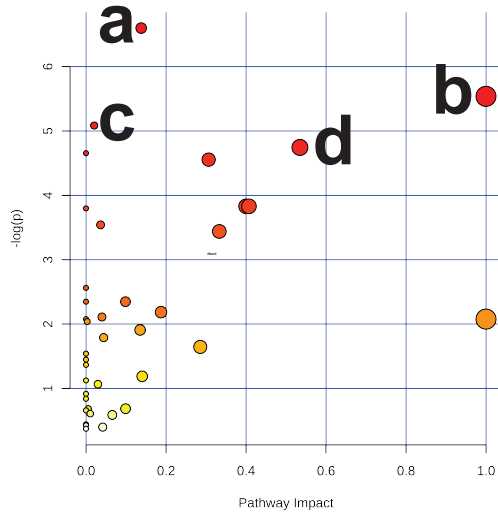
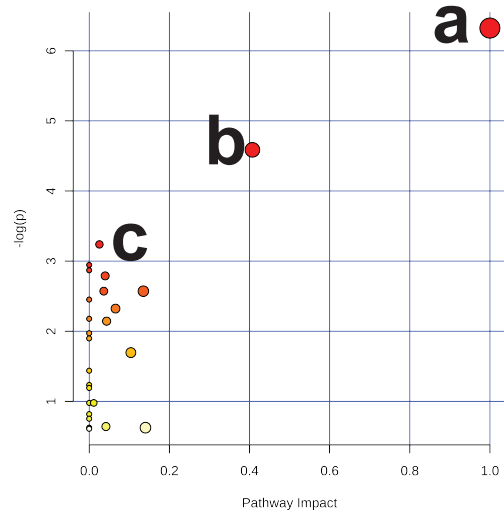


# A Heart



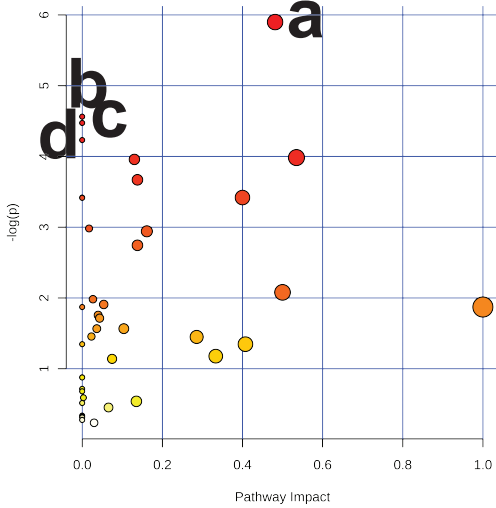
- a. Aminoacyl-tRNA biosynthesis (Threonine, Tyrosine, Phenylalanine, Serine, Glycine, Lysine, Valine)
- b. Phenylalanine, tyrosine and tryptophan biosynthesis (Phenylalanine, Tyrosine)
- c. Pantothenate and CoA biosynthesis (Valine, Uracil, Pantothenic acid)
- d. Glycine, serine and threonine metabolism (Serine, Glycine, Threonine, Pyruvate)

# B Brain



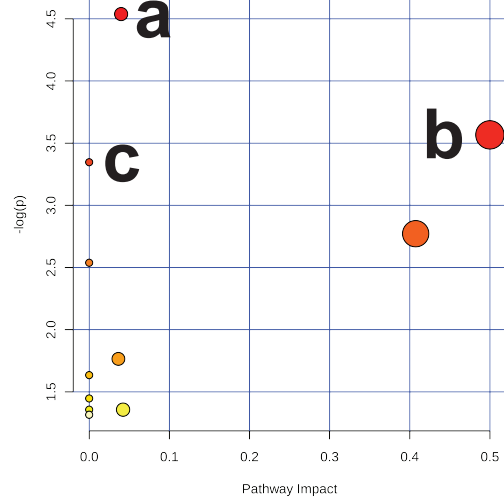
- a. Phenylalanine, tyrosine and tryptophan biosynthesis (phenylalanine, tyrosine)
- b. Phenylalanine metabolism (Phenylalanine, Tyrosine)
- c. Glycerolipid metabolism (Propylene Glycol, Glycerol 3 phosphate)

# C Liver



- a. Beta-Alanine metabolism (Beta alanine, Uracil, Spermidine, Acrylyl co A)
- b. Biosynthesis of unsaturated fatty acids (Linoleic acid, Arachidonic acid, palmitic acid, Stearic acid, Docosahexaenoic acid)
- c. Pantothenate and CoA biosynthesis (Valine, uracil, Beta Alanine)

# D Plasma



- a. Starch and sucrose metabolism (Glucose, Fructose)
- b. Phenylalanine, tyrosine and tryptophan biosynthesis (Phenylalanine)
- c. Biotin metabolism (Lysine)

(Other pathways involved have a p value > 0.05)

# Supplemental Figure 5.