococcidiopsis		0.2	0.0
Streptococcus sanguinis	Streptococcus	Streptococcaceae	0.1	0.0
Acidovorax sp. KKS102	Acidovorax	Comamonadaceae	0.1	0.0
Raoultella ornithinolytica	Raoultella	Enterobacteriaceae	0.1	0.0
Ochrobactrum anthropi	Ochrobactrum	Brucellaceae	0.0	0.0
Lactobacillus johnsonii	Lactobacillus	Lactobacillaceae	0.6	0.1
Methylobacterium populi	Methylobacterium	Methylobacteriaceae	0.2	0.0
Rhodococcus equi	Rhodococcus	Nocardiaceae	0.1	0.0
Lactobacillus helveticus	Lactobacillus	Lactobacillaceae	0.9	0.0
*	Serratia	Enterobacteriaceae	0.2	0.0
Burkholderia cenocepacia	Burkholderia	Burkholderiaceae	0.3	0.0
*	Staphylococcus	Staphylococcaceae	0.0	0.0
Enterobacter sp. R4-368	Enterobacter	Enterobacteriaceae	0.8	0.0
Propionibacterium propionicum	Propionibacterium	Propionibacteriaceae	0.1	0.0
Streptococcus gordonii	Streptococcus	Streptococcaceae	0.1	0.0
Corynebacterium singulare	Corynebacterium	Corynebacteriaceae	0.1	0.0
Burkholderia ambifaria	Burkholderia	Burkholderiaceae	0.7	0.1
*	Micrococcus	Micrococcaceae	0.0	0.0

Fervidobacterium nodosum	Fervidobacterium	Thermotogaceae	0.0	0.0
Aeromonas media	Aeromonas	Aeromonadaceae	0.0	0.0
Cronobacter sakazakii	Cronobacter	Enterobacteriaceae	0.7	0.0
Myroides profundi	Myroides	Flavobacteriaceae	0.7	0.0
Methylobacterium oryzae	Methylobacterium	Methylobacteriaceae	0.7	0.0
*	Xanthomonas	Xanthomonadaceae	0.3	0.0
Thermoanaerobacterium saccharolytic	Thermoanaerobacterium	Thermoanaerobacterales	0.1	0.0
Pseudomonas mendocina	Pseudomonas	Pseudomonadaceae	0.0	0.0
Corynebacterium ureicelerivorans	Corynebacterium	Corynebacteriaceae	0.0	0.0
Lactobacillus crispatus	Lactobacillus	Lactobacillaceae	0.0	0.0
Alicycliphilus denitrificans	Alicycliphilus	Comamonadaceae	0.0	0.0
Gardnerella vaginalis	Gardnerella	Bifidobacteriaceae	0.0	0.0
*	Gemella		0.6	0.0
*	Ralstonia	Burkholderiaceae	0.6	0.0
Eggerthella lenta	Eggerthella	Coriobacteriaceae	0.6	0.0
*	*	Rhizobiaceae	0.5	0.0
Prevotella denticola	Prevotella	Prevotellaceae	0.2	0.0
Prevotella intermedia	Prevotella	Prevotellaceae	0.2	0.0
Psychrobacter sp. PRwf-1	Psychrobacter	Moraxellaceae	0.1	0.0
Azospira oryzae	Azospira	Rhodocyclaceae	0.1	0.0
Acinetobacter haemolyticus	Acinetobacter	Moraxellaceae	0.1	0.0
*	Delftia	Comamonadaceae	0.1	0.0
Burkholderia contaminans	Burkholderia	Burkholderiaceae	0.4	0.2
Arthrobacter arilaitensis	Arthrobacter	Micrococcaceae	0.1	0.1
Dermacoccus nishinomiyaensis	Dermacoccus	Dermacoccaceae	0.1	0.1
Pantoea ananatis	Pantoea	Enterobacteriaceae	0.1	0.0
Staphylococcus saprophyticus	Staphylococcus	Staphylococcaceae	0.0	0.0
Staphylococcus pasteuri	Staphylococcus	Staphylococcaceae	0.0	0.0
Rahnella aquatilis	Rahnella	Enterobacteriaceae	0.5	0.0
Rahnella sp. Y9602	Rahnella	Enterobacteriaceae	0.5	0.0
Campylobacter concisus	Campylobacter	Campylobacteraceae	0.5	0.0
Geobacillus sp. WCH70	Geobacillus	Bacillaceae	0.5	0.0
*	Frankia	Frankiaceae	0.5	0.0
Lactobacillus casei	Lactobacillus	Lactobacillaceae	0.5	0.0
Thiomonas intermedia	Thiomonas		0.5	0.0
Streptococcus gallolyticus	Streptococcus	Streptococcaceae	0.5	0.0
Thioalkalivibrio sulfidiphilus	Thioalkalivibrio	Ectothiorhodospiraceae	0.3	0.0
*	Bradyrhizobium	Bradyrhizobiaceae	0.2	0.0
Bifidobacterium longum	Bifidobacterium	Bifidobacteriaceae	0.1	0.0
Corynebacterium falsenii	Corynebacterium	Corynebacteriaceae	0.1	0.0
