

Article

Plasma Short-Chain Fatty Acids and Their Derivatives in Women with Gestational *Diabetes Mellitus*

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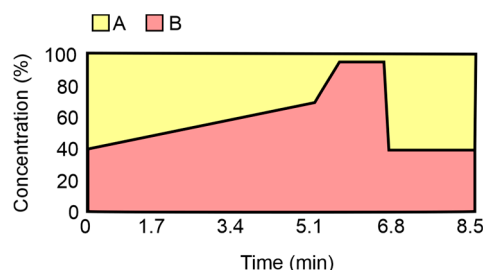


Figure S1. Profile of gradient elution of the LC-MS/MS method with mobile phase A nad B (0.5% FA in water and MeOH:IPA at a 9:1 ratio)..

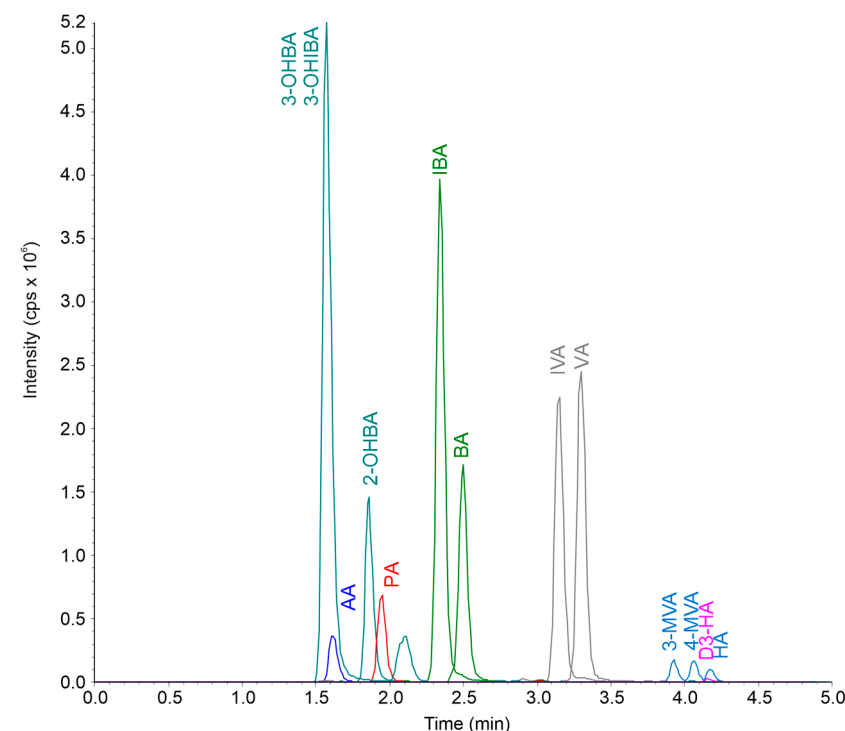


Figure S2. LC-MS/MS chromatogram of SCFA, their derivatives and IS in the highest level of CAL1 and CAL2 mixtures.

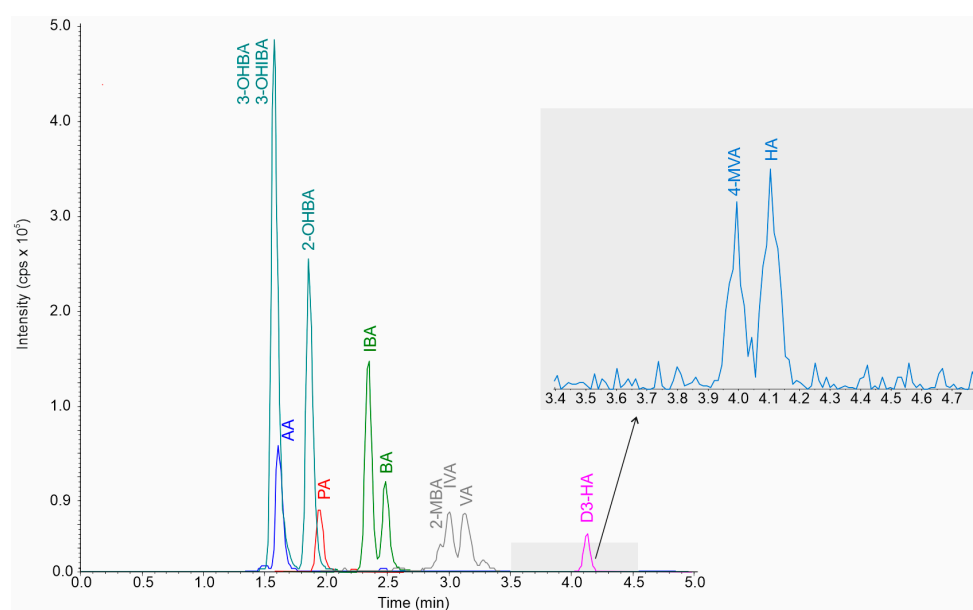


Figure S3. LC-MS/MS chromatogram of SCFA, their derivatives and IS in plasma sample of a patient with GDM.

