

Supplementary Table 2. Changes in Gut Microbiome of Gout Patients before and after ULT Confirmed Using Quantitative PCR

Taxonomy	Patient	by Absolute values							by Proportion									
		1	2	4	5	6	7	9	11	13	1	2	4	5	6	7	9	11
Bacteria;;Bacteroidetes;;Bacteroidia;;Bacteroidales;;Prevotellaceae;;Prevotella;EU459805_s	EU459805_s	+	+	0	-	-	+	-	+	+								
Bacteria;;Bacteroidetes;;Bacteroidia;;Bacteroidales;;Prevotellaceae;;Prevotella_uc	Prevotella_uc	-	+	+	-	+	+	-	+	-								
Bacteria;;Bacteroidetes;;Bacteroidia;;Bacteroidales;;Bacteroidaceae;;Bacteroides;Bacteroides_uc	Bacteroides_uc	+	-	+	+	-	+	-	+	-								
Bacteria;;Firmicutes;;Negativicutes;;Veillonellales;;Veillonellaceae;;Dialister;Dialister succinatiphilus	Dialister succinatiphilus	+	-	-	+	0	+	0	0	0								
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Lachnospiraceae;;GL872355_g;GL872355_s	GL872355_s	-	+	0	0	+	0	-	-	+								
Bacteria;;Firmicutes;;Negativicutes;;Veillonellales;;Veillonellaceae;;Dialister;Dialister_uc	EU462041_s	+	-	0	0	0	+	-	+	0								
Bacteria;;Bacteroidetes;;Bacteroidia;;Bacteroidales;;Prevotellaceae;;Prevotellaceae_uc;Prevotellaceae_uc_s	Prevotellaceae_uc_s	-	+	-	-	-	+	-	+	+								
Bacteria;;Bacteroidetes;;Bacteroidia;;Bacteroidales;;Bacteroidaceae;;Bacteroidaceae_uc;Bacteroidaceae_uc_s	Bacteroidaceae_uc_s	+	+	+	+	-	+	-	+	-								
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Ruminococcaceae;;AB185816_g;EF405071_s	EF405071_s	0	+	-	+	0	+	+	+	0								
Bacteria;;Bacteroidetes;;Bacteroidia;;Bacteroidales;;S24-7_f;DQ824928_g;DQ824928_s	DQ824928_s	0	0	+	0	0	+	0	+	0								
Bacteria;;Firmicutes;;Negativicutes;;Veillonellales;;Veillonellaceae;;Dialister;Dialister_uc	Dialister_uc	-	-	+	+	0	+	+	0	0								
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Lachnospiraceae;;Agathobacter;Agathobacter_uc	Agathobacter_uc	0	-	0	+	0	0	+	0	0								
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Ruminococcaceae;;Ruminococcus_g2;Ruminococcus_g2_uc	Ruminococcus_g2_uc	+	+	0	+	0	-	0	0	0								
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Clostridiales_uc;Clostridiales_uc_g;Clostridiales_uc_s	Clostridiales_uc_s	0	-	-	-	+	+	-	+	+								
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Lachnospiraceae;;Murimonas;PAC000196_s	PAC000196_s	0	-	+	+	0	0	0	+	0								
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Ruminococcaceae;;Butyrivibrio;FJ510897_s	FJ510897_s	0	0	0	0	+	+	0	+	0								
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Lachnospiraceae;;Clostridium_g24;Clostridium_g24_uc	Clostridium_g24_uc	0	0	0	0	+	0	-	+	+								
Bacteria;;Firmicutes;;Negativicutes;;Veillonellales;;Veillonellaceae;;Veillonellaceae_uc;Veillonellaceae_uc_s	Veillonellaceae_uc_s	-	-	+	+	0	+	+	0	+								
Bacteria;;Bacteroidetes;;Bacteroidia;;Bacteroidales;;Bacteroidales_uc;Bacteroidales_uc_g;Bacteroidales_uc_s	Bacteroidales_uc_s	-	-	+	-	+	-	+	+									
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Ruminococcaceae;;AB009176_g;AB009176_g_uc	AB009176_g_uc	0	0	0	0	0	+	0	0	0								
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Ruminococcaceae;;Sporobacter;EF402847_s	EF402847_s	-	0	+	+	0	+	-	0	0								
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Lachnospiraceae;;Eisenbergiella;DQ905770_s	DQ905770_s	0	+	+	+	0	+	+	0	0								
Bacteria;;Bacteroidetes;;Bacteroidia;;Bacteroidales;;Odoribacteraceae;;Butyrivibrio;Butyrivibrio_virosa	Butyrivibrio_virosa	0	-	+	+	0	0	+	+	0								
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Christensenellaceae;;Christensenella;Christensenella_uc	Christensenella_uc	+	0	+	-	0	+	-	0	0								
