

# BD\_Lumped

subsystem

Lysine metabolism

Fructose and mannose metabolism

Valine, leucine, and isoleucine metabolism

Miscellaneous

Methionine and cysteine metabolism

Fatty acid oxidation

0

20

40

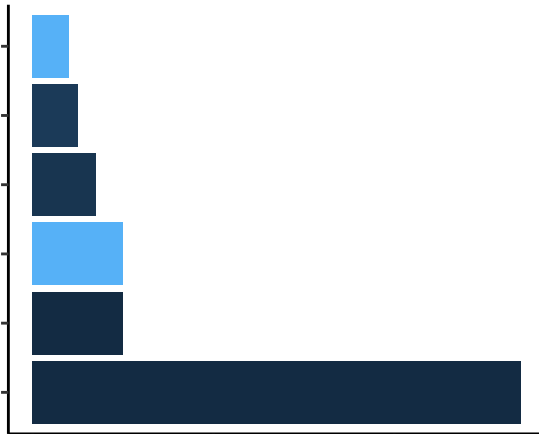
# of disrupted reactions

p.val.fdr ( $\leq 0.05$ )

0.009

0.006

0.003



# BD\_Lumped

subsystem



# BD\_Responder

subsystem

Transport, endoplasmic reticular

Fatty acid oxidation

0

10

20

30

# of disrupted reactions

p.val.fdr ( $\leq 0.05$ )