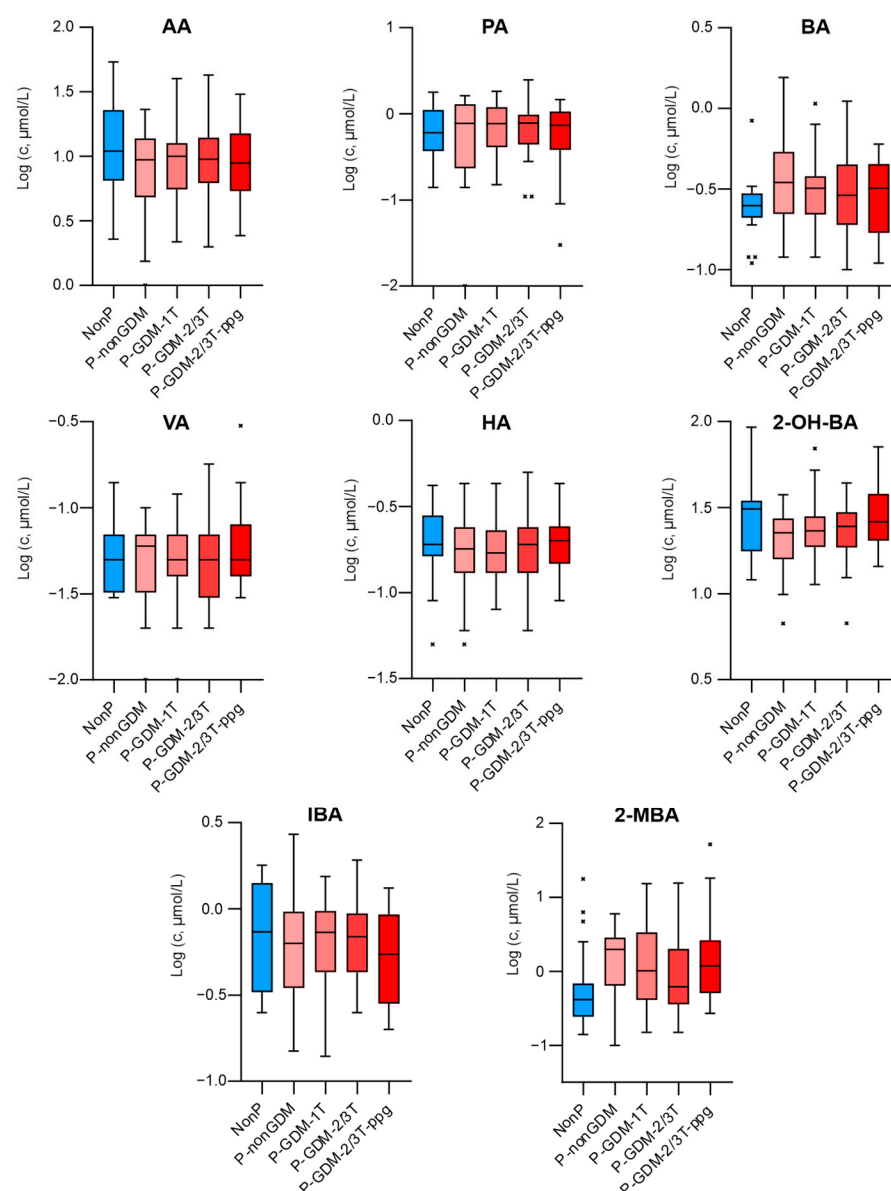


Figure S4. Distribution of SCFA and their derivatives without statistical significance for all groups of non-pregnant (blue) and pregnant (red) women. Asterisks represent the outliers.

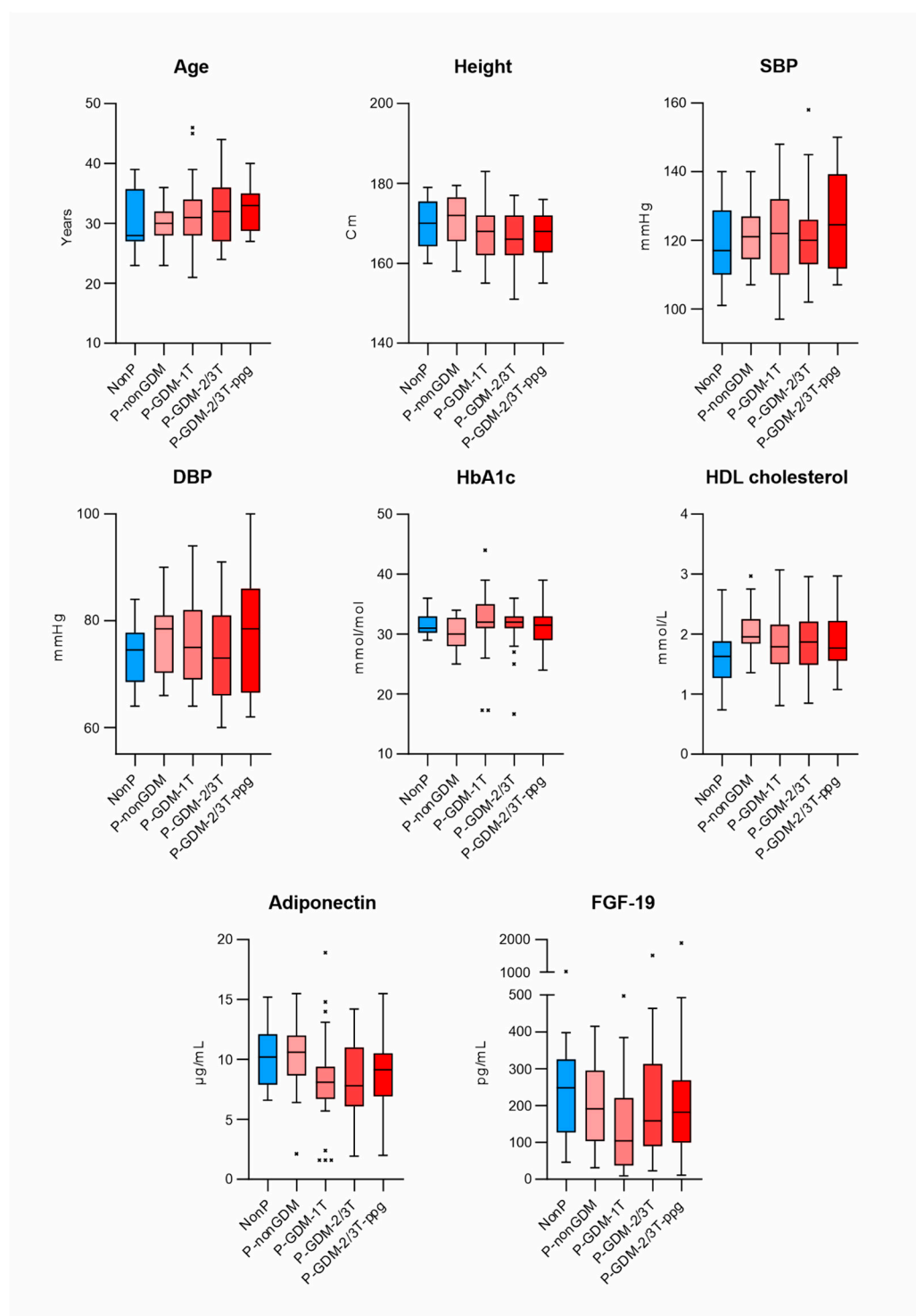


Figure S5. Distribution of baseline body composition characteristics and biochemical parameters without statistical significance for all groups of non-pregnant (blue) and pregnant (red) women. Asterisks represent the outliers.

