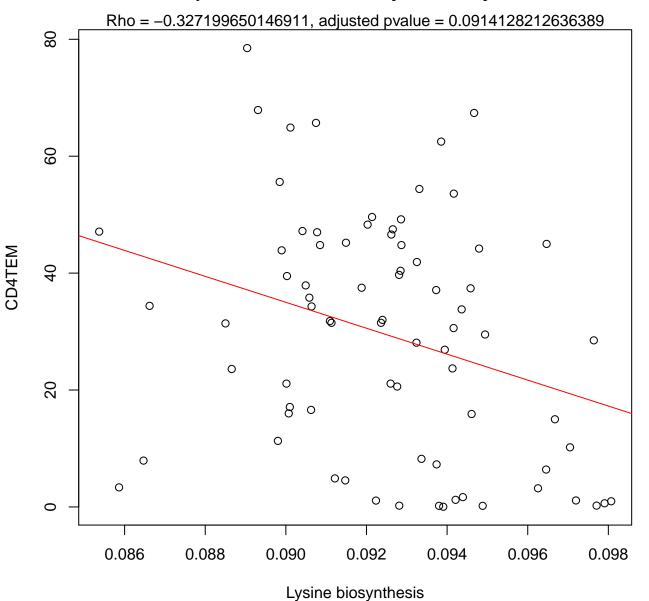
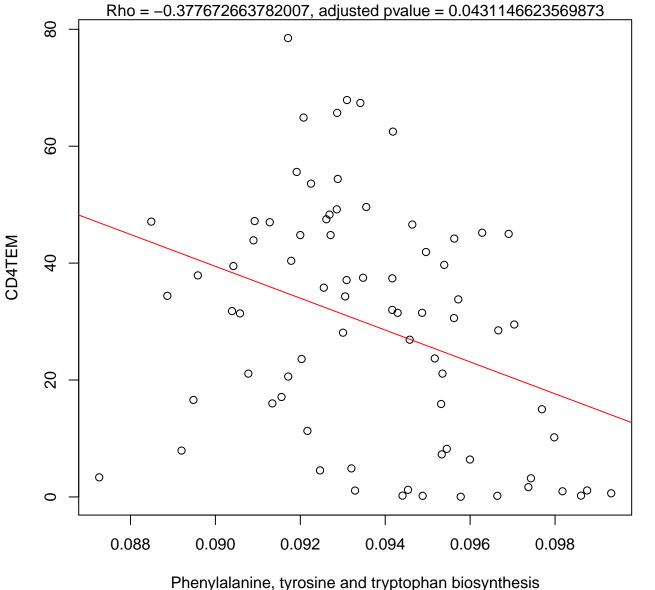
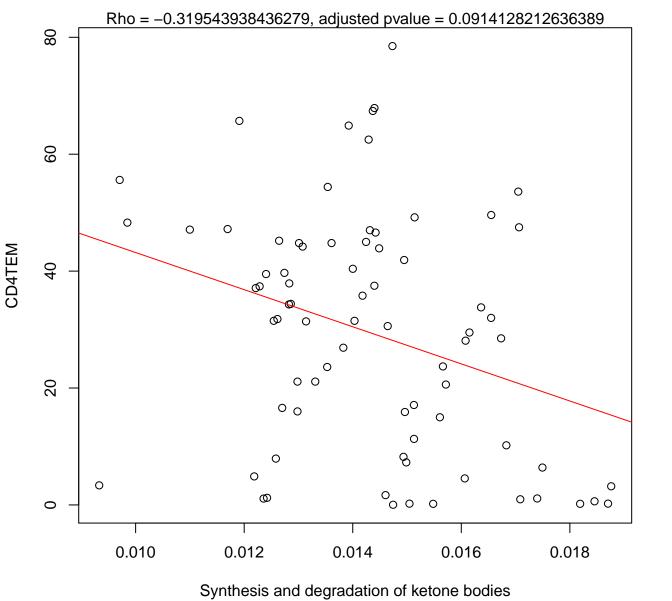
#### **Timepoint 2, CD4TEM ~ Lysine biosynthesis**



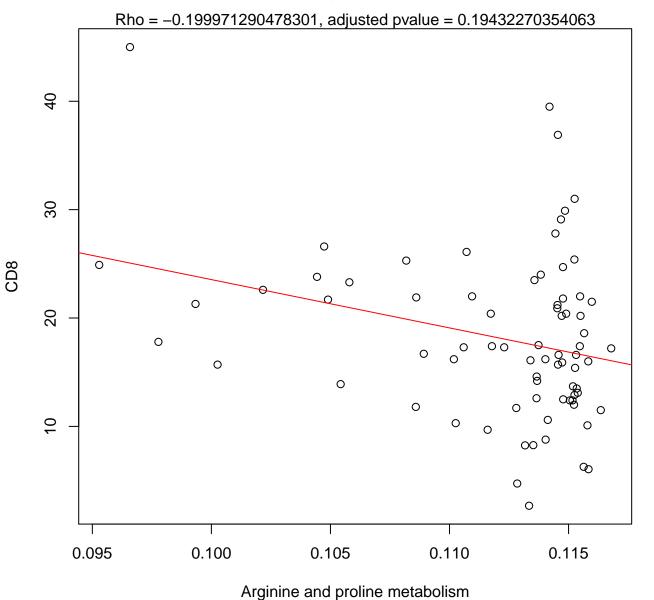
Timepoint 2, CD4TEM ~ Phenylalanine, tyrosine and tryptophan biosynthe



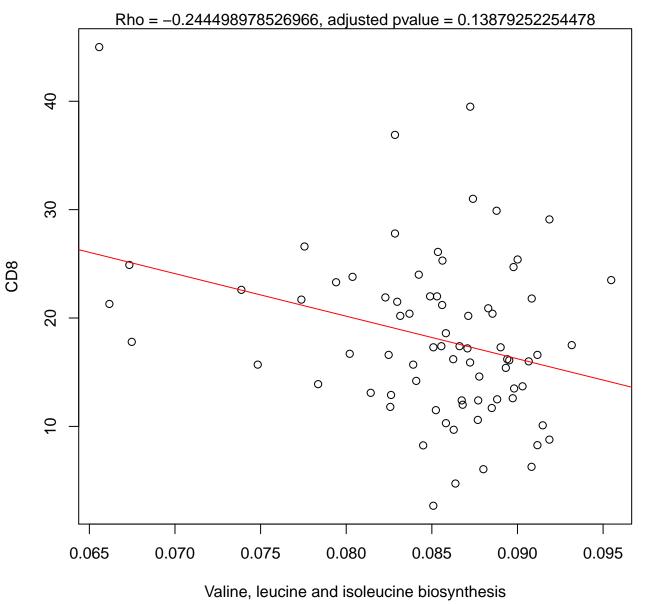
# Timepoint 2, CD4TEM ~ Synthesis and degradation of ketone bodies



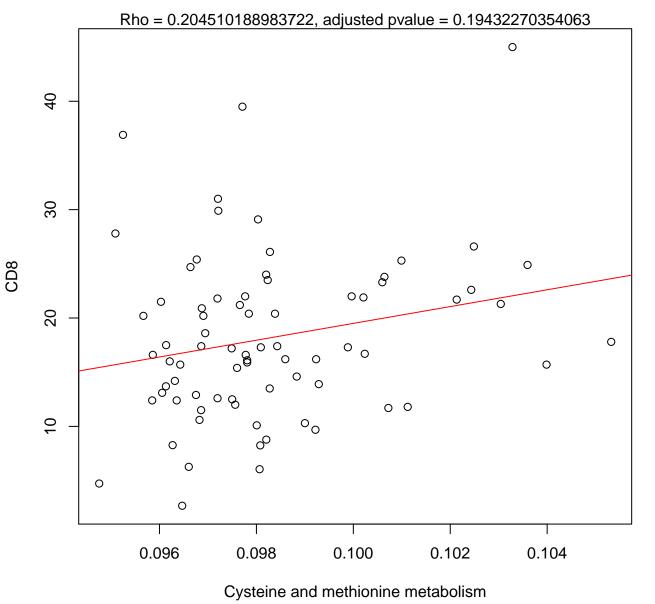
Timepoint 2, CD8 ~ Arginine and proline metabolism



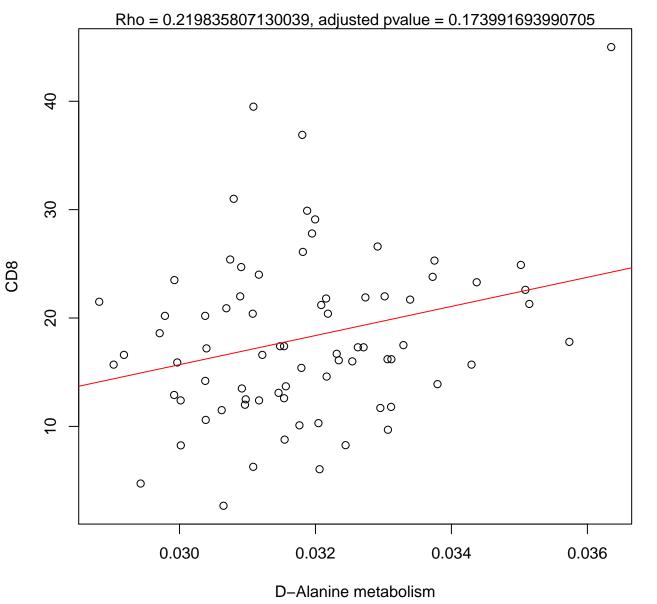
Timepoint 2, CD8 ~ Valine, leucine and isoleucine biosynthesis



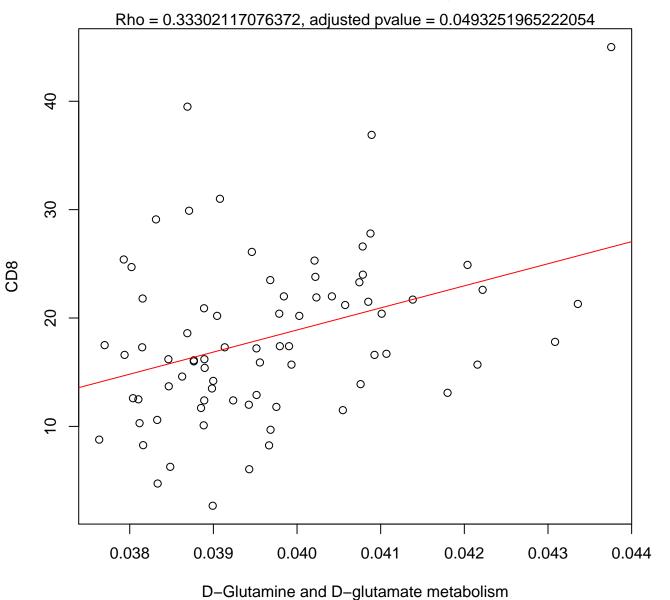
Timepoint 2, CD8 ~ Cysteine and methionine metabolism



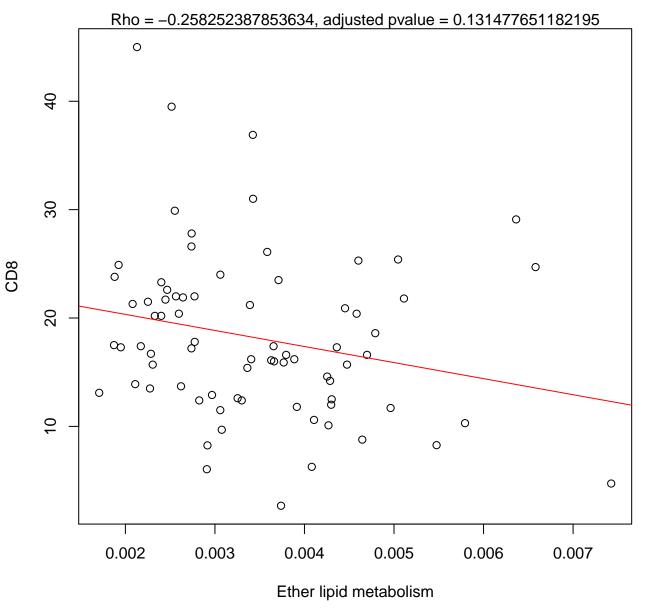
Timepoint 2, CD8 ~ D-Alanine metabolism



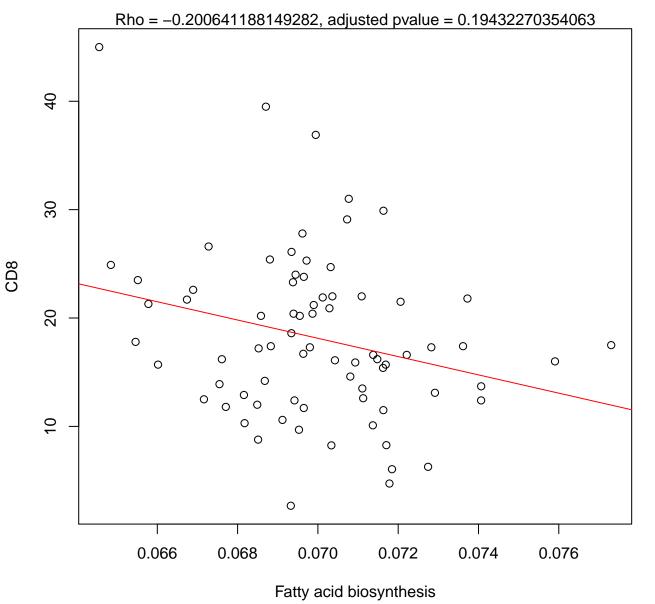
Timepoint 2, CD8 ~ D-Glutamine and D-glutamate metabolism



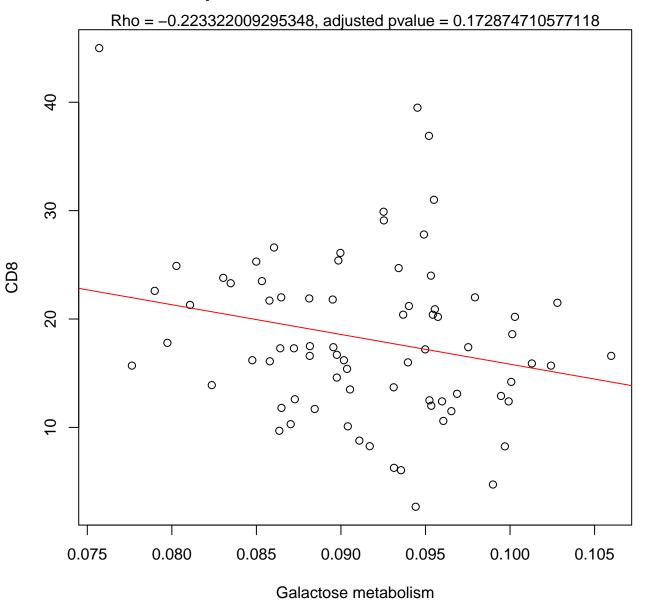
Timepoint 2, CD8 ~ Ether lipid metabolism



