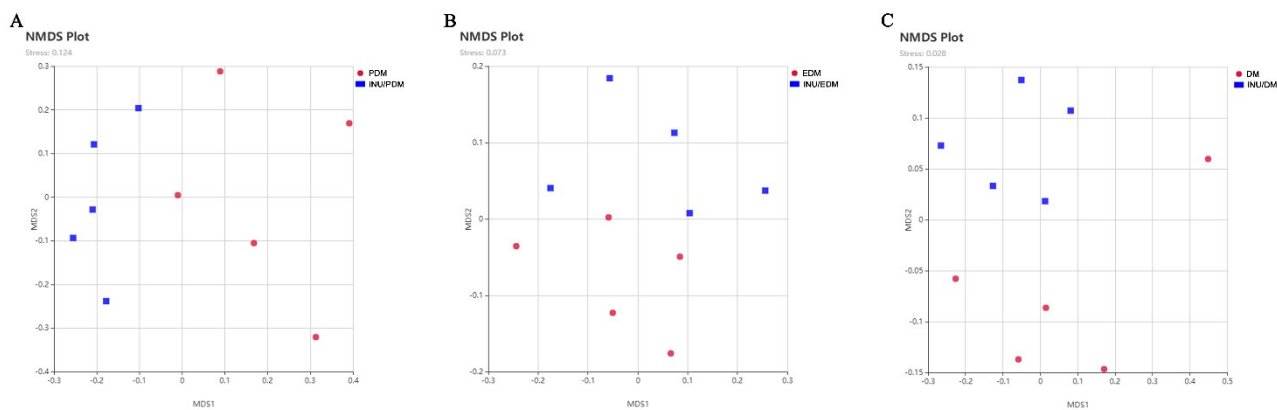


**Supplementary file1. NMDS analysis showed the difference in terms of species in fecal samples.**

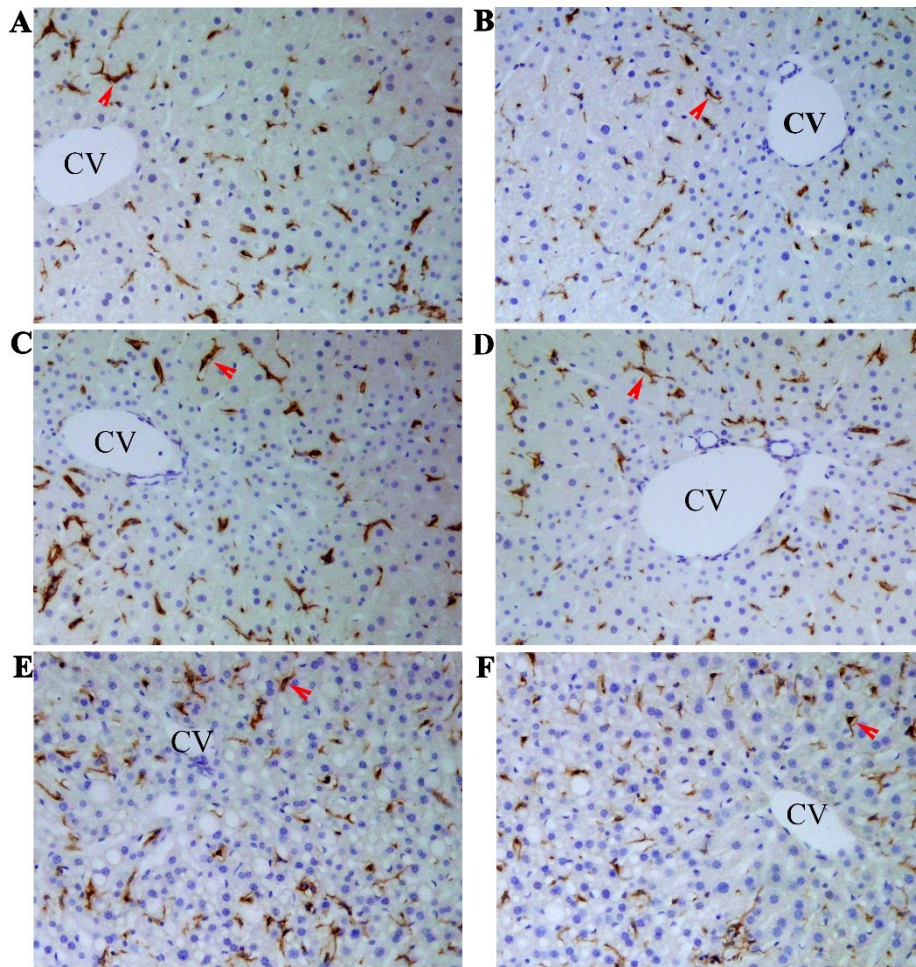


**Figure legend.** Beta diversity was analyzed on Weighted-Unifrac. A: PDM vs. INU/PDM; B: EDM vs. INU/EDM; C: DM vs. INU/DM. PDM: the pre-diabetic group; INU/PDM: inulin-treated PDM group; EDM: the early diabetic group; INU/EDM: inulin-treated EDM group; DM: the diabetic group; INU/DM: inulin-treated DM group.

**Data for supplementary file1:NMDS**

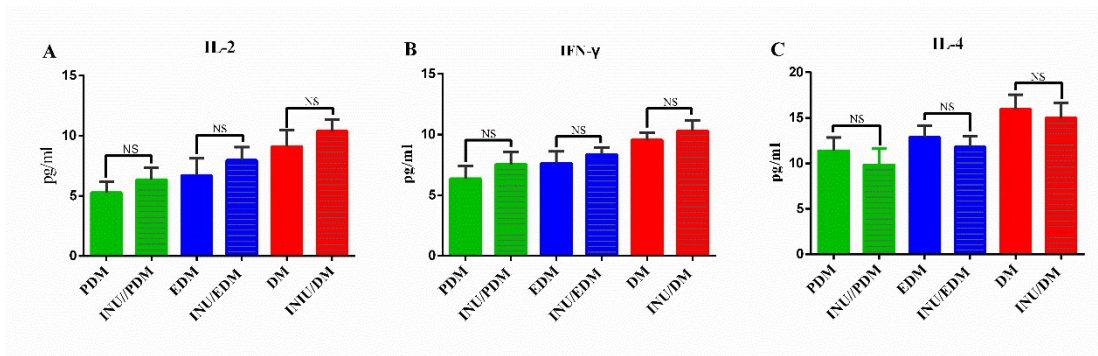
		NMDS1	NMDS2
PDM group	1	-0.2551434	-0.0934858
PDM group	2	-0.1777065	-0.2383443
PDM group	3	-0.2064121	0.12088319
PDM group	4	-0.1023236	0.2038904
PDM group	5	-0.2095631	-0.0285395
INU/PDM group	1	0.31303742	-0.3207818
INU/PDM group	2	0.16802434	-0.1053707
INU/PDM group	3	-0.0100884	0.00446627
INU/PDM group	4	0.08894799	0.28817243
INU/PDM group	5	0.39122737	0.16910973
Stress		0.124	0.124
EDM group	1	-0.058577	0.00203476
EDM group	2	0.06627771	-0.1760304
EDM group	3	-0.2438131	-0.0356834
EDM group	4	-0.0501884	-0.1229396
EDM group	5	0.08457523	-0.0494322
INU/EDM group	1	0.10414179	0.00757427
INU/EDM group	2	0.25576176	0.03708183
INU/EDM group	3	-0.1752051	0.04035663
INU/EDM group	4	-0.0563823	0.184226
INU/EDM group	5	0.07340936	0.11281213
Stress		0.073	0.073
DM group	1	-0.058699	-0.1371358
DM group	2	0.01502598	-0.0864739
DM group	3	-0.2265872	-0.0579293
DM group	4	0.17067919	-0.1467174
DM group	5	0.44894313	0.05962456
INU/DM group	1	-0.1266875	0.03321595
INU/DM group	2	0.08112989	0.10712921
INU/DM group	3	-0.2658076	0.07283707
INU/DM group	4	-0.050715	0.13719307
INU/DM group	5	0.01271817	0.01825649
Stress		0.028	0.028

**Supplementary file 2. Effects of dietary inulin profile on hepatic macrophages in diverse stages of T2DM.**



**Figure legend.** The results of immunohistochemistry in our study showed that the steatosis and inflammation of the livers of each group were significantly improved after inulin treatment. A: PDM, B: INU/PDM, C: EDM, D: INU/EDM, E: DM, F: INU/DM. Macrophages were shown with arrows in the figure. CV, central vein. Original magnification,  $\times 200$  (A). PDM: the pre-diabetic group; INU/PDM: inulin-treated PDM group; EDM: the early diabetic group; INU/EDM: inulin-treated EDM group; DM: the diabetic group; INU/DM: inulin-treated DM group.

