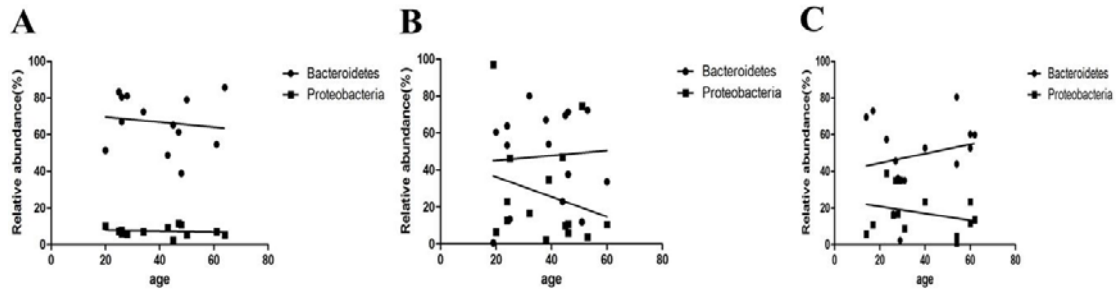


Supplementary Figure 1 Alpha diversity indices boxplot, including community richness (observed species, chao, ace) and diversity (Shannon, Simpson) varied among each group. A: observed species; B: chao; C: ace; D: Shannon; E: Simpson. ^a $P < 0.05$ vs control. CD.A: Active CD; CD.I: Inactive CD; UC.A: Active UC. A: Observed species; B: chao; C: ace; D: Shannon; E: Simpson.



Supplementary Figure 2 Correlation of the relative abundance of *Bacteroidetes* and *Proteobacteria* with age. A: *Bacteroidetes* ($r = -0.132$, $P = 0.668$); *Proteobacteria* ($r = -0.147$, $P = 0.632$) in controls; B: *Bacteroidetes* ($r = 0.070$, $P = 0.805$); *Proteobacteria* ($r = -0.297$, $P = 0.283$) in CD patients; C: *Bacteroidetes* ($r = 0.204$, $P = 0.485$); *Proteobacteria* ($r = -0.267$, $P = 0.357$) in UC patients. CD: Crohn's disease; UC: Ulcerative colitis.

Supplementary Table 1 Effect of age on the relative abundance of two bacterial phyla

Subjects	Age	Mean relative abundance (%)			
		Bacteroidetes	<i>P</i> value	Proteobacteria	<i>P</i> value
CD patients	≤ 40	49.10	0.804	29.90	0.536
	> 40	45.64		23.23	
UC patients	≤ 40	43.12	0.182	21.17	0.130
	> 40	59.42		10.85	
Controls	≤ 40	72.60	0.216	7.31	0.836
	> 40	61.92		7.37	

CD: Crohn's disease; UC: Ulcerative colitis.

Supplementary Table 2 Effect of gender on the relative abundance of two bacterial phyla

Subjects	Gender	Mean relative abundance (%)			
		Bacteroidetes	<i>P</i> value	Proteobacteria	<i>P</i> value
CD patients	Female	60.81	0.236	9.32	0.226
	Male	42.64		33.14	
UC patients	Female	39.20	0.088	13.71	0.258
	Male	58.69		21.26	
Controls	Female	58.92	0.319	8.29	0.487
	Male	69.23		7.06	

CD: Crohn's disease; UC: Ulcerative colitis.