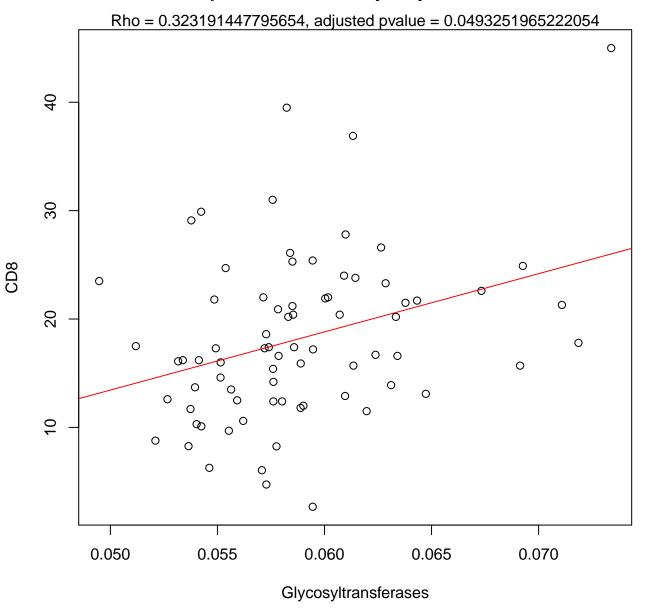
Timepoint 2, CD8 ~ Fatty acid biosynthesis



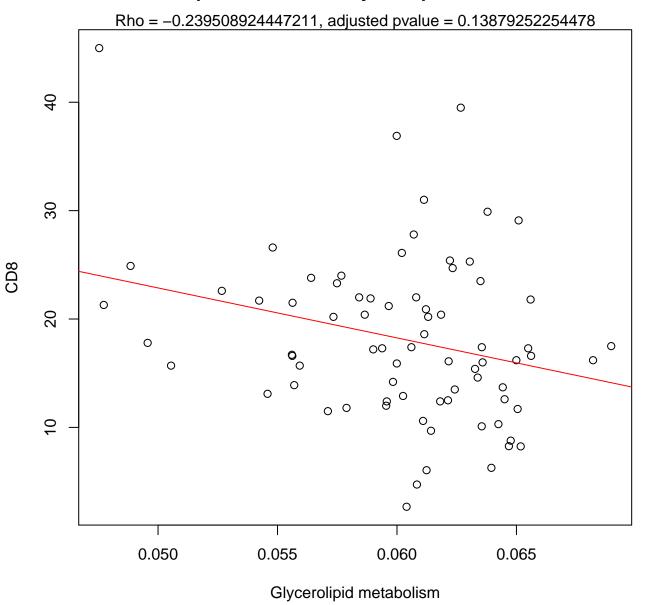
Timepoint 2, CD8 ~ Galactose metabolism



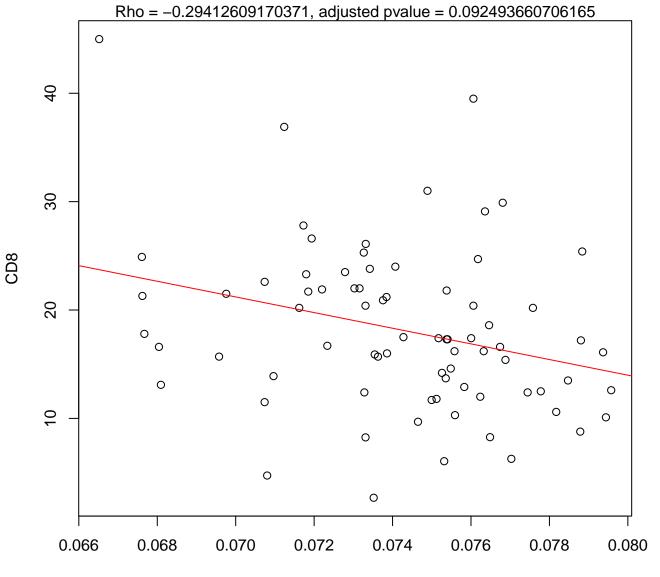
Timepoint 2, CD8 ~ Glycosyltransferases



#### Timepoint 2, CD8 ~ Glycerolipid metabolism

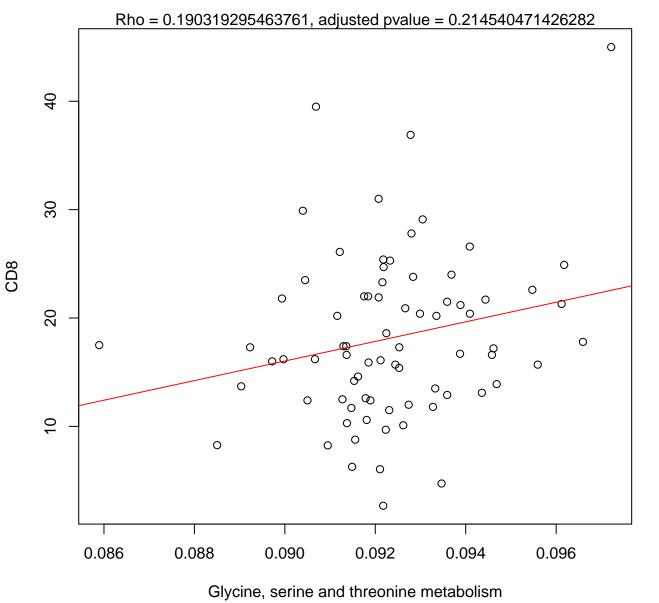


## Timepoint 2, CD8 ~ Glycerophospholipid metabolism

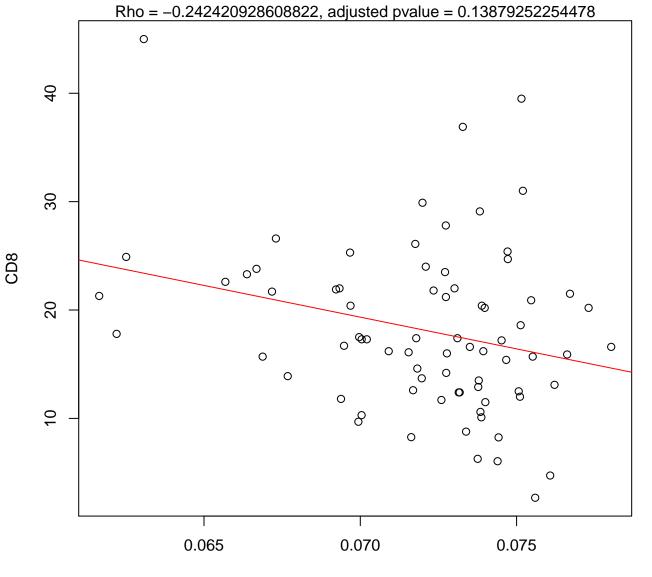


Glycerophospholipid metabolism

Timepoint 2, CD8 ~ Glycine, serine and threonine metabolism

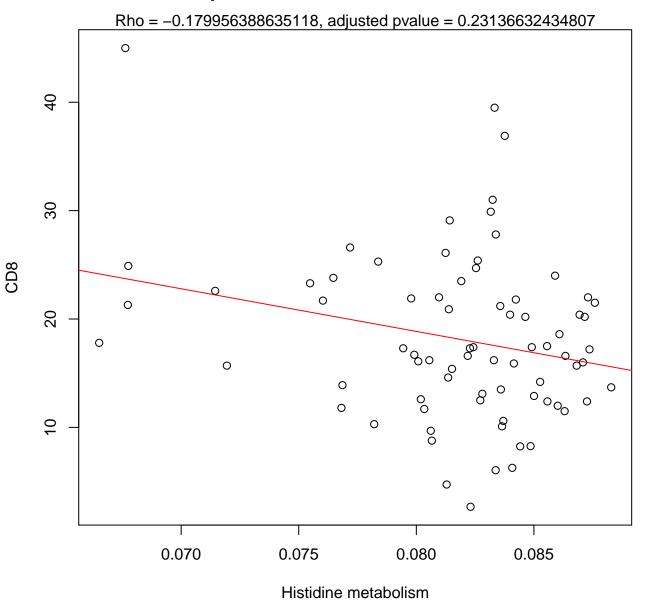


Timepoint 2, CD8 ~ Glyoxylate and dicarboxylate metabolism

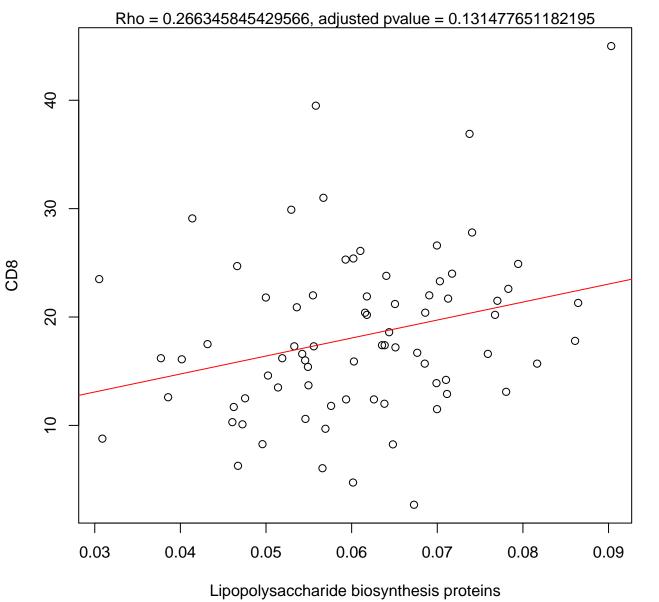


Glyoxylate and dicarboxylate metabolism

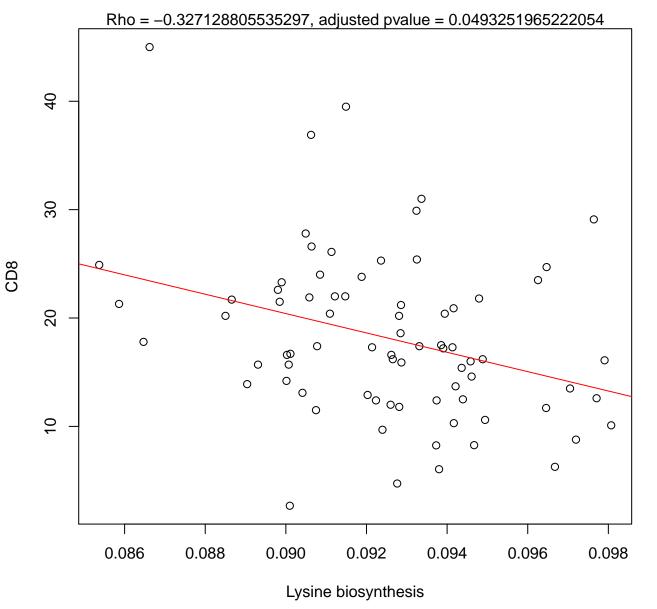
Timepoint 2, CD8 ~ Histidine metabolism



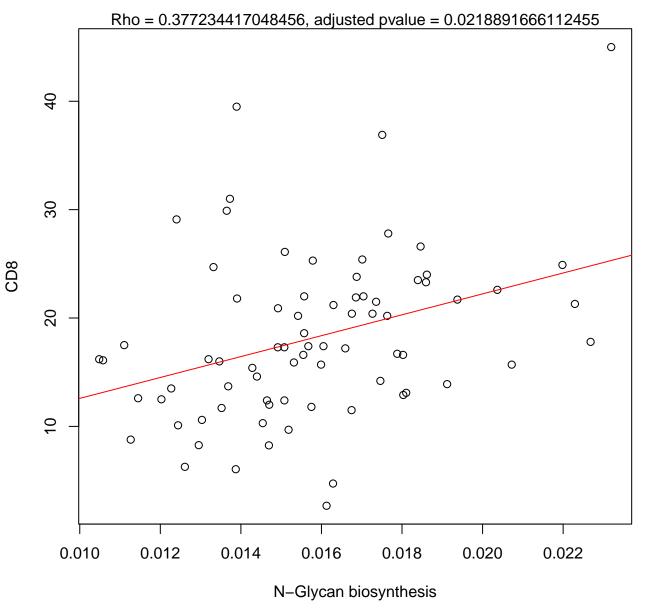
Timepoint 2, CD8 ~ Lipopolysaccharide biosynthesis proteins



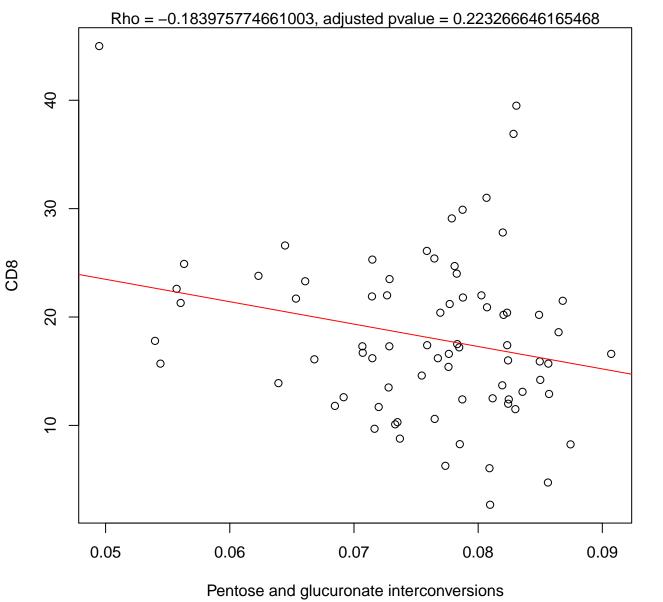
Timepoint 2, CD8 ~ Lysine biosynthesis



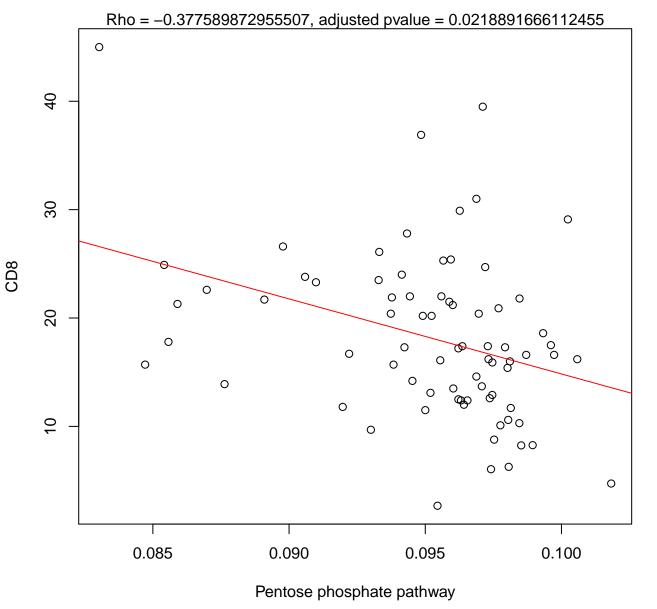
Timepoint 2, CD8 ~ N-Glycan biosynthesis



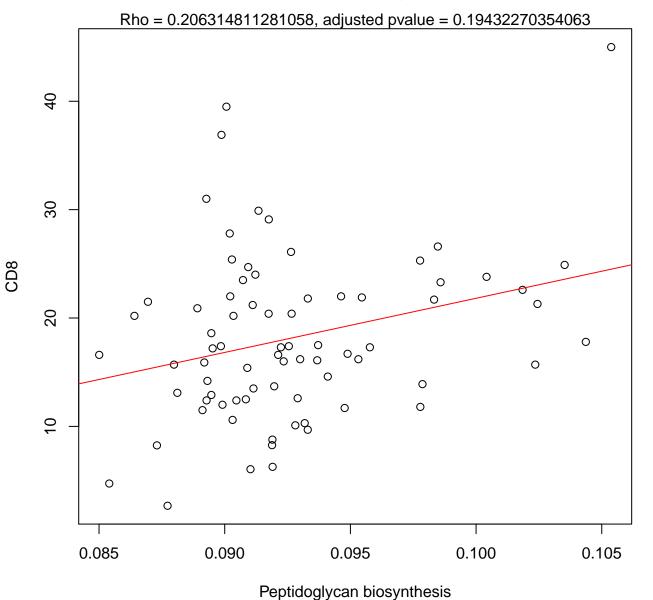
Timepoint 2, CD8 ~ Pentose and glucuronate interconversions



