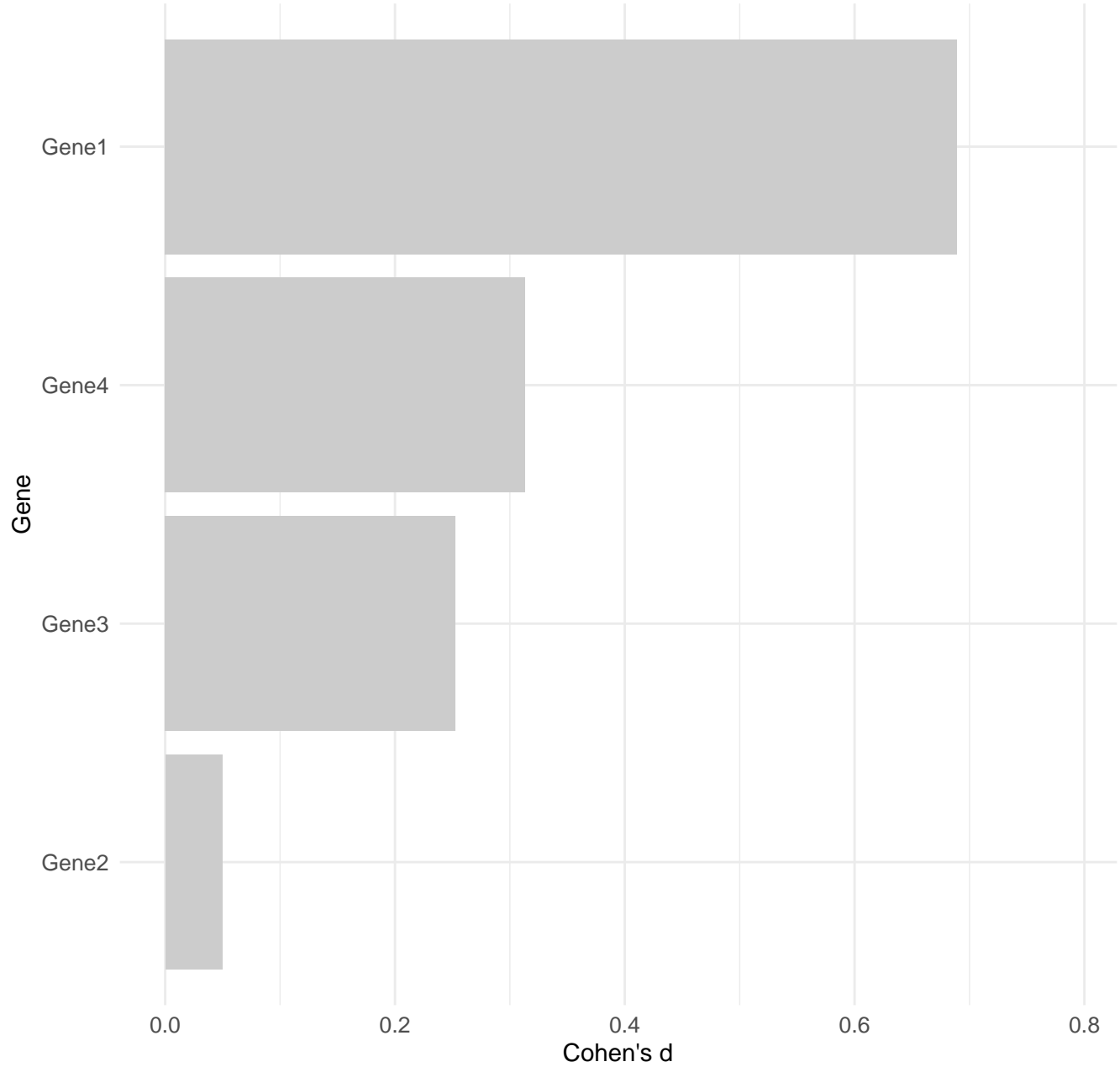
