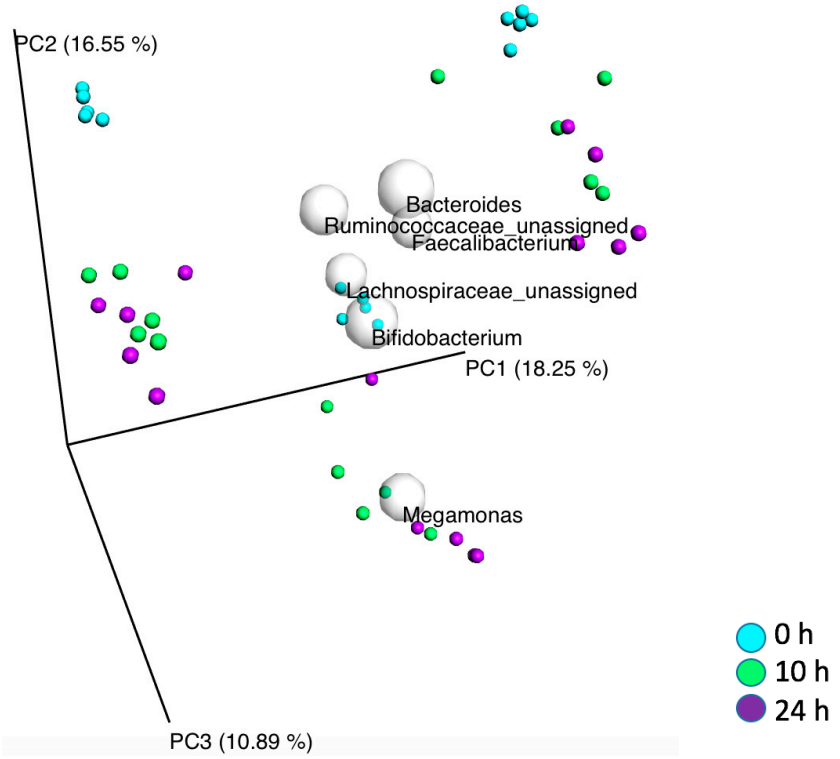
Supplementary File

Table S1. Composition analysis of Renetta Canada, Golden Delicious and Pink Lady. *

Components	Renetta Canada	Golden Delicious	Pink Lady
Energy (KJ)/100g	274	297	267
Energy (Kcal)/100g	65	70	63
Fat (Weibull Stoldt) (g/100g)	0.2	0.3	0.2
Carbohydrate total (g/100g)	16.8	17.8	16.2
Total sugar (g/100g)	13.3	12.9	13.0
Glucose (g/100g)	1.5	0.8	1.5
Fructose (g/100g)	6.4	5.6	6.4
Sucrose (g/100g)	5.4	6.5	5.1
Protein (Kjeldahl) (g/100g)	0.3	0.3	0.2
Moisture (Vac at 70°C) (g/100g)	82.5	81.3	83.0
Organic acids			
Ascorbic acid	0.6	0.4	0.9
Malic acid	902	478	729

* For each apple variety a mixture of three fresh whole apples was analyzed.

A



B

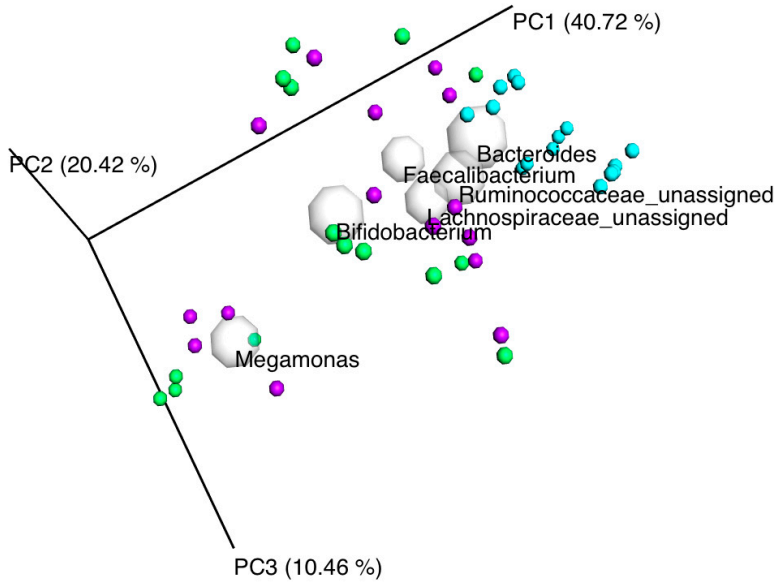
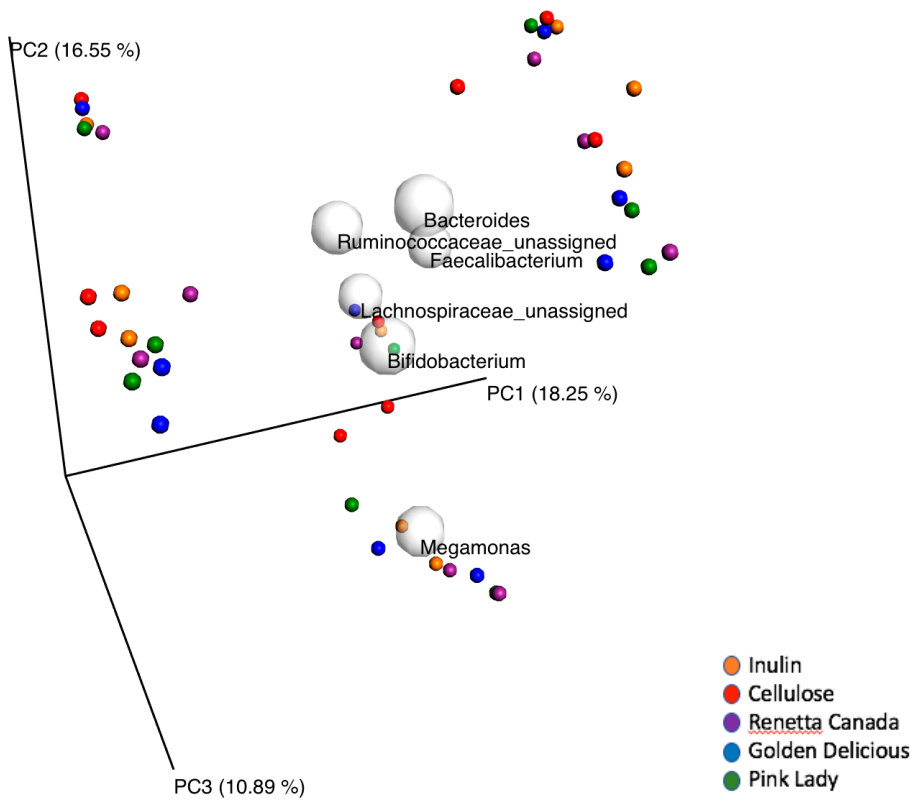