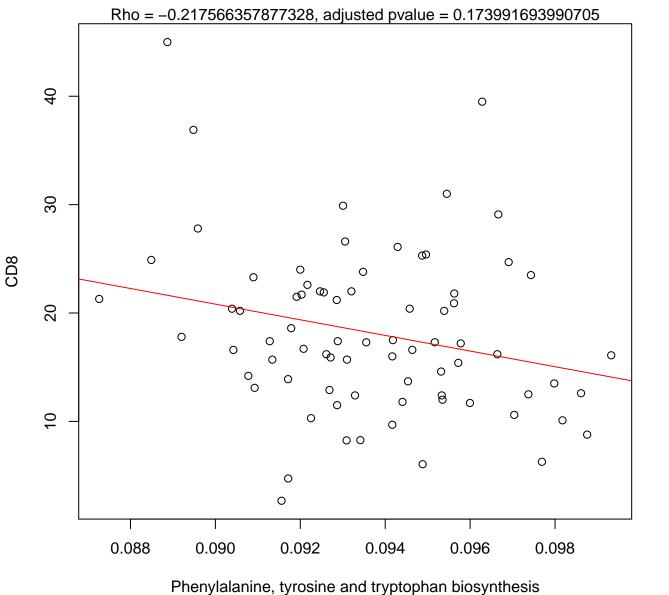
Timepoint 2, CD8 ~ Pentose phosphate pathway



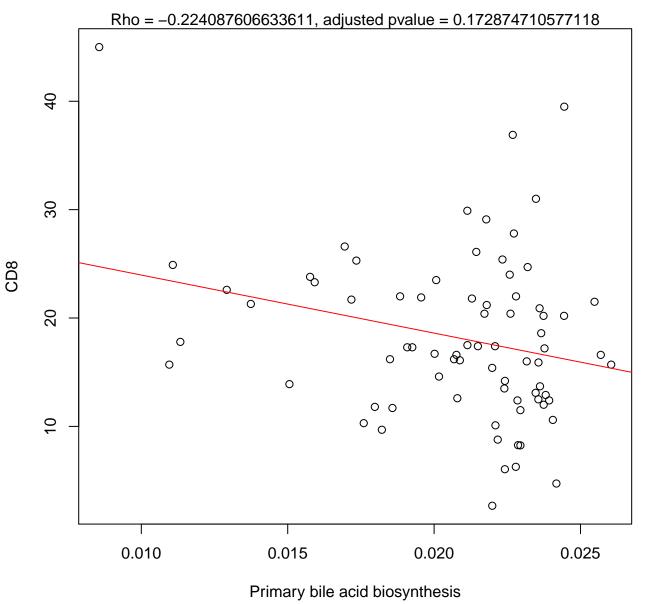
### Timepoint 2, CD8 ~ Peptidoglycan biosynthesis



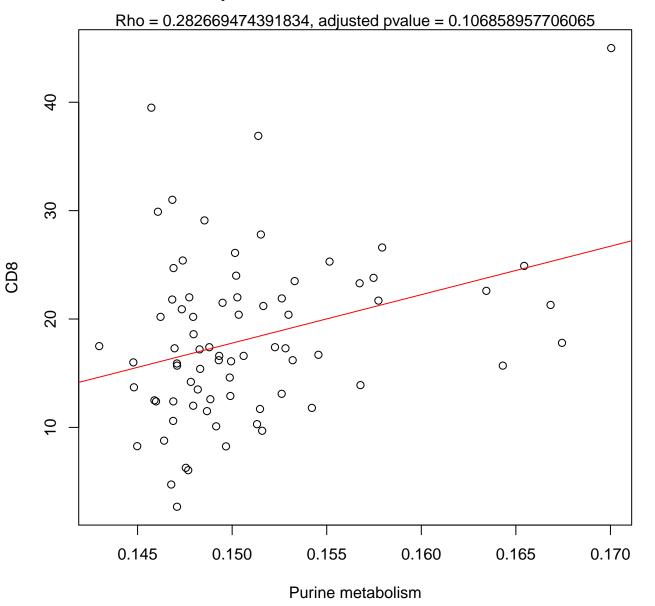
Timepoint 2, CD8 ~ Phenylalanine, tyrosine and tryptophan biosynthesis



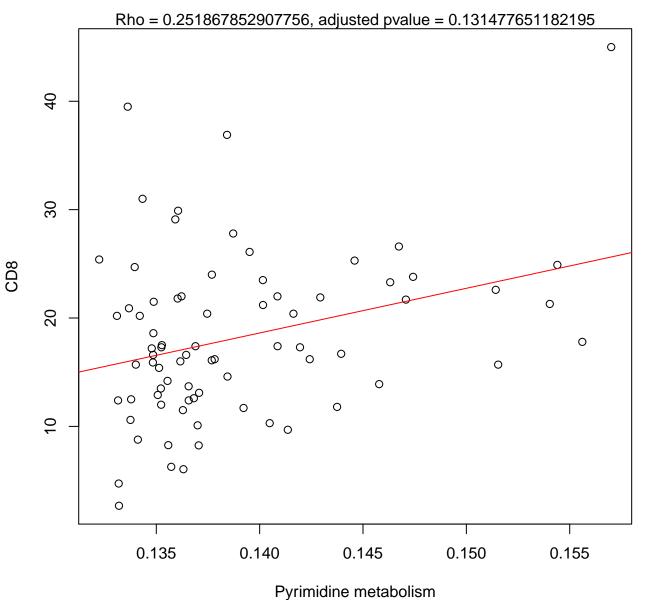
Timepoint 2, CD8 ~ Primary bile acid biosynthesis



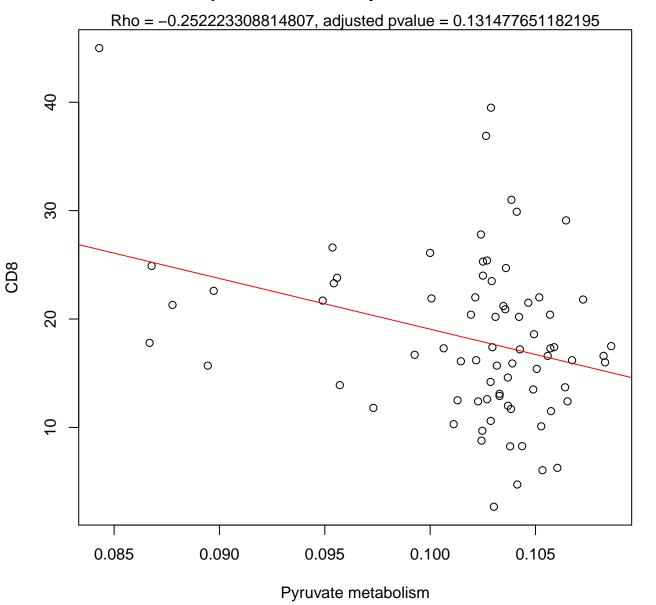
Timepoint 2, CD8 ~ Purine metabolism



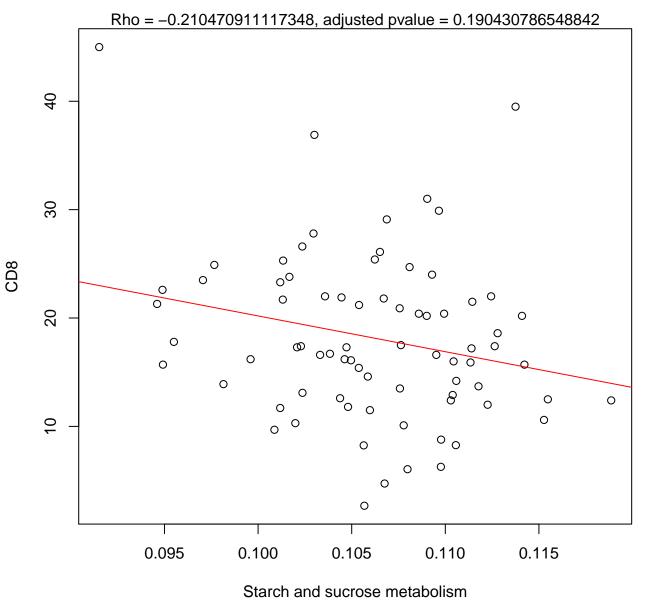
Timepoint 2, CD8 ~ Pyrimidine metabolism



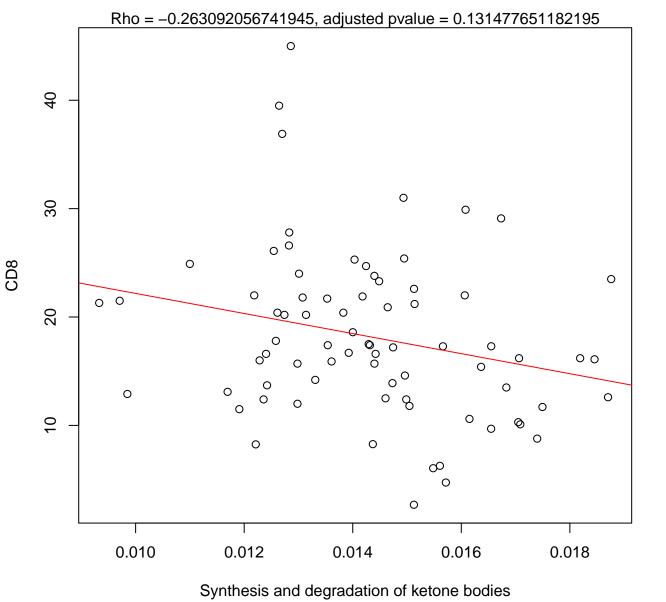
Timepoint 2, CD8 ~ Pyruvate metabolism



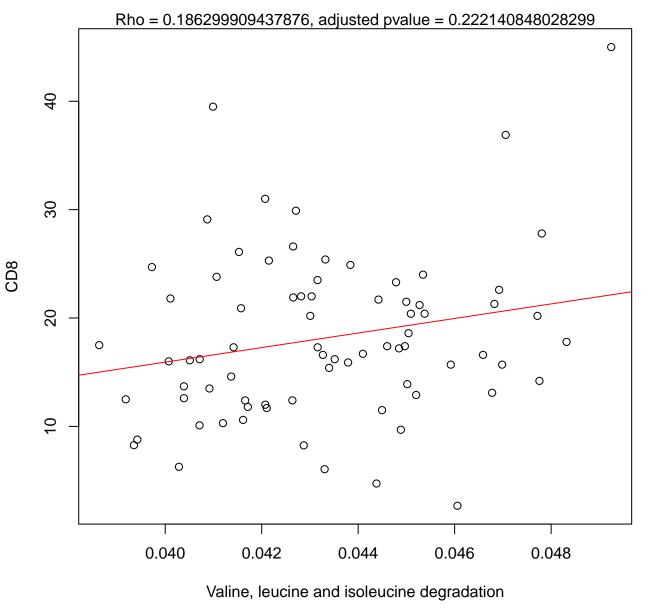
Timepoint 2, CD8 ~ Starch and sucrose metabolism



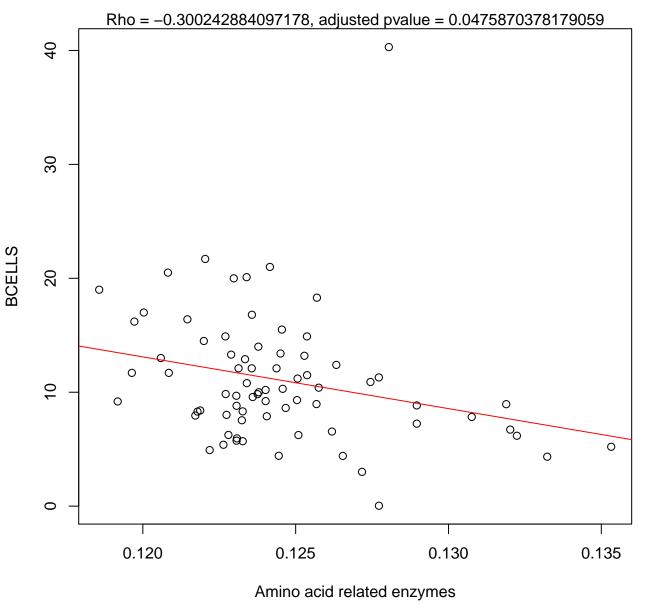
Timepoint 2, CD8 ~ Synthesis and degradation of ketone bodies



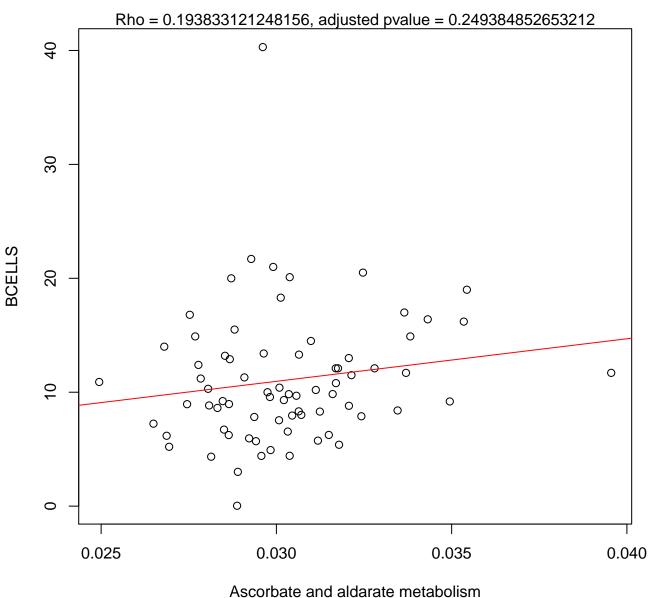
Timepoint 2, CD8 ~ Valine, leucine and isoleucine degradation



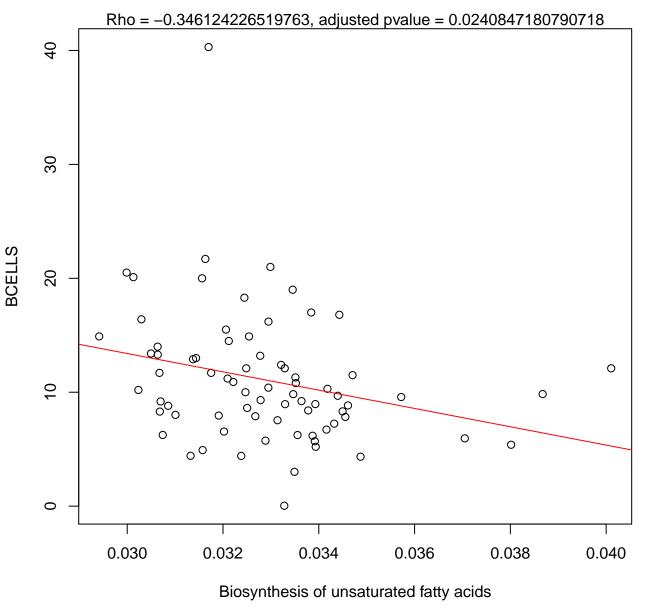
Timepoint 2, BCELLS ~ Amino acid related enzymes



