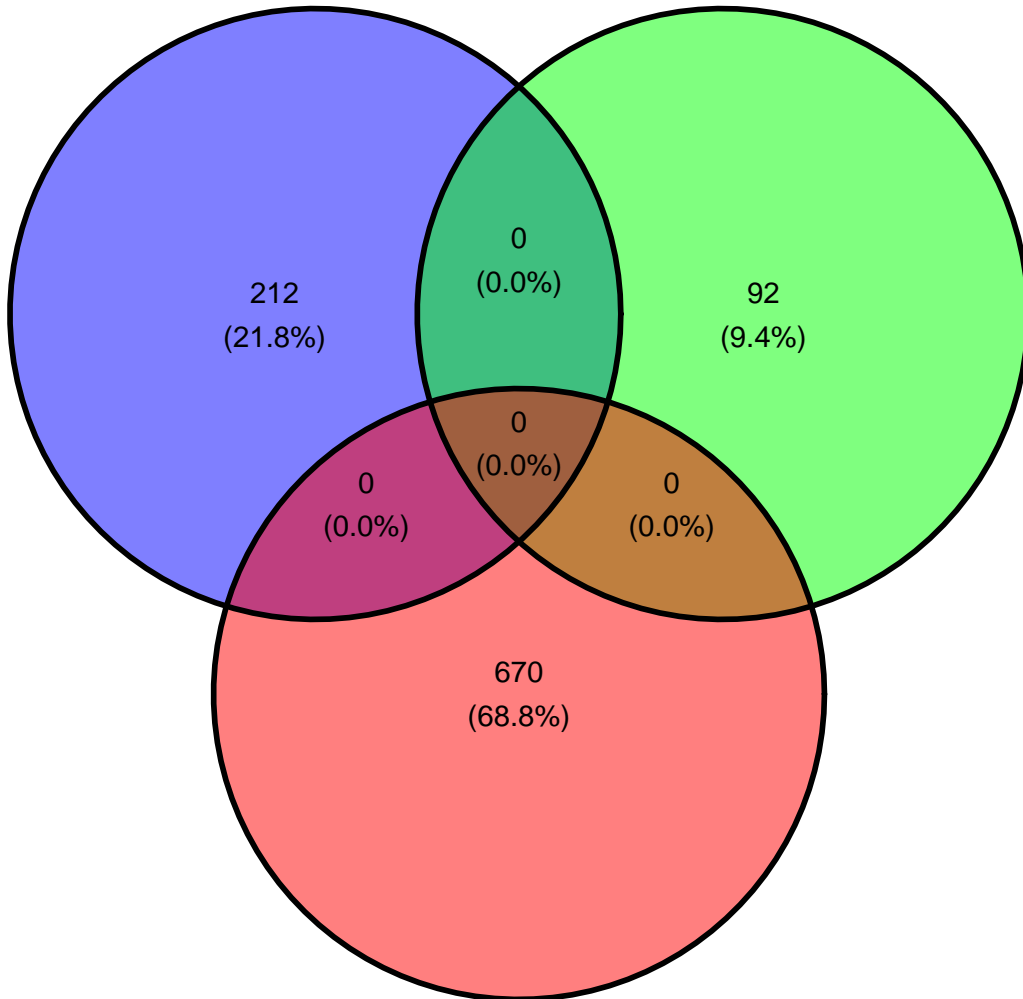


BD_Lumped

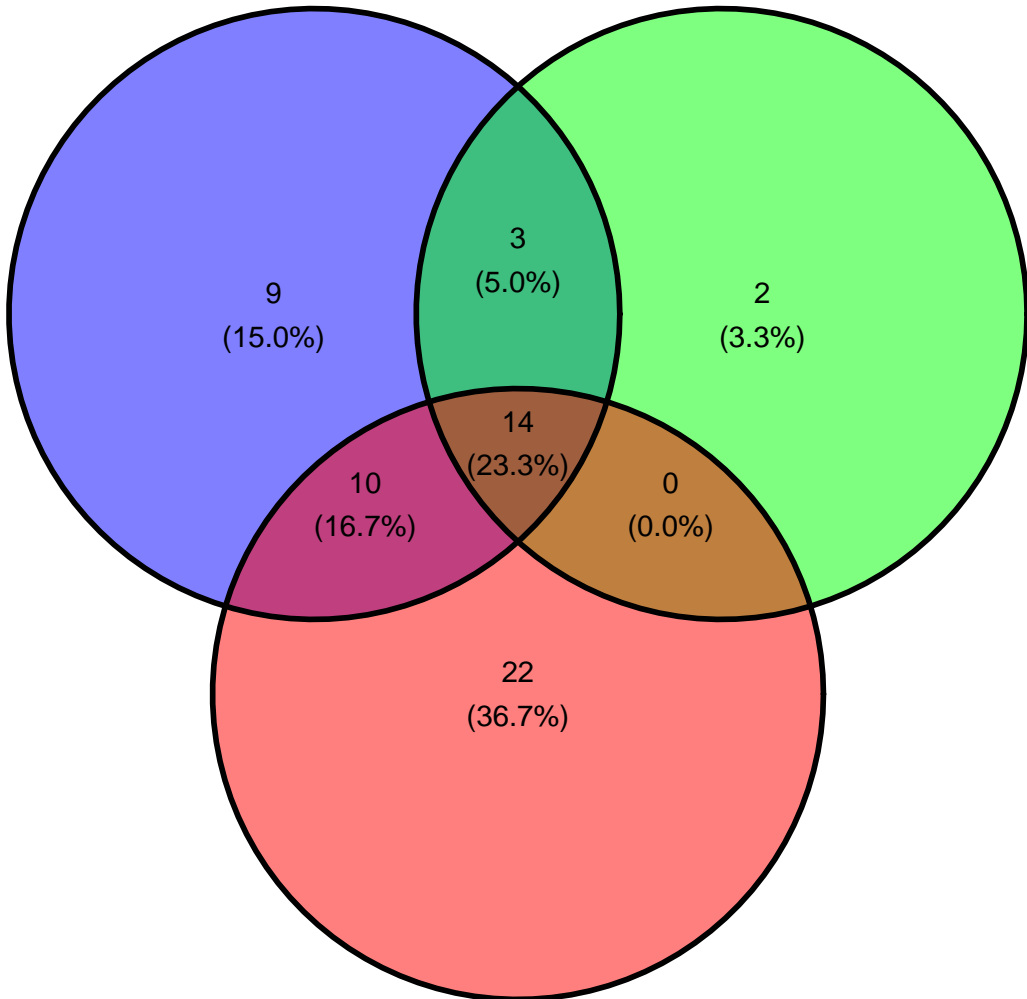
BD_Responder



BD_NonResponder

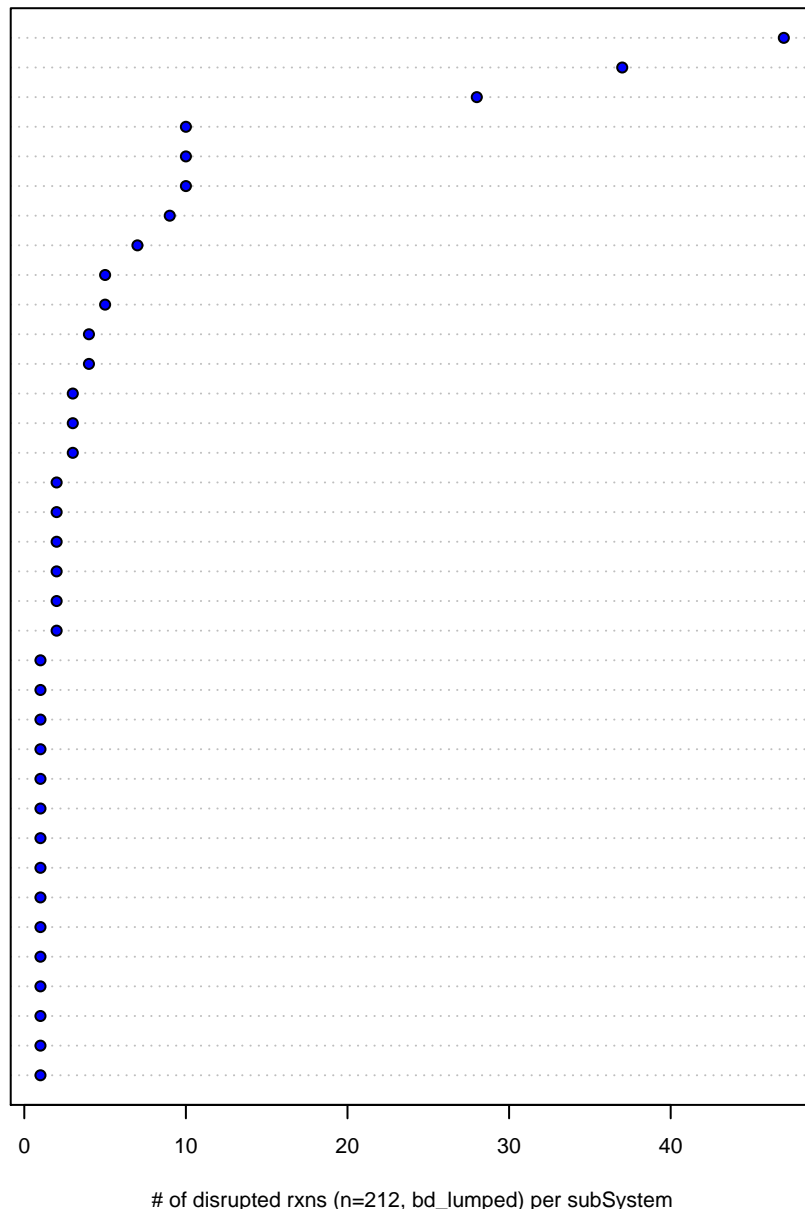
BD_Lumped

BD_Responder

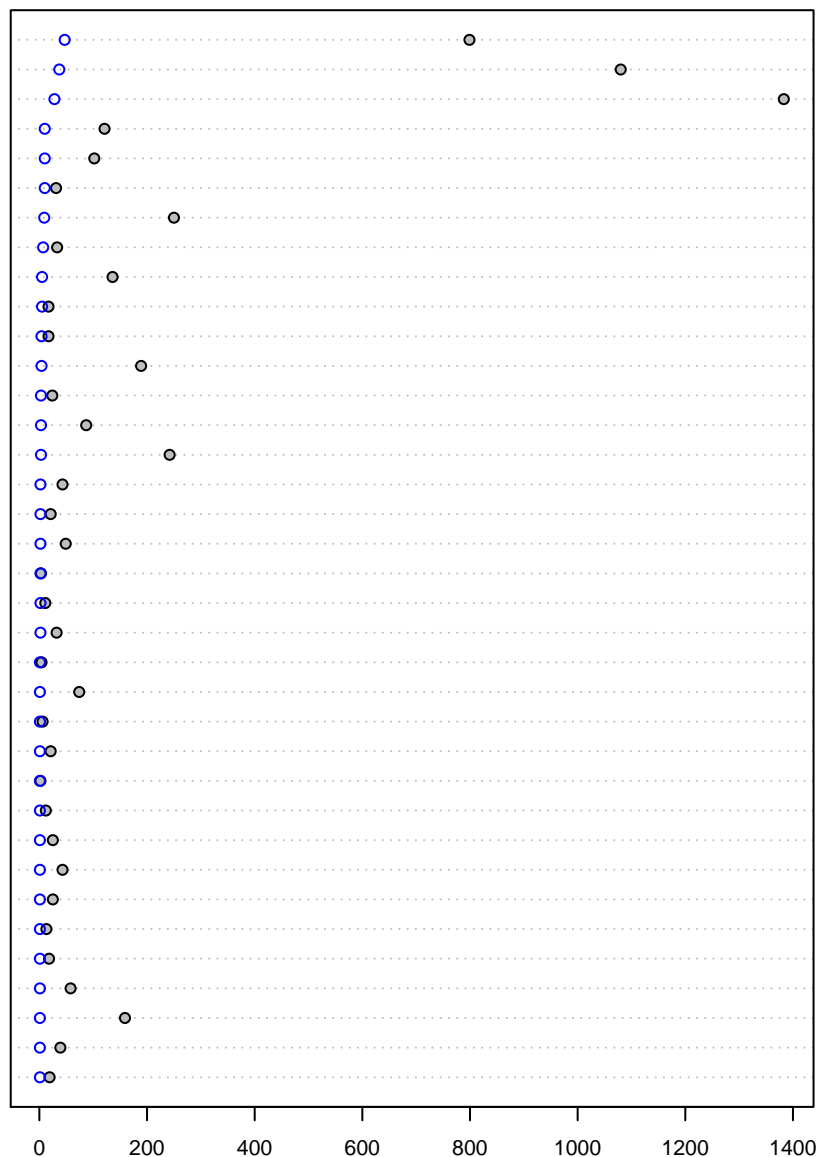


BD_NonResponder

Fatty acid oxidation
 Exchange/demand reaction
 Transport, extracellular
 Transport, endoplasmic reticular
 Miscellaneous
 Methionine and cysteine metabolism
 Transport, mitochondrial
 Valine, leucine, and isoleucine metabolism
 Nucleotide interconversion
 Fructose and mannose metabolism
 Lysine metabolism
 Fatty acid synthesis
 Urea cycle
 Transport, peroxisomal
 Peptide metabolism
 Tyrosine metabolism
 Tryptophan metabolism
 Transport, nuclear
 Taurine and hypotaurine metabolism
 Purine synthesis
 Phosphatidylinositol phosphate metabolism
 Triacylglycerol synthesis
 Transport, lysosomal
 Tetrahydrobiopterin metabolism
 Steroid metabolism
 R group synthesis
 Pyrimidine synthesis
 Purine catabolism
 Inositol phosphate metabolism
 Glycolysis/gluconeogenesis
 Glutathione metabolism
 Exchange
 Eicosanoid metabolism
 Cholesterol metabolism
 Bile acid synthesis
 Arachidonic acid metabolism