**Supplementary file 3. Detection of plasma inflammatory cytokine levels from diverse groups in mice.**



**Figure legend.** Plasma of mice from diverse groups were collected respectively for detection of IL-2 (A), IFN- $\gamma$  (B) and IL-4 (C) concentrations using CBA kit. Data are expressed as mean  $\pm$  SEM. NS: not significant. PDM: the pre-diabetic group; INU/PDM: inulin-treated PDM group; EDM: the early diabetic group; INU/EDM: inulin-treated EDM group; DM: the diabetic group; INU/DM: inulin-treated DM group.

**Data for supplementary file 3: Detection of plasma inflammatory cytokine levels**

	PDM group	INU/PDM group	EDM group	INU/EDM group	DM group	INU/DM group
IL-2	5.29	5.43	6.47	7.05	7.46	10.69
	5.71	6.26	7.65	8.79	10.83	11.83
	4.63	6.07	4.53	6.74	8.12	9.70
	4.02	5.39	5.92	7.31	10.32	10.74
	6.69	6.82	7.10	8.43	8.50	8.96
	5.27	8.06	8.59	9.47	9.51	10.37
IL-4	12.07	10.51	14.69	13.32	18.15	17.37
	11.69	10.78	14.83	12.79	16.31	13.79
	10.43	9.32	12.03	9.70	17.02	15.18
	13.79	12.27	13.37	12.40	16.43	14.28
	10.68	8.07	11.25	10.67	13.32	13.01
	9.73	7.10	12.10	11.01	16.48	16.47
IFN- $\gamma$	5.30	6.87	6.10	8.34	9.92	10.42
	5.39	6.02	8.03	8.63	10.07	11.71
	7.45	8.73	7.76	7.90	9.37	9.69
	7.47	8.07	8.97	9.31	9.45	10.13
	5.46	7.15	7.90	8.14	10.03	10.69
	7.04	8.34	6.95	7.84	8.43	9.21

**Supplementary file4. Data for Figure.1**

**S4.1 Data for Fig.1A-C: Body weight**

	1w	2w	3w	4w	5w	6w
PDM group						
1	42.97	43.04	44.59	48.23	49.67	48.92
2	37.82	39.47	41.19	44.73	46.23	46.35
3	44.01	46.69	46.90	51.02	51.98	52.13
4	40.73	41.07	44.29	49.61	50.36	51.79
5	41.02	43.41	46.73	48.13	48.21	48.67
6	40.89	41.23	43.36	46.39	47.94	47.43
7	39.75	43.15	45.72	49.93	47.82	48.39
8	38.02	39.28	46.71	49.53	50.17	49.83
9	44.73	45.39	45.21	46.98	50.67	50.17
10	40.29	42.03	45.69	47.27	47.93	49.82
11	37.95	39.72	40.89	47.69	48.27	50.61
12	38.64	40.17	43.74	44.39	48.02	53.70
13	44.02	45.79	48.92	51.27	53.29	54.02
14	44.38	45.96	49.01	49.73	51.09	51.23
15	36.93	38.27	41.83	47.69	48.25	50.07
INU/PDM group						
1	41.99	41.61	44.38	47.11	47.49	47.70
2	37.26	38.86	40.66	43.70	44.02	45.33
3	45.43	44.67	46.23	49.54	49.13	47.73
4	39.93	40.82	43.62	47.99	48.31	44.73
5	41.40	42.59	45.03	47.87	47.58	44.80
6	39.64	41.37	42.83	45.13	43.91	47.64
7	40.80	40.64	44.39	48.32	44.91	47.90
8	36.79	36.70	45.01	44.04	44.18	45.31
9	44.36	44.40	45.11	48.45	48.66	48.84
10	39.22	40.31	43.20	46.81	46.28	46.38
11	36.70	39.14	39.78	44.01	44.23	45.85
12	38.37	38.21	42.70	45.88	46.55	48.38
13	43.03	43.84	46.91	50.38	50.26	49.77
14	42.36	43.10	47.60	49.02	49.18	50.98
15	36.83	37.22	40.82	45.05	45.86	47.98
EDM group						
1	37.79	37.93	38.59	42.05	46.25	48.03
2	43.24	43.06	46.01	52.74	53.37	51.92
3	42.89	43.58	45.78	49.81	50.23	50.03
4	47.96	48.13	50.63	52.63	53.74	52.09
5	39.91	40.21	44.79	46.39	48.49	49.89
6	40.58	41.35	45.23	48.79	46.27	50.89

7	36.79	36.82	38.50	43.02	47.87	48.87
8	38.12	39.07	45.93	48.36	49.27	50.87
9	46.21	47.83	50.07	51.47	52.31	55.27
10	41.73	43.29	46.02	49.15	51.23	53.69
11	38.97	40.27	43.28	48.61	49.07	52.89
12	41.04	42.89	44.74	46.23	49.07	52.78
13	46.79	47.71	50.04	52.47	53.67	51.52
14	43.21	45.69	49.71	48.27	49.82	51.74
15	37.04	39.58	41.76	43.89	48.63	49.86
INU/EDM group						
1	37.49	38.75	36.35	41.84	41.99	44.32
2	41.33	41.15	45.94	51.12	47.98	48.79
3	42.28	45.34	44.12	47.54	48.64	46.08
4	46.51	48.09	49.56	51.46	49.24	47.98
5	38.77	39.87	42.41	45.90	46.57	47.25
6	39.72	40.19	43.13	46.06	44.08	46.97
7	34.49	33.93	37.46	42.49	43.62	45.83
8	36.79	39.70	45.01	44.04	44.18	45.91
9	44.36	45.40	45.11	48.45	48.66	48.84
10	40.22	39.31	43.20	46.81	46.28	46.38
11	39.70	41.14	39.78	44.01	44.23	45.85
12	40.37	41.21	42.70	45.88	46.55	48.38
13	47.03	44.84	46.91	50.38	50.26	51.77
14	43.36	42.10	47.60	49.02	50.18	50.98
15	38.83	37.22	40.82	45.05	46.86	47.98
DM group						
1	41.59	44.40	47.64	50.19	49.88	45.13
2	40.78	40.99	44.55	46.49	47.95	47.45
3	42.48	41.81	45.40	44.56	45.58	48.36
4	43.42	42.79	45.56	47.95	48.58	49.82
5	38.74	39.10	42.55	45.86	46.07	47.04
6	43.56	45.55	45.04	46.46	47.73	48.25
7	41.85	41.98	45.45	48.46	48.61	49.33
8	41.94	39.34	45.75	47.77	47.23	48.56
9	37.18	36.79	41.51	42.44	43.59	44.70
10	37.04	36.57	42.88	44.91	44.89	42.56
11	37.82	39.23	41.03	42.96	42.91	41.67
12	35.89	38.47	39.79	42.77	44.36	41.78
13	36.21	38.10	39.21	42.03	45.03	44.28
14	35.34	37.94	38.57	40.19	43.53	41.73
15	34.16	37.45	38.69	39.20	42.06	41.19
INU/DM group						
1	40.70	40.27	44.89	46.75	46.54	47.39

