

Supplementary Figure 1, Heat map illustrating the relative ratio of the identified metabolites during the validation of quenching of metabolism. The chemostat was operated under the first glucose limitation (2g L⁻¹) and each value represents the averaged response of five independent samples. The response of the metabolites was split into four sections, 0.001- 0.0099, 0.01- 0.099, 0.1-0.99, 1- 9.99 as illustrated by the increasing grey scale.

Extraction Method	Methanol				Ethanol				KOH				PCA				Methanol / Chloroform			
	Control	60% Methanol	60% Methanol / Tricine	Ethanol	Control	60% Methanol	60% Methanol / Tricine	Ethanol	Control	60% Methanol	60% Methanol / Tricine	Ethanol	Control	60% Methanol	60% Methanol / Tricine	Ethanol	Control	60% Methanol	60% Methanol / Tricine	Ethanol
Metabolite																				
Amino acid & nitrogen containing compounds																				
valine ¹																				
glycine ¹																				
2,2-dihydroxydiethylamine ²																				
5-aminovaleric acid ²																				
uracil ¹																				
aspartic acid ¹																				
triethanolamine ²																				
putrescine ¹																				
pyroglutamic acid / glutamic acid ¹																				
N-acetylaspatic acid ¹																				
ethylamine phosphate ²																				
uridine ²																				
norvaline ²																				
leucine ²																				
5-aminovaleric acid ²																				
aminomalonic acid ²																				
phenylalanine ¹																				
hydroxylamine ²																				
ethanolamine ²																				
ammonium ¹																				
2-chlorotriethanolamine ²																				
ammonium ¹																				
aspartic acid ¹																				
N-acetylserine ²																				
phenylalanine ¹																				
alpha-hydroxyisovaleric acid ²																				
4-hydroxyproline ¹																				
glutamic acid ¹																				
glutamic acid ¹																				
N-acetylproline ²																				
N-acetylaspatic acid ¹																				

Supplementary Table 1, Identification of metabolites from the quenching supernatants and footprint samples illustrates in the Venn diagram (Figure 3). The columns (A-M) indicate the different sections illustrated in the Venn diagram. The figures indicate the number of peaks identified as a particular metabolite in that section. (¹definitive identification, matched to authentic standard by retention index and mass spectrum, ² identified by mass spectrum only).

A	Cont' A	D	I
1,2,3-trihydroxybenzoic acid ²	nonanoic acid ²	lactic acid ¹	unknown peaks (4)
1,3-propanediol ¹	octadecanoic acid ¹	sugar phosphate ²	J
1,5-dihydroxypentane ²	oleic acid ¹	tagatose ¹	octanoic acid ¹
1,6-anhydroglucose ¹	palmitin ¹	phenylalanine ¹	unknown peaks (2)
1-cyclopropene(2-hydroxypropyl) ²	pantothenic acid ¹	unknown peaks (2)	K
1-methyl,1-phenylethyl ethanol ²	pentadecanoic acid ² (2)	E	myo-inositol ¹
1-octadecanol ¹	phosphate ¹	maltose ¹	unknown peaks (6)
2,3-butanediol ¹	propanetriol or caffeic acid ²	2-monopalmitin ²	L
2,4-imidazolidendione derivative ²	pyruvic acid ¹	sugar or sugar alcohol ²	sugar or sugar alcohol ²
2-hydroxyglutaric acid ¹	succinic acid ¹ (2)	myristic acid ¹	glycerol-2-phosphate ²
2-isopropylmalic acid ¹	sugar or sugar alcohol ² (10)	unknown peak	unknown peaks (2)
2-methyl, 4-hydroxybutyric acid ²	B	F	M
3-methyl, 2-oxobutanoic acid ²	2-hydroxysebacic acid ²	5-aminomethyl isoxazol-3-ol ²	phosphate ¹
4-hydroxybenzoic acid ¹ (3)	2-methyl, 4-pentonic acid ²	phosphoric acid, monomethyl ester ²	4-hydroxyphenyllactic acid ²
9-tetradecenoic acid ²	2-propanol,1,3-dibromo ²	2-chlorotriethanolamine ²	sugar or sugar alcohol ²
acetic acid ²	4-hydroxyproline ¹	sucrose ¹	unknown peaks (2)
alpha-hydroxyisovaleric acid ²	5-aminovaleric acid ² (2)	formic acid ²	
ammonium ¹ (2)	aspartic acid ¹ (2)	unknown peak	
citric acid ¹	citramalic acid ¹	G	
dehydroabiatic acid ²	ethanolamine ²	uracil ¹ (2)	
dodecanoic acid ²	glutamic acid ¹	2-monostearin ²	
fructose ¹	glycine ¹	ethylene glycol ²	
glucose ¹ (2)	N-acetylproline ²	ethylamine phosphate ²	
glyceric acid-3-phosphate ²	N-acetyltryptophan ¹	unknown peaks (2)	
glycerol ¹	putrescine ¹	H	
glycerol-3-phosphate ²	Unknown peaks (13)	phosphate ¹	
heptadecanoic acid ² (3)	C	fumaric acid ¹	
isomaltose ²	phosphate ¹	norvaline ²	
lactic acid ¹	(benzene based) ²	glucose-6-phosphate ¹	
monostearin ²	Unknown peaks (2)	pyroglutamic acid / glutamic acid ¹	
N-acetylaspartic acid ¹		unknown peaks (4)	
N-acetylserine ²			

Supplementary Table 2, Identification of metabolites from the different extraction methods illustrated in the Venn diagram (Figure 5). The columns (A-M) indicate the different sections illustrated in the Venn diagram. The figures in brackets indicate the number of peaks identified as a particular metabolite in that section and metabolites in bold indicate a particular peak not included in the Venn diagram due to constraints in the figure. (¹definitive identification, matched to authentic standard by retention index and mass spectrum, ² identified by mass spectrum only).

