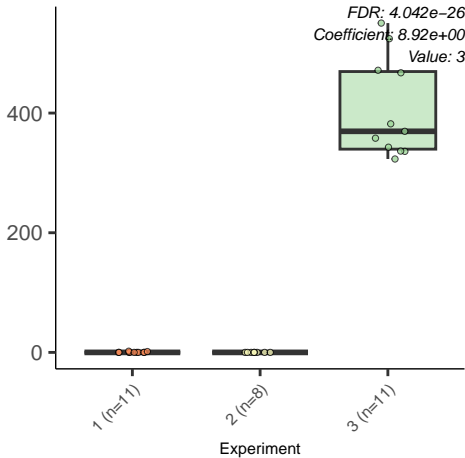
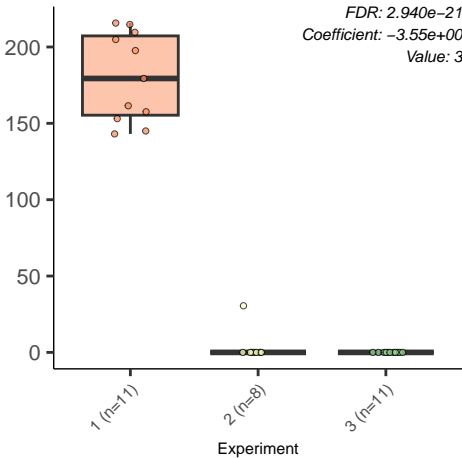


NONMEVIPP.PWY..methylerythritol.phosphate.pathway





PWY.5154..L-arginine.biosynthesis.III...via.N.acetyl.L.citrullin

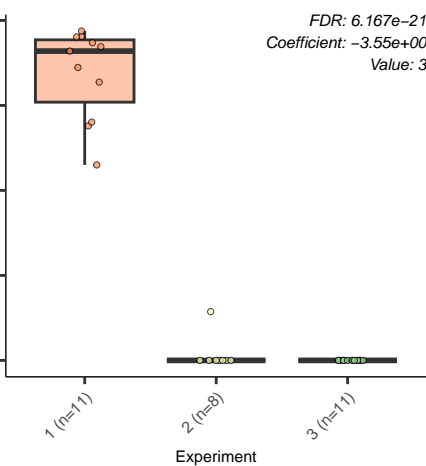
FDR: 6.167e-21
Coefficient: -3.55e+00
Value: 3

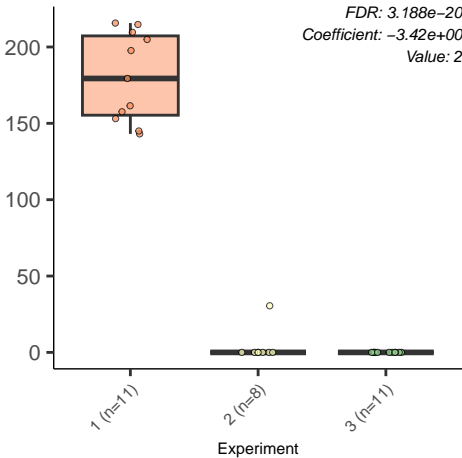
1 (n=11)

2 (n=8)

3 (n=11)

Experiment





PWY.5154..L-arginine.biosynthesis.III...via.N.acetyl.L.citrullin

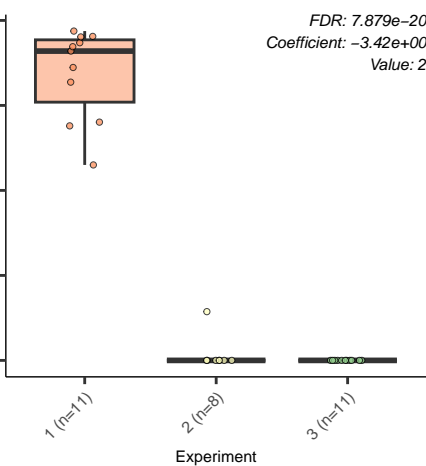
FDR: 7.879e-20
Coefficient: -3.42e+00
Value: 2

1 (n=11)

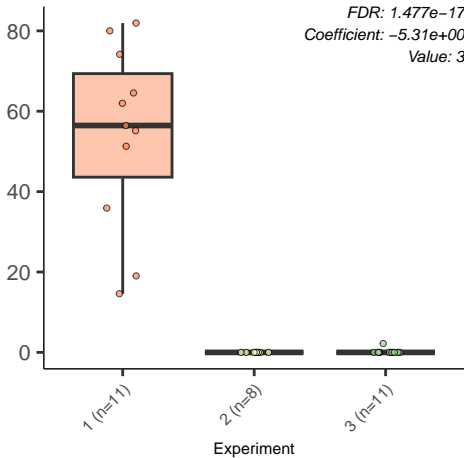
2 (n=8)

3 (n=11)

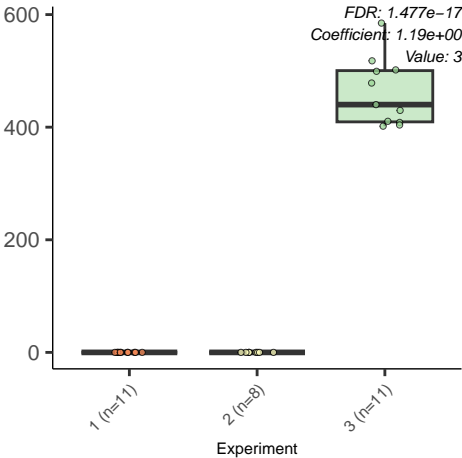
Experiment



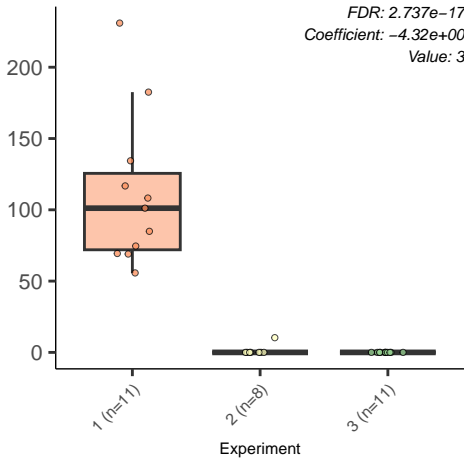
FDR: $1.477\text{e-}17$
Coefficient: $-5.31\text{e}+00$
Value: 3



PWY66.429..fatty.acid.biosynthesis.initiation...mitochondr

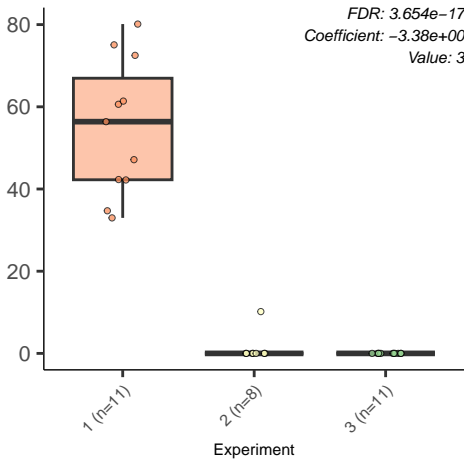


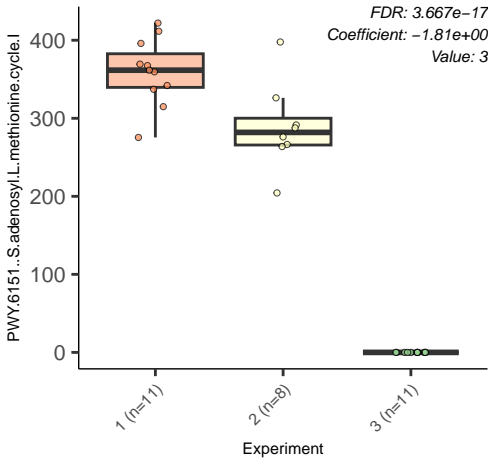
FDR: $2.737e-17$
 Coefficient: $-4.32e+00$
 Value: 3



PWY.6545..pyrimidine.deoxyribonucleotides.de.novo.biosynth

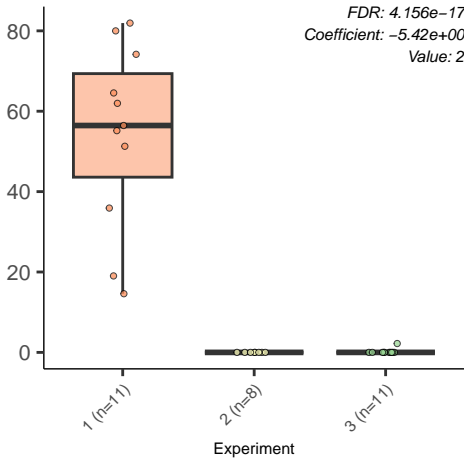
FDR: 3.654e-17
Coefficient: -3.38e+00
Value: 3





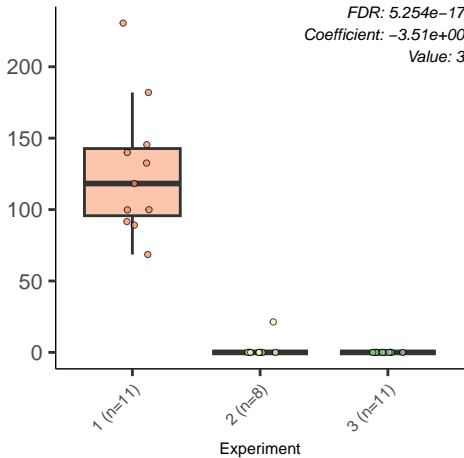
PHOSLIPSYN.PWY..superpathway.of.phospholipid.biosynthesis.

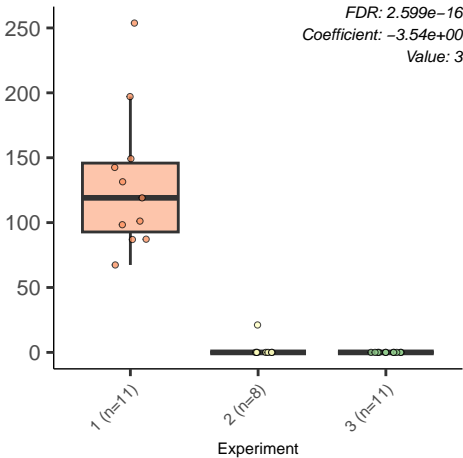
FDR: 4.156e-17
Coefficient: -5.42e+00
Value: 2



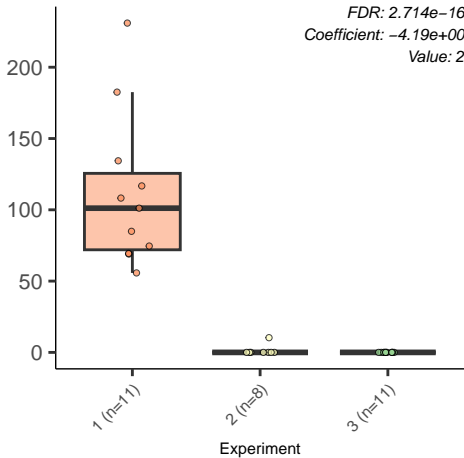
PWY.7187..pyrimidine.deoxyribonucleotides.de.novo.biosynth

FDR: $5.254e-17$
Coefficient: $-3.51e+00$
Value: 3

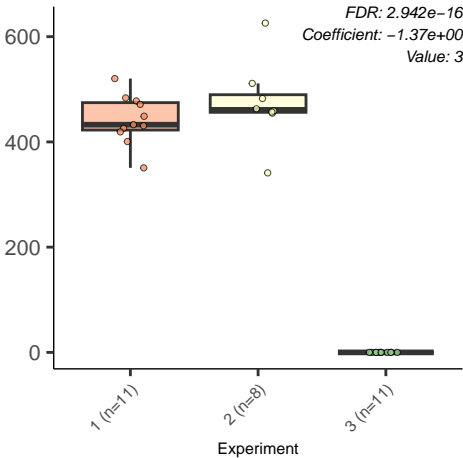




FDR: $2.714e-16$
Coefficient: $-4.19e+00$
Value: 2

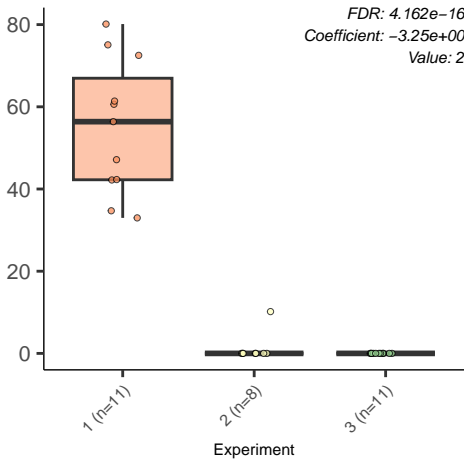


PWY.5686..UMP.biosynthesis



PWY.6545..pyrimidine.deoxyribonucleotides.de.novo.biosynth

FDR: $4.162e-16$
Coefficient: $-3.25e+00$
Value: 2



PWY.6317..D.galactose.degradation.l..Leloir.pathway.

FDR: 6.069×10^{-16}
Coefficient: 1.38×10^0
Value: 3

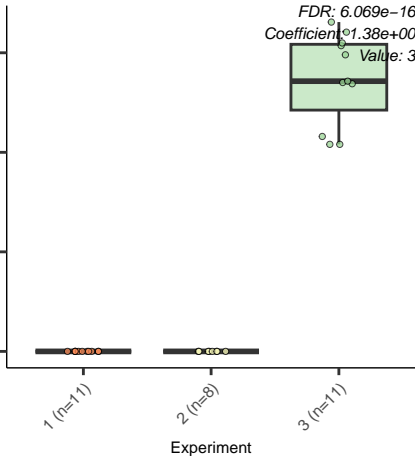
300
200
100
0

1 (n=11)

2 (n=8)

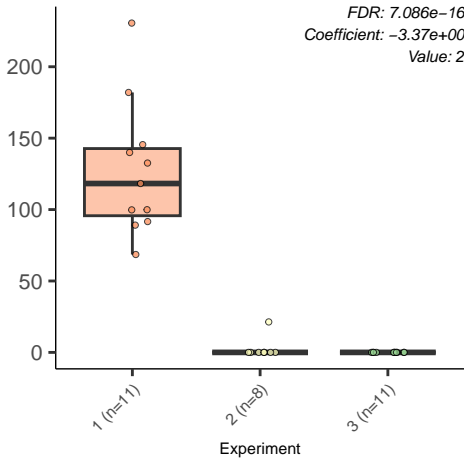
3 (n=11)

Experiment



PWY.7187..pyrimidine.deoxyribonucleotides.de.novo.biosynth

FDR: $7.086e-16$
Coefficient: $-3.37e+00$
Value: 2



X1CMET2.PWY..N10.formyl.tetrahydrofolate.biosynthesis

FDR: 2.169e-15
Coefficient: -2.06e+00
Value: 3

300

200

100

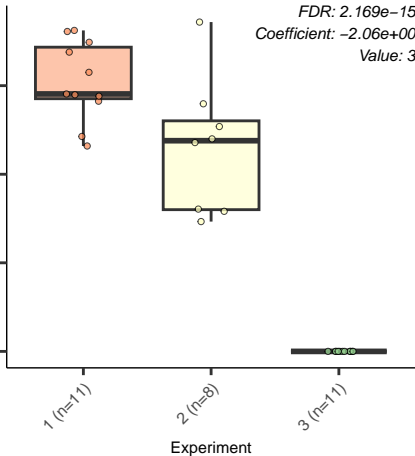
0

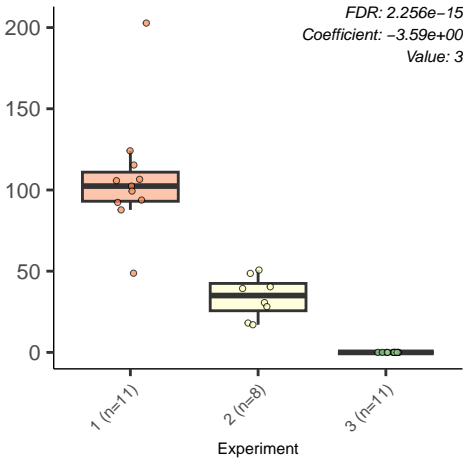
1 (n=11)

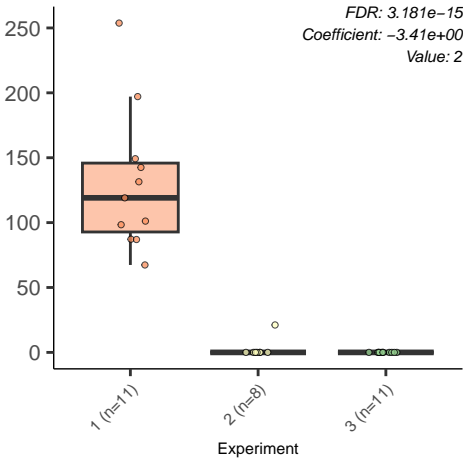
2 (n=8)

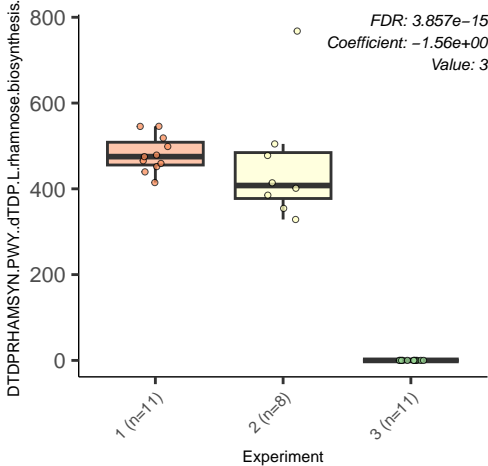
3 (n=11)

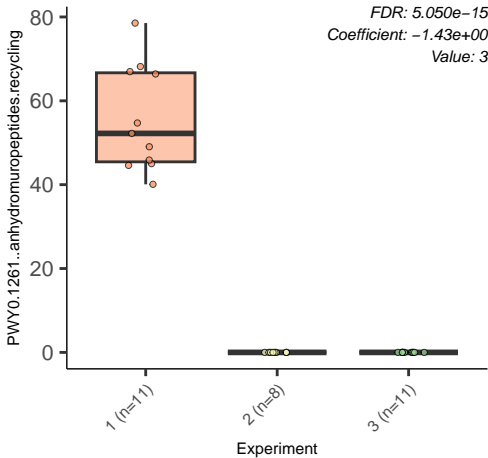
Experiment



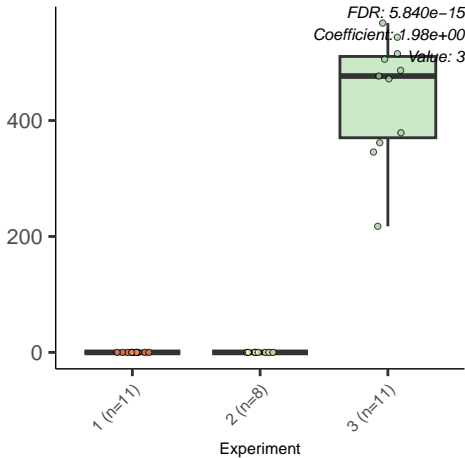






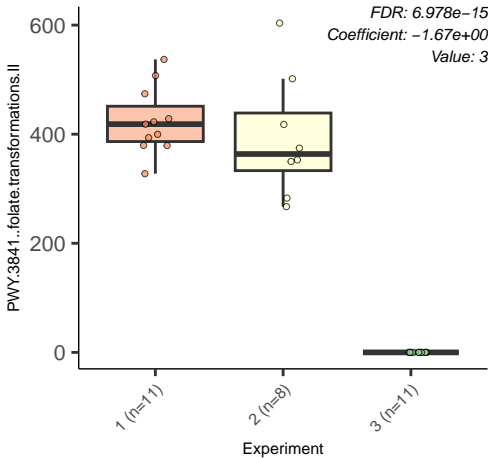


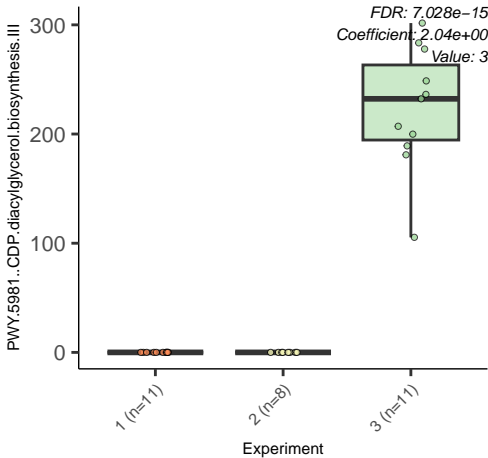
PWY.8178..pentose.phosphate.pathway..non.oxidative.branch



PWY.3841..folate.transformations.II

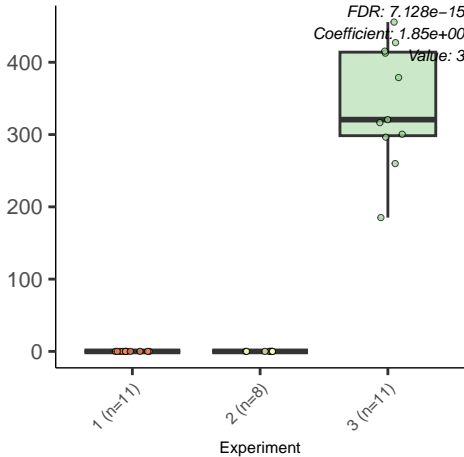
FDR: $6.978e-15$
Coefficient: $-1.67e+00$
Value: 3





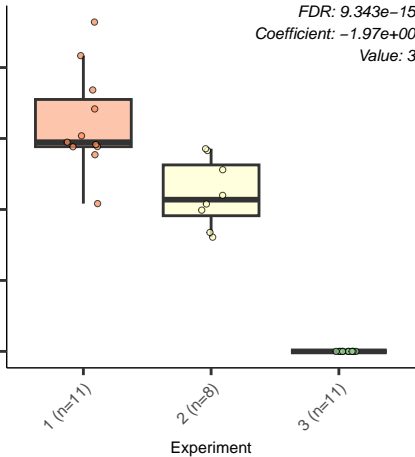
COA.PWY.1..superpathway.of.coenzyme.A.biosynthesis.III..ma

FDR: 7.128e-15
Coefficient: 1.85e+00
Value: 3



PWY.6700..queuosine.biosynthesis

FDR: 9.343e-15
Coefficient: -1.97e+00
Value: 3



PANTOSYN.PWY..pantothenate.and.coenzyme.A.biosynthe

FDR: 9.860e-15
Coefficient: -1.81e+00
Value: 3

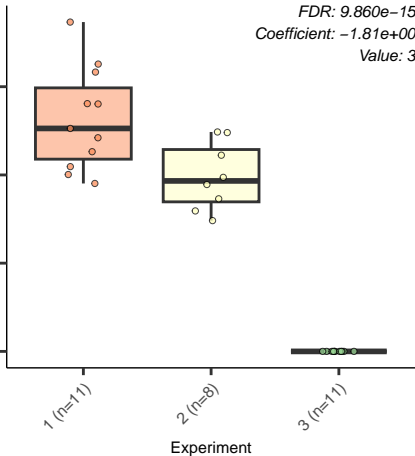
300
200
100
0

1 (n=11)

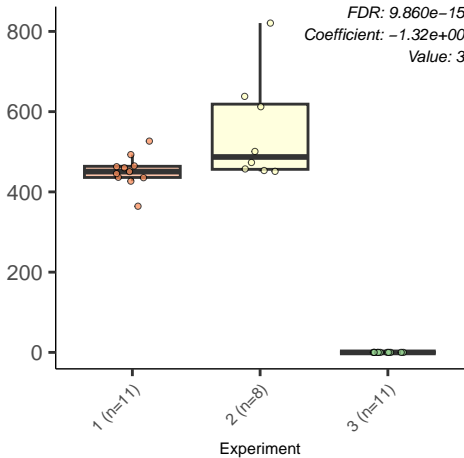
2 (n=8)

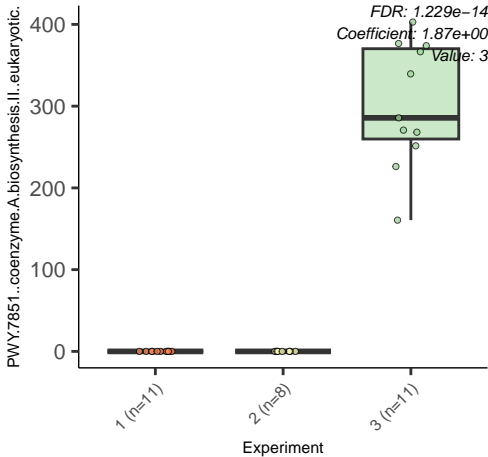
3 (n=11)

Experiment

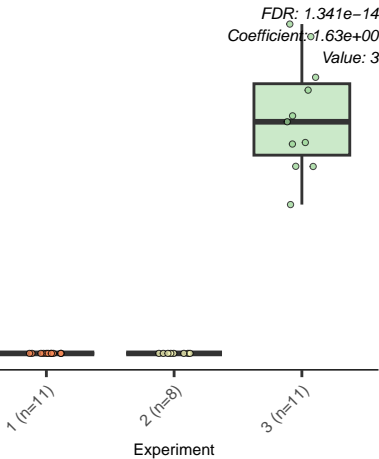


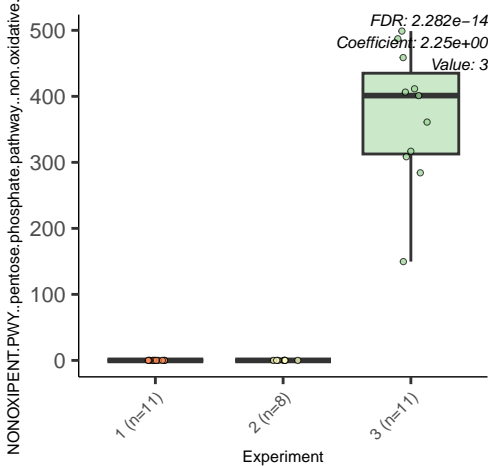
FDR: 9.860e-15
Coefficient: -1.32e+00
Value: 3

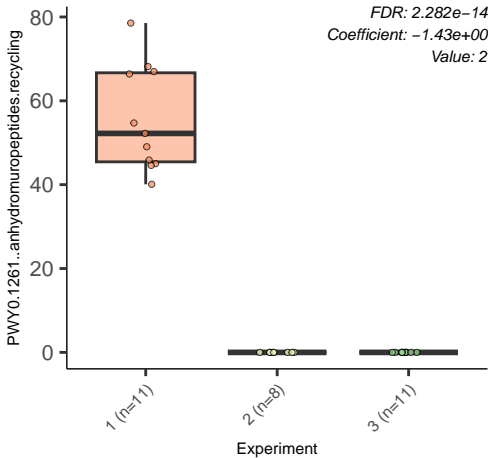




DTDPRHAMSYN.PWY..dTDP..beta..L.rhamnose.biosynthe

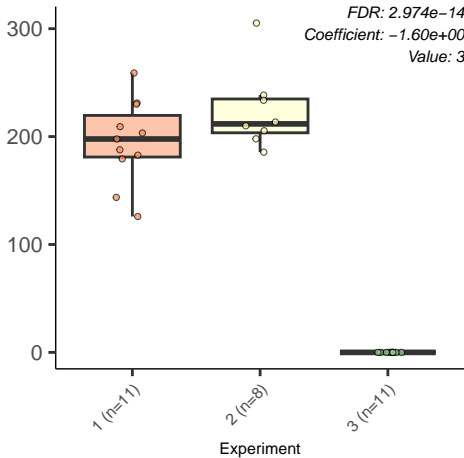






PWY66.422...D.galactose.degradation.V..Leloir.pathway

FDR: 2.974e-14
Coefficient: -1.60e+00
Value: 3



PWY.1042..glycolysis.IV..plant.cytosol.

FDR: 3.464e-14
Coefficient: -1.27e+00
Value: 3

600

400

200

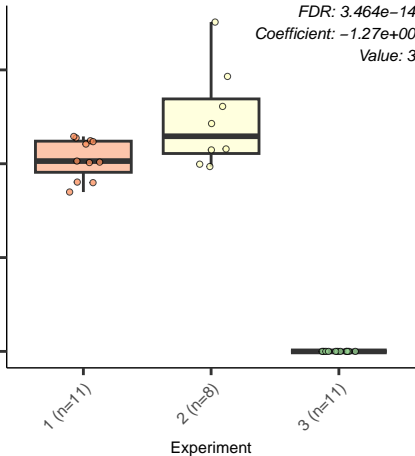
0

1 (n=11)

2 (n=8)

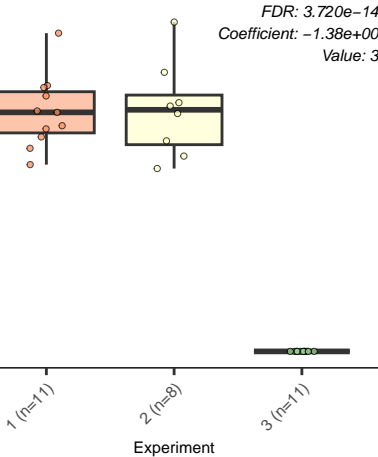
3 (n=11)

Experiment



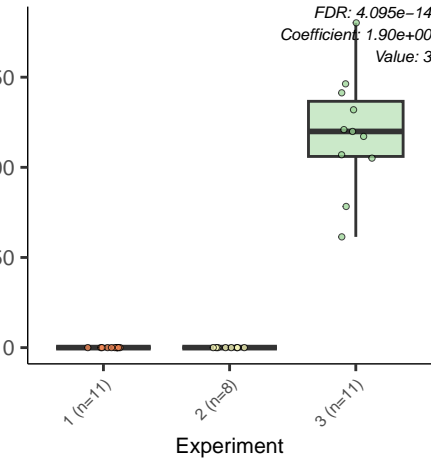
COA.PWY.1..coenzyme.A.biosynthesis.ll...mammalian.

FDR: 3.720e-14
Coefficient: -1.38e+00
Value: 3



PWY.1042..glycolysis.IV

FDR: $4.095e-14$
Coefficient: $1.90e+00$
Value: 3



PYRIDNUCSYN.PWY..NAD.biosynthesis.l..from.aspartat

FDR: $6.333\text{e-}14$
Coefficient: $-1.89\text{e}+00$
Value: 3

200

100

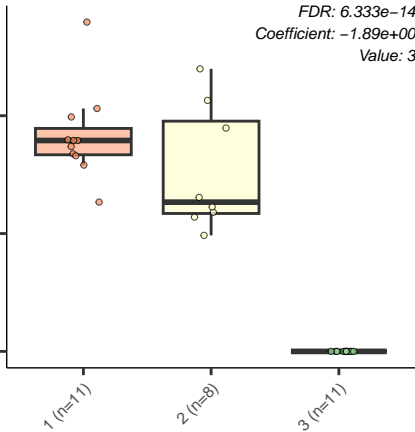
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY3841..folate.transformations.II...plants.

FDR: 8.330e-14
Coefficient: 1.50e+00
Value: 3

750

500

250

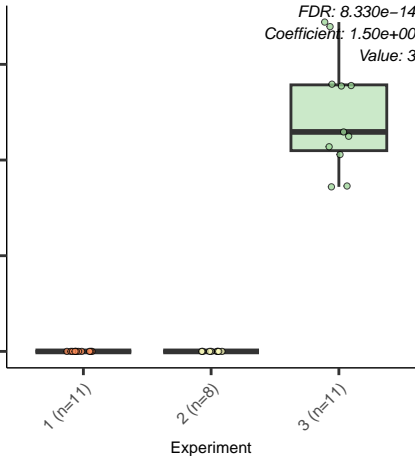
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.6317..galactose.degradation.l..Leloir.pathway.

FDR: 1.661e-13
Coefficient: -1.61e+00
Value: 3

200

100

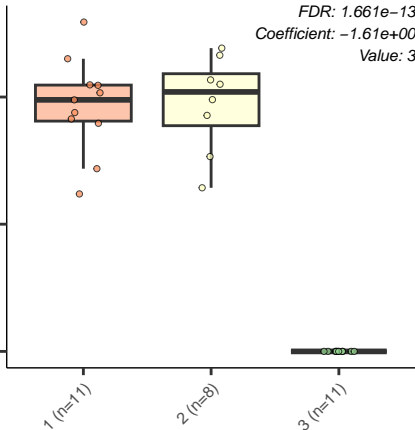
0

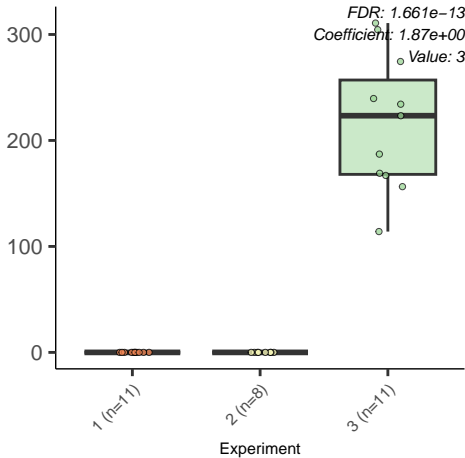
1 (n=11)

2 (n=8)

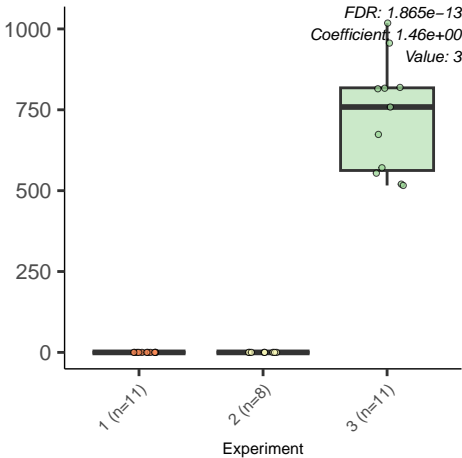
3 (n=11)

Experiment



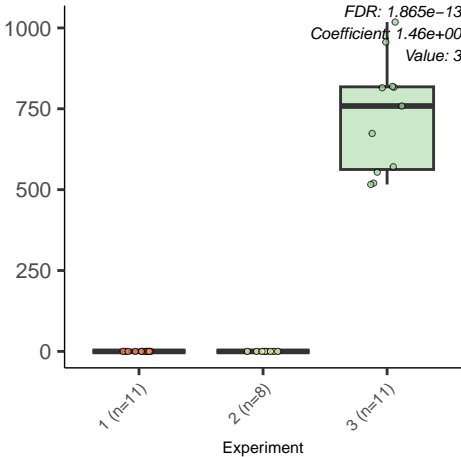


PWY.5686..UMP.biosynthesis.I



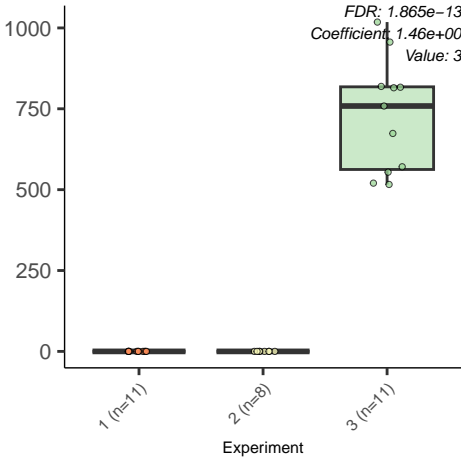
PWY.7790..UMP.biosynthesis.II

FDR: 1.865e-13
Coefficient: 1.46e+00
Value: 3



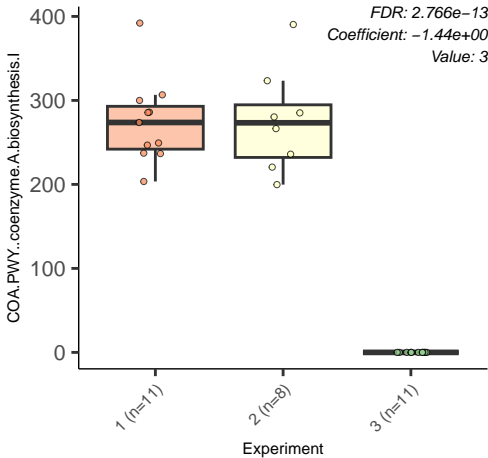
PWY.7791..UMP.biosynthesis.III

FDR: 1.865e-13
Coefficient: 1.46e+00
Value: 3



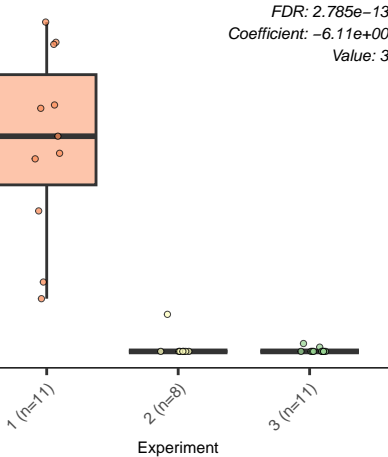
COA.PWY..coenzyme.A.biosynthesis.l

FDR: 2.766e-13
Coefficient: -1.44e+00
Value: 3



PWY4FS.7..phosphatidylglycerol.biosynthesis.l..plastidic

FDR: 2.785e-13
Coefficient: -6.11e+00
Value: 3



PWY4FS.8..phosphatidylglycerol.biosynthesis.II..non.plasti

FDR: 2.785e-13
Coefficient: -6.11e+00
Value: 3

40

20

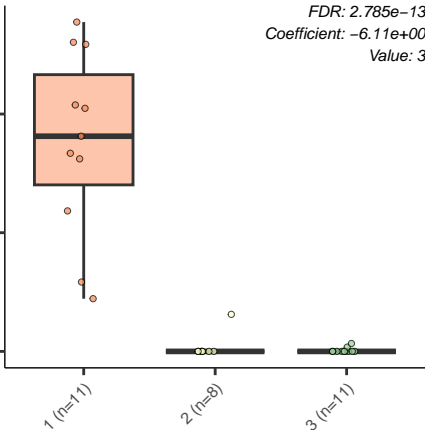
0

1 (n=11)

2 (n=8)

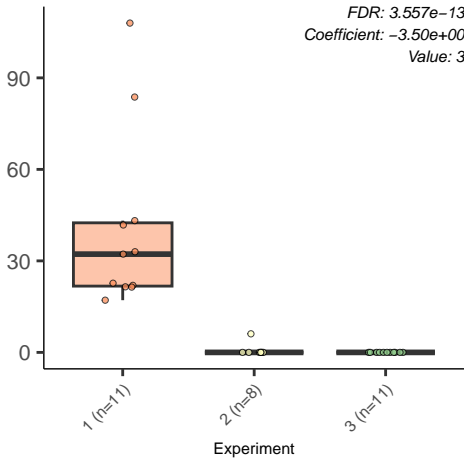
3 (n=11)

Experiment



WY.7539..6.hydroxymethyl.dihydropterin.diphosphate.biosynthesis.

FDR: $3.557e-13$
Coefficient: $-3.50e+00$
Value: 3



PWY.6737..starch.degradation.V

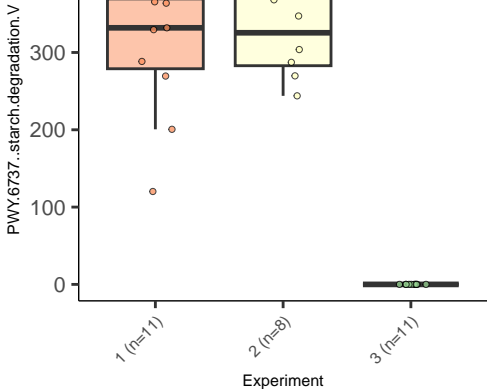
FDR: 3.961e-13
Coefficient: -2.31e+00
Value: 3

1 (n=11)

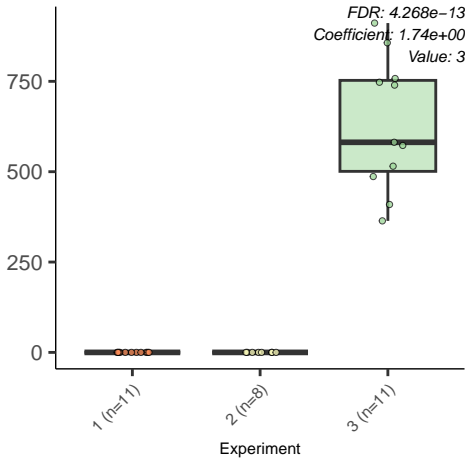
2 (n=8)

3 (n=11)

Experiment

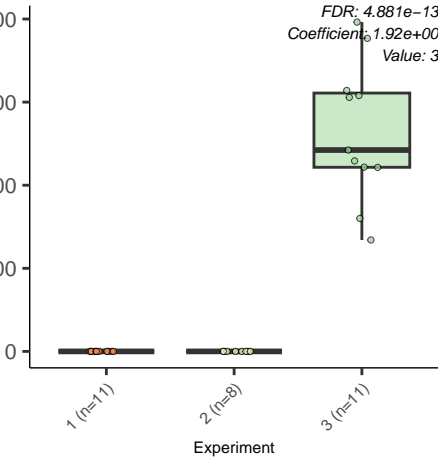


3.. UDP.N.acetyl/muramoyl.pentapeptide.biosynthesis.III... meso.diamin



PWY.5941..glycogen.degradation.II

FDR: 4.881e-13
Coefficient: 1.92e+00
Value: 3



PWY.7400..L-arginine.biosynthesis.IV..archaeobacteria.