	Age	Height	Weight	BMI	Waist	SBP	DBP	Heart rate	HbA1c	Cholesterol	Triglycerides	HDL cholesterol	LDL cholesterol	Non-HDL cholesterol	Glucose	C-peptide	CPI	AFABP	Adiponectin	FGF-19	AA	PA	BA	VA	HA	3-OH-BA	2-OH-BA	IBA	IVA	2-MBA	4-MVA
Age	1.00	-0.12	0.08	0.12	0.15	0.19	0.21	0.10	0.18	0.17	0.17	-0.05	0.19	0.18	0.07	-0.03	0.05	0.10	0.06	-0.13	0.06	0.09	-0.01	0.08	0.13	0.30	0.29	0.01	0.04	0.22	0.02
Height	-0.12	1.00	0.11	-0.26	0.10	0.10	-0.01	-0.20	-0.03	-0.07	-0.18	0.02	-0.04	-0.06	-0.10	-0.22	0.09	-0.11	0.04	-0.08	0.05	0.07	-0.06	-0.10	0.03	-0.28	0.00	0.17	0.08	-0.15	-0.14
Weight	0.08	0.11	1.00	0.93	0.63	0.30	0.35	0.35	0.14	0.16	0.39	-0.24	0.15	0.25	0.03	0.40	-0.42	0.32	-0.33	-0.11	-0.15	-0.07	-0.09	0.03	-0.04	0.18	0.02	-0.05	-0.05	0.08	0.19
BMI	0.12	-0.26	0.93	1.00	0.57	0.25	0.35	0.42	0.15	0.17	0.45	-0.24	0.15	0.26	0.06	0.47	-0.44	0.35	-0.35	-0.07	-0.15	-0.09	-0.07	0.06	-0.05	0.28	0.01	-0.10	-0.07	0.12	0.23
Waist	0.15	0.10	0.63	0.57	1.00	0.22	0.20	0.32	0.11	0.21	0.42	-0.19	0.21	0.29	0.19	0.31	-0.35	0.20	-0.26	-0.01	-0.1	-0.04	-0.02	-0.10	-0.08	0.12	0.01	0.03	-0.25	-0.07	0.26
SBP	0.19	0.10	0.30	0.25	0.22	1.00	0.56	0.15	0.15	0.06	0.11	-0.12	0.07	0.10	-0.05	0.17	-0.12	0.10	-0.05	-0.07	-0.13	-0.15	-0.05	0.18	0.19	0.14	0.12	-0.12	0.03	0.20	0.06
DBP	0.21	-0.01	0.35	0.35	0.20	0.56	1.00	0.37	0.20	0.01	0.04	-0.1	-0.01	0.04	-0.03	0.21	-0.20	0.12	-0.13	-0.14	-0.21	-0.29	-0.12	0.03	0.17	0.09	0.07	-0.12	-0.06	0.11	0.12
Heart rate	0.10	-0.20	0.35	0.42	0.32	0.15	0.37	1.00	0.05	0.17	0.24	-0.01	0.18	0.20	0.01	0.19	-0.29	0.09	-0.20	0.16	-0.07	-0.14	0.07	0.10	0.12	0.21	0.01	-0.16	-0.21	0.15	0.27
HbA1c	0.18	-0.03	0.14	0.15	0.11	0.15	0.20	0.05	1.00	0.21	0.17	0.02	0.24	0.24	0.39	0.29	0.00	0.13	0.06	0.04	-0.18	-0.17	-0.23	-0.11	-0.13	0.14	0.10	-0.08	-0.07	0.01	0.01
Cholesterol	0.17	-0.07	0.16	0.17	0.21	0.06	0.01	0.17	0.21	1.00	0.67	0.39	0.90	0.94	-0.03	0.15	0.05	0.05	0.10	-0.03	-0.01	0.07	0.08	0.04	0.01	0.08	-0.08	-0.09	-0.26	0.13	0.32
Triglycerides	0.17	-0.18	0.39	0.45	0.42	0.11	0.04	0.24	0.17	0.67	1.00	-0.04	0.56	0.74	0.02	0.38	-0.18	0.07	-0.24	0.03	-0.08	0.01	-0.01	0.12	-0.01	0.23	0.01	-0.10	-0.13	0.10	0.30
HDL cholesterol	-0.05	0.02	-0.24	-0.24	-0.19	-0.12	-0.10	-0.01	0.02	0.39	-0.04	1.00	0.13	0.09	-0.15	-0.12	0.28	-0.18	0.43	-0.09	0.10	0.13	0.14	-0.01	0.04	-0.08	-0.07	0.10	-0.15	-0.02	0.17
LDL cholesterol	0.19	-0.04	0.15	0.15	0.21	0.07	-0.01	0.18	0.24	0.90	0.56	0.13	1.00	0.94	0.01	0.12	0.04	0.12	0.04	0.01	-0.04	0.03	0.04	0.02	-0.01	0.06	-0.09	-0.15	-0.23	0.12	0.22
Non-HDL cholesterol	0.18	-0.06	0.25	0.26	0.29	0.10	0.04	0.20	0.24	0.94	0.74	0.09	0.94	1.00	0.01	0.23	-0.02	0.10	-0.04	0.01	-0.05	0.02	0.04	0.04	-0.02	0.11	-0.07	-0.13	-0.21	0.13	0.27
Glucose	0.07	-0.10	0.03	0.06	0.19	-0.05	-0.03	0.01	0.39	-0.03	0.02	-0.15	0.01	0.01	1.00	0.09	-0.19	0.01	-0.09	0.06	0.03	0.15	-0.06	-0.07	-0.17	-0.10	0.01	0.07	-0.03	-0.07	0.01
C-peptide	-0.03	-0.22	0.40	0.47	0.31	0.17	0.21	0.19	0.29	0.15	0.38	-0.12	0.12	0.23	0.09	1.00	-0.34	0.33	-0.14	0.17	-0.18	-0.17	-0.12	0.01	-0.15	0.15	-0.01	-0.10	-0.07	-0.02	0.19
CPI	0.05	0.09	-0.42	-0.44	-0.35	-0.12	-0.20	-0.29	0.00	0.05	-0.18	0.28	0.04	-0.02	-0.19	-0.34	1.00	-0.10	0.37	0.01	0.12	0.08	0.09	-0.07	0.02	-0.08	-0.05	0.04	0.09	-0.19	-0.21
AFABP	0.10	-0.11	0.32	0.35	0.20	0.10	0.12	0.09	0.13	0.05	0.07	-0.18	0.12	0.10	0.01	0.33	-0.10	1.00	0.04	0.03	-0.04	-0.06	0.02	-0.09	-0.04	0.15	0.05	-0.07	0.14	0.06	0.09
Adiponectin	0.06	0.04	-0.33	-0.35	-0.26	-0.05	-0.13	-0.20	0.06	0.10	-0.24	0.43	0.04	-0.04	-0.09	-0.14	0.37	0.04	1.00	0.05	0.01	0.05	0.06	-0.11	0.00	-0.03	0.00	-0.02	-0.02	-0.09	-0.13
FGF-19	-0.13	-0.08	-0.11	-0.07	-0.01	-0.07	-0.14	0.16	0.04	-0.03	0.03	-0.09	0.01	0.01	0.06	0.17	0.01	0.03	0.05	1.00	0.04	0.03	0.13	-0.12	-0.01	-0.1	-0.14	-0.01	0.01	-0.14	-0.08
AA	0.06	0.05	-0.15	-0.15	-0.10	-0.13	-0.21	-0.07	-0.18	-0.01	-0.08	0.10	-0.04	-0.05	0.03	-0.18	0.12	-0.04	0.01	0.04	1.00	0.73	0.45	0.21	0.16	0.00	0.17	0.61	0.20	-0.02	-0.07
PA	0.09	0.07	-0.07	-0.09	-0.04	-0.15	-0.29	-0.14	-0.17	0.07	0.01	0.13	0.03	0.02	0.15	-0.17	0.08	-0.06	0.05	0.03	0.73	1.00	0.47	0.29	0.14	-0.04	0.13	0.56	0.26	0.00	0.01
BA	-0.01	-0.06	-0.09	-0.07	-0.02	-0.05	-0.12	0.07	-0.23	0.08	-0.01	0.14	0.04	0.04	-0.06	-0.12	0.09	0.02	0.06	0.13	0.45	0.47	1.00	0.42	0.16	0.03	-0.11	0.05	0.10	0.19	0.20
VA	0.08	-0.10	0.03	0.06	-0.10	0.18	0.03	0.10	-0.11	0.04	0.12	-0.01	0.02	0.04	-0.07	0.01	-0.07	-0.09	-0.11	-0.12	0.21	0.29	0.42	1.00	0.20	0.33	0.28	-0.16	0.29	0.56	0.07
HA	0.13	0.03	-0.04	-0.05	-0.08	0.19	0.17	0.12	-0.13	0.01	-0.01	0.04	-0.01	-0.02	-0.17	-0.15	0.02	-0.04	0.00	-0.01	0.16	0.14	0.16	0.20	1.00	0.13	0.25	0.15	0.05	0.12	-0.02
3-OH-BA	0.30	-0.28	0.18	0.28	0.12	0.14	0.09	0.21	0.14	0.08	0.23	-0.08	0.06	0.11	-0.10	0.15	-0.08	0.15	-0.03	-0.10	0.00	-0.04	0.03	0.33	0.13	1.00	0.63	-0.24	0.19	0.59	0.32
2-OH-BA	0.29	0.00	0.02	0.01	0.01	0.12	0.07	0.01	0.10	-0.08	0.01	-0.07	-0.09	-0.07	0.01	-0.01	-0.05	0.05	0.00	-0.14	0.17	0.13	-0.11	0.28	0.25	0.63	1.00	0.05	0.31	0.35	-0.04
IBA	0.01	0.17	-0.05	-0.10	0.03	-0.12	-0.12	-0.16	-0.08	-0.09	-0.1	0.10	-0.15	-0.13	0.07	-0.10	0.04	-0.07	-0.02	-0.01	0.61	0.56	0.05	-0.16	0.15	-0.24	0.05	1.00	0.17	-0.50	-0.09
IVA	0.04	0.08	-0.05	-0.07	-0.25	0.03	-0.06	-0.21	-0.07	-0.26	-0.13	-0.15	-0.23	-0.21	-0.03	-0.07	0.09	0.14	-0.02	0.01	0.20	0.26	0.10	0.29	0.05	0.19	0.31	0.17	1.00	0.13	-0.17
2-MBA	0.22	-0.15	0.08	0.12	-0.07	0.20	0.11	0.15	0.01	0.13	0.10	-0.02	0.12	0.13	-0.07	-0.02	-0.19	0.06	-0.09	-0.14	-0.02	0.00	0.19	0.56	0.12	0.59	0.35	-0.50	0.13	1.00	0.27
4-MVA	0.02	-0.14	0.19	0.23	0.26	0.06	0.12	0.27	0.01	0.32	0.30	0.17	0.22	0.27	0.01	0.19	-0.21	0.09	-0.13	-0.08	-0.07	0.01	0.20	0.07	-0.02	0.32	-0.04	-0.09	-0.17	0.27	1.00