2	42.74	42.97	47.25	50.42	51.20	52.52
3	43.63	43.54	47.85	50.34	51.64	52.03
4	43.69	44.17	48.81	52.51	53.50	54.16
5	36.83	46.77	50.58	52.11	51.47	52.03
6	44.97	45.52	50.00	52.22	54.63	52.62
7	41.94	42.34	45.75	47.77	49.23	50.10
8	38.96	37.14	40.62	42.95	43.39	45.46
9	35.26	37.95	41.07	43.23	43.12	44.06
10	36.96	35.86	40.29	44.10	44.84	45.11
11	35.46	42.38	45.46	48.79	48.62	49.18
12	37.31	39.50	49.86	50.18	50.46	50.10
13	34.24	42.36	47.33	48.47	49.83	50.43
14	37.88	39.13	45.96	46.12	48.55	49.82
15	34.74	38.44	41.78	41.68	45.07	46.63

week	PDM group	INU/PDM group	EDM group	INU/EDM group	DM group	INU/DM group
1	41.47±0.76	40.27±0.73	41.49±0.92	39.88±0.86	39.20±0.82	39.02±0.94
2	42.31±0.70	40.37±0.71	42.49±0.94	39.85±0.92	40.03±0.71	41.22±0.82
3	44.99±0.65	43.89±0.59	45.41±0.98	43.34±0.94	42.91±0.77	45.83±0.90
4	48.17±0.53	46.89±0.55	48.26±0.88	46.67±0.77	44.82±0.82	47.84±0.93
5	49.33±0.49	46.70±0.55	49.82±0.51	46.42±0.64	45.87±0.61	48.81±0.92
6	50.21±0.55	47.29±0.48	51.29±0.51	47.55±0.52	45.46±0.82	49.44±0.80



**S4.2 Data for Fig.1D-F: Fasting blood glucose**

	1w	2w	3w	4w	5w	6w
<b>PDM group</b>						
1	5.30	6.70	10.00	17.00	20.50	26.10
2	6.90	6.80	9.60	13.20	22.00	20.90
3	5.40	9.10	8.00	17.40	12.40	22.30
4	6.80	6.20	9.30	22.20	20.90	22.30
5	5.20	6.40	10.40	14.30	18.70	18.90
6	6.20	7.40	11.30	16.70	19.60	22.30
7	6.00	6.80	9.40	8.90	16.80	26.10
8	6.30	6.70	10.40	24.60	23.10	25.00
9	6.90	6.10	9.60	23.80	24.00	26.00
10	5.50	6.70	10.90	20.30	21.90	24.20
11	5.00	6.90	9.70	13.40	10.50	16.80
12	4.90	7.70	10.30	17.90	23.30	24.00
13	5.20	7.50	8.80	16.30	22.30	25.40
14	6.10	6.80	9.60	20.00	18.70	21.30
15	6.40	6.90	10.70	18.90	16.30	15.20
<b>INU/PDMgroup</b>						
1	4.90	4.20	7.80	15.90	13.00	23.20
2	4.80	6.00	8.50	13.80	17.40	20.10
3	5.00	6.10	9.40	6.10	11.00	21.00
4	6.20	6.40	8.90	25.00	15.00	19.40
5	4.90	6.50	8.90	12.80	18.90	17.10
6	5.00	6.80	9.40	13.30	18.40	18.90
7	5.60	5.40	8.40	7.60	12.70	15.00
8	6.60	6.60	8.20	19.10	13.00	26.00
9	6.40	6.20	9.10	20.50	10.50	23.40
10	5.80	7.60	10.10	18.10	16.10	17.30
11	5.80	7.80	9.80	11.20	11.70	13.00
12	6.60	6.40	8.80	23.20	25.10	17.60
13	6.40	7.80	10.10	19.80	20.70	17.70
14	6.50	6.50	9.70	15.20	16.40	13.30
15	6.80	6.20	10.20	15.00	22.90	10.10
<b>EDM group</b>						
1	13.80	18.50	14.70	32.40	25.90	27.40
2	12.70	15.60	24.40	25.70	25.90	26.40
3	11.40	13.80	16.30	18.90	19.00	24.40
4	10.70	9.80	13.20	16.30	22.70	25.40
5	11.00	20.00	22.80	26.70	28.00	22.40
6	8.70	12.90	23.60	13.10	16.90	21.30
7	11.90	14.60	18.10	21.80	28.90	29.90
8	11.00	13.70	15.40	12.10	20.70	17.90

9	15.70	11.00	30.10	10.80	19.30	17.00
10	10.00	9.40	16.20	17.90	30.30	32.10
11	10.70	18.20	29.70	32.10	28.80	33.00
12	12.00	18.40	26.70	28.80	31.80	31.20
13	13.10	14.70	27.60	30.70	19.90	18.60
14	16.70	12.30	26.90	29.40	20.00	30.00
15	13.90	17.30	23.60	28.70	32.30	30.00
INU/EDM group						
1	13.20	17.40	14.10	31.60	26.10	21.30
2	12.30	14.20	23.90	26.90	18.90	20.70
3	10.20	13.20	17.80	18.47	22.30	22.20
4	11.00	8.30	12.90	17.50	21.00	16.60
5	11.60	18.40	22.00	25.80	30.30	19.00
6	6.30	11.30	22.10	11.90	13.90	17.10
7	11.00	13.50	17.80	20.50	19.30	24.90
8	10.70	10.20	18.30	11.50	26.10	15.90
9	13.90	9.70	23.90	13.30	15.40	8.50
10	9.70	10.50	14.80	12.40	8.30	9.00
11	12.30	8.00	11.90	8.60	15.00	19.90
12	11.50	17.40	14.90	21.30	19.00	26.00
13	14.20	13.70	21.10	19.50	11.10	24.90
14	17.10	10.80	20.30	18.60	19.10	22.50
15	12.70	15.50	11.20	19.00	18.90	18.90
DM group						
1	9.80	14.20	25.90	26.00	33.30	26.90
2	15.90	19.30	13.90	12.40	29.20	29.60
3	10.40	17.70	27.10	16.00	22.40	32.50
4	13.70	26.30	23.40	22.50	21.40	25.90
5	13.20	19.10	22.80	21.10	22.40	31.00
6	19.10	17.50	27.40	31.60	29.70	30.70
7	10.40	14.40	20.80	26.10	23.00	26.40
8	11.80	19.20	24.90	25.10	29.40	28.20
9	12.60	18.10	14.00	21.10	22.40	27.20
10	12.60	13.10	18.50	23.70	28.90	30.00
11	10.80	12.30	14.50	25.20	23.80	28.90
12	11.20	15.00	15.70	18.40	25.60	30.00
13	9.70	17.20	26.70	25.90	30.00	26.80
14	9.00	12.50	13.20	27.00	28.30	24.70
15	15.80	14.20	20.00	23.50	22.20	26.10
INU/DM group						
1	21.80	12.50	15.90	24.20	26.60	22.00
2	7.50	15.50	12.90	11.80	24.40	26.20
3	12.40	13.00	20.80	23.80	21.30	22.50