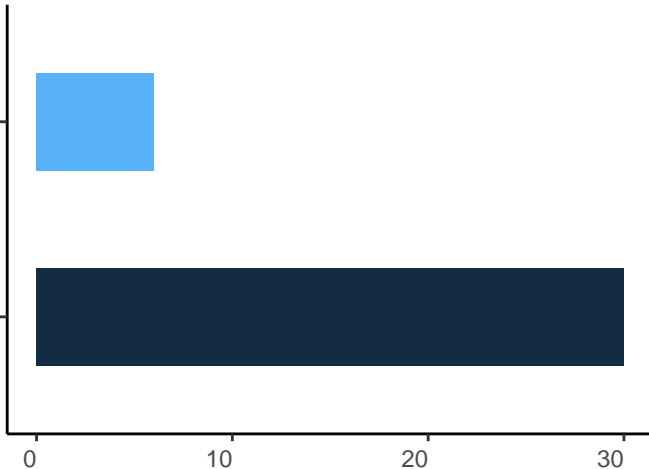
0.025

0.020

0.015

0.010

0.005



# BD\_Responder

subsystem

Transport, endoplasmic reticular

Fatty acid oxidation

Flux



0

10

20

30

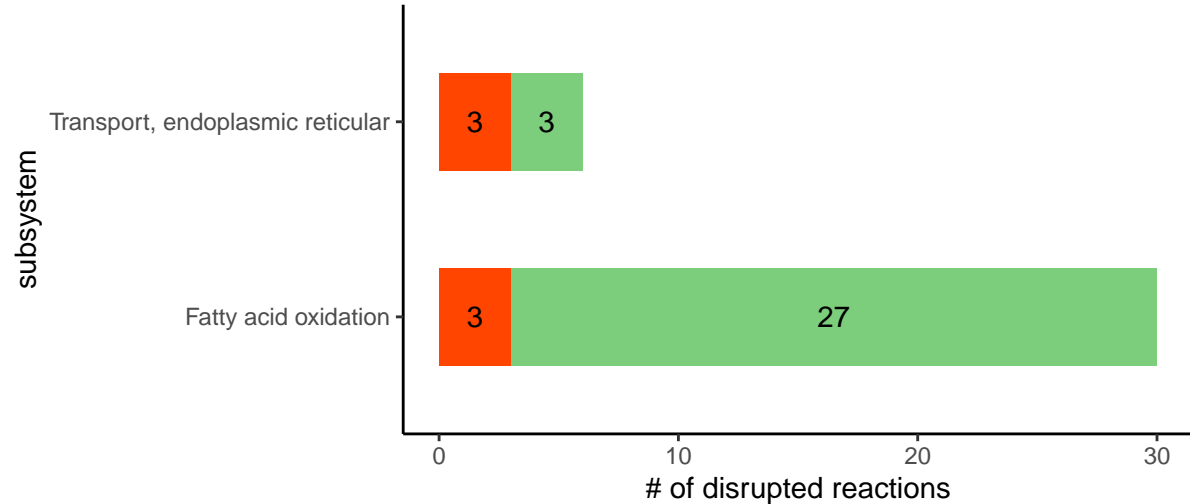
# of disrupted reactions

3

3

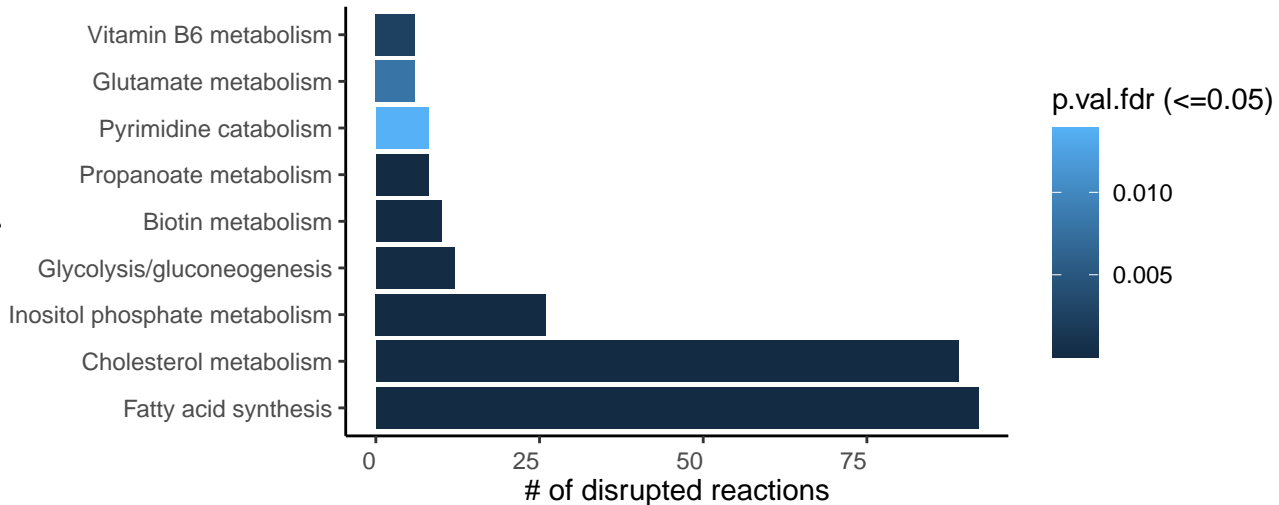
3

27



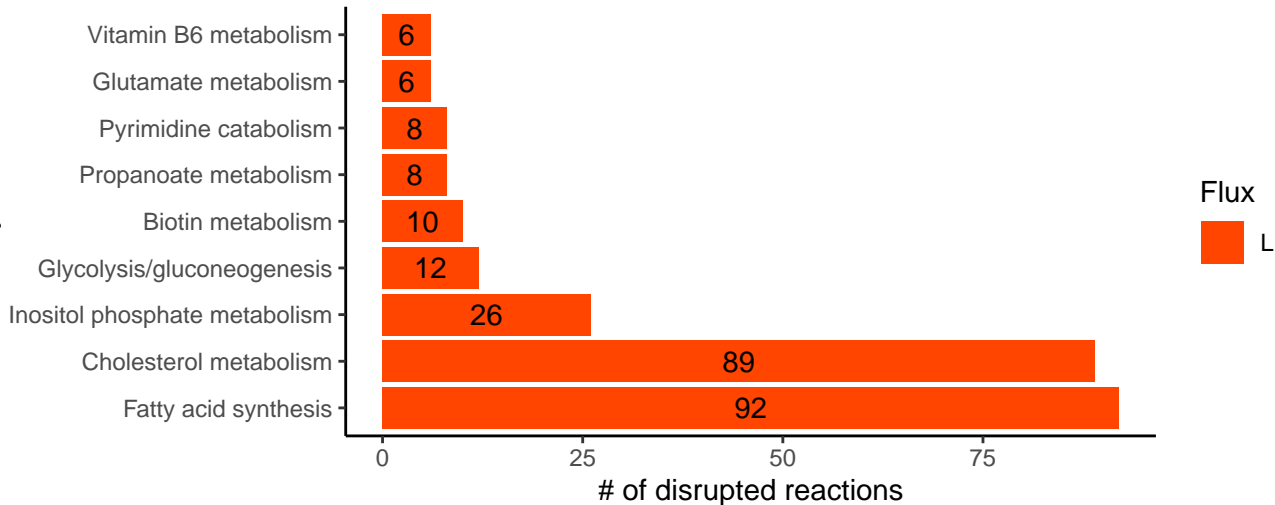
## BD\_NonResponder

subsystem



## BD\_NonResponder

subsystem



# BD\_Lumped

compartment