Figure S6. The values of Pearson’s correlation coefficients between all measurement parameters across all groups. Critical value of significance is $r > 0.196$. The color of cells corresponds to the values of Pearson’s correlation coefficients. Red/blue color means positive/negative correlation and color saturation represents the degree of correlation.

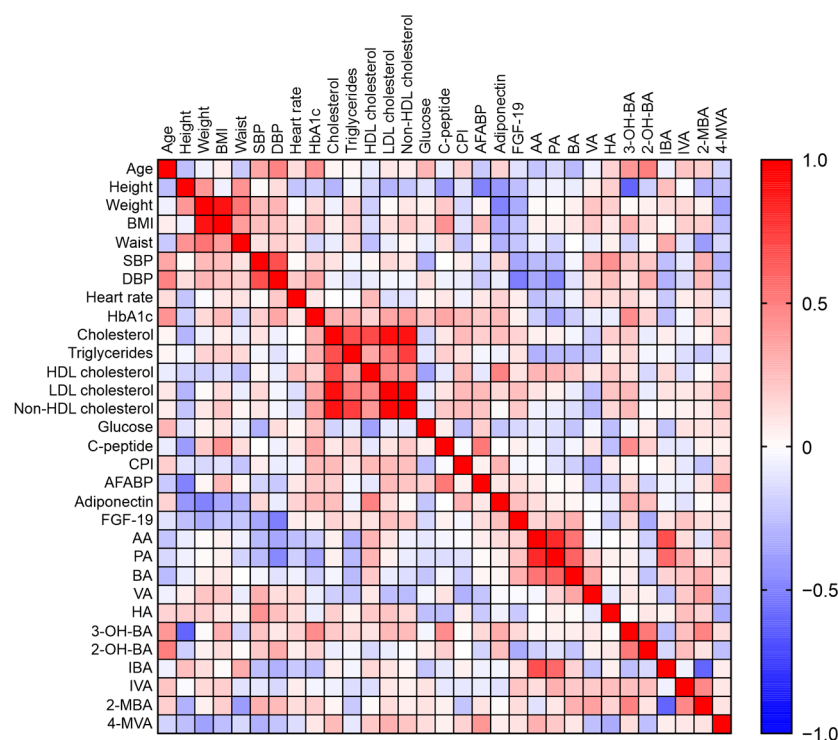


Figure S7. Pearson's correlation ($n = 31$) of SCFA and their derivatives with baseline body composition characteristics and biochemical biomarkers for P-GDM-1T group. Critical value of significance is $r = 0.3494$. Red/blue color corresponds to positive/negative correlation and color saturation represents the degree of correlation.

