

Table 2: Fecal microbiota, determined by 454 pyrosequencing, that were significantly ($p \leq 0.05$) correlated with fecal scores^a from cats with naturally occurring chronic diarrhea after being fed therapeutic diet Diet X^b or Diet Y^c for 4 weeks. Bacteria are sorted according to their phylum.

Order	Family	Genus	Species	Correlation Coefficient Diet X	Correlation Coefficient Diet Y
Phylum: Actinobacteria					
Coriobacteriales	Coriobacteriaceae	Collinsella		-0.508	-0.597
Coriobacteriales	Coriobacteriaceae	Collinsella	aerofaciens	-0.361	
Coriobacteriales	Coriobacteriaceae	Slackia		-0.414	-0.826
Phylum: Bacteroidetes					
Bacteroidales	Bacteroidaceae	Bacteroides			-0.461
Bacteroidales	Bacteroidaceae	Bacteroides	coprocola		0.498
Bacteroidales	Bacteroidaceae	Bacteroides	coprophilus		-0.486
Bacteroidales	Bacteroidaceae	Bacteroides	plebeius	0.382	-0.464
Bacteroidales	Porphyromonadaceae	Parabacteroides		0.298	0.219
Bacteroidales	Porphyromonadaceae	Parabacteroides	distasonis		0.259
Bacteroidales	Prevotellaceae	Prevotella		-0.457	0.471
Bacteroidales	Prevotellaceae	Prevotella	copri	-0.500	
Bacteroidales	Rikenellaceae	Alistipes		-0.270	
Bacteroidales	Rikenellaceae	Alistipes	putredinis	0.291	
Phylum: Firmicutes					
Clostridiales	Catabacteriaceae				-0.535
Clostridiales	Clostridiaceae			0.471	
Clostridiales	Clostridiaceae	Clostridium		0.359	0.204
Clostridiales	Clostridiaceae	Clostridium	hiranonis	-0.293	-0.208
Clostridiales	Clostridiaceae	Clostridium	perfringens	0.439	-0.296
Clostridiales	Clostridiaceae	Sarcina		0.453	0.457
Clostridiales	ClostridialesFamily XIII.IncertaeSedis			0.313	
Clostridiales	ClostridialesFamily	Eubacterium		-0.268	-0.664

Order	Family	Genus	Species	Correlation Coefficient Diet X	Correlation Coefficient Diet Y
	XIII.IncertaeSedis				
Clostridiales	Lachnospiraceae				-0.764
Clostridiales	Lachnospiraceae	Blautia		-0.416	-0.627
Clostridiales	Lachnospiraceae	Coprococcus		-0.470	-0.542
Clostridiales	Lachnospiraceae	Roseburia			-0.624
Clostridiales	Lachnospiraceae	Ruminococcus		-0.319	-0.371
Clostridiales	Lachnospiraceae	Ruminococcus	gnavus	0.389	
Clostridiales	Lachnospiraceae	Ruminococcus	torques		0.452
Clostridiales	Ruminococcaceae			-0.432	-0.218
Clostridiales	Ruminococcaceae	Clostridium	orbiscindens		-0.591
Clostridiales	Ruminococcaceae	Faecalibacterium	prausnitzii		0.326
Clostridiales	Ruminococcaceae	Oscillospira			0.383
Clostridiales	Veillonellaceae			0.425	0.263
Clostridiales	Veillonellaceae	Acidaminococcus	fermentans		-0.662
Clostridiales	Veillonellaceae	Megamonas		0.509	
Clostridiales	Veillonellaceae	Megasphaera	elsdenii	0.248	-0.545
Erysipelotrichales	Erysipelotrichaceae				0.458
Erysipelotrichales	Erysipelotrichaceae	Eubacterium	dolichum	-0.336	-0.493
Erysipelotrichales	Erysipelotrichaceae	Allobaculum		-0.254	
Erysipelotrichales	Erysipelotrichaceae	Bulleidia	p_1630_c5		0.353
Erysipelotrichales	Erysipelotrichaceae	Catenibacterium		0.302	
Erysipelotrichales	Erysipelotrichaceae	Clostridium	spiroforme	-0.395	0.513
Lactobacillales	Lactobacillaceae	Lactobacillus		0.242	0.232
Lactobacillales	Lactobacillaceae	Lactobacillus	helveticus	0.345	
Lactobacillales	Lactobacillaceae	Lactobacillus	saerimneri	0.253	
Lactobacillales	Streptococcaceae	Streptococcus		0.211	0.292
Lactobacillales	Streptococcaceae	Streptococcus	minor		0.326

Order	Family	Genus	Species	Correlation Coefficient Diet X	Correlation Coefficient Diet Y
Lactobacillales	Streptococcaceae	Streptococcus	suis	0.545	
Turicibacterales	Turicibacteraceae			0.283	
Turicibacterales	Turicibacteraceae	Turicibacter		-0.343	
Phylum: Fusobacteria					
Fusobacteriales	Fusobacteriaceae	J2_29		-0.219	
Phylum: Proteobacteria					
Burkholderiales	Alcaligenaceae	Sutterella		-0.401	0.290
Campylobacteriales	Campylobacteraceae	Campylobacter	upsaliensis		-0.785
Campylobacteriales	Helicobacteraceae	Flexispira		0.453	-0.322
Campylobacteriales	Helicobacteraceae	Helicobacter	cinaedi	0.311	
Campylobacteriales	Helicobacteraceae	Helicobacter	muridarum	0.373	
Aeromonadales	Succinivibrionaceae			0.399	-0.710
Aeromonadales	Succinivibrionaceae	Anaerobiospirillum	succiniciproducens		0.204
Aeromonadales	Succinivibrionaceae	Succinivibrio		0.570	
Enterobacteriales	Enterobacteriaceae			0.300	
Enterobacteriales	Enterobacteriaceae	Enterobacter	hormaechei	0.304	
Enterobacteriales	Enterobacteriaceae	Escherichia		0.256	-0.276
Enterobacteriales	Enterobacteriaceae	Raoultella		0.379	-0.716

^aFecal scores were assigned using a 7 point scoring system where 1=extremely dry and firm, 2 to 3 = normal stools, and 7 = very watery: separate scores were assigned for each defecation during the last 7 days on each diet.

^bDiet X: Hill's[®] Prescription Diet[®] i/d[®] Feline, Hill's Pet Nutrition, Inc., Topeka, KS, USA.

^cDiet Y: Purina Veterinary Diets[®] EN Gastroenteric[®] brand Feline Formula, Nestlé Purina PetCare Company, St. Louis, MO, USA.