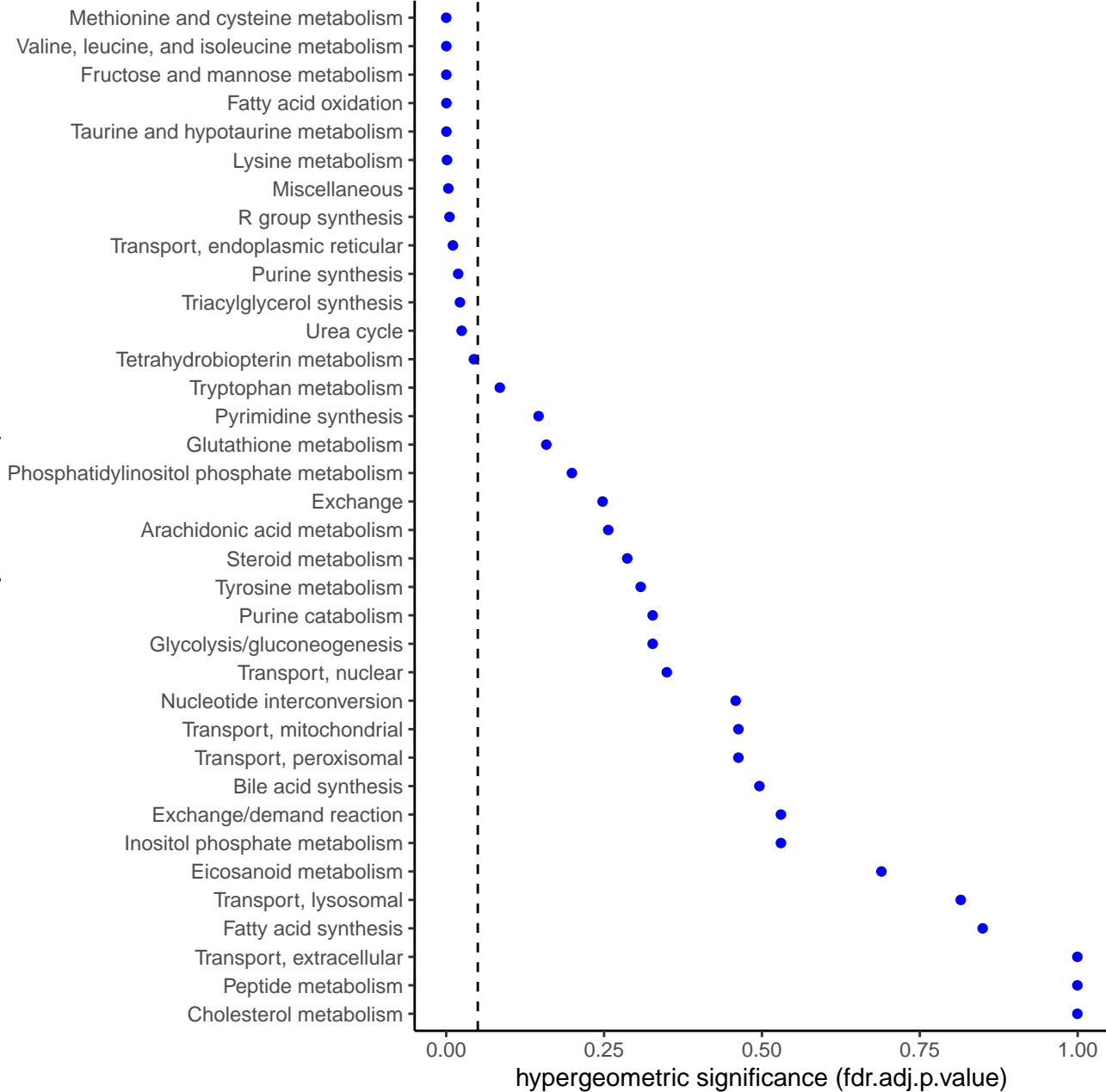
Fatty acid oxidation
 Exchange/demand reaction
 Transport, extracellular
 Transport, endoplasmic reticular
 Miscellaneous
 Methionine and cysteine metabolism
 Transport, mitochondrial
 Valine, leucine, and isoleucine metabolism
 Nucleotide interconversion
 Fructose and mannose metabolism
 Lysine metabolism
 Fatty acid synthesis
 Urea cycle
 Transport, peroxisomal
 Peptide metabolism
 Tyrosine metabolism
 Tryptophan metabolism
 Transport, nuclear
 Taurine and hypotaurine metabolism
 Purine synthesis
 Phosphatidylinositol phosphate metabolism
 Triacylglycerol synthesis
 Transport, lysosomal
 Tetrahydrobiopterin metabolism
 Steroid metabolism
 R group synthesis
 Pyrimidine synthesis
 Purine catabolism
 Inositol phosphate metabolism
 Glycolysis/gluconeogenesis
 Glutathione metabolism
 Exchange
 Eicosanoid metabolism
 Cholesterol metabolism
 Bile acid synthesis
 Arachidonic acid metabolism



