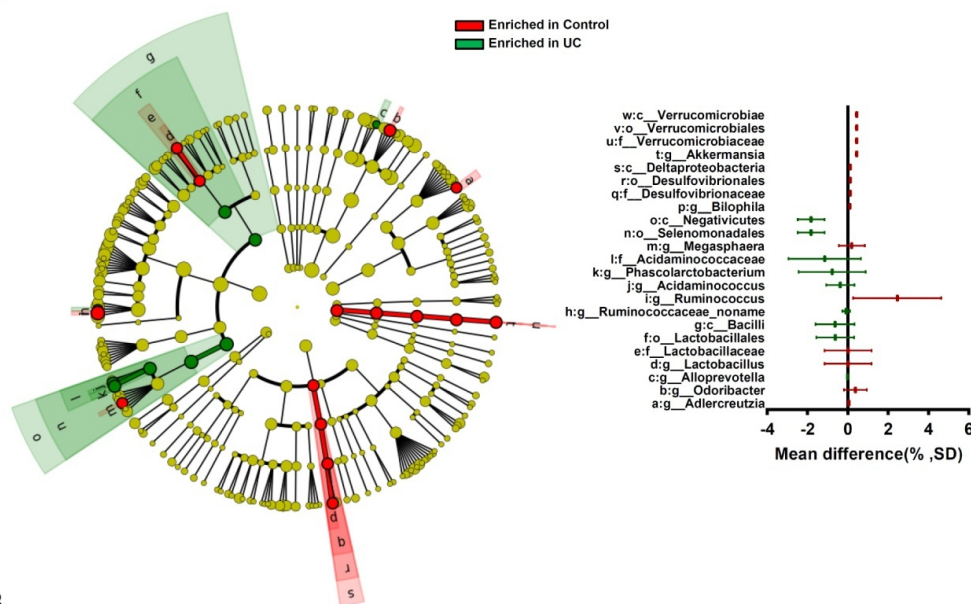


**Supplementary Figure 6.** Taxonomic features of UC patients from Spain IBD-cohort. **(A)** LDA Effect Size (LEfSe) cladograms of taxonomic abundance of metagenomic samples from controls and UC patients. The cladogram shows the taxonomic levels represented by rings with phyla at the innermost ring and genera at the outermost ring, and each circle is a member within that level. Taxa at each level are shaded green (enriched in UC) or red (enriched in Control) ( $P < 0.05$ ; LDA score  $> 2.0$ ). **(B)** LDA effect size plots of species abundance of metagenomic samples from controls and UC patients. “\*” in red indicates OGA encoding species. The LDA score indicated in the furthest right column according to the group in which it is more abundant ( $P < 0.05$ ; LDA score  $> 2.0$ ).

**A**



**B**

Phylum	Class	Order	Family	Genus	Species	LDA score
Actinobacteria	Actinobacteria	Bifidobacteriales	Bifidobacteriaceae	<i>Bifidobacterium</i>	<i>Dolescentis</i>	-2.5
					<i>Bifidum</i>	-2.5
Bacteroidetes	Bacteroidia	Coriobacteriales	Coriobacteriaceae	<i>Adlercreutzia</i>	<i>Equolifaciens</i>	2.5
		Bacteroidales	Bacteroidaceae	<i>Bacteroides</i>	<i>Xylanisolvans</i>	2.5
					<i>Massiliensis*</i>	3.5
					<i>Clarus</i>	2.5
			Porphyromonadaceae	<i>Odoribacter</i>	<i>Splanchnicus</i>	2.5
				<i>Parabacteroides</i>	<i>Goldsteinii*</i>	2.5
			Prevotellaceae	<i>Alloprevotella</i>	<i>Unclassified</i>	-2.5
			Rikenellaceae	<i>Alistipes</i>	<i>Finogoldii</i>	2.5
					<i>Shahii</i>	2.5
					<i>Onderdonkii</i>	-2.5
Firmicutes	Bacilli	Lactobacillales	Carnobacteriaceae	<i>Granulicatella</i>	<i>Adiacens</i>	-2.5
	Clostridia	Clostridiales	Clostridiaceae	<i>Clostridium</i>	<i>Nexile</i>	-2.5
			Lachnospiraceae	<i>Blautia</i>	<i>Hydrogenotrophica</i>	-2.5
				<i>Butyrivibrio</i>	<i>Crossotus</i>	3.5
				<i>Coprococcus</i>	<i>Sp_art55_1</i>	2.5
			Peptostreptococcaceae	<i>Peptostreptococcus</i>	<i>Stomatis</i>	-2.5
					<i>Anaerobius</i>	-2.5
			Ruminococcaceae	<i>Ruminococcaceae_name</i>	<i>D16</i>	-2.5
				<i>Ruminococcus</i>	<i>Jc304</i>	2.5
					<i>Bromii</i>	3.5
					<i>Succinatutens</i>	-2.5
Proteobacteria	Deltaproteobacteria	Desulfovibrionales	Desulfovibrionaceae	<i>Bilophila</i>	<i>Unclassified</i>	2.5
Verrucomicrobia	Verrucomicrobiae	Verrucomicrobiales	Verrucomicrobiaceae	<i>Akkermansia</i>	<i>Muciniphila*</i>	2.5