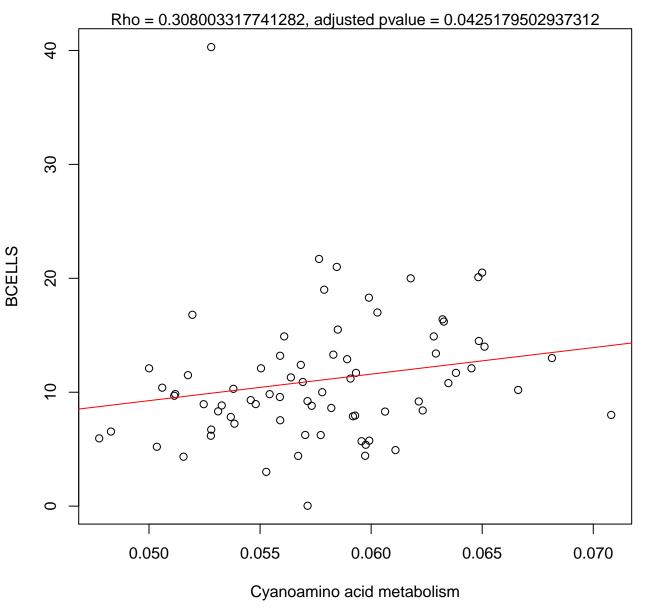
Timepoint 2, BCELLS ~ Ascorbate and aldarate metabolism



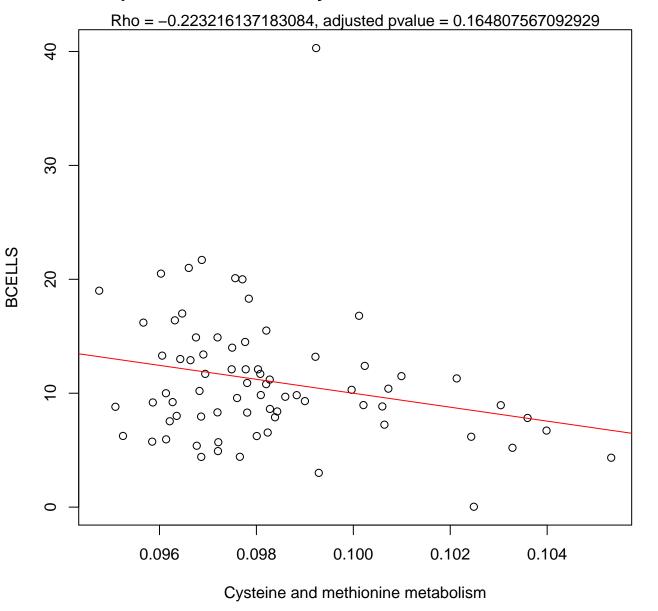
Timepoint 2, BCELLS ~ Biosynthesis of unsaturated fatty acids



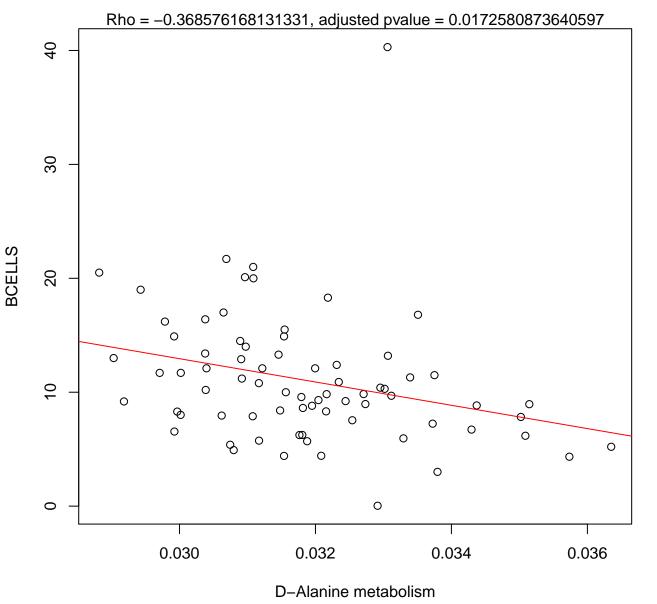
Timepoint 2, BCELLS ~ Cyanoamino acid metabolism



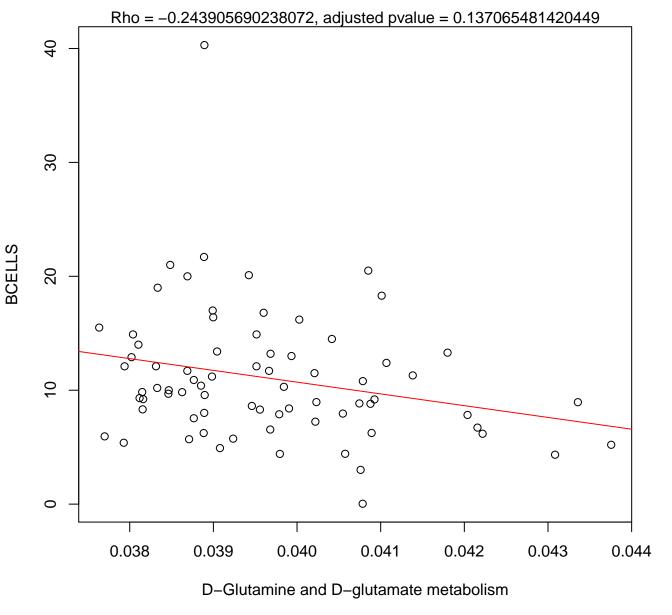
Timepoint 2, BCELLS ~ Cysteine and methionine metabolism



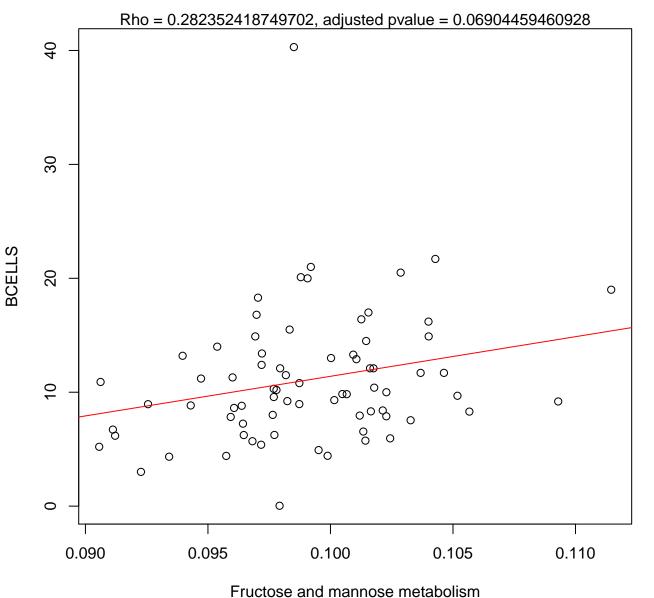
#### Timepoint 2, BCELLS ~ D-Alanine metabolism



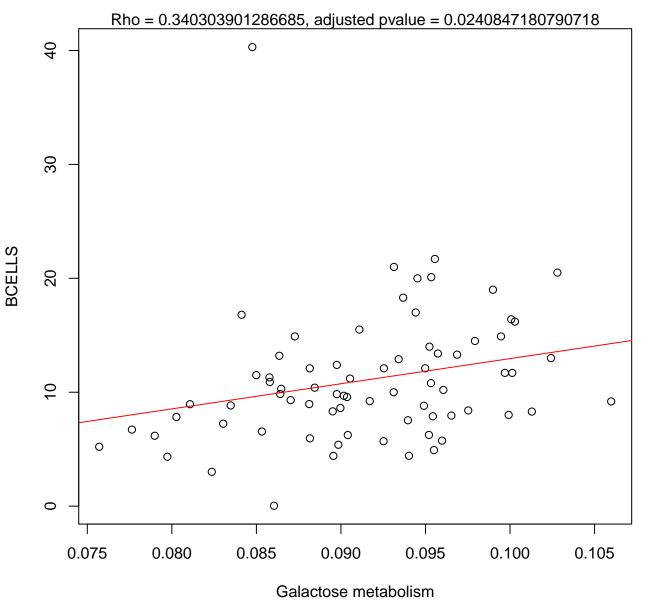
Timepoint 2, BCELLS ~ D-Glutamine and D-glutamate metabolism



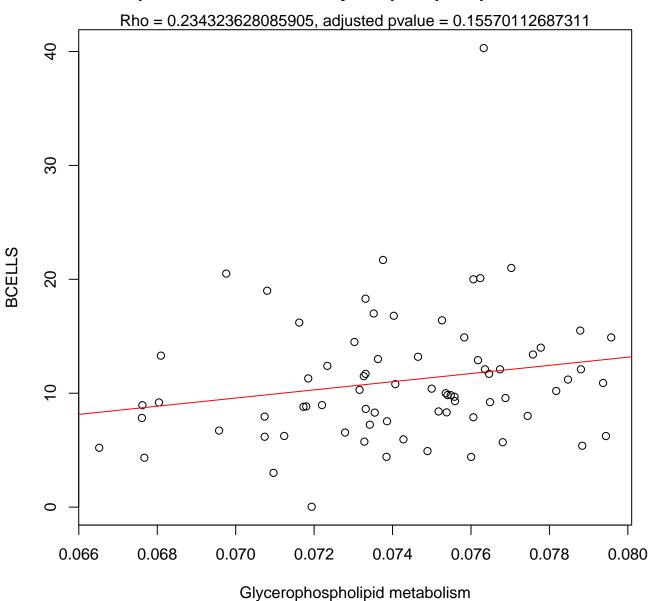
Timepoint 2, BCELLS ~ Fructose and mannose metabolism



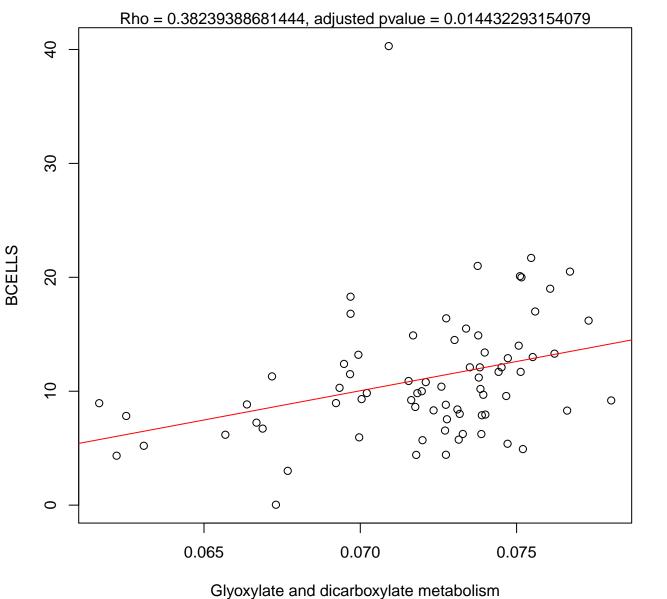
Timepoint 2, BCELLS ~ Galactose metabolism



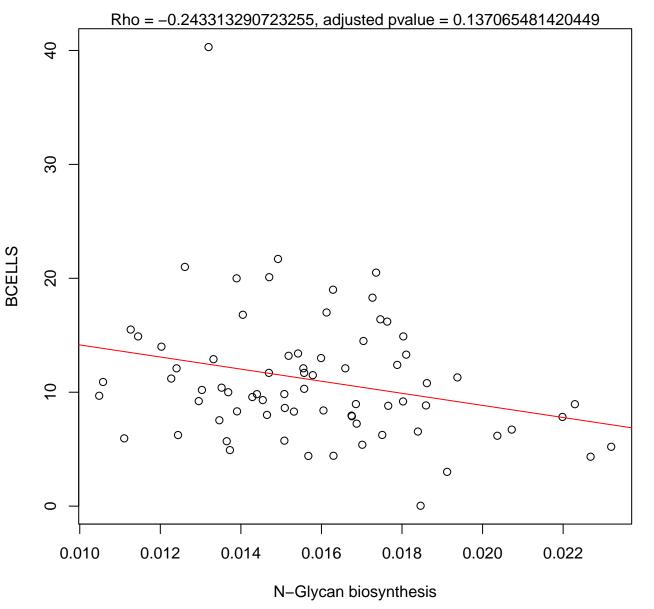
Timepoint 2, BCELLS ~ Glycerophospholipid metabolism



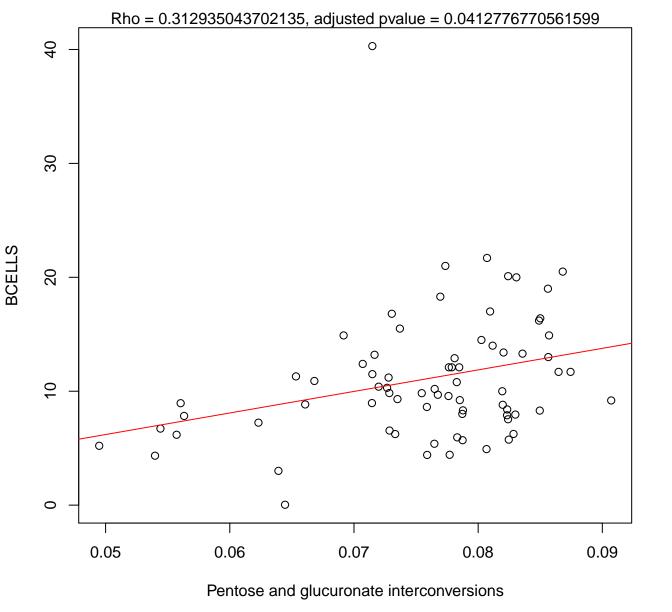
Timepoint 2, BCELLS ~ Glyoxylate and dicarboxylate metabolism



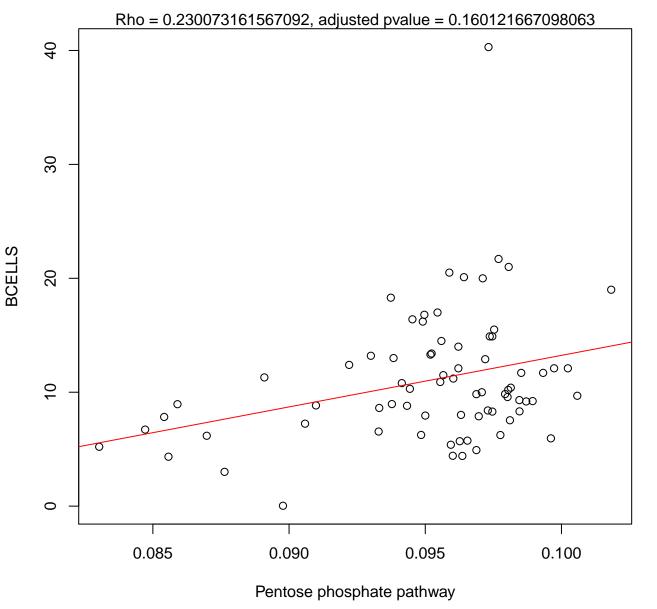
# Timepoint 2, BCELLS ~ N-Glycan biosynthesis



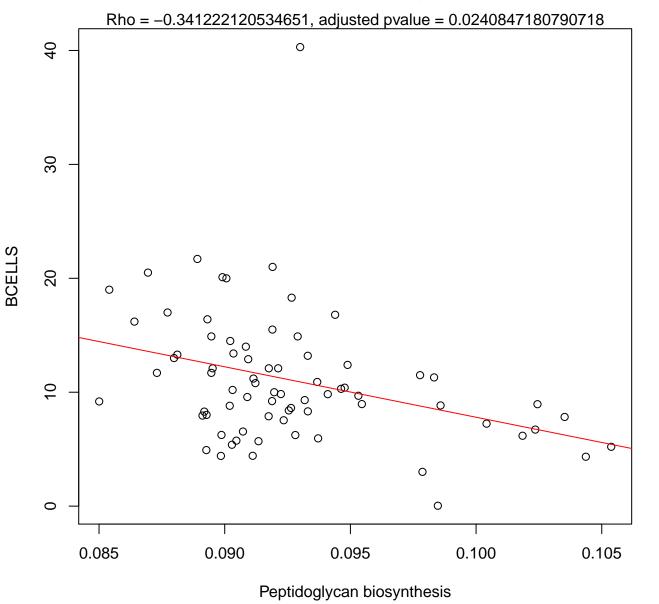
Timepoint 2, BCELLS ~ Pentose and glucuronate interconversions