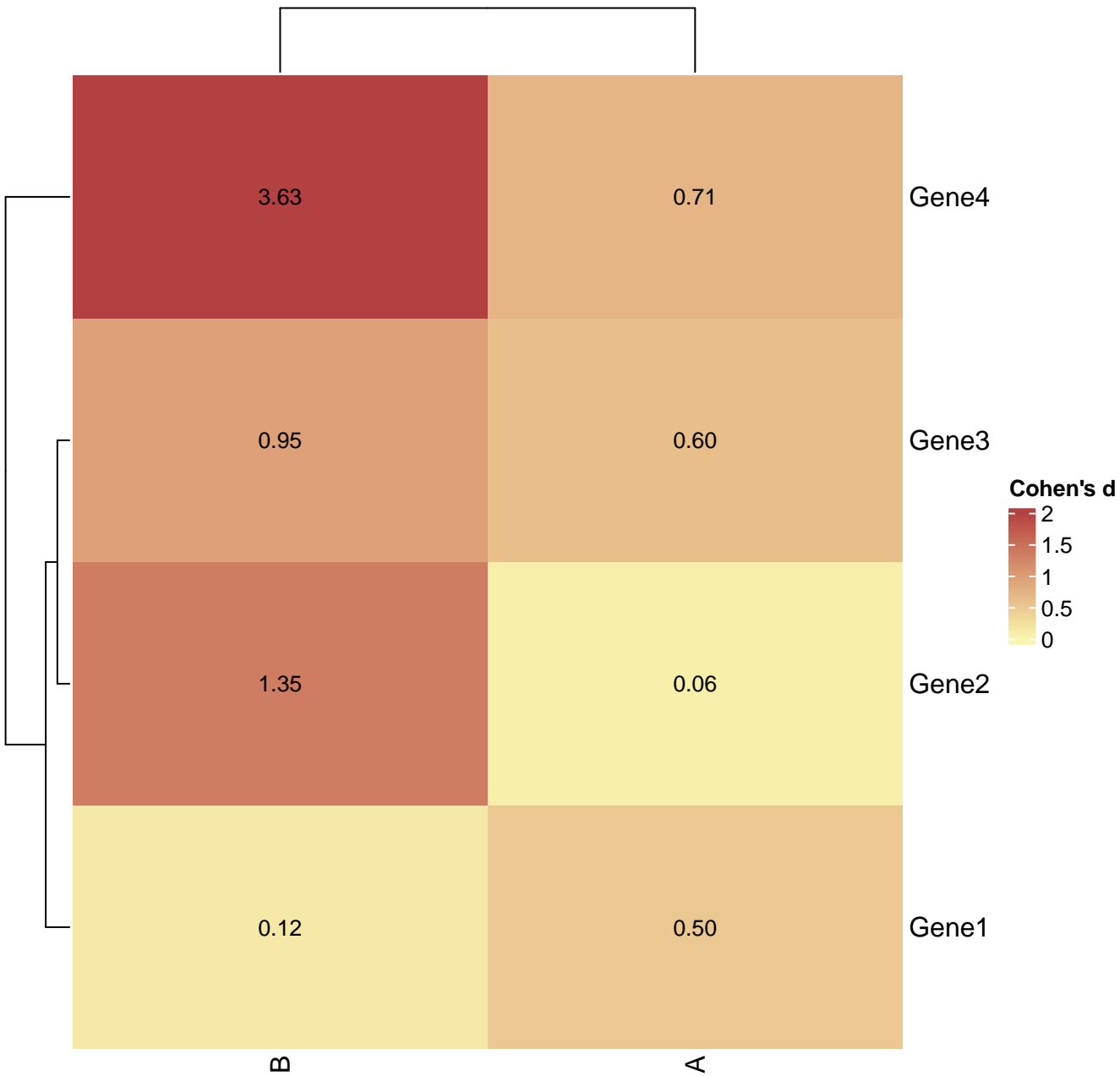