Delftia sp. Cs1-4	Delftia	Comamonadaceae	0.1	0.0

Acinetobacter sp. M131	Acinetobacter	Moraxellaceae	0.0	0.0
Prevotella melaninogenica	Prevotella	Prevotellaceae	0.0	0.0
*	*	Comamonadaceae	0.0	0.0
Leuconostoc carnosum	Leuconostoc	Leuconostocaceae	0.2	0.0
Pectobacterium carotovorum	Pectobacterium	Enterobacteriaceae	0.0	0.0
*	Myroides	Flavobacteriaceae	0.4	0.0
*	Erwinia	Enterobacteriaceae	0.4	0.0
Gordonia sp. KTR9	Gordonia	Gordoniaceae	0.4	0.0
Paenibacillus sp. FSL R7-0273	Paenibacillus	Paenibacillaceae	0.4	0.0
Paracoccus sp. N81106	Paracoccus	Rhodobacteraceae	0.4	0.0
Sphingobium fuliginis	Sphingobium	Sphingomonadaceae	0.4	0.0
*	*		0.4	0.0
*	Geobacillus	Bacillaceae	0.2	0.0
Pseudomonas sp. VLB120	Pseudomonas	Pseudomonadaceae	0.2	0.0
Pelagibacterium halotolerans	Pelagibacterium	Hyphomicrobiaceae	0.1	0.0
Streptococcus intermedius	Streptococcus	Streptococcaceae	0.1	0.0
Propionibacterium freudenreichii	Propionibacterium	Propionibacteriaceae	0.1	0.0
*	Enterobacter	Enterobacteriaceae	0.0	0.0
Nakamurella multipartita	Nakamurella	Nakamurellaceae	0.1	0.1
Haemophilus parasuis	Haemophilus	Pasteurellaceae	0.3	0.0
Fusobacterium nucleatum	Fusobacterium	Fusobacteriaceae	0.3	0.0
Citrobacter freundii	Citrobacter	Enterobacteriaceae	0.3	0.0
Ruminococcus sp. SR1/5	Ruminococcus	Ruminococcaceae	0.2	0.0
Pseudoxanthomonas spadix	Pseudoxanthomonas	Xanthomonadaceae	0.2	0.0
Lactococcus garvieae	Lactococcus	Streptococcaceae	0.1	0.0
Neisseria elongata	Neisseria	Neisseriaceae	0.1	0.0
Acidovorax citrulli	Acidovorax	Comamonadaceae	0.1	0.0
Novosphingobium pentaromativorans	Novosphingobium	Sphingomonadaceae	0.1	0.0
Citrobacter koseri	Citrobacter	Enterobacteriaceae	0.1	0.0
Methylobacterium aquaticum	Methylobacterium	Methylobacteriaceae	0.1	0.0
Pseudomonas denitrificans	Pseudomonas	Pseudomonadaceae	0.1	0.0
Rhodococcus erythropolis	Rhodococcus	Nocardiaceae	0.0	0.0
Lactobacillus reuteri	Lactobacillus	Lactobacillaceae	0.0	0.0
Bacteroides fragilis	Bacteroides	Bacteroidaceae	0.0	0.0
Lactobacillus plantarum	Lactobacillus	Lactobacillaceae	0.0	0.0
*	Bacillus	Bacillaceae	0.0	0.0
Pseudomonas rhizosphaerae	Pseudomonas	Pseudomonadaceae	0.2	0.1
Achromobacter xylosoxidans	Achromobacter	Alcaligenaceae	0.0	0.0
Lactobacillus amylovorus	Lactobacillus	Lactobacillaceae	0.2	0.0
Propionibacterium acidipropionici	Propionibacterium	Propionibacteriaceae	0.2	0.0
Leuconostoc gelidum	Leuconostoc	Leuconostocaceae	0.2	0.0

Weissella thailandensis	Weissella	Leuconostocaceae	0.2	0.0
Pandoraea sp. RB-44	Pandoraea	Burkholderiaceae	0.2	0.0
Escherichia vulneris	Escherichia	Enterobacteriaceae	0.2	0.0
Yersinia intermedia	Yersinia	Enterobacteriaceae	0.2	0.0
Flavobacteriaceae bacterium 3519-10		Flavobacteriaceae	0.2	0.0
*	Rhodococcus	Nocardiaceae	0.2	0.0
Streptococcus sp. (N1)	Streptococcus	Streptococcaceae	0.2	0.0
*	Methylobacterium	Methylobacteriaceae	0.1	0.0
Sphingomonas sp. MM-1	Sphingomonas	Sphingomonadaceae	0.1	0.0
Rhizobium etli	Rhizobium	Rhizobiaceae	0.1	0.0
*	Agrobacterium	Rhizobiaceae	0.0	0.0
Thermus scotoductus	Thermus	Thermaceae	0.0	0.0
Methylobacterium extorquens	Methylobacterium	Methylobacteriaceae	0.0	0.0
Streptococcus sp. I-P16	Streptococcus	Streptococcaceae	0.0	0.0
Pantoea sp. PSNIH1	Pantoea	Enterobacteriaceae	0.0	0.0
