

Abs – BD vs Li+

NA	NA	NA	NA	NA	NA	NA	NA	NA	Lanz
1.0e+00	NA	NA	NA	NA	NA	NA	NA	NA	Rivera
3.9e-30	2.4e-02	NA	NA	NA	NA	NA	NA	NA	Akkouh
3.0e-03	1.0e+00	7.3e-01	NA	NA	NA	NA	NA	NA	FVA_BD
5.0e-01	1.0e+00	7.3e-01	5.0e-01	NA	NA	NA	NA	NA	FVA_BD_R
1.0e+00	9.4e-01	1.0e+00	1.0e+00	1.0e+00	NA	NA	NA	NA	FVA_BD_NR
2.7e-02	1.0e+00	1.0e+00	7.3e-01	4.3e-01	1.0e+00	NA	NA	NA	MTA_BD
1.0e+00	1.0e+00	1.0e+00	1.0e+00	1.0e+00	1.0e-09	1.0e+00	NA	NA	MTA_BD_R
5.0e-01	1.0e+00	1.0e+00	1.0e+00	9.4e-01	7.3e-01	2.3e-53	1.0e+00	NA	MTA_BD_NR
Lanz	Rivera	Akkouh	FVA_BD	FVA_BD_R	FVA_BD_NR	MTA_BD	MTA_BD_R	MTA_BD_NR	