4	14.20	10.40	17.50	15.30	26.90	20.50
5	9.80	15.20	18.70	17.50	23.60	19.20
6	23.90	27.10	18.60	23.40	22.30	26.20
7	23.70	22.60	16.90	33.20	21.30	23.20
8	8.70	12.70	17.00	19.80	22.30	24.10
9	12.40	9.90	21.00	20.50	21.20	23.40
10	11.30	11.80	16.90	17.40	19.00	20.80
11	6.30	6.00	18.00	11.70	18.60	22.80
12	10.80	12.70	10.70	13.00	19.90	20.50
13	10.50	16.80	21.90	18.40	26.50	27.00
14	7.90	9.90	15.80	21.60	20.00	25.80
15	15.00	13.40	14.60	13.40	21.30	20.00

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week	PDMgroup	INU/PDM group	EDM group	INU/EDM group	DM group	INU/DM group
1	5.87±0.18	5.82±0.19	12.22±0.55	11.85±0.62	12.40±0.72	13.08±1.48
2	9.95±0.20	6.43±0.24	14.68±0.85	12.81±0.86	16.62±0.94	13.97±1.34
3	9.87±0.22	9.45±0.19	21.95±1.50	17.80±1.10	20.59±1.37	17.15±1.77
4	17.66±1.09	15.77±1.37	23.03±1.97	18.46±1.64	23.04±1.22	20.04±1.50
5	19.40±1.03	16.19±1.14	24.69±1.34	18.98±1.50	26.14±0.99	23.36±0.70
6	22.46±0.88	18.21±1.01	25.80±1.30	19.16±1.34	28.33±0.58	22.95±0.65

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**S4.3Data for Fig.1G-I: Oral glucose tolerance tests**

	0min	30min	60min	120min
PDM group				
1	22.10	30.00	23.50	21.50
2	20.90	28.20	27.40	20.40
3	22.30	29.40	26.90	23.60
4	14.30	27.20	25.20	15.20
5	13.90	32.30	28.80	16.50
6	22.30	30.70	25.90	19.50
7	20.10	33.00	29.90	21.60
8	22.00	33.00	28.70	27.40
9	21.00	30.80	26.50	24.50
10	22.20	32.30	24.70	17.30
11	16.80	31.40	24.90	15.10
12	22.00	32.90	27.60	20.80
13	20.40	31.30	27.50	27.50
14	21.30	30.00	24.00	17.80
15	15.20	32.90	24.80	14.20
INU/PDM group				
1	20.20	27.90	23.50	21.50
2	20.10	25.80	22.40	19.40
3	21.00	26.10	23.00	20.20
4	19.40	24.00	20.10	18.30
5	17.10	24.80	23.80	15.60
6	18.90	22.30	20.90	9.50
7	15.00	25.60	23.90	20.30
8	16.00	27.10	24.70	22.70
9	13.40	23.50	20.50	17.50
10	17.30	27.10	20.70	17.30
11	13.00	24.20	14.90	10.10
12	17.60	24.20	23.60	15.80
13	17.70	24.80	20.50	15.50
14	13.30	22.20	14.00	18.80
15	10.10	21.00	22.80	12.20
EDM group				
1	27.40	33.30	27.10	25.00
2	26.40	33.10	28.50	17.60
3	24.40	33.30	27.40	10.50
4	25.30	31.00	30.50	28.50
5	22.40	33.30	29.10	20.20
6	21.30	33.30	31.60	21.50
7	20.90	33.10	30.00	23.20
8	17.90	32.30	29.20	26.50

9	15.00	30.00	28.40	26.50
10	23.10	30.20	29.60	22.40
11	23.00	33.30	32.80	18.80
12	25.20	30.10	29.90	17.80
13	23.60	33.00	30.30	16.90
14	22.00	32.60	31.40	18.00
15	24.00	33.20	28.70	21.90
INU/EDM group				
1	21.30	30.60	25.30	21.70
2	20.70	27.40	20.80	18.40
3	20.20	28.40	24.00	14.70
4	16.60	25.20	18.50	20.60
5	19.00	24.90	19.40	15.70
6	17.10	30.70	24.40	15.80
7	20.90	25.80	17.40	17.40
8	15.90	21.30	16.90	14.40
9	8.50	27.40	16.40	10.30
10	13.00	30.30	15.40	10.80
11	19.90	26.40	18.90	16.30
12	18.00	28.10	24.50	18.60
13	24.90	29.80	24.40	13.80
14	22.50	30.20	23.40	19.30
15	18.90	30.70	26.80	16.30
DM group				
1	26.90	33.30	32.10	28.30
2	29.60	33.40	30.70	20.40
3	24.50	33.30	30.00	33.20
4	29.10	32.60	29.50	23.50
5	26.00	33.30	31.30	23.30
6	26.70	33.30	31.80	27.30
7	26.40	33.30	32.00	25.30
8	28.20	32.50	30.00	25.60
9	27.20	32.90	31.50	24.30
10	24.00	33.30	29.70	26.20
11	24.90	33.00	32.50	22.40
12	28.00	33.30	31.90	25.00
13	26.80	33.30	30.10	24.50
14	24.70	30.70	29.30	26.10
15	28.10	33.30	31.10	25.60
INU/DM group				
1	24.00	30.30	26.30	23.90
2	24.20	29.70	28.90	23.40
3	22.50	27.30	26.30	25.70

4	26.50	30.60	23.40	20.90
5	23.20	30.30	24.30	21.00
6	26.20	30.00	23.30	25.50
7	25.20	31.40	23.60	23.40
8	27.10	32.80	30.30	24.90
9	23.40	28.10	25.30	22.60
10	22.80	27.20	24.60	21.60
11	27.80	26.90	26.70	25.80
12	26.50	27.30	25.10	18.70
13	23.00	28.60	25.30	22.00
14	22.80	25.10	24.80	23.30
15	20.00	29.40	28.20	19.70

**S4.4 Data for Fig.1J: Glycated hemoglobin**

PDM group	INU/PDM group	EDM group	INU/EDM group	DM group	INU/DM group
55.72955	49.24675	63.81920	58.30670	86.58410	83.62845
53.60000	50.65768	64.61110	62.06490	83.84788	84.87240
54.98650	47.20195	61.35820	61.19003	85.36535	80.79392
51.12440	45.40828	63.43050	58.21753	89.02152	83.47980
56.79420	48.54093	64.27590	57.89360	87.47295	84.64390

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Groups	Glycated hemoglobin
PDM group	54.45±0.98
INU/PDM group	48.21±0.90
EDM group	63.50±0.57
INU/EDM group	59.53±0.87
DM group	86.46±0.88
INU/DM group	83.48±0.73

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**S4.5 Data for Fig.1K: Triglycerides**

PDM group	INU/PDM group	EDM group	INU/EDM group	DM group	INU/DM group
2.10	1.80	2.60	2.30	2.90	2.50
2.30	1.60	2.50	2.10	3.10	2.30
2.40	1.30	2.30	1.90	2.70	2.00
1.80	1.40	2.10	1.70	3.30	2.90
1.70	1.60	2.50	2.20	2.50	2.30
2.60	2.00	2.70	2.30	2.60	2.50

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Groups	Glycated hemoglobin
PDM group	2.15±0.14
INU/PDM group	1.62±0.10
EDM group	2.45±0.09
INU/EDM group	2.08±0.10
DM group	2.85±0.13
INU/DM group	2.42±0.12

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**S4.6 Data for Fig.1L: Total cholesterol**

PDM group	INU/PDM group	EDM group	INU/EDM group	DM group	INU/DM group
2.70	2.10	2.90	2.50	3.50	3.40
3.60	1.90	3.10	2.30	3.70	3.20
2.30	2.00	2.80	1.90	2.80	2.10
1.90	2.20	3.20	2.80	3.40	2.00
2.60	1.70	2.40	1.80	3.10	2.50
3.60	1.60	2.60	2.20	2.90	2.30