Methylobacterium radiotolerans	Methylobacterium	Methylobacteriaceae	0.0	0.0
[Ruminococcus] torques	Blautia	Lachnospiraceae	0.1	0.4
Lactobacillus sakei	Lactobacillus	Lactobacillaceae	0.1	0.1
*	*	Rhodocyclaceae	0.1	0.1
Bacillus licheniformis	Bacillus	Bacillaceae	0.0	0.1
Corynebacterium accolens	Corynebacterium	Corynebacteriaceae	0.1	0.0
Corynebacterium sp. ATCC 6931	Corynebacterium	Corynebacteriaceae	0.1	0.0
Serratia symbiotica	Serratia	Enterobacteriaceae	0.1	0.0
Lactobacillus delbrueckii	Lactobacillus	Lactobacillaceae	0.1	0.0
Bacillus sp. YP1	Bacillus	Bacillaceae	0.1	0.0
Klebsiella sp. PG122E	Klebsiella	Enterobacteriaceae	0.1	0.0
*	Rathayibacter	Microbacteriaceae	0.1	0.0
Pseudoalteromonas sp. P30	Pseudoalteromonas	Pseudoalteromonadacea	0.1	0.0
Staphylococcus sp. CDC25	Staphylococcus	Staphylococcaceae	0.1	0.0
Corynebacterium resistens	Corynebacterium	Corynebacteriaceae	0.1	0.0
Shigella dysenteriae	Shigella	Enterobacteriaceae	0.1	0.0
*	*	Xanthomonadaceae	0.1	0.0
Agrobacterium fabrum	Agrobacterium	Rhizobiaceae	0.0	0.0
Gordonia polyisoprenivorans	Gordonia	Gordoniaceae	0.0	0.0
Pseudomonas balearica	Pseudomonas	Pseudomonadaceae	0.0	0.0
*	*	Pseudomonadaceae	0.0	0.0
Ruminococcus bromii	Ruminococcus	Ruminococcaceae	0.0	0.0
Brachybacterium faecium	Brachybacterium	Dermabacteraceae	0.0	0.0
Acinetobacter johnsonii	Acinetobacter	Moraxellaceae	0.0	0.0
Micrococcus sp. A1	Micrococcus	Micrococcaceae	0.0	0.0
Filifactor alocis	Filifactor	Peptostreptococcaceae	0.0	0.0

Pantoea vagans	Pantoea	Enterobacteriaceae	0.0	0.0
Haemophilus parainfluenzae	Haemophilus	Pasteurellaceae	0.0	0.0
Pantoea rwandensis	Pantoea	Enterobacteriaceae	0.0	0.3
Corynebacterium vitaeruminis	Corynebacterium	Corynebacteriaceae	0.0	0.2
Pseudomonas poae	Pseudomonas	Pseudomonadaceae	0.0	0.1
*	*	Brucellaceae	0.0	0.1
Lactobacillus fermentum	Lactobacillus	Lactobacillaceae	0.0	0.1
Anabaena variabilis	Anabaena	Nostocaceae	0.0	0.1
Sphingobacterium sp. ML3W	Sphingobacterium	Sphingobacteriaceae	0.0	0.1
sugarcane isolate 74-1			0.0	0.1
*	*	Geodermatophilaceae	0.0	0.1
Megasphaera elsdenii	Megasphaera	Veillonellaceae	0.0	0.1
Pseudoxanthomonas suwonensis	Pseudoxanthomonas	Xanthomonadaceae	0.0	0.1
Corynebacterium glutamicum	Corynebacterium	Corynebacteriaceae	0.0	0.0
Sphingomonas taxi	Sphingomonas	Sphingomonadaceae	0.0	0.0
Pseudomonas graminis	Pseudomonas	Pseudomonadaceae	0.0	0.0
Bradyrhizobium sp. BTAi1	Bradyrhizobium	Bradyrhizobiaceae	0.0	0.0
Enterococcus hirae	Enterococcus	Enterococcaceae	0.0	0.0
Corynebacterium sp. L2-79-05	Corynebacterium	Corynebacteriaceae	0.0	0.0
Arthrobacter phenanthrenivorans	Arthrobacter	Micrococcaceae	0.0	0.0
Corynebacterium maris	Corynebacterium	Corynebacteriaceae	0.0	0.0
Gordonia bronchialis	Gordonia	Gordoniaceae	0.0	0.0
Kytococcus sedentarius	Kytococcus	Dermacoccaceae	0.0	0.0
Kosakonia cowanii	Kosakonia	Enterobacteriaceae	0.0	0.0
Xenorhabdus bovienii	Xenorhabdus	Enterobacteriaceae	0.0	0.0
Paracoccus haeundaensis	Paracoccus	Rhodobacteraceae	0.0	0.0
Methylobacterium sp. 238	Methylobacterium	Methylobacteriaceae	0.0	0.0
Acinetobacter sp. BW3	Acinetobacter	Moraxellaceae	0.0	0.0
Aeromonas sobria	Aeromonas	Aeromonadaceae	0.0	0.0
Bacillus lehensis	Bacillus	Bacillaceae	0.0	0.0
Ralstonia solanacearum	Ralstonia	Burkholderiaceae	0.0	0.0