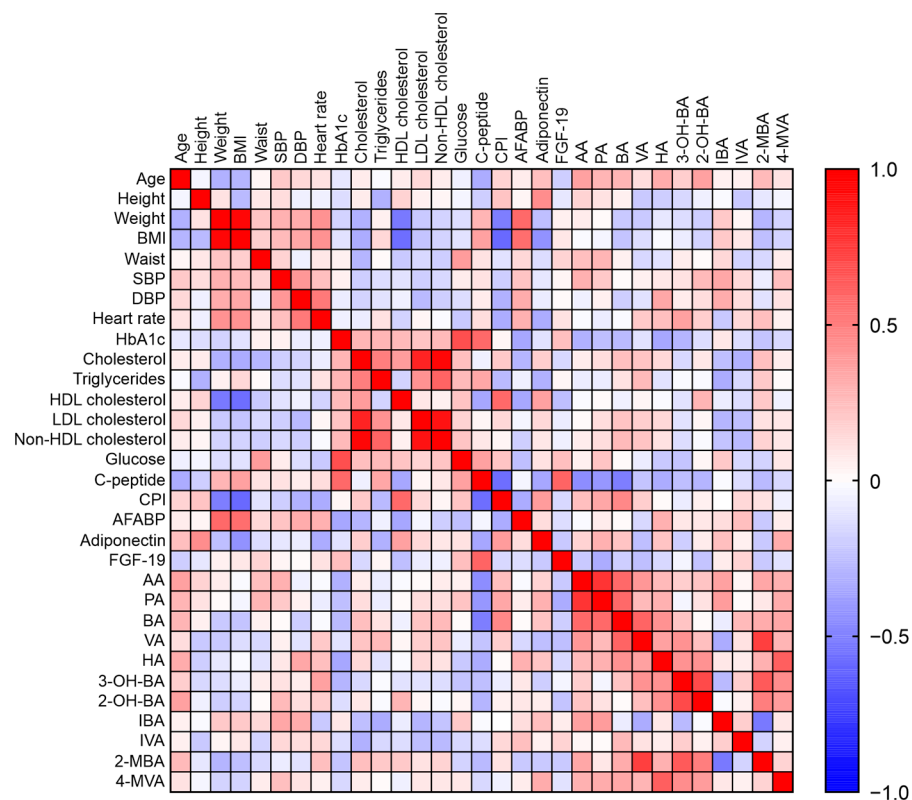


Figure S8. Pearson's correlation ($n = 31$) of SCFA and their derivatives with baseline body composition characteristics and biochemical biomarkers for P-GDM-2/3T group. Critical value of significance is $r = 0.3494$. Red/blue color corresponds to positive/negative correlation and color saturation represents the degree of correlation.

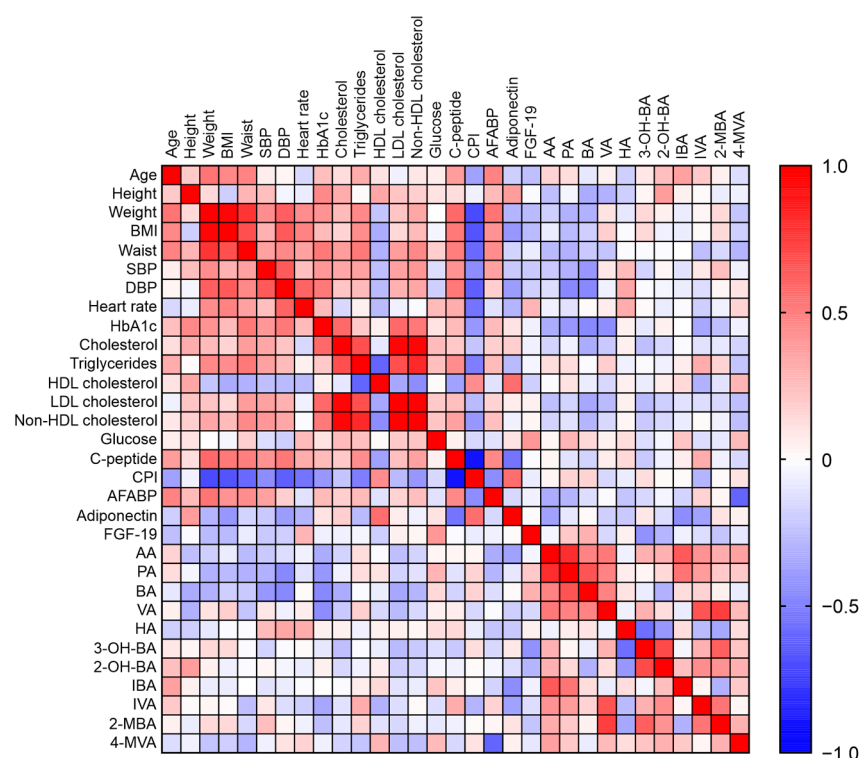


Figure S9. Pearson's correlation ($n = 22$) of SCFA and their derivatives with baseline body composition characteristics and biochemical biomarkers for P-GDM-2/3T-ppg group. Critical value of significance is $r = 0.4044$. Red/blue color corresponds to positive/negative correlation and color saturation represents the degree of correlation.

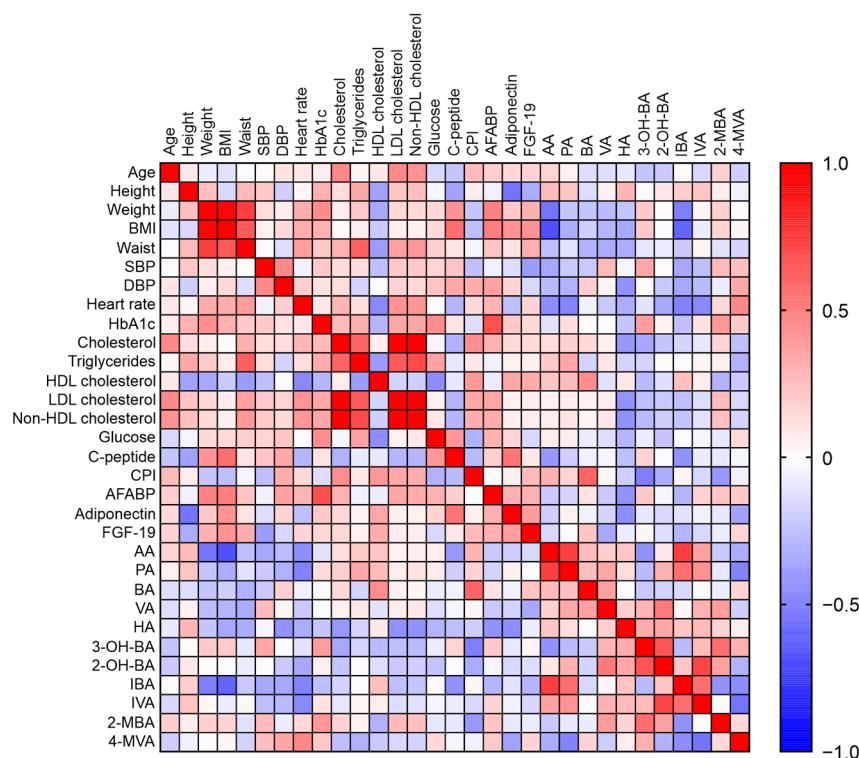


Figure S10. Pearson's correlation ($n = 20$) of SCFA and their derivatives with baseline body composition characteristics and biochemical biomarkers for P-nonGDM group. Critical value of significance is $r = 0.4227$. Red/blue color corresponds to positive/negative correlation and color saturation represents the degree of correlation.

