

Table S1. Isolation of different alginate-degrading bacteria from the human gut microbiota.

No.	Alginate-degrading bacteria	Number of strains
1	<i>Acinetobacter guillouiae</i>	3
2	<i>Bacteroides finegoldii</i>	34
3	<i>Bacteroides ovatus</i>	7
4	<i>Bacteroides stercoris</i>	1
5	<i>Bacteroides thetaiotaomicron</i>	11
6	<i>Bacteroides uniformis</i>	3
7	<i>Bacteroides xylanisolvens</i>	49
8	<i>Escherichia fergusonii</i>	10
9	<i>Parabacteroides distasonis</i>	2
10	<i>Phocaeicola dorei</i>	7
11	<i>Phocaeicola massiliensis</i>	6
12	<i>Phocaeicola vulgatus</i>	9
13	<i>Shigella flexneri</i>	6
14	<i>Sutterella wadsworthensis</i>	2
15	<i>Hafnia alvei</i>	1
16	<i>Bacteroides cellulosilyticus</i>	1
17	<i>Bifidobacterium pseudocatenulatum</i>	8
18	<i>Blautia producta</i>	3
19	<i>Clostridium butyricum</i>	1
20	<i>Coprococcus comes</i>	2
21	<i>Enterococcus avium</i>	5
22	<i>Enterococcus canintestini</i>	6
23	<i>Enterococcus durans</i>	39
24	<i>Enterococcus faecalis</i>	7
25	<i>Enterococcus gallinarum</i>	1
26	<i>Lactococcus petauri</i>	2
27	<i>Shigella dysenteriae</i>	3
28	<i>Bifidobacterium longum subsp. infantis</i>	2
29	<i>Vibrio variabilis</i>	20
30	<i>Clostridium perfringens</i>	1
31	<i>Dakarella massiliensis</i>	3
32	<i>Lactiplantibacillus pentosus</i>	8
33	<i>Eubacterium callanderi</i>	2
34	<i>Dialister hominis</i>	1
35	<i>Bacteroides fragilis</i>	14
36	<i>Enterococcus hulanensis</i>	4
37	<i>Eubacterium limosum</i>	1
38	<i>Enterococcus hirae</i>	9
39	<i>Bacteroides eggerthii</i>	1
40	<i>Veillonella atypica</i>	1
Total	-	296

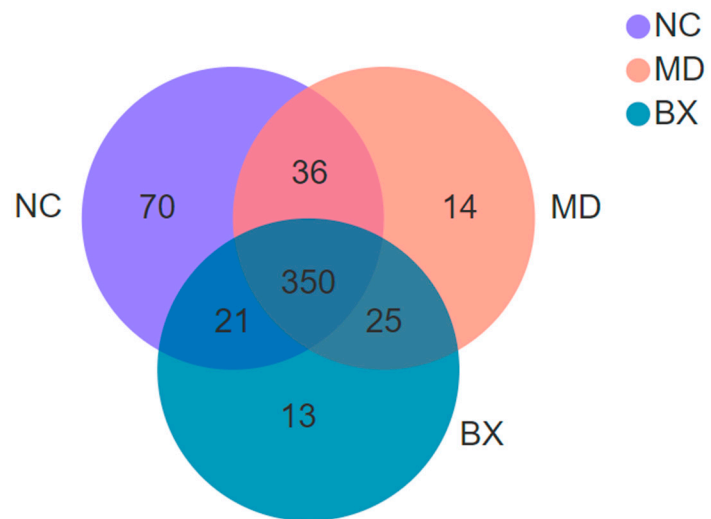


Figure S1. Venn diagram analysis of the OTUs in different treatment groups.

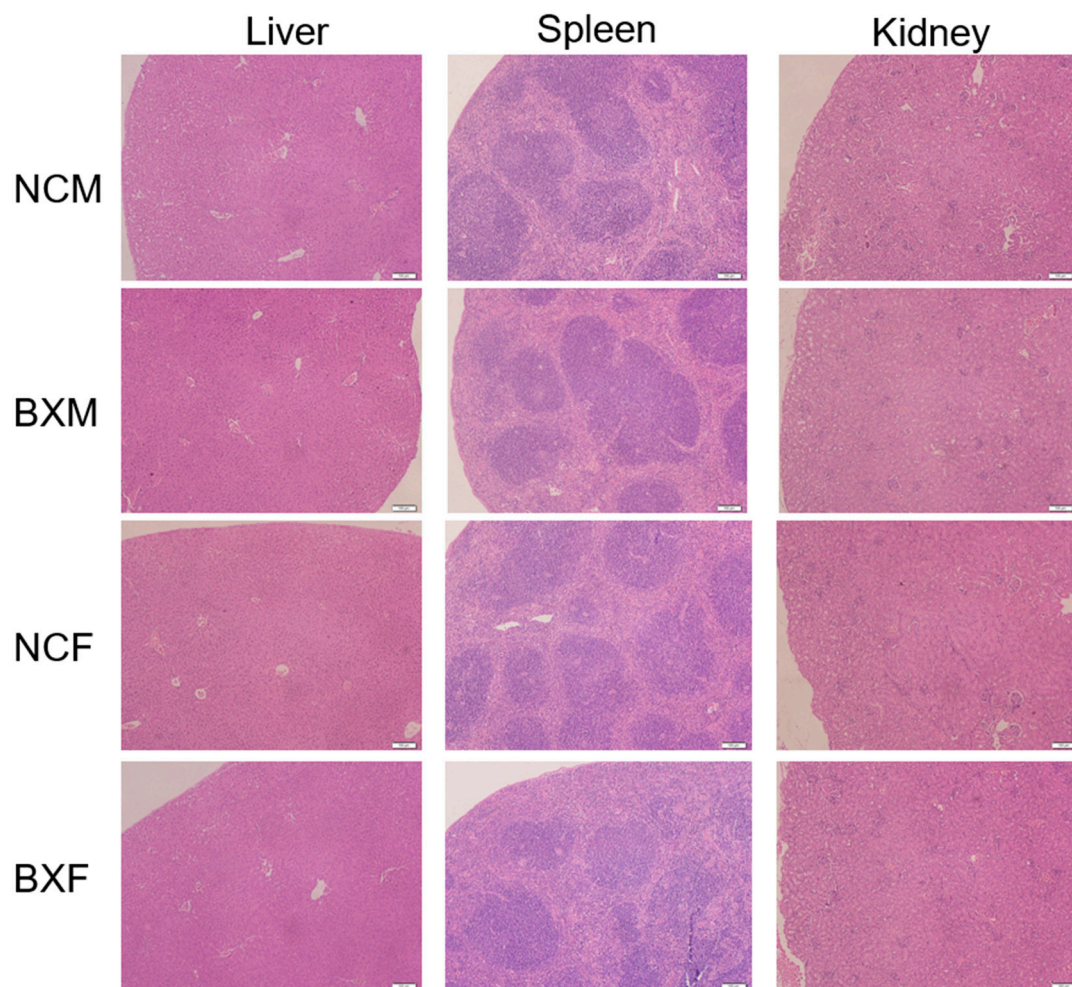


Figure S2. H&E staining of the liver, spleen and kidney tissues in different groups.