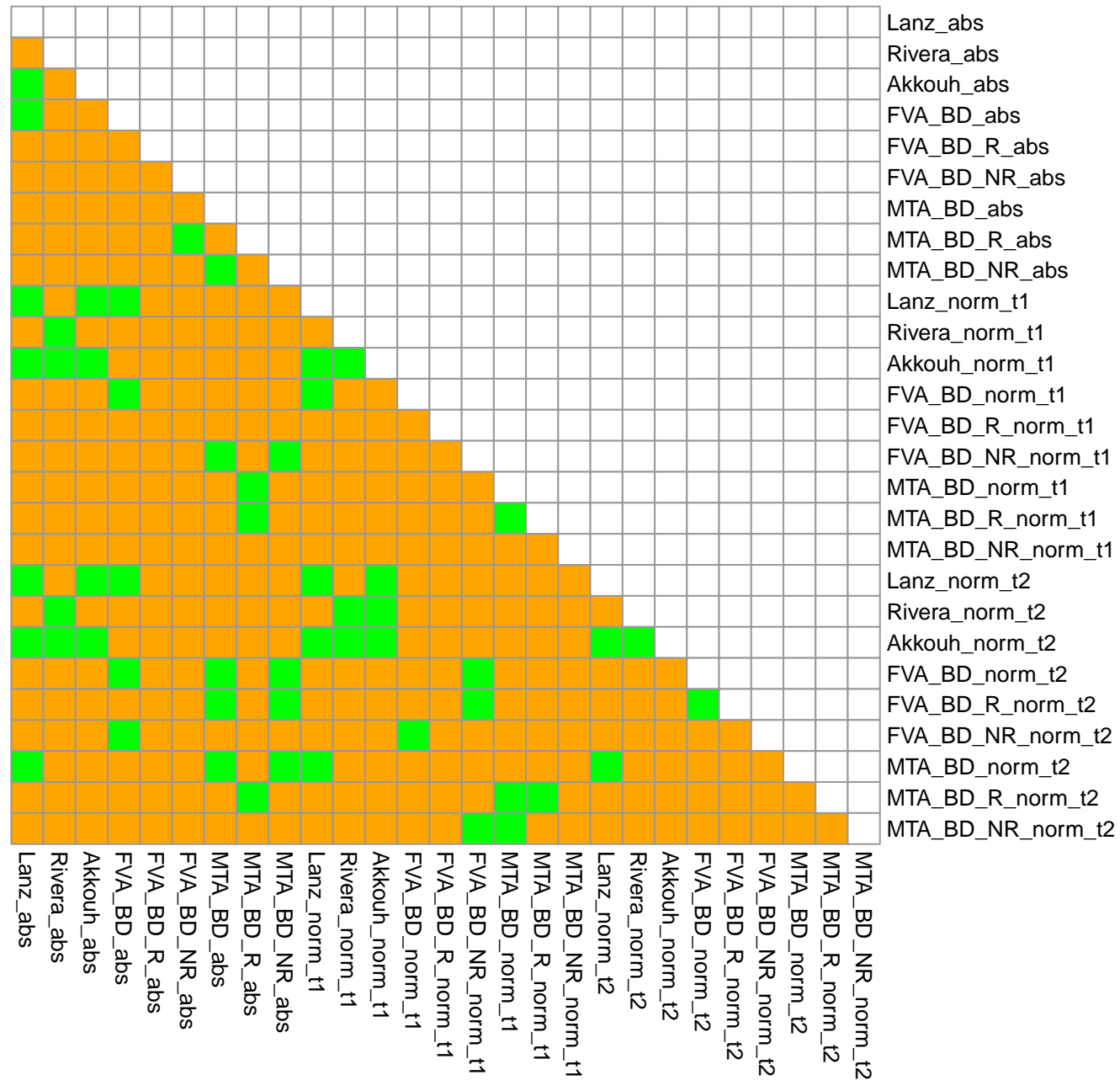
Norm\_T1 – BD vs Li+

NA	NA	NA	NA	NA	NA	NA	NA	NA	Lanz
1.0e+00	NA	NA	NA	NA	NA	NA	NA	NA	Rivera
2.1e-18	1.0e-02	NA	NA	NA	NA	NA	NA	NA	Akkouh
1.1e-02	1.0e+00	1.0e+00	NA	NA	NA	NA	NA	NA	FVA_BD
1.0e+00	1.0e+00	1.0e+00	1.0e+00	NA	NA	NA	NA	NA	FVA_BD_R
1.0e+00	1.0e+00	1.0e+00	1.0e+00	1.0e+00	NA	NA	NA	NA	FVA_BD_NR
1.0e+00	1.9e-01	8.1e-01	1.0e+00	1.0e+00	1.0e+00	NA	NA	NA	MTA_BD
1.0e+00	2.3e-01	1.0e+00	1.0e+00	1.0e+00	1.0e+00	4.0e-42	NA	NA	MTA_BD_R
1.0e+00	5.5e-01	1.0e+00	1.0e+00	1.0e+00	1.0e+00	1.0e+00	1.0e+00	NA	MTA_BD_NR
Lanz	Rivera	Akkouh	FVA_BD	FVA_BD_R	FVA_BD_NR	MTA_BD	MTA_BD_R	MTA_BD_NR	

Norm\_T2 – BD vs Li+

NA	NA	NA	NA	NA	NA	NA	NA	NA	Lanz
1.0e+00	NA	NA	NA	NA	NA	NA	NA	NA	Rivera
1.4e-40	1.6e-02	NA	NA	NA	NA	NA	NA	NA	Akkouh
1.0e+00	1.0e+00	1.0e+00	NA	NA	NA	NA	NA	NA	FVA_BD
1.0e+00	1.0e+00	1.0e+00	1.4e-54	NA	NA	NA	NA	NA	FVA_BD_R
1.0e+00	1.0e+00	1.0e+00	1.0e+00	1.0e+00	NA	NA	NA	NA	FVA_BD_NR
1.9e-03	1.0e+00	6.4e-01	1.0e+00	1.0e+00	1.0e+00	NA	NA	NA	MTA_BD
1.0e+00	9.3e-02	5.7e-01	1.0e+00	1.0e+00	1.0e+00	1.0e+00	NA	NA	MTA_BD_R
1.0e+00	1.0e+00	1.0e+00	9.2e-02	5.3e-02	1.0e+00	1.0e+00	1.0e+00	NA	MTA_BD_NR
Lanz	Rivera	Akkouh	FVA_BD	FVA_BD_R	FVA_BD_NR	MTA_BD	MTA_BD_R	MTA_BD_NR	