of disrupted rxns (n=212, bd_lumped) per subSystem

BD_Lumped metabolic model

Subsystems disrupted



Fatty acid oxidation

Exchange/demand reaction

Transport, extracellular

Nucleotide interconversion

Transport, nuclear

Transport, mitochondrial

Transport, endoplasmic reticular

Vitamin A metabolism

Transport, peroxisomal

Purine catabolism

Miscellaneous

Methionine and cysteine metabolism

Tyrosine metabolism

Steroid metabolism

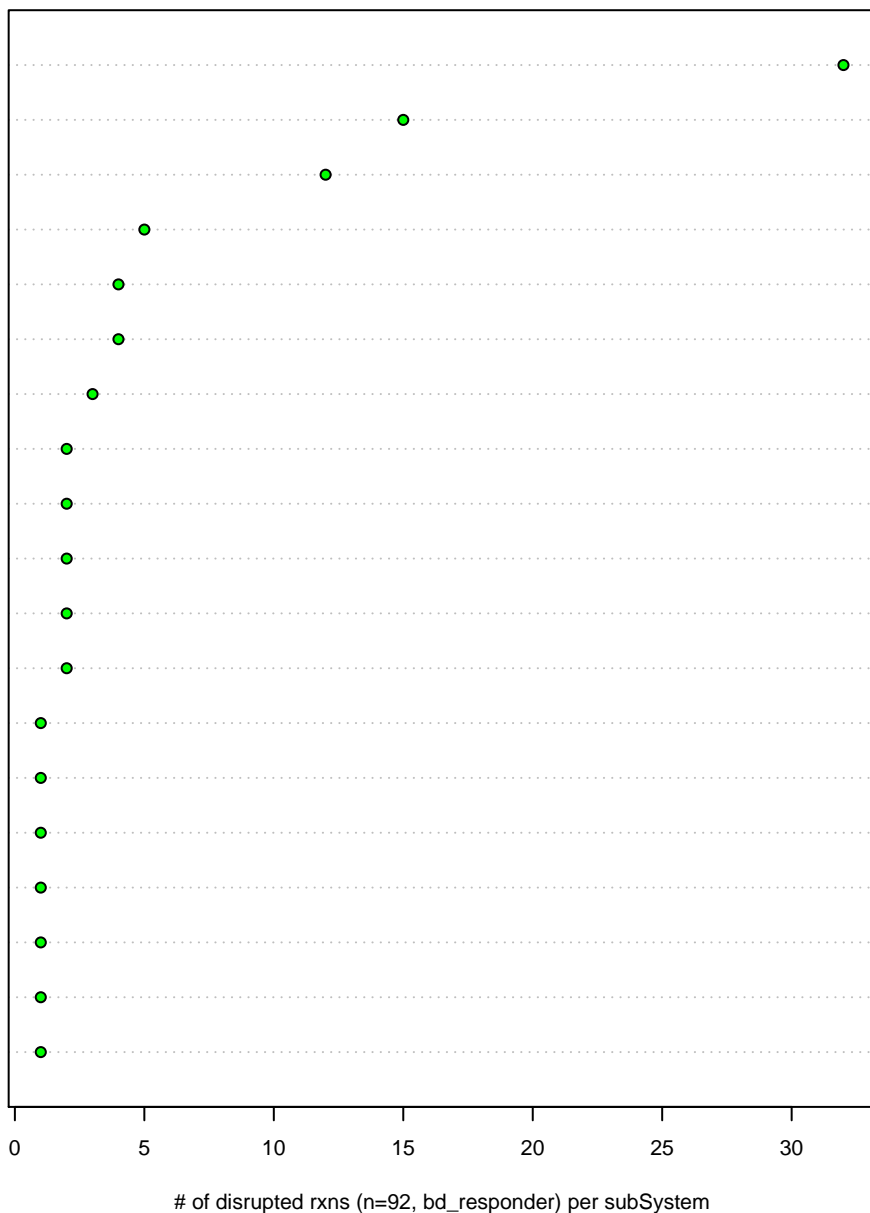
Pyrimidine synthesis

Inositol phosphate metabolism

Exchange

Eicosanoid metabolism

Beta-Alanine metabolism



of disrupted rxns (n=92, bd_responder) per subSystem

Fatty acid oxidation

Exchange/demand reaction

Transport, extracellular