Figure S1. Principal coordinate analysis (PCoA) plots of 16S rRNA gene profiles based on (A) unweighted (qualitative) and (B) weighted (quantitative) phylogenetic UniFrac distance matrices calculated from a rarefied OTU table (11708 reads per sample) showing a clustering between time (ANOSIM and ADONIS test, P=0.01 and P=0.001, respectively) for the whole data set (24-hour *in vitro* batch culture fermentations inoculated with human feces (n=3 healthy donors) and administrated with inulin, cellulose, Renetta Canada, Golden Delicious and Pink Lady as the substrates/treatments). Samples were analyzed at 0, 10 and 24 h. Each color represents a different time point. The gray spherical coordinates indicate taxonomic vectors of the 6 most prevalent taxa at the genus level. The size of each sphere is proportional to the mean relative abundance and approximates the causing variance throughout the plotted samples.

A



B

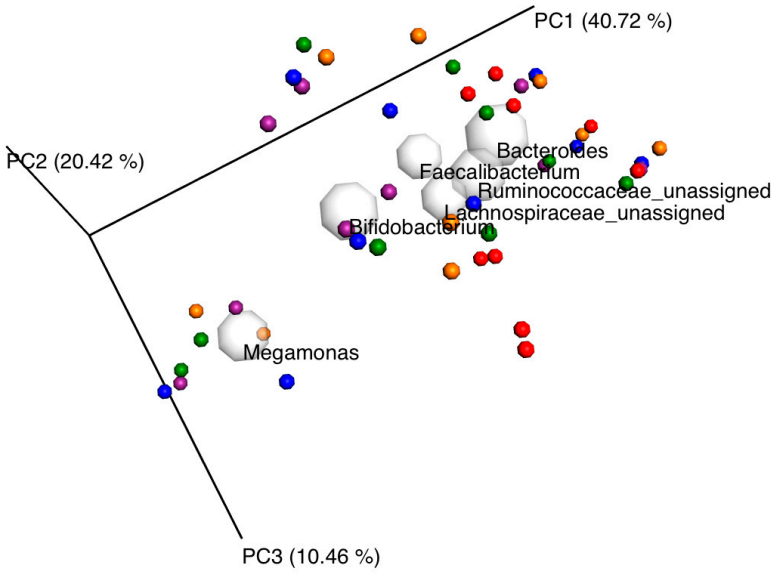


Figure S2. Principal coordinate analysis (PCoA) plots of 16S rRNA gene profiles based on (A) unweighted (qualitative) and (B) weighted (quantitative) phylogenetic UniFrac distance matrices calculated from a rarefied OTU table (11708 reads per sample) and colored according to treatment (24-hour *in vitro* batch culture fermentations inoculated with human feces (n=3 healthy donors) and administrated with inulin, cellulose, Renetta Canada, Golden Delicious and Pink Lady as the substrates/treatments). Samples were analyzed at 0, 10 and 24 h. Each color represents a different treatment. The gray spherical coordinates indicate taxonomic vectors of the 6 most prevalent taxa at the genus level. The size of each sphere is proportional to the mean relative abundance and approximates the causing variance throughout the plotted samples.