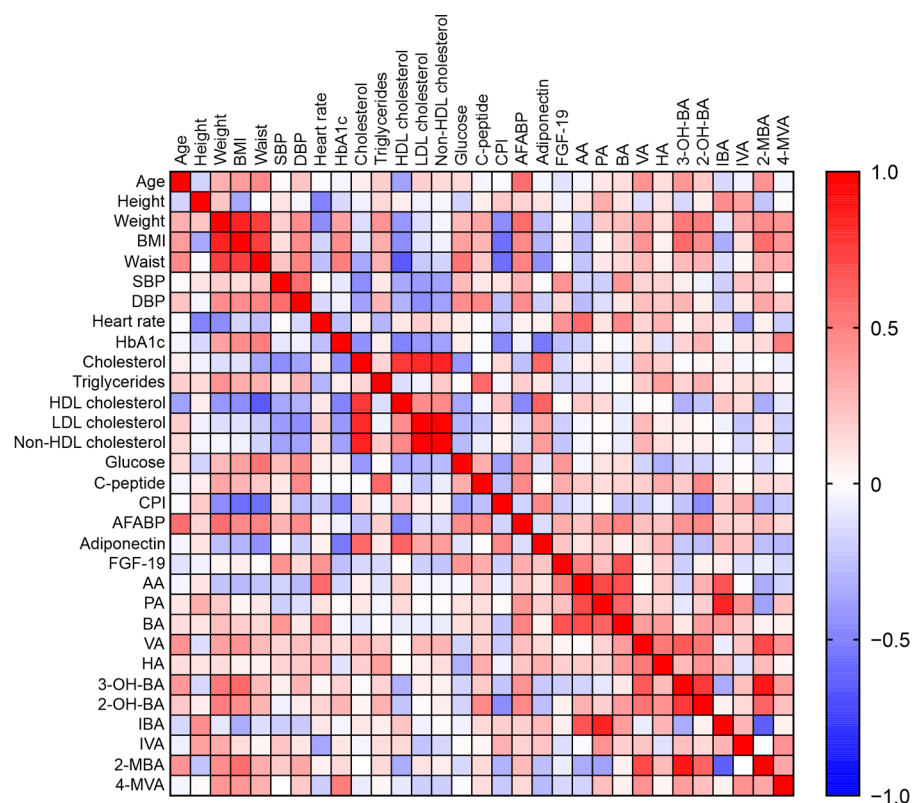


Figure S11. Pearson's correlation ($n = 20$) of SCFA and their derivatives with baseline body composition characteristics and biochemical biomarkers for nonP group. Critical value of significance is $r = 0.4227$. Red/blue color corresponds to positive/negative correlation and color saturation represents the degree of correlation.

Table S1. MS/MS parameters transitions and analytical parameters for SCFA, their derivatives and IS.

Analyte	Q1 Mass (Da)	Q3 Mass (Da)	Dwell time (msec)	DP (V)	EP (V)	CE (V)	CXP (V)
C2 (AA)	166.1	91.1	100	120	10	20	10
C3 (PA)	180.1	91.1	100	60	10	15	10
C4 (BA, IBA)	194.1	91.1	100	60	10	15	10
C4-OH (2-OH-BA, 3-OH-BA, 3-OH-IBA)	210.1	124.1	100	80	10	10	10
C5 (VA, IVA, 2-MBA)	208.1	91.1	100	60	10	15	10
C6 (HA, 3-MVA, 4-MVA)	222.1	124.1	100	120	10	10	10
C6-d3 (HA-d3)	225.1	124.1	100	120	10	15	10

Table S2. Linearity, LOD, LOQ and ULOQ of SCFA and their derivatives.

Analyte	Coefficient of determination (R^2)	LOD ($\mu\text{mol/L}$)	LOQ ($\mu\text{mol/L}$)	ULOQ ($\mu\text{mol/L}$)
AA	0.97354	4.27×10^2	1.42×10^1	2.50×10^2
PA	0.99135	4.07×10^3	1.36×10^2	2.50×10^1
BA	0.97892	1.08×10^2	3.58×10^2	2.50×10^1
VA	0.99871	8.23×10^3	2.74×10^2	2.50×10^1
HA	0.99915	3.10×10^2	1.03×10^1	2.50×10^1
3-OH-BA	0.99270	3.04×10^2	1.01×10^1	5.00×10^2
2-OH-BA	0.97617	2.32×10^2	7.72×10^2	1.00×10^2
IBA	0.97530	2.55×10^5	8.51×10^5	1.00×10^1
IVA	0.99128	7.28×10^4	2.43×10^3	1.00×10^1
4-MVA	0.99943	9.61×10^3	3.20×10^2	1.00×10^1

Table S3. The baseline body composition characteristics of each group.

Header	NonP (n = 20; 16%,13%)			P-nonGDM (n = 20; 16%,13%)			P-GDM-1T (n = 31; 25%)			P-GDM-2/3T (n = 31; 25%)			P-GDM-2/3T-ppg (n = 22; 17%,74%)		
	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%
Parameter															
Age (y)	24	28	39	24	30	36	25	31	45	24	32	43	27	33	39
Height (cm)	160	170	179	159	172	179	156	168	179	153	166	176	158	168	175
Weight (kg)	53	63	81	56	68	99	54	78	115	61	82	118	55	80	108
BMI (kg/m2)	19	22	28	20	23	34	20	27	38	23	29	44	19	29	40
Waist (cm)	66	76	90	68	83	102	67	93	120	55	98	116	51	96	123
SBP (mmHg)	103	117	138	107	121	137	98	122	146	105	120	148	107	125	145
DBP (mmHg)	65	75	83	67	79	89	64	75	93	63	73	90	62	79	99
Heart rate (BPM)	59	76	95	66	83	95	68	85	111	66	89	106	63	88	110

Table S4. The biochemical parameters of each group.