A	F	Continued J
phosphate derivative	2,2-dihydroxydiethylamine ²	phosphate ¹
unknown peaks (2 + 2)	dehydroabiatic acid ²	pyrophosphate ²
	ethylamine phosphate ²	rhamnose ¹
B	leucine ¹	sugar or sugar alcohol ²
4-hydroxyphenyllactic acid²	norvaline ²	unknown peaks (14)
sugar phosphate²	phenylalanine ¹ (2)	
unknown peak	valine ¹	K
4-hydroxyphenyllactic acid²	unknown peaks (5 + 1)	unknown peaks (4)
C	G	L
decanoic acid¹	glycerol-2-phosphate ²	unknown peaks (2 + 1)
lactic acid¹	unknown peaks (1 + 1)	
octanoic acid¹		M
phosphate derivative ²	H	2-propenoic acid, 3-methoxy 2-hydroxy ²
Phosphocreatinine ¹	glucose-6-phosphate ¹	
unknown peaks (3 + 2)	myristic acid ¹	N
	unknown peaks (3)	1-methyl,1-phenylethyl ethanol ²
D		1-octadecanol ¹
(benzene based) ²	I	2-methyl, 4-pentonic acid ²
phosphate derivative²	2-hydroxysebacic acid ²	2-monopalmitin ²
pyridine based compound ²	unknown peaks (3)	Benzoic acid derivative ²
unknown peaks (3 + 1)		glycerol-2-phosphate ²
	J	N-acetylproline ²
E	1,5-dihydroxypentane ²	phosphate derivative ² (2)
2,4,5-trihydroxypentanoic acid ²	5-aminovaleric acid ² (2)	xylitol ¹
2,4-dihydroxybutanoic acid ²	aspartic acid ¹ (2)	pyroglutamic acid / glutamic acid ¹
4-hydroxyphenyllactic acid²	citramalic acid ¹	sugar phosphate ²
9-tetradecenoic acid ²	ethanolamine ²	unknown peaks (8)
benzaldehyde ²	formic acid ²	
decanoic acid¹	glutamic acid ¹ (2)	O
lactic acid¹	hydroxylamine ²	(benzene based) ²
levulinic acid ²	N-acetylaspartic acid ¹ (2)	1,2,3-trihydroxybenzoic acid ²
octanoic acid¹	uracil ¹	1,3-propanediol ¹
sugar phosphate²	N-acetyltryptophan ¹	1,6-anhydroglucose ¹
unknown peaks (7)	nonanoic acid ²	1-cyclopropene(2-hydroxypropyl) ²

Supplementary Table 2 Continued

Continued O	Continued O	T
2-hydroxyglutaric acid ¹	phosphate derivative ²	ethylene glycol ²
2-isopropylmalic acid ¹	phosphate ¹	2,4-imidazolidendione derivative ²
2-propanol,1,3-dibromo ²	phosphate ¹	sugar or sugar alcohol ² (2)
3-methyl, 1-2 dihydroxybutane ²	phosphate ¹	phosphate derivative ²
3-methyl, 2-oxobutanoic acid ²	propanetriol or caffeic acid ²	unknown peak
4-hydroxybenzoic acid ¹	putrescine ¹	
4-hydroxybutyric acid ¹	succinic acid ¹ (2)	U
9-tetradecenoic acid ²	sucrose ¹	2,3-butanediol ¹
acetic acid ²	sugar or sugar alcohol ² (12)	4-hydroxyproline ¹
alpha-hydroxyisovaleric acid ²	sugar phosphate ² (2)	5-aminomethyl isoxazol-3-ol ²
ammonium ¹	threitol or erythritol ¹	aminomalonic acid ²
citric acid ¹	threonic acid ¹	ammonium ¹
dodecanoic acid ²	triethanolamine ²	mercaptoacetic acid ²
eicosanoic acid ¹	trimethylamine-N-oxide ²	unknown peaks (6)
fatty acid ² (2)	unknown peak (33)	
fructose ¹		
fumaric acid ¹	P	
glucose ¹ (2)	2-chlorotriethanolamine ²	
glyceric acid-3-phosphate ²	2-methyl, 4-hydroxybutyric acid ²	
glycerol ¹	2-monostearin ²	
glycerol-3-phosphate ²	glycine ¹	
heptadecanoic acid ²	phosphoric acid, monomethyl ester ²	
hexadecanoic acid ¹ (2)	pyruvic acid ¹	
uridine ²		
xylose ¹	Q	
isomaltose ²	heptadecanoic acid ²	
maltose ¹	tagatose ¹	
monostearin ²	unknown peaks (3)	
myo-inositol ¹		
N-acetylserine ²	R	
	unknown peak	
octadecanoic acid ¹		
oleic acid ¹		
palmitin ¹	S	
	unknown peak	
pantothenic acid ¹		
pentadecanoic acid ² (2)		