Electronic Supplementary Material (ESI) for Food & Function.

Supporting Information

S1. The effects of diet on the different bacterial genera (proportion of total sequences) present in fecal samples from the domestic short hair cats (*Felis catus*) fed either a commercially available AAFCO-approved moist diet (control) or supplemented with 2% wool digest, 2% Synergy1 or 2% Novagel. P-value indicates ANOVA significance of rank transformed data and False discovery Rate (*FDR*) indicates multiple testing adjusted P-value.

Phyla	**Genera**	**Control**		**Novagel**		**Synergy1**		**Wool**			
		Mean	**SEM**	**Mean**	**SEM**	**Mean**	**SEM**	**Mean**	**SEM**	**P-value**	**FDR**
Actinobacteria	*Bifidobacterium*	0.000	0.000	0.000	0.000	1.192	0.902	0.000	0.000	0.000	0.008
	Collinsella	0.779	0.156	0.516	0.074	1.380	0.305	0.959	0.219	0.062	0.133
	Olsenella	0.000	0.000	0.000	0.000	0.070	0.030	0.000	0.000	0.000	0.004
	Unclassified Coriobacteriaceae	0.019	0.003	0.012	0.004	0.029	0.006	0.015	0.004	0.160	0.238
	Slackia	0.130	0.040	0.156	0.036	0.019	0.004	0.181	0.078	0.004	0.024
Bacteroidetes	*Bacteroides*	13.375	4.705	7.075	2.817	1.197	0.470	6.769	3.642	0.051	0.125
	Unclassified Bacteroidales	9.128	1.606	6.897	2.674	1.422	0.218	9.464	2.246	0.009	0.040
	Barnesiella	0.214	0.056	0.075	0.026	0.035	0.014	0.142	0.054	0.053	0.127
	Odoribacter	0.084	0.032	0.013	0.005	0.052	0.030	0.126	0.106	0.326	0.416
	Unclassified Porphyromonadaceae	0.035	0.008	0.008	0.002	0.004	0.002	0.018	0.008	0.029	0.082
	Parabacteroides	0.427	0.146	0.265	0.085	0.120	0.056	0.171	0.067	0.316	0.409
	Unclassified Prevotellaceae	1.045	0.202	0.873	0.362	0.244	0.056	0.881	0.212	0.017	0.060

Phyla	Genera	Control		Novagel		Synergy1		Wool			
		Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM	P-value	FDR
	Paraprevotella	0.085	0.068	0.001	0.001	0.000	0.000	0.007	0.004	0.002	0.024
	Prevotella	5.348	1.476	2.048	0.948	16.612	5.256	3.152	0.632	0.020	0.060
	Alistipes	0.021	0.017	0.000	0.000	0.002	0.002	0.007	0.006	0.138	0.223
	Unclassified Bacteroidetes	0.024	0.005	0.014	0.003	0.011	0.005	0.027	0.017	0.306	0.409
Firmicutes	*Enterococcus*	0.019	0.008	0.017	0.008	0.382	0.186	0.278	0.256	0.698	0.735
	Unclassified Lactobacillales	0.001	0.001	0.003	0.002	0.064	0.038	0.052	0.049	0.136	0.223
	Streptococcus	0.003	0.003	0.000	0.000	0.646	0.508	0.058	0.058	0.100	0.180
	Clostridium	1.135	0.415	3.051	1.122	2.672	1.399	3.657	1.274	0.492	0.564
	Unclassified Clostridiaceae	0.151	0.041	0.479	0.206	0.267	0.118	0.348	0.107	0.571	0.619
	Sarcina	0.003	0.001	0.003	0.001	0.005	0.003	0.005	0.003	0.999	0.999
	Eubacterium	1.667	0.393	1.776	0.332	0.767	0.368	1.803	0.429	0.124	0.208
	Anaerovorax	0.066	0.008	0.028	0.006	0.004	0.003	0.043	0.015	0.002	0.024
	Mogibacterium	0.027	0.019	0.001	0.001	0.066	0.024	0.010	0.005	0.019	0.060
	Blautia	4.372	1.711	2.597	0.415	5.423	2.259	3.652	0.883	0.846	0.868
	Howardella	0.021	0.009	0.015	0.005	0.013	0.008	0.009	0.005	0.572	0.619
	Anaerostipes	0.008	0.005	0.009	0.006	0.118	0.049	0.002	0.001	0.020	0.060
	Coprococcus	0.447	0.088	0.473	0.067	0.091	0.025	0.319	0.095	0.008	0.039
	Dorea	0.042	0.021	0.011	0.004	0.081	0.036	0.006	0.002	0.059	0.129