## All – BD vs Li+



# Abs

	0	0	0	1	0	1	Tyrosine metabolism
	0	0	0	1	0	1	Keratan sulfate degradation
	0	0	0	1	0	1	Chondroitin sulfate degradation
	0	0	0	1	0	1	Heparan sulfate degradation
	0	0	0	1	0	0	Chondroitin synthesis
	0	0	0	1	0	0	Sink
	1	1	0	1	0	1	Fatty acid oxidation
	0	1	0	0	0	0	Transport, endoplasmic reticular
	0	0	0	0	0	1	Keratan sulfate synthesis
	0	0	0	0	1	0	Transport, extracellular
	0	0	0	0	1	0	ROS detoxification
	0	0	0	0	1	0	Starch and sucrose metabolism
	1	0	0	0	1	0	Fructose and mannose metabolism
	1	0	0	0	0	0	Valine, leucine, and isoleucine metabolism
	1	0	0	0	0	0	Miscellaneous
	1	0	0	0	0	0	Lysine metabolism
	1	0	0	0	0	0	Methionine and cysteine metabolism
	0	0	1	0	1	1	Cholesterol metabolism
	0	0	1	0	1	0	Fatty acid synthesis
	0	0	1	0	0	0	Vitamin B6 metabolism
0	0	1	0	0	0	Pyrimidine catabolism	
0	0	1	0	0	0	Propanoate metabolism	
0	0	1	0	0	0	Inositol phosphate metabolism	
0	0	1	0	0	0	Glycolysis/gluconeogenesis	
0	0	1	0	0	0	Biotin metabolism	
0	0	1	0	0	0	Glutamate metabolism	
	FVA_BD	FVA_BD_R	FVA_BD_NR	MTA_BD	MTA_BD_R	MTA_BD_NR	