FDR: 4.999e-13
Coefficient: -1.95e+00
Value: 3

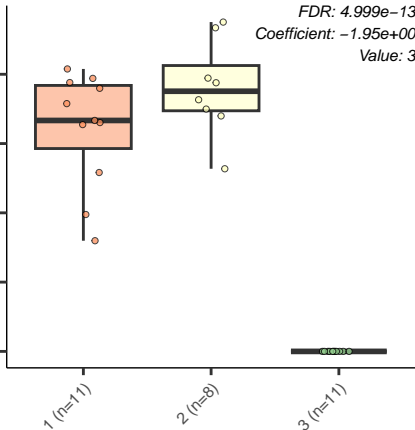
400
300
200
100
0

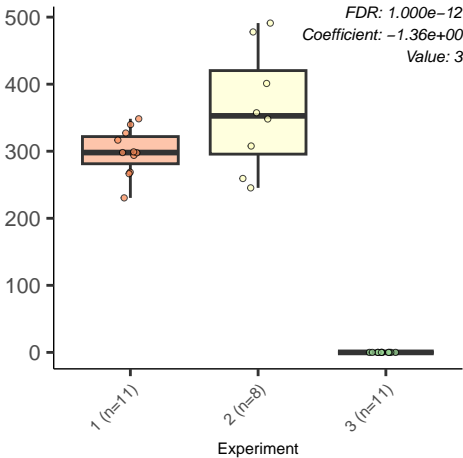
1 (n=11)

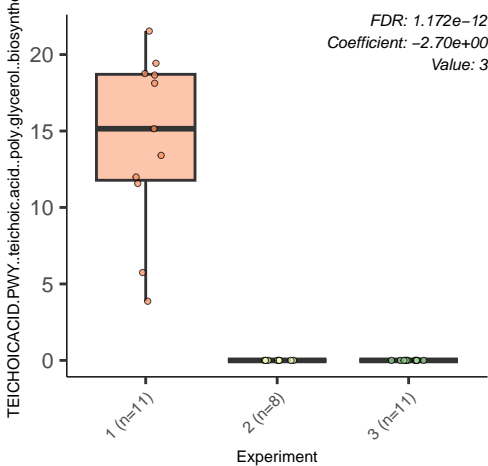
2 (n=8)

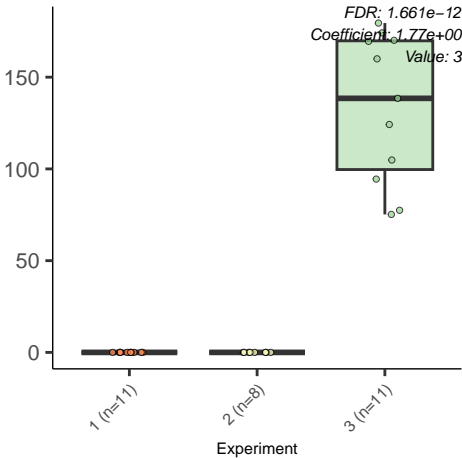
3 (n=11)

Experiment

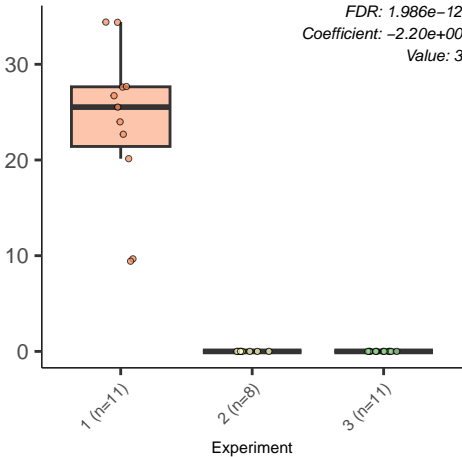








FDR: $1.986e-12$
 Coefficient: $-2.20e+00$
 Value: 3



GLUTORN.PWY..L.ornithine.biosynthesis

FDR: 2.012e-12
Coefficient: -2.46e+00
Value: 3

300

200

100

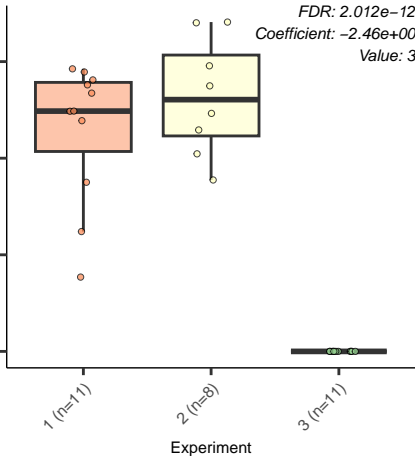
0

1 (n=11)

2 (n=8)

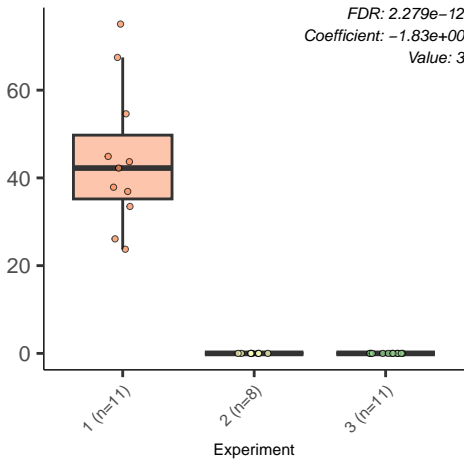
3 (n=11)

Experiment



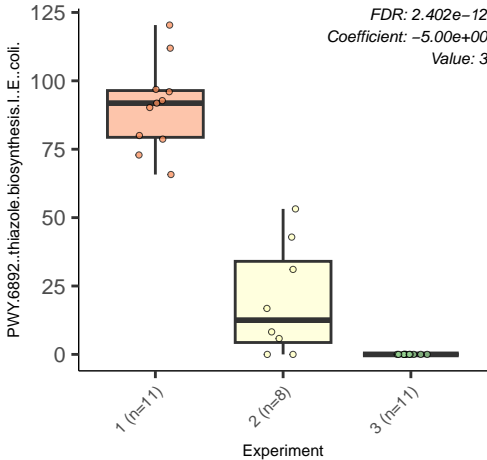
ARGININE.SYN4.PWY..L.ornithine.de.novo..biosynthesis

FDR: $2.279\text{e-}12$
Coefficient: $-1.83\text{e}+00$
Value: 3



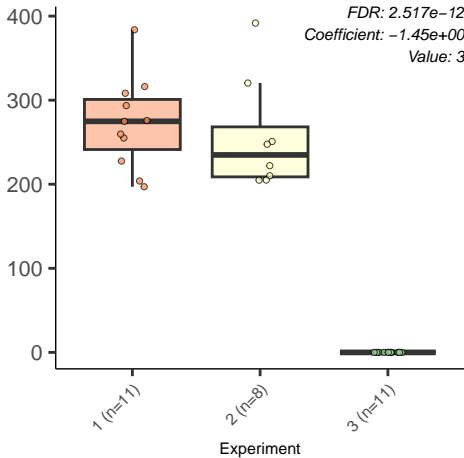
PWY.6892...thiazole.biosynthesis.l.E...coli.

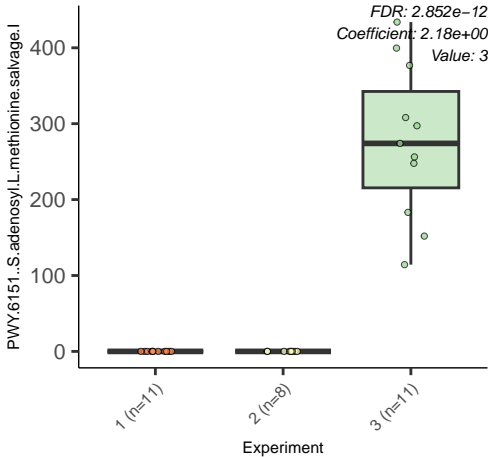
FDR: $2.402e-12$
Coefficient: $-5.00e+00$
Value: 3



PWY.4242..pantothenate.and.coenzyme.A.biosynthesis.s.

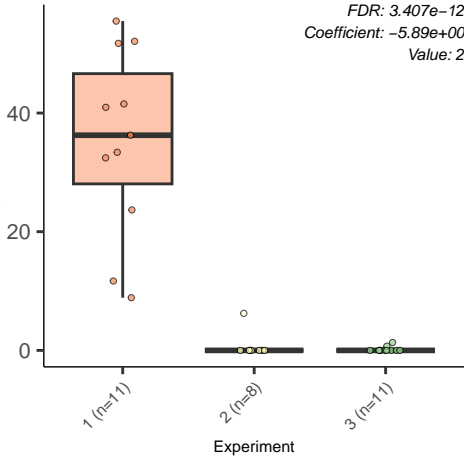
FDR: 2.517e-12
Coefficient: -1.45e+00
Value: 3





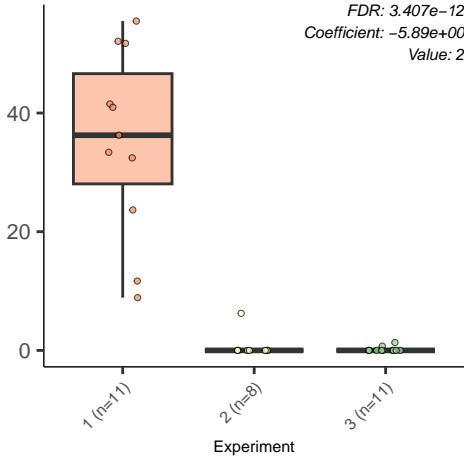
PWY4FS.7..phosphatidylglycerol.biosynthesis.l..plastidic

FDR: 3.407e-12
Coefficient: -5.89e+00
Value: 2



PWY4FS.8..phosphatidylglycerol.biosynthesis.II..non.plasti

FDR: 3.407e-12
Coefficient: -5.89e+00
Value: 2



GLUTORN.PWY..L.ornithine.biosynthesis.I

FDR: $4.038e-12$
Coefficient: $1.91e+00$
Value: 3

300

200

100

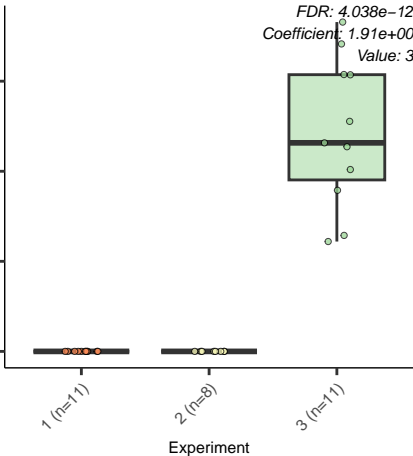
0

1 (n=11)

2 (n=8)

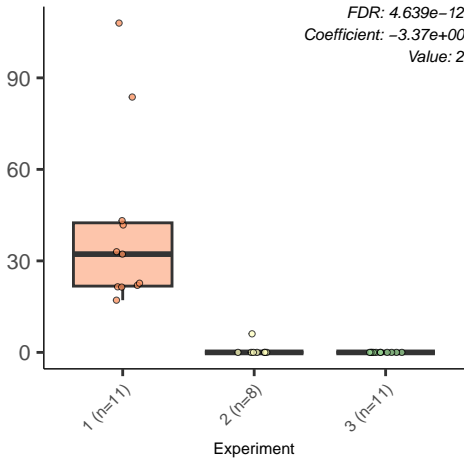
3 (n=11)

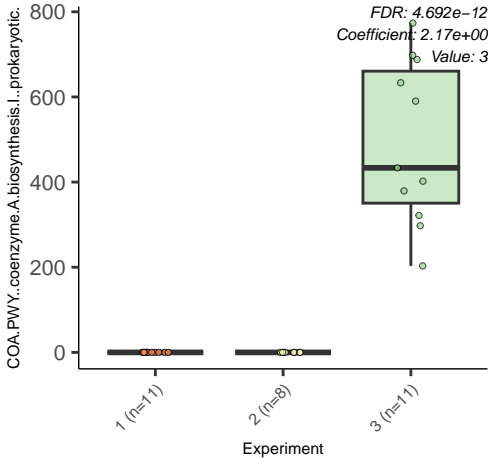
Experiment



WY.7539..6.hydroxymethyl.dihydropterin.diphosphate.biosynthesis.

FDR: 4.639e-12
Coefficient: -3.37e+00
Value: 2





PWY.5265..peptidoglycan.biosynthesis.II..staphylococci

FDR: 4.800e-12
Coefficient: 2.85e+00
Value: 3

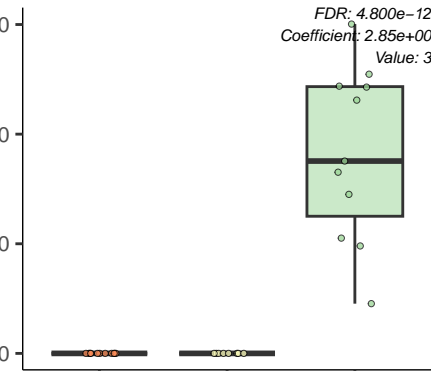
300
200
100
0

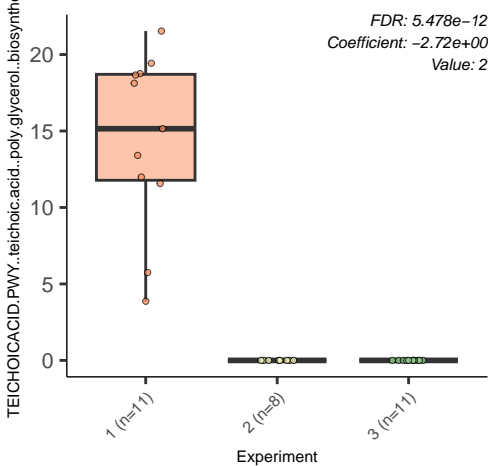
1 (n=11)

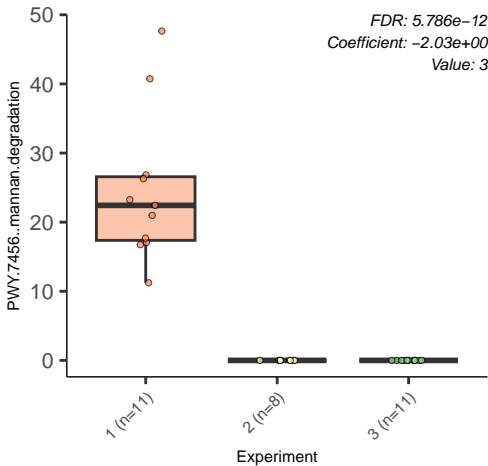
2 (n=8)

3 (n=11)

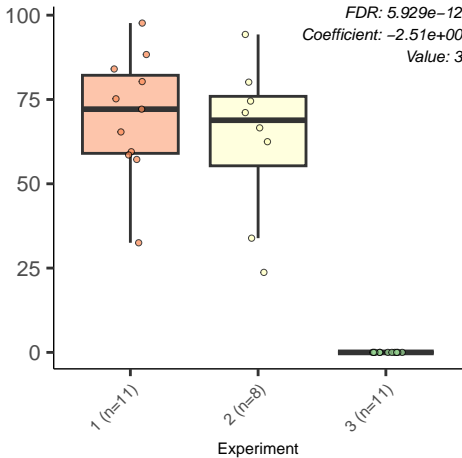
Experiment



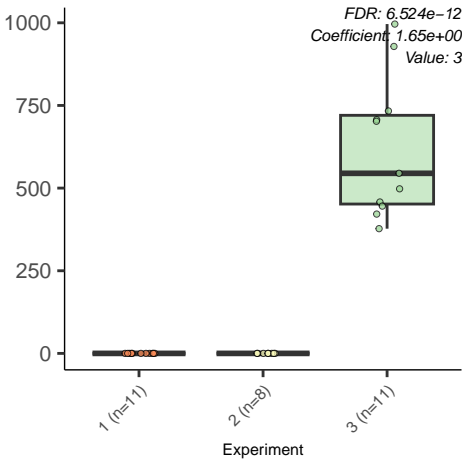




PWY.4981..L.proline.biosynthesis.II..from.arginine.



CHED.CHAIN.AA.SYN.PWY..superpathway.of.branched.chain.amin



P41.PWY..pyruvate.to.acetate.and..S..lactate

FDR: 6.746×10^{-12}
Coefficient: 1.61×10^0
Value: 3

300

200

100

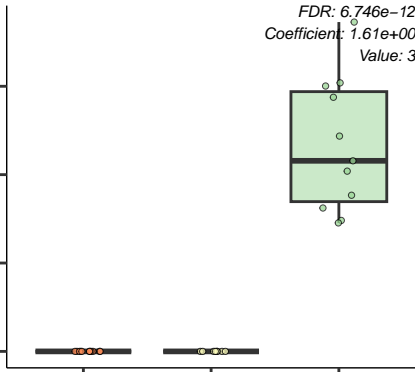
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.5695..urate.biosynthesis.inosine.5..phosphate.degrade

FDR: 7.526e-12
Coefficient: -1.53e+00
Value: 3

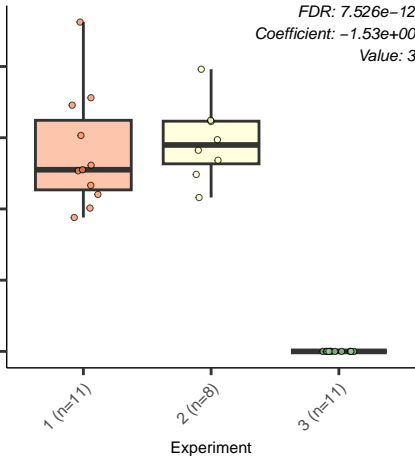
400
300
200
100
0

1 (n=11)

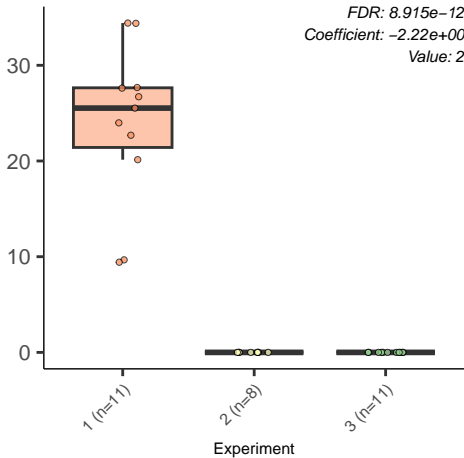
2 (n=8)

3 (n=11)

Experiment



FDR: $8.915e-12$
Coefficient: $-2.22e+00$
Value: 2



PWY.7238..sucrose.biosynthesis.II

FDR: 8.931e-12
Coefficient: 2.29e+00
Value: 3

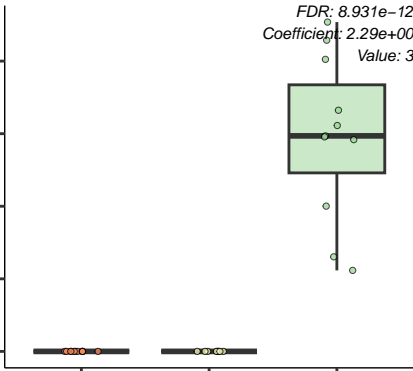
400
300
200
100
0

1 (n=11)

2 (n=8)

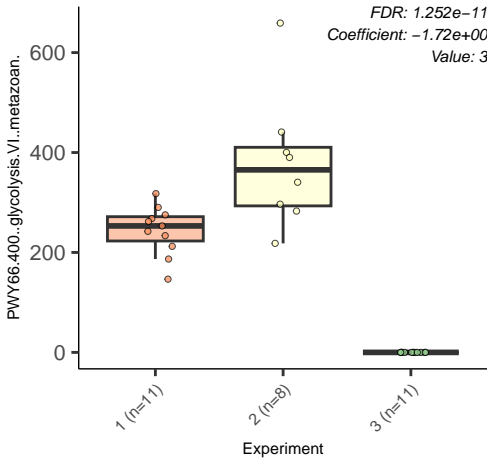
3 (n=11)

Experiment



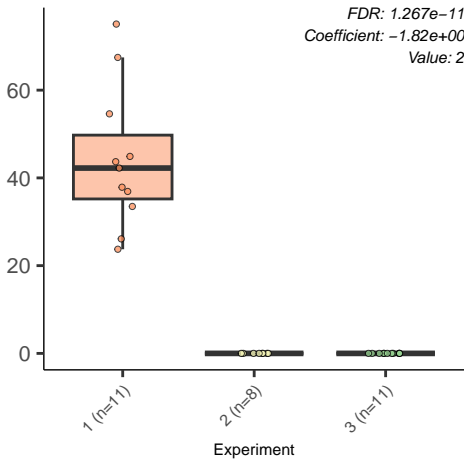
PWY66.400..glycolysis.Vl..metazoan.

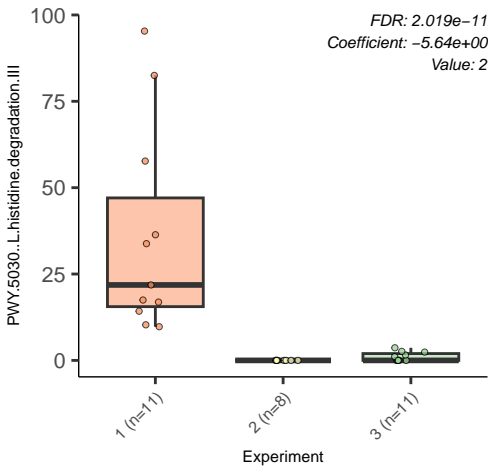
FDR: 1.252×10^{-11}
Coefficient: -1.72×10^0
Value: 3



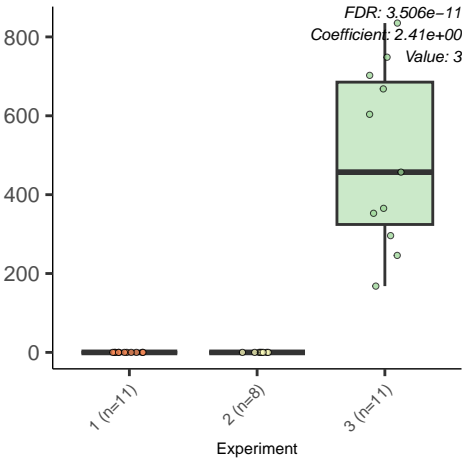
ARGININE.SYN4.PWY..L.ornithine.de.novo..biosynthesis

FDR: $1.267e-11$
Coefficient: $-1.82e+00$
Value: 2



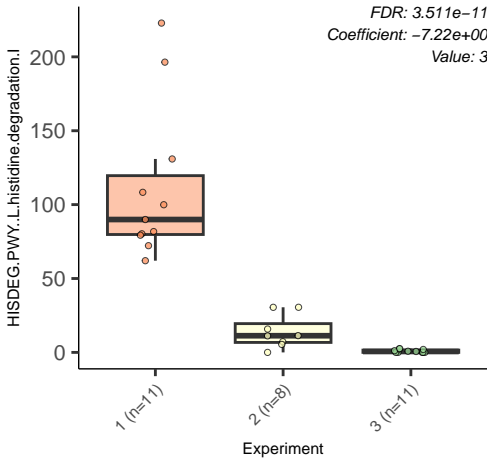


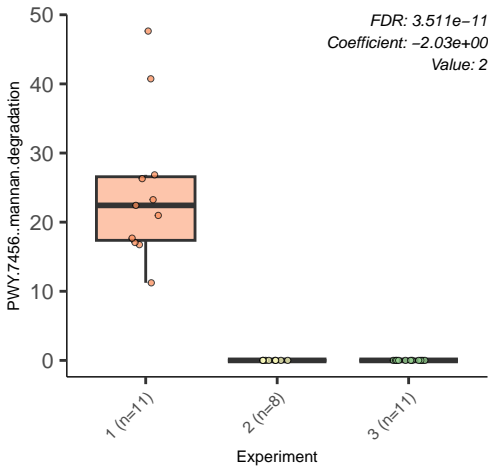
PANTOSYN.PWY..superpathway.of.coenzyme.A.biosynthesis.I..



HISDEG.PWY..L.histidine.degradation.I

FDR: 3.511e-11
Coefficient: -7.22e+00
Value: 3





PWY.6700..queuosine.biosynthesis.l..de.novo.

FDR: 3.693e-11
Coefficient: 1.96e+00
Value: 3

750

500

250

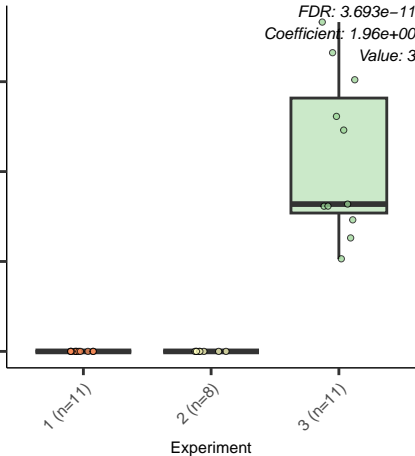
0

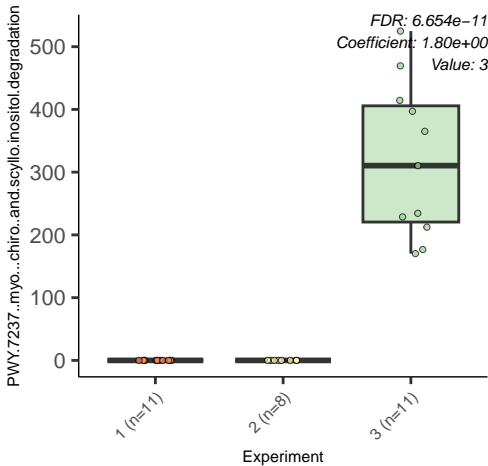
1 (n=11)

2 (n=8)

3 (n=11)

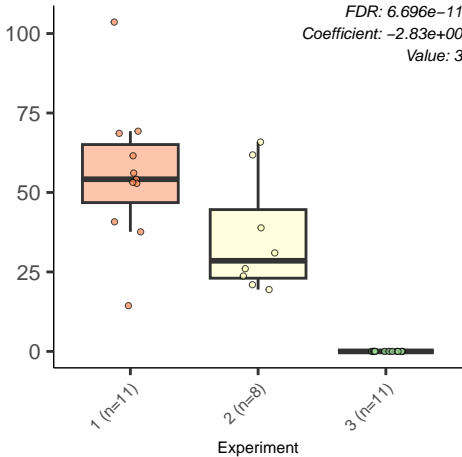
Experiment

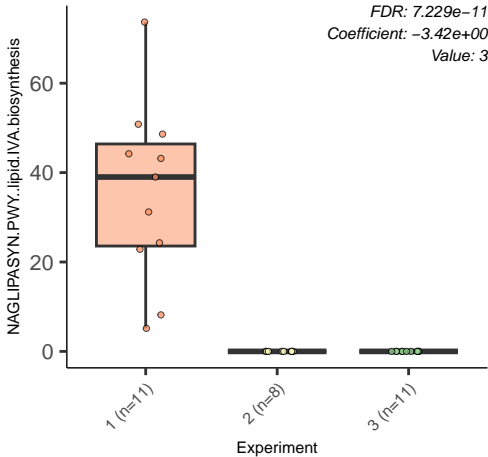




TRPSYN.PWY..L tryptophan.biosynthesis

FDR: 6.696e-11
Coefficient: -2.83e+00
Value: 3





X1CMET2.PWY..folate.transformations.III..E..coli.

FDR: $7.436e-11$
Coefficient: $2.11e+00$
Value: 3

600

400

200

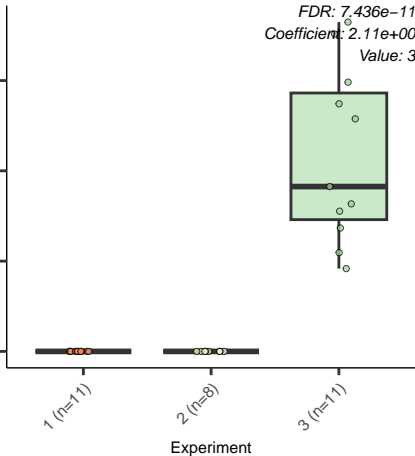
0

1 (n=11)

2 (n=8)

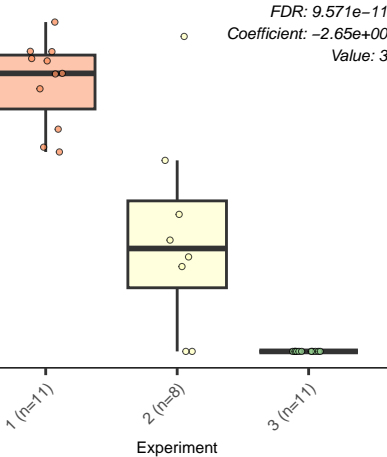
3 (n=11)

Experiment



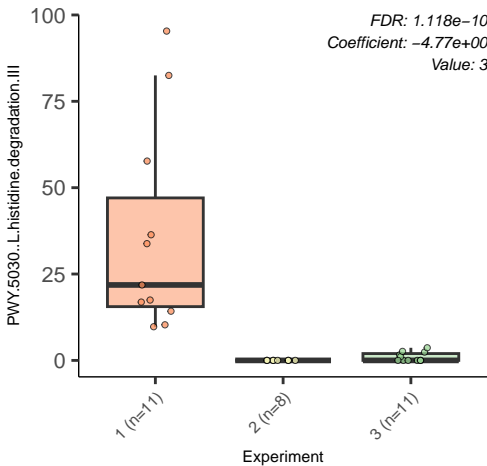
PWY.1269..CMP.3.deoxy.D.manno.octulosonate.biosynthe

FDR: $9.571e-11$
Coefficient: $-2.65e+00$
Value: 3

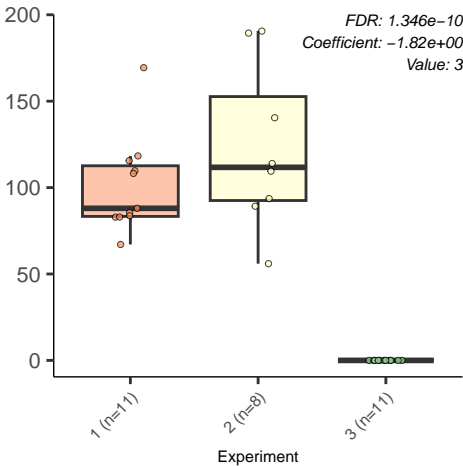


PWY.5030..L.histidine.degradation.III

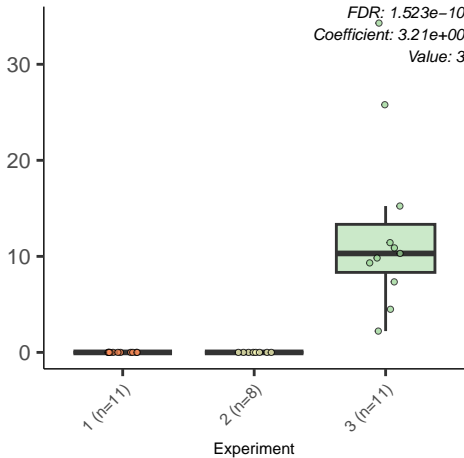
FDR: 1.118e-10
Coefficient: -4.77e+00
Value: 3



PWY.6168..flavin.biosynthesis.III..fungi.

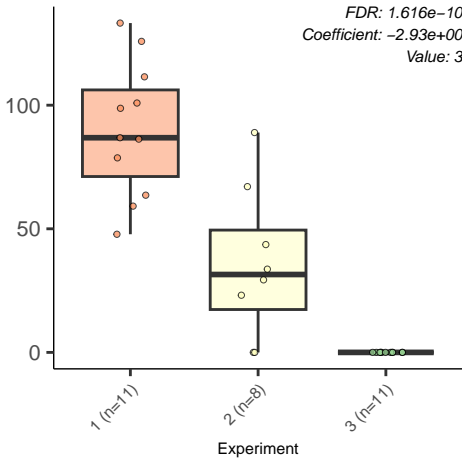


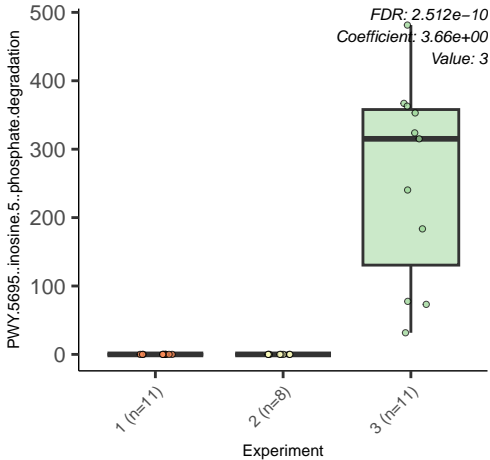
FDR: $1.523e-10$
Coefficient: $3.21e+00$
Value: 3

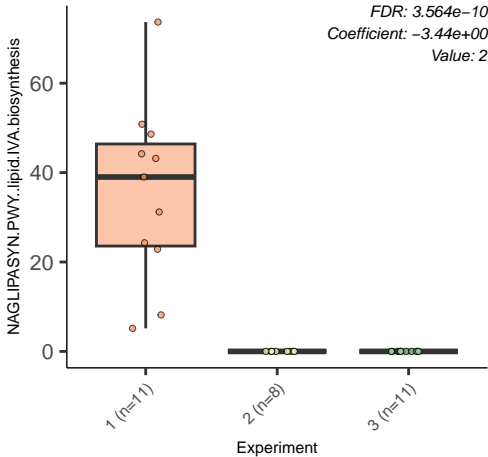


THISYN.PWY..superpathway.of.thiamin.diphosphate.biosynth

FDR: $1.616e-10$
Coefficient: $-2.93e+00$
Value: 3

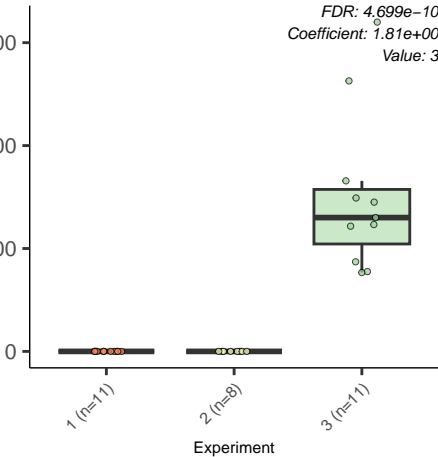






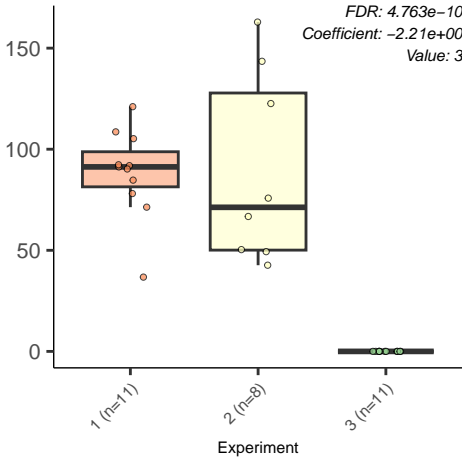
PWY.6823..molybdopterin.biosynthesis

FDR: 4.699e-10
Coefficient: 1.81e+00
Value: 3



NONOXIPENT.PWY..pentose.phosphate.pathway..non.oxidative

FDR: $4.763e-10$
Coefficient: $-2.21e+00$
Value: 3



PWY.5104..L.isoleucine.biosynthesis.IV

FDR: 5.258e-10
Coefficient: -1.54e+00
Value: 3

150

100

50

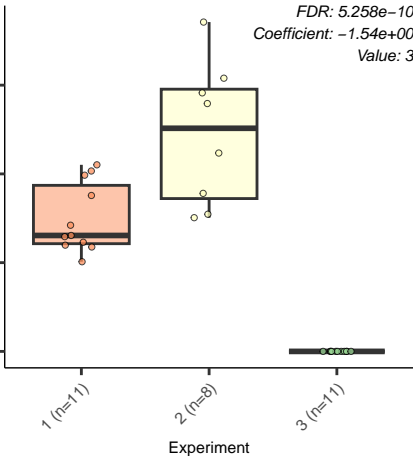
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.7977...L.methionine.biosynthesis.IV

FDR: $6.338e-10$
Coefficient: $2.38e+00$
Value: 3

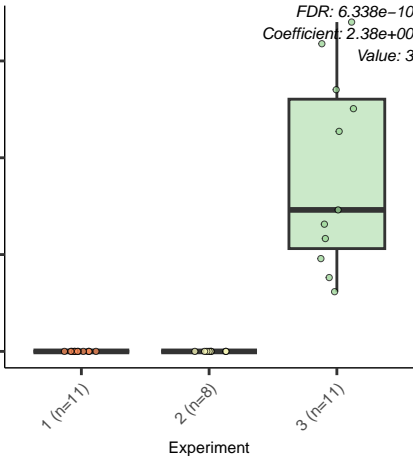
600
400
200
0

1 (n=11)

2 (n=8)

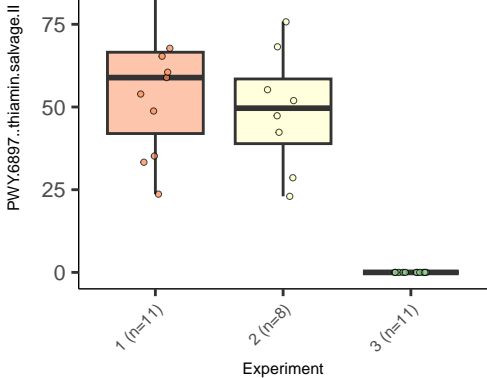
3 (n=11)

Experiment



PWY.6897..thiamin.salvage.II

FDR: 6.676×10^{-10}
Coefficient: -2.21×10^0
Value: 3



PWY.6270..isoprene.biosynthesis.I

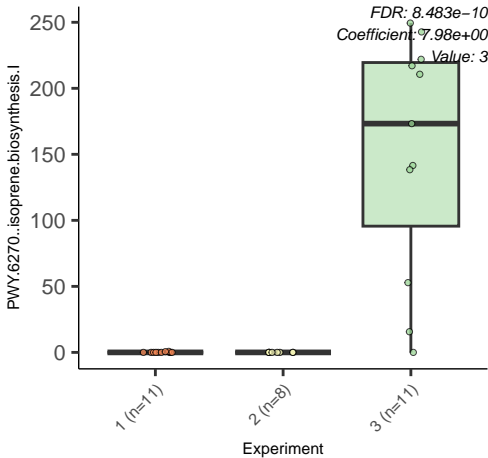
FDR: $8.483e-10$
Coefficient: $7.98e+00$
Value: 3

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.7560...methylerythritol.phosphate.pathway.II

FDR: 8.789×10^{-10}
Coefficient: 8.04×10^0
Value: 3

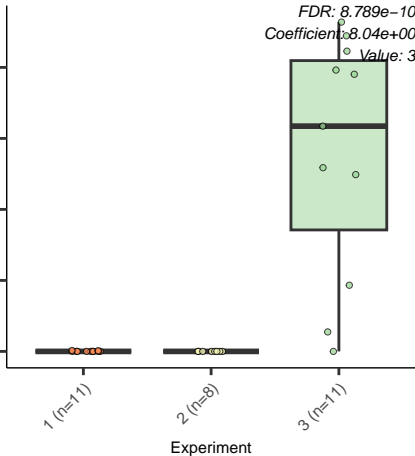
200
150
100
50
0

1 (n=11)

2 (n=8)

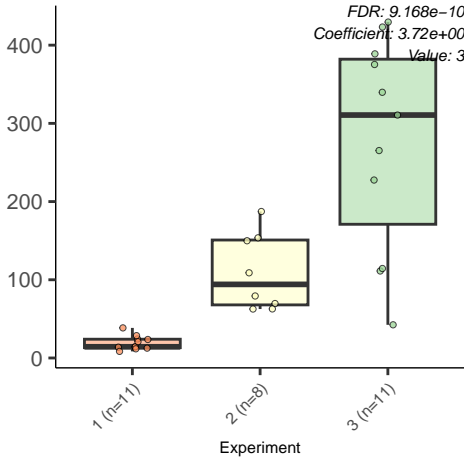
3 (n=11)

Experiment



PWY.7234..inosine.5..phosphate.biosynthesis.III

FDR: $9.168e-10$
Coefficient: $3.72e+00$
Value: 3



PWY.19..L.cysteine.biosynthesis.VI...from.L.methionine.