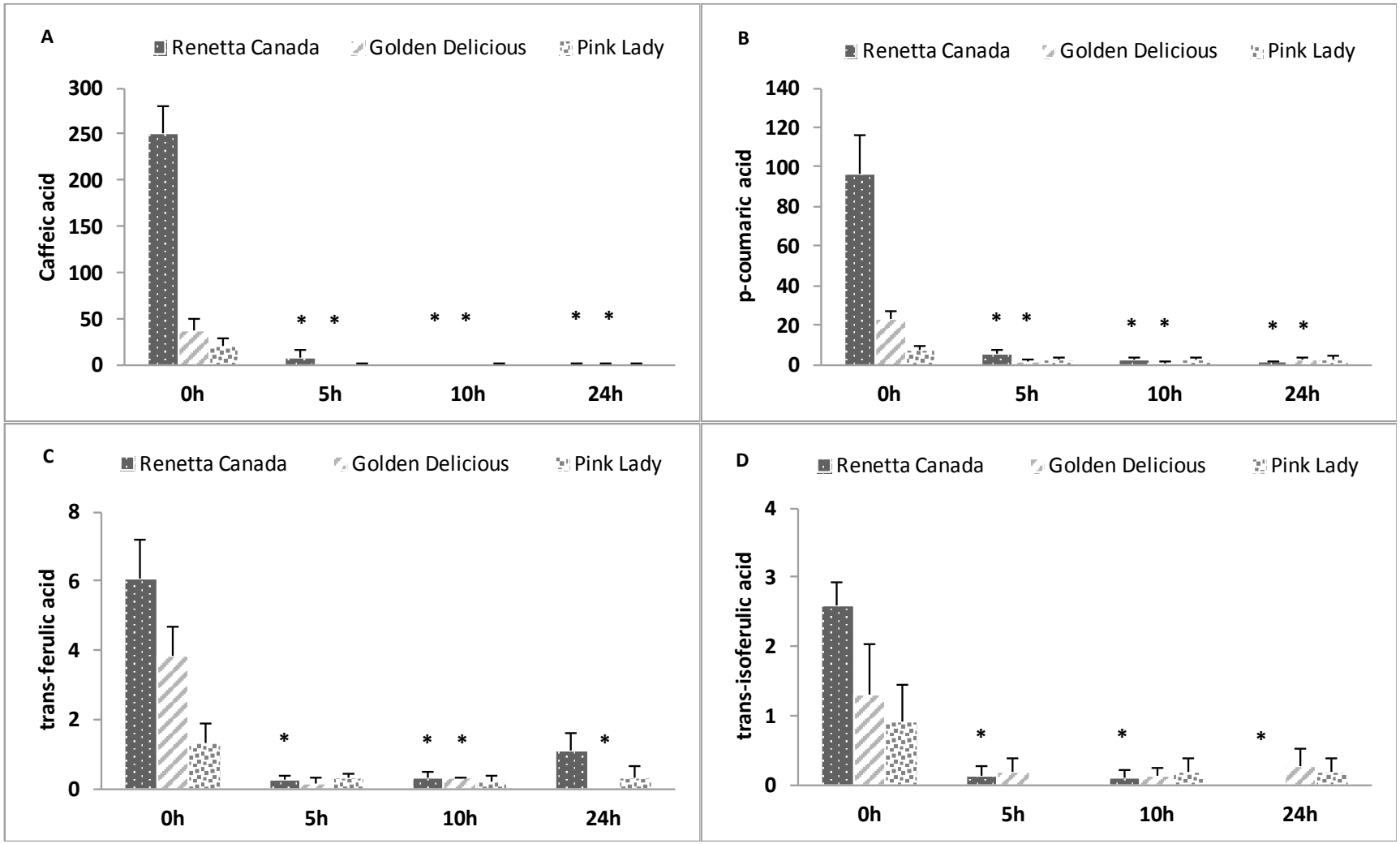


Figure S3. Changes in cinnamic acid derivatives (**A**, Caffeic acid; **B**, p-coumaric acid; **C**, t-ferulic acid and **D,** trans-isoferulic acid) throughout 24-hour *in vitro* batch culture fermentations inoculated with human feces (n=3 healthy donors) and administrated with Renetta Canada, Golden Delicious and Pink Lady as the substrates (treatments). Samples were collected at 0, 5, 10 and 24 h. Results are expressed as ng/ml of batch culture medium and values are mean ± SEM of the three fermentations. * Significant differences ($P<0.05$) from the 0 h time point within the same treatment

Table S2. Changes in bacterial taxa throughout 24-hour *in vitro* batch culture fermentations inoculated with human feces (n=3 healthy donors) and administrated with inulin, cellulose, Renetta Canada, Golden Delicious and Pink Lady as the substrates.