Citrobacter sp. FPO3	Citrobacter	Enterobacteriaceae	0.0	0.0
Citrobacter sp. I91-3	Citrobacter	Enterobacteriaceae	0.0	0.0
Erwinia amylovora	Erwinia	Enterobacteriaceae	0.0	0.0
Klebsiella milletis	Klebsiella	Enterobacteriaceae	0.0	0.0
Salmonella bongori	Salmonella	Enterobacteriaceae	0.0	0.0
Serratia grimesii	Serratia	Enterobacteriaceae	0.0	0.0
Yersinia pestis	Yersinia	Enterobacteriaceae	0.0	0.0
*		Enterobacteriaceae	0.0	0.0
Lactobacillus brevis	Lactobacillus	Lactobacillaceae	0.0	0.0
Kocuria sp. starX	Kocuria	Micrococcaceae	0.0	0.0

Acinetobacter sp. 26	Acinetobacter	Moraxellaceae	0.0	0.0
Peptoclostridium difficile	Peptoclostridium	Peptostreptococcaceae	0.0	0.0
Sorangium cellulosum	Sorangium	Polyangiaceae	0.0	0.0
Pseudomonas sp. NSi14	Pseudomonas	Pseudomonadaceae	0.0	0.0
Synergistetes oral clone 03 5 D05			0.0	0.0
bacterium EBAD26			0.0	0.0
bacterium NLAE-zl-G351			0.0	0.0
rumen bacterium enrichment culture clone Y74			0.0	0.0
unidentified marine bacterioplankton			0.0	0.0
Escherichia albertii	Escherichia	Enterobacteriaceae	0.0	0.0
Mobiluncus curtisii	Mobiluncus	Actinomycetaceae	0.0	0.0
*	Caulobacter	Caulobacteraceae	0.0	0.0
Methylotenera versatilis	Methylotenera	Methylophilaceae	0.0	0.0
Propionibacterium sp. KPL1849	Propionibacterium	Propionibacteriaceae	0.0	0.0
bacterium EBAD25			0.0	0.0
Bacillus sp. Pc3	Bacillus	Bacillaceae	0.0	0.0
Acinetobacter sp. EVA14	Acinetobacter	Moraxellaceae	0.0	0.0
Agrobacterium sp.	Agrobacterium	Rhizobiaceae	0.0	0.0
Alistipes shahii	Alistipes	Rikenellaceae	0.0	0.0
*	Thermus	Thermaceae	0.0	0.0
*	Methylibium		0.0	0.0
butyrate-producing bacterium SSC/2			0.0	0.0
Escherichia fergusonii	Escherichia	Enterobacteriaceae	0.0	0.0
Enterobacter sp. Ni15	Enterobacter	Enterobacteriaceae	0.0	0.0
Capnocytophaga ochracea	Capnocytophaga	Flavobacteriaceae	0.0	0.0
Thauera sp. 6NLG	Thauera	Rhodocyclaceae	0.0	0.0
Desulfovibrio alaskensis	Desulfovibrio	Desulfovibrionaceae	0.0	0.0
Variovorax sp. Alb14	Variovorax	Comamonadaceae	0.0	0.0
*	Shigella	Enterobacteriaceae	0.0	0.0
*	*	Micromonosporaceae	0.0	0.0
*	Micromonospora	Micromonosporaceae	0.0	0.0
Thermobifida fusca	Thermobifida	Nocardiopsaceae	0.0	0.0
Turneriella parva	Turneriella	Leptospiraceae	0.0	0.0
[Clostridium] sticklandii	Peptoclostridium	Peptostreptococcaceae	0.0	0.0
Acinetobacter sp. Ooi24	Acinetobacter	Moraxellaceae	0.0	0.0
Ochrobactrum sp. SJY1	Ochrobactrum	Brucellaceae	0.0	0.0
Carnobacterium sp. WN1359	Carnobacterium	Carnobacteriaceae	0.0	0.0
Iamia majanohamensis	Iamia	Iamiaceae	0.0	0.0
Saccharomonospora viridis	Saccharomonospora	Pseudonocardiaceae	0.0	0.0
Rhizobium sp.	Rhizobium	Rhizobiaceae	0.0	0.0
Staphylococcus sp. CDC3	Staphylococcus	Staphylococcaceae	0.0	0.0

Shigella sonnei	Shigella	Enterobacteriaceae	0.0	0.0
Pseudomonas syringae	Pseudomonas	Pseudomonadaceae	0.0	0.0
Burkholderia vietnamiensis	Burkholderia	Burkholderiaceae	0.0	0.0
Shigella boydii	Shigella	Enterobacteriaceae	0.0	0.0
Bacillus weihenstephanensis	Bacillus	Bacillaceae	0.0	0.0
Erythrobacter litoralis	Erythrobacter	Erythrobacteraceae	0.0	0.0
Pseudoalteromonas haloplanktis	Pseudoalteromonas	Pseudoalteromonadacea	0.0	0.0
Pseudomonas sp. FGI182	Pseudomonas	Pseudomonadaceae	0.0	0.0
*	Rhizobium	Rhizobiaceae	0.0	0.0
*	Rickettsia	Rickettsiaceae	0.0	0.0
Sphingobium yanoikuyae	Sphingobium	Sphingomonadaceae	0.0	0.0