Nucleotide interconversion

Transport, nuclear

Transport, mitochondrial

Transport, endoplasmic reticular

Vitamin A metabolism

Transport, peroxisomal

Purine catabolism

Miscellaneous

Methionine and cysteine metabolism

Tyrosine metabolism

Steroid metabolism

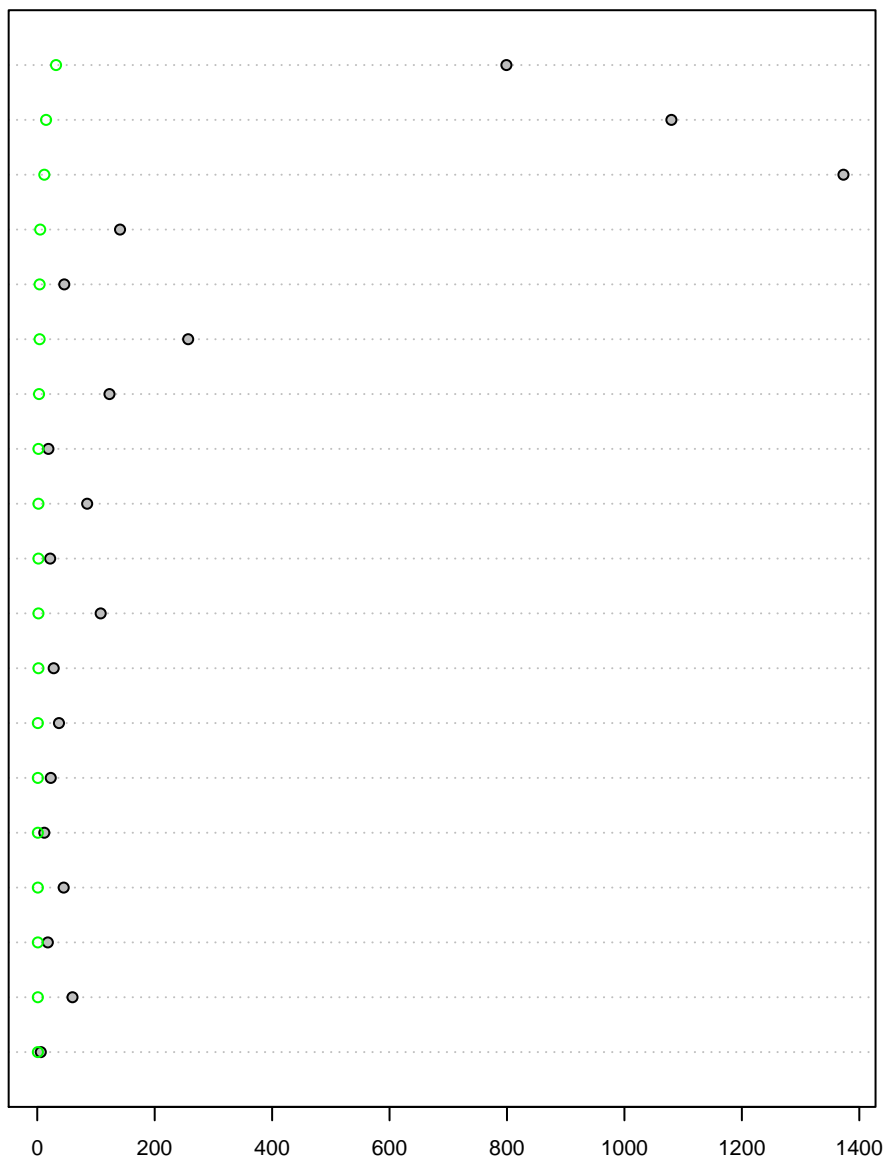
Pyrimidine synthesis

Inositol phosphate metabolism