FDR: $9.904e-10$
Coefficient: $3.60e+00$
Value: 3

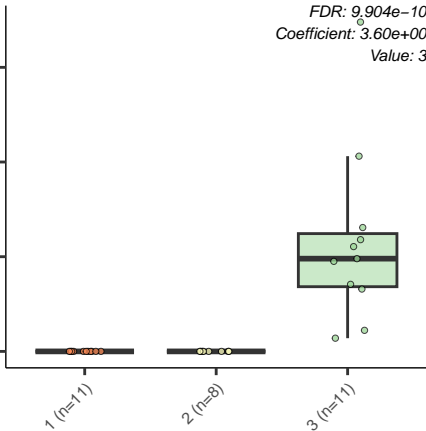
60
40
20
0

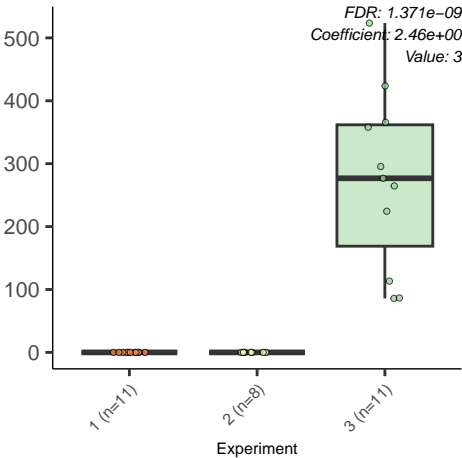
1 (n=11)

2 (n=8)

3 (n=11)

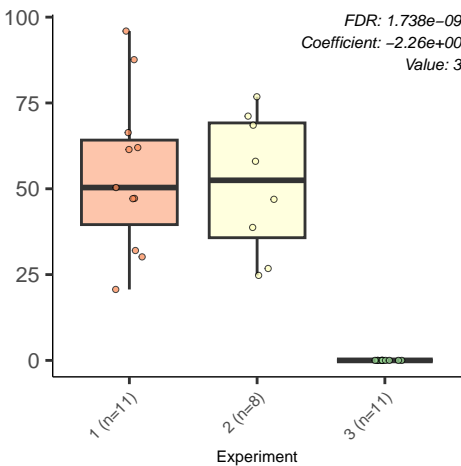
Experiment





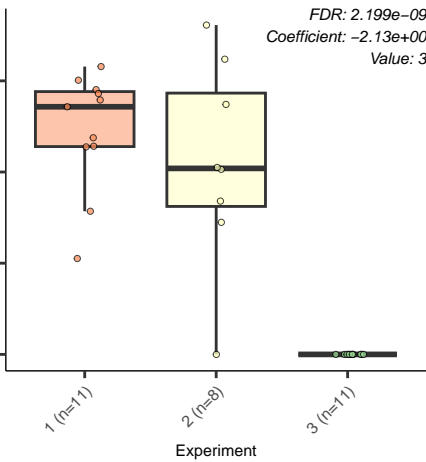
PWY.7357 ..thiamin,formation..from.pyrithiamine.and.oxythiamine

FDR: 1.738e-09
Coefficient: -2.26e+00
Value: 3



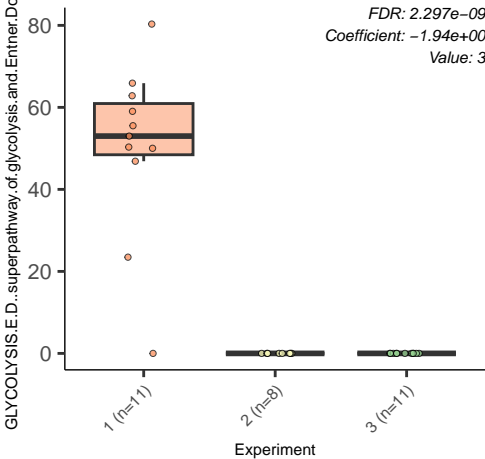
PWY.7237..myo...chiro..and.scillo.inositol.degradation

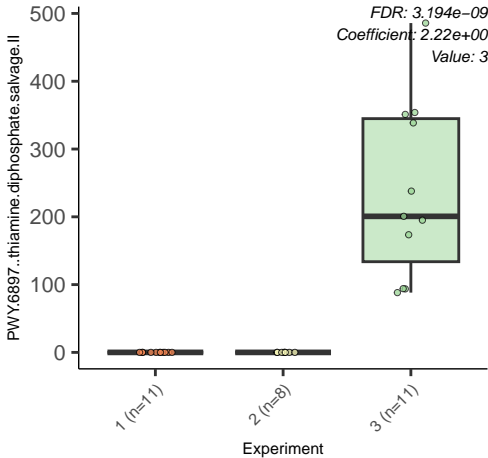
FDR: 2.199e-09
Coefficient: -2.13e+00
Value: 3



GLYCOLYSIS.E.D..superpathway.of.glycolysis.and.Entner.Dol

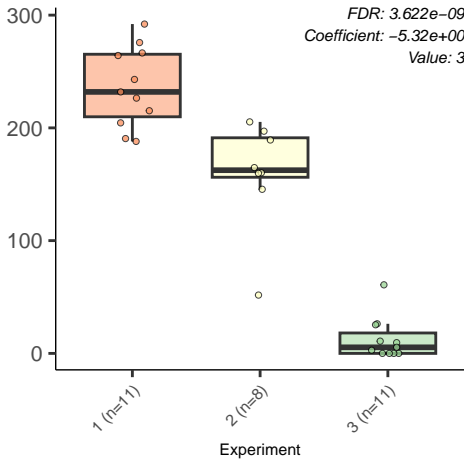
FDR: $2.297\text{e-}09$
Coefficient: $-1.94\text{e}+00$
Value: 3



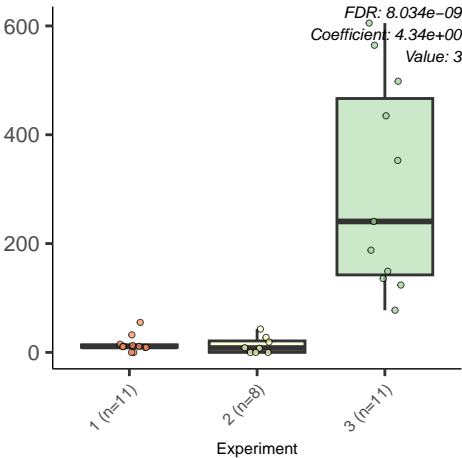


RIBOSYN2.PWY..flavin.biosynthesis.l..bacteria.and.plant

FDR: 3.622e-09
Coefficient: -5.32e+00
Value: 3

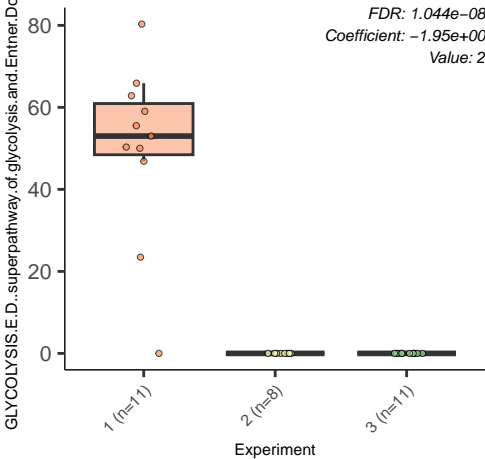


PWY0.1241..ADP.L.glycero..beta..D.manno.heptose.biosynt



GLYCOLYSIS.E.D..superpathway.of.glycolysis.and.Entner.D...

FDR: $1.044\text{e-}08$
Coefficient: $-1.95\text{e}+00$
Value: 2



PWY0.1479..tRNA.processing

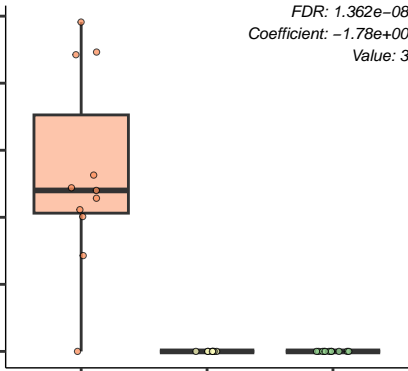
FDR: 1.362e-08
Coefficient: -1.78e+00
Value: 3

1 (n=11)

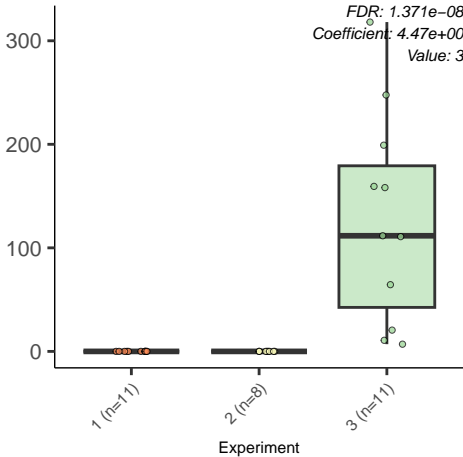
2 (n=8)

3 (n=11)

Experiment



FDR: $1.371e-08$
Coefficient: $4.47e+00$
Value: 3



PWY.5941..glycogen.degradation.II..eukaryotic.

FDR: 1.450e-08
Coefficient: -2.23e+00
Value: 3

40

20

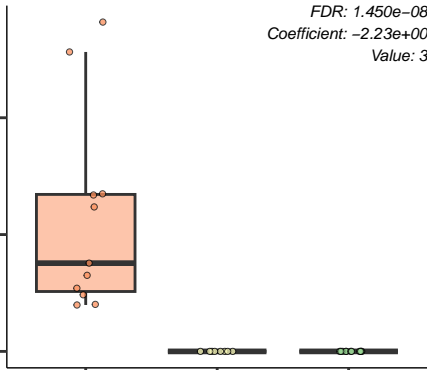
0

1 (n=11)

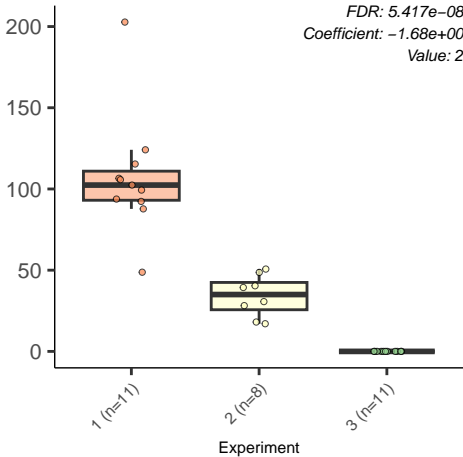
2 (n=8)

3 (n=11)

Experiment



FDR: $5.417e-08$
Coefficient: $-1.68e+00$
Value: 2



PWY66.409...superpathway.of.purine.nucleotide.salvage

FDR: 5.600e-08
Coefficient: 5.42e+00
Value: 3

300

200

100

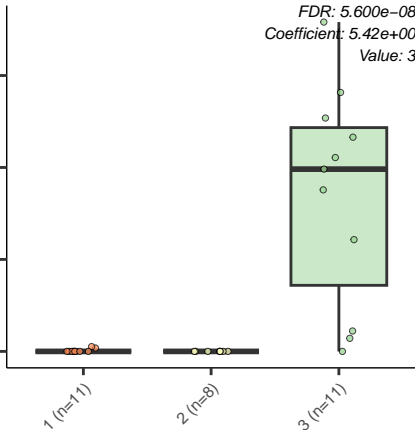
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.6124..inosine.5..phosphate.biosynthesis.II

FDR: 6.342e-08
Coefficient: 1.55e+00
Value: 3

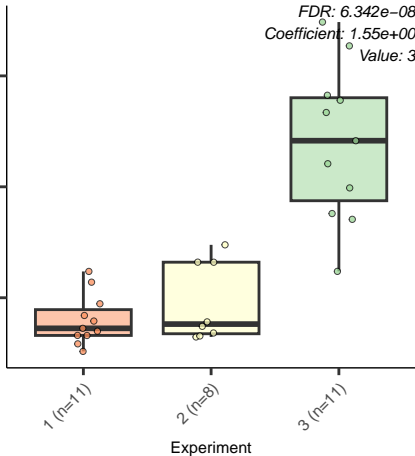
750
500
250

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.6123..inosine.5..phosphate.biosynthesis.I

FDR: $6.510e-08$
Coefficient: $1.46e+00$
Value: 3

750

500

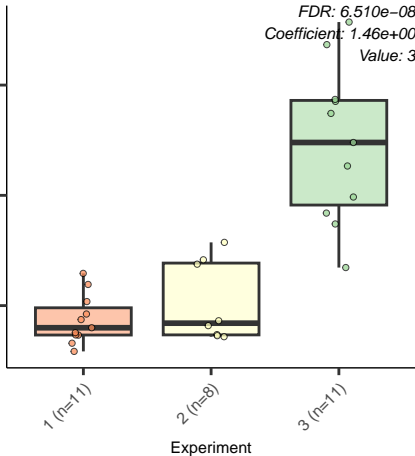
250

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.6749..CMP legionamine.biosynthesis.I

FDR: 6.513e-08
Coefficient: -1.50e+00
Value: 3

15

10

5

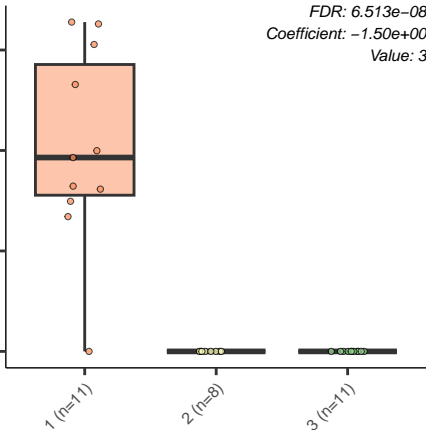
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY0.1479..tRNA.processing

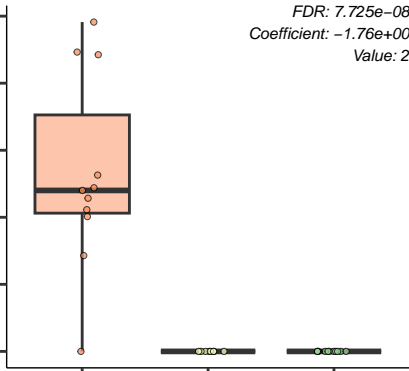
FDR: 7.725e-08
Coefficient: -1.76e+00
Value: 2

1 (n=11)

2 (n=8)

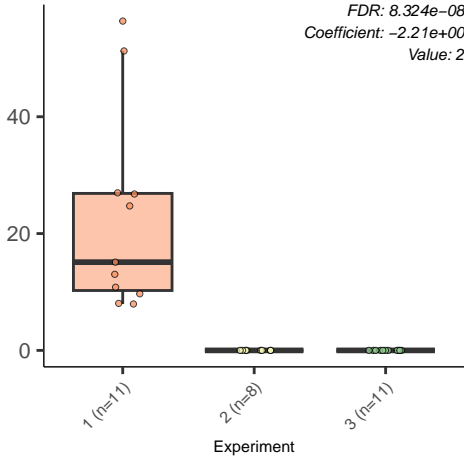
3 (n=11)

Experiment

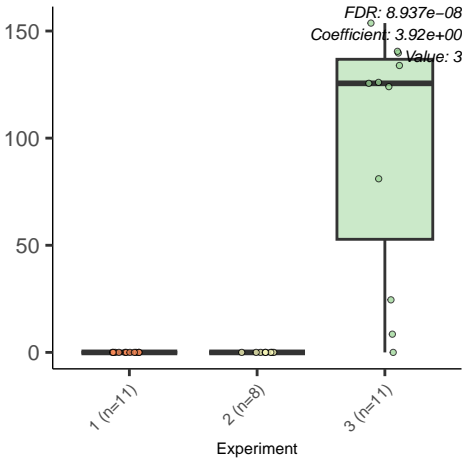


PWY.5941..glycogen.degradation.II..eukaryotic.

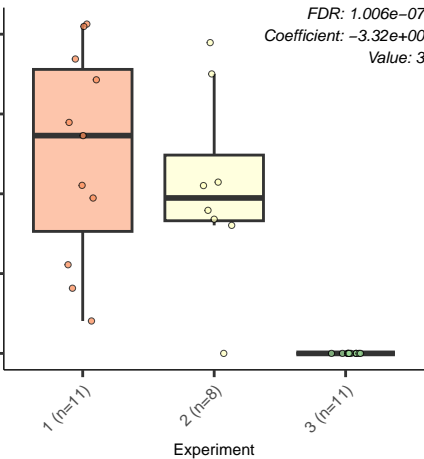
FDR: 8.324e-08
Coefficient: -2.21e+00
Value: 2



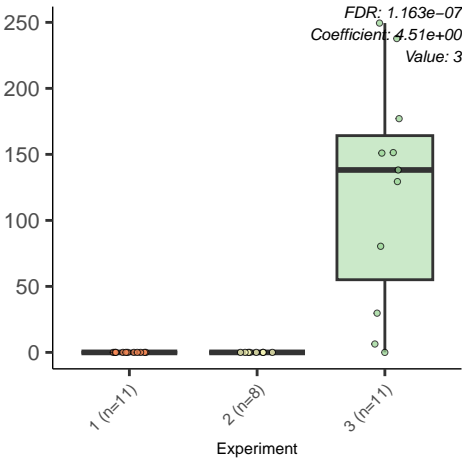
PWY.5121..superpathway.of.geranylgeranyl.diphosphate.biosynthesis



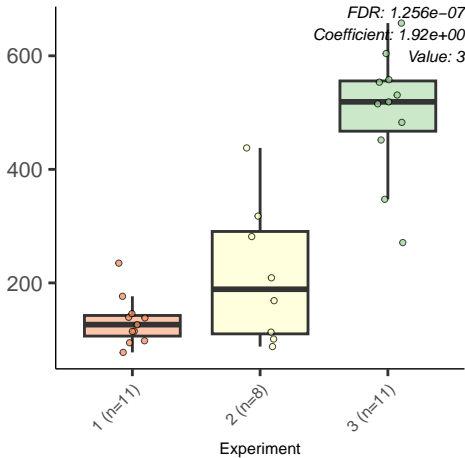
FDR: $1.006\text{e-}07$
Coefficient: $-3.32\text{e}+00$
Value: 3



PWY.6292...superpathway.of.L.cysteine.biosynthesis..mammm



GLYCOGENSYNTH.PWY..glycogen.biosynthesis.l..from.ADP.D.



PWYG.321..mycolate.biosynthesis

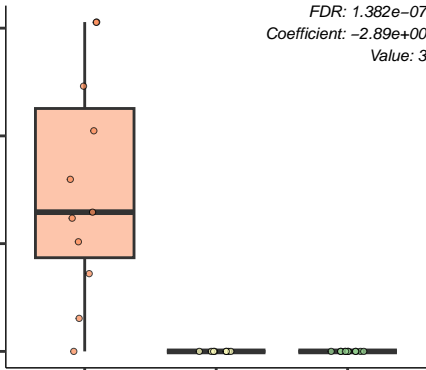
FDR: 1.382e-07
Coefficient: -2.89e+00
Value: 3

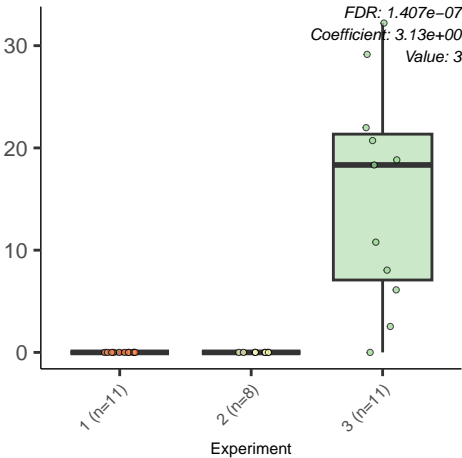
1 (n=11)

2 (n=8)

3 (n=11)

Experiment





PWY0.862...5Z...dodec.5.enoate.5.biosynthesis

FDR: $1.407\text{e-}07$
Coefficient: $-2.91\text{e}+00$
Value: 3

10

5

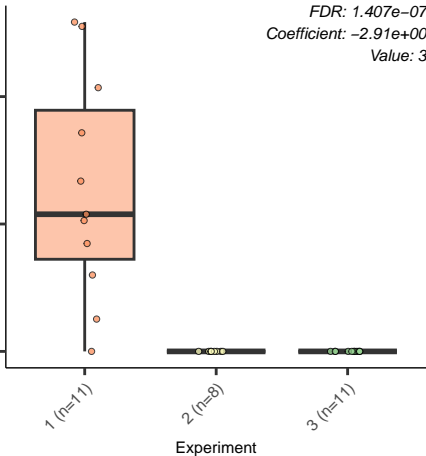
0

1 (n=11)

2 (n=8)

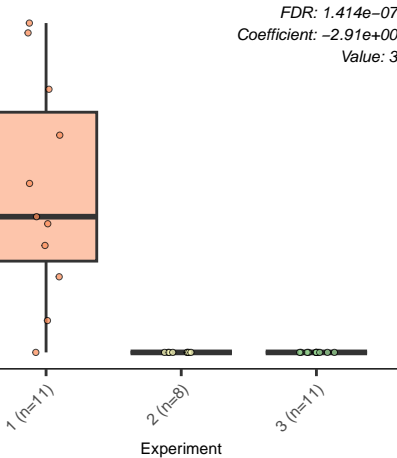
3 (n=11)

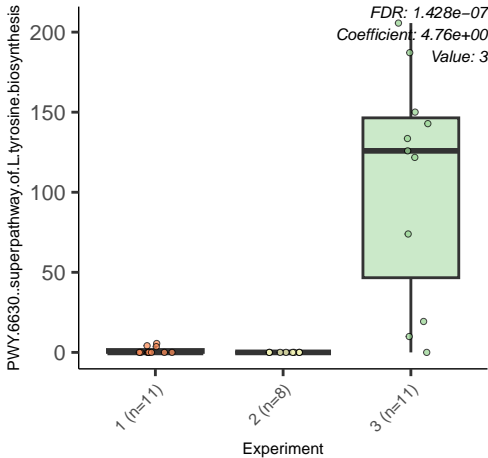
Experiment



FASYN.INITIAL.PWY..superpathway.of.fatty.acid.biosynthesis.initial

FDR: $1.414\text{e-}07$
Coefficient: $-2.91\text{e}+00$
Value: 3





PWY.6902..chitin.degradation.II..Vibrio.

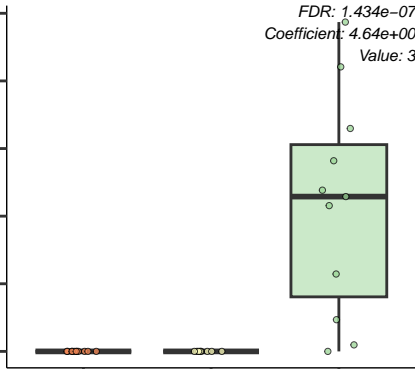
FDR: 1.434e-07
Coefficient: 4.64e+00
Value: 3

1 (n=11)

2 (n=8)

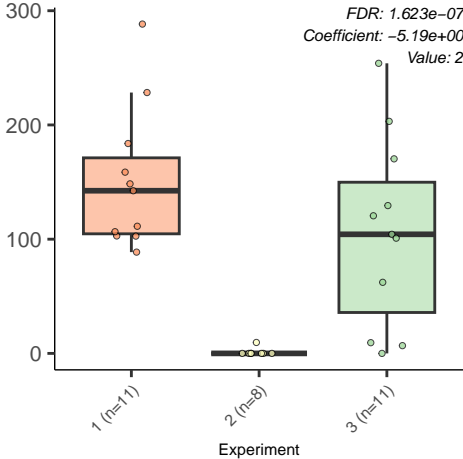
3 (n=11)

Experiment

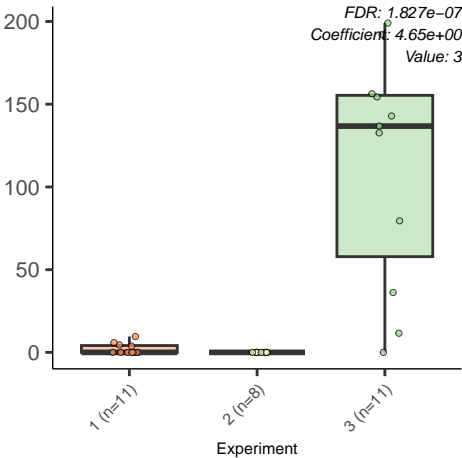


PWY.7208..superpathway.of.pyrimidine.nucleobases.salva

FDR: 1.623e-07
Coefficient: -5.19e+00
Value: 2



PWY.6628..superpathway.of.L..phenylalanine.biosynthes



PWY.5367..petroselinate.biosynthesis

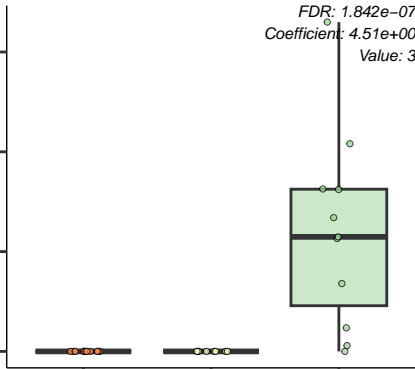
FDR: 1.842e-07
Coefficient: 4.51e+00
Value: 3

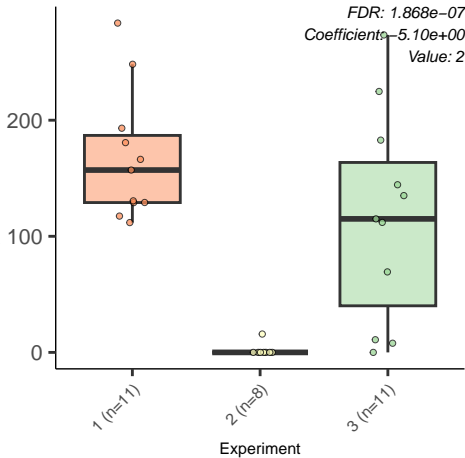
1 (n=11)

2 (n=8)

3 (n=11)

Experiment





FDR: 1.868e-07
Coefficient: 4.71e+00
Value: 3

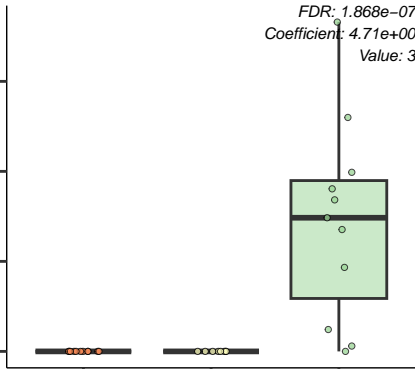
300
200
100
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.6936..seleno.amino.acid.biosynthesis..plants.

FDR: 1.938e-07
Coefficient: 4.49e+00
Value: 3

200

100

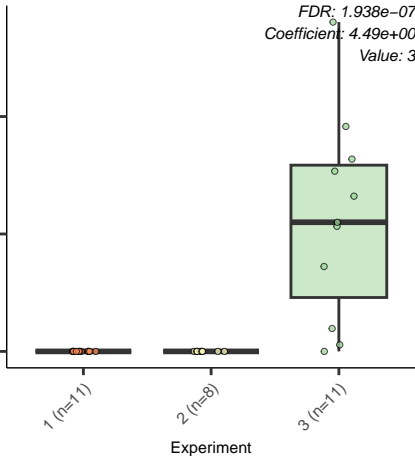
0

1 (n=11)

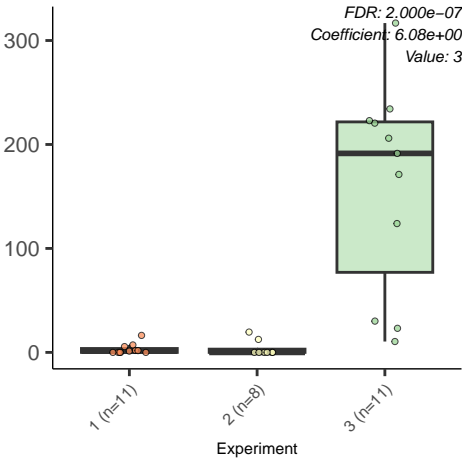
2 (n=8)

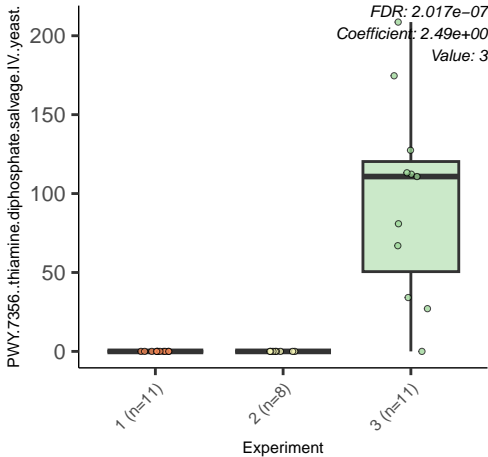
3 (n=11)

Experiment



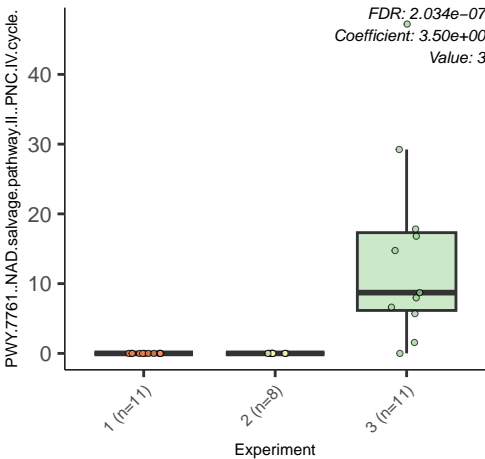
PWY0.1297..superpathway.of.purine.deoxyribonucleosides.deg





PWY.7761..NAD.salvage.pathway.II..PNC.IV.cycle.

FDR: 2.034e-07
Coefficient: 3.50e+00
Value: 3



PWY.6859..all.trans.farnesol.biosynthesis

FDR: 2.235e-07
Coefficient: 4.31e+00
Value: 3

100

50

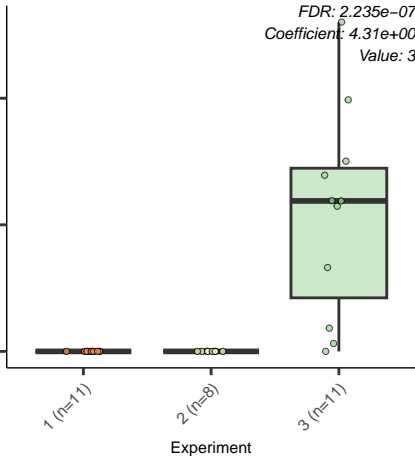
0

1 (n=11)

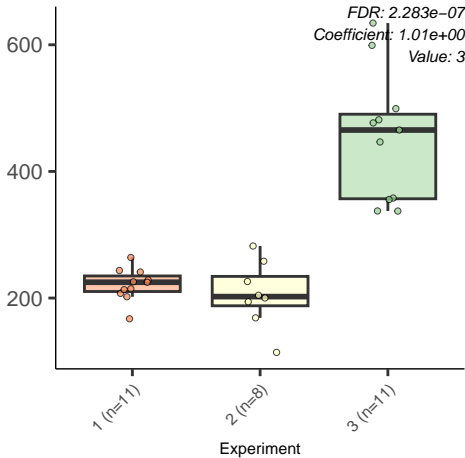
2 (n=8)

3 (n=11)

Experiment

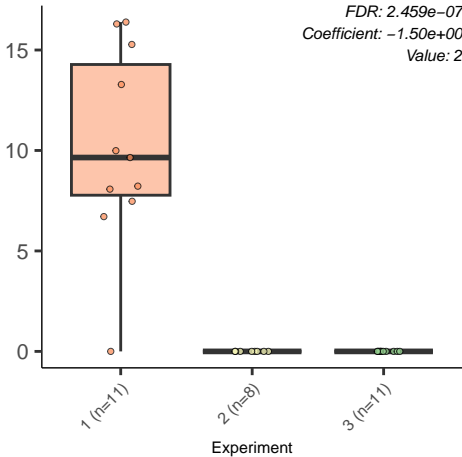


COMPLETE.ARO.PWY..superpathway.of.aromatic.amino.acid.bio



PWY.6749..CMP_legionamine.biosynthesis.l

FDR: $2.459\text{e-}07$
Coefficient: $-1.50\text{e}+00$
Value: 2



POLYISOPRENSYN.PWY..polyisoprenoid.biosynthesis..E..

150
100
50
0

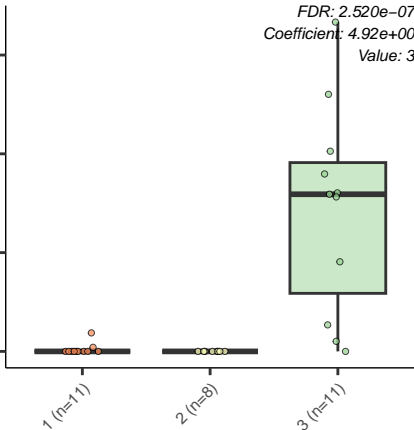
1 (n=11)

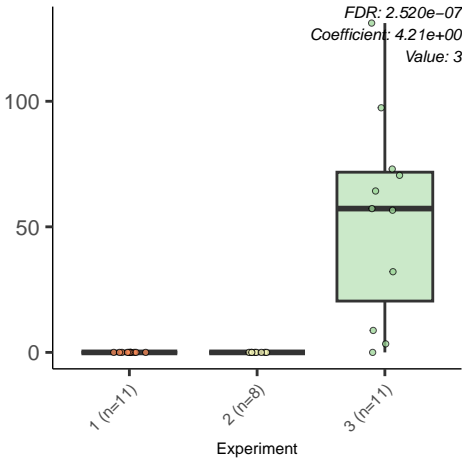
2 (n=8)

3 (n=11)

Experiment

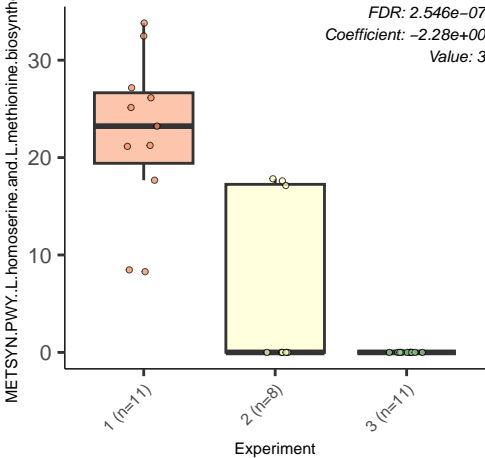
FDR: 2.520e-07
Coefficient: 4.92e+00
Value: 3





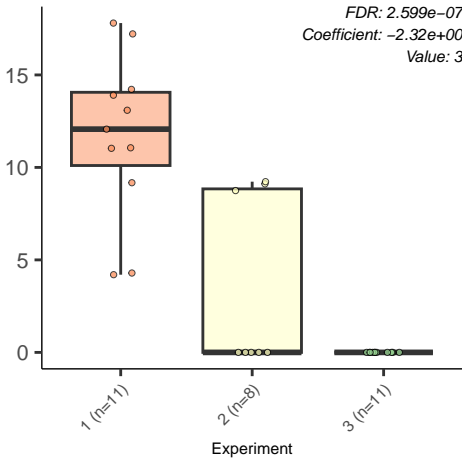
METSYN.PWY..L.homoserine.and.L.methionine.biosynthe

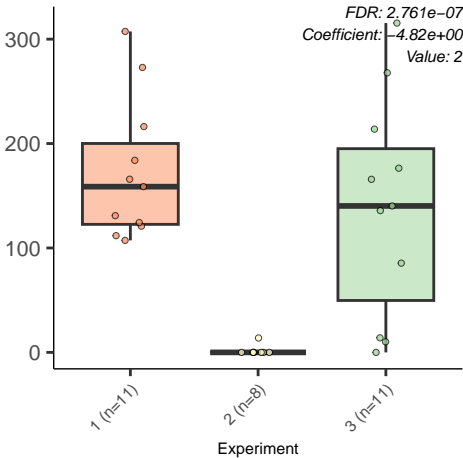
FDR: 2.546e-07
Coefficient: -2.28e+00
Value: 3

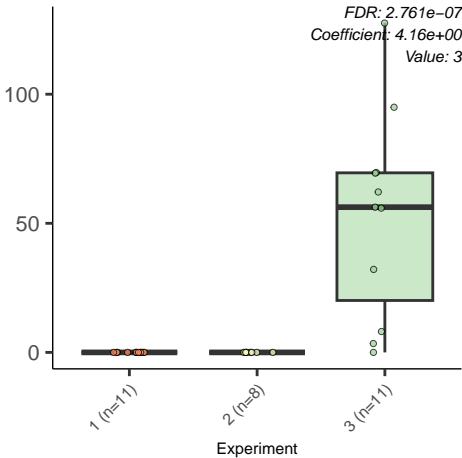


HOMOSER..METSYN.PWY..L.methionine.biosynthesis.

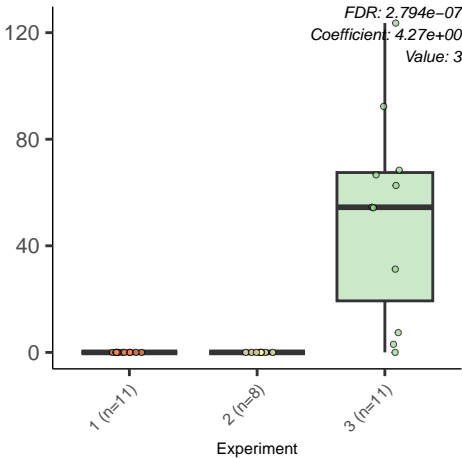
FDR: 2.599e-07
Coefficient: -2.32e+00
Value: 3







PWY.7391..isoprene.biosynthesis.II..engineered.



PWY.5384...sucrose.degradation.IV..sucrose.phosphorylas

FDR: 2.992e-07
Coefficient: 6.02e+00
Value: 3

200

100

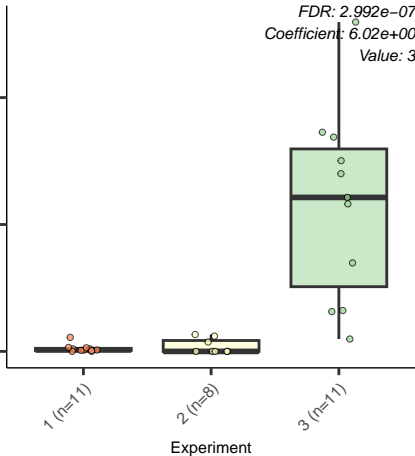
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.702..L.methionine.biosynthesis.II

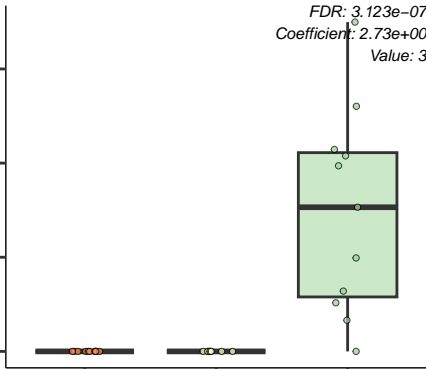
FDR: $3.123e-07$
Coefficient: $2.73e+00$
Value: 3

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY0.1477..ethanolamine.utilization

FDR: $3.261\text{e-}07$
Coefficient: $3.93\text{e}+00$
Value: 3

200

100

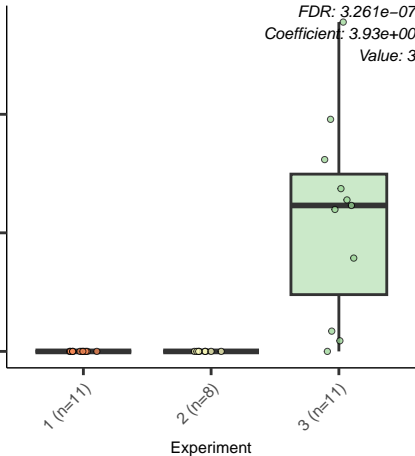
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.5913..TCA.cycle.VI..obligate.autotrophs.

FDR: 3.267e-07
Coefficient: -3.48e+00
Value: 3

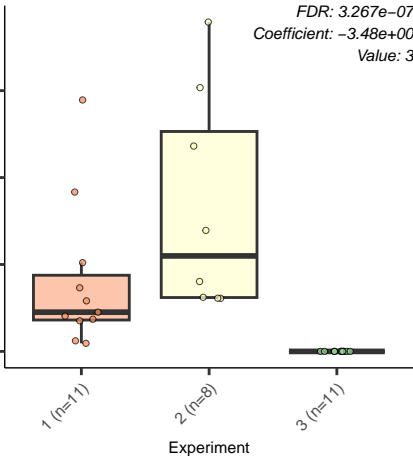
150
100
50
0

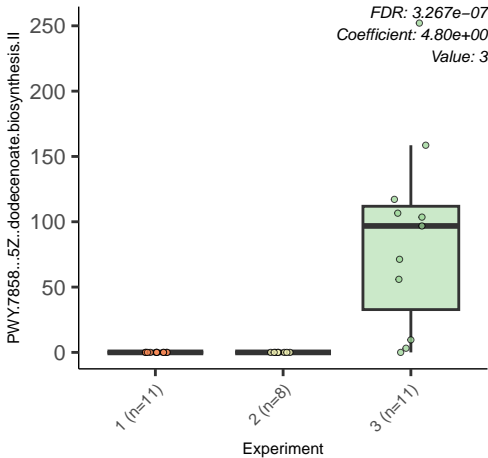
1 (n=11)

2 (n=8)

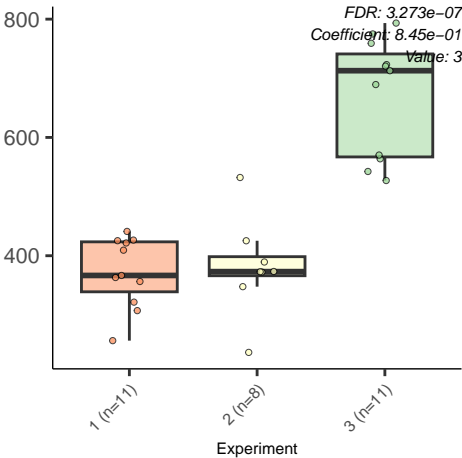
3 (n=11)

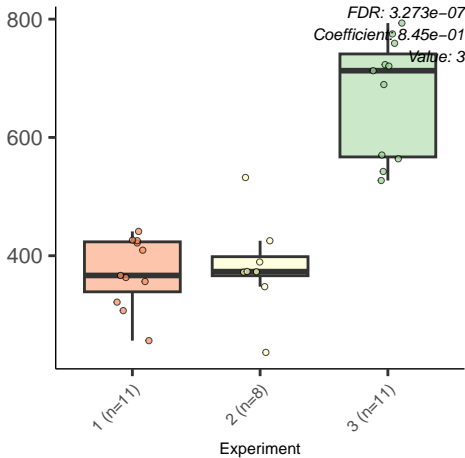
Experiment

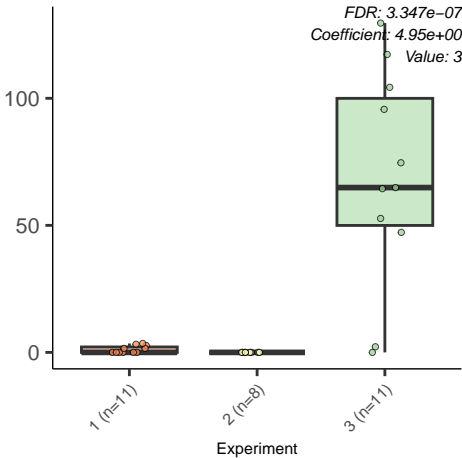




PWY.6122...5.aminoimidazole.ribonucleotide.biosynthesis







PWY0.862...5Z...dodecenoate.biosynthesis.I

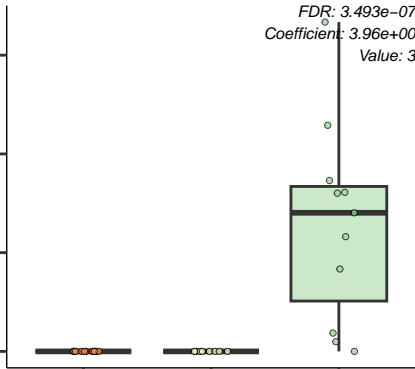
FDR: $3.493e-07$
Coefficient: $3.96e+00$
Value: 3

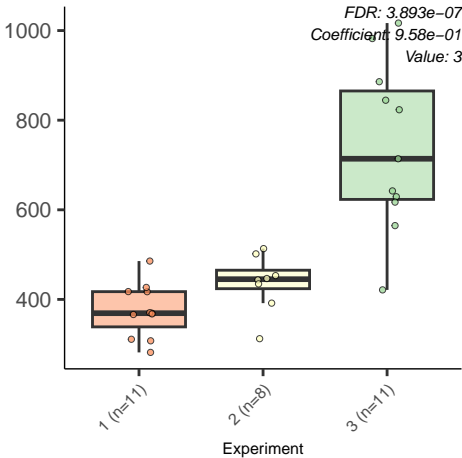
1 (n=11)

2 (n=8)

3 (n=11)

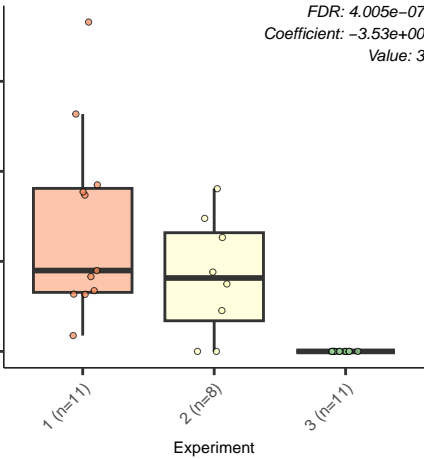
Experiment





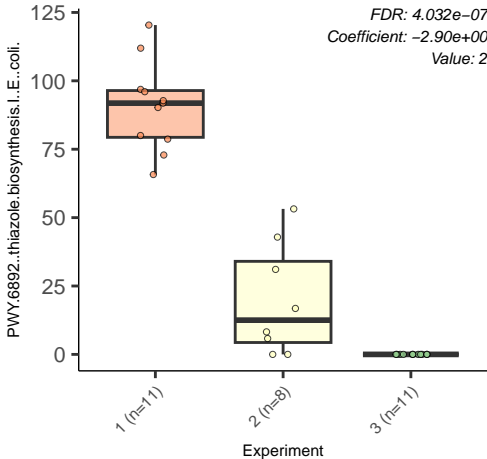
PWY.5177..glutaryl.CoA.degradation

FDR: 4.005e-07
Coefficient: -3.53e+00
Value: 3



PWY.6892...thiazole.biosynthesis.I.E...coli.