Stenotrophomonas rhizophila	Stenotrophomonas	Xanthomonadaceae	0.0	0.0
*	Leuconostoc	Leuconostocaceae	0.0	0.0
Aquincola tertiaricarbonis	Aquincola		0.0	0.0
Nocardiopsis dassonvillei	Nocardiopsis	Nocardiopsaceae	0.0	0.0
Carnobacterium maltaromaticum	Carnobacterium	Carnobacteriaceae	0.0	0.0
*	Haemophilus	Pasteurellaceae	0.0	0.0
Bordetella parapertussis	Bordetella	Alcaligenaceae	0.0	0.0
*	Dietzia	Dietziaceae	0.0	0.0
Shewanella sp. W3-18-1	Shewanella	Shewanellaceae	0.0	0.0
Sphingomonas sp. NP5	Sphingomonas	Sphingomonadaceae	0.0	0.0
Staphylococcus gallinarum	Staphylococcus	Staphylococcaceae	0.0	0.0
Micavibrio aeruginosavorus	Micavibrio		0.0	0.0
Paracoccus denitrificans	Paracoccus	Rhodobacteraceae	0.0	0.0
[Cellvibrio] gilvus	Cellulomonas	Cellulomonadaceae	0.0	0.0
Corynebacterium jeikeium	Corynebacterium	Corynebacteriaceae	0.0	0.0
*	*	Staphylococcaceae	0.0	0.0
Meiothermus silvanus	Meiothermus	Thermaceae	0.0	0.0
Asticcacaulis excentricus	Asticcacaulis	Caulobacteraceae	0.0	0.0
*	Atopobium	Coriobacteriaceae	0.0	0.0
Streptococcus constellatus	Streptococcus	Streptococcaceae	0.0	0.0
Microcystis aeruginosa	Microcystis		0.0	0.0
agricultural soil bacterium SC-I-13			0.0	0.0
[Ruminococcus] obeum	Blautia	Lachnospiraceae	0.0	0.0
Thermus thermophilus	Thermus	Thermaceae	0.0	0.0
Shigella flexneri	Shigella	Enterobacteriaceae	0.0	0.0
*	Mycobacterium	Mycobacteriaceae	0.0	0.0
Pseudomonas savastanoi	Pseudomonas	Pseudomonadaceae	0.0	0.0
Staphylococcus capitis	Staphylococcus	Staphylococcaceae	0.0	0.0
*	Cupriavidus	Burkholderiaceae	0.0	0.0
Dyadobacter fermentans	Dyadobacter	Cytophagaceae	0.0	0.0

Dietzia sp. CQ4	Dietzia	Dietziaceae	0.0	0.0
*	*	Methylophilaceae	0.0	0.0
*	Neisseria	Neisseriaceae	0.0	0.0
Corynebacterium aurimucosum	Corynebacterium	Corynebacteriaceae	0.0	0.0
*			0.0	0.0
Pseudomonas fulva	Pseudomonas	Pseudomonadaceae	0.0	0.0
Chromohalobacter salexigens	Chromohalobacter	Halomonadaceae	0.0	0.0
Brevundimonas diminuta	Brevundimonas	Caulobacteraceae	0.0	0.0
Streptococcus lutetiensis	Streptococcus	Streptococcaceae	0.0	0.0
Bordetella petrii	Bordetella	Alcaligenaceae	0.0	0.0
Erythrobacter sp. JP13.1	Erythrobacter	Erythrobacteraceae	0.0	0.0
Methylobacillus glycogenes	Methylobacillus	Methylophilaceae	0.0	0.0
Candidatus Rhodoluna lacicola	Candidatus Rhodoluna	Microbacteriaceae	0.0	0.0
Arthrobacter sp. JBH1	Arthrobacter	Micrococcaceae	0.0	0.0
Aggregatibacter aphrophilus	Aggregatibacter	Pasteurellaceae	0.0	0.0
Thauera sp. B4	Thauera	Rhodocyclaceae	0.0	0.0
Lysobacter dokdonensis	Lysobacter	Xanthomonadaceae	0.0	0.0
Clostridiales genomosp. BVAB3			0.0	0.0
Streptococcus sp. I-G2	Streptococcus	Streptococcaceae	0.0	0.0
Pseudomonas mandelii	Pseudomonas	Pseudomonadaceae	0.0	0.0
Bradyrhizobium sp. S23321	Bradyrhizobium	Bradyrhizobiaceae	0.0	0.0
Phenylobacterium zucineum	Phenylobacterium	Caulobacteraceae	0.0	0.0
Pseudomonas mosselii	Pseudomonas	Pseudomonadaceae	0.0	0.0
Staphylococcus lugdunensis	Staphylococcus	Staphylococcaceae	0.0	0.0
Proteus mirabilis	Proteus	Enterobacteriaceae	0.0	0.0
*	*	Neisseriaceae	0.0	0.0
Arthrobacter sp. J3-40	Arthrobacter	Micrococcaceae	0.0	0.0
*	Pantoea	Enterobacteriaceae	0.0	0.0
Corynebacterium efficiens	Corynebacterium	Corynebacteriaceae	0.0	0.0
*	Halomonas	Halomonadaceae	0.0	0.0