Phyla	Genera	Control		Novagel		Synergy1		Wool			
		Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM	P-value	FDR
	Unclassified Lachnospiraceae	1.682	0.452	2.335	0.475	1.617	0.450	1.561	0.360	0.463	0.546
	Roseburia	0.094	0.063	0.089	0.040	0.278	0.132	0.244	0.149	0.563	0.619
	Unclassified Clostridiales	6.051	1.454	7.095	1.306	2.565	0.536	5.308	1.299	0.088	0.166
	Peptococcus	1.129	0.482	1.036	0.152	0.350	0.099	1.145	0.383	0.093	0.171
	Unclassified Peptostreptococcaceae	0.445	0.163	0.758	0.297	0.138	0.024	0.596	0.152	0.067	0.139
	Peptostreptococcus	16.264	3.572	27.194	6.702	8.133	1.537	20.597	6.560	0.079	0.155
	Sporacetigenium	0.900	0.636	1.445	0.627	0.621	0.143	1.773	0.613	0.431	0.516
	Acetanaerobacterium	0.029	0.006	0.023	0.006	0.008	0.003	0.018	0.007	0.057	0.129
	Butyricicoccus	0.121	0.036	0.154	0.034	0.190	0.050	0.215	0.077	0.470	0.547
	Faecalibacterium	1.909	0.617	0.830	0.207	0.039	0.007	0.953	0.423	0.007	0.034
	Lactonifactor	0.001	0.001	0.004	0.003	0.002	0.001	0.005	0.002	0.298	0.406
	Oscillibacter	0.098	0.027	0.045	0.025	0.016	0.006	0.032	0.016	0.070	0.143
	Unclassified Ruminococcaceae	4.749	0.495	3.369	0.694	1.088	0.288	2.658	0.819	0.010	0.042
	Papillibacter	0.007	0.004	0.005	0.003	0.000	0.000	0.004	0.002	0.083	0.159
	Ruminococcus	0.023	0.007	0.010	0.007	0.007	0.003	0.005	0.003	0.103	0.181
	Sporobacter	0.017	0.003	0.006	0.003	0.000	0.000	0.004	0.002	0.002	0.024

Phyla	Genera	Control		Novagel		Synergy1		Wool			
		Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM	P-value	FDR
	Subdoligranulum	0.002	0.001	0.000	0.000	0.022	0.019	0.001	0.001	0.153	0.235
	Allisonella	0.081	0.031	0.004	0.002	0.209	0.026	0.068	0.028	0.001	0.024
	Megamonas	0.447	0.147	0.460	0.171	6.518	2.886	1.058	0.462	0.118	0.202
	Megasphaera	0.013	0.010	0.019	0.012	24.639	6.187	0.003	0.001	0.004	0.024
	Unclassified Veillonellaceae	0.920	0.268	1.023	0.376	0.912	0.195	0.887	0.241	0.997	0.999
	Phascolarctobacterium	0.021	0.005	0.040	0.022	0.010	0.003	0.018	0.005	0.350	0.431
	Veillonella	0.001	0.000	0.000	0.000	0.004	0.004	0.002	0.001	0.257	0.356
	Allobaculum	0.179	0.113	0.315	0.120	0.001	0.000	0.319	0.160	0.003	0.024
	Bulleidia	1.440	0.522	0.098	0.070	3.561	1.177	0.501	0.258	0.002	0.024
	Catenibacterium	0.279	0.083	0.315	0.086	10.030	3.268	0.375	0.168	0.005	0.025
	Coprobacillus	0.039	0.034	0.059	0.030	0.000	0.000	0.028	0.011	0.058	0.129
	Holdemania	0.045	0.017	0.037	0.009	0.001	0.001	0.031	0.018	0.003	0.024
	Unclassified Erysipelotrichaceae	0.237	0.027	0.139	0.038	0.191	0.054	0.229	0.081	0.416	0.505
	Turicibacter	0.005	0.005	0.030	0.016	0.069	0.046	0.001	0.000	0.231	0.332
	Unclassified Firmicutes	0.345	0.102	0.205	0.031	0.155	0.044	0.369	0.134	0.333	0.418
Fusobacteria	*Cetobacterium*	0.009	0.002	0.005	0.003	0.001	0.000	0.003	0.002	0.018	0.060
	Fusobacterium	18.891	3.891	23.482	4.954	0.397	0.097	24.596	8.933	0.004	0.024

Phyla	Genera	Control		Novagel		Synergy1		Wool			
		Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM	P-value	FDR
	Unclassified Fusobacteriaceae	0.905	0.226	0.779	0.216	0.046	0.011	0.651	0.179	0.004	0.024
Proteobacteria	*Sutterella*	1.724	0.419	0.875	0.323	1.496	0.140	0.978	0.234	0.155	0.235
	Unclassified Burkholderiales	0.014	0.007	0.002	0.001	0.000	0.000	0.005	0.005	0.036	0.098
	Unclassified Betaproteobacteria	0.254	0.126	0.050	0.025	0.004	0.002	0.072	0.055	0.020	0.060
	Desulfovibrio	0.208	0.174	0.025	0.013	0.193	0.126	0.127	0.124	0.568	0.619
	Unclassified Desulfovibrionaceae	0.002	0.002	0.000	0.000	0.005	0.003	0.002	0.002	0.256	0.356
	Unclassified Desulfovibrionales	0.007	0.006	0.002	0.002	0.022	0.012	0.024	0.018	0.582	0.621
	Campylobacter	0.018	0.010	0.019	0.014	0.010	0.007	0.025	0.014	0.831	0.864
	Helicobacter	0.000	0.000	0.000	0.000	0.040	0.019	0.004	0.002	0.003	0.024
	Anaerobiospirillum	0.889	0.218	0.616	0.337	3.189	1.366	1.215	0.410	0.155	0.235
	Succinivibrio	0.119	0.039	0.017	0.010	0.058	0.013	0.128	0.072	0.038	0.100
	Enterobacter	0.002	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.315	0.409
	Escherichia/Shigella	0.116	0.074	0.119	0.111	0.010	0.008	0.575	0.282	0.042	0.108
	Unclassified	0.012	0.009	0.021	0.018	0.000	0.000	0.074	0.030	0.015	0.060

Phyla	Genera	Control		Novagel		Synergy1		Wool			
		Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM	P-value	FDR
	Enterobacteriaceae Unclassified Proteobacteria	0.011	0.003	0.000	0.000	0.004	0.002	0.002	0.002	0.019	0.060
Unknown	*Unclassified Bacteria*	0.568	0.179	0.404	0.098	0.148	0.029	0.347	0.074	0.203	0.297