FDR: 4.032e-07
Coefficient: -2.90e+00
Value: 2



PWY.2941..L.lysine.biosynthesis.II

FDR: $4.109e-07$
Coefficient: $4.12e+00$
Value: 3

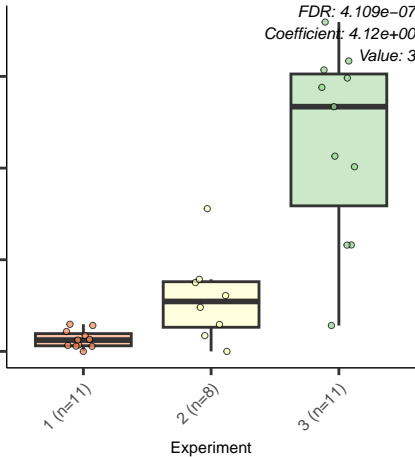
300
200
100
0

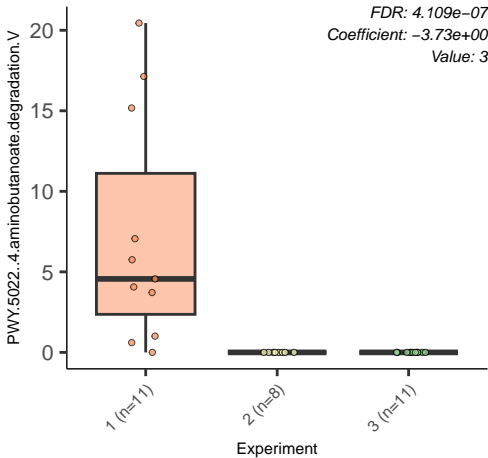
1 (n=11)

2 (n=8)

3 (n=11)

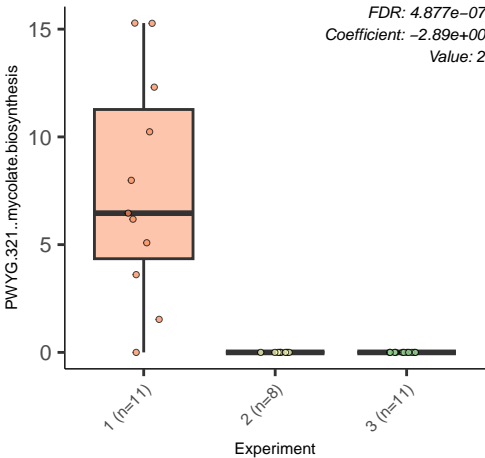
Experiment





PWYG.321..mycolate.biosynthesis

FDR: 4.877e-07
Coefficient: -2.89e+00
Value: 2



PWY0.862...5Z...dodec.5.enoate.5.biosynthesis

FDR: $5.003e-07$
Coefficient: $-2.91e+00$
Value: 2

10

5

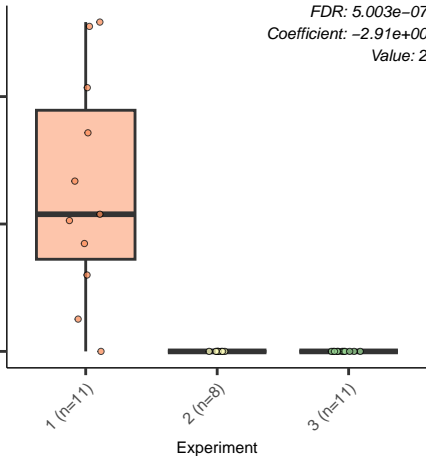
0

1 (n=11)

2 (n=8)

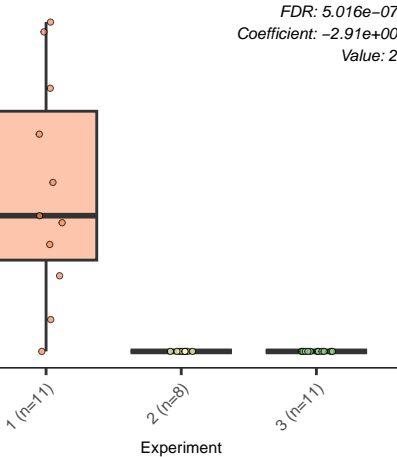
3 (n=11)

Experiment



FASYN.INITIAL.PWY..superpathway.of.fatty.acid.biosynthesis.initial

FDR: 5.016e-07
Coefficient: -2.91e+00
Value: 2



PWY.6121..5.aminoimidazole.ribonucleotide.biosynthesis

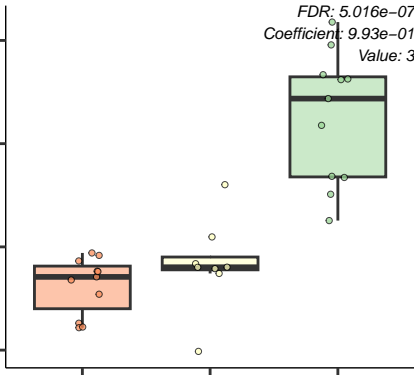
FDR: 5.016e-07
Coefficient: 9.93e-01
Value: 3

1 (n=11)

2 (n=8)

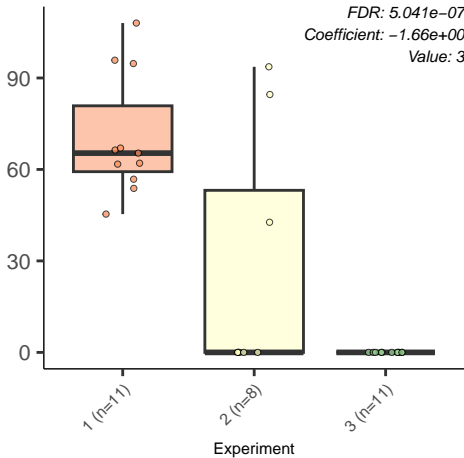
3 (n=11)

Experiment



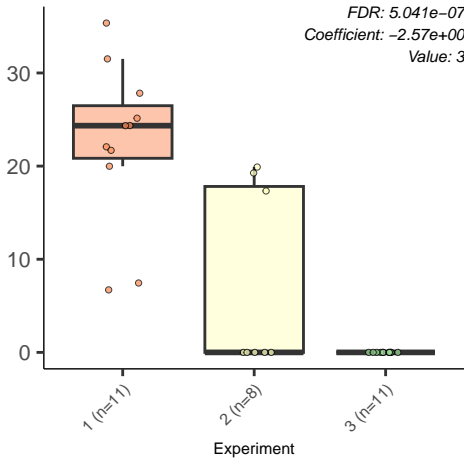
HEXITOLDEGSUPER.PWY..superpathway.of.hexitol.degradation

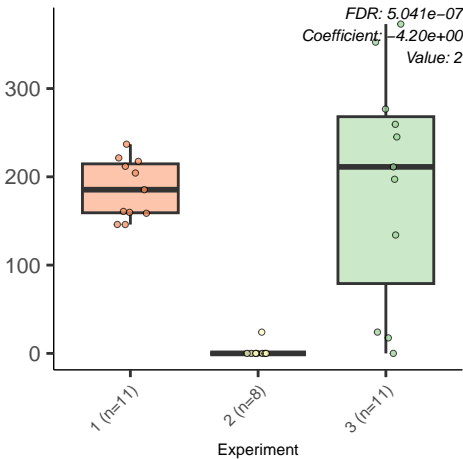
FDR: 5.041e-07
Coefficient: -1.66e+00
Value: 3

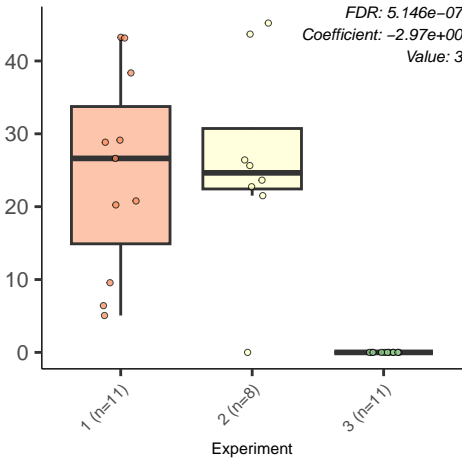


MET.SAM.PWY..superpathway.of.S.adenosyl.L.methionine.bios

FDR: $5.041\text{e-}07$
Coefficient: $-2.57\text{e}+00$
Value: 3







GLUDEG.I.PWY..GABA.shunt

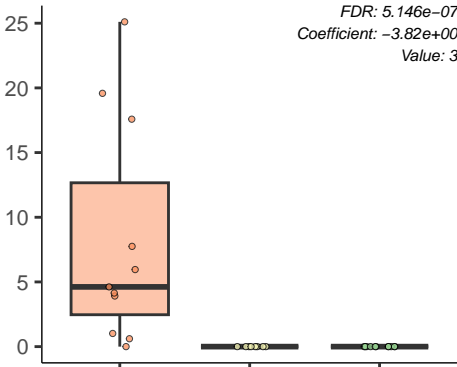
FDR: 5.146×10^{-7}
Coefficient: -3.82×10^0
Value: 3

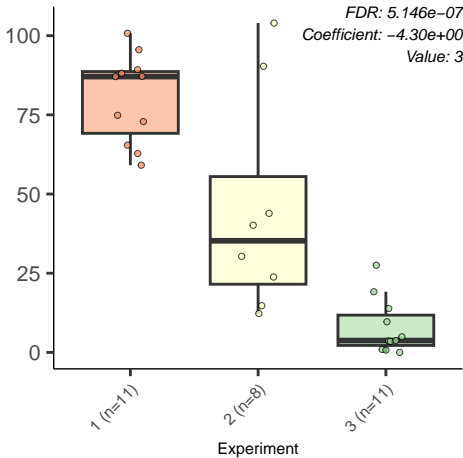
1 (n=11)

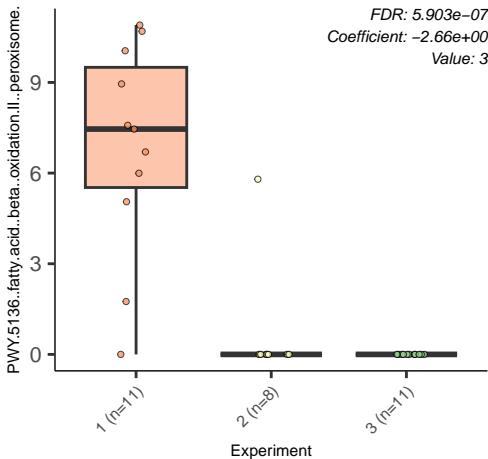
2 (n=8)

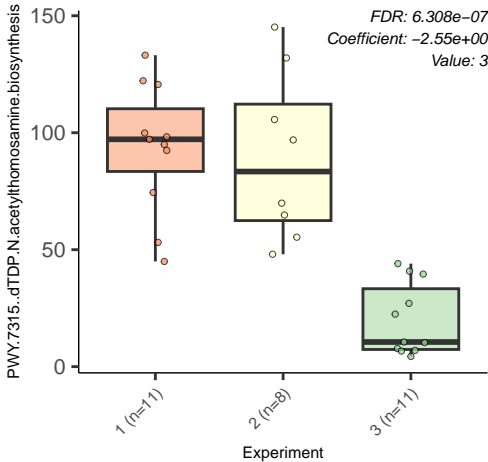
3 (n=11)

Experiment



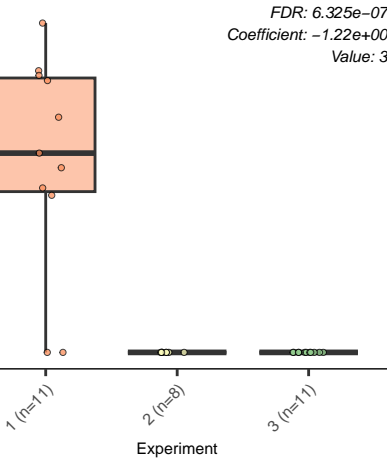






COBALSYN.PWY..adenosylcobalamin.salvage.from.cobinan

FDR: 6.325e-07
Coefficient: -1.22e+00
Value: 3



BIOTIN.BIOSYNTHESIS.PWY..biotin.biosynthesis.l

FDR: 7.241e-07
Coefficient: -2.72e+00
Value: 3

15

10

5

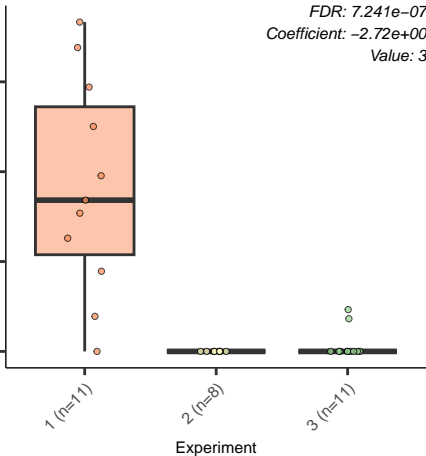
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



BIOTIN.BIOSYNTHESIS.PWY..biotin.biosynthesis.l

FDR: $8.200\text{e-}07$
Coefficient: $-2.93\text{e}+00$
Value: 2

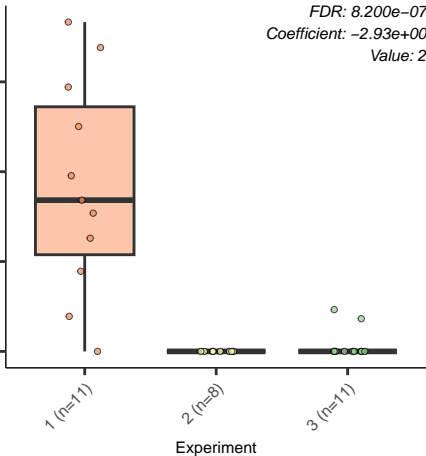
15
10
5
0

1 (n=11)

2 (n=8)

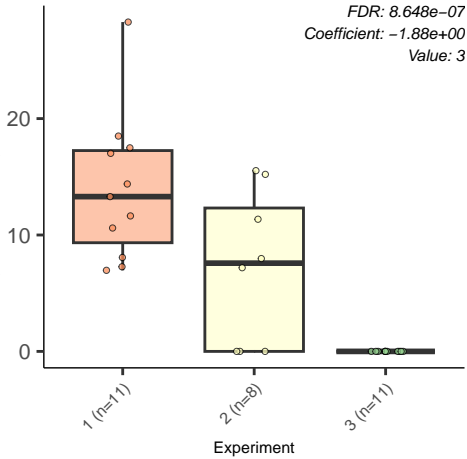
3 (n=11)

Experiment



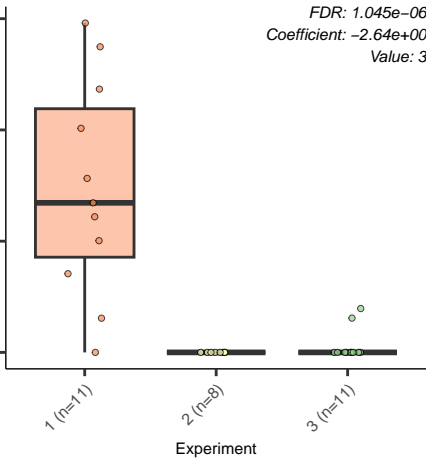
PWY5505..L.glutamate.and.L.glutamine.biosynthesis

FDR: 8.648e-07
Coefficient: -1.88e+00
Value: 3



PWY.6519..8.amino.7.oxonanoate.biosynthesis.1

FDR: 1.045e-06
Coefficient: -2.64e+00
Value: 3



PWY.7197..pyrimidine.deoxyribonucleotide.phosphorylation

150
100
50
0

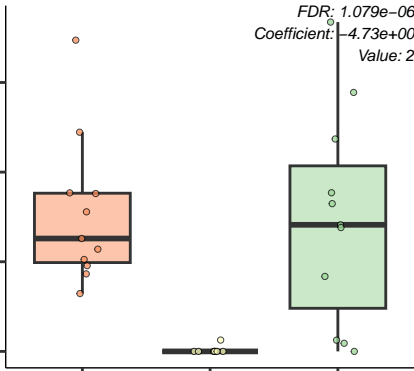
1 (n=11)

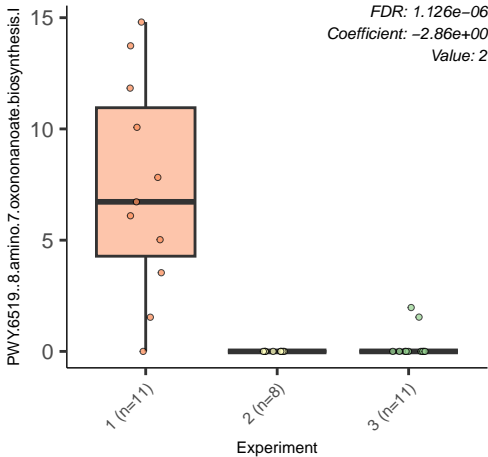
2 (n=8)

3 (n=11)

Experiment

FDR: 1.079×10^{-6}
Coefficient: -4.73×10^0
Value: 2





PWY.2942...L.lysine.biosynthesis.III

FDR: $1.128e-06$
Coefficient: $9.95e-01$
Value: 3

750

500

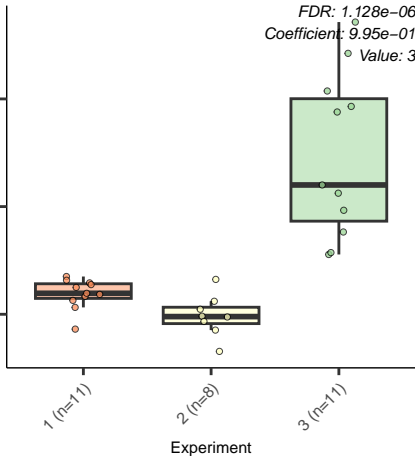
250

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



GLUCONEO.PWY.gluconeogenesis.I

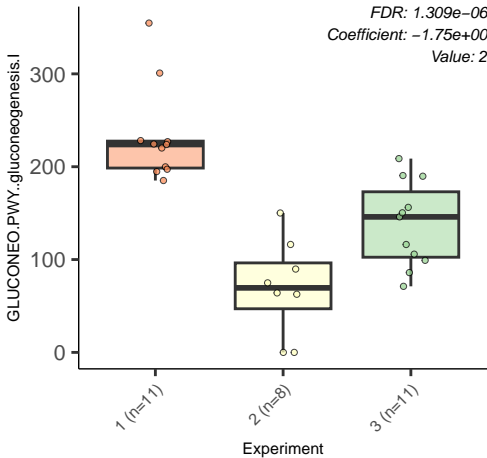
FDR: 1.309e-06
Coefficient: -1.75e+00
Value: 2

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



ARO.PWY..chorismate.biosynthesis.l

FDR: 1.319e-06
Coefficient: 1.00e+00
Value: 3

600

400

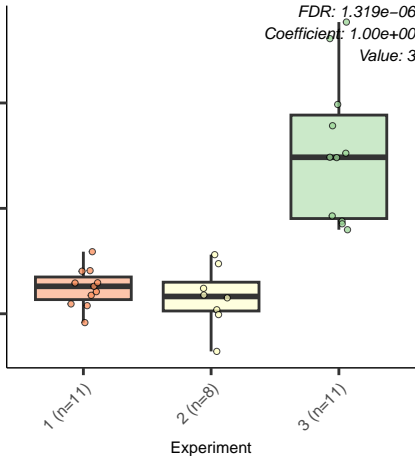
200

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.5097..L.lysine.biosynthesis.VI

FDR: 1.588e-06
Coefficient: 9.92e-01
Value: 3

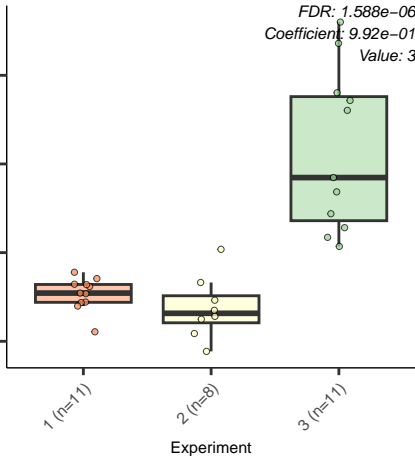
800
600
400
200

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



FAO.PWY..fatty.acid..beta..oxidation..I

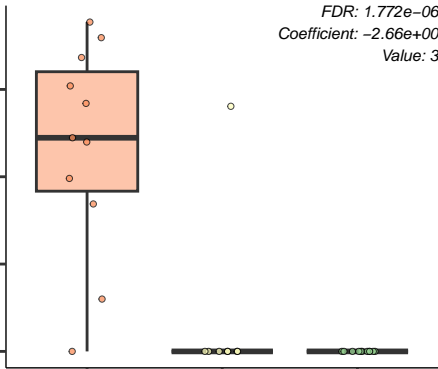
FDR: $1.772e-06$
Coefficient: $-2.66e+00$
Value: 3

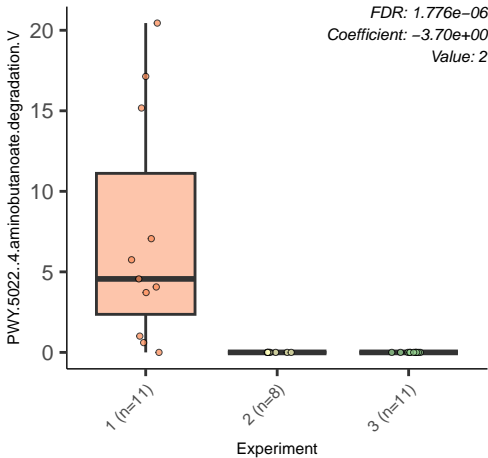
1 (n=11)

2 (n=8)

3 (n=11)

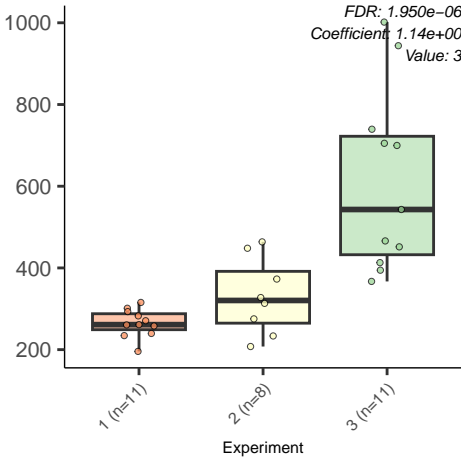
Experiment





PWY.5103..L.isoleucine.biosynthesis.III

FDR: 1.950e-06
Coefficient: 1.14e+00
Value: 3



COBALSYN.PWY..adenosylcobalamin.salvage.from.cobinan

FDR: $1.975e-06$
Coefficient: $-1.23e+00$
Value: 2

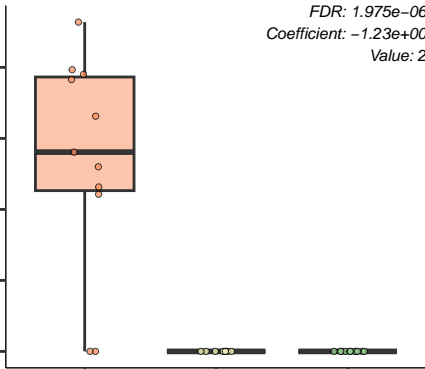
1 (n=11)

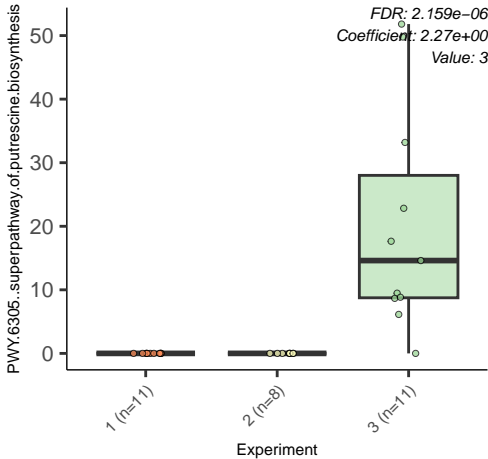
2 (n=8)

3 (n=11)

Experiment

40
30
20
10
0





PWY.6936...seleno.amino.acid.biosynthesis

FDR: 2.212e-06
Coefficient: -2.21e+00
Value: 3

200

100

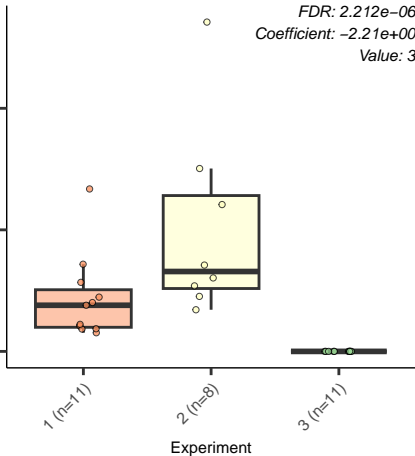
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



GLUDEG.I.PWY..GABA.shunt

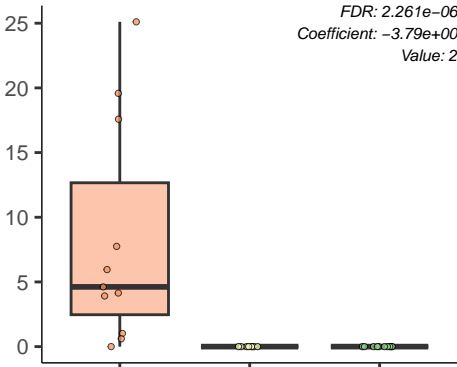
FDR: 2.261e-06
Coefficient: -3.79e+00
Value: 2

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.7234...inosine.5..phosphate.biosynthesis.III

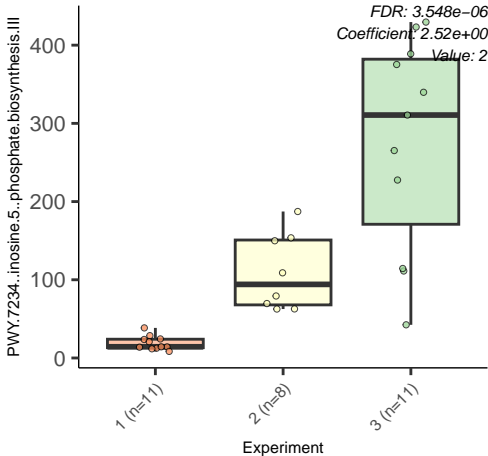
FDR: 3.548×10^{-6}
Coefficient: 2.52×10^0
Value: 2

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.6527..stachyose.degradation

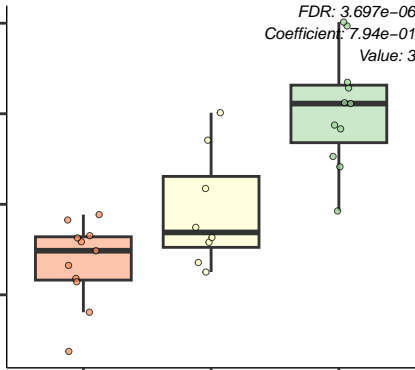
FDR: $3.697e-06$
Coefficient: $7.94e-01$
Value: 3

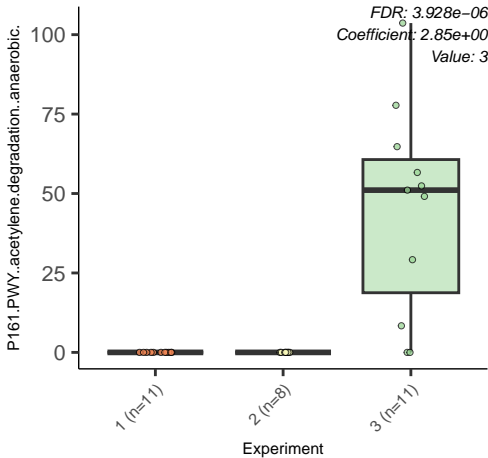
1 (n=11)

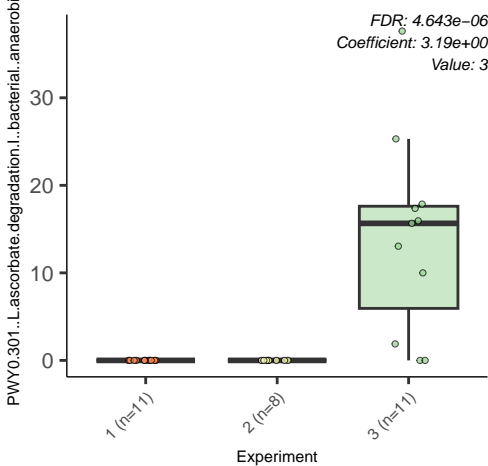
2 (n=8)

3 (n=11)

Experiment







PWY.8004..Entner.Doudoroff.pathway.I

FDR: 5.728e-06
Coefficient: 2.26e+00
Value: 3

40

20

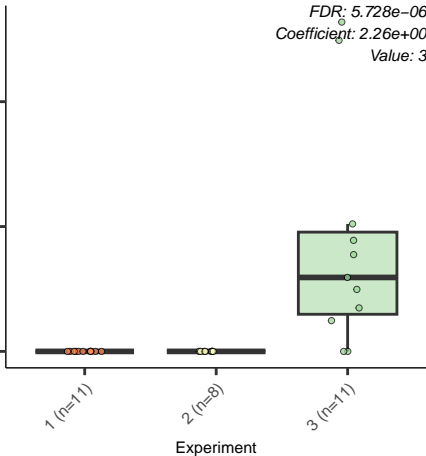
0

1 (n=11)

2 (n=8)

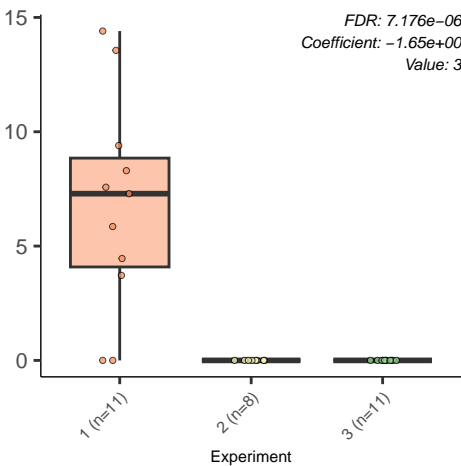
3 (n=11)

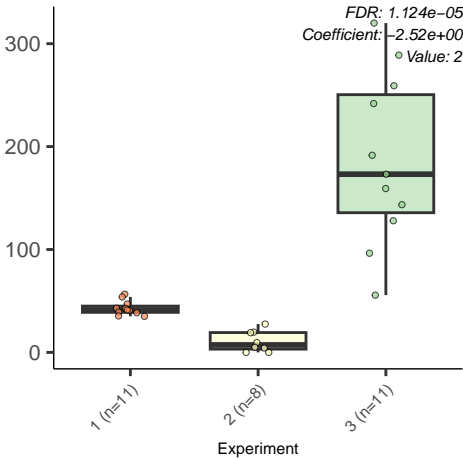
Experiment

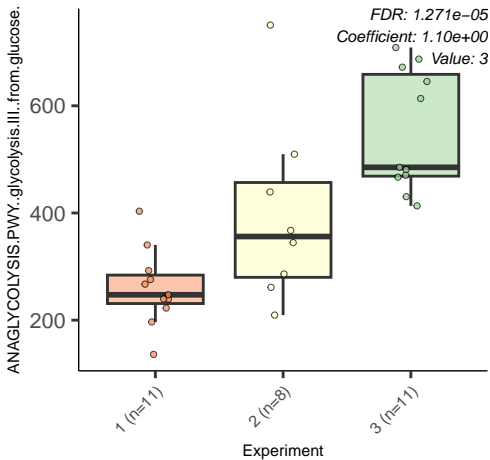


ARG.POLYAMINE.SYN..superpathway.of.arginine.and.polyamine.b

FDR: 7.176×10^{-6}
Coefficient: -1.65×10^0
Value: 3







PWY.4041...gamma..glutamyl.cycle

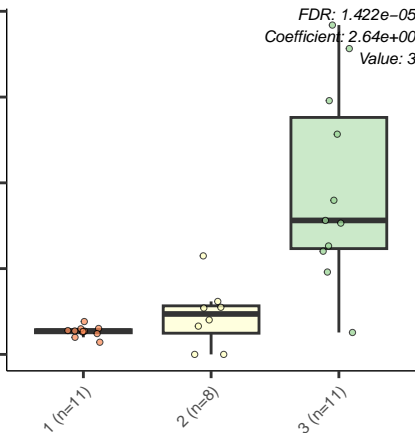
FDR: 1.422e-05
Coefficient: 2.64e+00
Value: 3

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



FUCCAT.PWY..fucose.degradation

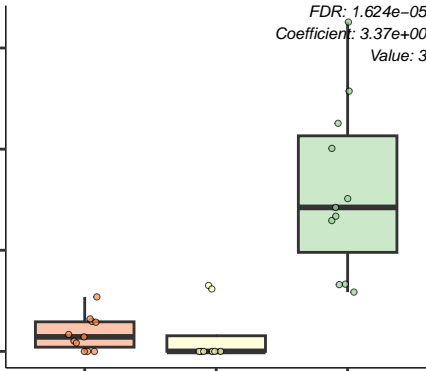
FDR: 1.624e-05
Coefficient: 3.37e+00
Value: 3

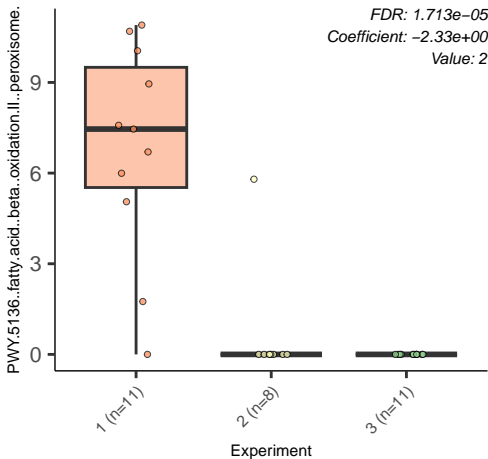
1 (n=11)

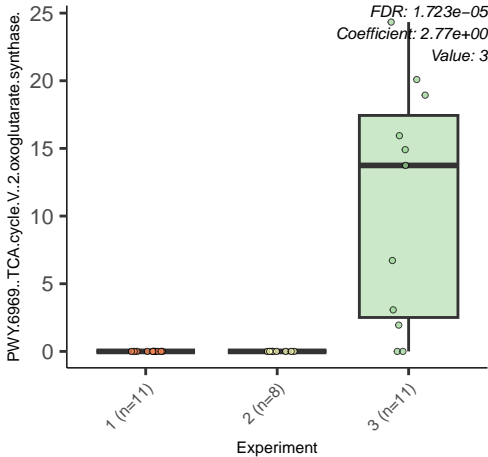
2 (n=8)

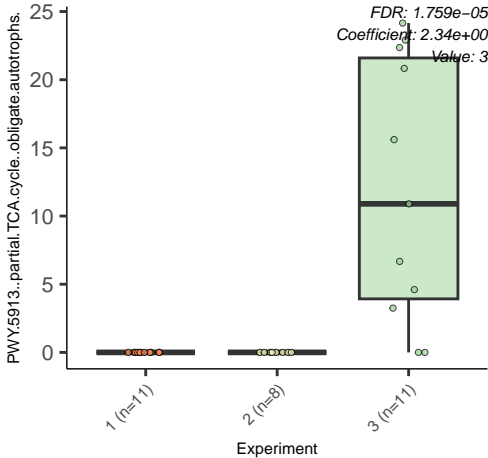
3 (n=11)

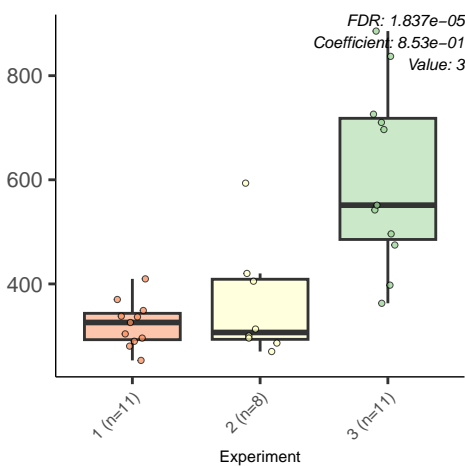
Experiment

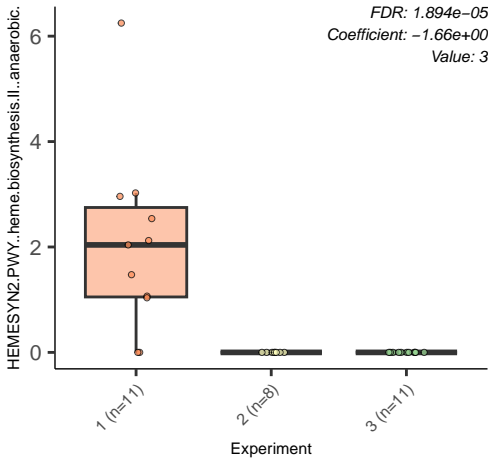


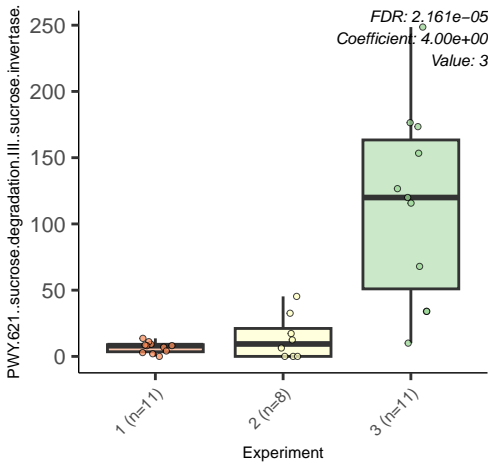












PWY.5973..cis.vaccenate.biosynthesis

FDR: 2.338e-05
Coefficient: 1.29e+00
Value: 3

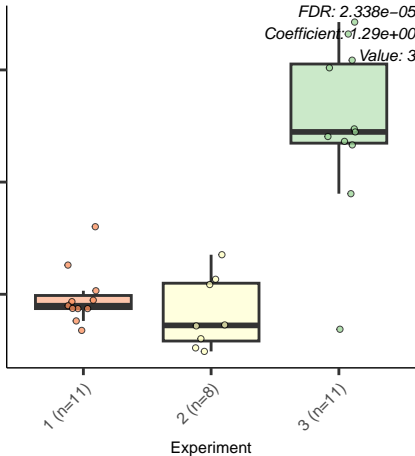
600
400
200

1 (n=11)

2 (n=8)

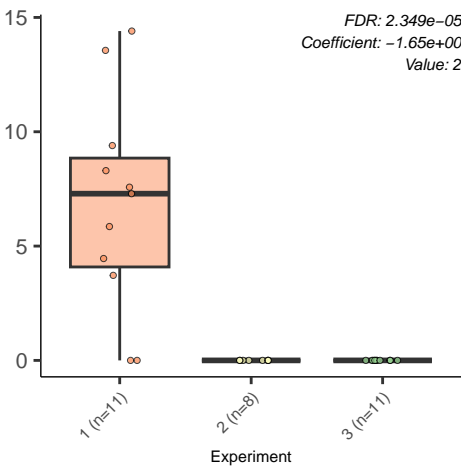
3 (n=11)

Experiment



ARG.POLYAMINE.SYN..superpathway.of.arginine.and.polyamine.b

FDR: 2.349e-05
Coefficient: -1.65e+00
Value: 2



PWY.5188..tetrapyrrole.biosynthesis.l..from.glutamate.