Bacterial Taxonomy	Time Point	Inulin (%)	*p* (*p*-FDR)[a]	Cellulose (%)	*p* (*p*-FDR)[a]	Renetta Canada (%)	*p* (*p*-FDR)[a]	Golden Delicious (%)	*p* (*p*-FDR)[a]	Pink Lady (%)	*p* (*p*-FDR)[a]
p_Firmicutes f_*Lachnospiraceae* g_*Blautia*	0h	3.4 ± 1.1	0.880 (0.985)	3.6 ± 1.1	0.090 (0.548)	4.8 ± 0.43	**0.022** (0.211)	4.2 ± 0.32	0.082 (0.423)	4.9 ± 0.9	**0.009** (0.121)
	10h	3.8 ± 0.9		2.5 ± 1.1		1.9 ± 1.2		2.4 ± 1.2		2.2 ± 1.1	
	24h	3.3 ± 2		1.2 ± 0.37		1.5 ± 0.54*		1.8 ± 1.1		1.1 ± 0.4*	
p_Firmicutes; f_*Lachnospiraceae* g_*Coprococcus*	0h	5.9 ±1.6	0.820 (0.985)	5.7 ± 0.87	**0.001 (0.034)**	5.6 ± 1.6	0.873 (0.985)	5.2 ± 1.2	0.806 (0.985)	5.9 ± 1.2	0.441 (0.951)
	10h	5.5 ± 2		4.4 ± 0.89*		6 ± 2.3		5.6 ± 2.6		3.2 ± 1.2	
	24h	4.3 ± 1.3		4 ± 0.91*		4.4 ± 1.6		7.3 ± 3.5		3.7 ± 1.3	
p_Firmicutes f_*Lachnospiraceae* g_*Dorea*	0h	0.87 ± 0.16	0.163 (0.683)	0.93 ± 0.26	**0.015** (0.201)	1.1 ± 0.22	0.068 (0.350)	0.9 ± 0.18	0.410 (0.985)	1.3 ± 0.4	0.128 (0.504)
	10h	6.9 ± 3.6		4.8 ± 0.93*		3.5 ± 0.94		3.6 ± 1.9		4.3 ± 2.3	
	24h	3.4 ± 1.5		5.6 ± 1.3		2.3 ± 0.11		2.7 ± 0.96		5.4 ± 0.39	
p_Firmicutes; f_*Lachnospiraceae* g_*Roseburia*	0h	0.38 ± 0.05	**0.020** (0.268)	0.79 ± 0.30	0.084 (0.563)	0.48 ± 0.11	**0.026** (0.218)	0.53 ± 0.08	0.156 (0.615)	0.47 ± 0.04	**0.049** (0.298)
	10h	0.12 ± 0.06		0.06 ± 0.02		0.03 ± 0.01		0.03 ± 0.01		0.06 ± 0.02*	
	24h	0.04 ± 0.01*		0.08 ± 0.07		0.06 ± 0.04		0.25 ± 0.21		0.17 ± 0.13	
p_Firmicutes f_*Lachnospiraceae* g_unassigned	0h	5.6 ± 0.17	0.342 (0.979)	6 ± 0.81	0.059 (0.494)	6.1 ± 0.21	**0.030** (0.223)	5.6 ± 0.35	0.162 (0.603)	6.5 ± 0.76	**0.003** (0.067)
	10h	4.3 ± 1.3		9.1 ± 0.94		2.6 ± 0.66		5 ± 2.1		2.9 ± 1.2	
	24h	6.5 ± 0.8		10 ± 1.2		9.3 ± 1.9		10 ± 1.5		10.3 ± 1.3*	
p_Firmicutes; f_*Ruminococcaceae* g_*Faecalibacterium*	0h	5.2 ± 1.6	**0.035** (0.335)	5.5 ± 2	0.689 (0.985)	5.8 ± 2.5	**0.019** (0.255)	5 ± 1.7	0.755 (0.985)	5.8 ± 2.7	0.386 (0.951)
	10h	6.1 ± 2.6		4.5 ± 0.99		4.9 ± 2.9		5.1 ± 2.7		2.8 ± 0.93	
	24h	17 ± 3.7		4.6 ±2.2		16 ± 5.5		5.9 ± 1.9		5.4 ± 1.4	
p_Firmicutes; f_*Ruminococcaceae* g_*Oscillospira*	0h	0.9 ± 0.2	0.667 (0.985)	0.91 ± 0.19	**0.002** (0.054)	0.98 ± 0.31	0.218 (0.730)	0.96 ± 0.29	**0.040** (0.335)	0.94 ± 0.3	**0.019** (0.182)
	10h	0.66 ± 0.10		1 ± 0.07		0.32 ± 0.03		0.30 ± 0.14		0.23 ± 0.07	
	24h	1 ± 0.58		2.5 ± 0.11*		1 ± 0.49		1.1 ± 0.35		1.4 ± 0.28*	