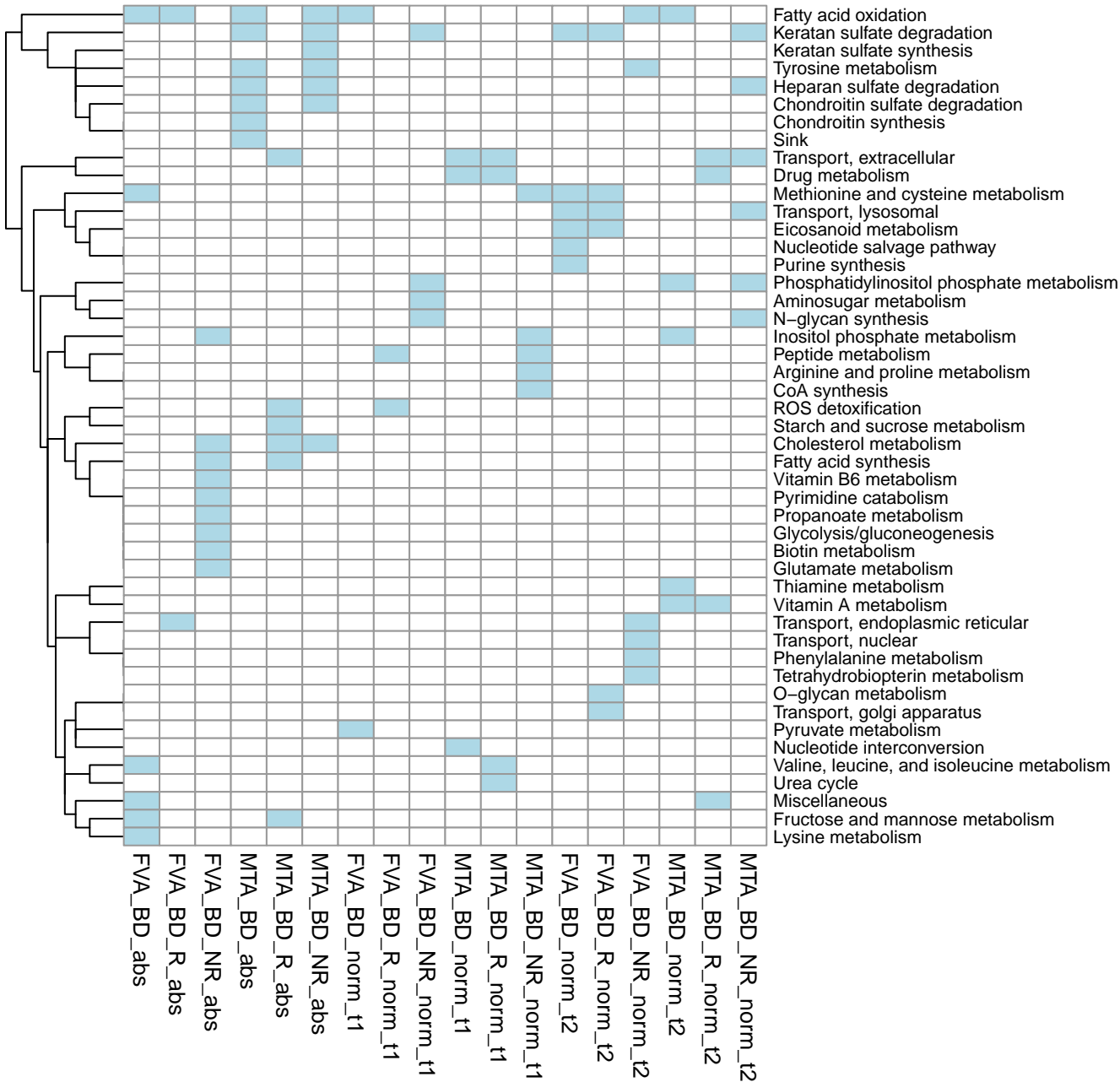
# Norm\_T1

	0	0	0	1	0	0	Nucleotide interconversion
	0	0	0	1	1	0	Drug metabolism
	0	0	0	1	1	0	Transport, extracellular
	0	1	0	0	0	1	Peptide metabolism
	0	1	0	0	0	0	ROS detoxification
	0	0	0	0	0	1	Methionine and cysteine metabolism
	0	0	0	0	0	1	Inositol phosphate metabolism
	0	0	0	0	0	1	Arginine and proline metabolism
	0	0	0	0	0	1	CoA synthesis
	0	0	0	0	1	0	Urea cycle
	0	0	0	0	1	0	Valine, leucine, and isoleucine metabolism
	1	0	0	0	0	0	Fatty acid oxidation
	1	0	0	0	0	0	Pyruvate metabolism
	0	0	1	0	0	0	Phosphatidylinositol phosphate metabolism
	0	0	1	0	0	0	N-glycan synthesis
	0	0	1	0	0	0	Aminosugar metabolism
0	0	1	0	0	0	Keratan sulfate degradation	
FVA_BD	FVA_BD_R	FVA_BD_NR	MTA_BD	MTA_BD_R	MTA_BD_NR		

# Norm\_T2

							Vitamin A metabolism
							Drug metabolism
							Miscellaneous
							Fatty acid oxidation
							Tyrosine metabolism
							Transport, nuclear
							Transport, endoplasmic reticular
							Phenylalanine metabolism
							Tetrahydrobiopterin metabolism
							Phosphatidylinositol phosphate metabolism
							Inositol phosphate metabolism
							Thiamine metabolism
							Transport, extracellular
							Heparan sulfate degradation
							N-glycan synthesis
							O-glycan metabolism
							Transport, golgi apparatus
							Nucleotide salvage pathway
							Purine synthesis
							Eicosanoid metabolism
							Methionine and cysteine metabolism
							Keratan sulfate degradation
							Transport, lysosomal
	FVA_BD	FVA_BD_R	FVA_BD_NR	MTA_BD	MTA_BD_R	MTA_BD_NR	