FDR: 2.641e-05
Coefficient: 1.81e+00
Value: 3

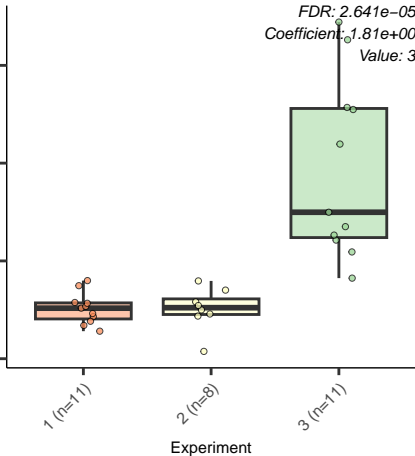
600
400
200
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.5690..TCA.cycle.II..plants.and.fungi.

FDR: 2.641e-05
Coefficient: -3.54e+00
Value: 3

40

20

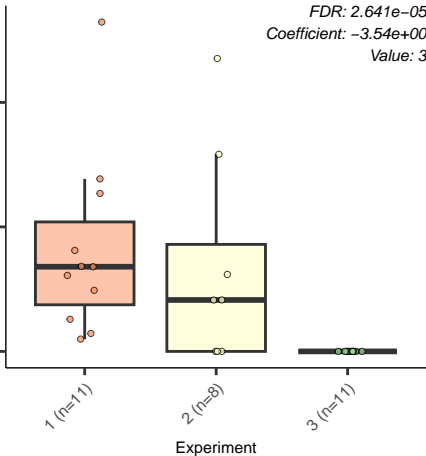
0

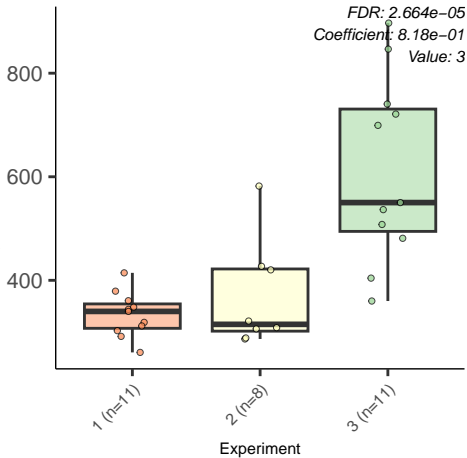
1 (n=11)

2 (n=8)

3 (n=11)

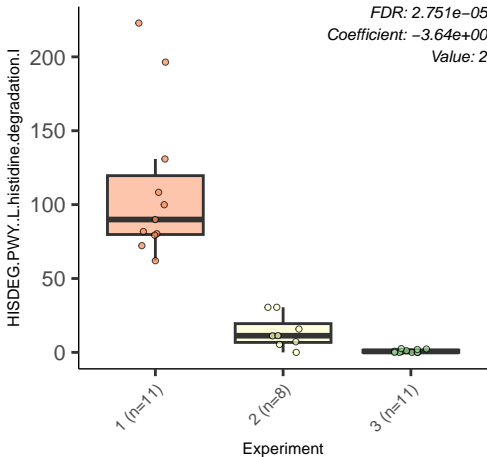
Experiment

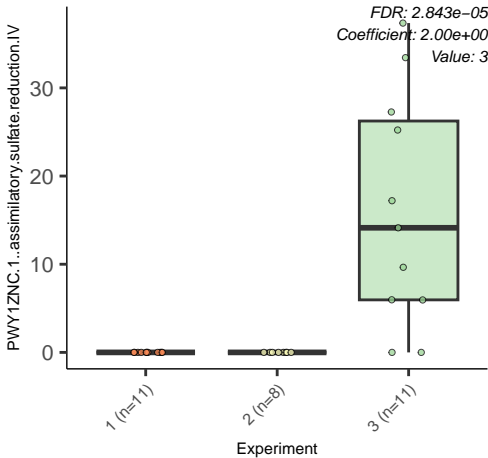




HISDEG.PWY..L.histidine.degradation.I

FDR: 2.751e-05
Coefficient: -3.64e+00
Value: 2





ARGSYNBSUB.PWY..L-arginine.biosynthesis.II..acetyl.cyc

FDR: 2.912e-05
Coefficient: 9.17e-01
Value: 3

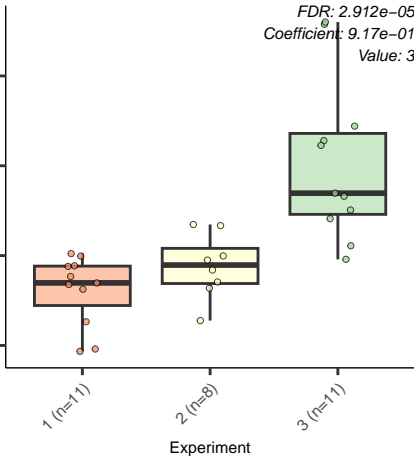
800
600
400
200

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.7663..gondodate.biosynthesis.anaerobic.

FDR: 3.030e-05
Coefficient: 1.38e+00
Value: 3

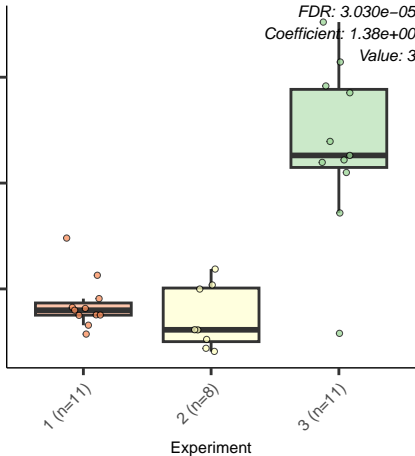
600
400
200

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



SO4ASSIM.PWY..assimilatory.sulfate.reduction.l

FDR: 3.309e-05
Coefficient: 1.81e+00
Value: 3

20

10

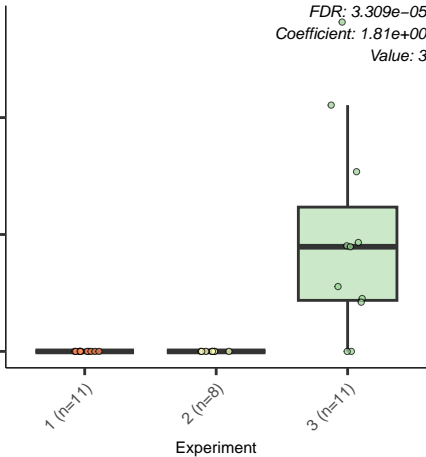
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.6731..starch.degradation.III

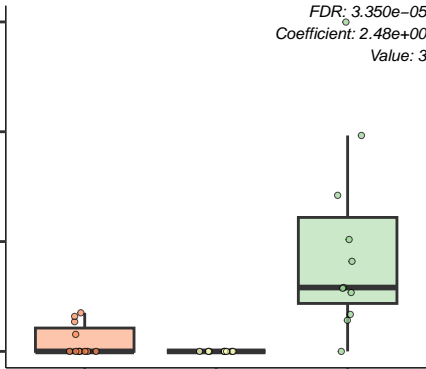
FDR: 3.350e-05
Coefficient: 2.48e+00
Value: 3

1 (n=11)

2 (n=8)

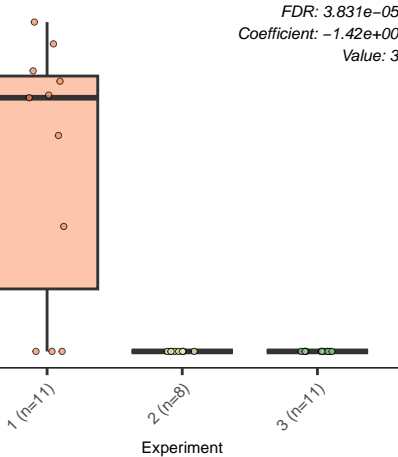
3 (n=11)

Experiment



GLUCOSE1P METAB.PWY.:glucose.and.glucose.1.phosphate.de

FDR: $3.831\text{e-}05$
Coefficient: $-1.42\text{e}+00$
Value: 3



CALVIN.PWY..Calvin.Benson.Bassham.cycle

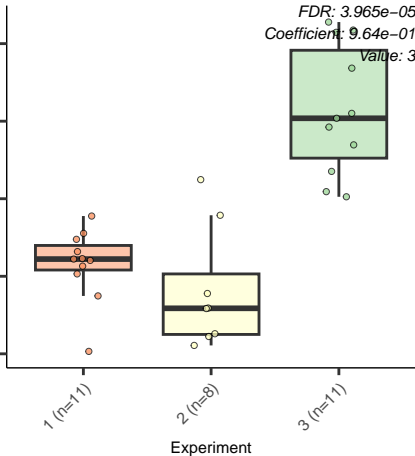
FDR: $3.965e-05$
Coefficient: $9.64e-01$
Value: 3

1 (n=11)

2 (n=8)

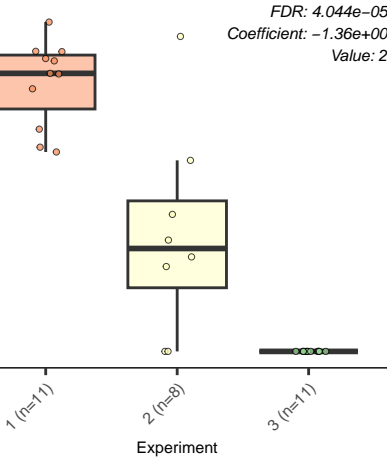
3 (n=11)

Experiment

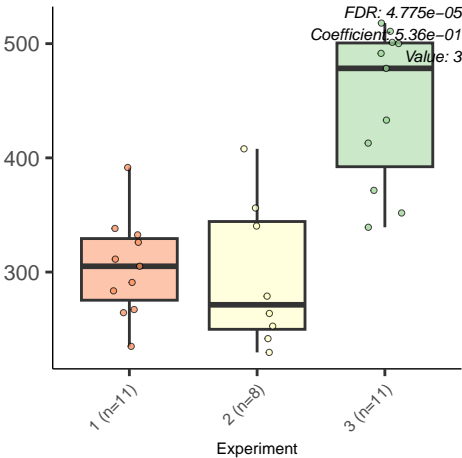


PWY.1269..CMP.3.deoxy.D.manno.octulosonate.biosynthe

FDR: 4.044e-05
Coefficient: -1.36e+00
Value: 2



PWY.6385..peptidoglycan.biosynthesis.III..mycobacteria



HEMESYN2.PWY..heme.biosynthesis.II..anaerobic.

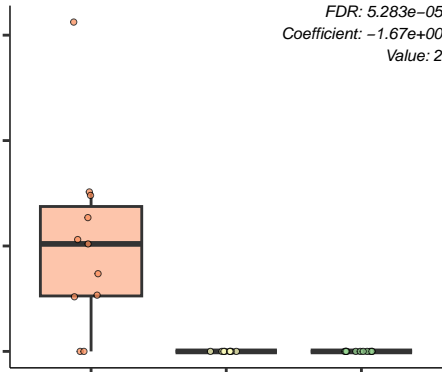
FDR: 5.283e-05
Coefficient: -1.67e+00
Value: 2

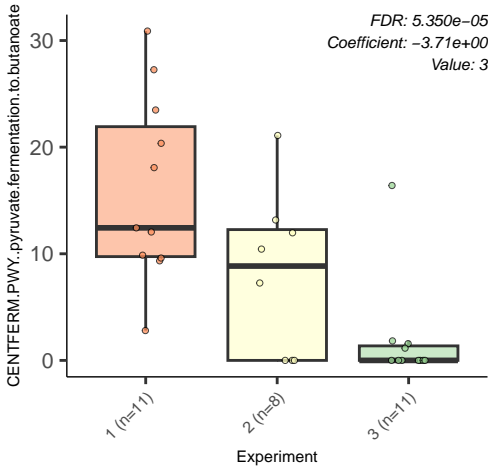
1 (n=11)

2 (n=8)

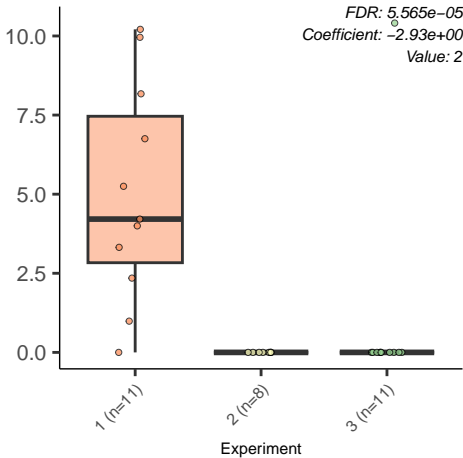
3 (n=11)

Experiment



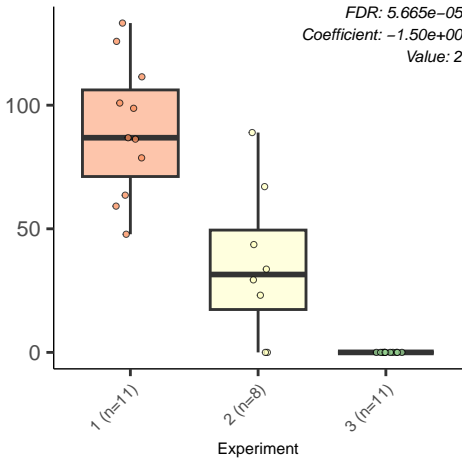


PWY.7388..octanoyl..acyl.carrier.protein..biosynthesis..mitochond

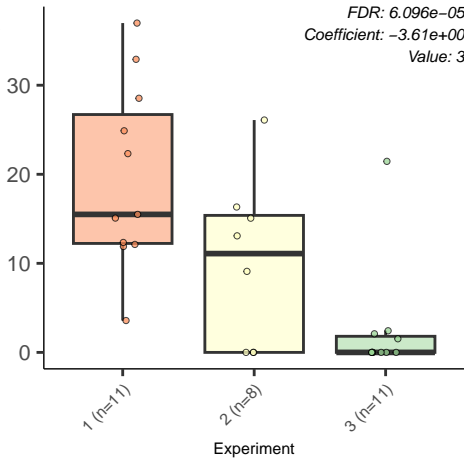


THISYN.PWY..superpathway.of.thiamin.diphosphate.biosynth

FDR: $5.665e-05$
Coefficient: $-1.50e+00$
Value: 2



FDR: 6.096e-05
Coefficient: -3.61e+00
Value: 3



FAO.PWY..fatty.acid..beta..oxidation..I

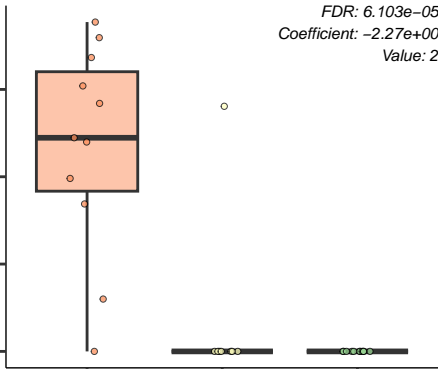
FDR: 6.103e-05
Coefficient: -2.27e+00
Value: 2

1 (n=11)

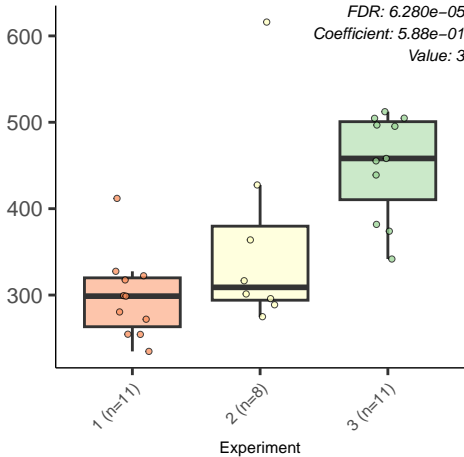
2 (n=8)

3 (n=11)

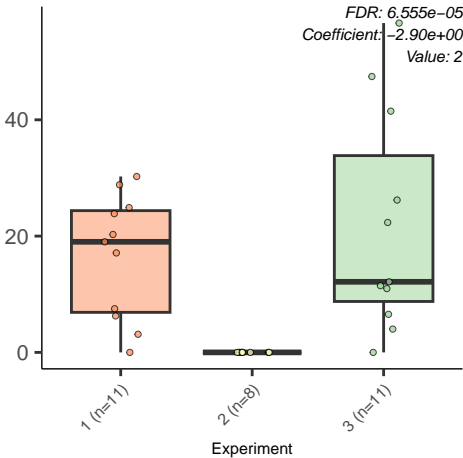
Experiment

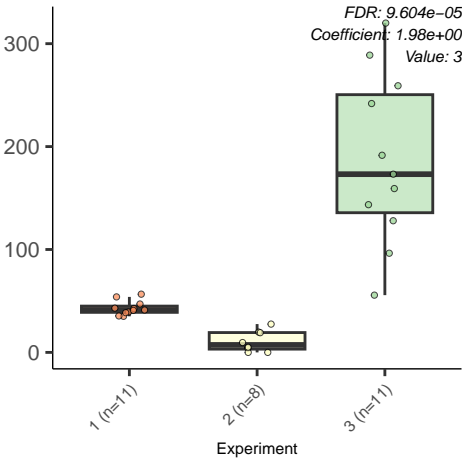


FDR: 6.280e-05
Coefficient: 5.88e-01
Value: 3



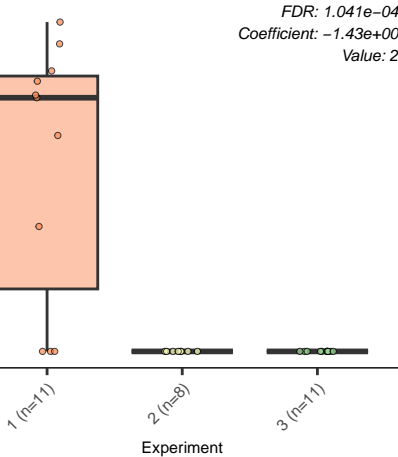
PWY.7117..C4.photosynthetic.carbon.assimilation.cycle..PEPC

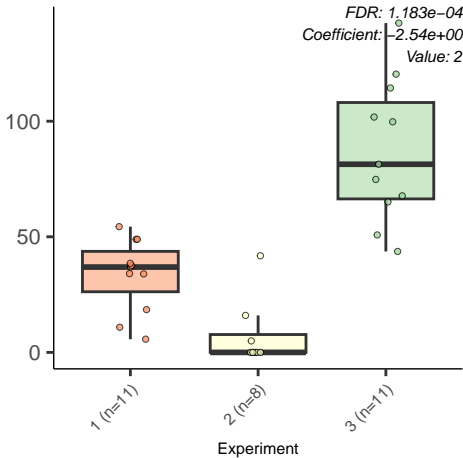




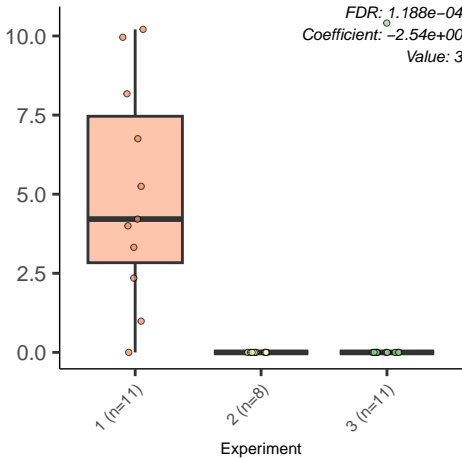
GLUCOSE1PMETAB.PWY.:glucose.and.glucose.1.phosphate.de

FDR: 1.041e-04
Coefficient: -1.43e+00
Value: 2

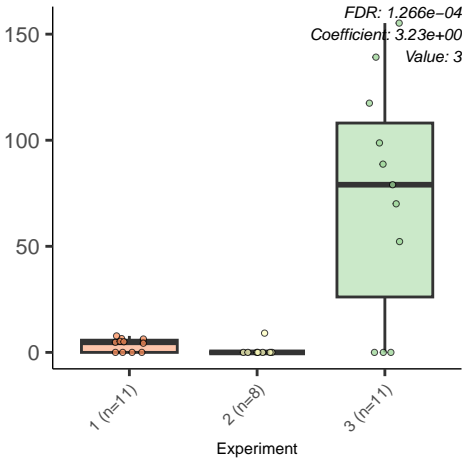




PWY.7388..octanoyl..acyl.carrier.protein..biosynthesis..mitochond



PWY0.845..superpathway.of.pyridoxal.5..phosphate.biosynthesis.a



PWY.6163..chorismate.biosynthesis.from.3.dehydroquina

FDR: 1.455e-04
Coefficient: 7.29e-01
Value: 3

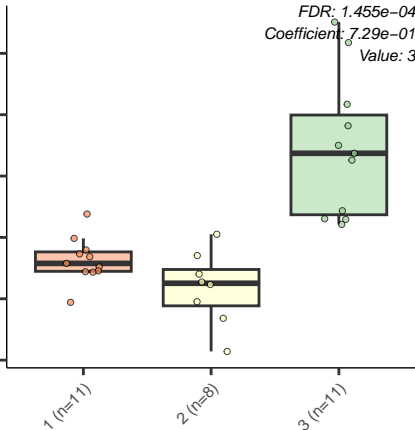
600
500
400
300
200
100

1 (n=11)

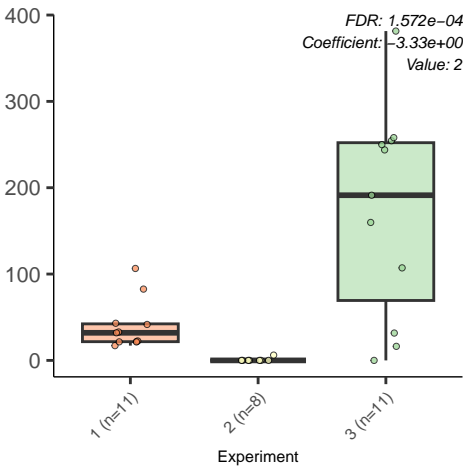
2 (n=8)

3 (n=11)

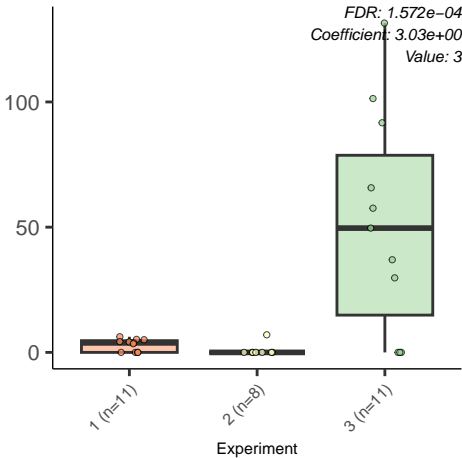
Experiment



PWY.6147..6.hydroxymethyl.dihydropterin.diphosphate.biosyn



PYRIDOXSYN.PWY..pyridoxal.5..phosphate.biosynthesis



TCA..TCA.cycle.l..prokaryotic.

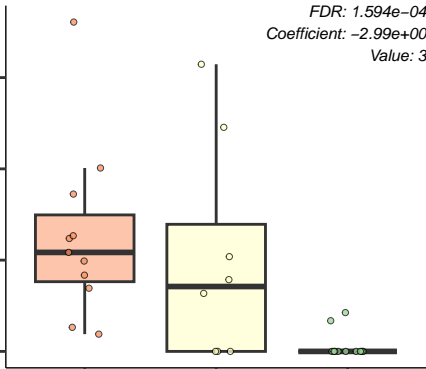
FDR: 1.594e-04
Coefficient: -2.99e+00
Value: 3

1 (n=11)

2 (n=8)

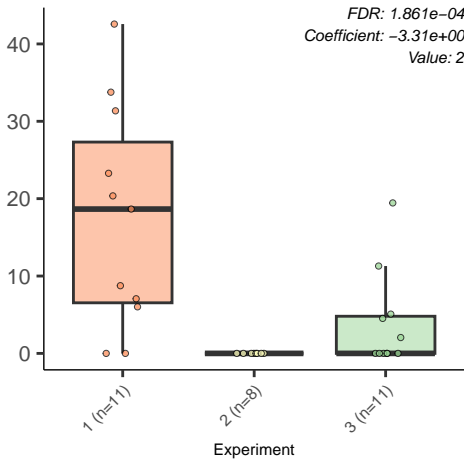
3 (n=11)

Experiment

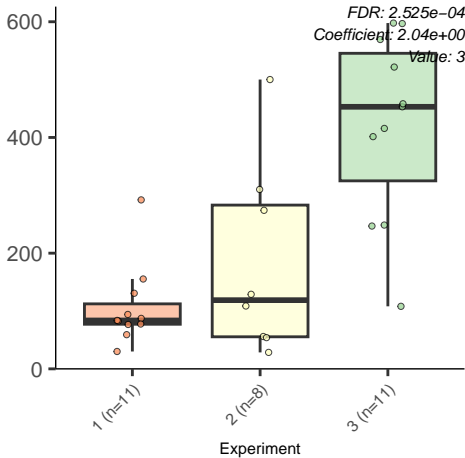


PWY.7198..pyrimidine.deoxyribonucleotides.de.novo.biosynth

FDR: 1.861e-04
Coefficient: -3.31e+00
Value: 2

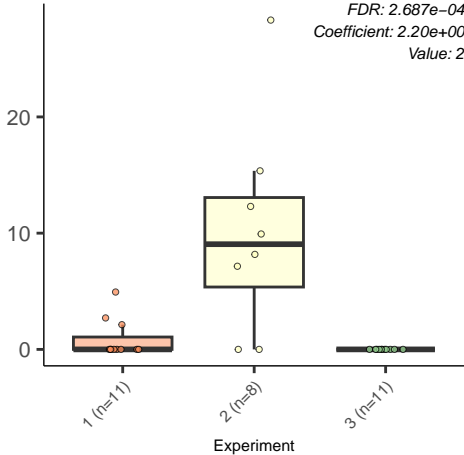


UDPNAGSYN.PWY.,UDP.N.acetyl.D.glucosamine.biosynthe



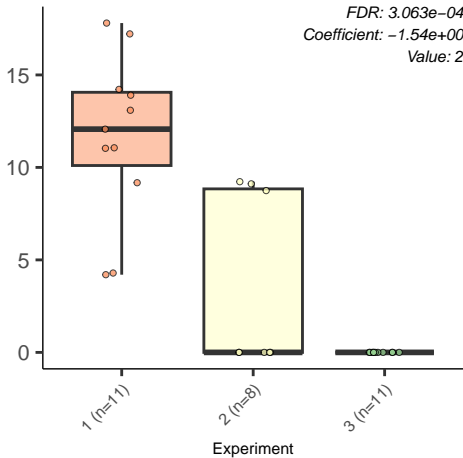
PWY.7316..dTDP.N.acetylviosamine.biosynthesis

FDR: 2.687e-04
Coefficient: 2.20e+00
Value: 2



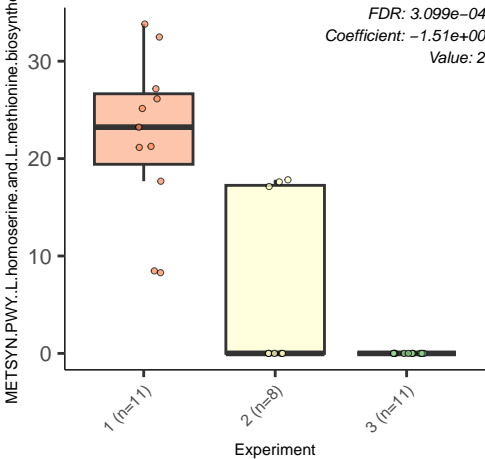
HOMOSER..METSYN.PWY..L.methionine.biosynthesis.

FDR: $3.063e-04$
Coefficient: $-1.54e+00$
Value: 2



METSYN.PWY..L.homoserine.and.L.methionine.biosynthe

FDR: $3.099\text{e-}04$
Coefficient: $-1.51\text{e}+00$
Value: 2



PWY.5675..nitrate.reduction.V.assimilatory.

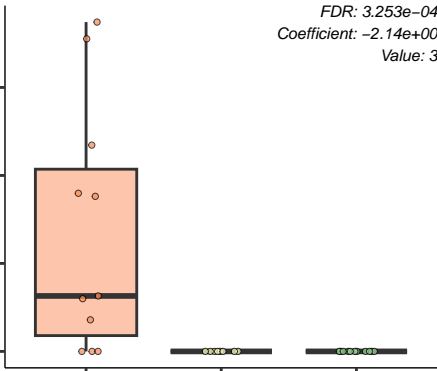
FDR: 3.253e-04
Coefficient: -2.14e+00
Value: 3

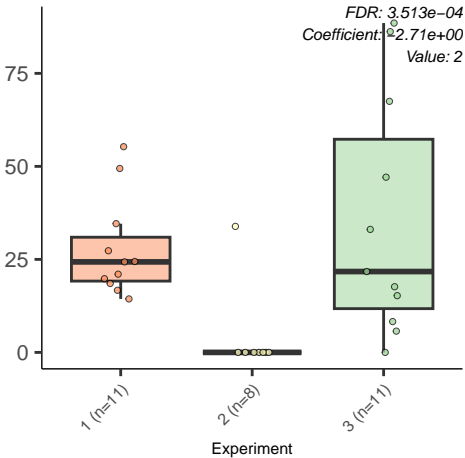
1 (n=11)

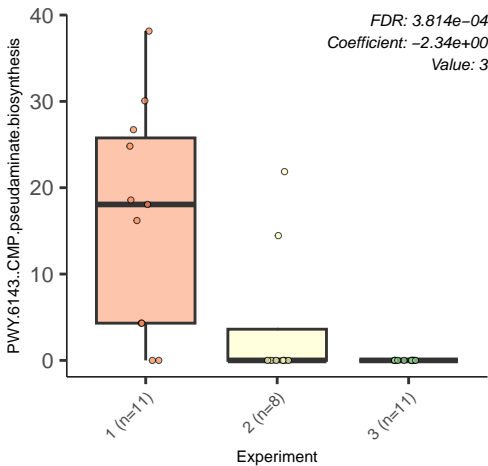
2 (n=8)

3 (n=11)

Experiment

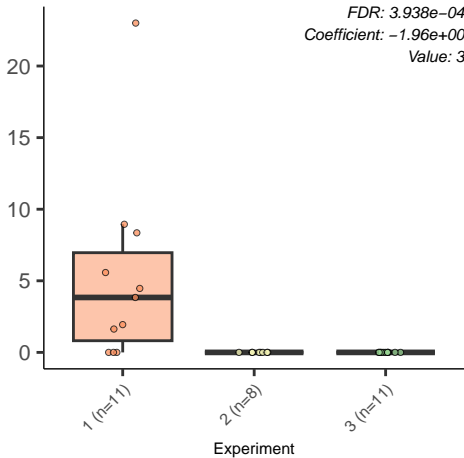






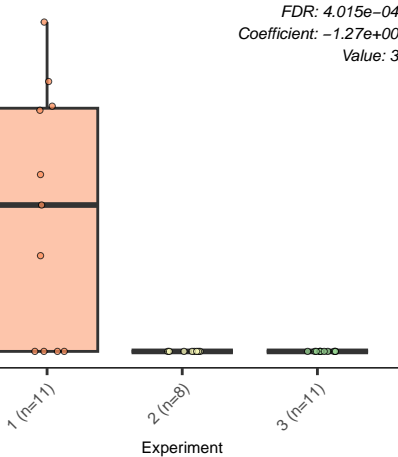
PWY.1861...formaldehyde.assimilation.II..RuMP.Cycle.

FDR: $3.938e-04$
Coefficient: $-1.96e+00$
Value: 3



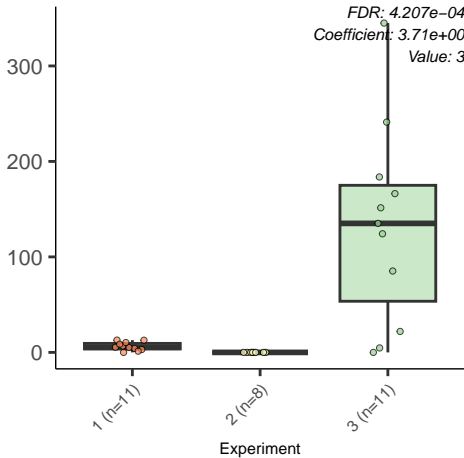
PWY.5083..NAD.NADH.phosphorylation.and.dephosphorylation

FDR: 4.015e-04
Coefficient: -1.27e+00
Value: 3



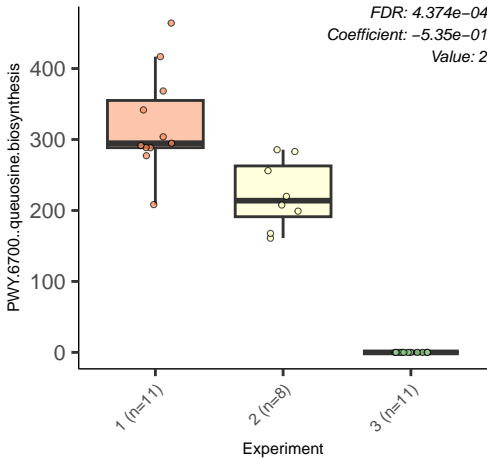
PWY.6282..palmitoleate.biosynthesis.l...from..5Z...dodec.5.e

FDR: 4.207e-04
Coefficient: 3.71e+00
Value: 3



PWY.6700..queuosine.biosynthesis

FDR: 4.374e-04
Coefficient: -5.35e-01
Value: 2



TRNA.CHARGING.PWY..tRNA.charging

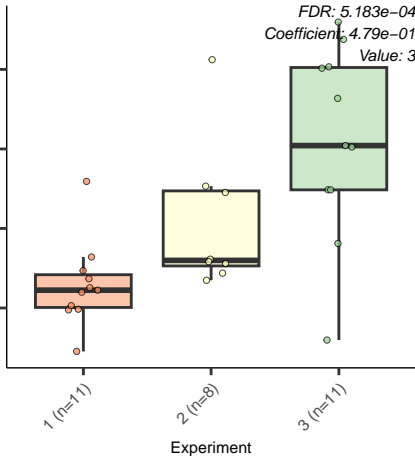
FDR: $5.183e-04$
Coefficient: $4.79e-01$
Value: 3

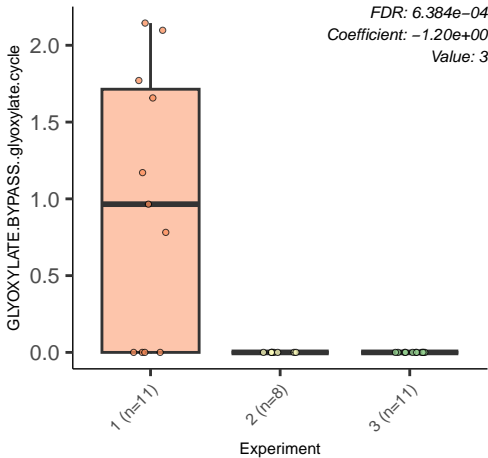
1 (n=11)

2 (n=8)

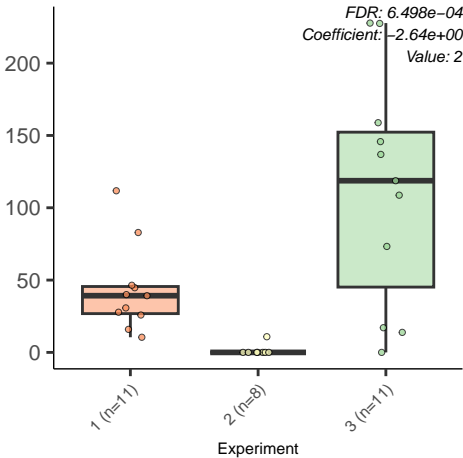
3 (n=11)

Experiment





PWY.7383..anaerobic.energy.metabolism..invertebrates..cyt



PWY.7664..oleate.biosynthesis.IV..anaerobic.

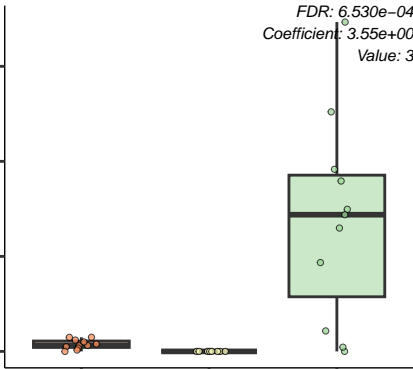
FDR: 6.530e-04
Coefficient: 3.55e+00
Value: 3

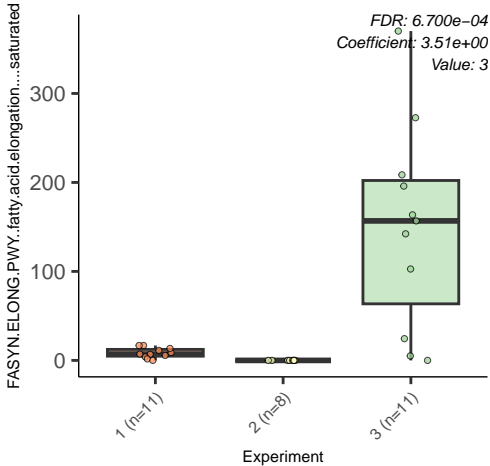
1 (n=11)

2 (n=8)

3 (n=11)

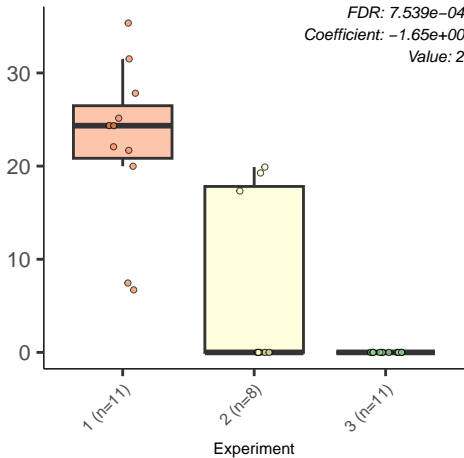
Experiment





MET.SAM.PWY..superpathway.of.S.adenosyl.L.methionine.bios

FDR: $7.539\text{e-}04$
Coefficient: $-1.65\text{e}+00$
Value: 2



PWY.5104..L.isoleucine.biosynthesis.IV

FDR: 7.928e-04
Coefficient: 6.71e-01
Value: 2

150

100

50

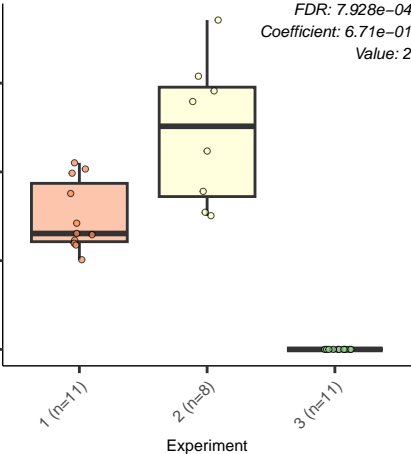
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.5989..stearate.biosynthesis.II..bacteria.and.plants

FDR: $8.052e-04$
Coefficient: $3.38e+00$
Value: 3

200

100

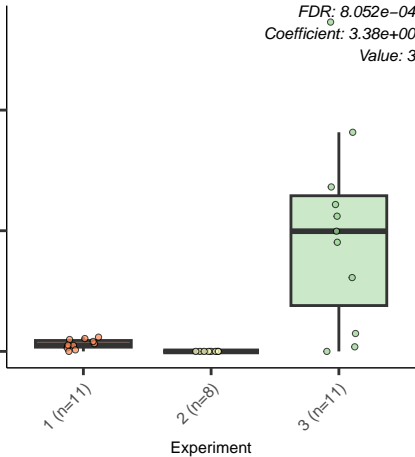
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.5675..nitrate.reduction.V.assimilatory.

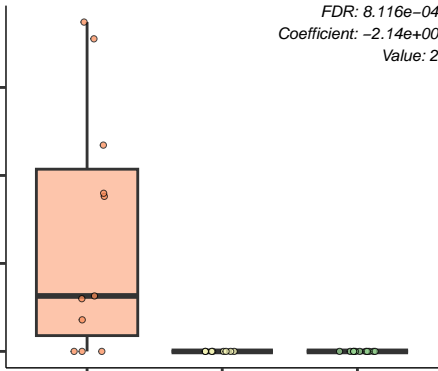
FDR: 8.116e-04
Coefficient: -2.14e+00
Value: 2

1 (n=11)

2 (n=8)

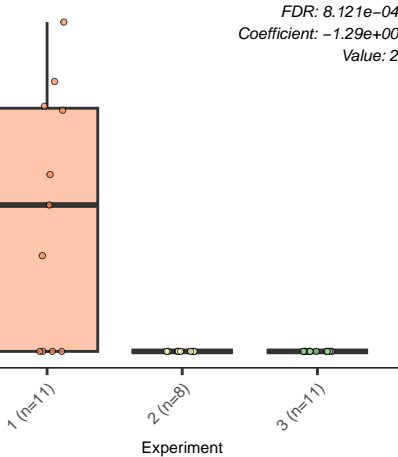
3 (n=11)

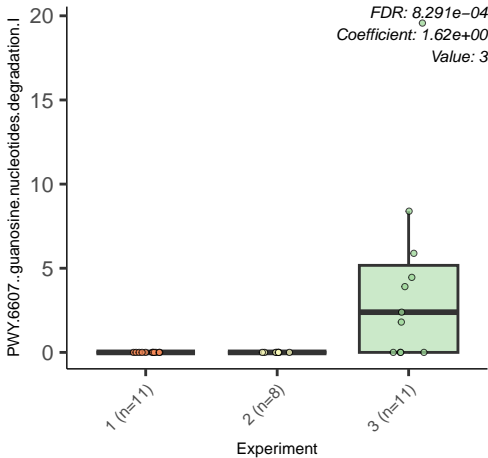
Experiment

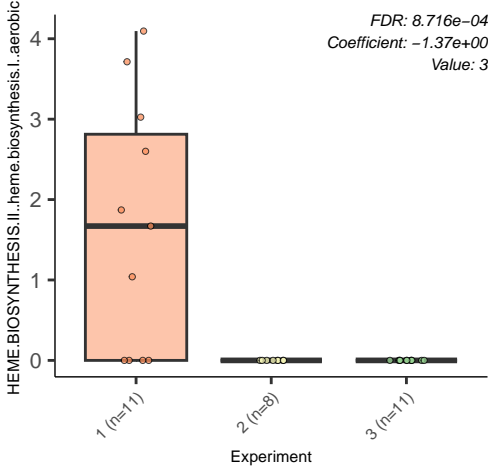


PWY.5083..NAD.NADH.phosphorylation.and.dephosphorylation

FDR: $8.121e-04$
Coefficient: $-1.29e+00$
Value: 2







SO4ASSIM.PWY.sulfate.reduction.l..assimilatory.