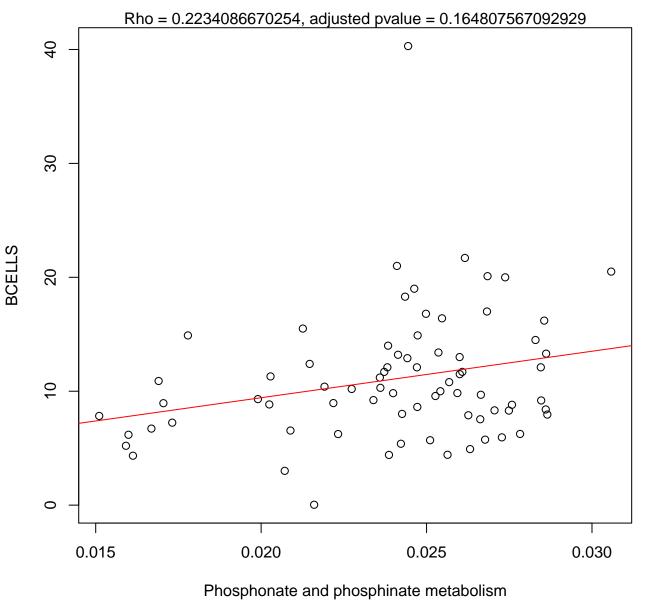
Timepoint 2, BCELLS ~ Pentose phosphate pathway



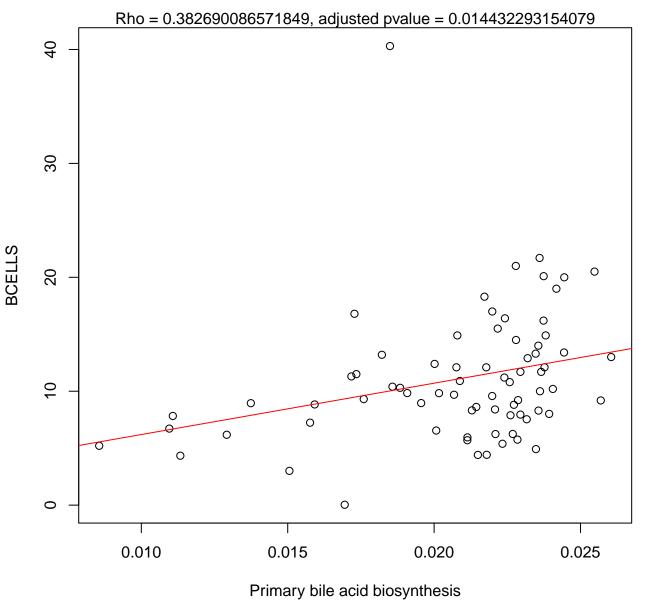
Timepoint 2, BCELLS ~ Peptidoglycan biosynthesis



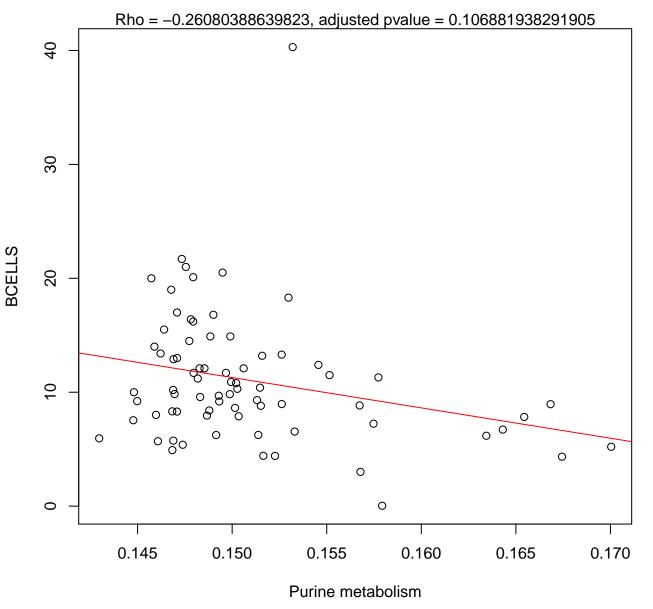
Timepoint 2, BCELLS ~ Phosphonate and phosphinate metabolism



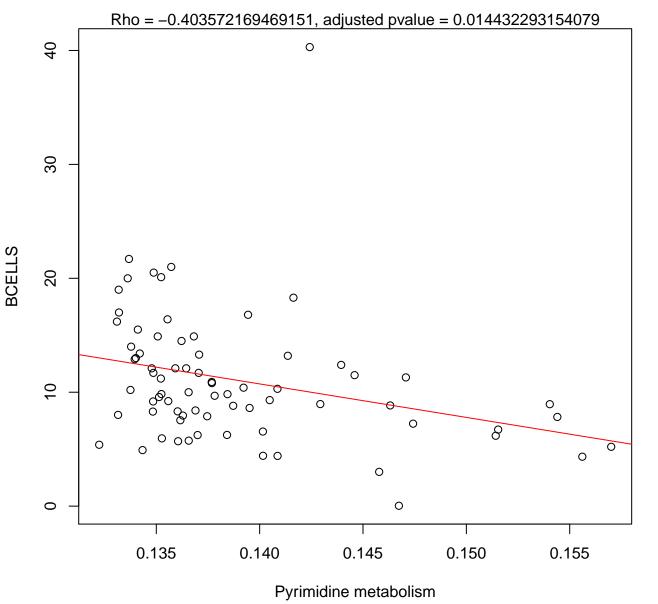
Timepoint 2, BCELLS ~ Primary bile acid biosynthesis



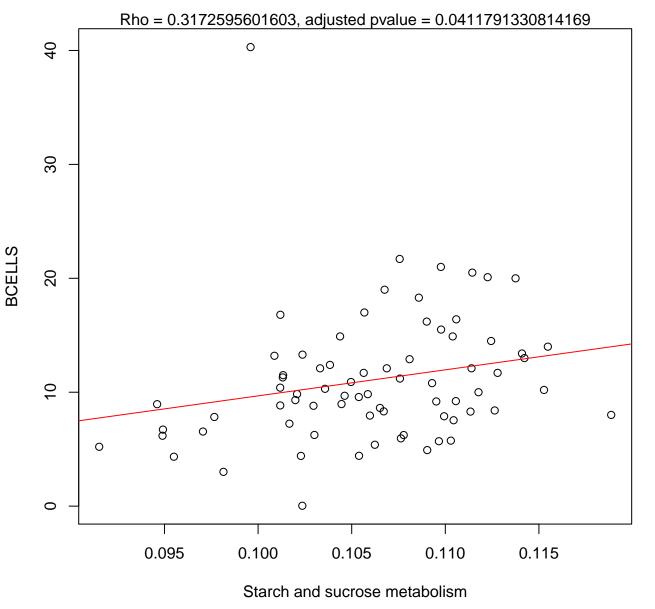
Timepoint 2, BCELLS ~ Purine metabolism



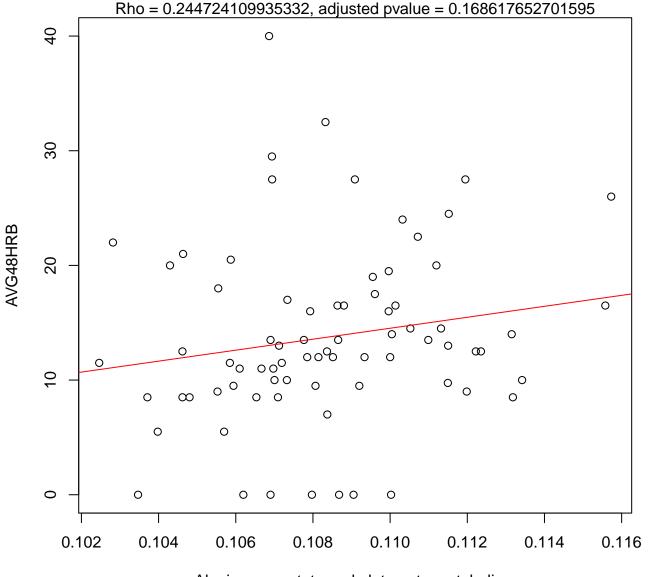
## Timepoint 2, BCELLS ~ Pyrimidine metabolism



Timepoint 2, BCELLS ~ Starch and sucrose metabolism

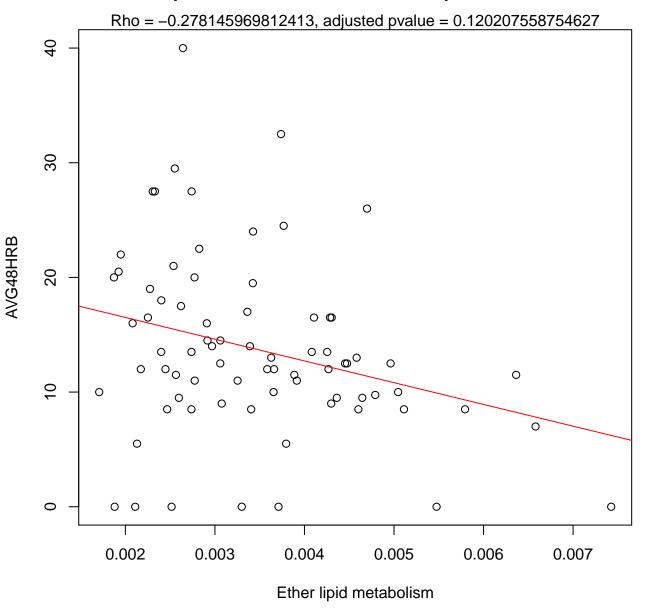


Timepoint 2, AVG48HRB ~ Alanine, aspartate and glutamate metabolism



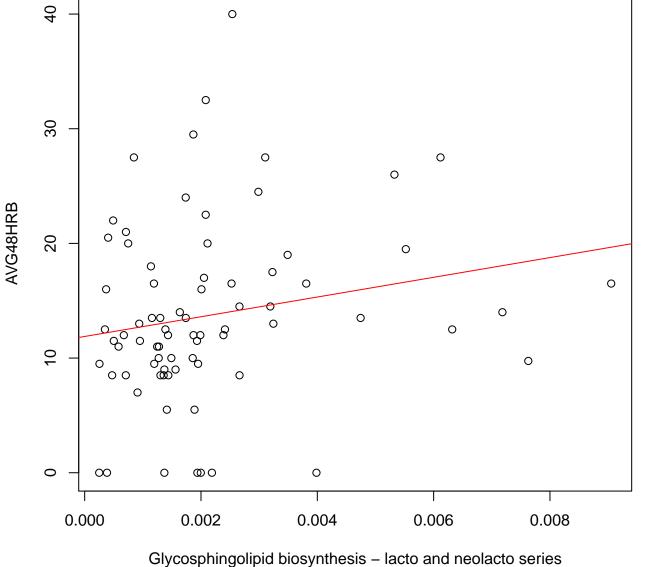
Alanine, aspartate and glutamate metabolism

Timepoint 2, AVG48HRB ~ Ether lipid metabolism

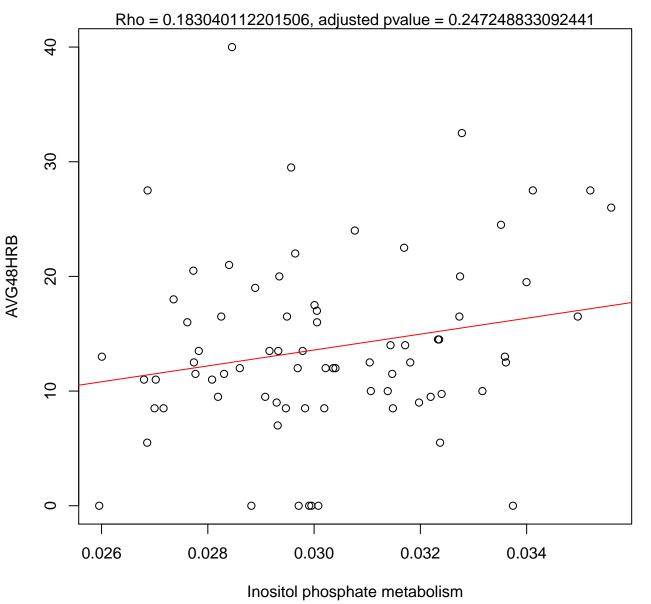


epoint 2, AVG48HRB ~ Glycosphingolipid biosynthesis – lacto and neolact

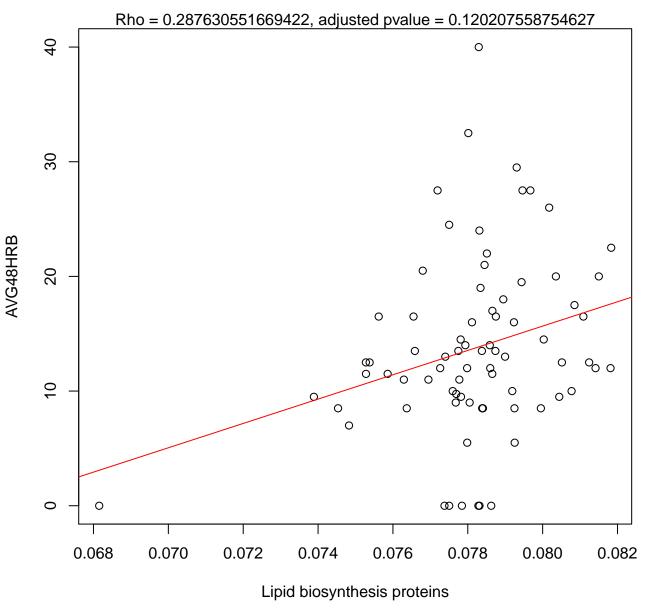
Rho = 0.267853898302354, adjusted pvalue = 0.120207558754627



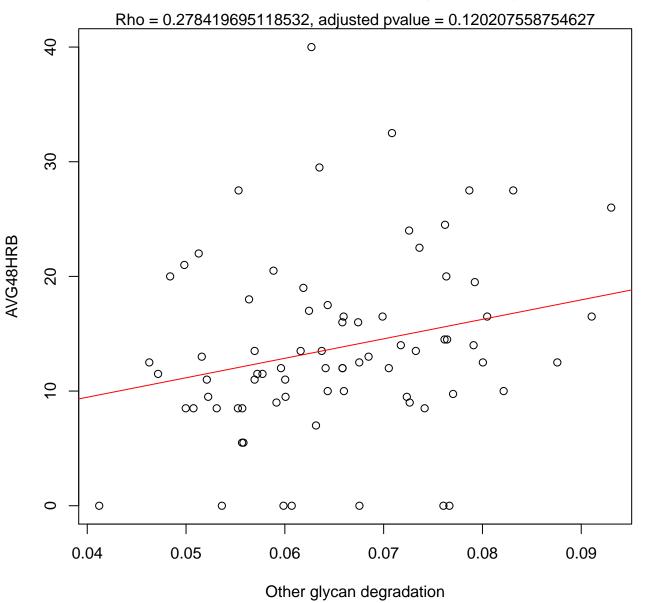
Timepoint 2, AVG48HRB ~ Inositol phosphate metabolism