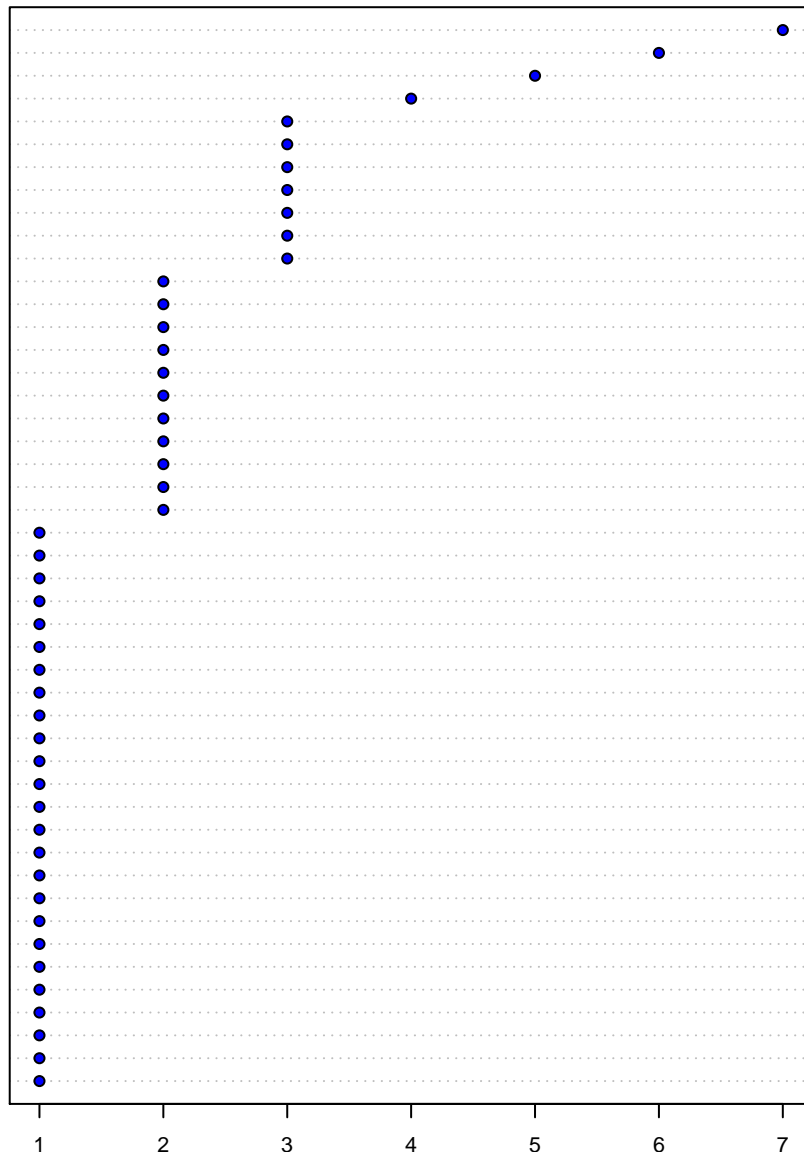
## All





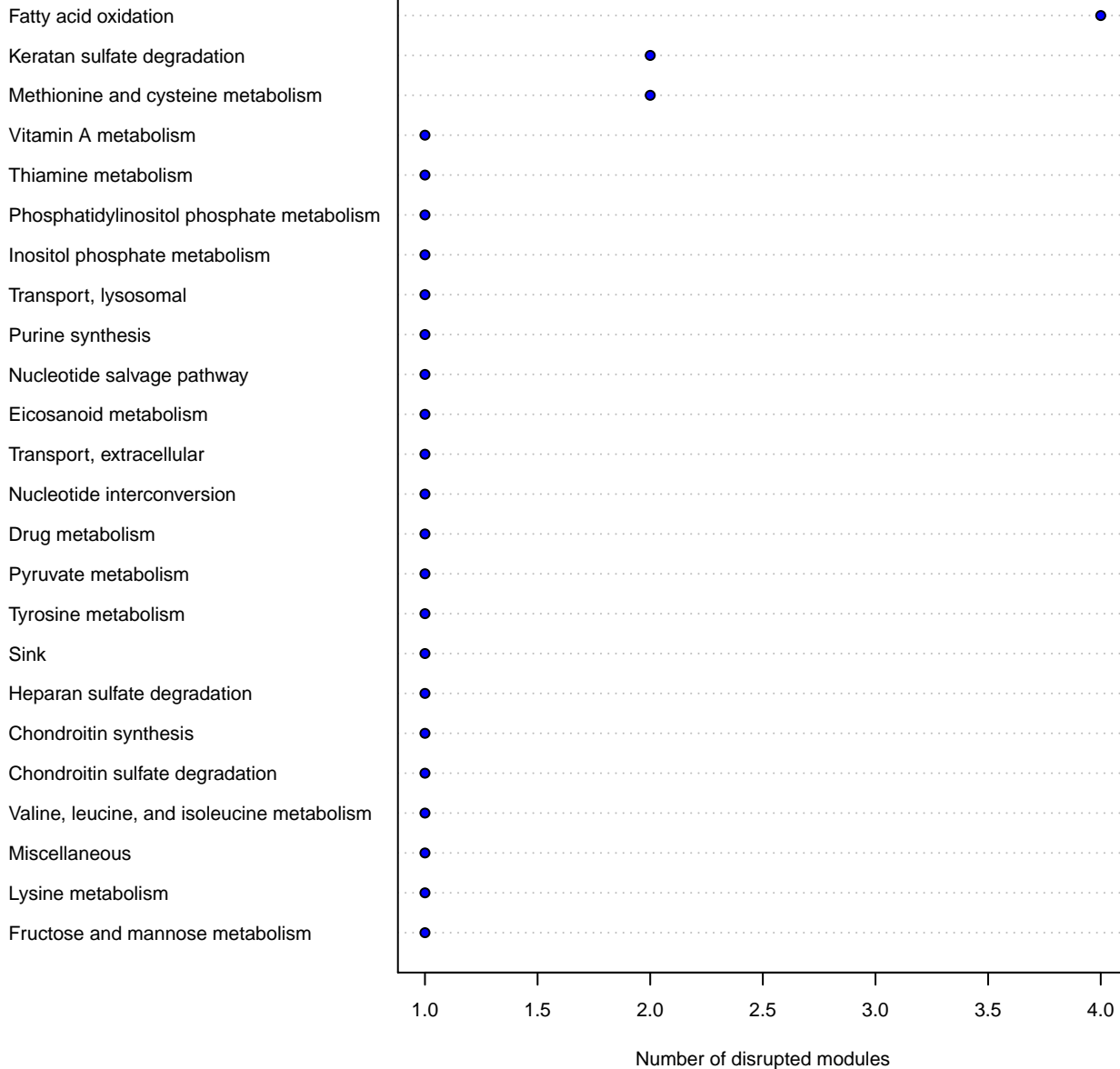
# AII

Fatty acid oxidation  
 Keratan sulfate degradation  
 Transport, extracellular  
 Methionine and cysteine metabolism  
 Transport, lysosomal  
 Drug metabolism  
 Phosphatidylinositol phosphate metabolism  
 Tyrosine metabolism  
 Heparan sulfate degradation  
 Inositol phosphate metabolism  
 Cholesterol metabolism  
 Vitamin A metabolism  
 Eicosanoid metabolism  
 N-glycan synthesis  
 Peptide metabolism  
 ROS detoxification  
 Chondroitin sulfate degradation  
 Fatty acid synthesis  
 Transport, endoplasmic reticular  
 Valine, leucine, and isoleucine metabolism  
 Miscellaneous  
 Fructose and mannose metabolism  
 Thiamine metabolism  
 Transport, nuclear  
 Tetrahydrobiopterin metabolism  
 Phenylalanine metabolism  
 Transport, golgi apparatus  
 O-glycan metabolism  
 Purine synthesis  
 Nucleotide salvage pathway  
 CoA synthesis  
 Arginine and proline metabolism  
 Urea cycle  
 Nucleotide interconversion  
 Aminosugar metabolism  
 Pyruvate metabolism  
 Keratan sulfate synthesis  
 Starch and sucrose metabolism  
 Sink  
 Chondroitin synthesis  
 Vitamin B6 metabolism  
 Pyrimidine catabolism  
 Propanoate metabolism  
 Glycolysis/gluconeogenesis  
 Glutamate metabolism  
 Biotin metabolism  
 Lysine metabolism