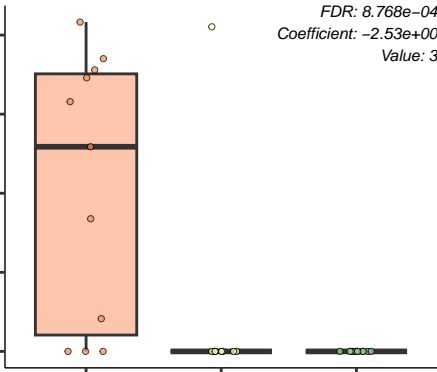
FDR: 8.768e-04
Coefficient: -2.53e+00
Value: 3

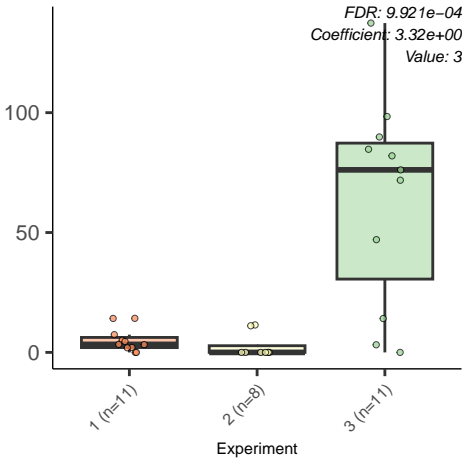
1 (n=11)

2 (n=8)

3 (n=11)

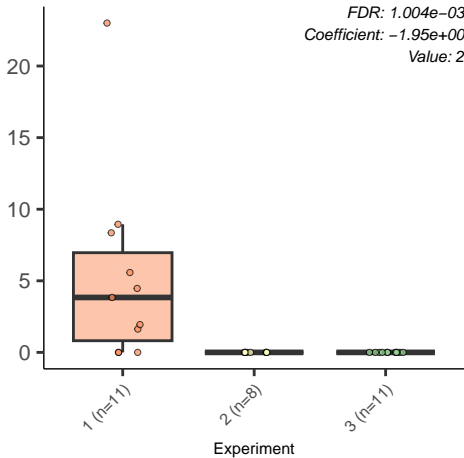
Experiment





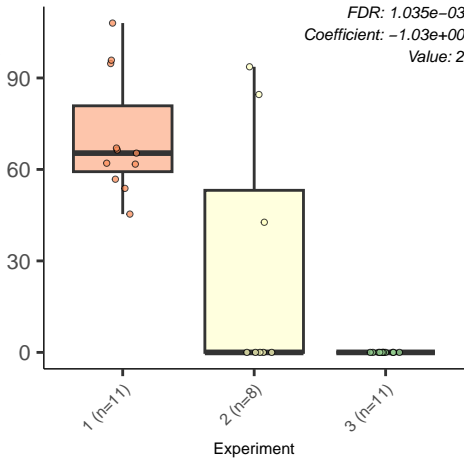
PWY.1861...formaldehyde.assimilation.II..RuMP.Cycle.

FDR: $1.004e-03$
Coefficient: $-1.95e+00$
Value: 2



HEXITOLDEGSUPER.PWY..superpathway.of.hexitol.degradation

FDR: 1.035e-03
Coefficient: -1.03e+00
Value: 2



PWY.6608..guanosine.nucleotides.degradation.III

FDR: 1.046e-03
Coefficient: 1.74e+00
Value: 3

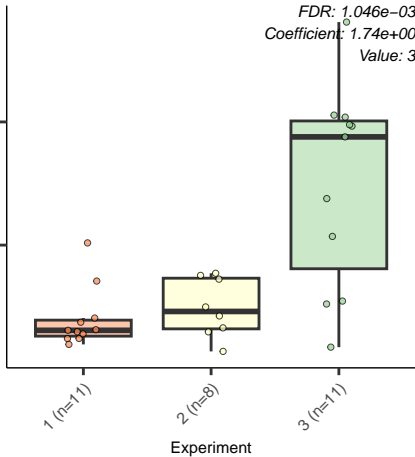
200
100

1 (n=11)

2 (n=8)

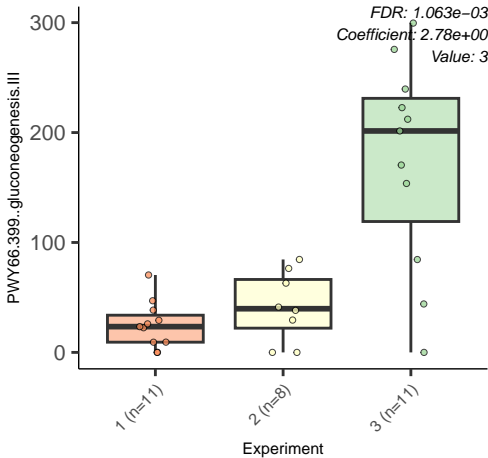
3 (n=11)

Experiment



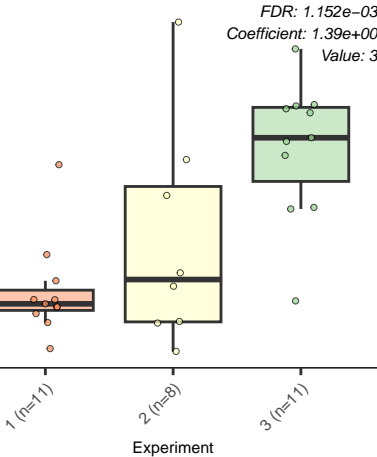
PWY66.399..gluconeogenesis.III

FDR: $1.063e-03$
Coefficient: $2.78e+00$
Value: 3



OANTIGEN.PWY..O.antigen.building.blocks.biosynthesis..E.

FDR: 1.152e-03
Coefficient: 1.39e+00
Value: 3



PWY5971..palmitate.biosynthesis..type.II.fatty.acid.synth

FDR: 1.224e-03
Coefficient: 2.69e+00
Value: 3

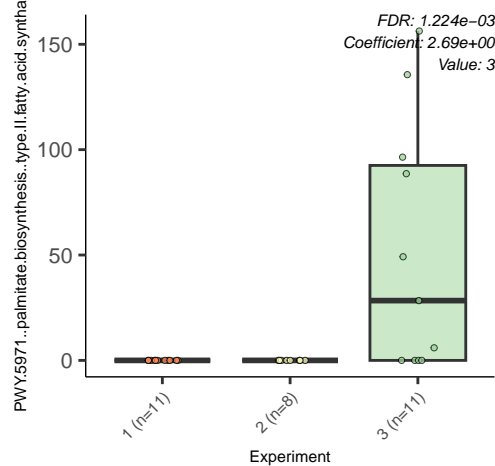
150
100
50
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



P108.PWY..pyruvate.fermentation.to.propanoate.l

FDR: 1.263e-03
Coefficient: -3.08e+00
Value: 3

30

20

10

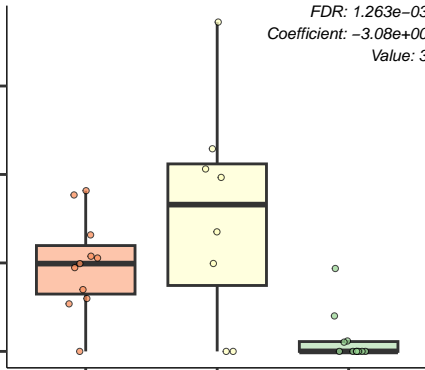
0

1 (n=11)

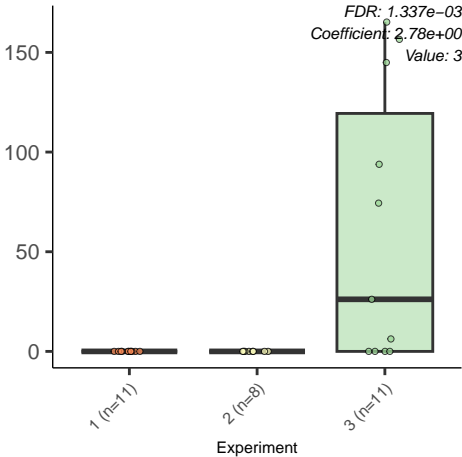
2 (n=8)

3 (n=11)

Experiment



PWY.6285..superpathway.of.fatty.acids.biosynthesis...E..co



X1CMET2.PWY..N10.formyl.tetrahydrofolate.biosynthesis

FDR: $1.394e-03$
Coefficient: $-4.64e-01$
Value: 2

300

200

100

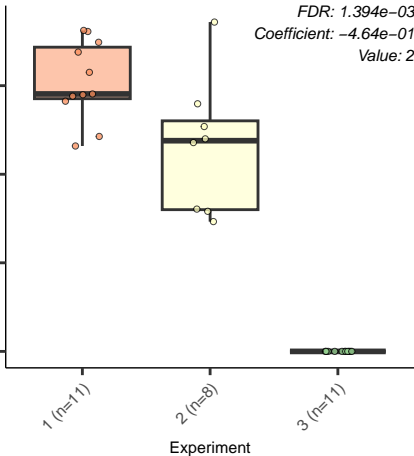
0

1 (n=11)

2 (n=8)

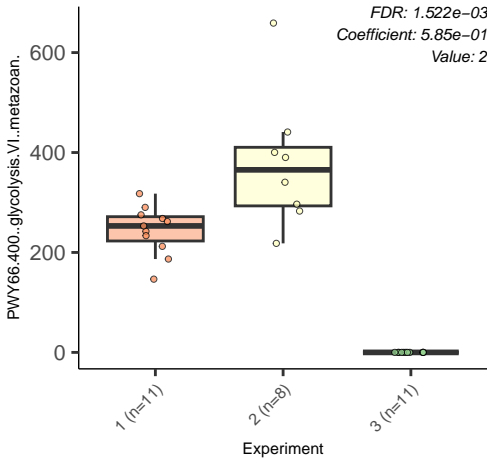
3 (n=11)

Experiment



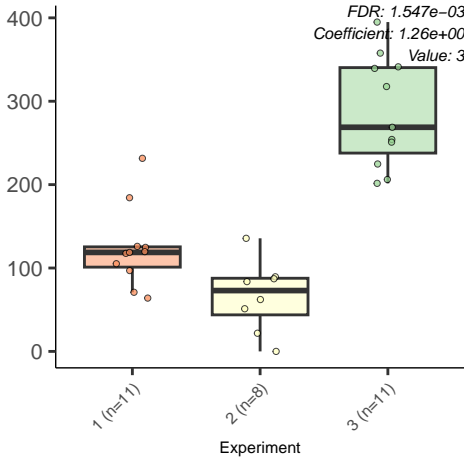
PWY66.400..glycolysis.Vl..metazoan.

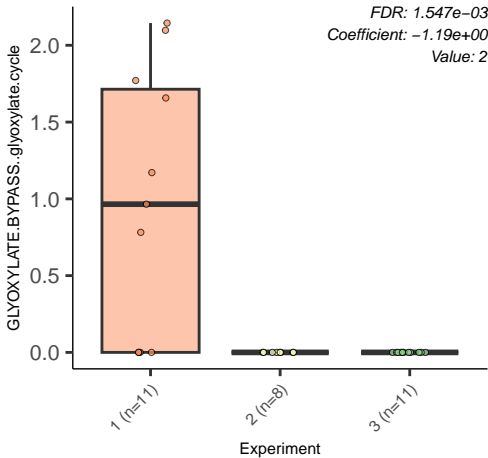
FDR: 1.522e-03
Coefficient: 5.85e-01
Value: 2



ANAEROFRUCAT.PWY..homolactic.fermentation

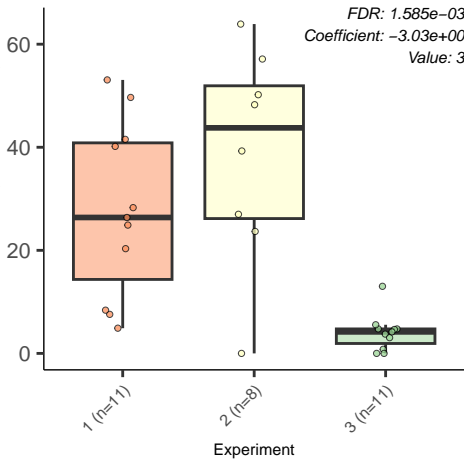
FDR: $1.547e-03$
Coefficient: $1.26e+00$
Value: 3



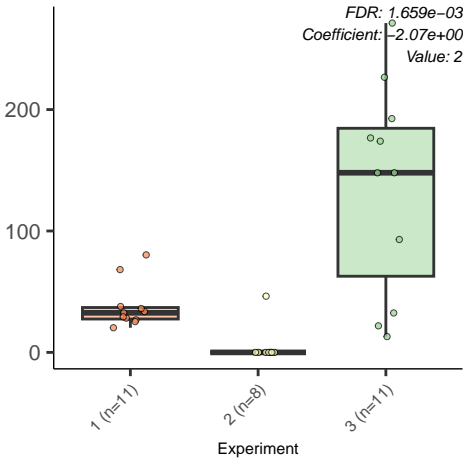


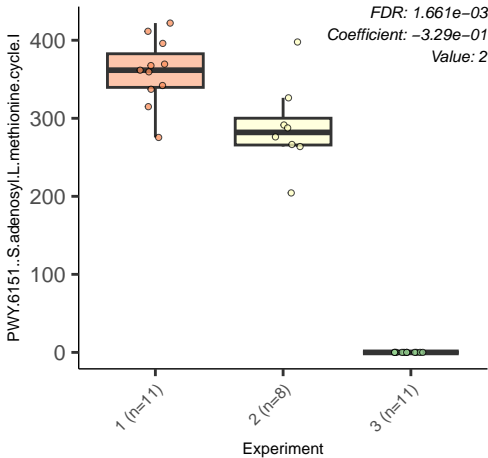
GALACTUROCAT.PWY..D.galacturonate.degradation.

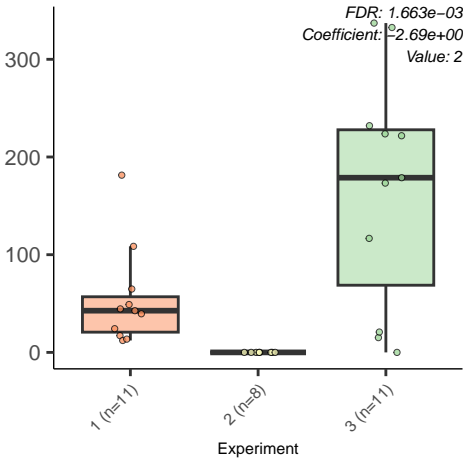
FDR: 1.585e-03
Coefficient: -3.03e+00
Value: 3

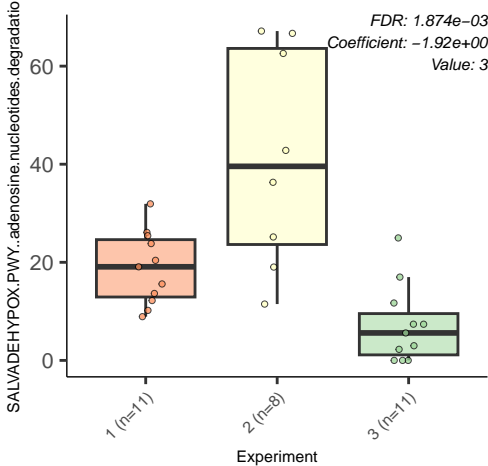


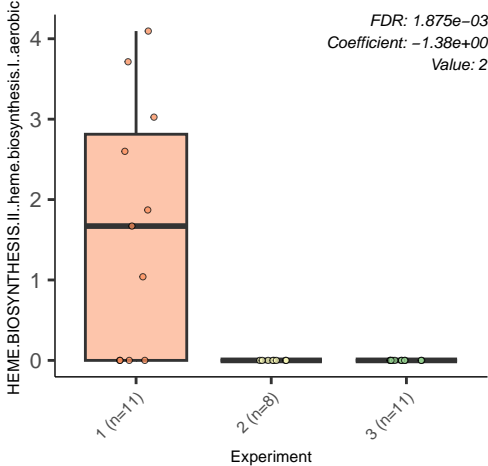
COLANSYN.PWY..colanic.acid.building.blocks.biosynthes





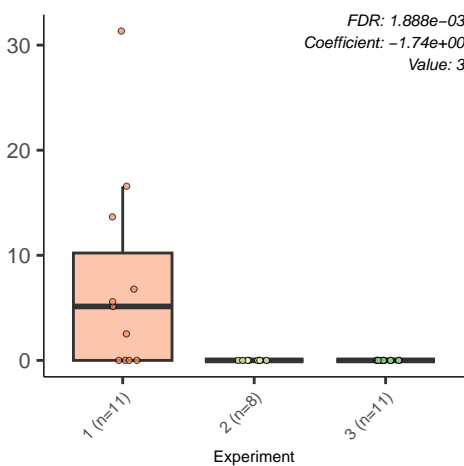






P441.PWY..superpathway.of.N.acetylneuraminate.degradation

FDR: $1.888e-03$
Coefficient: $-1.74e+00$
Value: 3



PWY.6595..superpathway.of.guanosine.nucleotides.degradation

FDR: $1.901e-03$
Coefficient: $-2.12e+00$
Value: 3

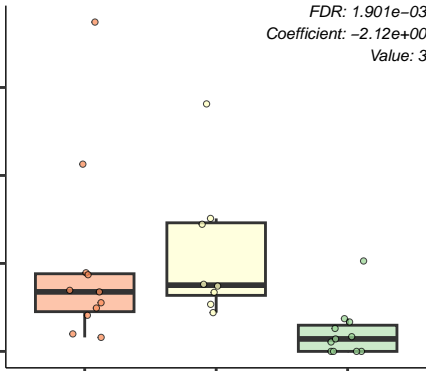
75
50
25
0

1 (n=11)

2 (n=8)

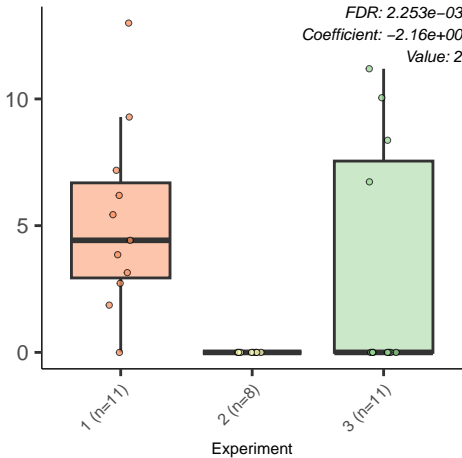
3 (n=11)

Experiment



P562.PWY..myo.inositol.degradation.I

FDR: 2.253e-03
Coefficient: -2.16e+00
Value: 2



PANTOSYN.PWY..pantothenate.and.coenzyme.A.biosynthe

FDR: 2.882e-03
Coefficient: -4.09e-01
Value: 2

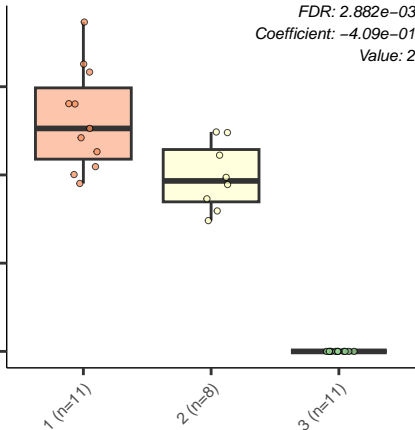
300
200
100
0

1 (n=11)

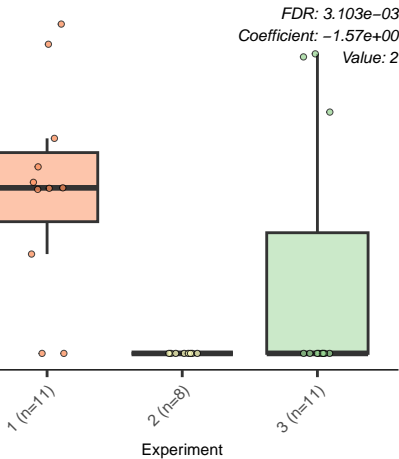
2 (n=8)

3 (n=11)

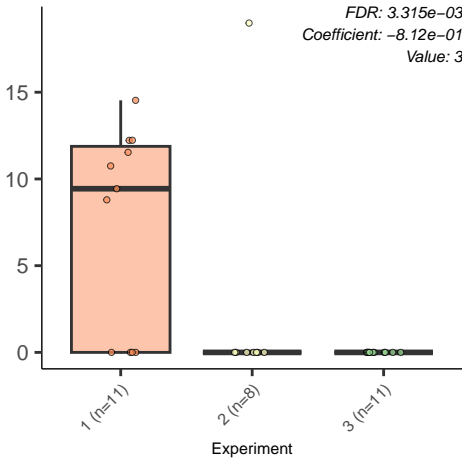
Experiment



POLYAMSYN.PWY..superpathway.of.polyamine.biosynthes



FDR: 3.315e-03
Coefficient: -8.12e-01
Value: 3



PWY.6703..preQ0.biosynthesis

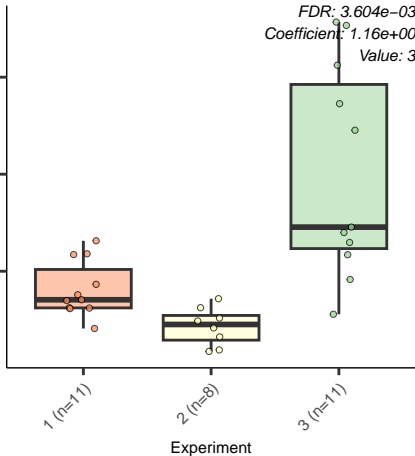
FDR: 3.604e-03
Coefficient: 1.16e+00
Value: 3

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



P441.PWY..superpathway.of.N.acetylneuraminate.degraded

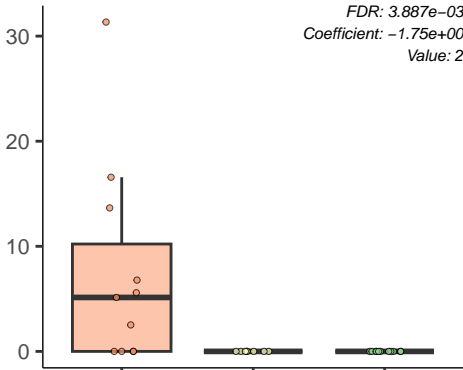
FDR: $3.887e-03$
Coefficient: $-1.75e+00$
Value: 2

1 (n=11)

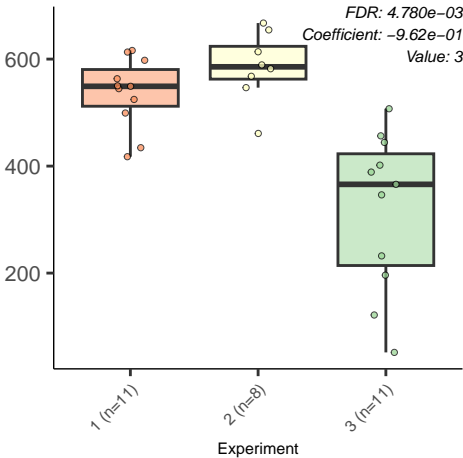
2 (n=8)

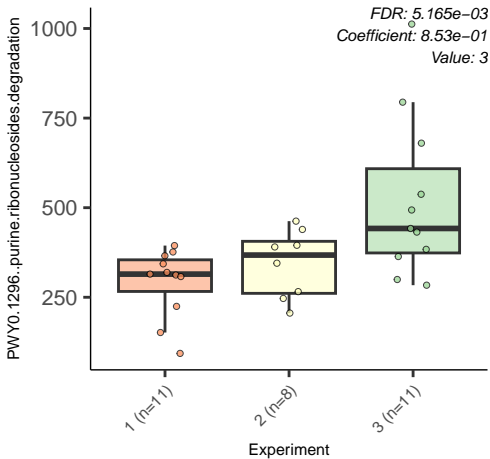
3 (n=11)

Experiment

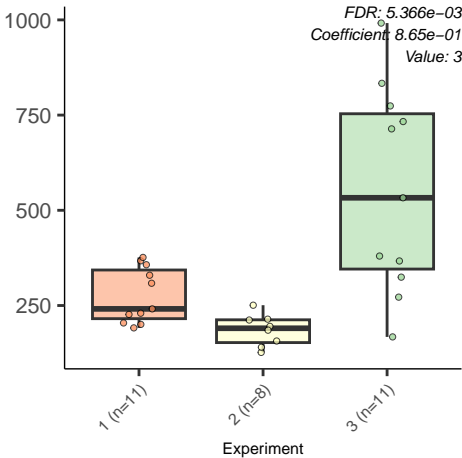


PWY.7111..pyruvate.fermentation.to.isobutanol..engineere





PANTO.PWY..phosphopantothenate.biosynthesis.I



GLUCONEO.PWY.gluconeogenesis.I

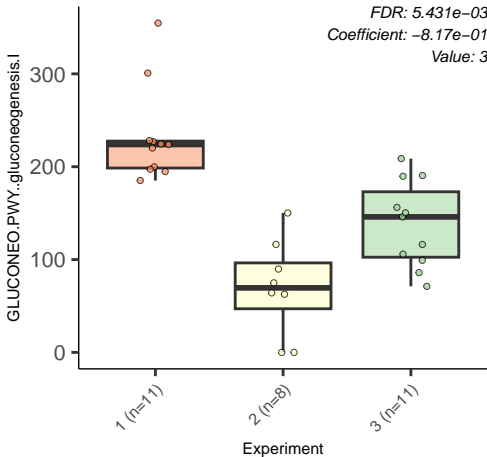
FDR: 5.431e-03
Coefficient: -8.17e-01
Value: 3

1 (n=11)

2 (n=8)

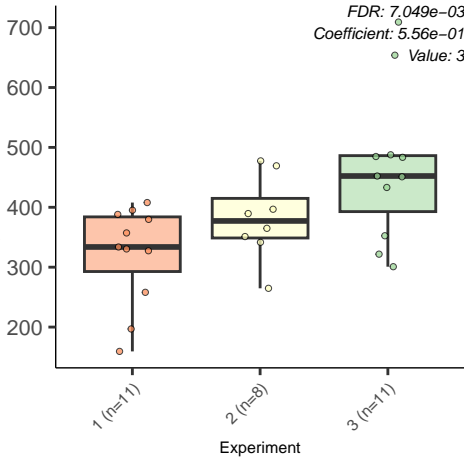
3 (n=11)

Experiment



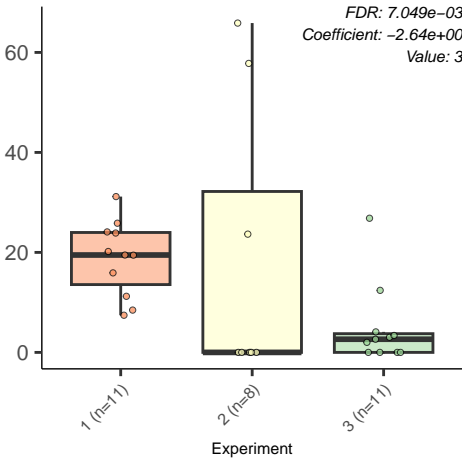
ARGSYN.PWY..L.arginine.biosynthesis.l..via.L.ornithine

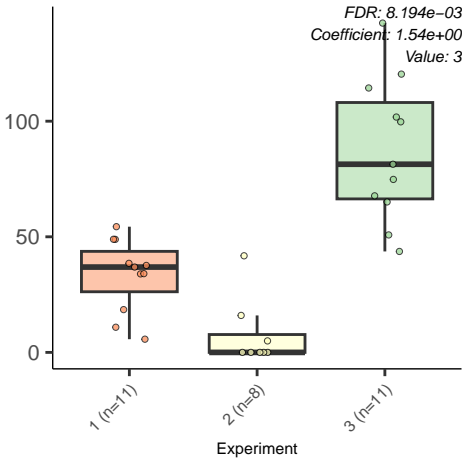
FDR: $7.049e-03$
Coefficient: $5.56e-01$
● Value: 3



P461.PWY..hexitol.fermentation.to.lactate..formate..ethanol.and

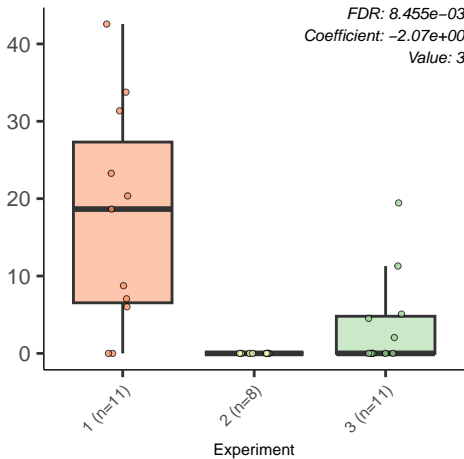
FDR: $7.049\text{e-}03$
Coefficient: $-2.64\text{e}+00$
Value: 3





PWY.7198..pyrimidine.deoxyribonucleotides.de.novo.biosynth

FDR: $8.455e-03$
Coefficient: $-2.07e+00$
Value: 3



PWY.6936...seleno.amino.acid.biosynthesis

FDR: 8.479e-03
Coefficient: 1.19e+00
Value: 2

200

100

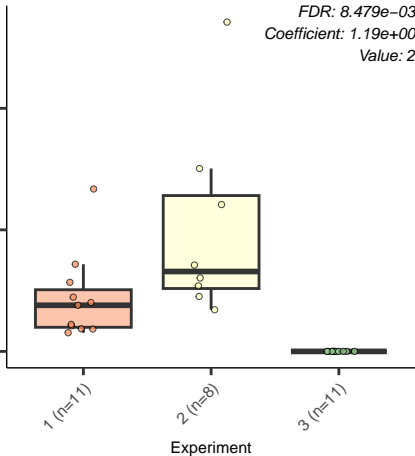
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.5989..stearate.biosynthesis.II..bacteria.and.plants

FDR: $8.935e-03$
Coefficient: $-2.82e+00$
Value: 2

200

100

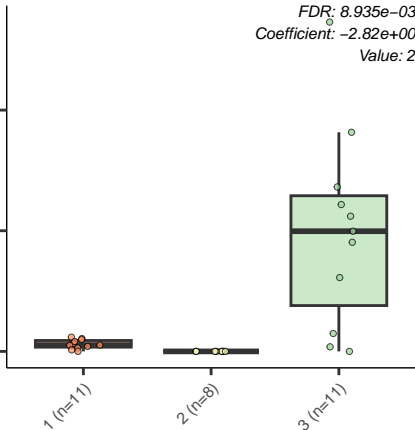
0

1 (n=11)

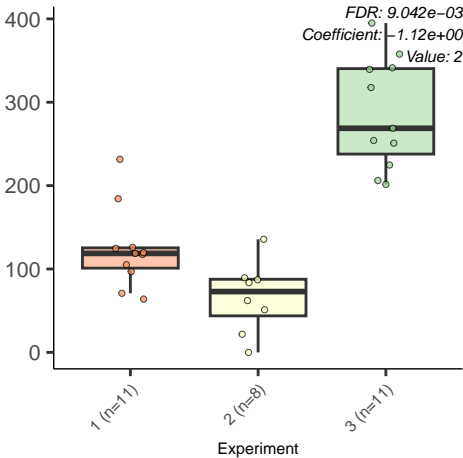
2 (n=8)

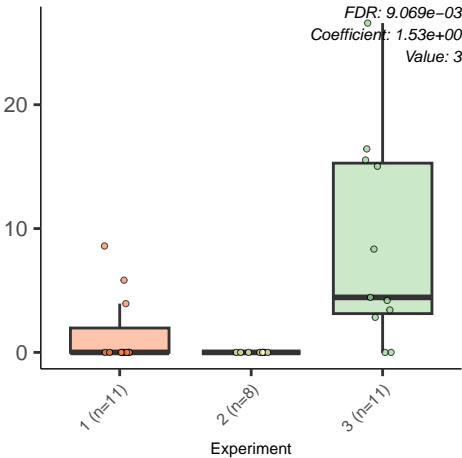
3 (n=11)

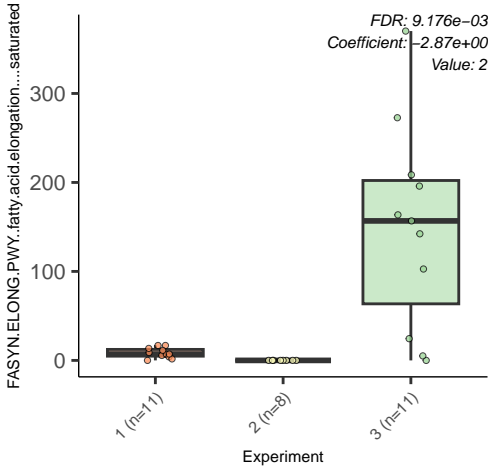
Experiment

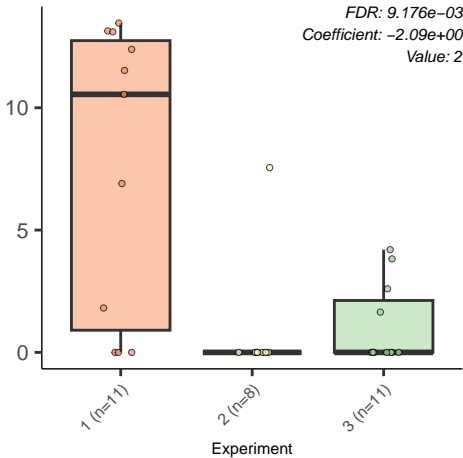


ANAEROFRUCAT.PWY..homolactic.fermentation



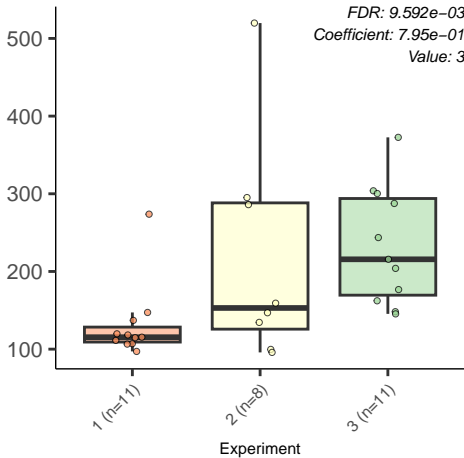






PWY.5100..pyruvate.fermentation.to.acetate.and.lactate.

FDR: 9.592e-03
Coefficient: 7.95e-01
Value: 3



PWY.7664..oleate.biosynthesis.IV..anaerobic.

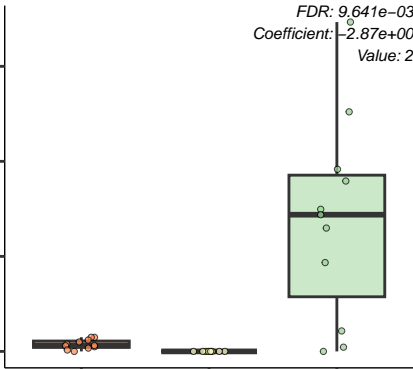
FDR: $9.641e-03$
Coefficient: $-2.87e+00$
Value: 2

1 (n=11)

2 (n=8)

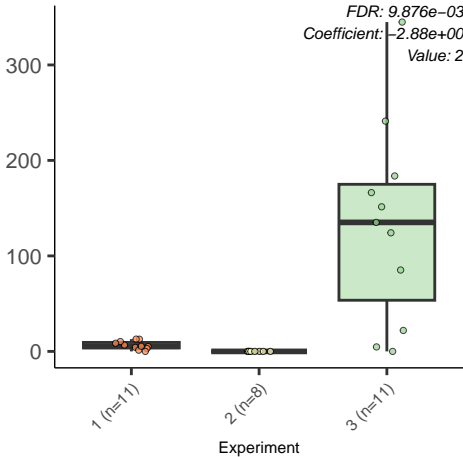
3 (n=11)

Experiment

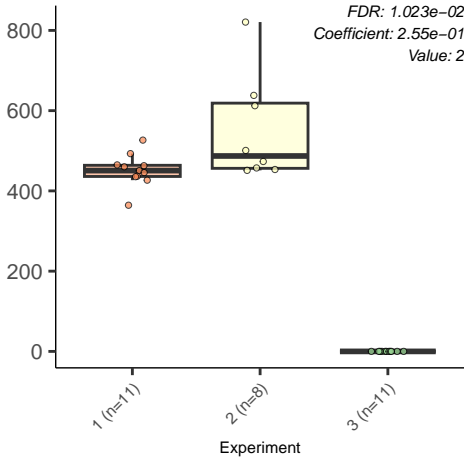


PWY.6282..palmitoleate.biosynthesis.l...from..5Z...dodec.5.en

FDR: $9.876e-03$
Coefficient: $-2.88e+00$
Value: 2

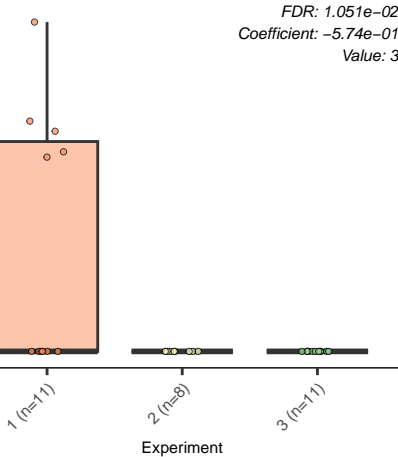


FDR: 1.023e-02
Coefficient: 2.55e-01
Value: 2



ARGORNPROST.PWY..arginine..ornithine.and.proline.intercon

FDR: 1.051e-02
Coefficient: -5.74e-01
Value: 3



VALSYN.PWY..L.valine.biosynthesis

FDR: 1.131e-02
Coefficient: 3.70e-01
Value: 3

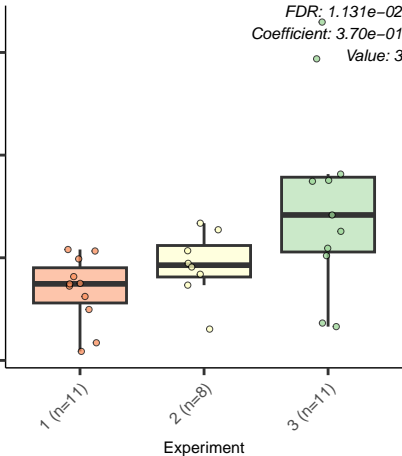
1 (n=11)

2 (n=8)

3 (n=11)

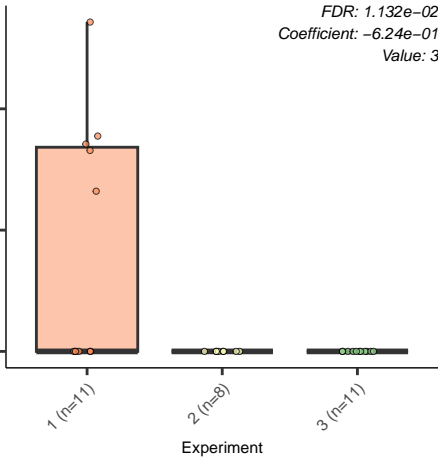
Experiment

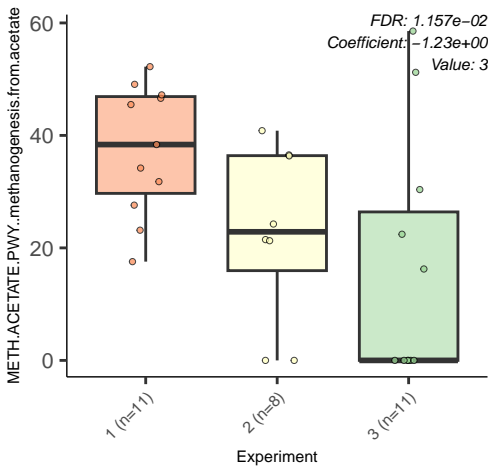
1000
800
600
400



Y.821..superpathway.of.sulfur.amino.acid.biosynthesis..Saccharomy

FDR: 1.132e-02
Coefficient: -6.24e-01
Value: 3





PWY0.781..aspartate.superpathway

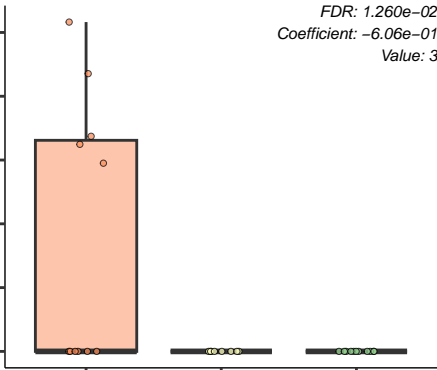
FDR: 1.260e-02
Coefficient: -6.06e-01
Value: 3

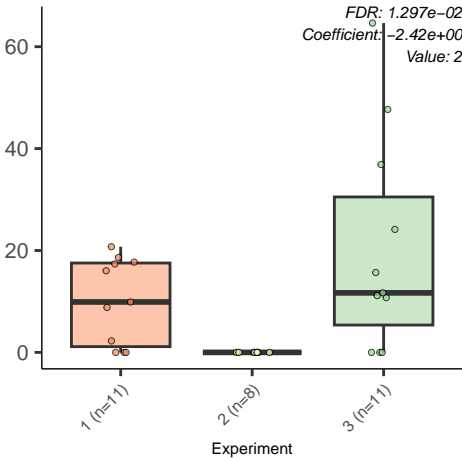
1 (n=11)