Header	NonP (n = 20; 16,13%)			P-nonGDM (n = 20; 16,13%)			P-GDM-1T (n = 31; 25%)			P-GDM-2/3T (n = 31; 25%)			P-GDM-2/3T-ppg (n = 22; 17,74%)		
Parameter	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%
HbA1c (mmol/mol)	29	31	36	26	30	34	17	32	40	23	32	36	25	32	38
Cholesterol (mmol/L)	3.27	4.18	5.81	4.18	5.06	8.47	2.85	5.30	7.35	4.22	6.22	8.75	4.51	6.03	8.38
Triglycerides (mmol/L)	0.55	0.8	1.55	0.89	1.20	2.00	0.46	1.54	2.52	0.77	2.29	3.52	0.77	2.41	3.75
HDL cholesterol (mmol/L)	0.92	1.63	2.55	1.43	1.96	2.87	0.81	1.79	3.06	1.17	1.87	2.62	1.25	1.77	2.77
LDL cholesterol (mmol/L)	1.07	2.15	2.95	1.73	2.35	5.71	1.09	2.79	4.04	1.37	3.29	5.63	1.80	3.07	4.74
Non-HDL cholesterol (mmol/L)	1.49	2.55	3.65	2.30	2.90	6.57	1.33	3.50	5.20	2.27	4.20	6.85	2.41	4.05	6.45
Glucose (mmol/L)	4.24	4.7	5.21	3.80	4.25	4.96	4.28	5.10	5.85	2.73	4.70	5.35	4.05	4.35	4.95
C-peptide (pmol/L)	208.67	437	646.73	224.67	649.50	1219.25	152.00	553.00	1493.75	278.67	680.00	1516.50	366.15	635.00	1525.98
CPI (ng/mg)	4.15	8.47	13.01	2.30	6.30	13.62	1.42	4.50	13.90	1.47	5.93	11.32	2.84	7.08	12.59
AFABP (ng/mL)	13.37	20.3	34.97	3.96	19.80	31.56	3.27	20.40	55.35	4.49	18.20	39.93	8.25	21.25	52.13
Adiponectin (µg/mL)	6.65	10.2	14.82	4.16	0.60	14.84	1.60	8.10	15.83	2.66	7.80	13.68	2.53	9.15	15.03
FGF-19 (pg/mL)	49.17	248.3	726.12	38.45	190.95	404.16	9.53	104.60	413.00	31.90	158.60	725.23	14.56	182.45	1158.72

Abbreviations: SBP, systolic blood pressure; DBP, diastolic blood pressure; HbA1c, glycated hemoglobin; CPI, C-peptide index; AFABP, adipocyte fatty acid-binding protein; FGF-19, fibroblast growth factor 19.

Table S5. The concentrations of SCFA and their derivatives of each group.

Header	NonP (n = 20; 16,13%)			P-nonGDM (n = 20; 16,13%)			P-GDM-1T (n = 31; 25%)			P-GDM-2/3T (n = 31; 25%)			P-GDM-2/3T-ppg (n = 22; 17,74%)		
	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%
Analyte															
AA (μmol/L)	2.48	10.99	46.42	1.24	9.42	22.18	2.21	10.04	27.61	2.11	9.49	29.86	2.68	8.99	26.27
PA (μmol/L)	0.19	0.61	1.61	0.07	0.78	1.59	0.24	0.77	1.78	0.11	0.78	2.10	0.06	0.74	1.36
BA (μmol/L)	0.11	0.25	0.60	0.16	0.35	1.22	0.14	0.32	0.89	0.12	0.29	0.84	0.12	0.32	0.59
VA (μmol/L)	0.03	0.05	0.13	0.01	0.06	0.10	0.02	0.05	0.12	0.02	0.05	0.15	0.03	0.05	0.22
HA (μmol/L)	0.07	0.19	0.41	0.05	0.18	0.35	0.09	0.17	0.41	0.06	0.19	0.43	0.10	0.20	0.36
3-OH-BA (μmol/L)	12.02	29.67	186.65	16.84	31.84	52.97	14.08	45.21	193.40	15.15	46.43	141.44	28.47	91.19	277.88
2-OH-BA (μmol/L)	12.72	31.09	81.81	8.23	22.58	34.63	12.31	23.21	56.55	10.97	24.62	43.15	15.77	26.12	59.77
IBA (μmol/L)	0.25	0.74	1.67	0.16	0.64	2.10	0.19	0.73	1.46	0.26	0.69	1.79	0.21	0.56	1.25
IVA (μmol/L)	0.28	0.49	1.10	0.24	0.37	0.70	0.26	0.38	0.68	0.15	0.33	0.55	0.23	0.35	1.50
2-MBA (μmol/L)	0.15	0.42	12.32	0.13	1.98	5.23	0.17	1.02	10.85	0.15	0.62	10.23	0.29	1.23	34.27
4-MVA (μmol/L)	0.01	0.06	0.16	0.07	0.21	0.38	0.09	0.21	0.53	0.12	0.20	0.40	0.16	0.26	0.43

Table S6. ANOVA test comparing mean values of SCFA and their derivatives. P-value <0.05 is statistically significant (bold).

Analyte	P-nonGDM vs. nonP	P-GDM-1T vs. nonP	P-GDM-2/3T vs. nonP	P-GDM-2/3T- ppg vs. nonP	P-GDM-1T vs. nonP	P-GDM-2/3T vs. P-nonGDM	P-GDM-2/3T-ppg vs. P-nonGDM	P-GDM-1T vs. P-GDM-2/3T	P-GDM-1T vs. P-GDM-2/3T- ppg	P-GDM-2/3T vs. P-GDM-2/3T- ppg
AA	0.6677	0.8387	0.8753	0.8387	0.9937	0.9855	0.9952	0.9952	0.9952	0.9952
PA	0.9757	0.9891	0.9925	0.9863	0.9172	0.9542	0.9925	0.9925	0.9542	0.9656
BA	0.1464	0.6527	0.7840	0.7840	0.7840	0.7840	0.7840	0.9904	0.9904	0.9904
VA	0.9999	0.9999	0.9999	0.9552	0.9999	0.9999	0.9267	0.9999	0.9267	0.9329
HA	0.8627	0.9260	0.9656	0.9822	0.9822	0.9801	0.9398	0.9822	0.9656	0.9801
3-OH-BA	0.6535	0.5049	0.5049	0.0025	0.1484	0.1255	0.0001	0.8712	0.0402	0.0536
2-OH-BA	0.1246	0.7232	0.5399	0.9862	0.5399	0.7232	0.1136	0.8368	0.7232	0.5369
IBA	0.9895	0.9957	0.9957	0.8109	0.9957	0.9957	0.9799	0.9957	0.8508	0.8429
IVA	0.0386	0.0514	0.0005	0.2068	0.8803	0.7924	0.8035	0.4416	0.8803	0.3000
2-MBA	0.5284	0.3778	0.8775	0.3324	0.9829	0.8775	0.9829	0.8775	0.9829	0.8209
4-MVA	<0.0001	<0.0001	<0.0001	<0.0001	0.9855	0.9855	0.3055	0.9998	0.3247	0.3247

Table S7. ANOVA test comparing mean values of baseline body composition characteristics and biochemical parameters. P-value <0.05 is statistically significant (bold).

