0.04 -	[Anaerorhabdus] furcosa group $r = 0.36 , P = 0.00018$		[Eubacterium] coprostanoligenes group 0.62 , $\vec{P} = 1.4E-12$	[Eubacterium] ventriosum group r =- 0.53 , P= 7.7E-09	0.9 -	[Eubacterium] xylanophilum group r = 0.22 , P= 0.025
0.03 - 0.02 - 0.01 -		1-		0.2	0.6 -	
0.00 -	[Ruminococcus] gauvreauii group r =- 0.16, P= 0.11	0.6 - r =	[Ruminococcus] torques group - 0.54 , P= 4.3E-09	Actinobacillus 1.0 Actinobacillus	0.0 - 5 - 4 -	Agathobacter r =- 0.36 , P= 0.00018
0.2-		0.2 -		0.5 -	3 - 2 - 1 -	
0.0 -	Alloprevotella r =- 0.61, P= 7.7E-12	0.5 - r = 0.4 - 0.3 -	Anaerobiospirillum - 0.3 , P= 0.0018	0.12 $r = 0.27$, $P = 0.0053$	0.02 -	Anaerofustis $r = 0.3, P = 0.002$
3-		0.2		0.04 -	0.01 -	
-3 - 0.4 - 0.3 -	Anaeroplasma $r = -0.4, \dot{P} = 2.5E - 05$	1.2 - r =	Anaerostipes - 0.34 , <i>P</i> = 0.00039	Anaerovibrio 6 - r =- 0.28 , P= 0.0036	0.10 -	Azoarcus r = 0.41 , P= 1.4E-05
0.2 - 0.1 - 0.0 -		0.4 -	· i i : i : i : i : i : i : i : i : i :		0.05 -	
4 -	Bifidobacterium $r = 0.34, P = 0.00042$	15 - r =	Blautia - 0.33 , P= 0.00057	Brachyspira • r =- 0.54 , P= 4.4E-09	0.6 -	Butyricicoccus r =- 0.34 , P= 0.00048
2-		5-		2-	0.2 -	
0.4 -	Butyrivibrio r =- 0.33, P= 0.00056	8 - r = 6 -	CAG-352 0.46, $P = 8E-07$	CAG-873 $r = 0.44, P = 3E-06$	20 - 15 -	r =- 0.6, P= 2.5E-11
0.2 -		2-			5 -	
0.08 -	Candidatus Methanogranum $r = -0.23, P = 0.021$	0.75 - r =	Candidatus Saccharimonas - 0.42 , P= 1.1E-05	Candidatus Soleaferrea r = 0.62 , P = 2.4E-12 0.4	0.125 - 0.100 - 0.075 -	Caproiciproducens $r = 0.3, P = 0.0016$
0.04 -		0.25		0.2	0.050 - 0.025 - 0.000 -	
0.4 -	Catenibacterium r =- 0.3 , P= 0.0017 • • • • • • • • • • • • • • • • • • •	0.2 -	Cetobacterium - 0.52 , <i>P</i> = 1.9E-08	Christensenellaceae R-7 group $r = 0.59 , P = 6E-11$ $6 - 4 - 4 - 4 - 6$	0.04 - 0.03 - 0.02 -	•
0.2 -	Collinsella	0.0 -	Conrocaccus 1	Conrecoccus 2	0.01 -	
0.09 -	Collinsella r = 0.33 , P= 0.00057	0.8 -	Coprococcus 1 - 0.47 , P= 5.9E-07	Coprococcus 2 r =- 0.43 , P= 5.5E-06 1.0-	0.04 - 0.03 - 0.02 -	Coriobacteriaceae UCG-003 r = 0.24 , P= 0.013
0.03 -	Corynebacterium 1	0.4 -	Desulfovibrio	0.0 - Dorea	0.02 - 0.01 - 0.00 -	Enterorhabdus
0.075 - 0.050 -	r = 0.35, P= 0.00029	3- r =	0.33 , P= 0.00071 ·	r = -0.35, P= 0.00022	0.09 -	r = 0.3, P= 0.0022