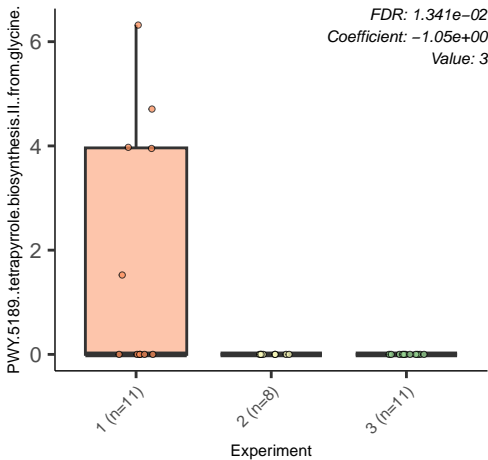
2 (n=8)

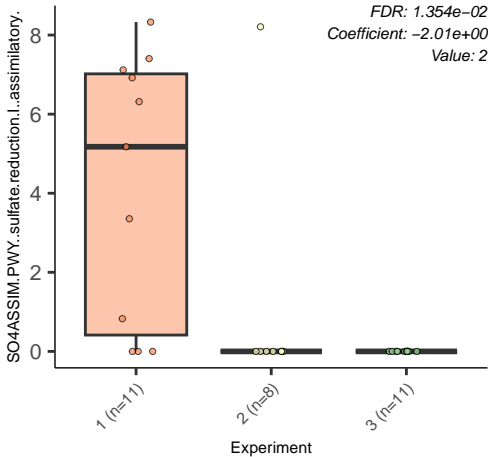
3 (n=11)

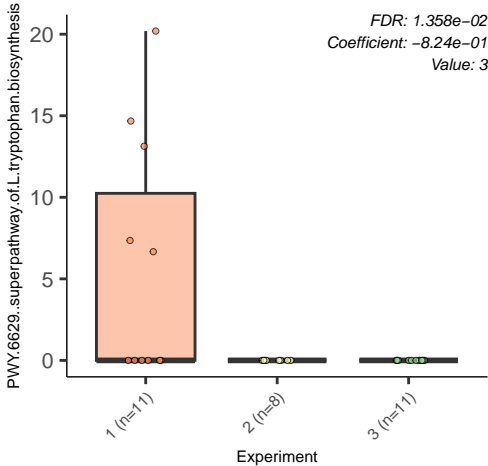
Experiment

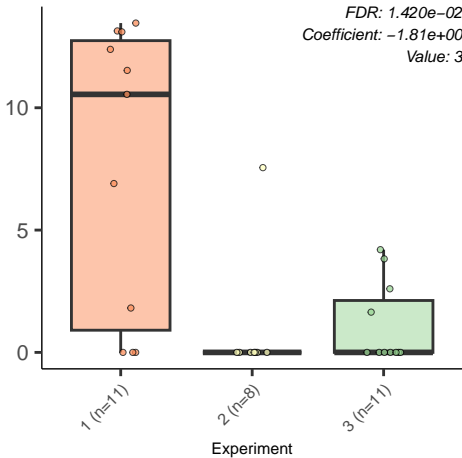












PWY.2723..trehalose.degradation.V

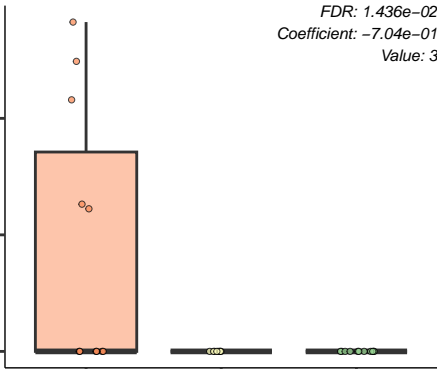
FDR: 1.436e-02
Coefficient: -7.04e-01
Value: 3

1 (n=11)

2 (n=8)

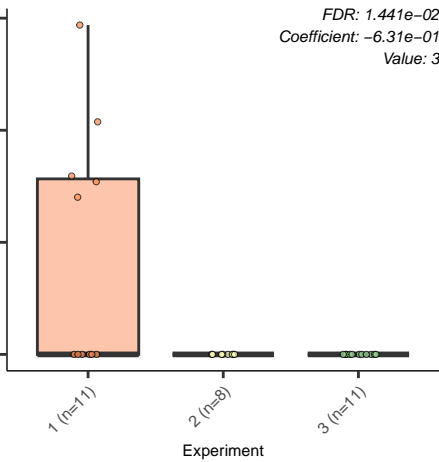
3 (n=11)

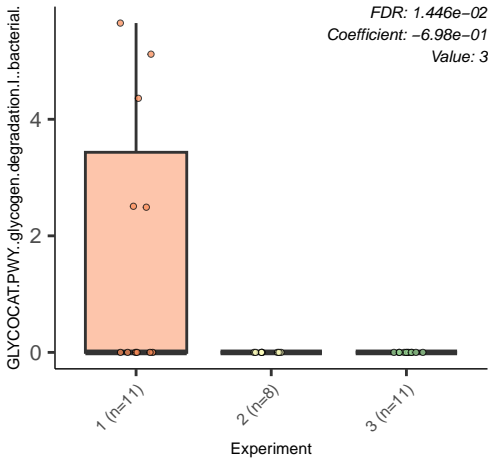
Experiment



P4.PWY..superpathway.of.L..lysine..L..threonine.and.L..methionine.b

FDR: 1.441e-02
Coefficient: -6.31e-01
Value: 3





COLANSYN.PWY..colanic.acid.building.blocks.biosynthes

FDR: 1.545e-02
Coefficient: 1.46e+00
Value: 3

200

100

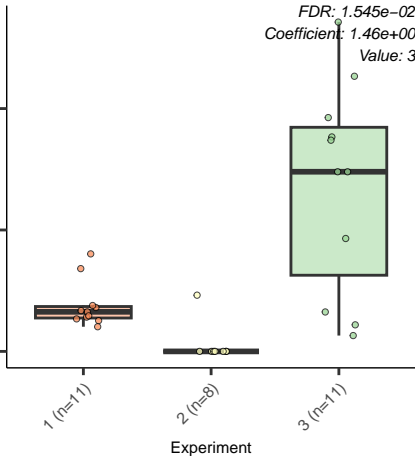
0

1 (n=11)

2 (n=8)

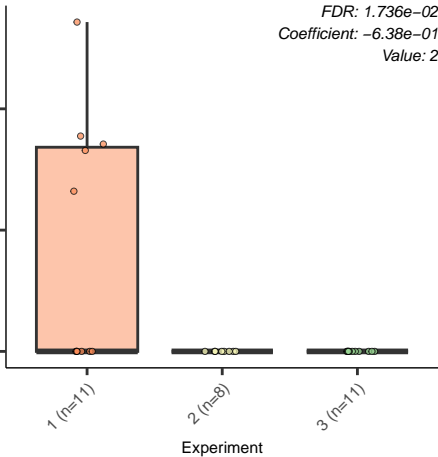
3 (n=11)

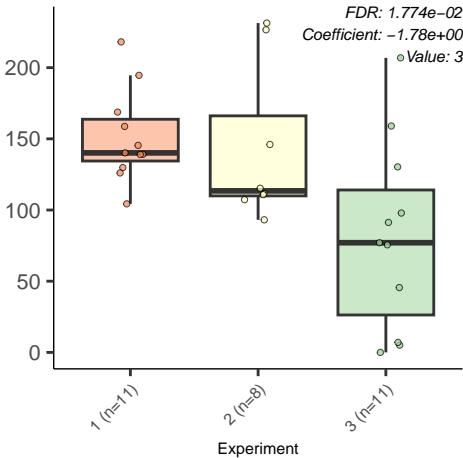
Experiment

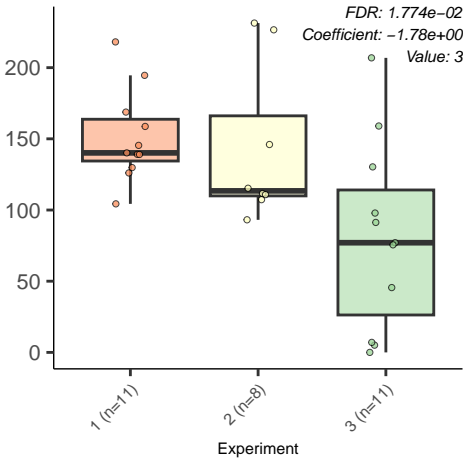


Y.821..superpathway.of.sulfur.amino.acid.biosynthesis..Saccharomy

FDR: 1.736e-02
Coefficient: -6.38e-01
Value: 2







PWY.1042..glycolysis.IV..plant.cytosol.

FDR: 1.847e-02
Coefficient: 2.41e-01
Value: 2

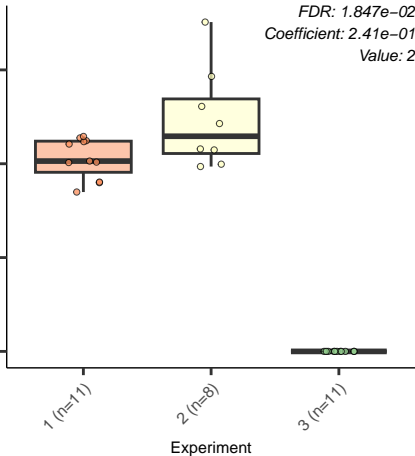
600
400
200
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.2941..L.lysine.biosynthesis.II

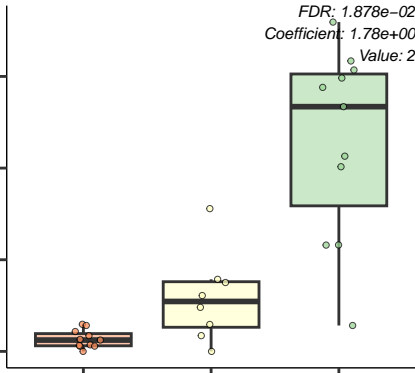
FDR: 1.878e-02
Coefficient: 1.78e+00
Value: 2

1 (n=11)

2 (n=8)

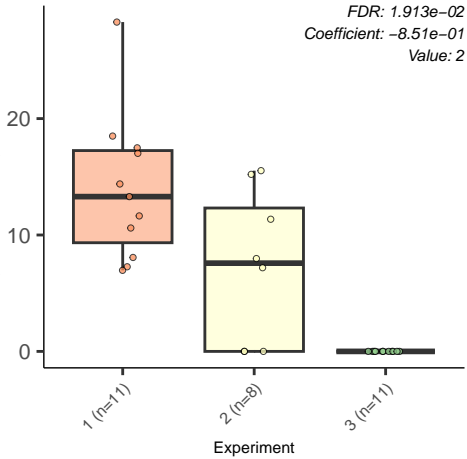
3 (n=11)

Experiment



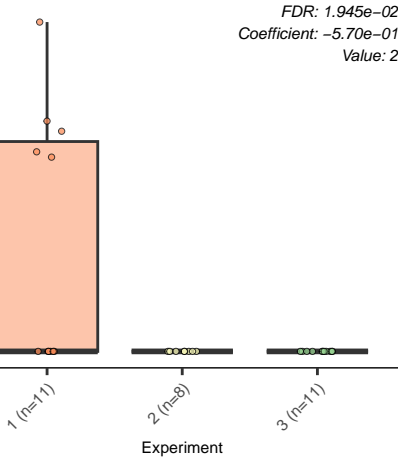
PWY5505..L.glutamate.and.L.glutamine.biosynthesis

FDR: 1.913e-02
Coefficient: -8.51e-01
Value: 2



ARGORNPROST.PWY..arginine..ornithine.and.proline.intercon

FDR: 1.945e-02
Coefficient: -5.70e-01
Value: 2



PWY.6703..preQ0.biosynthesis

FDR: 2.033e-02
Coefficient: -1.00e+00
Value: 2

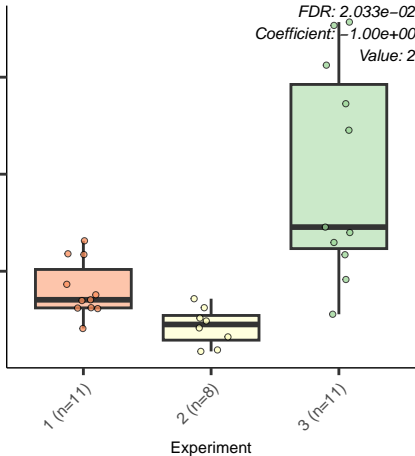
600
400
200

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.2723..trehalose.degradation.V

FDR: 2.142e-02
Coefficient: -7.20e-01
Value: 2

1 (n=11)

2 (n=8)

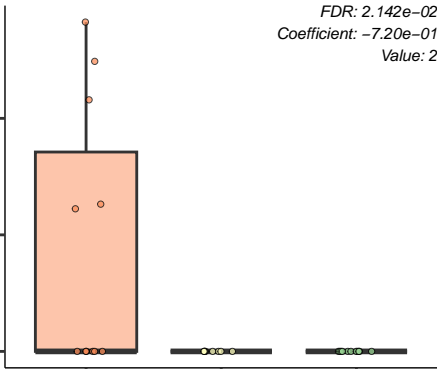
3 (n=11)

Experiment

2

1

0



PWY0.781..aspartate.superpathway

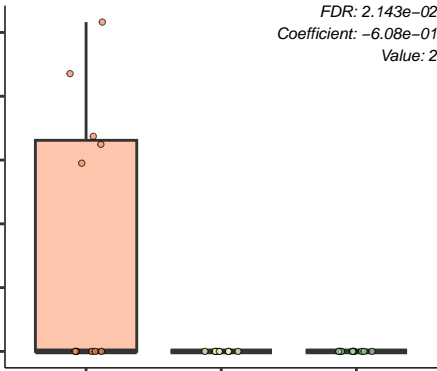
FDR: 2.143e-02
Coefficient: -6.08e-01
Value: 2

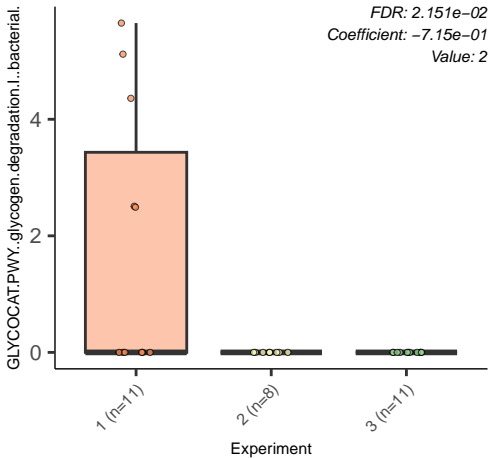
1 (n=11)

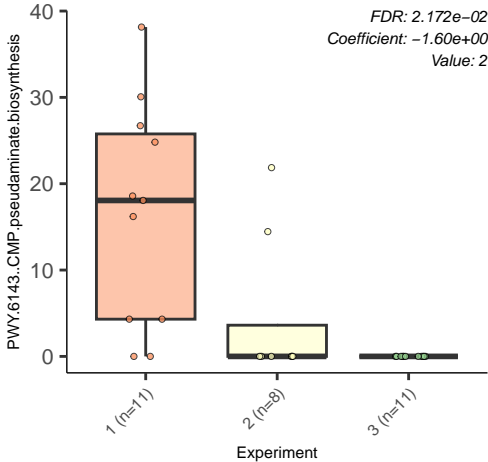
2 (n=8)

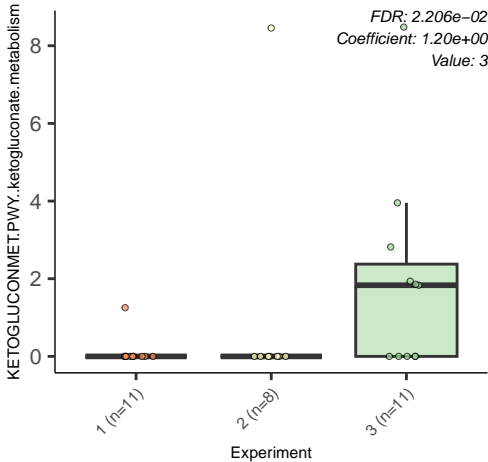
3 (n=11)

Experiment









PWY.5676..acetyl.CoA.fermentation.to.butanoate.II

FDR: 2.309e-02
Coefficient: -2.39e+00
Value: 3

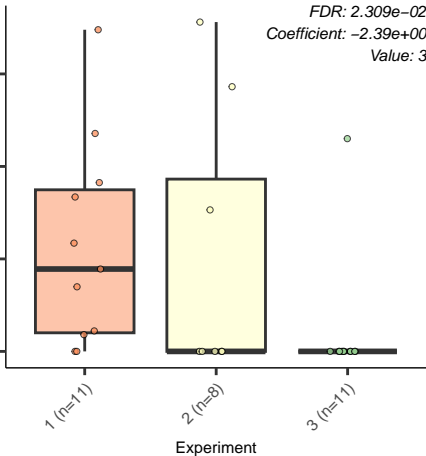
15
10
5
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY5005...biotin.biosynthesis.II

FDR: 2.383e-02
Coefficient: -2.17e+00
Value: 3

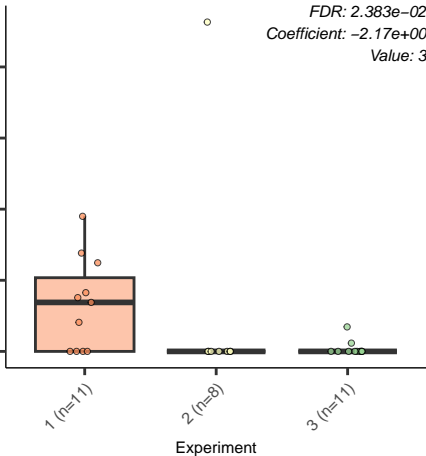
20
15
10
5
0

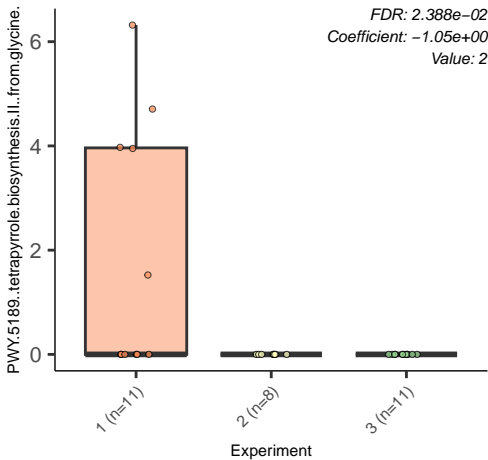
1 (n=11)

2 (n=8)

3 (n=11)

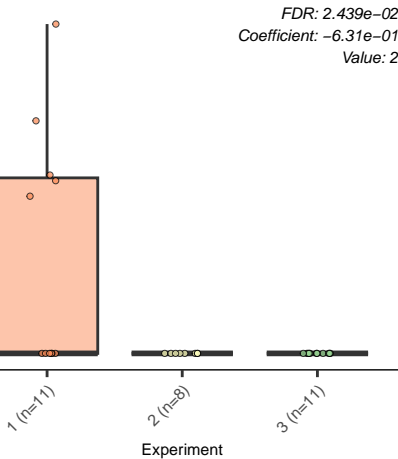
Experiment

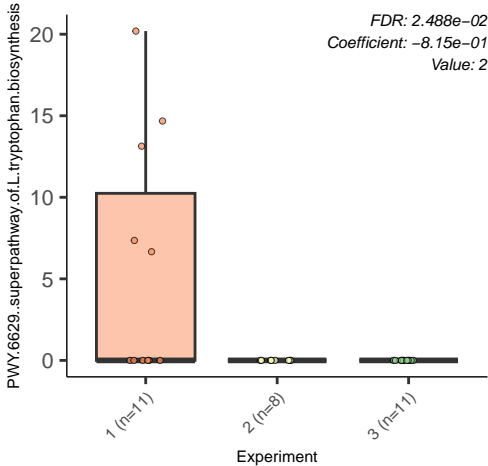




P4.PWY..superpathway.of.L..lysine..L..threonine.and.L..methionine.b

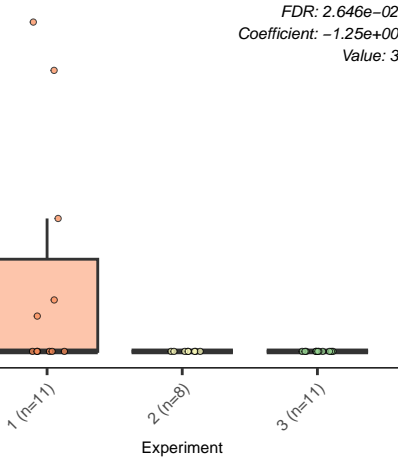
FDR: 2.439e-02
Coefficient: -6.31e-01
Value: 2





GOLPDLCAT.PWY..superpathway.of.glycerol.degradation.to.1.3.p

FDR: 2.646e-02
Coefficient: -1.25e+00
Value: 3



CITRULBIO.PWY..L.citrulline.biosynthesis

FDR: 2.793e-02
Coefficient: 2.13e+00
Value: 3

75

50

25

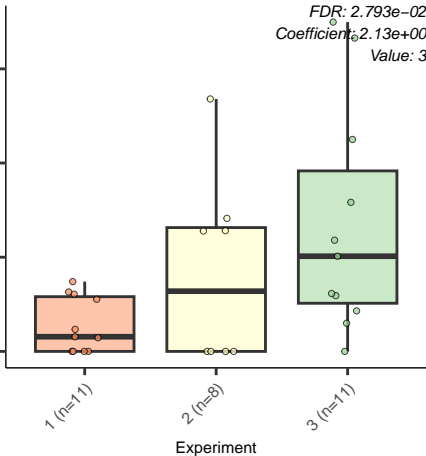
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.4984..urea.cycle

FDR: 2.869e-02
Coefficient: 2.13e+00
Value: 3

60

40

20

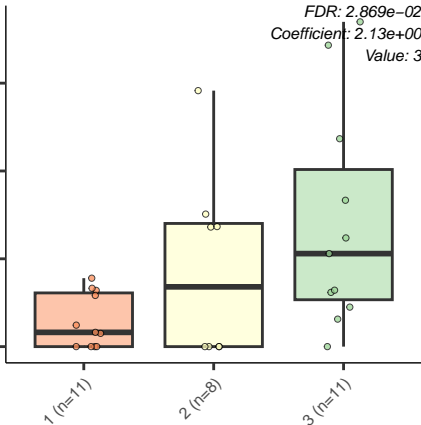
0

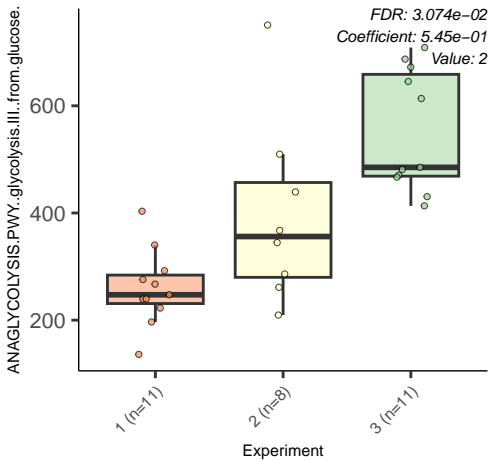
1 (n=11)

2 (n=8)

3 (n=11)

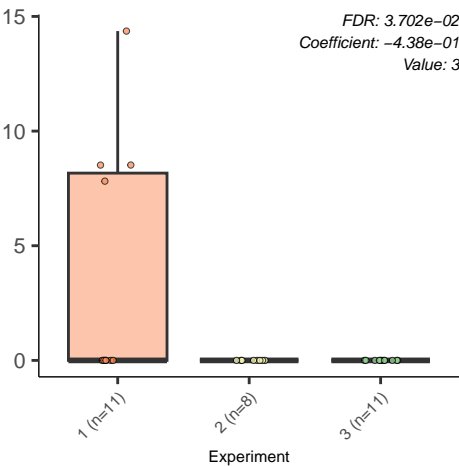
Experiment





P162.PWY..L-glutamate.degradation.V..via.hydroxyglutara

FDR: 3.702e-02
Coefficient: -4.38e-01
Value: 3



PWY.5913..TCA.cycle.VI..obligate.autotrophs.

FDR: 3.817e-02
Coefficient: 1.31e+00
Value: 2

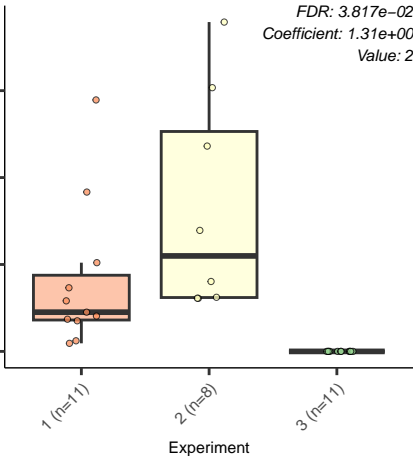
150
100
50
0

1 (n=11)

2 (n=8)

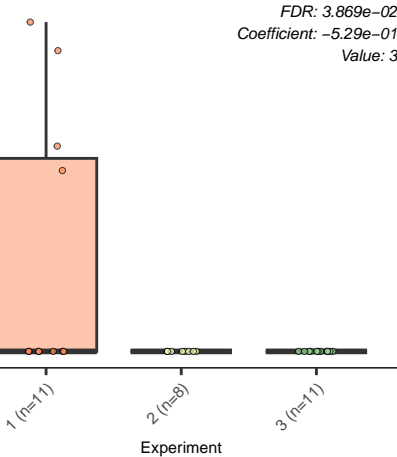
3 (n=11)

Experiment



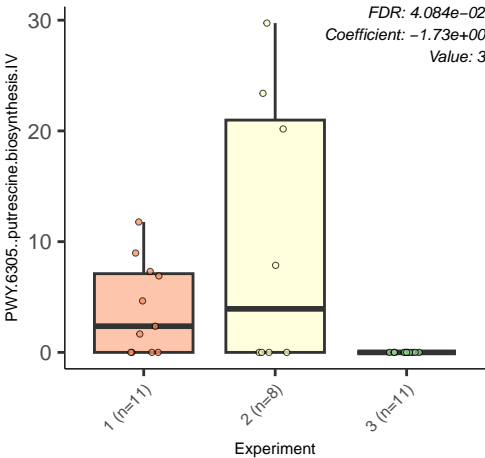
PWY.5918..superpathay.of.heme.biosynthesis.from.glutam

FDR: 3.869e-02
Coefficient: -5.29e-01
Value: 3



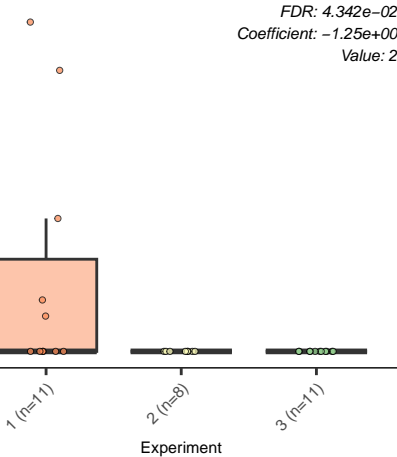
PWY.6305..putrescine.biosynthesis.IV

FDR: 4.084e-02
Coefficient: -1.73e+00
Value: 3



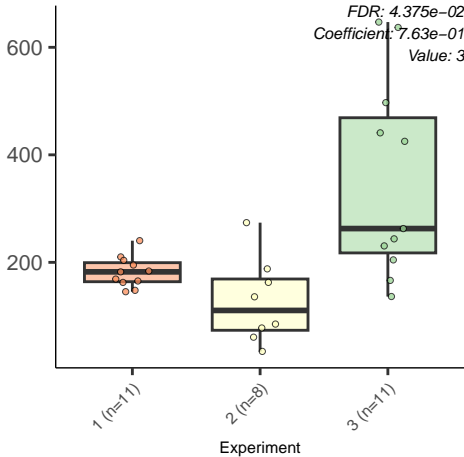
GOLPDLCAT.PWY..superpathway.of.glycerol.degradation.to.1.3.p

FDR: 4.342e-02
Coefficient: -1.25e+00
Value: 2

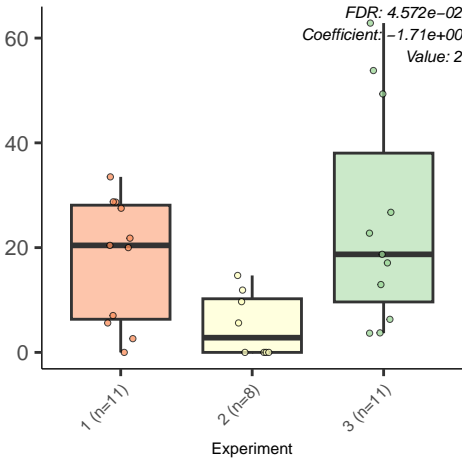


HSERMETANA.PWY..L..methionine.biosynthesis.III

FDR: 4.375e-02
Coefficient: 7.63e-01
Value: 3

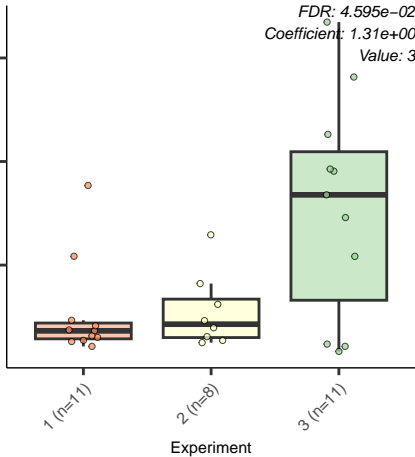


PWY.241..C4.photosynthetic.carbon.assimilation.cycle..NADP.



PWY.6606..guanosine.nucleotides.degradation.II

FDR: 4.595e-02
Coefficient: 1.31e+00
Value: 3



PWY.5723..Rubisco.shunt

60
40
20
0

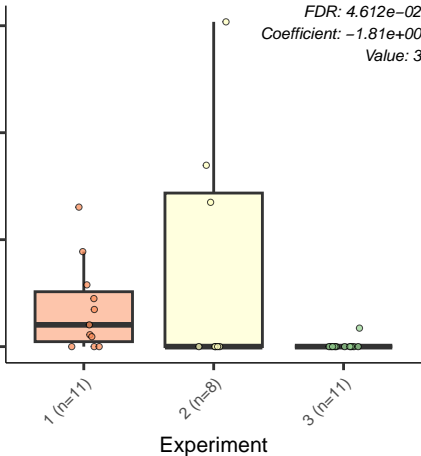
FDR: 4.612e-02
Coefficient: -1.81e+00
Value: 3

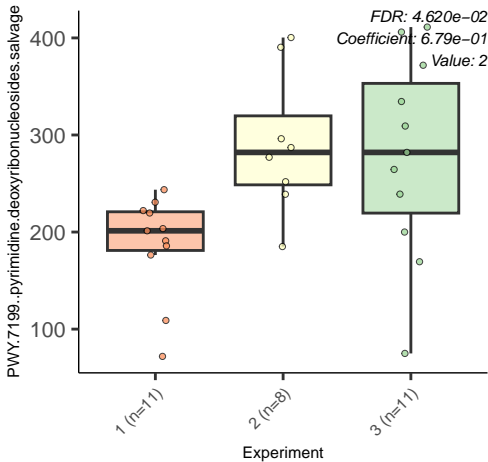
1 (n=11)

2 (n=8)

3 (n=11)

Experiment





PWY.6895...superpathway.of.thiamin.diphosphate.biosynthe

FDR: 4.627e-02
Coefficient: -5.78e-01
Value: 3

10

5

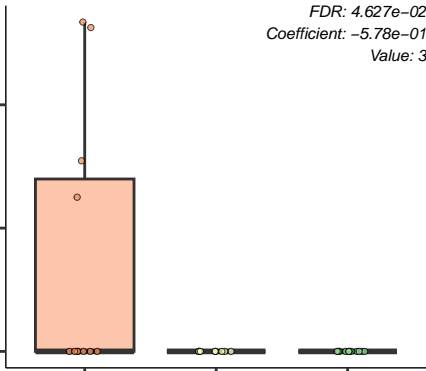
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PYRIDNUCSYN.PWY..NAD.biosynthesis.l..from.aspartat

FDR: $4.627e-02$
Coefficient: $-3.14e-01$
Value: 2

200

100

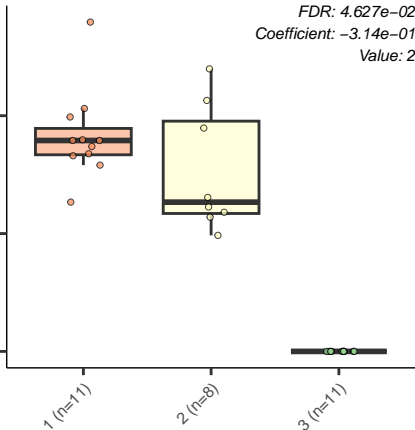
0

1 (n=11)

2 (n=8)

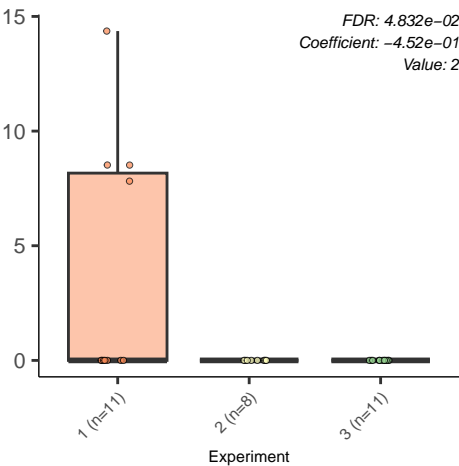
3 (n=11)

Experiment



P162.PWY..L-glutamate.degradation.V..via.hydroxyglutara

FDR: 4.832e-02
Coefficient: -4.52e-01
Value: 2



PWY.6891..thiazole.biosynthesis.II..Bacillus.

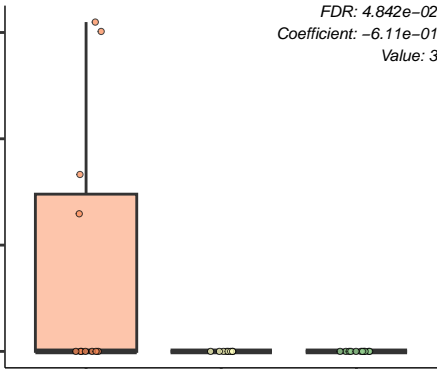
FDR: 4.842e-02
Coefficient: -6.11e-01
Value: 3

1 (n=11)

2 (n=8)

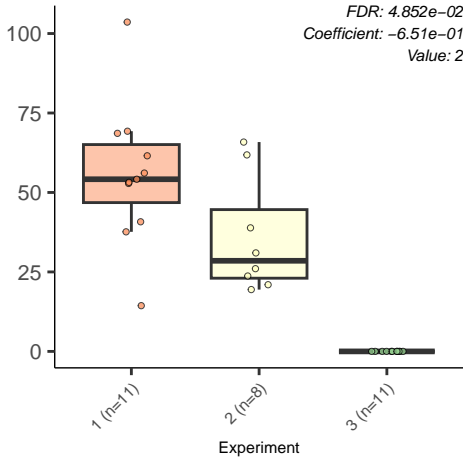
3 (n=11)

Experiment

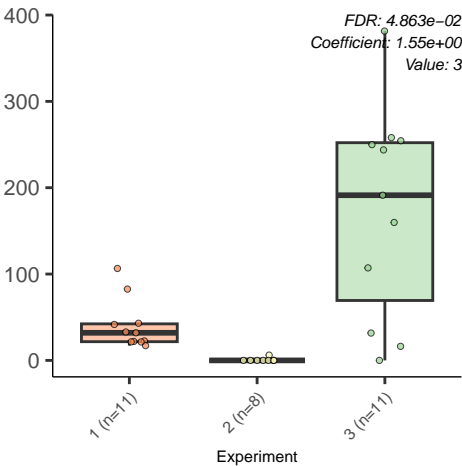


TRPSYN.PWY..L tryptophan.biosynthesis

FDR: 4.852e-02
Coefficient: -6.51e-01
Value: 2



PWY.6147..6.hydroxymethyl.dihydropterin.diphosphate.biosyn



GLYCOLYSIS.glycolysis.l..from.glucose.6.phosphate.

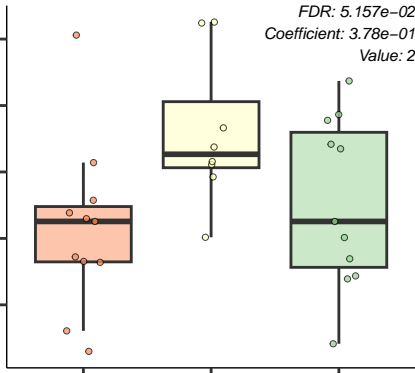
FDR: 5.157e-02
Coefficient: 3.78e-01
Value: 2

1 (n=11)

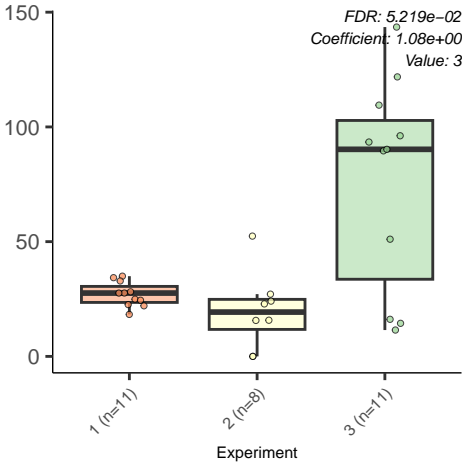
2 (n=8)

3 (n=11)

Experiment



P164.PWY..purine.nucleobases.degradation.l...anaerobic



PWY.6901...superpathway.of.glucose.and.xylose.degradati

FDR: $5.414e-02$
Coefficient: $-1.17e+00$
Value: 2

90

60

30

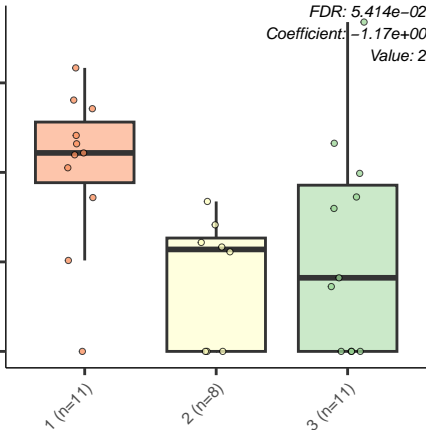
0

1 (n=11)

2 (n=8)

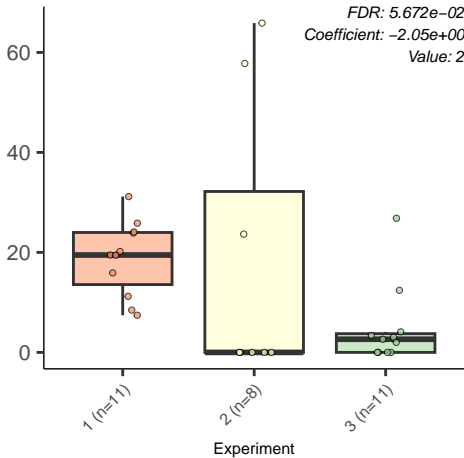
3 (n=11)

Experiment

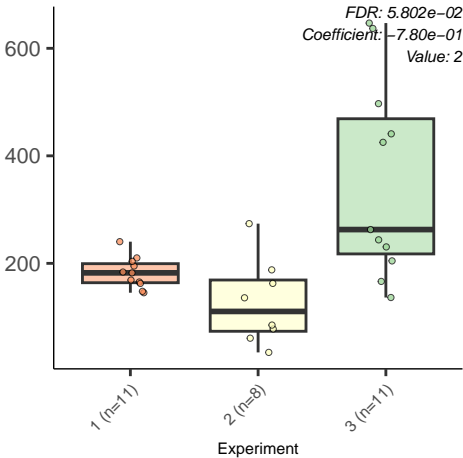


P461.PWY..hexitol.fermentation.to.lactate..formate..ethanol.and

FDR: 5.672e-02
Coefficient: -2.05e+00
Value: 2

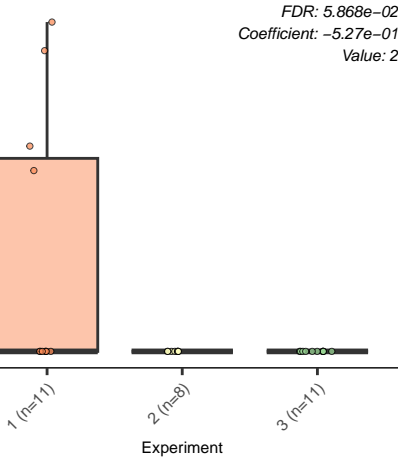


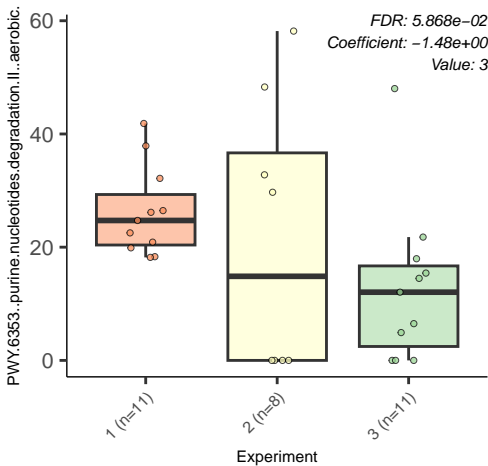
HSERMETANA.PWY..L.methionine.biosynthesis.III

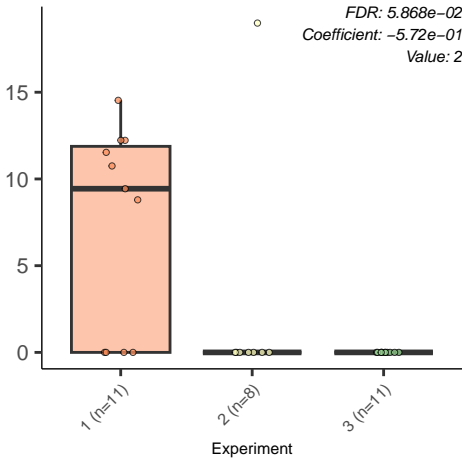


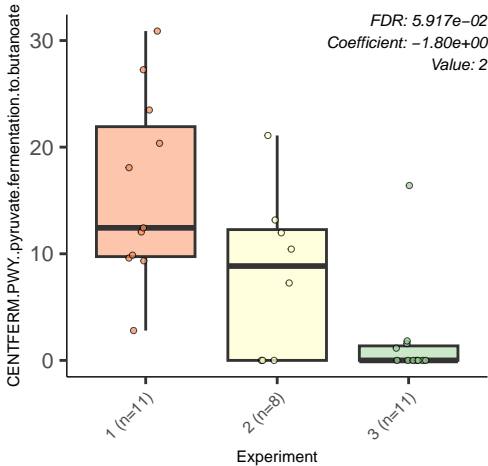
PWY.5918..superpathay.of.heme.biosynthesis.from.glutam

FDR: 5.868e-02
Coefficient: -5.27e-01
Value: 2









PWY.6527..stachyose.degradation

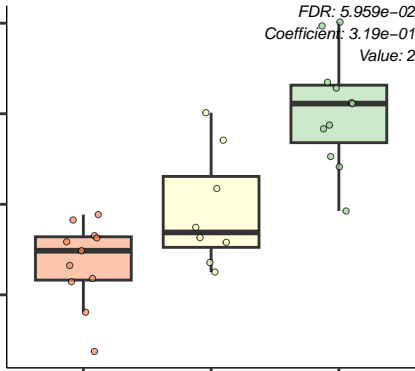
FDR: 5.959e-02
Coefficient: 3.19e-01
Value: 2

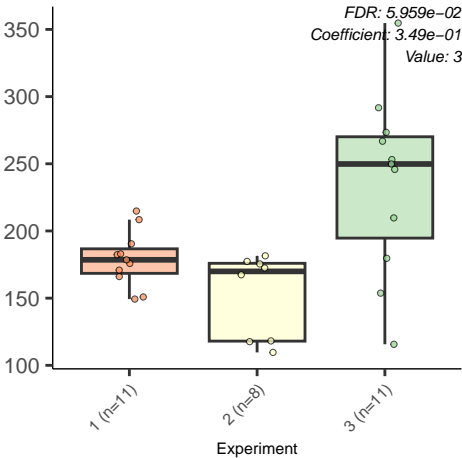
1 (n=11)

2 (n=8)

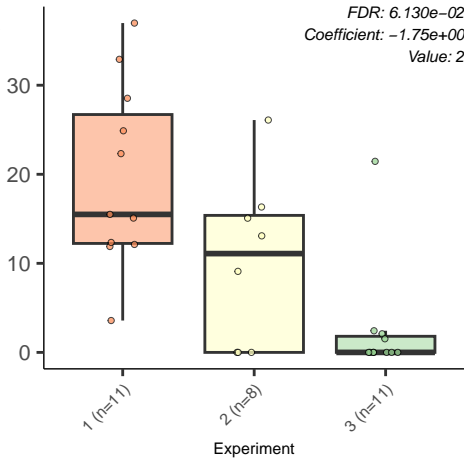
3 (n=11)

Experiment

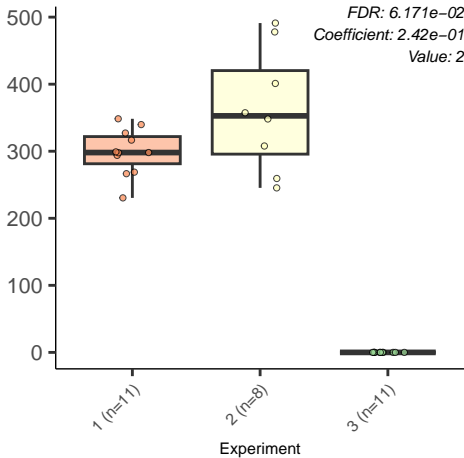




FDR: $6.130e-02$
Coefficient: $-1.75e+00$
Value: 2



FDR: 6.171e-02
Coefficient: 2.42e-01
Value: 2



PWY.6895...superpathway.of.thiamin.diphosphate.biosynthe

FDR: 6.464e-02
Coefficient: -5.83e-01
Value: 2

10

5

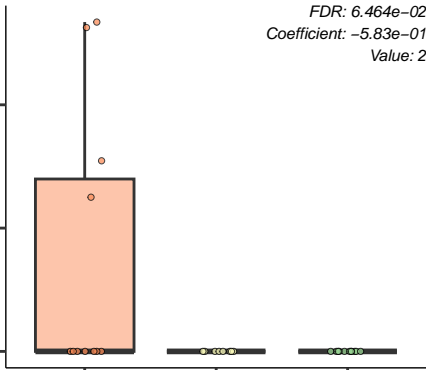
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.6891..thiazole.biosynthesis.II..Bacillus.