Trueperella pyogenes	Trueperella	Actinomycetaceae	0.0	0.0
Streptomyces coelicolor	Streptomyces	Streptomycetaceae	0.0	0.0
Kocuria rhizophila	Kocuria	Micrococcaceae	0.0	0.0
Bacillus cereus	Bacillus	Bacillaceae	0.0	0.0
Tannerella forsythia	Tannerella	Porphyromonadaceae	0.0	0.0
*	Alkalibacterium	Carnobacteriaceae	0.0	0.0
Atopobium parvulum	Atopobium	Coriobacteriaceae	0.0	0.0
Serinicoccus profundi	Serinicoccus	Intrasporangiaceae	0.0	0.0
*	Leptotrichia	Leptotrichiaceae	0.0	0.0
*	*	Planococcaceae	0.0	0.0
Planomicrobium okeanokoites	Planomicrobium	Planococcaceae	0.0	0.0

Jannaschia sp. CCS1	Jannaschia	Rhodobacteraceae	0.0	0.0
Paracoccus aestuarii	Paracoccus	Rhodobacteraceae	0.0	0.0
Rhodobacter blasticus	Rhodobacter	Rhodobacteraceae	0.0	0.0
Agrobacterium tumefaciens	Agrobacterium	Rhizobiaceae	0.0	0.0
Shewanella sp. ANA-3	Shewanella	Shewanellaceae	0.0	0.0
Pseudomonas cichorii	Pseudomonas	Pseudomonadaceae	0.0	0.0
Halomonas sp. A3H3	Halomonas	Halomonadaceae	0.0	0.0
Serratia liquefaciens	Serratia	Enterobacteriaceae	0.0	0.0
Sphingopyxis alaskensis	Sphingopyxis	Sphingomonadaceae	0.0	0.0
*	Brevundimonas	Caulobacteraceae	0.0	0.0
Deinococcus deserti	Deinococcus	Deinococcaceae	0.0	0.0
Desulfovibrio vulgaris	Desulfovibrio	Desulfovibrionaceae	0.0	0.0
Propionibacterium sp. NTS31307302	Propionibacterium	Propionibacteriaceae	0.0	0.0
Paracoccus alcaliphilus	Paracoccus	Rhodobacteraceae	0.0	0.0
Vibrio parahaemolyticus	Vibrio	Vibrionaceae	0.0	0.0
Candidatus Saccharibacteria oral taxon TM7x			0.0	0.0
Geitlerinema sp. PCC 7407	Geitlerinema		0.0	0.0
*	Actinomyces	Actinomycetaceae	0.0	0.0
Brevundimonas vesicularis	Brevundimonas	Caulobacteraceae	0.0	0.0
Acinetobacter sp. YS0810	Acinetobacter	Moraxellaceae	0.0	0.0
*	Prevotella	Prevotellaceae	0.0	0.0
Methyloceanibacter caenitepidi	Methyloceanibacter		0.0	0.0
Leuconostoc citreum	Leuconostoc	Leuconostocaceae	0.0	0.0
*	Bacteroides	Bacteroidaceae	0.0	0.0
Pseudomonas alcaligenes	Pseudomonas	Pseudomonadaceae	0.0	0.0
Methylibium petroleiphilum	Methylibium		0.0	0.0
Moraxella catarrhalis	Moraxella	Moraxellaceae	0.0	0.0
Sphingopyxis sp. Kp5.2	Sphingopyxis	Sphingomonadaceae	0.0	0.0
Pandoraea apista	Pandoraea	Burkholderiaceae	0.0	0.0
*	Cellulomonas	Cellulomonadaceae	0.0	0.0
Olsenella uli	Olsenella	Coriobacteriaceae	0.0	0.0
Acinetobacter oleivorans	Acinetobacter	Moraxellaceae	0.0	0.0
Sphingomonas sp. 133	Sphingomonas	Sphingomonadaceae	0.0	0.0
Meiothermus taiwanensis	Meiothermus	Thermaceae	0.0	0.0
Deinococcus geothermalis	Deinococcus	Deinococcaceae	0.0	0.0
Lactobacillus sanfranciscensis	Lactobacillus	Lactobacillaceae	0.0	0.0
Acinetobacter sp. LUH5605	Acinetobacter	Moraxellaceae	0.0	0.0
Staphylococcus simulans	Staphylococcus	Staphylococcaceae	0.0	0.0
Arsenophonus nasoniae	Arsenophonus	Enterobacteriaceae	0.0	0.0
Buchnera aphidicola	Buchnera	Enterobacteriaceae	0.0	0.0
Weissella koreensis	Weissella	Leuconostocaceae	0.0	0.0

Psychrobacter sp. G	Psychrobacter	Moraxellaceae	0.0	0.0
Amycolicicoccus subflavus	Amycolicicoccus	Mycobacteriaceae	0.0	0.0
Staphylococcus hyicus	Staphylococcus	Staphylococcaceae	0.0	0.0
Morganella morganii	Morganella	Enterobacteriaceae	0.0	0.0
Kyrpidia tusciae	Kyrpidia	Alicyclobacillaceae	0.0	0.0
Ramlibacter tataouinensis	Ramlibacter	Comamonadaceae	0.0	0.0