0.025 -	Erysipelotrichaceae UCG-003	0-	Erysipelotrichaceae UCG-004	0.5 - 0.0 - Faecalibacterium	0.03 -	
0.3 -	r =- 0.21, P= 0.037	1.0 -	0.082 , P= 0.41°	r = -0.55, P= 1.1E-09	0.6 -	r = 0.33, P= 0.00058
0.0 -	Flavonifractor $r = 0.29 P = 0.0025$	0.5	Fournierella - 0.45 . P = 1.7E-06	Fusicatenibacter 1.00 - r =- 0.56 . P = 5.8E-10	0.2 -	Fusobacterium
0.06 - 0.04 - 0.02 -	r = 0.29, P= 0.0025	0.6 - 0.4 - 0.2 -	- 0.45 , <i>P</i> = 1.7E-06	0.75 - 0.56 , P= 5.8E-10 0.50 - 0.25 -	0.4 - 0.3 - 0.2 -	
0.02 -	GCA-900066225 r = 0.33, P= 0.00064	0.0 -	GCA-900066575 - 0.68 , P= 1.5E-15	0.00 - Gemella 0.15 - r =- 0.48 , P = 3.4E-07	0.1 -	Haemophilus
0.04 -		0.3 -		0.10 - 0.40 , 7 = 0.4L 07	0.3 - 0.2 - 0.1 -	
0.00 -	Helicobacter r =- 0.44 , P= 2.6E-06	-0.1	Holdemanella - 0.24 , P= 0.014	0.00 - Howardella $r = -0.23, P = 0.019$	0.0 -	Intestinimonas r =- 0.39 , P= 3.7E-05
20 - 10 -				0.04	0.075 - 0.050 - 0.025 -	
of Genus (%)	Lachnoclostridium $r = -0.41, P = 1.6E - 05$	•	Lachnospira - 0.4 , P= 2.5E-05	0.00 - Lachnospiraceae FCS020 group 0.8 - r = 0.24 , P= 0.013	0.000 -	Lachnospiraceae NC2004 group r =- 0.25, P= 0.0094
e abundance		0.8		0.6 - 0.4 - 0.2 -	0.4 -	
0.8 -	Lachnospiraceae ND3007 group r =- 0.42 , P= 9.3E-06	0.0 -	Lachnospiraceae NK3A20 group 0.32 ,*P= 0.00078	1.5 - Lachnospiraceae UCG-001	0.0 - 4 - 3 -	r =- 0.6, P= 2.1E-11
0.6 - 0.4 - 0.2 -		0.4 -		0.5 - 0.0 -	2 - 1 - 0 -	
	Lachnospiraceae UCG-004 r =- 0.65 , P= 1.3E-13	0.0 - 1	Lachnospiraceae UCG-007 0.54 , P= 2.3E-09	Lachnospiraceae UCG-008 0.15 -	0.75 - 0.50 -	Lachnospiraceae UCG-010 r =- 0.42 , P= 1.1E-05
0.5 -		1-		0.10 - 0.05 - 0.00 -	0.25 -	
-0.5 - 2.0 -	Lachnospiraceae XPB1014 group r =- 0.41, P= 1.5E-05		Lactobacillus 0.29 , P= 0.0025 .	0.08 - r = 0.54 , P = 3.1E-09	0.4 -	Marvinbryantia • r =- 0.3 , P= 0.0022 • • • • • • • • • • • • • • • • • • •
1.0 - 0.5 - 0.0 -		30 - 20 - 10 -		0.04 - 0.02 - 0.00 - 0.00	0.2 - 0.1 - 0.0 -	
9-	Megasphaera r = 0.24 , P= 0.015		Methanobrevibacter 0.48 , $P = 3.2E - 07$	1.00 - Mitsuokella r =- 0.37 , P= 9.3E-05	0.6 -	Mogibacterium r = 0.46 , P= 1.2E-06
6- 3- 0-		0-		0.25	0.4 -	