Exchange

Eicosanoid metabolism

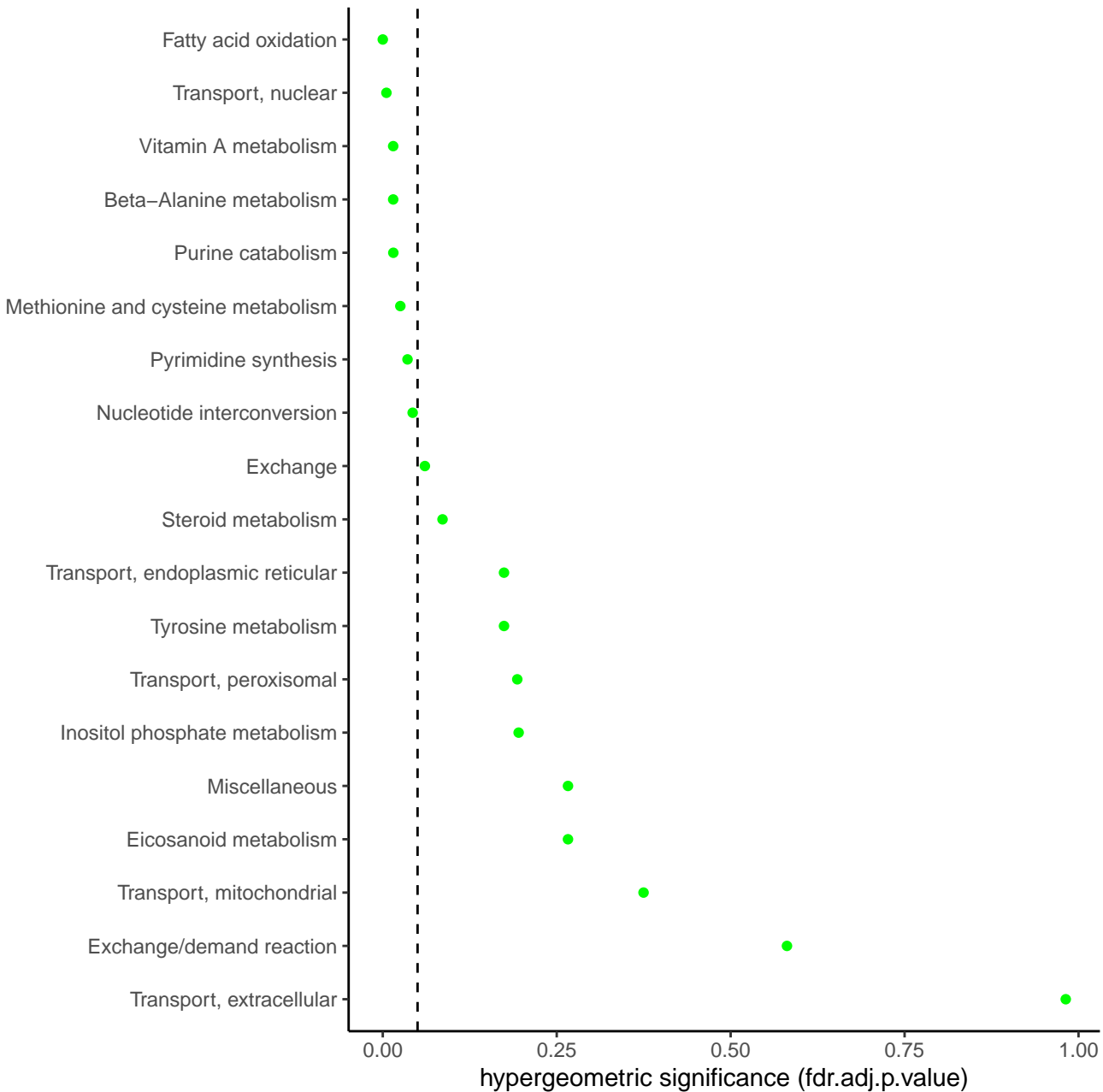
Beta-Alanine metabolism

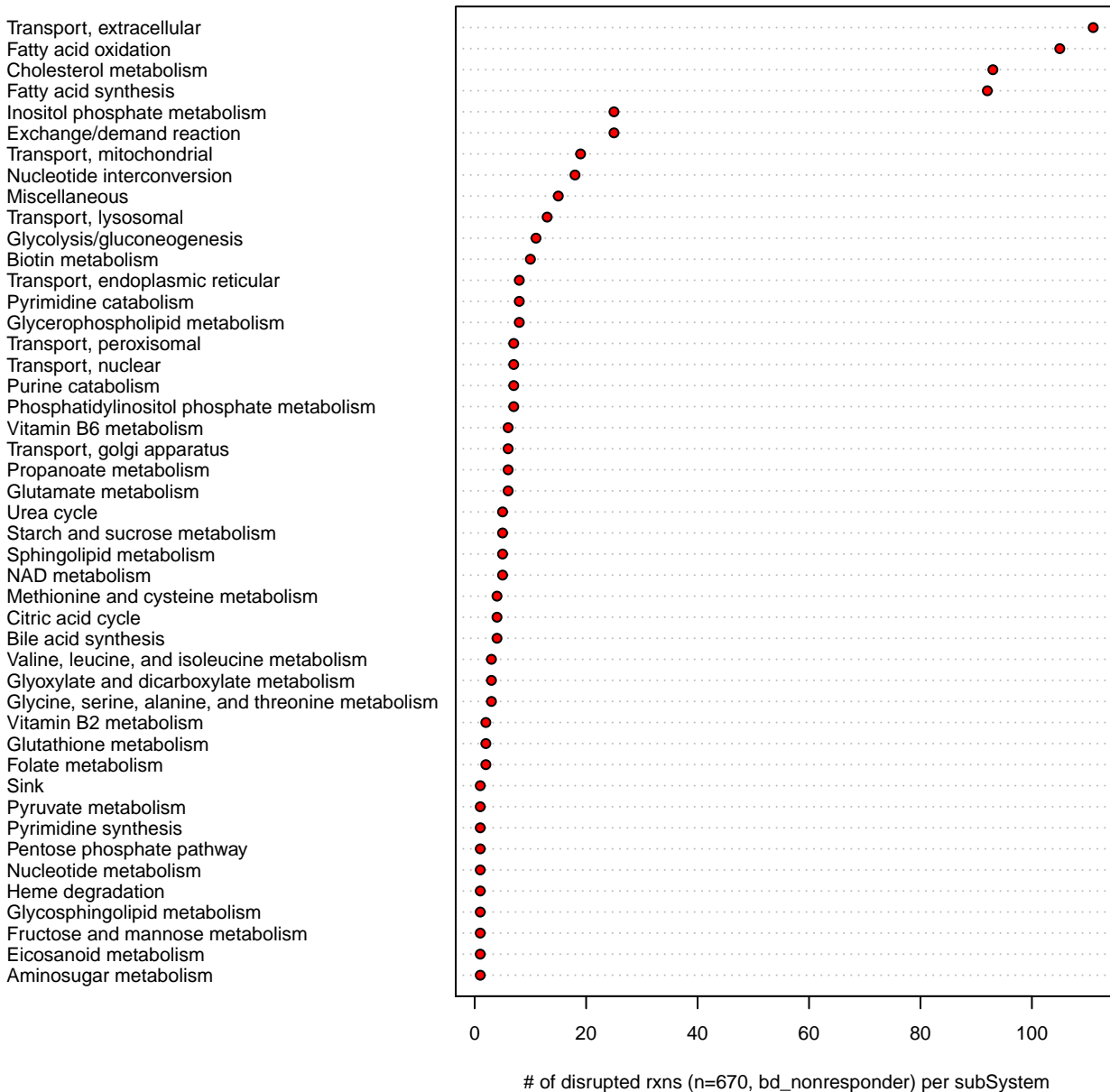


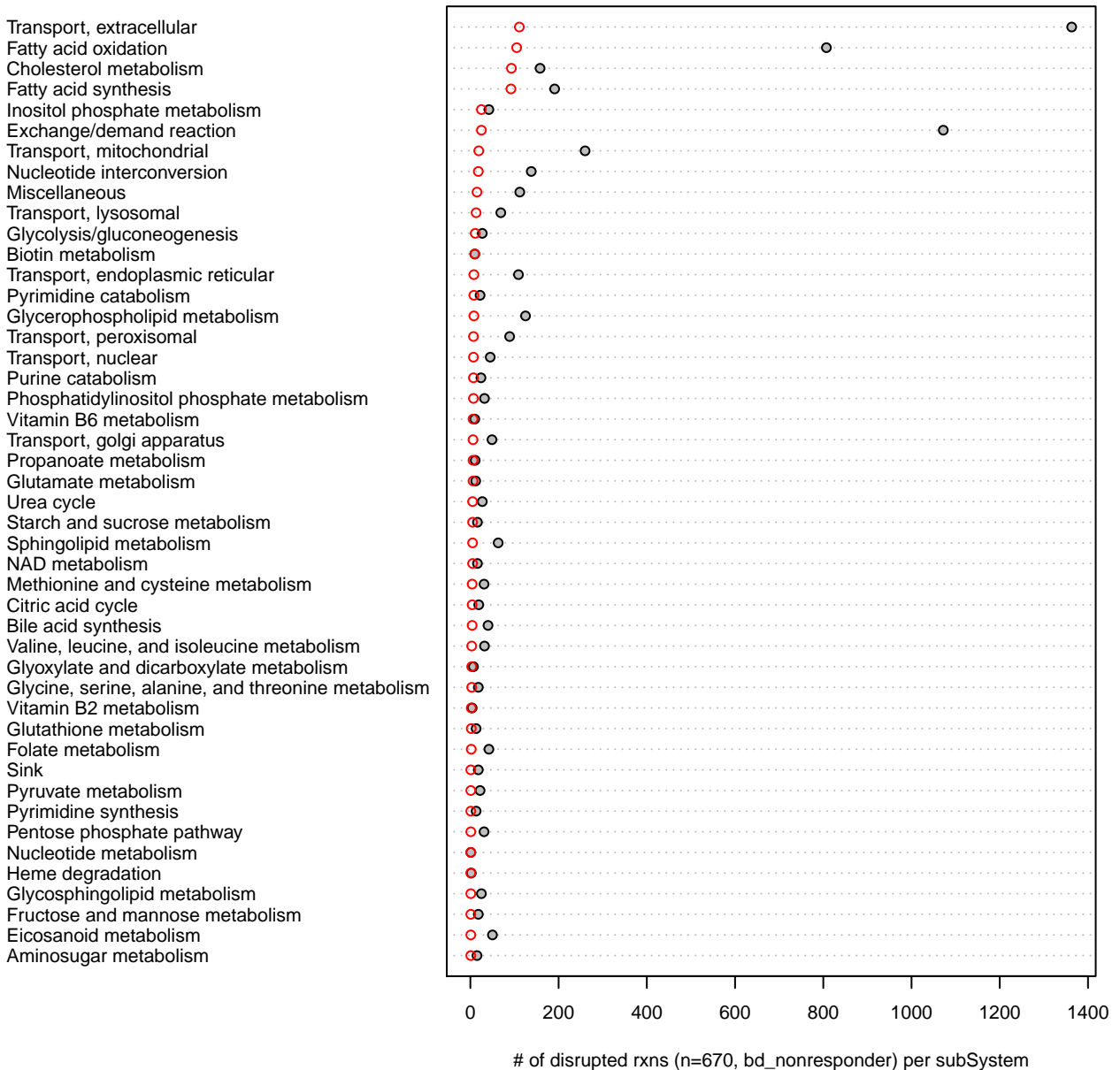
of disrupted rxns (n=92, bd_responder) per subSystem

BD_Responder metabolic model

Subsystems disrupted







BD_Non-responder metabolic model

Subsystems disrupted