Parameter	P-nonGDM vs. nonP	P-GDM-1T vs. nonP	P-GDM-2/3T vs. nonP	P-GDM-2/3T-PPG vs. nonP	P-GDM-1T vs. nonP	P-GDM-2/3T vs. P-nonGDM	P-GDM-2/3T-PPG vs. P-nonGDM	P-GDM-1T vs. P-GDM-2/3T	P-GDM-1T vs. P-GDM-2/3T-PPG	P-GDM-2/3T vs. P-GDM-2/3T-PPG
Age	0.9556	0.9364	0.8278	0.8266	0.8278	0.6671	0.6671	0.9556	0.9556	0.9556
Height	0.9267	0.7768	0.5913	0.8049	0.3487	0.1874	0.4512	0.9690	0.9690	0.9690
Weight	0.5792	0.0048	0.0003	0.0025	0.1807	0.0340	0.0997	0.7627	0.8391	0.8391
BMI	0.6995	0.0011	<0.0001	0.0006	0.0291	0.0016	0.0141	0.6995	0.8214	0.8214
Waist	0.2516	0.0005	<0.0001	0.0003	0.1639	0.0548	0.0830	0.8923	0.8923	0.9844
SBP	0.9669	0.9611	0.9669	0.6835	0.9977	0.9977	0.9495	0.9977	0.9495	0.9479
DBP	0.8390	0.9133	0.9491	0.7819	0.9491	0.8556	0.9491	0.9491	0.9491	0.8390
Heart rate	0.3194	0.0042	0.0018	0.0042	0.4886	0.4268	0.4458	0.9843	0.9843	0.9910
HbA1c	0.6095	0.9885	0.9480	0.9480	0.4749	0.8926	0.9430	0.9480	0.9480	0.9885
Cholesterol	0.0319	0.0100	<0.0001	<0.0001	0.8742	0.0331	0.1160	0.0297	0.1160	0.8742
Triglycerides	0.2444	0.0074	<0.0001	<0.0001	0.3569	<0.0001	<0.0001	<0.0001	<0.0001	0.9803
HDL cholesterol	0.0541	0.5702	0.4890	0.4857	0.5702	0.6271	0.7407	0.9577	0.9577	0.9577
LDL cholesterol	0.3719	0.2164	0.0005	0.0150	0.8523	0.1474	0.4709	0.1351	0.4709	0.6956
Non-HDL cholesterol	0.1610	0.0570	<0.0001	0.0001	0.8503	0.0119	0.0570	0.0169	0.0748	0.8503
Glucose	0.0179	0.0086	0.6694	0.0895	<0.0001	0.0246	0.6694	0.0003	<0.0001	0.1201
C-peptide	0.2746	0.4571	0.0216	0.0305	0.8664	0.8664	0.8664	0.4569	0.4569	0.9323
CPI	0.0862	<0.0001	0.0077	0.3487	0.3387	0.6470	0.6470	0.4301	0.0430	0.3952
AFABP	0.9270	0.9607	0.9270	<0.0001	0.9270	0.9607	0.0011	0.9270	<0.0001	0.0002
Adiponectin	0.9785	0.2878	0.3224	0.6259	0.2448	0.2878	0.6113	0.9785	0.9395	0.9437
FGF-19	0.9559	0.5108	0.9559	0.9826	0.9559	0.9559	0.9559	0.7886	0.4886	0.9559

Table S8. Fold-change values between the groups of women with GDM and controls.

Parameter	P-GDM-1T	P-GDM-2/3T	P-GDM-2/3T-ppg	P-GDM-1T	P-GDM-2/3T	P-GDM-2/3T-ppg
	vs. nonP	vs. nonP	vs. nonP	vs. P-nonGDM	vs. P-nonGDM	vs. P-nonGDM
Age	1.11	1.14	1.18	1.03	1.07	1.10
Height	0.99	0.98	0.99	0.98	0.97	0.98
Weight	1.25	1.30	1.28	1.16	1.21	1.19
BMI	1.23	1.29	1.30	1.17	1.22	1.24
Waist	1.23	1.30	1.27	1.12	1.18	1.16
SBP	1.04	1.03	1.06	1.01	0.99	1.03
DBP	1.01	0.98	1.05	0.96	0.93	1.00
Heart rate	1.13	1.18	1.16	1.02	1.07	1.05
HbA1c	1.03	1.03	1.02	1.07	1.07	1.05
Cholesterol	1.27	1.49	1.44	1.05	1.23	1.19
Triglycerides	1.94	2.88	3.03	1.29	1.92	2.01
HDL cholesterol	1.10	1.15	1.09	0.92	0.96	0.91
LDL cholesterol	1.30	1.53	1.43	1.19	1.40	1.31
Non-HDL cholesterol	1.37	1.65	1.59	1.21	1.45	1.40
Glucose	1.09	1.00	0.93	1.20	1.11	1.02
C-peptide	1.27	1.56	1.45	0.85	1.05	0.98
CPI	0.53	0.70	0.84	0.71	0.94	1.12
AFABP	1.00	0.90	1.05	1.03	0.92	1.07
Adiponectin	0.79	0.76	0.90	0.76	0.74	0.86
FGF-19	0.42	0.64	0.73	0.55	0.83	0.96
AA	0.91	0.86	0.82	1.07	1.01	0.95
PA	1.27	1.29	1.21	0.99	1.01	0.95
BA	1.28	1.16	1.28	0.91	0.83	0.91
VA	1.00	1.00	1.00	0.83	0.83	0.83
HA	0.89	1.00	1.05	0.94	1.06	1.11
3-OH-BA	1.52	1.57	3.07	1.42	1.46	2.86
2-OH-BA	0.75	0.79	0.84	1.03	1.09	1.16
IBA	0.99	0.94	0.76	1.14	1.08	0.87
IVA	0.78	0.68	0.71	1.03	0.89	0.93
2-MBA	2.46	1.49	2.96	0.52	0.31	0.62
4-MVA	3.50	3.33	4.33	1.00	0.95	1.24