p_Firmicutes f_*Ruminococcaceae* g_*Ruminococcus*	0h	4 ± 0.96	**0.015** (0.251)	4.9 ± 1.4	0.100 (0.558)	4.7 ± 1.1	**0.011** (0.246)	4.3 ± 1	**0.013** (0.290)	4.5 ± 1.2	**0.021** (0.176)
	10h	1.4 ± 0.35		1.8 ± 0.49		0.63 ± 0.43*		0.41 ± 0.18		0.45 ± 0.17	
	24h	0.74 ± 0.11		1.2 ± 0.62		0.39 ± 0.12		0.34 ± 0.16		0.22 ± 0.13	
p_Firmicutes; f_[*Mogibacteriaceae*] g_unassigned	0h	0.31 ± 0.04	**0.009** (0.201)	0.29 ± 0.06	0.263 (0.985)	0.30 ± 0.06	**0.022** (0.246)	0.24 ± 0.08	0.122 (0.545)	0.29 ± 0.02	**0.000 (0.007)**
	10h	0.15 ± 0.01		0.14 ± 0.00		0.08 ± 0.02		0.05 ± 0.01		0.06 ± 0.01*	
	24h	0.06 ± 0.01*		0.16 ± 0.06		0.08 ± 0.02		0.08 ± 0.02		0.07 ± 0.03*	
p_Firmicutes; o_Clostridiales; f_g_unclassified	0h	4.3 ± 0.73	**0.021** (0.235)	4.9 ± 0.69	**0.043** (0.412)	4.6 ± 0.61	**0.001 (0.040)**	4.8 ± 0.78	**0.002** (0.084)	4.1 ± 0.63	**0.004** (0.067)
	10h	1.8 ± 0.09		2.8 ± 0.33*		0.82 ± 0.24*		0.76 ± 0.16*		0.81 ± 0.12*	
	24h	1.2 ± 0.27		2.5 ±0.58		0.36 ± 0.05*		0.75 ± 0.19*		0.86 ± 0.19*	
p_Firmicutes; o_Clostridiales; Other;Other	0h	2.7 ± 0.18	**0.001 (0.050)**	2.7 ± 0.21	**0.007** (0.117)	2.7 ± 0.44	**0.002** (0.067)	2.5 ± 0.25	**0.001 (0.040)**	3.3 ± 0.78	**0.045** (0.302)
	10h	0.68 ± 0.12*		1.4 ± 0.23*		0.47 ± 0.10*		0.33 ± 0.03*		0.59 ± 0.27	
	24h	0.71 ± 0.29*		1.4 ± 0.41*		0.68 ± 0.19*		0.34 ± 0.05*		0.81 ± 0.65	
p_Firmicutes; f_*Turicibacteraceae* g_*Turicibacter*	0h	0.04 ± 0.02	0.263 (0.979)	0.06 ± 0	0.366 (0.985)	0.05 ± 0.01	0.272 (0.868)	0.03 ± 0.01	0.133 (0.557)	0.04 ± 0.00	**0.001 (0.034)**
	10h	0.02 ± 0.01		0.03 ± 0.02		0.01 ± 0.01		0.01 ± 0.01		0.01 ± 0.01*	
	24h	0.02 ± 0.01		0.03 ± 0.02		0.02 ± 0.02		0.00 ± 0.00		0.01 ± 0.01*	
p_Bacteroidetes f_*Bacteroidaceae* g_*Bacteroides*	0h	18 ± 4.2	**0.006** (0.201)	15.1 ± 3.1	0.349 (0.985)	17.5 ± 3.2	**0.016** (0.268)	17.2 ± 4.8	**0.031** (0.346)	14 ± 2.3	0.423 (0.951)
	10h	7.2 ± 3.8*		12.5 ± 6		2.3 ± 1.02*		2.8 ± 1.1		6.2 ± 4	
	24h	3.6 ± 1.4*		11.6 ± 3.8		3 ± 1.46		9.5 ± 3.6		12.6 ± 8.9	
p_Bacteroidetes f_[*Odoribacteraceae*] g_*Odoribacter*	0h	0.32 ± 0.09	0.063 (0.422)	0.37 ± 0.13	0.875 (0.985)	0.33 ± 0.12	0.095 (0.398)	0.30 ± 0.15	0.535 (0.985)	0.26 ± 0.08	**0.016** (0.179)
	10h	0.14 ± 0.05		0.33 ± 0.11		0.05 ± 0.04		0.10 ± 0.04		0.19 ± 0.09*	
	24h	0.06 ± 0.02		0.41 ± 0.24		0.02 ± 0.02		0.15 ± 0.13		0.07 ± 0.04*	
p_Bacteroidetes f_*Rikenellaceae* g_unassigned	0h	2.8 ± 1.2	0.116 (0.518)	2.2 ± 0.88	0.125 (0.598)	2.1 ± 0.76	**0.050** (0.279)	2.3 ± 0.76	**0.043** (0.288)	2.4 ± 0.9	0.060 (0.287)
	10h	0.86 ± 0.29		1.4 ± 0.54		0.6 ± 0.22		0.48 ± 0.18		0.97 ± 0.43	
	24h	0.91 ± 0.45		1.1 ±0.26		0.57 ± 0.28		0.70 ± 0.46		0.59 ± 0.3	
p_Actinobacteria f_*Bifidobacteriaceae* g_*Bifidobacterium*	0h	2.5 ± 0.28	0.569 (0.979)	2.5 ± 0.1	0.376 (0.985)	3.5 ± 0.1	**0.049** (0.305)	3.3 ± 0.61	**0.016** (0.268)	3.8 ± 0.86	0.069 (0.308)
	10h	4.7 ± 2.4		2.8 ± 0.21		24.3 ± 8.7		19.4 ± 4.2		16.2 ± 2.1	
	24h	6.3 ± 4.6		2.6 ± 0.21		14.9 ± 2.5*		15.2 ± 2.6		10.4 ± 3.5	
	0h	2 ± 0.2		1.9 ± 0.14		1.7 ± 0.24		1.8 ± 0.07		2.1 ± 0.14	