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Groups	Total cholesterol
PDM group	2.78±0.12
INU/PDM group	1.92±0.09
EDM group	2.83±0.12
INU/EDM group	2.25±0.15
DM group	3.23±0.15
INU/DM group	2.58±0.24

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**Supplementary file 5. Data for Figure 2. Plasma lipopolysaccharide (LPS) levels**

PDM group	INU/PDM group	EDM group	INU/EDM group	DM group	INU/DM group
0.199695	0.160635	0.235455	0.191902	0.427925	0.390740
0.211055	0.157705	0.227739	0.223830	0.424725	0.376080
0.184825	0.170005	0.230378	0.209590	0.408390	0.409065
0.187650	0.182409	0.220079	0.207895	0.410392	0.348692
0.179270	0.160031	0.237453	0.180032	0.398410	0.380014

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Groups	LPS
PDM group	0.1925±0.0057
INU/PDM group	0.1662±0.0046
EDM group	0.2302±0.0031
INU/EDM group	0.2026±0.0076
DM group	0.4140±0.0054
INU/DM group	0.3809±0.0099

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**Supplementary file 6. Data for Figure 3. Plasma pro-inflammatory/anti- inflammatory cytokine levels**

PDM group	INU/PDM group	EDM group	INU/EDM group	DM group	INU/DM group
0.199695	0.160635	0.235455	0.191902	0.427925	0.390740
0.211055	0.157705	0.227739	0.223830	0.424725	0.376080
0.184825	0.170005	0.230378	0.209590	0.408390	0.409065
0.187650	0.182409	0.220079	0.207895	0.410392	0.348692
0.179270	0.160031	0.237453	0.180032	0.398410	0.380014

Groups	IL-6	TNF- $\alpha$	IL-17A	IL-10
PDM group	17.89 $\pm$ 1.71	21.98 $\pm$ 2.75	2.26 $\pm$ 0.35	27.95 $\pm$ 2.09
INU/PDM group	9.85 $\pm$ 1.66	10.91 $\pm$ 1.89	1.43 $\pm$ 0.23	21.45 $\pm$ 1.39
EDM group	17.81 $\pm$ 1.27	28.16 $\pm$ 1.34	4.32 $\pm$ 0.21	33.01 $\pm$ 1.80
INU/EDM group	10.29 $\pm$ 1.97	20.50 $\pm$ 1.91	2.94 $\pm$ 0.40	28.23 $\pm$ 1.00
DM group	27.35 $\pm$ 2.64	32.75 $\pm$ 2.14	4.60 $\pm$ 0.49	35.25 $\pm$ 2.33
INU/DM group	16.61 $\pm$ 2.56	21.67 $\pm$ 2.85	3.24 $\pm$ 0.29	29.30 $\pm$ 1.63

**Supplementary file7. Data for Figure 4. PcoA**

		V1	V2
PDM group	1	-0.0542	0.124491
PDM group	2	-0.09831	-0.07865
PDM group	3	-0.09028	0.112103
PDM group	4	-0.0537	0.116344
PDM group	5	0.320412	0.123106
INU/PDM group	1	0.279412	-0.15475
INU/PDM group	2	-0.06869	-0.14174
INU/PDM group	3	-0.08518	-0.09176
INU/PDM group	4	-0.07875	-0.12168
INU/PDM group	5	-0.0707	0.112541
EDM group	1	-0.00424	0.079387
EDM group	2	0.012351	0.132003
EDM group	3	-0.00939	0.064983
EDM group	4	0.030956	0.063955
EDM group	5	-0.06443	0.074182
INU/EDM group	1	0.122081	-0.09904
INU/EDM group	2	0.053999	0.007638
INU/EDM group	3	-0.33902	-0.10439
INU/EDM group	4	0.100353	-0.1013
INU/EDM group	5	0.097339	-0.11742
DM group	1	-0.09593	0.110124
DM group	2	0.346596	0.117013
DM group	3	-0.10792	0.070021
DM group	4	-0.08225	0.118419
DM group	5	-0.09728	0.077491
INU/DM group	1	-0.01556	-0.12001
INU/DM group	2	0.015614	-0.05715
INU/DM group	3	0.051619	-0.14154
INU/DM group	4	-0.00191	-0.09864
INU/DM group	5	-0.013	-0.07574

**Supplementary file 8. Data for Figure 5. Relative abundance of microbial species at the phylum level**

	1	2	3	4	5	6	7	8	9	10	11
Taxonomy	Bacteroidetes	Firmicutes	Verrucomicrobia	Tenericutes	Proteobacteria	Saccharibacteria	Deferribacteres	Cyanobacteria	Actinobacteria	Fusobacteria	Others
PDM group 1	0.6848646	0.27564938	0	0.021165672	0.0074346	0.008168885	0.00134006	0.00018357	0.00111978	0	7.34E-05
PDM group 2	0.5700229	0.40418541	5.51E-05	0.0080771	0.00394676	0.008958238	0.00264341	0.000422212	0.001688848	0	0
PDM group 3	0.3822855	0.56908674	3.67E-05	0.010206517	0.00870124	0.006883892	0.02011932	0.000477283	0.001413492	0	0.000789
PDM group 4	0.2830289	0.69486921	0.000128499	0.004662689	0.00352455	0.008958238	5.51E-05	0.000146856	0.004405691	0	0.00022
PDM group 5	0.6267462	0.24290041	0.000403855	0.093363928	0.00627811	0.022230381	5.51E-05	1.96374E-05	0.006810464	0	0.000202
INU/PDM group 1	0.5366498	0.06402937	0.29310693	0.000220285	0.08345112	0.012592933	0.00143185	0.007544745	0.000881138	0	9.18E-05
INU/PDM group 2	0.7967875	0.1659844	0.011197797	0.001854061	0.00809546	0.008921524	0.00178063	0.003083983	0.002239559	5.51E-05	8.88E-16
INU/PDM group 3	0.6945571	0.24927031	9.18E-05	0.010518587	0.00405691	0.016998623	0.0027352	0.020119321	0.001652134	0	1.33E-15
INU/PDM group 4	0.7213401	0.24313905	0.028435062	0.000128499	0.00422212	0.000201927	0.00157871	0.000275356	0.000679211	0	0
INU/PDM group 5	0.4600275	0.48374484	0.000128499	0.016815053	0.00627811	0.027590638	0	0.002239559	0.002625057	0	0.000551
EDM group 1	0.5700229	0.40418541	5.51E-05	0.0537311	0.00394676	0.008958238	0.00139541	0.000422212	0.001688848	0	0
EDM group 2	0.7776044	0.20473612	0	0.036218514	0.00431391	0.00875631	0.00398392	0.000110142	0.002368059	0	5.55E-16
EDM group 3	0.2830289	0.69486921	0.000128499	0.012042689	0.00352455	0.008958238	3.67E-05	0.000146856	0.004405691	3.67E-05	0.000184
EDM group 4	0.497788	0.44917852	3.67E-05	0.002845518	0.00670032	0.026856356	5.87E-05	0.000817347	0.005764112	0	0.001891
EDM group 5	0.6267462	0.33290041	0.000403855	0.009325928	0.00627811	0.022230381	1.28E-04	0.000609637	0.006810464	0	0.000202
INU/EDM group 1	0.5985865	0.33393667	3.67E-05	0.008077069	0.00627811	0.029642038	0.00264314	0.005103258	0.012592933	0	0.000698
INU/EDM group 2	0.4784213	0.4611106	9.18E-05	0.000624449	0.01826526	0.011950436	0.00148748	0.001138137	0.028416705	0	0.000404
INU/EDM group 3	0.7631758	0.16022028	0	0.004663221	0.05297843	0.005415328	5.51E-05	0.002533272	0.001046352	0.00053235	0.002019
INU/EDM group 4	0.6743093	0.29815512	3.67E-05	0.009955342	0.00708582	0.004497476	1.8425E-05	0.003396053	0.008903167	0	0.000184
INU/EDM group 5	0.6624874	0.30335016	9.18E-05	0.003364379	0.00649839	0.011766866	5.5199E-05	0.0026067	0.003634695	1.84E-05	9.18E-05
DM group 1	0.6898646	0.28564938	0	0.006076672	0.0074346	0.007434603	0.00134006	0.00018357	0.00111978	0	7.34E-05
DM group 2	0.5700229	0.40418541	5.51E-05	0.0099571	0.00394676	0.003946765	0.00264341	0.000422212	0.001688848	0	0
DM group 3	0.7776044	0.20473612	0	0.02235414	0.00431391	0.004313905	0.00148692	0.000109142	0.002368059	0	5.55E-16

