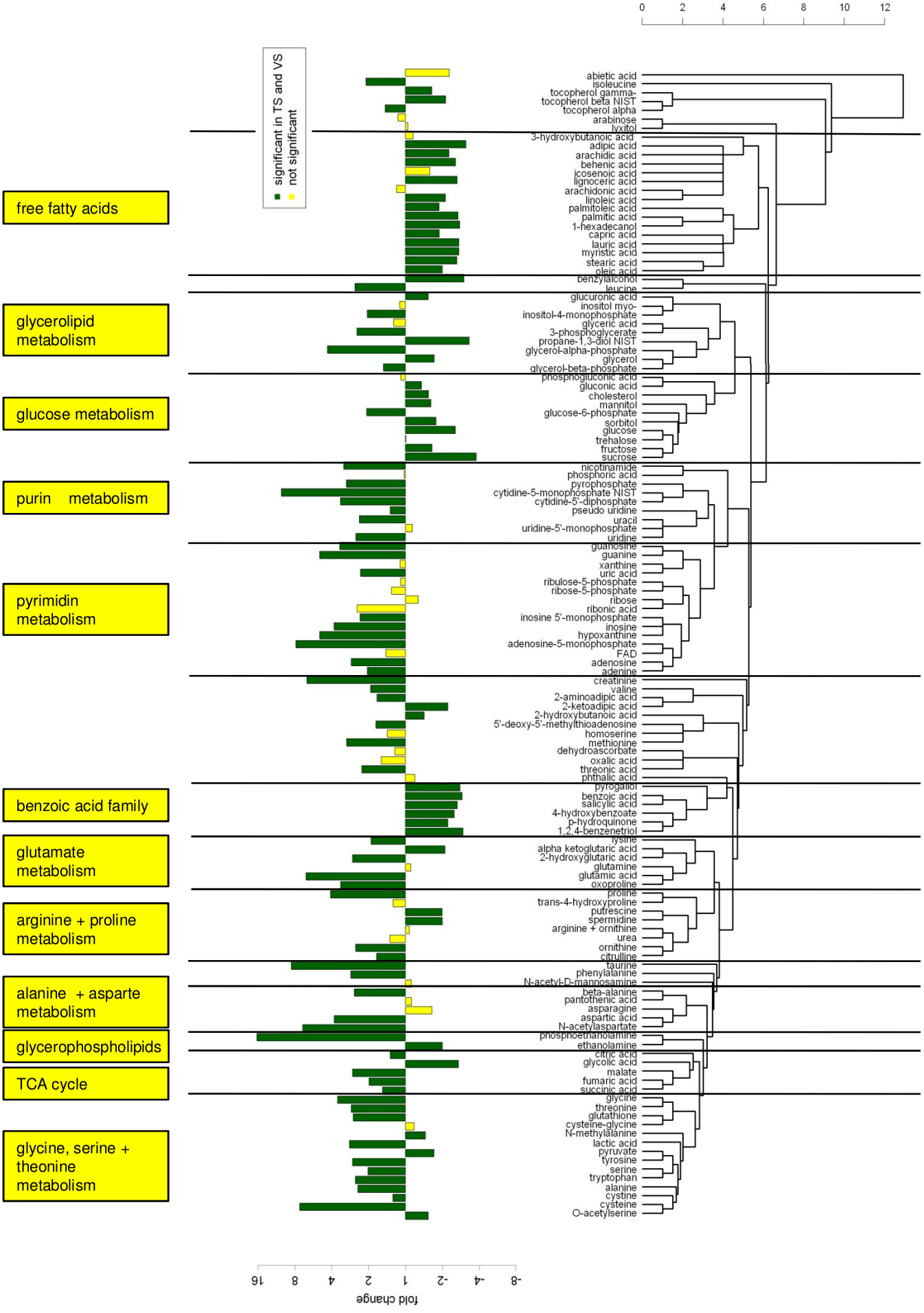
0
2
4
6
8
10
12
significant in TS and VS
not significant
free fatty acids
glycerolipid metabolism
glucose metabolism
purin metabolism
pyrimidin metabolism
benzoic acid family
glutamate metabolism
arginine + proline metabolism
alanine + asparte metabolism
glycerophospholipids
TCA cycle
glycine, serine + theonine metabolism
abietic acid
isoleucine
tocopherol gamma-
tocopherol beta NIST
tocopherol alpha
arabinose
lyxitol
3-hydroxybutanoic acid
adipic acid
arachidic acid
behenic acid
icosenoic acid
lignoceric acid
arachidonic acid
linoleic acid
palmitoleic acid
palmitic acid
1-hexadecanol
capric acid
lauric acid
myristic acid
stearic acid
oleic acid
benzylalcohol
leucine
glucuronic acid
inositol myo-
inositol-4-monophosphate
glyceric acid
3-phosphoglycerate
propane-1,3-diol NIST
glycerol-alpha-phosphate
glycerol
glycerol-beta-phosphate
phosphogluconic acid
gluconic acid
cholesterol
mannitol
glucose-6-phosphate
sorbitol
glucose
trehalose
fructose
sucrose
nicotinamide
phosphoric acid
pyrophosphate
cytidine-5-monophosphate NIST
cytidine-5'-diphosphate
pseudo uridine
uracil
uridine-5'-monophosphate
uridine
guanosine
guanine
xanthine
uric acid
ribulose-5-phosphate
ribose-5-phosphate
ribose
ribonic acid
inosine 5'-monophosphate
inosine
hypoxanthine
adenosine-5-monophosphate
FAD
adenosine
adenine
creatinine
valine
2-aminoadipic acid
2-ketoadipic acid
2-hydroxybutanoic acid
5'-deoxy-5'-methylthioadenosine
homoserine
methionine
dehydroascorbate
oxalic acid
threonic acid
phthalic acid
pyrogallol
benzoic acid
salicylic acid
4-hydroxybenzoate
p-hydroquinone
1,2,4-benzenetriol
lysine
alpha ketoglutaric acid
2-hydroxyglutaric acid
glutamine
glutamic acid
oxoproline
proline
trans-4-hydroxyproline
putrescine
spermidine
arginine + ornithine
urea
ornithine
citrulline
taurine
phenylalanine
N-acetyl-D-mannosamine
beta-alanine
pantothenic acid
asparagine
aspartic acid
N-acetylaspartate
phosphoethanolamine
ethanolamine
citric acid
glycolic acid
malate
fumaric acid
succinic acid
glycine
threonine
glutathione
cysteine-glycine
N-methylalanine
lactic acid
pyruvate
tyrosine
serine
tryptophan
alanine
cystine
cysteine
O-acetylserine
-8
-4
-2
1
2
4
8
16
fold change