p_Actinobacteria f_*Coriobacteriaceae* g_*Collinsella*	10h	8.6 ± 2.6	**0.050** (0.394)	3.2 ± 0.06*	**0.001 (0.040)**	5.6 ± 1.8	0.097 (0.382)	5.9 ± 1.5	**0.050** (0.274)	5.5 ± 1.4	0.052 (0.290)
	24h	7 ± 1.6		3.8 ± 0.17*		4.7 ± 1.1		5.2 ± 0.95		8.4 ± 2	
p_Actinobacteria f_*Coriobacteriaceae* g_unassigned	0h	0.62 ± 0.16	0.250 (0.985)	0.61 ± 0.18	0.849 (0.985)	0.55 ± 0.09	0.693 (0.985)	0.65 ± 0.17	**0.042** (0.313)	0.82 ± 0.36	0.352 (0.951)
	10h	0.60 ± 0.18		0.5 ± 0.09		0.50 ± 0.17		0.38 ± 0.13		0.45 ± 0.17	
	24h	0.33 ± 0.02		0.57 ± 0.11		0.44 ± 0.16		0.31 ± 0.06		0.44 ± 0.01	
p_Proteobacteria f_*Alcaligenaceae* g_*Sutterella*	0h	1.1 ± 0.04	0.104 (0.498)	1 ± 0.14	**0.035** (0.391)	1.2 ± 0.18	0.085 (0.380)	1.4 ± 0.2	0.051 (0.285)	1.1 ± 0.2	0.165 (0.582)
	10h	4.8 ± 1.9		7.2 ± 2.6		6.3 ± 2.2		6.4 ± 2.2		8.9 ± 4.6	
	24h	4.5 ± 1.4		9.6 ± 2.6		5.9 ±1.9		6.1 ± 1.4		5.2 ± 2.5	
p_Proteobacteria f_*Brucellaceae* g_*Ochrobactrum*	0h	0.05 ± 0.02	0.626 (0.979)	0.06 ± 0.02	0.362 (0.985)	0.06 ± 0.02	0.396 (0.985)	0.09 ± 0.03	**0.031** (0.297)	0.09 ± 0.01	**0.045** (0.335)
	10h	0.03 ± 0.02		0.03 ± 0.02		0.04 ± 0.02		0.03 ± 0.02		0.03 ± 0.01*	
	24h	0.03 ± 0.02		0.02 ± 0.01		0.03 ± 0.02		0.02 ± 0.01		0.03 ± 0.02	
p_Proteobacteria f_*Desulfovibrionaceae* g_*Bilophila*	0h	0.13 ± 0.02	**0.050** (0.372)	0.06 ± 0.01	0.102 (0.526)	0.12 ± 0.05	0.074 (0.354)	0.10 ± 0.01	**0.031** (0.415)	0.15 ± 0.00	0.284 (0.951)
	10h	0.33 ± 0.03*		1.7 ± 0.65		0.17 ± 0.01		0.24 ± 0.08		0.26 ± 0.05	
	24h	0.84 ± 0.25		3.3 ±1.4		0.74 ± 0.27		1.5 ± 0.44		1.5 ± 0.93	

Samples were analyzed at 0, 10 and 24 h. Results are expressed as relative abundance (%) and values are mean ± SEM of the three fermentations. [a] *p*=raw/unadjusted *p* values, *p*-FDR=corrected with false discovery rate method for 67 taxa. * Significant differences ($p < 0.05$) from the 0 h time point within the same treatment. Brackets indicate suggested but not verified names. p: phylum; f: family; g: genus.

Table S3. Multiple Reaction Monitoring **(**MRM) conditions of precursor polyphenols and polyphenol microbial metabolites.

Compound	RT (min)	ESI mode	Precursor ion (m/z)	Quantifier Product ion (m/z)	Qualifier Product ion (m/z)
Precursor polyphenols					
Flavan-3-ols					
Catechin	2.80	-	289	203	123
Epicatechin	3.32	-	289	203	123
Procyanidin A2	4.62	-	575	285	449
Procyanidin B1	2.40	-	577	289	425
Procyanidin B2 + B4	3.01	-	577	289	425
Hydroxycinnamates					
Chlorogenic acid	2.76	-	353	191	
Neochlorogenic acid	2.18	-	353	191	179
Cryptochlorogenic acid	2.87	-	353	173	179
Flavonols					
Quercetin	8.40	+	303	153	229
Quercetin-3-*O*-glucoside	4.50	+	465	303	229
quercetin-3-*O*-rhamnoside	5.55	+	449	303	129
Kaempferol	8.45	+	287	153	165
Isorhamnetin	8.67	+	317	153	302
Laricitrin	7.46	+	333	318	218
Dihydrochalcones					
Phloretin	8.23	-	273	167	123
Phlorizin	6.22	-	435	273	167
Flavones					
Luteolin	7.37	+	287	153	135
Other/benzoic acid derivatives					
Ellagic acid	4.38	-	301	145	185
Vanillin	4.07	+	153	93	125
Vanillic acid	3.23	+	169	93	65
Polyphenol microbial metabolites					
Phenylacetic acid derivatives					
3-Hydroxyphenylacetic acid	3.40	-	151	65	79
3,4-Dihydroxyphenylacetic acid	2.33	+	169		77
3,4-Dihydroxyphenylacetic acid	2.33	-	167	95	
Homovanillic acid	3.39	+	183	137	122
Phenylpropionic acid derivatives					
3-(3-Hydroxyphenyl)propionic acid	4.28	+	167	121	107
3-(4-Hydroxyphenyl)propionic acid	3.81	+	167	107	
3-(4-Hydroxyphenyl)propionic acid	3.81	-	165		93