Weeksella virosa	Weeksella	Flavobacteriaceae	0.0	0.0
Acinetobacter junii	Acinetobacter	Moraxellaceae	0.0	0.0
Acinetobacter sp. 26B2	Acinetobacter	Moraxellaceae	0.0	0.0
Mycobacterium abscessus	Mycobacterium	Mycobacteriaceae	0.0	0.0
Neisseria gonorrhoeae	Neisseria	Neisseriaceae	0.0	0.0
Sphingomonas wittichii	Sphingomonas	Sphingomonadaceae	0.0	0.0
Bacteroides dorei	Bacteroides	Bacteroidaceae	0.0	0.0
Corynebacterium halotolerans	Corynebacterium	Corynebacteriaceae	0.0	0.0
Pelomonas aquatica	Pelomonas	Comamonadaceae	0.0	0.0
Janibacter sp. TYM3221	Janibacter	Intrasporangiaceae	0.0	0.0
*	Arthrobacter	Micrococcaceae	0.0	0.0
Mycobacterium gordonae	Mycobacterium	Mycobacteriaceae	0.0	0.0
Pimelobacter simplex	Pimelobacter	Nocardioidaceae	0.0	0.0
Pseudomonas sp. OM2164	Pseudomonas	Pseudomonadaceae	0.0	0.0
Streptomyces albus	Streptomyces	Streptomycetaceae	0.0	0.0
Halomonas halocynthiae	Halomonas	Halomonadaceae	0.0	0.0
Nitrosomonas sp. AL212	Nitrosomonas	Nitrosomonadaceae	0.0	0.0
Sphingobacterium mizutaii	Sphingobacterium	Sphingobacteriaceae	0.0	0.0
Vibrio cholerae	Vibrio	Vibrionaceae	0.0	0.0
Rickettsia felis	Rickettsia	Rickettsiaceae	0.0	0.0
*	*	Moraxellaceae	0.0	0.0
Bacteroidetes bacterium WD317			0.0	0.0
Corynebacterium casei	Corynebacterium	Corynebacteriaceae	0.0	0.0
Corynebacterium marinum	Corynebacterium	Corynebacteriaceae	0.0	0.0
*	*	Flavobacteriaceae	0.0	0.0
Caulobacter segnis	Caulobacter	Caulobacteraceae	0.0	0.0
Lactobacillus gasseri	Lactobacillus	Lactobacillaceae	0.0	0.0
*	Meiothermus	Thermaceae	0.0	0.0
Rhizobium sp. NT-26	Rhizobium	Rhizobiaceae	0.0	0.0
Bacillus coagulans	Bacillus	Bacillaceae	0.0	0.0
*	Sphingomonas	Sphingomonadaceae	0.0	0.0
*	Brevibacterium	Brevibacteriaceae	0.0	0.0
Nitrosomonas europaea	Nitrosomonas	Nitrosomonadaceae	0.0	0.0
Pseudomonas alkylphenolia	Pseudomonas	Pseudomonadaceae	0.0	0.0
Terrabacter sp. DBF63	Terrabacter	Intrasporangiaceae	0.0	0.0

beta proteobacterium CB			0.0	0.0
Moraxella ovis	Moraxella	Moraxellaceae	0.0	0.0
Shewanella baltica	Shewanella	Shewanellaceae	0.0	0.0
Mycobacterium gilvum	Mycobacterium	Mycobacteriaceae	0.0	0.0
*	Exiguobacterium		0.0	0.0
*	Ochrobactrum	Brucellaceae	0.0	0.0
Geodermatophilus obscurus	Geodermatophilus	Geodermatophilaceae	0.0	0.0
*	Devosia	Hyphomicrobiaceae	0.0	0.0
Moraxella osloensis	Moraxella	Moraxellaceae	0.0	0.0
Exiguobacterium sp. 11-28	Exiguobacterium		0.0	0.0
Nocardioides sp. JS614	Nocardioides	Nocardioidaceae	0.0	0.0
Nocardioides sp. USM2	Nocardioides	Nocardioidaceae	0.0	0.0
Burkholderia gladioli	Burkholderia	Burkholderiaceae	0.0	0.0
Renibacterium salmoninarum	Renibacterium	Micrococcaceae	0.0	0.0
Pseudomonas syringae group genomo	Pseudomonas	Pseudomonadaceae	0.0	0.0
Bifidobacterium pseudolongum	Bifidobacterium	Bifidobacteriaceae	0.0	0.0
toluene-degrading bacterium UCR 021t			0.0	0.0
Corynebacterium imitans	Corynebacterium	Corynebacteriaceae	0.0	0.0
Corynebacterium callunae	Corynebacterium	Corynebacteriaceae	0.0	0.0
Bosea sp. WAO	Bosea	Bradyrhizobiaceae	0.0	0.0
Xanthobacter autotrophicus	Xanthobacter	Xanthobacteraceae	0.0	0.0
Corynebacterium diphtheriae	Corynebacterium	Corynebacteriaceae	0.0	0.0
Bacteroides thetaiotaomicron	Bacteroides	Bacteroidaceae	0.0	0.0
Caulobacter vibrioides	Caulobacter	Caulobacteraceae	0.0	0.0
*	*	Pasteurellaceae	0.0	0.0