10 -	Mucispirillum r =- 0.46 , P= 1.1E-06	1.5 -	Negativibacillus 0.29 , P= 0.0033	Neisseria • r =- 0.32 , P= 0.001 0.03 - 0.02	0.08 - 0.06 - 0.04 -	Olsenella r = 0.33 , P= 0.00057
5 -	Oscillibacter	0.5	p-1088-a5 gut group	0.01 - 0.01 - 0.01	0.04 -	
0.4 -	Oscillibacter r = 0.49, P= 1.8E-07	r =	p-1088-a5 gut group 0.31 , P= 0.0012	Parabacteroides 2.5 - r = 0.051 , P = 0.61 2.0 - • • • • • • •	2.0 - 1.5 - 1.0 -	r =- 0.36, P= 0.00019
0.1 -	Phoenicibacter	0.2	Prevotella 2	1.0 - 0.5 - 0.0 - Prevotella 9	0.5 - 0.0 -	Prevotellaceae UCG-001
0.20 - 0.15 - 0.10 -	r = 0.26, P = 0.0073	7.5 - γ = 5.0 - 2.5 -	- 0.54, P= 2.3E-09	50 - r =- 0.4, P= 3.1E-05 40 - 30 - 20 - 10 - 10 - 10 - 10 - 10 - 10 - 1	2 -	r =- 0.33, P= 0.00076
0.05 -	Prevotellaceae UCG-003	0.0 -	Prevotellaceae UCG-004	Rikenellaceae RC9 gut group	0 -	Roseburia
9 - 6 -	r = 0.34, P= 0.00046	0.9 -	0.23 , P= 0.017	r = 0.6, P= 1.1E-11	4 - 2 -	r =- 0.61, P= 5.7E-12
3 - 0 - 3 -	Ruminobacter r =- 0.34 , P= 0.00038	0.3	Ruminococcaceae NK4A214 group 0.54 , P= 2.3E-09	Ruminococcaceae UCG-002 15	0 -	Ruminococcaceae UCG-008 r =- 0.35 , P= 0.00033
2-		3 - 2 -		10-	1.0 -	
0 -	Ruminococcaceae UCG-010 $r = 0.5, P = 7.6E-08$	1.00 - r =	Ruminococcaceae UCG-013 0.55, P= 1.1E-09	Sarcina r =- 0.3, P= 0.0023	0.0 -	Senegalimassilia $r = 0.32, P = 0.001$
4 - 2 -		0.75 -		0.75 - 0.50 - 0.25 -	0.03 -	
0-	Slackia r = 0.35, P= 0.00028	0.00 - 1.00 - r =	Sphaerochaeta 0.28, P= 0.0044	0.00 - Stenotrophomonas r = 0.45 , P= 1.6E-06	0.01 - 0.00 - 5 -	
0.03 -		0.75 -		0.75 - 0.50 - 0.25 - 0.2	4 - 3 - 2 -	
0.00 -	Succinivibrio $r = 0.34, P = 0.00043$	2.0	Sutterella - 0.4 , P= 2.2E-05	0.00 - Treponema 2 12.5 - r = 0.53 , P= 9E-09	0 -	Tyzzerella 3 r =- 0.23 , P= 0.017
15 - 10 - 5 -		1.0 - 0.5 -		7.5	0.4	
0 -	U29-B03 r = 0.33, P= 0.00064	0.3	uncultured alpha proteobacterium - 0.3 , P= 0.0023	uncultured Erysipelotrichaceae bacterium $r = 0.24, P = 0.013$	0.0 -	uncultured Lachnospiraceae bacterium r =- 0.43 , P= 5.9E-06
0.4 -		0.2 - • 0.1 - • 0.0 -		0.2	0.10 - 0.05 - 0.00 -	
0.0 -	Veillonella r =- 0.47 , P= 3.5E-07		Weissella 0.35 , P= 3E-04	0.0 - Z20 0.5 - r = 0.39 , P = 4.5E - 05 0.4 -		0 5 10 15 20 25
0.1 -		0.10 -		0.3 - 0.2 - 0.1 - 0.0 - 0		
0	5 10 15 20 25	0.00	5 10 15 20 25	0.0 5 10 15 20 25 Age		