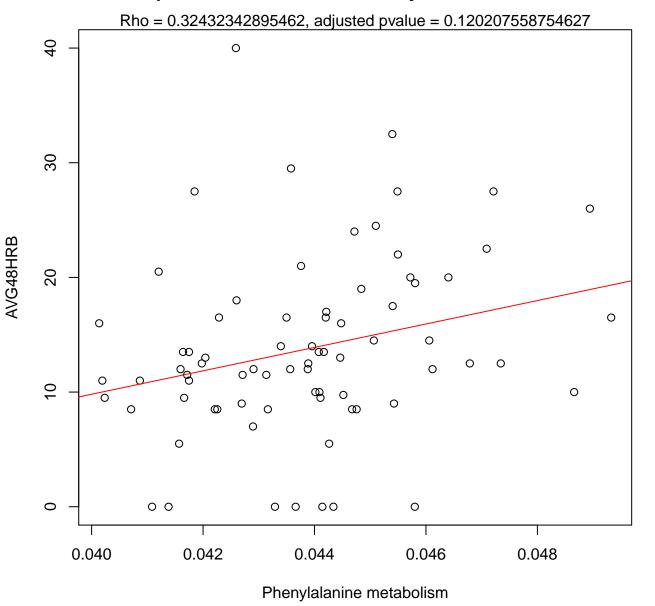
Timepoint 2, AVG48HRB ~ Lipid biosynthesis proteins



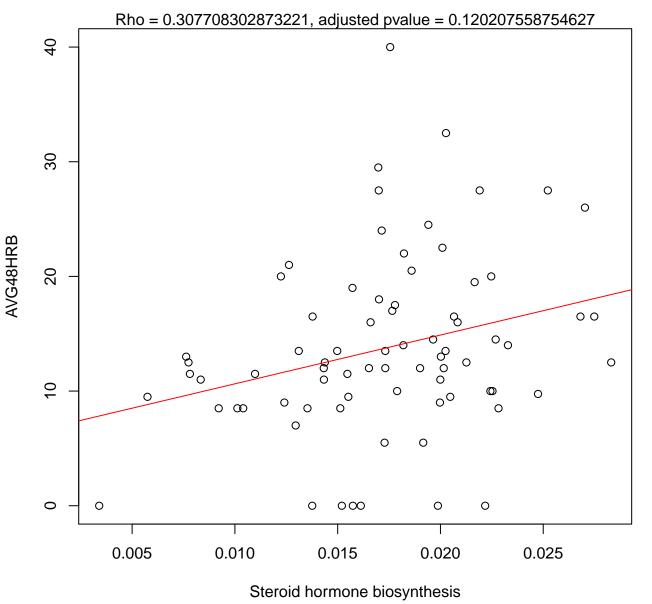
Timepoint 2, AVG48HRB ~ Other glycan degradation



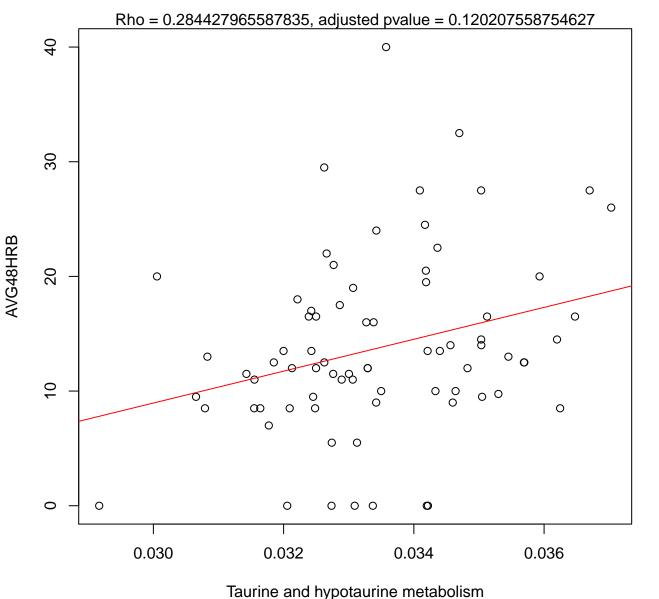
#### Timepoint 2, AVG48HRB ~ Phenylalanine metabolism



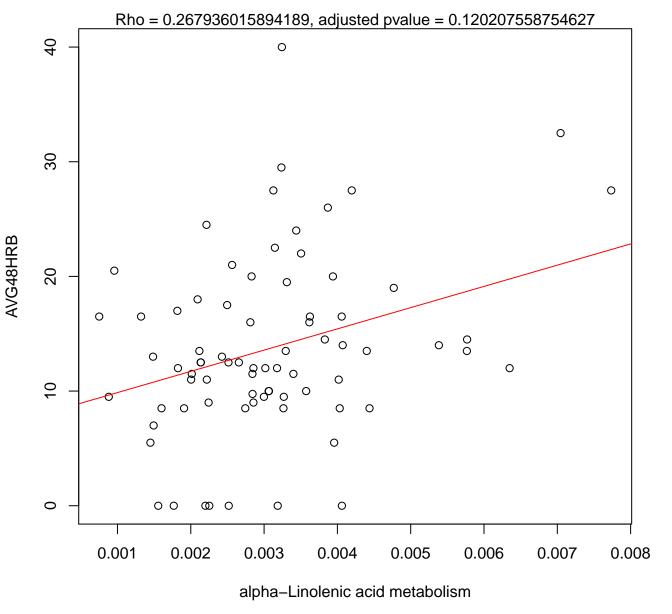
Timepoint 2, AVG48HRB ~ Steroid hormone biosynthesis



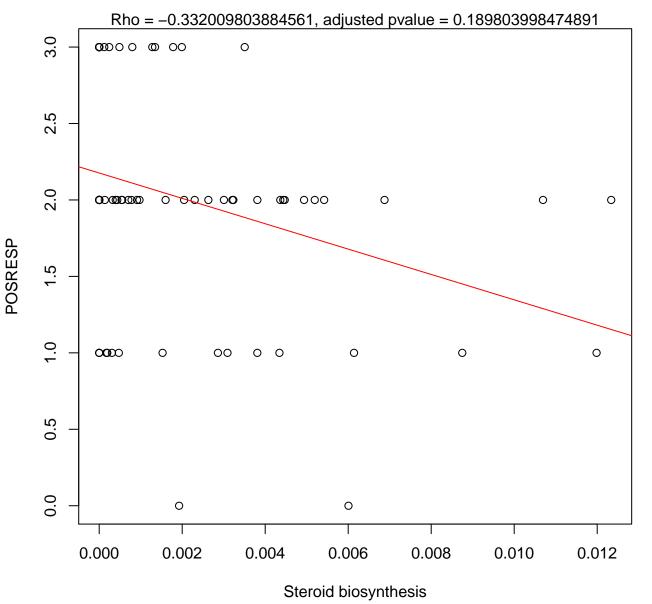
Timepoint 2, AVG48HRB ~ Taurine and hypotaurine metabolism



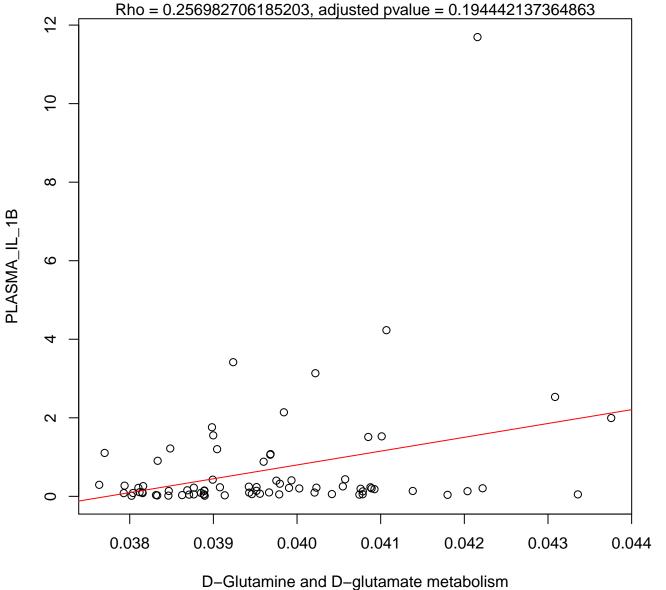
# Timepoint 2, AVG48HRB ~ alpha-Linolenic acid metabolism



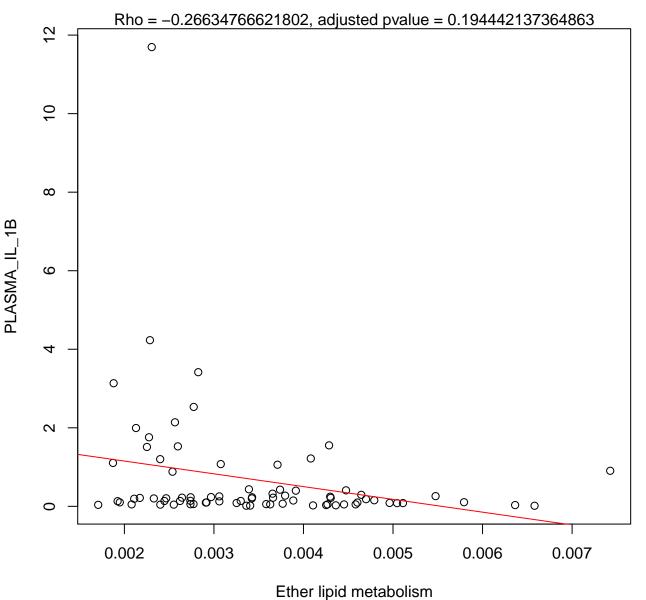
## Timepoint 2, POSRESP ~ Steroid biosynthesis



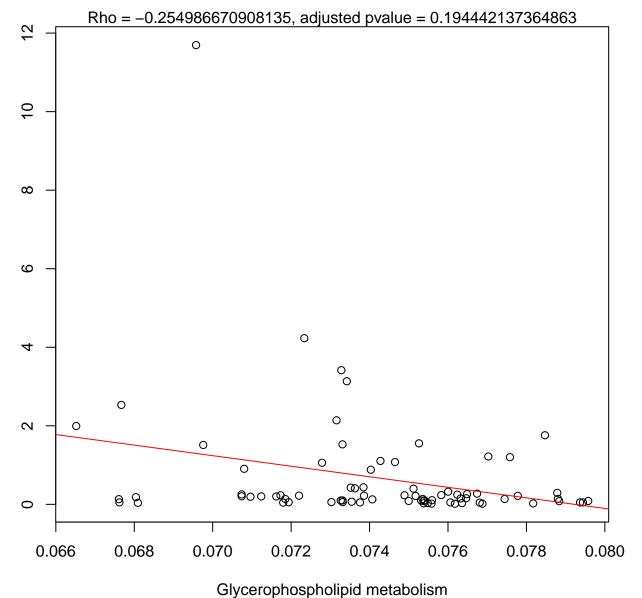
Timepoint 2, PLASMA\_IL\_1B ~ D-Glutamine and D-glutamate metabolis



# Timepoint 2, PLASMA\_IL\_1B ~ Ether lipid metabolism

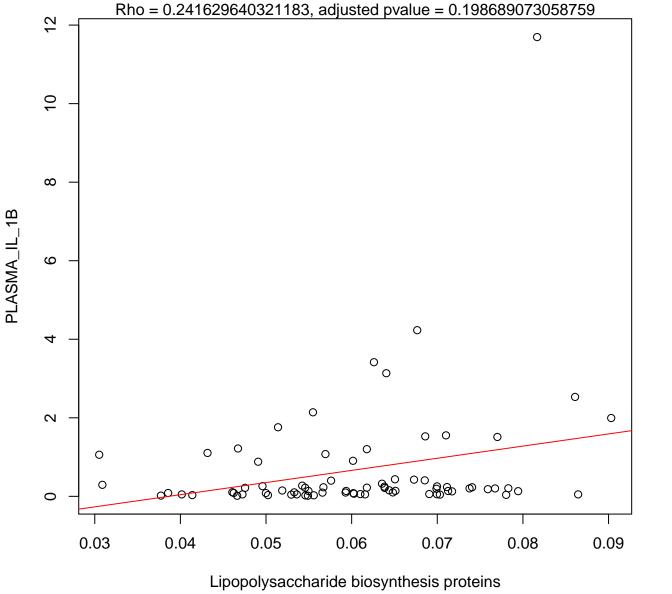


Timepoint 2, PLASMA\_IL\_1B ~ Glycerophospholipid metabolism

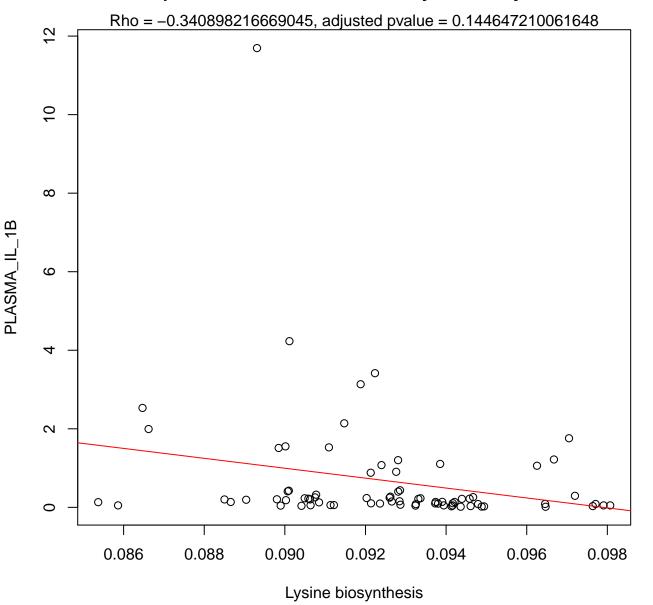


PLASMA\_IL\_1B

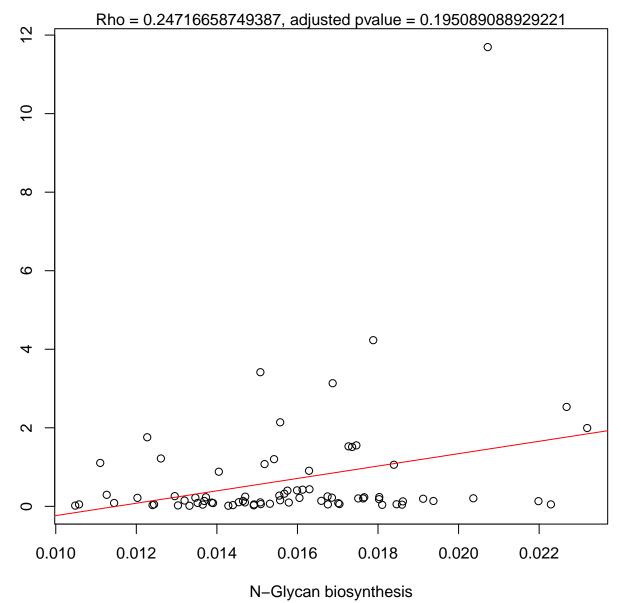
Timepoint 2, PLASMA\_IL\_1B ~ Lipopolysaccharide biosynthesis protein



