

**Table 2:** Effects of diet and select prebiotics on fecal microbial communities in cats

Diet	Alterations in Fecal Microbiome	Source
Dry (33 % protein, 11 % fat and 46 % carbohydrate; DMB) v. wet (42 % protein, 42 % fat and 5 % carbohydrate; DMB) diets	The dry diet increased the abundance of Actinobacteria and decreased those of Fusobacteria and Proteobacteria compared with the wet diet. The dry diet increased the abundances of <i>Lactobacillus</i> , <i>Megasphaera</i> and <i>Olsenella</i> and decreased that of <i>Bacteroides</i> and <i>Blautia</i>	Birmingham 2013
HPLC (53 % protein, 24 % fat and 31 % carbohydrate; DMB) dry kibble diet v. MPMC (34 % protein, 9 % fat and 11 % carbohydrate; DMB) dry kibble diet	The abundance of Actinobacteria was increased and that of Fusobacteria was decreased in the MPMC group. The abundances of <i>Clostridium</i> , <i>Faecalibacterium</i> , <i>Ruminococcus</i> , <i>Blautia</i> and <i>Eubacterium</i> were higher in the HPLC group, while those of <i>Dialister</i> , <i>Acidaminococcus</i> , <i>Bifidobacterium</i> , <i>Megasphaera</i> and <i>Mitsuokella</i> were higher in the MPMC group	Hooda 2013
HPLC (53 % protein, 24 % fat and 31 % carbohydrate; DMB) dry kibble diet v. MPMC (34 % protein, 9 % fat and 11 %	The abundances of Firmicutes and Actinobacteria were lower, but those of Fusobacteria and Proteobacteria were higher in the HPLC group. <i>Fusobacterium</i> , <i>Clostridium</i> , <i>Eubacterium</i> , <i>Ruminococcus</i> , <i>Bacteroides</i> and <i>Desulfovibrio</i> were more abundant in the HPLC	Deusch 2014

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carbohydrate; DMB)	group. <i>Megasphaera</i> , <i>Bifidobacterium</i> ,	
dry kibble diets	<i>Acidaminococcus</i> , <i>Selenomonas</i> , and <i>Prevotella</i>	
	were more abundant in the MPMC group.	
	Pathways related to amino acid biosynthesis	
	and metabolism exhibited strongest diet-related	
	differences	

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High-	Increased abundances of Firmicutes and	Birmingham
protein:fat:carbohydrate	Actinobacteria and a decreased abundance of	2013
wet diet (45:37:2 %	Fusobacteria were observed in kittens fed the	
DM) v. moderate	dry diet compared with those fed the wet diet	
protein:fat:carbohydrate	after weaning	
dry diet (35:20:28 %;		
DMB)		

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