Hydroferulic acid	4.20	-	195	136	121
Benzoic acid Derivatives					
Gallic acid	1.39	+	171	109	81
4-Hydroxybenzoic acid	2.83	+	139	77	65
Protocatechuic acid	2.10	+	155	93	65
Pyrocatechol	2.86	-	109	81	53
Cinnamic acid Derivatives					
Caffeic acid	3.18	+	181	145	117
p-Coumaric acid	4.01	+	165	91	119
trans-Ferulic acid	4.49	+	195	145	117
trans-Isoferulic acid	4.80	+	195	145	117

Table S4. Changes in precursor polyphenols throughout 24-hour *in vitro* batch culture fermentations inoculated with human feces (n=3 healthy donors) and administrated with inulin, cellulose, Renetta Canada, Golden Delicious and Pink Lady as the substrates.

Apple variety	0h	5h	10h	24h	*p*
Catechin (ng/ml)					
Renetta Canada	127.8 ± 31.3[b]	19.1 ± 11.9	9 ± 7.4*	3.7 ± 3.7*	0.005
Golden Delicious	7.1 ± 4.2[a]	0.1 ± 0.05	0.9 ± 0.5	1.1 ± 1.1	0.169
Pink Lady	0.14 ± 0.07[a]	1.3 ± 0.7	0.36 ± 0.36	0.29 ± 0.26	0.292
Epicatechin (ng/ml)					
Renetta Canada	449.3 ± 32.4[b]	27.6 ± 15.8*	8.1 ± 2.3*	4.9 ± 3.1*	0.000
Golden Delicious	55.7 ± 15.2[a]	4.6 ± 1.6*	0.6 ± 0.6*	2.3 ± 2.3*	0.006
Pink Lady	6.3 ± 2.9[a]	0.8 ± 0.8	1.3 ± 1.3	0.66 ± 0.66	0.119
Procyanidin A2 (ng/ml)					
Renetta Canada	239.1 ± 45.1[b]	58 ± 36.8	21 ± 17.9*	0.14 ± 0.14*	0.003
Golden Delicious	96.3 ± 39.5[a]	17.5 ± 8.5	3 ± 3	0.17 ± 0.17	0.030
Pink Lady	37.9 ± 7.8[a]	16.3 ± 8.2*	3.2 ± 3.2*	0.98 ± 0.98*	0.005
Procyanidin B1 (ng/ml)					
Renetta Canada	82.3 ± 40.4[b]	27.9 ± 25.9	1.5 ± 0.9	1.1 ± 0.6	0.088
Golden Delicious	2.3 ± 1.7[a]	0 ± 0	2.4 ± 1.7	0 ± 0	0.224
Pink Lady	1.4 ± 0.3[a]	0 ± 0	1.2 ± 1.2	0 ± 0	0.359
Procyanidin B2 B4 (ng/ml)					
Renetta Canada	233.7 ± 140.8	22.1 ± 19.5	2.1 ± 0.6	0.56 ± 0.44	0.132
Golden Delicious	13.4 ± 10	0.13 ± 0.13	0 ± 0	0 ± 0	0.250
Pink Lady	0.89 ± 0.41	0 ± 0	2.4 ± 2.1	0 ± 0	0.376
Chlorogenic acid (ng/ml)					
Renetta Canada	215.4 ±114.6	0.37 ± 0.2	0 ± 0	0 ± 0	0.088
Golden Delicious	1.3 ± 0.7	0.03 ± 0.03	0.15 ± 0.15	0.13 ± 0.13	0.160
Pink Lady	0.56 ± 0.31	0.12 ± 0.08	0 ± 0	0.15 ± 0.25	0.244
Neochlorogenic acid (ng/ml)					
Renetta Canada	65 ± 31.4	17.1 ± 14.4	4.2 ± 2.4	1.4 ± 1.4	0.061
Golden Delicious	10 ± 1.4	0.8 ± 0.6*	0.56 ± 0.56*	0 ± 0*	0.000
Pink Lady	6.1 ± 2.6	1.1 ± 0.2	0.32 ± 0.18	0 ± 0	0.053
Cryptochlorogenic acid (ng/ml)					
Renetta Canada	21.2 ± 10.8	0.08 ± 0.08	0 ± 0	0.09 ± 0.09	0.074
Golden Delicious	1.9 ± 0.7	0 ± 0	0.31 ± 0.31	0.00 ± 0.00	0.033
Pink Lady	0.6 ± 0.26	0.09 ± 0.09	0 ± 0	0.52 ± 0.41	0.377
Quercetin (ng/ml)					
Renetta Canada	168.9 ± 34.3	125.9 ± 124.8	64.8 ± 64.6	33.7 ± 33.3	0.273
Golden Delicious	358.1 ± 53.4	526.9 ± 522.4	430.5 ± 429.2	4.9 ± 4.9	0.573
Pink Lady	408.8 ± 102.1	449.2 ± 444.9	208.6 ± 207.1	2.2 ± 2	0.527
Quercetin-3-Glc (ng/ml)					
Renetta Canada	1.2 ± 0.3[a]	0.0 ± 0.0*	0 ± 0*	0.3 ± 0.16	0.006
Golden Delicious	386.1 ± 48.7[c]	0.73 ± 0.4*	0 ± 0*	0.27 ± 0.27*	0.000
Pink Lady	165.3 ± 20.6[b]	0.2 ± 0.2*	0.22 ± 0.22*	0.2 ± 0.2*	0.000
Quercetin-3-Rha (ng/ml)					
Renetta Canada	69.2 ± 14.7[a]	0.08 ± 0.08*	0.03 ± 0.03*	0 ± 0*	0.001
Golden Delicious	218.6 ± 34.6[b]	0.31 ± 0.16*	0.03 ± 0.03*	0.03 ± 0.03*	0.000
Pink Lady	164.5 ± 40.7[ab]	0.50 ± 0.37*	0.07 ± 0.07*	0.00 ± 0.00*	0.003
Kaempferol (ng/ml)					
Renetta Canada	22.8 ± 4.5	5 ± 4.2*	4.2 ± 4*	3.7 ± 3.3*	0.000
Golden Delicious	11.7 ± 2.1	6.5 ± 6.3	2.2 ± 2.2	0.1 ± 0.1	0.095
Pink Lady	11.3 ± 1.5	7.3 ± 5.7	1.3 ± 0.7	0.23 ± 0.15	0.095
Isorhamnetin (ng/ml)					
Renetta Canada	2.6 ± 0.4	0.85 ± 0.6*	0.6 ± 0.5*	0.69 ± 0.63*	0.000

