

Supplementary Table S1. Combined metabolomics data

Data sources:

Reference	PE/controls	sample	date (weeks)	technique	Comments
K=Kenny et al. 2010	60/60 + 39/40	Mat. Blood	14-16	UPLC-MS	Two linked studies. Identifies broad range including lipids. * denotes MS peaks corresponding to >1 metabolite
BS=Bahado-Singh et al. 2017	29/55	Mat. Blood	9-12	NMR	Technique emphasises polar and charged metabolites. Paper incorporates early data published by Bahado-Singh et al.
O=Odibo et al. 2011	41/41	Mat. Blood	11-14	Targetted MS	Focus on carnitines and amino acids, using deuterated standards
D=Dunn et al. 2009	6/6	Placental explants	>24	UPLC-MS	For reference only, as explantation might not reflect secreted metabolite profiles in vivo

Data:

Metabolite	Up/Down	Source
5-Hydroxytryptophan	Down	K
Urea	Down	K
12-Ketodeoxycholic acid*	Up	K
Monosaccharide(s)	Up	K
Palmitoylcarnitine	Up	K
Stearoylcarnitine	Up	K
Decanoylcarnitine	Up	K
Octanoylcarnitine	Up	K
Acetylcarnitine	Up	K
Dodecanoylcarnitine	Up	K
Methylglutaric acid and/or adipic acid*	Down	K
8,11,14-Eicosatrienoic acid	Up	K

20-Carboxyleukotiene B4	Up	K
Oleic acid	Up	K
Linoleic acid	Up	K
Docosahexaenoic acid and/or docosatriynoic acid	Up	K
Hydroxy-octadecanoic acid and/or oxo-octadecanoic acid*	Up	K
Hexadecanoic acid	Up	K
Octadecanoic acid	Up	K
g-Butyrolactone and/or oxolan-3-one*	Up	K
2-Oxovaleric acid and/or oxo- methyl butanoic acid*	Up	K
2-hydroxybutanoic acid	Up	K,BS
3-hydroxybutanoic acid	Up	K,BS
Acetoacetic acid	Up	K
Di-(heptadecadienoyl)- eicosanoyl-sn-glycerol*	Down	K
Hexadecenoyl- eicosatetraenoyl-sn- glycerol*	Up	K
Di-(octadecadienoyl)-sn-glyce	Up	K
Octadecenoylhexadecanoyl-sn	Down	K
Octadecenoyl-sn-glycero-3- phosphoserine*	Up	K
Dioctanoyl-sn-glycero-3- phosphocholine*	Up	K
Sphingosine 1-phosphate	Up	K
Sphinganine 1-phosphate	Up	K
Vitamin D3 derivatives	Up	K
Steroid and/or Etiocholan-3- a-o17-one glucuronide*	Up	K
Carnitine	Up	BS
Citrate	Up	BS
Glucose	Up	BS
Dimethylamine	Down	BS
Leucine	Up	BS
Valine	Up	BS
Lactate	Up	BS
3-Hydroxyisovalerate	Up	BS
Pyruvate	Up	BS
Methylhistidine	Up	BS
C5OH (Hydroxyisovalerylcarnitine/ Hydroxymethylbutyrylcarnitin e)	Up	O

C6OH (Hydroxyhexanoylcarnit	Up	O
Phenylalanine	Up	O
Glutamate	Up	O
Arginine	Up	O
Alanine	Up	O
Hydroxyproline	Up	O
N1,N12-Diacetylspermine	Up	D
Glucosamine 6-sulfate	Down	D
Glycerophosphocholine	Down	D
1-Phosphatidyl-myo-inositol	Down	D
Glutamate	Down	D
Methylaspartate or 2-oxo-4-hydroxy-5-aminovalerate or glutamate or acetylserine	Down	D
Hydroxystearate	Down	D
Hydroxypalmitate	Down	D
pyrrolidine-2-carboxylic acid or formylsalicylic acid	Down	D
Kynurenine	Down	D
3,4-Dihydroxy-1-methylquinolin-2(1 h)-one or 5,6-dihydroxy-3-methyl-2-oxo-1, 2-dihydroquinoline or 5-hydroxyindoleacetate or indole-3-glycolate or hydroxydopamine or quinoline or 5-hydroxyindoleacetate or indole-3-glycolate or hydroxydopamine or noradrenaline or pyridoxine	Down	D
Hydroxyphenyllactate	Down	D
leukotriene	Down	D
Cystamine	Down	D
Arginine phosphate	Down	D
Glutamine	Down	D
methylmalonate or succinate	Down	D