DM group 4	0.3422855	0.52908674	3.67E-05	0.093364517	0.00870124	0.008701239	0.02011932	0.000467283	0.001413492	0	0.000789
DM group 5	0.2830289	0.69486921	0.000128499	0.022965689	0.00352455	0.003524553	5.51E-05	0.000167856	0.004405691	3.67E-05	0.000184
INU/DM group 1	0.6882607	0.27877008	0	0.001166182	0.00910509	0.009105094	3.67E-05	0.008536026	0.001780633	0	0.002937
INU/DM group 2	0.497788	0.47917852	3.67E-05	0.008077518	0.00670032	0.006700321	1.84E-05	0.001817347	0.005764112	0	0.001891
INU/DM group 3	0.8481138	0.13296007	0	0.000624702	0.00912345	0.009123451	3.67E-05	0.001147564	0.001652134	0	0.00101
INU/DM group 4	0.6367462	0.34290041	0.000403855	0.000207928	0.00627811	0.006278109	5.51E-05	0.001019637	0.006810464	0	0.000202
INU/DM group 5	0.5827811	0.36703075	0.001229922	0.000663663	0.01942405	0.029424048	5.51E-05	0.001899495	0.005213401	0	0

**Supplementary file 9. Data for Figure 6. Relative abundance of microbial species at the genus level**

	1	2	3	4	5	6	7	8	9	10	11
Taxonomy	Lactobacillus	Alistipes	Akkermansia	Lachnospiraceae_NK4A136_group	Odoribacter	Bacteroides	Ruminococcaceae_UCG-014	Anaeroplasm	Acinetobacter	Alloprevotella	Roseburia
PDM group 1	0.045452	0.419293	0	0.0644	0.11225	0.034768	0.0101147	0.018944	0.000239	0.00119321	0.01417164
PDM group 2	0.066948	0.217531	5.51E-05	0.08123	0.12712	0.037357	0.0390821	0.006829	0.000312	0.02872878	0.01103258
PDM group 3	0.049068	0.196604	3.67E-05	0.07627	0.04663	0.027994	0.1091877	0.008683	0.000459	0.00115649	0.05751262
PDM group 4	0.51084	0.135255	0.000128	0.02089	0.04626	0.021771	0.1004865	0.00268	0.000128	0.00218449	0.00816889
PDM group 5	0.080092	0.069683	0.000404	0.02049	0.0371	0.032914	0.0667462	0.083873	0.000184	0.04069757	0.00249656
INU/PDM group 1	0.011785	0.193465	0.293107	0.00743	0.03123	0.088059	0.0017623	5.51E-05	0.072988	0.01999082	0.00100964
INU/PDM group 2	0.039394	0.214906	0.011198	0.0224	0.0371	0.121927	0.0033961	0.001487	0.00033	0.04291877	0.00308398
INU/PDM group 3	0.030381	0.19844	9.18E-05	0.05019	0.20009	0.078201	0.0078201	0.009564	0.000239	0.01088573	0.01490592
INU/PDM group 4	0.114089	0.074732	0.028435	0.03356	0.20718	0.15642	0.0004222	5.51E-05	9.18E-05	0.02702157	0.00493805
INU/PDM group 5	0.055089	0.028894	0.000128	0.21094	0.02381	0.081175	0.0298118	0.012942	5.51E-05	0.06920606	0.00240477
EDM group 1	0.066948	0.217531	0.217531	0.08123	0.12712	0.037357	0.0390821	0.006829	0.000184	0.04069757	0.01103258
EDM group 2	0.028876	0.250096	0.250096	0.00716	0.12754	0.08503	0.0413401	1.84E-05	0.000257	0.04069757	0.0024782
EDM group 3	0.51084	0.135255	0.135255	0.02089	0.04626	0.021771	0.1004865	0.00268	0.001046	0.04069757	0.00816889
EDM group 4	0.133309	0.040092	0.040092	0.02794	0.04703	0.050739	0.1571547	0.003782	9.18E-05	0.04069757	0.00020193
EDM group 5	0.080092	0.069683	0.069683	0.02049	0.0371	0.032914	0.0667462	0.083873	0.001175	0.04069757	0.00249656
INU/EDM group 1	0.032492	0.204736	0.204736	0.07785	0.10284	0.030656	0.0170721	0.052006	0.00167	0.0160257	0.00655347
INU/EDM group 2	0.011179	0.20145	0.20145	0.10781	0.0887	0.014355	0.031978	0.035264	0.003194	0.00049564	0.00985773
INU/EDM group 3	0.0762	0.221019	0.221019	0.0107	0.02928	0.110821	0.0049931	0.010776	7.34E-05	0.01073887	0.00040386
INU/EDM group 4	0.242864	0.18179	0.18179	0.00329	0.11319	0.116329	0.0133456	0.00145	0.001285	0.01173015	0.00078935
INU/EDM group 5	0.01698	0.298302	0.298302	0.06012	0.0896	0.098541	0.0102249	0.000991	0.001946	0.01508949	0.00631482
DM group 1	0.045452	0.419293	0.419293	0.0644	0.11225	0.034768	0.0101147	0.018944	0.419293	0.00119321	0.01417164
DM group	0.066948	0.217531	0.217531	0.08123	0.12712	0.037357	0.0390821	0.006829	0.217531	0.02872878	0.01103258

2											
DM group 3	0.028876	0.250096	0.250096	0.00716	0.12754	0.08503	0.0413401	1.84E-05	0.250096	0.08622304	0.0024782
DM group 4	0.049068	0.196604	0.196604	0.07627	0.04663	0.027994	0.1091877	0.008683	0.196604	0.00115649	0.05751262
DM group 5	0.51084	0.135255	0.135255	0.02089	0.04626	0.021771	0.1004865	0.00268	0.135255	0.00218449	0.00816889
INU/DM group 1	0.03765	0.142377	0.142377	0.02058	0.0451	0.132777	0.0741808	7.34E-05	0.142377	0.01865076	0.00034878
INU/DM group 2	0.133309	0.040092	0.040092	0.02794	0.04703	0.050739	0.1571547	0.003782	0.040092	0.00758146	0.00020193
INU/DM group 3	0.036806	0.188931	0.188931	0.00909	0.02803	0.076824	0.0041487	0.00156	0.188931	0.03911886	0.00031207
INU/DM group 4	0.080092	0.069683	0.069683	0.02049	0.0371	0.032914	0.0667462	0.083873	0.069683	0.04069757	0.00249656
INU/DM group 5	0.069188	0.08804	0.08804	0.05518	0.06913	0.023295	0.0410464	0.021698	0.08804	0.01040844	0.0019642

