

**Table S1.** Relative microbial abundances at family level of the anterior and posterior intestinal sections of *S. senegalensis* specimens fed control diet (diet C) and the same supplemented with alive (diet P) or inactivated (diet I) cells of the probiotics Pdp11. Blanks indicate relative abundance percentage below 1%.

Family	Anterior			Posterior		
	Diet C (%)	Diet P (%)	Diet I (%)	Diet C (%)	Diet P (%)	Diet I (%)
<i>Alcaligenaceae</i>		2.48				
<i>Bacteroidaceae</i>		7.89				
<i>Bradyrhizobiaceae</i>		1.19				
<i>Brevinemataceae</i>	13.44	3.34	50.74	77.07	13.61	88.19
<i>Colwelliaceae</i>		1.24				
<i>Enterobacteriaceae</i>		3.34				
<i>Lachnospiraceae</i>		2.49				
<i>Micrococcaceae</i>	1.08					
<i>Moraxellaceae</i>	1.24	1.31				
<i>Muribaculaceae</i>		6.24				
<i>Mycoplasmataceae_f1</i>	67.18	3.80	32.32	7.17	54.33	
<i>Pelagibacteraceae</i>		1.01				
<i>Prevotellaceae</i>		4.04				
<i>Propionibacteriaceae</i>		1.19				
<i>Pseudomonadaceae</i>	3.71	16.41	1.94		2.06	
<i>Rikenellaceae</i>		1.69				
<i>Ruminococcaceae</i>		4.65				
<i>Sphingomonadaceae</i>		1.78				
<i>Spirochaetaceae</i>				9.96	25.78	
<i>Vibrionaceae</i>			4.26	1.68		10.60
<i>Xanthomonadaceae</i>	5.72	20.75	3.59	1.04	1.57	
<i>ETC&lt;1</i>	8.71	15.17	6.07	3.09	2.66	1.21