## Timepoint 2, PLASMA\_IL\_1B ~ Lysine biosynthesis

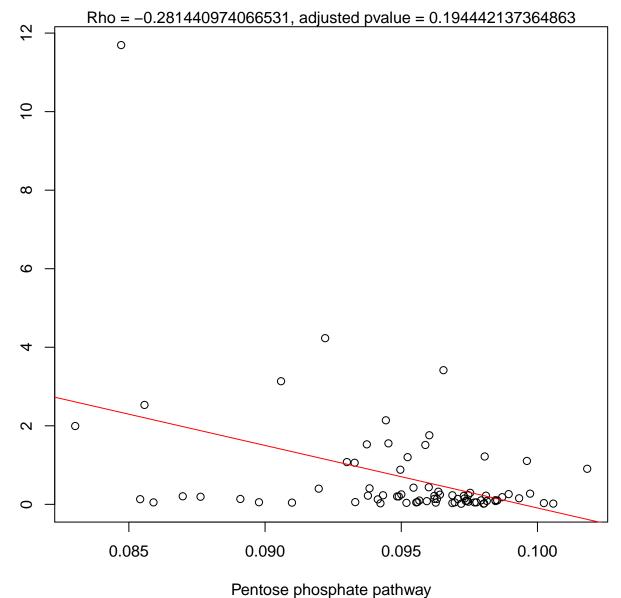


# Timepoint 2, PLASMA\_IL\_1B ~ N-Glycan biosynthesis



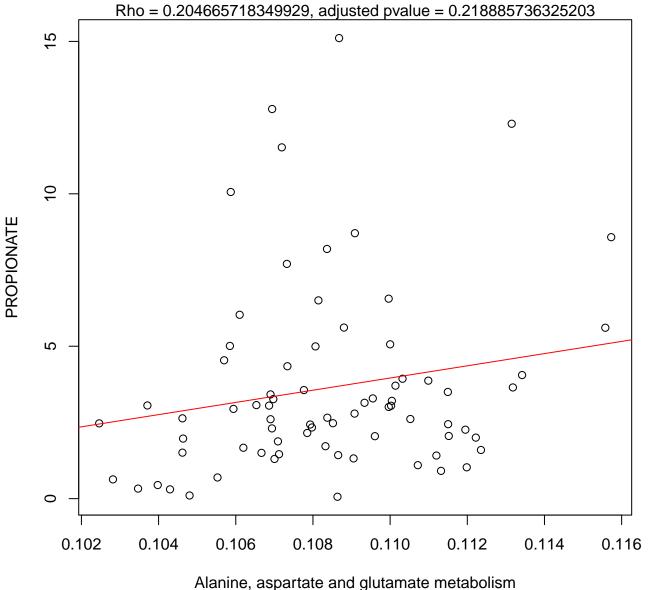
PLASMA\_IL\_1B

Timepoint 2, PLASMA\_IL\_1B ~ Pentose phosphate pathway

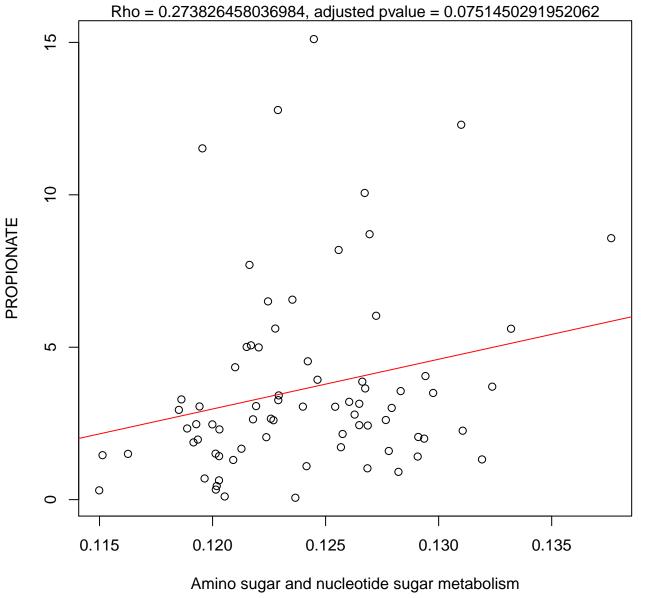


PLASMA\_IL\_1B

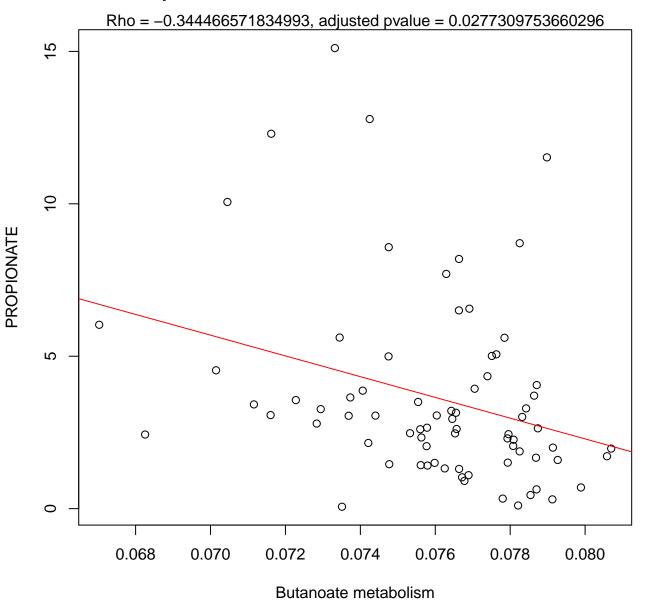
# Timepoint 2, PROPIONATE ~ Alanine, aspartate and glutamate metabolis



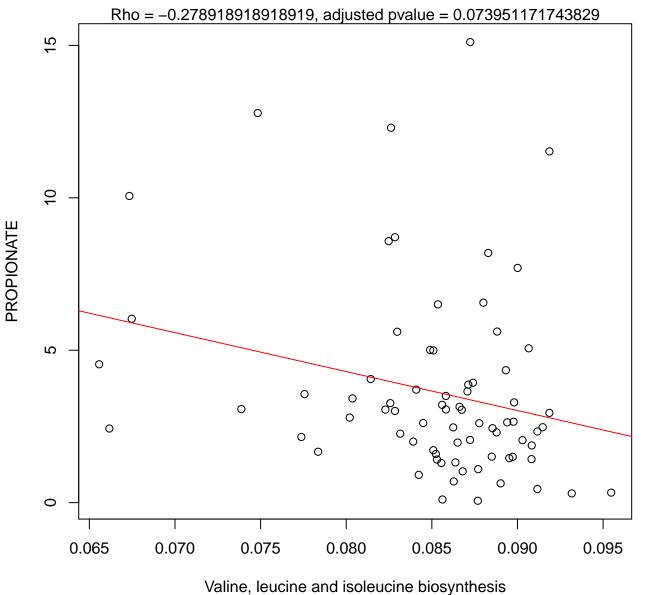
# Timepoint 2, PROPIONATE ~ Amino sugar and nucleotide sugar metaboli



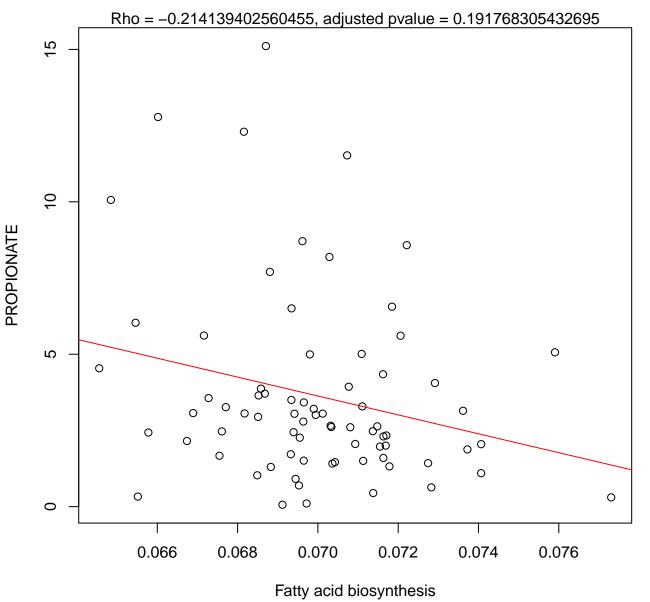
#### Timepoint 2, PROPIONATE ~ Butanoate metabolism



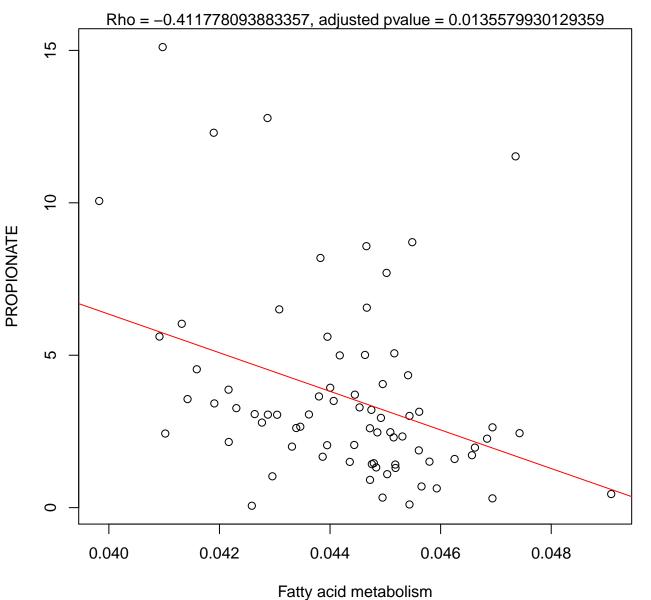
# Timepoint $\, 2 \,$ , PROPIONATE $\sim$ Valine, leucine and isoleucine biosynthesi



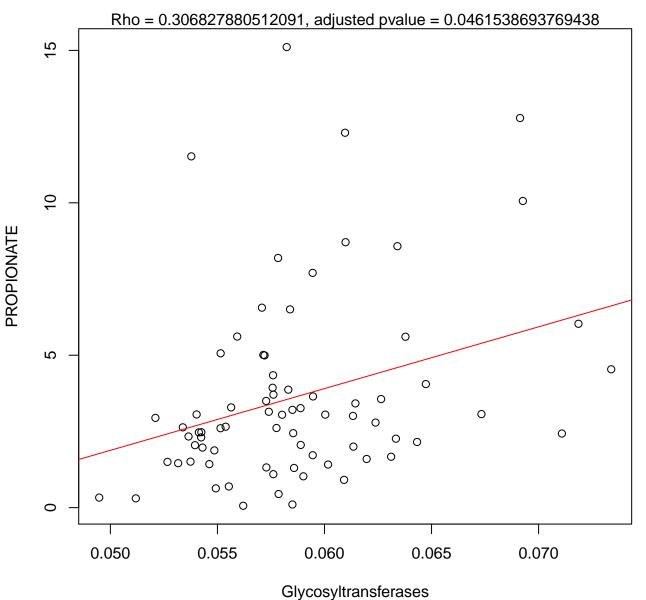
Timepoint 2, PROPIONATE ~ Fatty acid biosynthesis



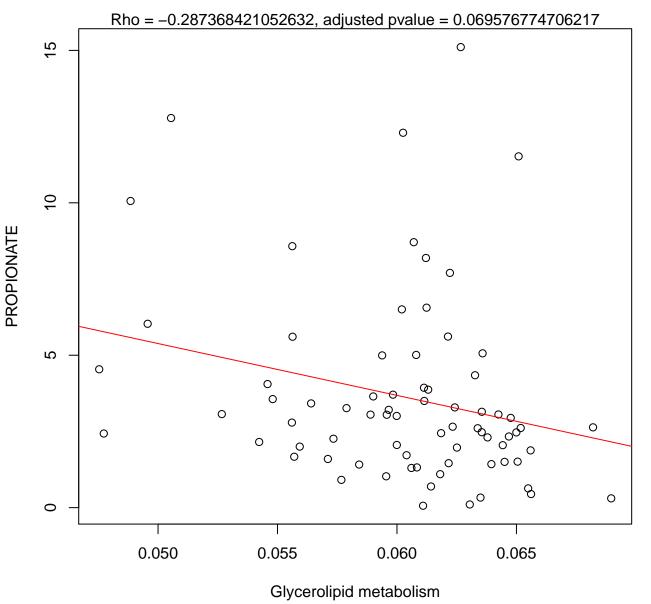
### Timepoint 2, PROPIONATE ~ Fatty acid metabolism



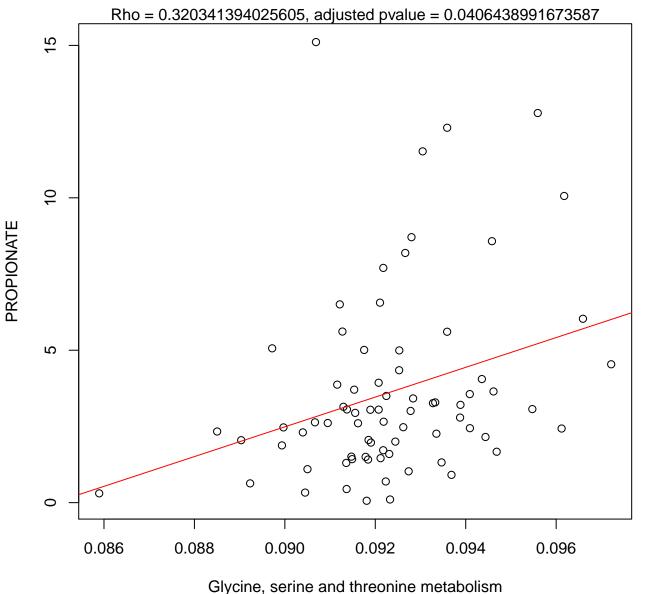
### Timepoint 2, PROPIONATE ~ Glycosyltransferases



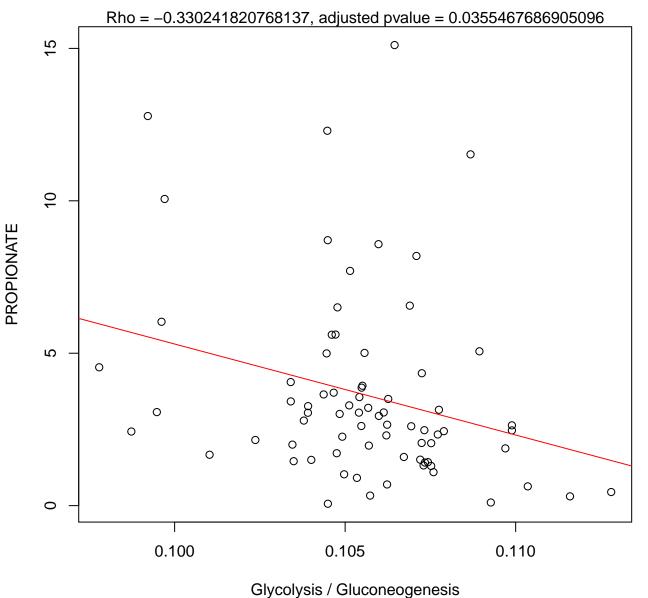
### Timepoint 2, PROPIONATE ~ Glycerolipid metabolism



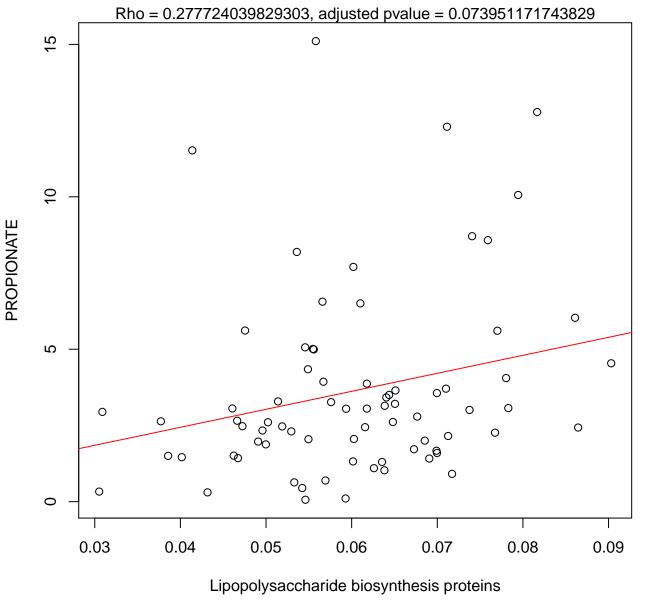
 $\textbf{Timepoint 2, PROPIONATE} \sim \textbf{Glycine, serine and threonine metabolism}$ 