	12	13	14	15	16	17	18	19	20
Taxonomy	Candidatus_Saccharimonas	Ruminiclostridium	Enterococcus	Lachnospiraceae_UCG-001	Anaerotruncus	Mucispirillum	unidentified_Lachnospiraceae	unidentified_Ruminococcaceae	Ruminiclostridium_5
PDM group 1	0.008168885	0.01079394	0.00011	1.84E-05	0.008518	0.0024321	0.0181184	0.018302	0.00503
PDM group 2	0.008958238	0.0269665	0.026306	0.000532	0.008499	0.0027814	0.01997246	0.01129	0.013327
PDM group 3	0.006883892	0.0162276	0.000128	0.021845	0.020945	0.0027353	0.01508949	0.017935	0.00637
PDM group 4	0.008958238	0.0005324	7.34E-05	0.002864	0.001836	1.58E-03	0.00212942	0.00033	0.000422
PDM group 5	0.022230381	0.0034144	0.000128	0.001634	0.002093	0	0.00233135	0.001028	0.002937
INU/PDM group 1	0.012592933	0.0039101	9.18E-05	3.67E-05	0.000624	4.51E-05	0.00075264	0.007894	0.006058
INU/PDM group 2	0.008921524	0.00771	0.002441	9.18E-05	0.002552	1.315E-05	0.0035062	0.010592	0.004865
INU/PDM group 3	0.016998623	0.0114915	5.51E-05	0.000404	0.011675	1.963E-05	0.01352914	0.017788	0.002625
INU/PDM group 4	0.000201927	0.0023313	0.000514	0.000698	0.004369	0.0000351	0.00425883	0.002295	0.00145
INU/PDM group 5	0.027590638	0.0129601	0	0.001083	0.014759	1.511E-05	0.00381827	0.016521	0.009656
EDM group	0.008958238	0.0269665	0.026306	0.002093	0.008499	0.0026434	0.01997246	0.01129	0.013327



1									
EDM group 2	0.00875631	0.0091969	0.056778	0.000789	0.003745	0.0014869	0.00082607	0.001046	0.001248
EDM group 3	0.008958238	0.0005324	7.34E-05	0.003414	0.001836	5.51E-05	0.00212942	0.00033	0.000422
EDM group 4	0.026856356	0.0054337	0.002038	0.003451	0.008426	1.84E-05	0.0024782	0.026379	0.003011
EDM group 5	0.022230381	0.0034144	0.000128	0.001781	0.002093	5.51E-05	0.00233135	0.001028	0.002937
INU/EDM group 1	0.019642038	0.0098027	0.000147	0.001028	0.009307	0.0013951	0.01130794	0.013107	0.012538
INU/EDM group 2	0.011950436	0.0107205	5.51E-05	0.001799	0.01039	0.0039835	0.03882515	0.016393	0.019881
INU/EDM group 3	0.005415328	0.0024048	0	0.001634	0.003323	3.67E-05	0.00310234	0.004222	0.002386
INU/EDM group 4	0.004497476	0.0014869	0	0.000587	0.001413	0.0005874	0.00117485	0.001469	0.000734
INU/EDM group 5	0.011766866	0.0346214	5.51E-05	0.001322	0.007637	0.0001285	0.00444241	0.018155	0.00659
DM group 1	0.008168885	0.0107939	0.00011	1.84E-05	0.008518	0.0013401	0.0181184	0.018302	0.00503
DM group 2	0.008958238	0.0269665	0.026306	0.000532	0.008499	0.0026434	0.01997246	0.01129	0.013327
DM group 3	0.00875631	0.0091969	0.056778	0.00011	0.003745	0.0014869	0.00082607	0.001046	0.001248
DM group 4	0.006883892	0.0162276	0.000128	0.021845	0.020945	0.0201193	0.01508949	0.017935	0.00637
DM group 5	0.008958238	0.0005324	7.34E-05	0.002864	0.001836	5.51E-05	0.00212942	0.00033	0.000422
INU/DM group 1	0.004497476	0.0151078	1.84E-05	0.006168	0.0105	3.67E-05	0.00985773	0.005819	0.004534
INU/DM group 2	0.026856356	0.0054337	0.002038	0.002295	0.008426	1.84E-05	0.0024782	0.026379	0.003011
INU/DM group 3	0.004607618	0.0019091	5.51E-05	0	0.004754	3.67E-05	0.00574576	0.005709	0.004644
INU/DM group 4	0.022230381	0.0034144	0.000128	0.001634	0.002093	5.51E-05	0.00233135	0.001028	0.002937
INU/DM group 5	0.01540156	0.01514456	0.000275	0.005415	0.008334	5.51E-05	0.00378155	0.013364	0.004681

	21	22	23	24	25	26	27	28
Taxonomy	Rikenellaceae _RC9_gut_group	Lachnospiraceae_U CG-006	Rikenella	[Eubacterium]_xylanophilu m_group	Prevotellaceae _UCG-001	Ruminiclostridium _9	Erysipelatoclostridium	Ruminococcus _1
PDM group 1	0.01088573	0.00062414	0.01224415	0.00100964	0.00703075	0.00721432	9.18E-05	1.84E-05
PDM group 2	0.00780174	0.0020927	0.00888481	0.00172556	0.00317577	0.01039009	0.001046352	7.34E-05
PDM group 3	0.00293713	0.01233593	0.0033777	0.00409362	0.000257	0.0105553	0.000128499	7.34E-05
PDM group 4	0.00271684	0.00341441	0.00176228	0.00047728	0.00034878	0.00126664	0.000660854	0
PDM group 5	0.00870124	0.00178063	0.00130335	0.00066085	0.00427719	0.00266177	0.000220285	0.0001285
INU/PDM group 1	0.000514	0.00033043	0.00240477	0	0.00058743	0.00190913	0.000367141	0
INU/PDM group 2	0.00211106	0.00264341	0.00293713	5.51E-05	0.01130794	0.00332263	0.010096374	0
INU/PDM group 3	0.01228086	0.00277191	0.00332263	0.01217072	0.00053235	0.00723268	0.000330427	0.00143185
INU/PDM group 4	0.0101698	0.00132171	0.00071593	0.00152364	0.00176228	0.0028637	0.005121615	0
INU/PDM group 5	0.01283157	0.00277191	0.00218449	0.00135842	0.00251492	0.00877467	0.00192749	0.00649839
EDM group 1	0.00780174	0.0020927	0.00888481	0.00172556	0.00317577	0.01039009	0.001321707	7.34E-05
EDM group 2	0.00947224	0.00078935	0.00614961	0.00034878	0.00269849	0.00280863	0.000660854	0
EDM group 3	0.00271684	0.00341441	0.00176228	0.00047728	0.00034878	0.00126664	0.000385498	0
EDM group 4	0.01363928	0.00345112	0.00262506	0.00071593	0.00275356	0.00581918	0.006057825	1.84E-05
EDM group 5	0.00870124	0.00178063	0.00130335	0.00066085	0.00427719	0.00266177	0.000770996	0.0001285
INU/EDM group 1	0.00433226	0.00102799	0.00497476	0.00381827	0.01323543	0.00486462	0.002533272	0.00372648
INU/EDM group 2	0.00501147	0.00179899	0.00638825	0.00767325	0.0036347	0.00436898	0.000899495	0.00697568
INU/EDM group 3	0.04141349	0.00163378	0.00631482	0.00023864	0.00119321	0.00512162	0.000165213	0
INU/EDM group 4	0.02536944	0.00058743	0.00424048	0.0003855	0.00201928	0.00203763	9.18E-05	0.00036714
INU/EDM group 5	0.0132905	0.00132171	0.00543369	0.01558513	0.00346948	0.01095916	0.001083066	0