Finegoldia magna	Finegoldia	Peptoniphilaceae	0.0	0.0
Anaerococcus prevotii	Anaerococcus	Peptoniphilaceae	0.0	0.0
Azorhizobium caulinodans	Azorhizobium	Xanthobacteraceae	0.0	0.0
Erysipelothrix rhusiopathiae	Erysipelothrix	Erysipelotrichaceae	0.0	0.0
Porphyromonas asaccharolytica	Porphyromonas	Porphyromonadaceae	0.0	0.0
*	Sphingopyxis	Sphingomonadaceae	0.0	0.0
Eubacterium rectale	Eubacterium	Eubacteriaceae	0.0	0.0
Acinetobacter venetianus	Acinetobacter	Moraxellaceae	0.0	0.0
Variovorax paradoxus	Variovorax	Comamonadaceae	0.0	0.0
Acinetobacter sp. ED45-25	Acinetobacter	Moraxellaceae	0.0	0.0
Bradyrhizobium diazoefficiens	Bradyrhizobium	Bradyrhizobiaceae	0.0	0.0
Bradyrhizobium japonicum	Bradyrhizobium	Bradyrhizobiaceae	0.0	0.0
Megamonas hypermegale	Megamonas	Veillonellaceae	0.0	0.0
*	Methylobacillus	Methylophilaceae	0.0	0.0
Nocardiopsis alba	Nocardiopsis	Nocardiopsaceae	0.0	0.0
Modestobacter marinus	Modestobacter	Geodermatophilaceae	0.0	0.0

Corynebacterium doosanense	Corynebacterium	Corynebacteriaceae	0.0	0.0
Blastococcus saxobsidens	Blastococcus	Geodermatophilaceae	0.0	0.0
Anoxybacillus flavithermus	Anoxybacillus	Bacillaceae	0.0	0.0
Aeromonas caviae	Aeromonas	Aeromonadaceae	0.0	0.0
Bacillus subtilis	Bacillus	Bacillaceae	0.0	0.0
Elizabethkingia anophelis	Elizabethkingia	Flavobacteriaceae	0.0	0.0
Staphylococcus hominis	Staphylococcus	Staphylococcaceae	0.0	0.0
Ruminococcus bicirculans	Ruminococcus	Ruminococcaceae	0.0	0.0
Paracoccus marcusii	Paracoccus	Rhodobacteraceae	0.0	0.0
*	Psychrobacter	Moraxellaceae	0.0	0.0
Sphingomonas sanxanigenens	Sphingomonas	Sphingomonadaceae	0.0	0.0
*	*	Leuconostocaceae	0.0	0.0
*	*	Burkholderiaceae	0.0	0.0
Bacteroides vulgatus	Bacteroides	Bacteroidaceae	0.0	0.0
Rhodopseudomonas palustris	Rhodopseudomonas	Bradyrhizobiaceae	0.0	0.0
Pantoea agglomerans	Pantoea	Enterobacteriaceae	0.0	0.0
*	*	Sphingomonadaceae	0.0	0.0
Mycobacterium kansasii	Mycobacterium	Mycobacteriaceae	0.0	0.0
*	Streptomyces	Streptomycetaceae	0.0	0.0
Enterococcus faecalis	Enterococcus	Enterococcaceae	0.0	0.0
Acinetobacter sp. NFM2	Acinetobacter	Moraxellaceae	0.0	0.0
Shewanella putrefaciens	Shewanella	Shewanellaceae	0.0	0.0
Bifidobacterium adolescentis	Bifidobacterium	Bifidobacteriaceae	0.0	0.0
*	Bifidobacterium	Bifidobacteriaceae	0.0	0.0
Porphyromonas gingivalis	Porphyromonas	Porphyromonadaceae	0.0	0.0
Neisseria meningitidis	Neisseria	Neisseriaceae	0.0	0.0
Rhodococcus pyridinivorans	Rhodococcus	Nocardiaceae	0.0	0.0
Aeromonas salmonicida	Aeromonas	Aeromonadaceae	0.0	0.0
Planococcus sp. PAMC 21323	Planococcus	Planococcaceae	0.0	0.0
Pseudomonas simiae	Pseudomonas	Pseudomonadaceae	0.0	0.0
Faecalibacterium prausnitzii	Faecalibacterium	Ruminococcaceae	0.0	0.0
Acinetobacter lwoffii	Acinetobacter	Moraxellaceae	0.0	0.0
Exiguobacterium sp. N139	Exiguobacterium		0.0	0.0
Streptococcus anginosus	Streptococcus	Streptococcaceae	0.0	0.0
Thauera sp. MZ1T	Thauera	Rhodocyclaceae	0.0	0.0
*	Shewanella	Shewanellaceae	0.0	0.0
*	Aeromonas	Aeromonadaceae	0.0	0.0
Staphylococcus aureus	Staphylococcus	Staphylococcaceae	0.0	0.0
Aeromonas hydrophila	Aeromonas	Aeromonadaceae	0.0	0.0
Aeromonas veronii	Aeromonas	Aeromonadaceae	0.0	0.0
Bifidobacterium breve	Bifidobacterium	Bifidobacteriaceae	0.0	0.0

Bacillus megaterium	Bacillus	Bacillaceae	0.0	0.0