Number of disrupted modules

## BD\_Lumped



BD\_R

Transport, extracellular

Drug metabolism

ROS detoxification

Vitamin A metabolism

Miscellaneous

Transport, lysosomal

Transport, golgi apparatus

O-glycan metabolism

Methionine and cysteine metabolism

Keratan sulfate degradation

Eicosanoid metabolism

Valine, leucine, and isoleucine metabolism

Urea cycle

Peptide metabolism

Starch and sucrose metabolism

Fructose and mannose metabolism

Fatty acid synthesis

Cholesterol metabolism

Transport, endoplasmic reticular

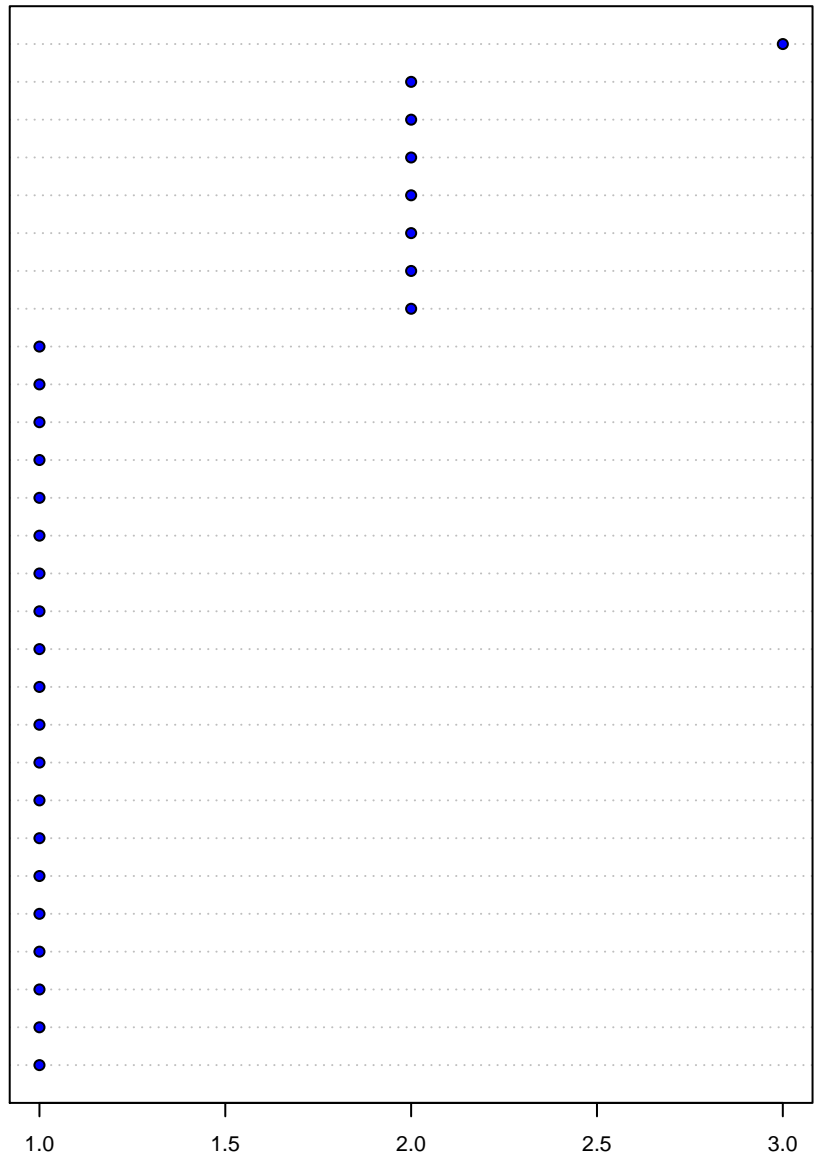
Fatty acid oxidation



Number of disrupted modules

BD\_NR

Keratan sulfate degradation  
Phosphatidylinositol phosphate metabolism  
N-glycan synthesis  
Tyrosine metabolism  
Heparan sulfate degradation  
Fatty acid oxidation  
Inositol phosphate metabolism  
Cholesterol metabolism  
Transport, lysosomal  
Transport, extracellular  
Transport, nuclear  
Transport, endoplasmic reticular  
Tetrahydrobiopterin metabolism  
Phenylalanine metabolism  
Peptide metabolism  
Methionine and cysteine metabolism  
CoA synthesis  
Arginine and proline metabolism  
Aminosugar metabolism  
Keratan sulfate synthesis  
Chondroitin sulfate degradation  
Vitamin B6 metabolism  
Pyrimidine catabolism  
Propanoate metabolism  
Glycolysis/gluconeogenesis  
Glutamate metabolism  
Fatty acid synthesis  
Biotin metabolism



Number of disrupted modules