DM group 1	0.01088573	0.00062414	0.01224415	0.00100964	0.00703075	0.00721432	9.18E-05	1.84E-05
DM group 2	0.00780174	0.0020927	0.00888481	0.00172556	0.00317577	0.01039009	0.001046352	7.34E-05
DM group 3	0.00947224	0.00078935	0.00614961	0.00034878	0.00269849	0.00280863	0.002992198	0
DM group 4	0.00293713	0.01233593	0.0033777	0.00409362	0.000257	0.0105553	0.000128499	7.34E-05
DM group 5	0.00271684	0.00341441	0.00176228	0.00047728	0.00034878	0.00126664	0.000660854	0
INU/DM group 1	0.00385498	0.00602111	0.00315741	0.00011014	0.01439192	0.0089766	0.001945847	9.18E-05
INU/DM group 2	0.01363928	0.00345112	0.00262506	0.00071593	0.00275356	0.00581918	0.000770996	1.84E-05
INU/DM group 3	0.03645709	0.00530519	0.00378155	5.51E-05	0.03329968	0.00356127	0.00111978	0
INU/DM group 4	0.00870124	0.00178063	0.00130335	0.00066085	0.00427719	0.00266177	0.000220285	0.0001285
INU/DM group 5	0.02375402	0.00326755	0.00227627	0.00715925	0.00301056	0.00804039	0.000513997	0.00565397
	0.01088573	0.00062414	0.01224415	0.00100964	0.00703075	0.00721432	9.18E-05	1.84E-05

	29	30	31	32	33	34	35	36
Taxonomy	Ruminiclostridium_6	Parabacteroides	Corynebacterium_1	unidentified_Chloroplast	Oscillibacter	Intestinimonas	[Eubacterium]_coprostanoligenes_group	Candidatus_Arthromitus
PDM group 1	0.0064617	0.000569	0.000496	3.67E-05	0.002313	0.004754	9.18E-05	0.000532
PDM group 2	0.0024598	0.000367	0.000642	0	0.003671	0.004094	0.000165	0.001101
PDM group 3	0.000128	1.84E-05	0.000422	9.18E-05	0.004277	0.000863	0.000239	0.000551
PDM group 4	0.0047545	0	0.003341	3.67E-05	0.00033	0.000496	5.51E-05	0.004277
PDM group 5	0.0001652	0.000128	0.005819	0	0.000716	0.001762	0.000422	0.001358
INU/PDM	8.357E-05	0.002074	0.000294	0.005691	0.000294	0.001707	0	0.002276

group 1								
INU/PDM group 2	4.828E-05	0.001872	0.001046	0	0.001579	0.000863	5.51E-05	0.003157
INU/PDM group 3	8.771E-05	0.000606	0.000128	0	0.001615	0.004002	0.003102	0.000147
INU/PDM group 4	5.51E-05	0.00615	9.18E-05	0	0.002515	0.000257	0.004387	0.001175
INU/PDM group 5	7.283E-05	0.000367	0.001267	0	0.005324	0.000973	0.000551	0.001964
EDM group 1	0.0133272	0.003176	0.000642	0.01129	0.003671	0.004094	0.001726	0.001101
EDM group 2	0.0012483	0.002698	0.001652	0.001046	0.001065	0.001028	0.000349	0.001322
EDM group 3	0.0004222	0.000349	0.003341	0.00033	0.00033	0.000496	0.000477	0.004277
EDM group 4	0.0030106	0.002754	0.000165	0.026379	0.004865	0.000404	0.000716	0.002809
EDM group 5	0.0029371	0.004277	0.005819	0.001028	0.000716	0.001762	0.000661	0.001358
INU/EDM group 1	0.0125379	0.013235	0.011785	0.013107	0.001964	0.002276	0.003818	0.002772
INU/EDM group 2	0.0198807	0.003635	0.027444	0.016393	0.002515	0.001854	0.007673	0.001156
INU/EDM group 3	0.0023864	0.001193	0.000294	0.004222	0.001046	0.000698	0.000239	0.000661
INU/EDM group 4	0.0007343	0.002019	0.008261	0.001469	0.000312	0.001597	0.000385	0.002625
INU/EDM group 5	0.0065902	0.003469	0.003029	0.018155	0.004608	0.002698	0.015585	0.001046
DM group 1	0.0064617	0.000624	0.000496	0.018118	0.002313	0.004754	9.18E-05	0.000532
DM group 2	0.0024598	0.002093	0.000642	0.019972	0.003671	0.004094	0.000165	0.001101
DM group 3	0.0001285	0.000789	0.001652	0.000826	0.001065	0.001028	0.000184	0.001322
DM group 4	0.0047545	0.012336	0.000422	0.015089	0.004277	0.000863	0.000239	0.000551
DM group 5	0.0001652	0.003414	0.003341	0.002129	0.00033	0.000496	5.51E-05	0.004277
INU/DM group 1	0.0001101	0.006021	0.000881	0.009858	0.002515	0.001707	0.003121	0.001432
INU/DM group 2	0.0009913	0.003451	0.000165	0.002478	0.004865	0.000404	0.000789	0.002809
INU/DM	1.84E-05	0.005305	9.18E-05	0.005746	0.000606	0.000955	0.000239	0.00033

group 3								
INU/DM group 4	0.0002937	0.001781	0.005819	0.002331	0.000716	0.001762	0.000422	0.001358
INU/DM group 5	0.0013951	0.003268	0.000202	0.003782	0.003763	0.00224	0.002001	0.00145

	37	38	39	40	41
Taxonomy	Lachnospirillum	Marvinbryantia	Desulfovibrio	Parasutterella	Others
PDM group 1	0.000606	0.000349	0.000734	9.18E-05	0.15262
PDM group 2	0.001377	0.000165	0.00101	0.000184	0.214851
PDM group 3	0.002588	0.001285	0.003102	0.000165	0.248738
PDM group 4	0.000679	0.00358	5.51E-05	0.000202	0.110142
PDM group 5	0.001377	9.18E-05	0.000165	0.001469	0.496136
INU/PDM group 1	0.000184	3.67E-05	0.000184	0.00101	0.225682
INU/PDM group 2	0.002423	0.000184	0.000294	0.003066	0.411143
INU/PDM group 3	0.001524	0.000624	0.000441	0.000367	0.268453
INU/PDM group 4	0.003598	0.00022	0.000202	0.000844	0.292391
INU/PDM group 5	0.002588	0.000147	0.000551	0.002203	0.339587
EDM group 1	0.001377	0.000165	1.84E-05	0.001377	0.219091
EDM group 2	0.001322	0.000184	3.67E-05	0.001322	0.257292
EDM group 3	0.000679	0.00358	0.000404	0.000679	0.110363
EDM group 4	0.003231	0.000496	0.000294	0.003231	0.404571
EDM group 5	0.001377	9.18E-05	0.000165	0.001377	0.496228
INU/EDM group 1	0.001046	0.000496	1.84E-05	0.001046	0.307095
INU/EDM group 2	0.001505	0.000514	0	0.001505	0.275686
INU/EDM group 3	0.001138	0.001175	0.00514	0.001138	0.406829
INU/EDM group 4	0.000349	0.000404	0.000184	0.000349	0.250684
INU/EDM group 5	0.001083	9.18E-05	0.000367	0.001083	0.250133
DM group 1	0.000606	0.000349	0.000734	0.000734	0.150252
DM group 2	0.001377	0.000165	0.00101	0.00101	0.213639
DM group 3	0.001322	0.000184	5.51E-05	5.51E-05	0.25397
DM group 4	0.002588	0.001285	0.003102	0.003102	0.244185
DM group 5	0.000679	0.00358	5.51E-05	5.51E-05	0.10805
INU/DM group 1	0.000477	0.000955	0.000863	0.000863	0.413015
INU/DM group 2	0.003231	0.000496	0.002038	0.002038	0.398348
INU/DM group 3	0.001872	0.001101	0.002038	0.002038	0.488848
INU/DM group 4	0.001377	9.18E-05	0.000165	0.000165	0.49665
INU/DM group 5	0.001927	0.000881	0.000624	0.000624	0.45665