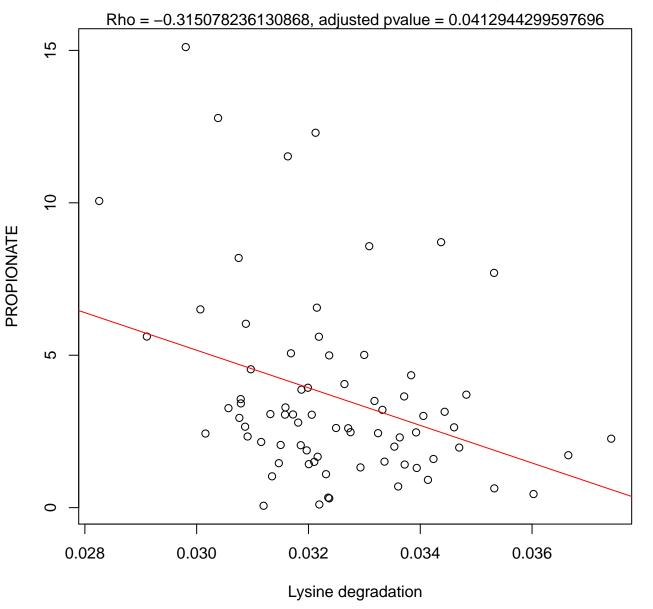
### Timepoint 2, PROPIONATE ~ Glycolysis / Gluconeogenesis



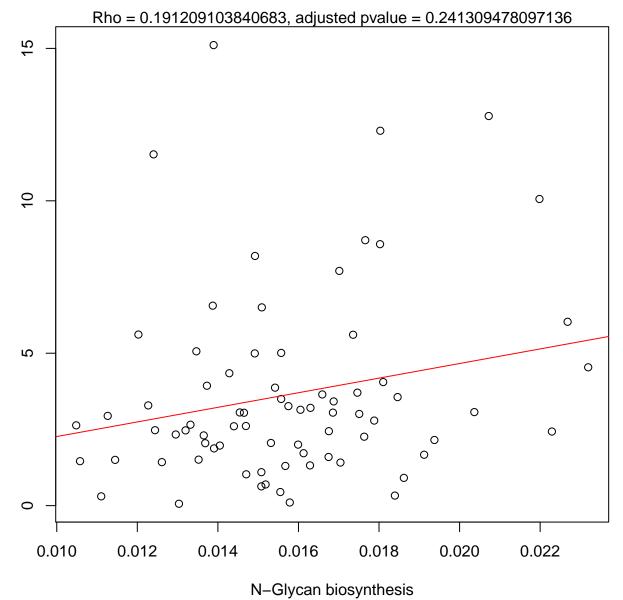
Timepoint 2, PROPIONATE ~ Lipopolysaccharide biosynthesis proteins



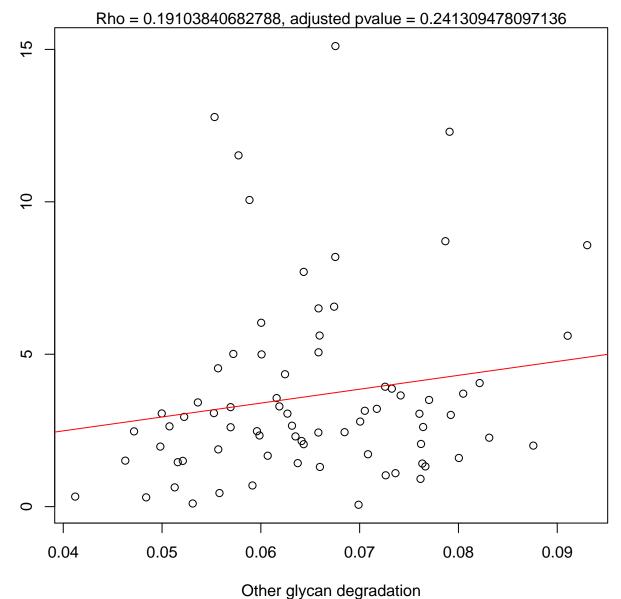
**Timepoint 2, PROPIONATE ~ Lysine degradation** 



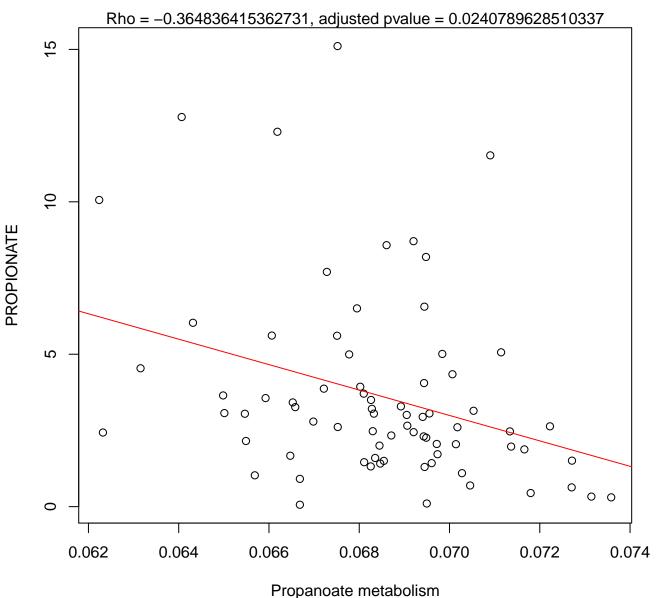
Timepoint 2, PROPIONATE ~ N-Glycan biosynthesis



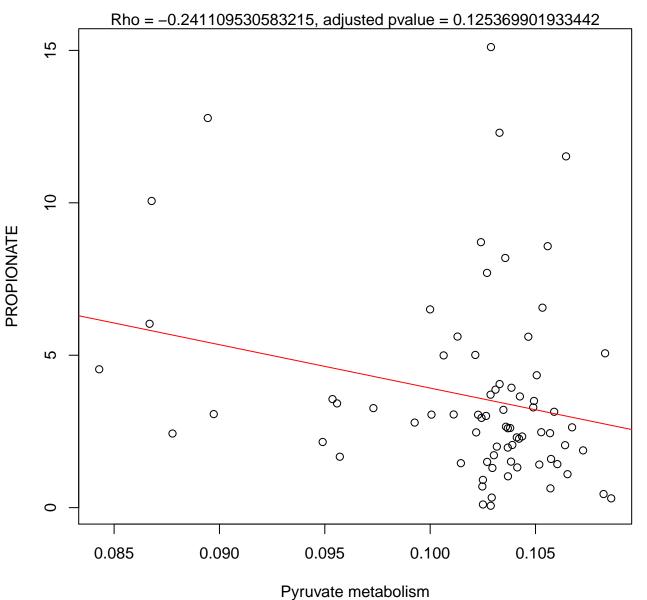
Timepoint 2, PROPIONATE ~ Other glycan degradation



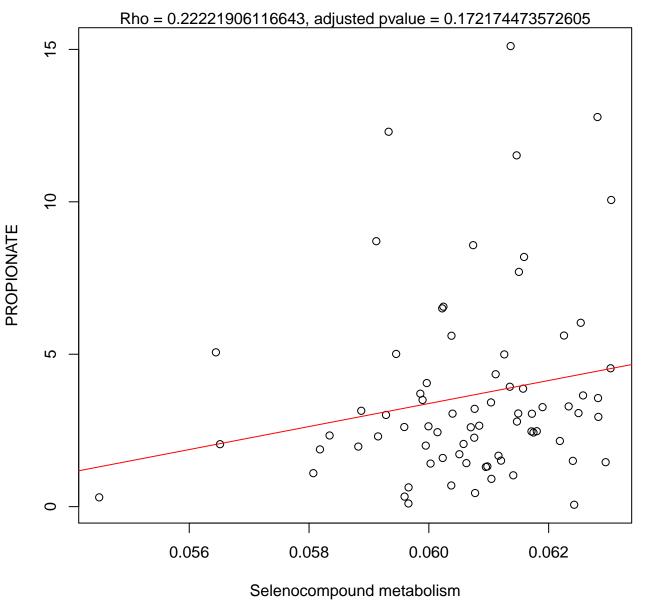
## Timepoint 2, PROPIONATE ~ Propanoate metabolism



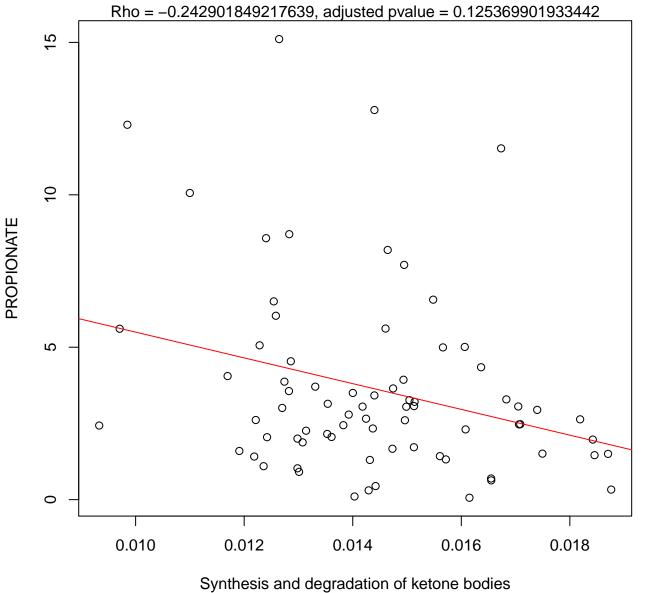
### Timepoint 2, PROPIONATE ~ Pyruvate metabolism



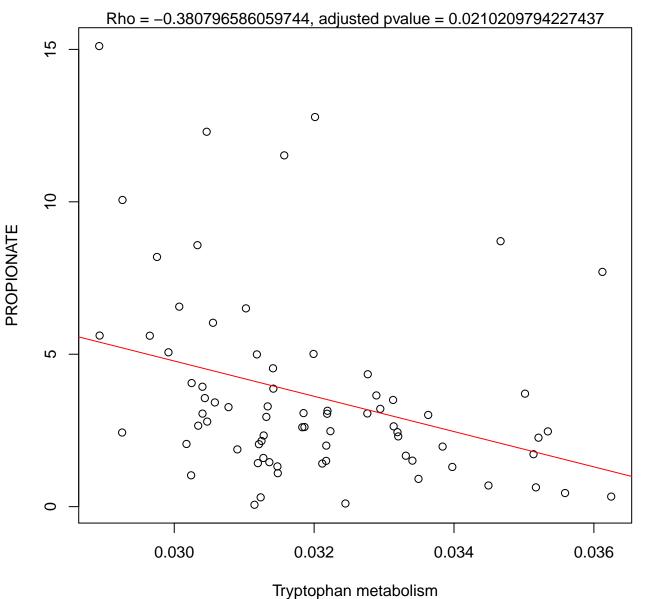
Timepoint 2, PROPIONATE ~ Selenocompound metabolism



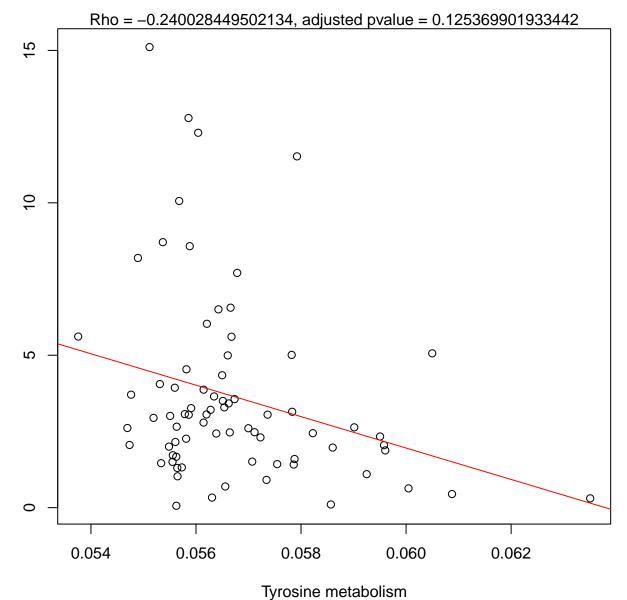
Timepoint 2, PROPIONATE ~ Synthesis and degradation of ketone bodie

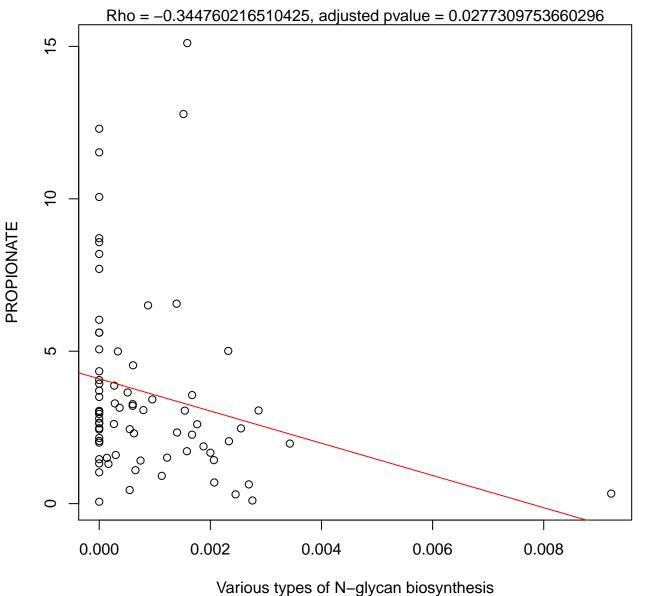


### Timepoint 2, PROPIONATE ~ Tryptophan metabolism

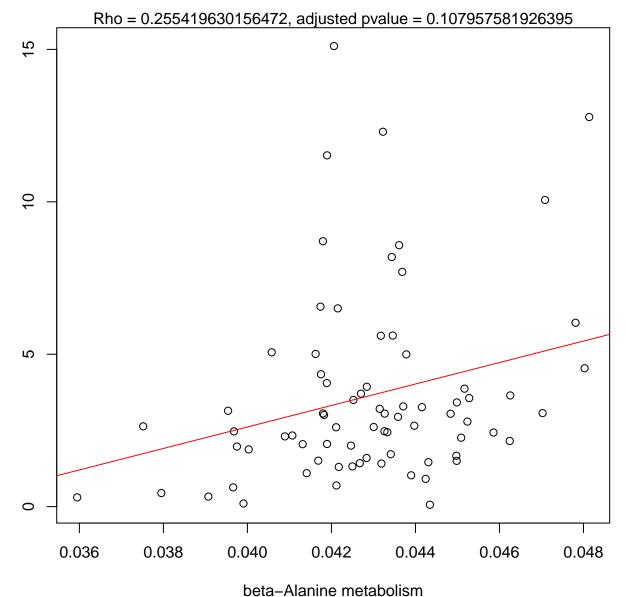


Timepoint 2, PROPIONATE ~ Tyrosine metabolism





Timepoint 2, PROPIONATE ~ beta-Alanine metabolism



### Timepoint 2, BUTYRATE ~ Tryptophan metabolism