Bacteria;;Firmicutes;;Bacilli;;Lactobacillales;;Leuconostocaceae;;Leuconostocaceae_uc;Leuconostocaceae_uc_s	Leuconostocaceae_uc_s	0	0	0	+	0	+	+	-	-								
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Lachnospiraceae;;Blautia;FJ880520_s	FJ880520_s	0	+	0	0	+	0	0	+	0								
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Lachnospiraceae;;Agathobacter;FJ680757_s	FJ680757_s	0	-	0	0	0	0	+	0	0								
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Lachnospiraceae;;Clostridium_g12;HQ770262_s	HQ770262_s	0	-	0	0	0	0	+	0	0								
Bacteria;;Firmicutes;;Bacilli;;Lactobacillales;;Lactobacillaceae;;Lactobacillus;Lactobacillus casei group	Lactobacillus casei group	+	+	0	0	0	0	+	+	+								
Bacteria;;Firmicutes;;Negativicutes;;Selenomonadales;;Selenomonadaceae;;Mitsuokella;Mitsuokella jalaludini	Mitsuokella jalaludini	+	-	0	0	0	0	0	0	0								
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Lachnospiraceae;;JPZU_g;JPZU_g_uc	JPZU_g_uc	0	0	0	0	0	-	+	0									
Bacteria;;Proteobacteria;;Betaproteobacteria;;Burkholderiales;;Burkholderiaceae;;Paraburkholderia;Paraburkholderia kururiensis	Paraburkholderia kururiensis	0	0	-	0	0	0	+	+									
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Lachnospiraceae;;Coprococcus_g2;EU776475_s	EU776475_s	0	-	0	+	-	0	-	+	0								
Bacteria;;Bacteroidetes;;Bacteroidia;;Bacteroidales;;Bacteroidaceae;;Bacteroides;HQ816544_s	HQ816544_s	0	0	0	0	0	0	0	0	0								
Bacteria;;Proteobacteria;;Alphaproteobacteria;;Rhodospirillales;;Rhodospirillaceae;;Rhodospirillaceae_uc;Rhodospirillaceae_uc_s	Rhodospirillaceae_uc_s	+	0	-	0	0	0	-	0	-								
Bacteria;;Proteobacteria;;Alphaproteobacteria;;Rhizobiales;;Bradyrhizobiaceae;;Bradyrhizobiaceae_uc;Bradyrhizobiaceae_uc_s	Bradyrhizobiaceae_uc_s	-	0	0	-	0	0	-	0	-								
Bacteria;;Actinobacteria;;Actinobacteria_c;;Actinomycetales;;Actinomycetaceae;;Actinomyces;Actinomyces viscosus group	Actinomyces viscosus group	+	0	0	0	0	0	+	0									
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Eubacteriaceae;;Anaerofustis;Anaerofustis_uc	Anaerofustis_uc	-	0	-	0	0	+	0	0	0								
Bacteria;;Proteobacteria;;Alphaproteobacteria;;Rhodospirillales;;Rhodospirillaceae;;Rhodospirillaceae_uc;Rhodospirillaceae_uc_s	Rhodospirillaceae_uc_s	+	0	-	0	0	0	-	0	-								
Bacteria;;Proteobacteria;;Alphaproteobacteria;;Rhizobiales;;Bradyrhizobiaceae;;Bradyrhizobium;Bradyrhizobium_uc	Bradyrhizobium_uc	-	0	0	-	0	0	-	0	-								
Bacteria;;Proteobacteria;;Betaproteobacteria;;Burkholderiales;;Ralstonia_f;Ralstonia;AM713401_s	AM713401_s	+	0	-	0	0	-	0	0	0								
Bacteria;;Proteobacteria;;Betaproteobacteria;;Burkholderiales;;Burkholderiales_uc;Burkholderiales_uc_g;Burkholderiales_uc_s	Burkholderiales_uc_s	-	0	0	0	+	+	0	-									
Bacteria;;Firmicutes;;Clostridia;;Clostridiales;;Natronincola_f;Natronincola_f_uc;Natronincola_f_uc_s	Natronincola_f_uc_s	0	0	0	0	+	+	0	+	+								
Bacteria;;Planctomycetes;;Planctomycetia;;Planctomycetales;;Gemmata_f;Gemmata_f_uc;Gemmata_f_uc_s	Gemmata_f_uc_s	0	0	0	0	0	0	0	0	-								

ULT, uric acid-lowering therapy; PCR, polymerase chain reaction.

0, no detection before/after ULT; +, more detection after ULT; -, less detection after ULT. Consistent "+" results (0 is ignored) is marked in green, and "-" is marked in scarlet. The proportion of Bradyrhizobium_uc was significantly higher in acute gout patients who recently experienced an acute gout attack and were never subjected to ULT and the proportion consistently decreased after ULT.