Golden Delicious	4.2 ± 0.9	2.1 ± 2.1	1.3 ± 1	0 ± 0	0.077
Pink Lady	3.9 ± 0.9	1.9 ± 1.9	0.4 ± 0.1	0 ± 0	0.146
Laricitrin (ng/ml)					
Renetta Canada	6.7 ± 1.3	8.4 ± 7.2	5.9 ± 5.5	3.3 ± 2.9	0.684
Golden Delicious	22.1 ± 4.5	24.8 ± 21.2	22.8 ± 22.1	6 ± 5.8	0.614
Pink Lady	18.6 ± 5.9	20 ± 16.4	8.1 ± 7.3	5.9 ± 5.2	0.555
Phloretin (ng/ml)					
Renetta Canada	120.8 ± 23[b]	614.3 ± 544.7	103.2 ± 102	0.48 ± 0.48	0.404
Golden Delicious	28 ± 4.2[a]	106.3 ± 101.6	43.6 ± 43.6	0 ± 0	0.492
Pink Lady	4.5 ± 1[a]	22.8 ± 21	10.9 ± 10.9	0.03 ± 0.03	0.456
Phlorizin (ng/ml)					
Renetta Canada	592.8 ± 233.2[b]	0.64 ± 0.53	0.07 ± 0.04	0.02 ± 0.02	0.026
Golden Delicious	78.4 ± 29.1[a]	0.03 ± 0.03	0 ± 0	0 ± 0	0.020
Pink Lady	3.2 ± 1[a]	3.55 ± 3.51	0 ± 0	0 ± 0	0.459
Luteolin (ng/ml)					
Renetta Canada	1.2 ± 0.17	0.38 ± 0.33	0.47 ± 0.43	0.6 ± 0.6	0.292
Golden Delicious	0.65 ± 0.18	0.73 ± 0.73	0.38 ± 0.23	0.22 ± 0.22	0.725
Pink Lady	1.10 ± 0.45	0.79 ± 0.66	0.27 ± 0.14	0.09 ± 0.09	0.453
Ellagic acid (ng/ml)					
Renetta Canada	21.5 ± 3	40 ± 16.6	20.6 ± 8	18.6 ± 8	0.461
Golden Delicious	22.4 ± 2.1	19.8 ± 6.85	12.4 ± 6.2	20.9 ± 3.6	0.556
Pink Lady	21.1 ± 3.6	34.1 ± 14.1	22.7 ± 11.7	31.1 ± 9.6	0.514
Vanillin (ng/ml)					
Renetta Canada	6.8 ± 0.1[b]	3.5 ± 1.4	2.4 ± 0.9*	2 ± 0.24*	0.008
Golden Delicious	5.2 ± 0.5[a]	2.5 ± 0.8	1.9 ± 0.8*	1.3 ± 0.27*	0.004
Pink Lady	4.8 ± 0.5[a]	3.4 ± 1.3	4.7 ± 2.1	2.2 ± 0.47	0.496
Vanillic acid (ng/ml)					
Renetta Canada	4.7 ± 0.9	5.5 ± 2.1	3.1 ± 1.8	2.3 ± 1.2	0.397
Golden Delicious	3.4 ± 0.5	2.3 ± 1.4	0.79 ± 0.58	1.8 ± 0.95	0.066
Pink Lady	4.2 ± 1.1	3.9 ± 1.9	1.9 ± 1.1	1.9 ± 0.90	0.323

Samples were collected at 0, 5, 10 and 24 h. Results are expressed as ng/ml of batch culture medium and values are mean ± SEM of the three fermentations. Significant differences ($p < 0.05$) between treatments at the same time point are indicated with different letters. * Significant differences ($p < 0.05$) from the 0 h time point within the same treatment.