peroxisome

13

mitochondrion

30

11

extracellular space

1 1

cytoplasm

24

10

Flux



0

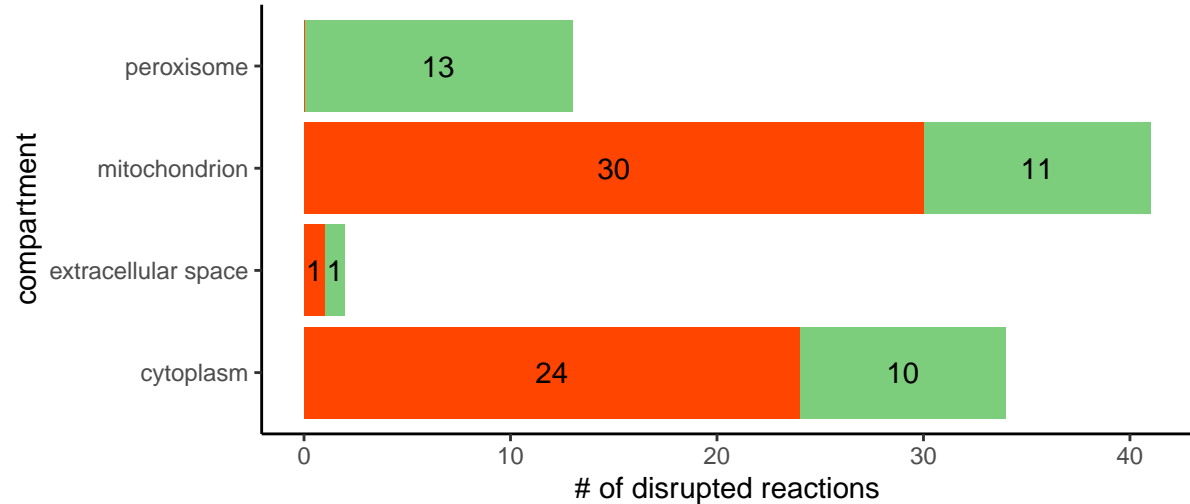
10

20

30

40

# of disrupted reactions



# BD\_Responder

compartment

intercompartmental

peroxisome

endoplasmic reticulum

mitochondrion

cytoplasm

Flux



0

5

10

15

# of disrupted reactions

2

3

15

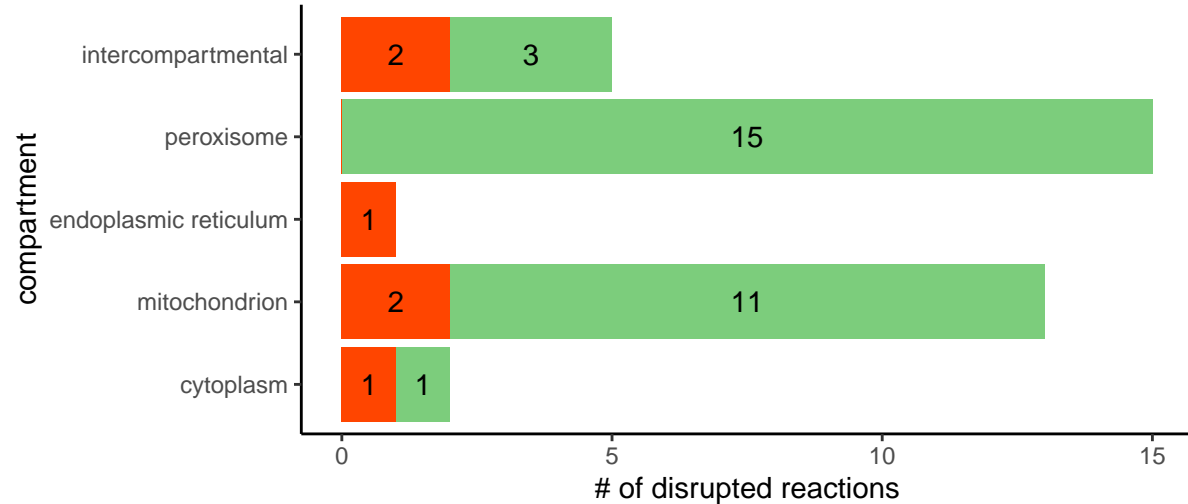
1

2

11

1

1





# BD\_NonResponder

compartment

