

Supplement Table 1 Top metabolites identified by different ML algorithms

Least Selection	Absolute Operator	Shrinkage and	Support Recursive Elimination	Vector	Machine- Feature	Random forest
(10E,12Z)-9-HODE			N-Acetylcarnosine			CerP(d18:1/12:0)
2-Hydroxy-3-methylbutyricacid			2-Stearyl citrate			2-Stearyl citrate
N-Acetylcarnosine			CerP(d18:1/12:0)			N-Acetylcarnosine
Acetovanillone			3-Methyl-alpha-ionylacetate			PC(20:1(11Z)/15:0)
2-Methylbutyroylcarnitine			Atrolacticacid			3-Methyl-alpha-ionylacetate
PC(18:1(11Z)/18:4(6Z,9Z,12Z,15Z))			Acetovanillone			2-Methylbutyroylcarnitine
2-Stearyl citrate			2-Hydroxy-2-methylbutyricacid			Atrolacticacid
3-Methyl-alpha-ionylacetate			SanguisorbinB			Creatinine
CerP(d18:1/12:0)			(10E,12Z)-9-HODE			DG(18:3(9Z,12Z,15Z)/15:0/0:0)
DG(15:0/18:4(6Z,9Z,12Z,15Z)/0:0)			DG(15:0/18:4(6Z,9Z,12Z,15Z)/0:0)			PC(18:1(11Z)/22:6(4Z,7Z,10Z,13Z,16Z,19Z))
PC(P-16:0/18:2(9Z,12Z))						
PC(20:1(11Z)/15:0)						
PC(P-18:0/22:5(4Z,7Z,10Z,13Z,16Z))						
Diethylenetriaminecrosslinkedwithhepi chlorohydrin						
Simulansine						