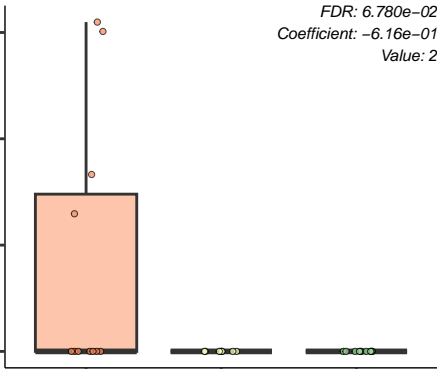
FDR: 6.780e-02
Coefficient: -6.16e-01
Value: 2

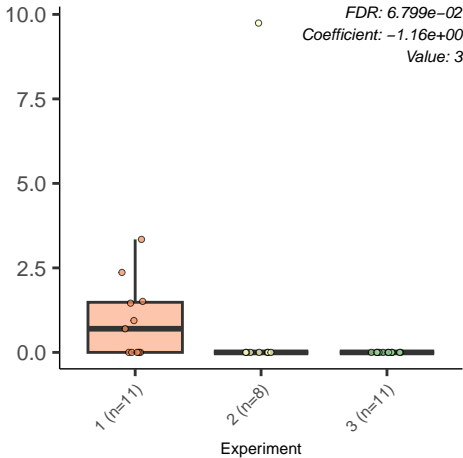
1 (n=11)

2 (n=8)

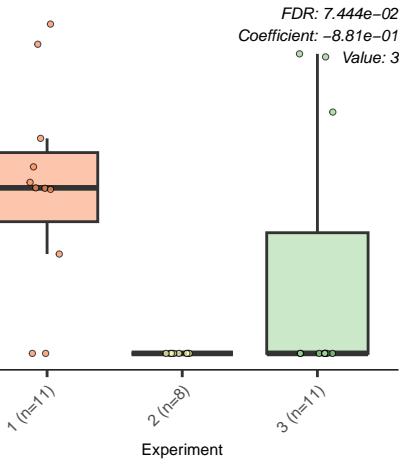
3 (n=11)

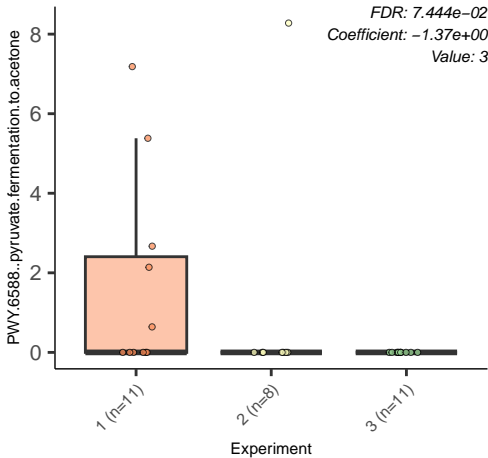
Experiment

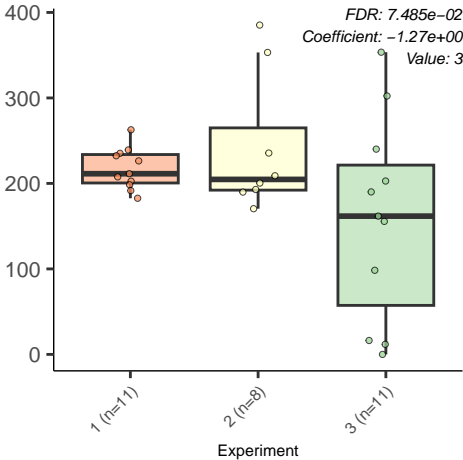


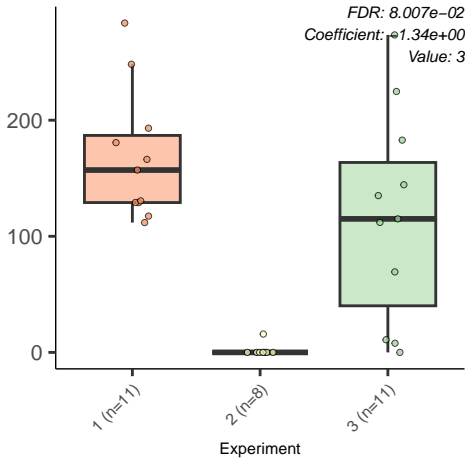


POLYAMSYN.PWY..superpathway.of.polyamine.biosynthes



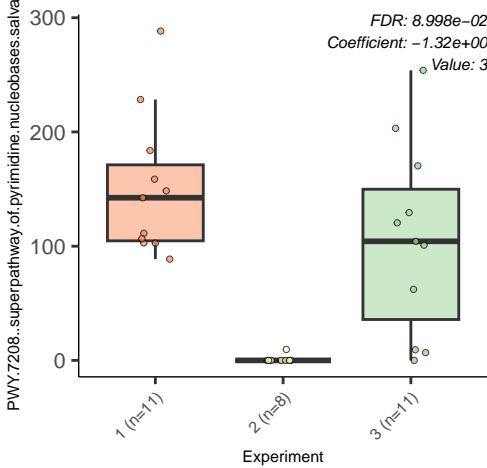


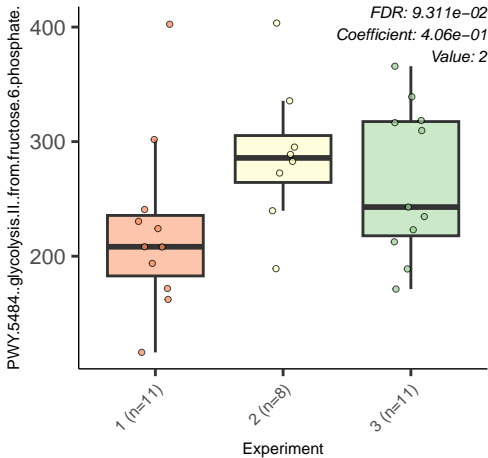




PWY.7208..superpathway.of.pyrimidine.nucleobases.salva

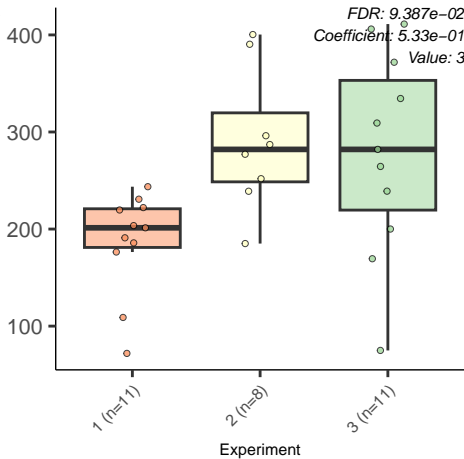
FDR: 8.998e-02
Coefficient: -1.32e+00
Value: 3

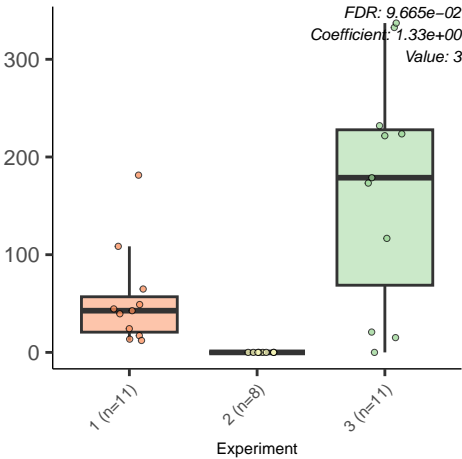




PWY.7199..pyrimidine.deoxyribonucleosides.salvage

FDR: $9.387e-02$
Coefficient: $5.33e-01$
Value: 3





PWY.6901...superpathway.of.glucose.and.xylose.degradati

FDR: 1.026e-01
Coefficient: -9.25e-01
Value: 3

90

60

30

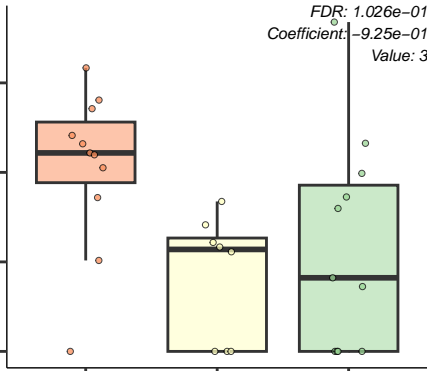
0

1 (n=11)

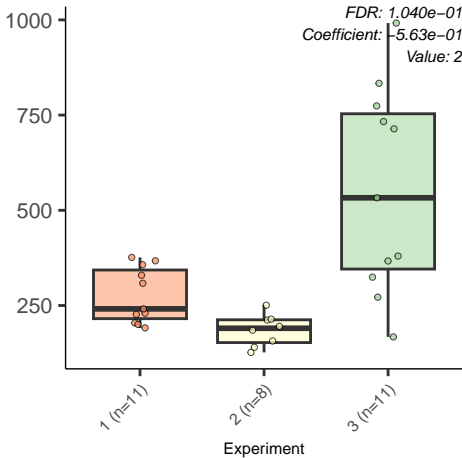
2 (n=8)

3 (n=11)

Experiment



PANTO.PWY..phosphopantothenate.biosynthesis.I



HISTSYN.PWY..L.histidine.biosynthesis

300

200

100

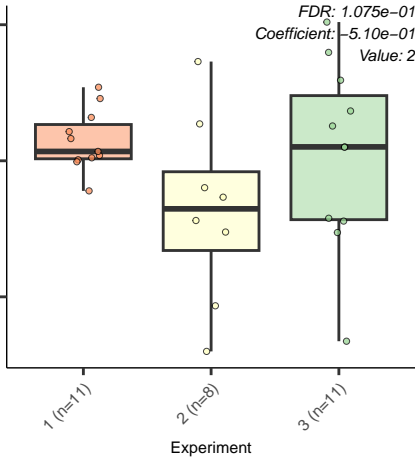
1 (n=11)

2 (n=8)

3 (n=11)

Experiment

FDR: 1.075e-01
Coefficient: -5.10e-01
Value: 2



PWY5005...biotin.biosynthesis.II

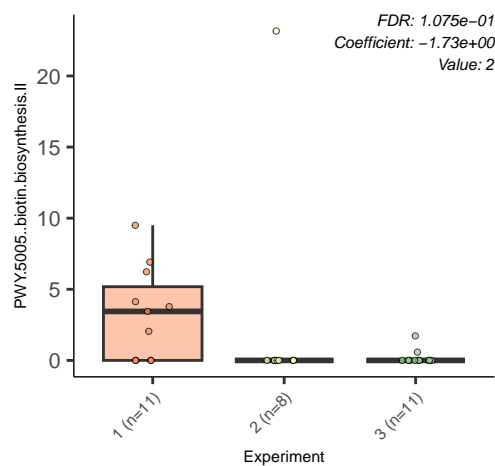
FDR: 1.075e-01
Coefficient: -1.73e+00
Value: 2

1 (n=11)

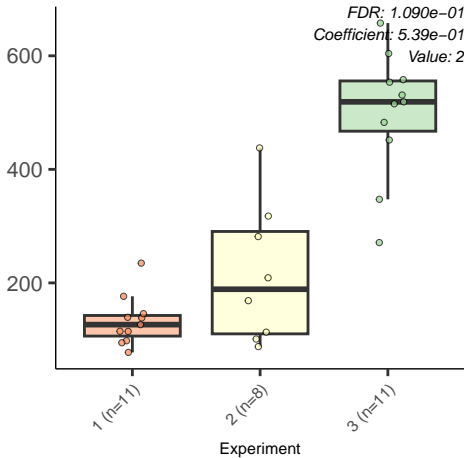
2 (n=8)

3 (n=11)

Experiment

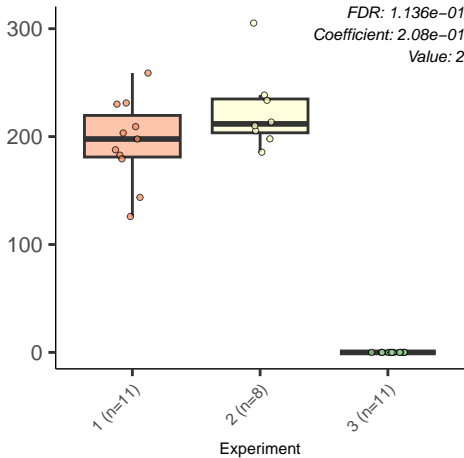


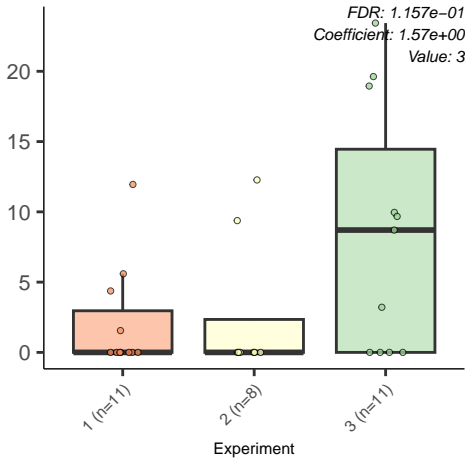
GLYCOGENSYNTH.PWY..glycogen.biosynthesis.l..from.ADP.D.



PWY66.422..D.galactose.degradation.V..Leloir.pathway

FDR: 1.136e-01
Coefficient: 2.08e-01
Value: 2





PENTOSE.P.P.WY..pentose.phosphate.pathway

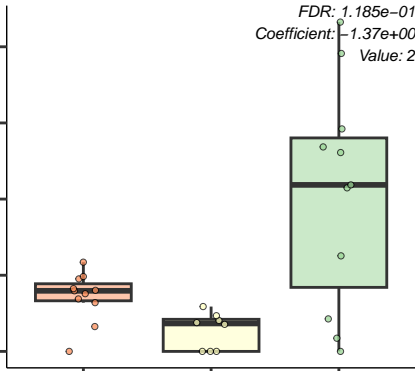
FDR: $1.185e-01$
Coefficient: $-1.37e+00$
Value: 2

1 (n=11)

2 (n=8)

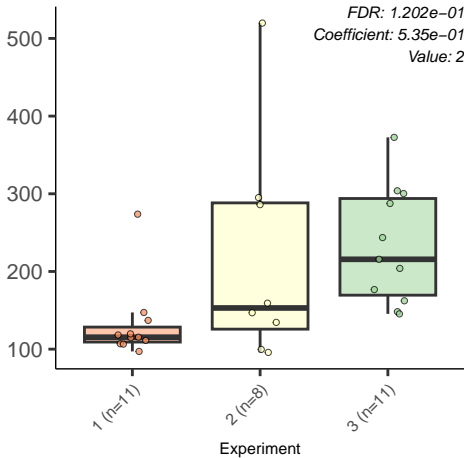
3 (n=11)

Experiment



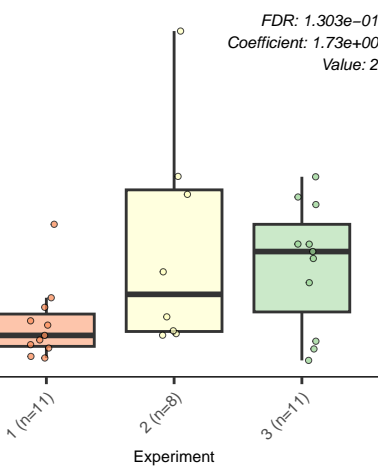
PWY.5100..pyruvate.fermentation.to.acetate.and.lactate.

FDR: 1.202e-01
Coefficient: 5.35e-01
Value: 2



LACTOSECAT.PWY..lactose.and.galactose.degradation.

FDR: 1.303e-01
Coefficient: 1.73e+00
Value: 2



PWY.6163..chorismate.biosynthesis.from.3.dehydroquina

FDR: 1.303e-01
Coefficient: -3.14e-01
Value: 2

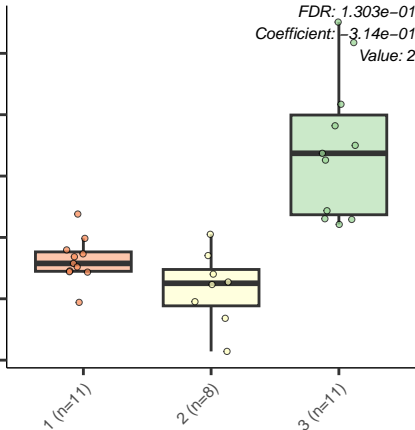
600
500
400
300
200
100

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



PWY.7400..L-arginine.biosynthesis.IV..archaeobacteria.

FDR: 1.303e-01
Coefficient: 2.79e-01
Value: 2

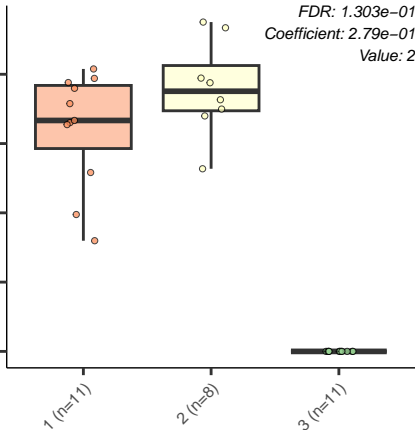
400
300
200
100
0

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



TRNA.CHARGING.PWY..tRNA.charging

FDR: 1.303e-01
Coefficient: 2.30e-01
Value: 2

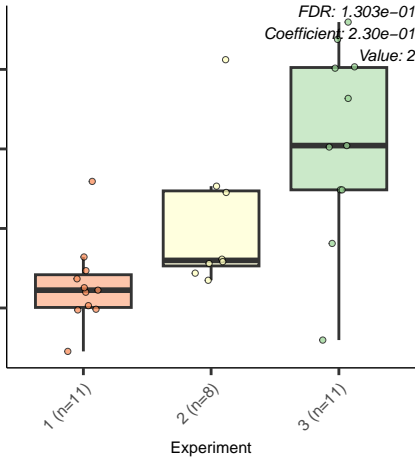
700
600
500
400

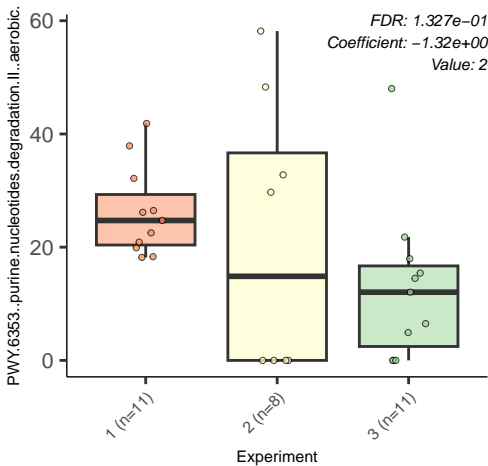
1 (n=11)

2 (n=8)

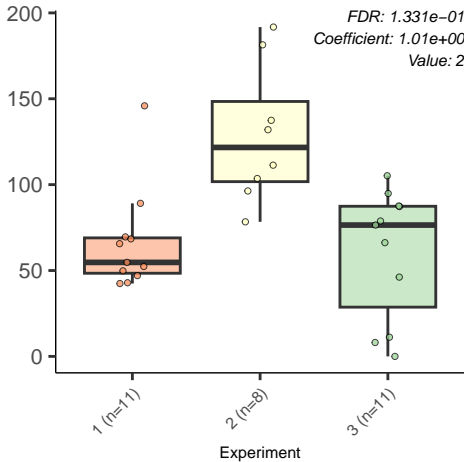
3 (n=11)

Experiment



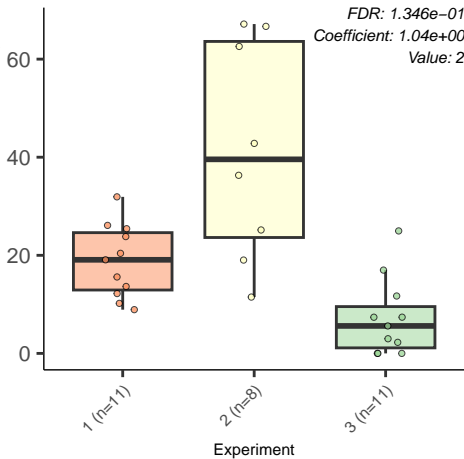


FDR: 1.331e-01
Coefficient: 1.01e+00
Value: 2



SALVADEHYPOX.PWY..adenosine.nucleotides.degradation

FDR: 1.346e-01
Coefficient: 1.04e+00
Value: 2



PWY.5659..GDP.mannose.biosynthesis

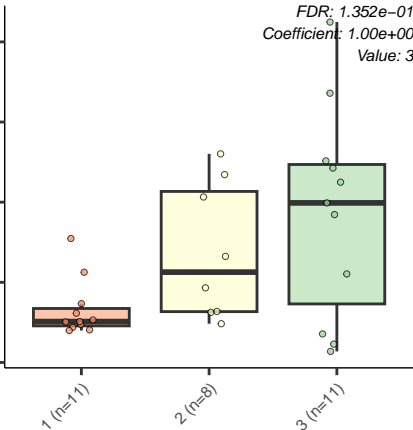
FDR: 1.352e-01
Coefficient: 1.00e+00
Value: 3

1 (n=11)

2 (n=8)

3 (n=11)

Experiment



P42.PWY..incomplete.reductive.TCA.cycle

FDR: 1.379e-01
Coefficient: 8.11e-01
Value: 3

10

5

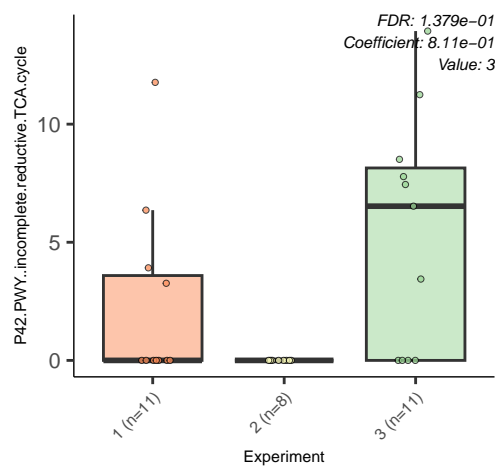
0

1 (n=11)

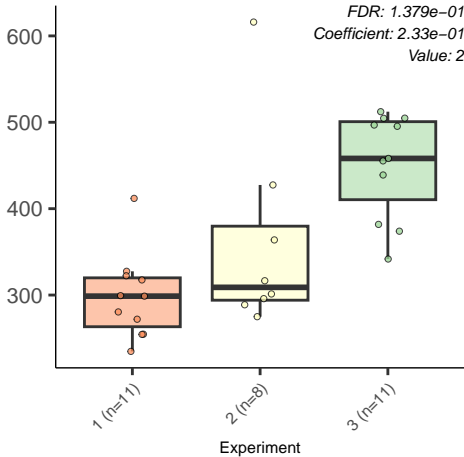
2 (n=8)

3 (n=11)

Experiment

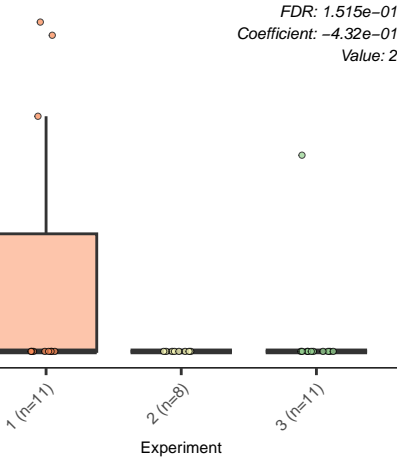


FDR: 1.379e-01
Coefficient: 2.33e-01
Value: 2



POLYAMINSYN3.PWY..superpathway.of.polyamine.biosynthe

FDR: 1.515e-01
Coefficient: -4.32e-01
Value: 2



PWY.2942..L.lysine.biosynthesis.III

FDR: 1.560e-01
Coefficient: -2.90e-01
Value: 2

750

500

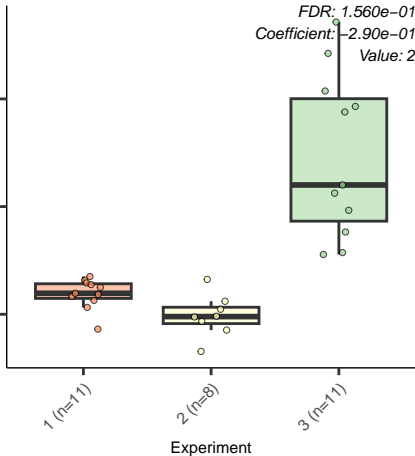
250

1 (n=11)

2 (n=8)

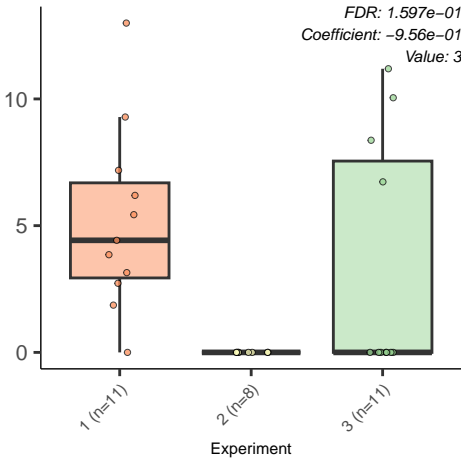
3 (n=11)

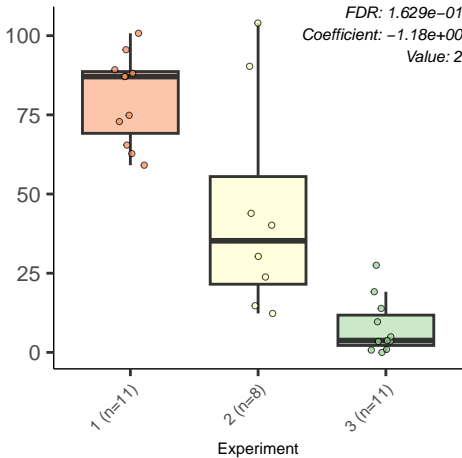
Experiment

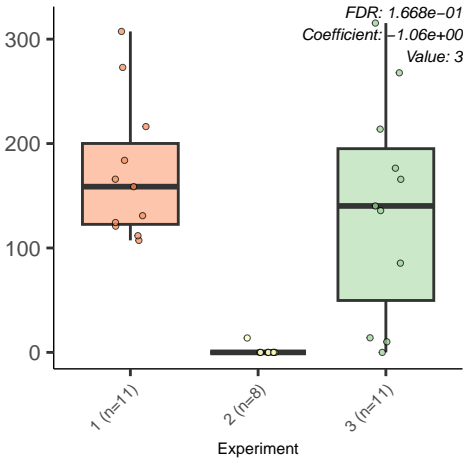


P562.PWY..myo.inositol.degradation.I

FDR: 1.597e-01
Coefficient: -9.56e-01
Value: 3







PWY.5177..glutaryl.CoA.degradation

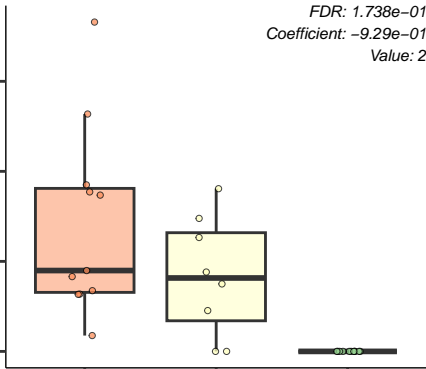
FDR: 1.738e-01
Coefficient: -9.29e-01
Value: 2

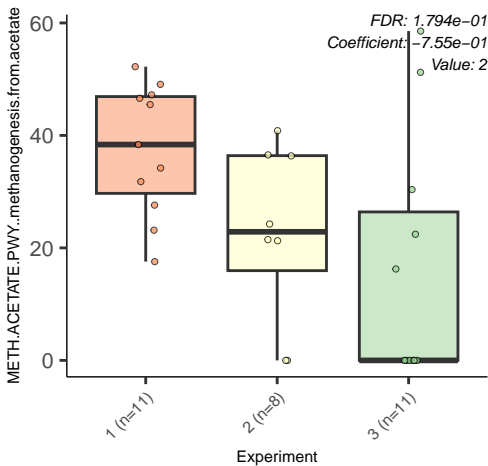
1 (n=11)

2 (n=8)

3 (n=11)

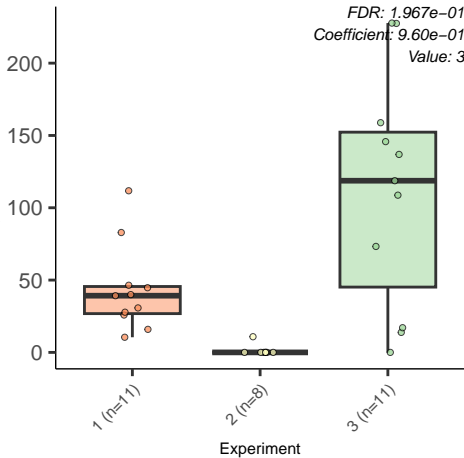
Experiment





PWY.7383..anaerobic.energy.metabolism..invertebrates..cyt

FDR: 1.967e-01
Coefficient: 9.60e-01
Value: 3



PENTOSE.P.P.WY..pentose.phosphate.pathway

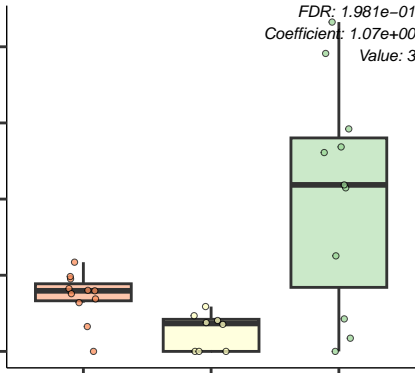
FDR: 1.981e-01
Coefficient: 1.07e+00
Value: 3

1 (n=11)

2 (n=8)

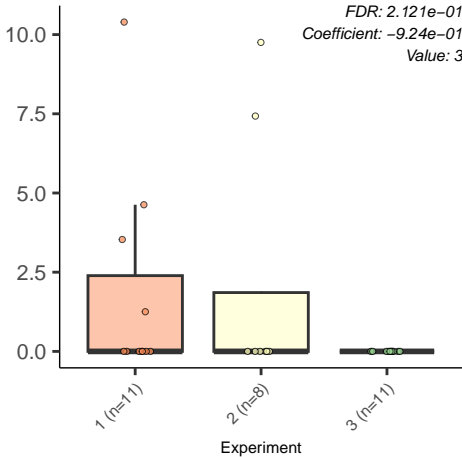
3 (n=11)

Experiment



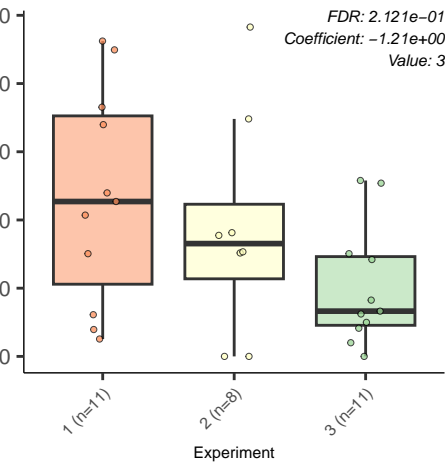
P161.PWY..acetylene.degradation

FDR: 2.121e-01
Coefficient: -9.24e-01
Value: 3



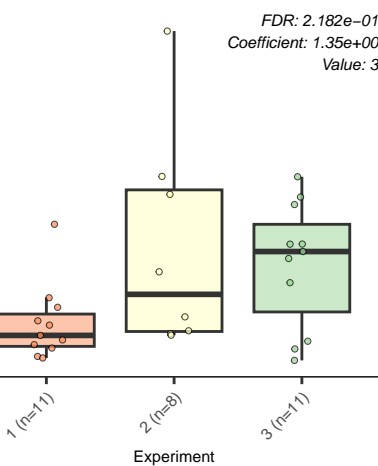
PWY.6507..4.deoxy.L.threo.hex.4.enopyranurate.degrade

FDR: 2.121e-01
Coefficient: -1.21e+00
Value: 3

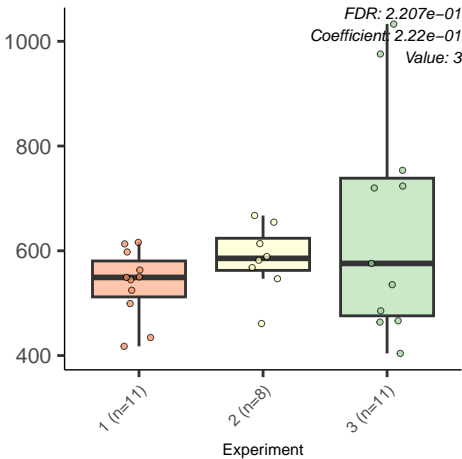


LACTOSECAT.PWY..lactose.and.galactose.degradation.

FDR: 2.182e-01
Coefficient: 1.35e+00
Value: 3



ILEUSYN.PWY..L..isoleucine.biosynthesis.l...from.threonine



PWY.5659..GDP.mannose.biosynthesis

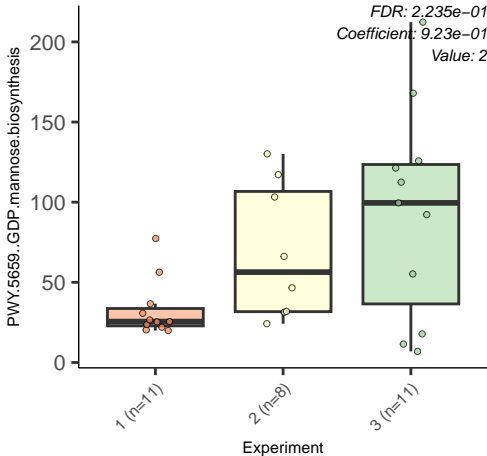
FDR: 2.235e-01
Coefficient: 9.23e-01
Value: 2

1 (n=11)

2 (n=8)

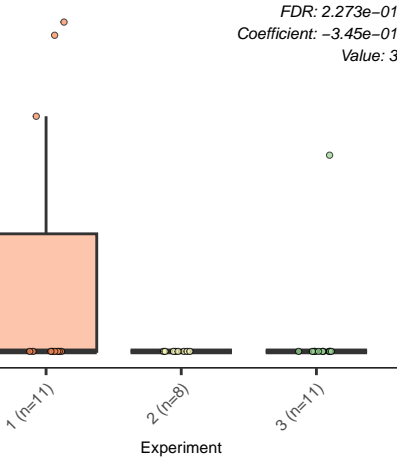
3 (n=11)

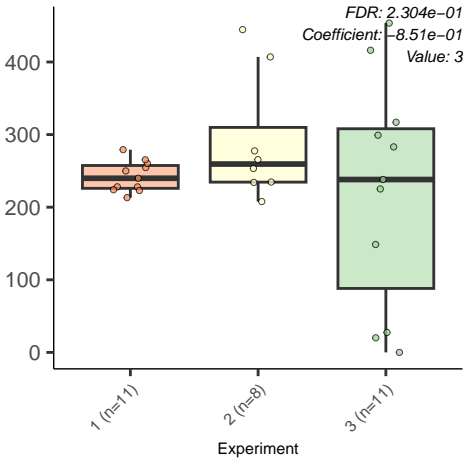
Experiment

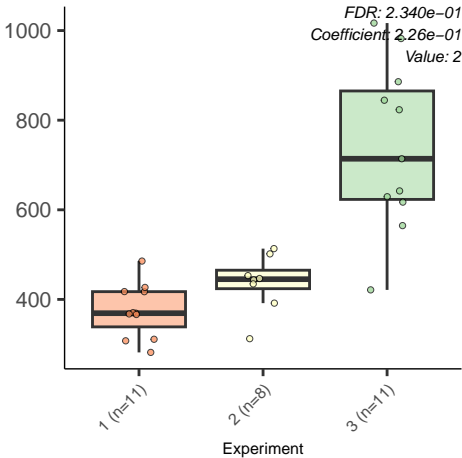


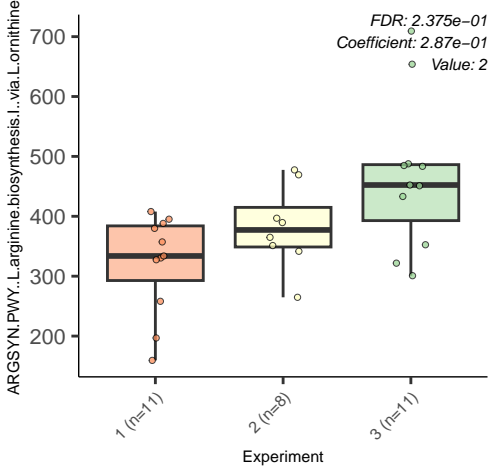
POLYAMINSYN3.PWY..superpathway.of.polyamine.biosynthesis

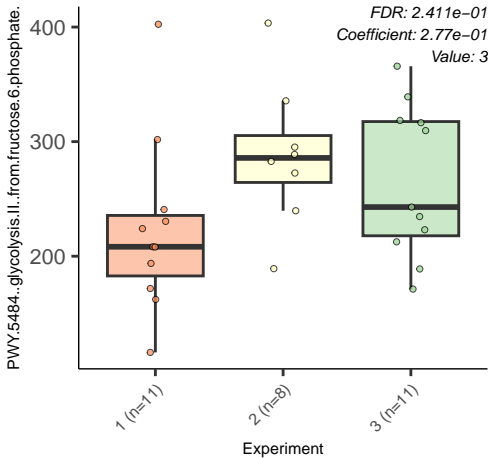
FDR: 2.273e-01
Coefficient: -3.45e-01
Value: 3











PWY.6549..L-glutamine.biosynthesis.III

FDR: 2.483e-01
Coefficient: -9.86e-01
Value: 3