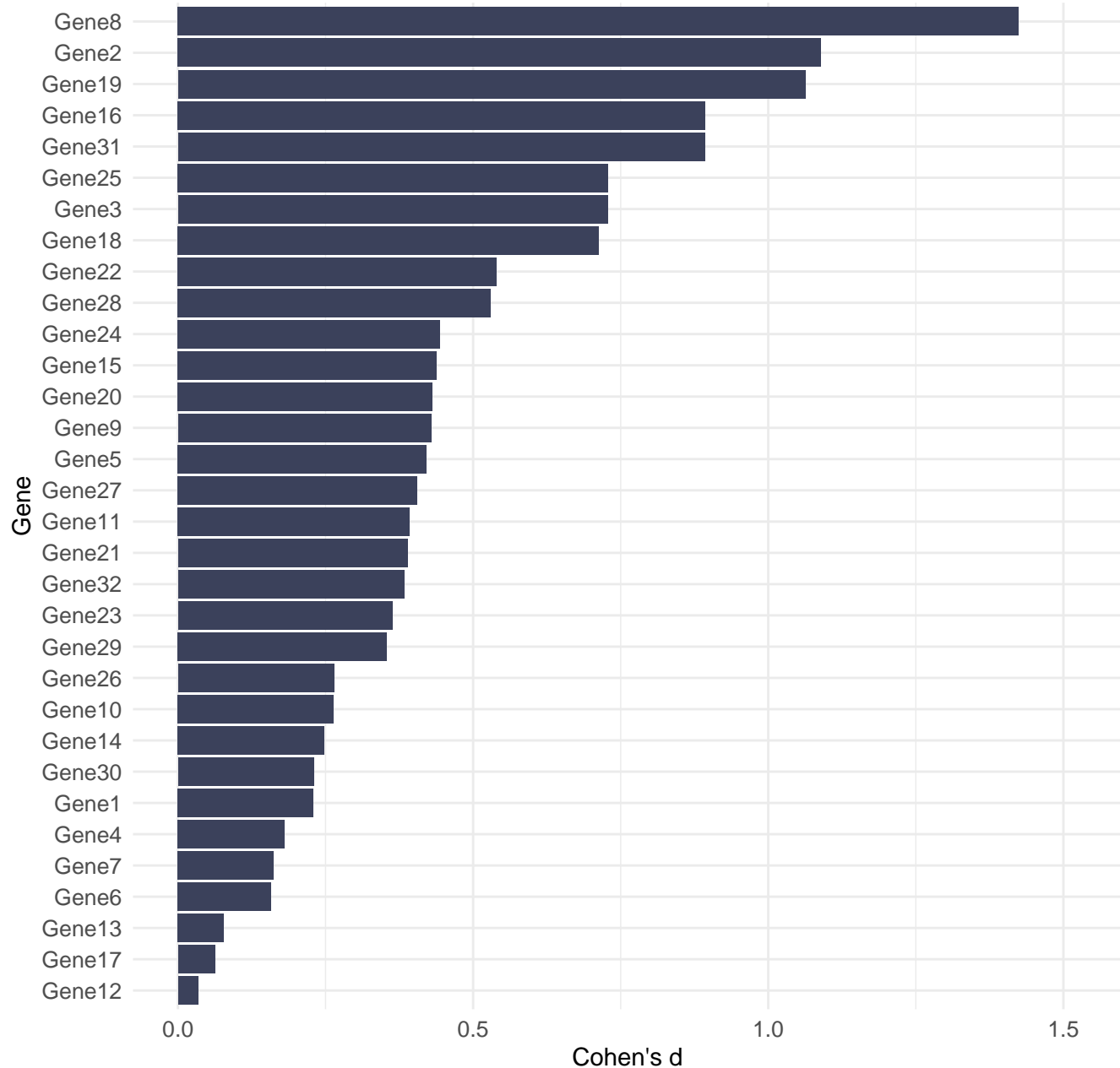
Cohen's d Barplot

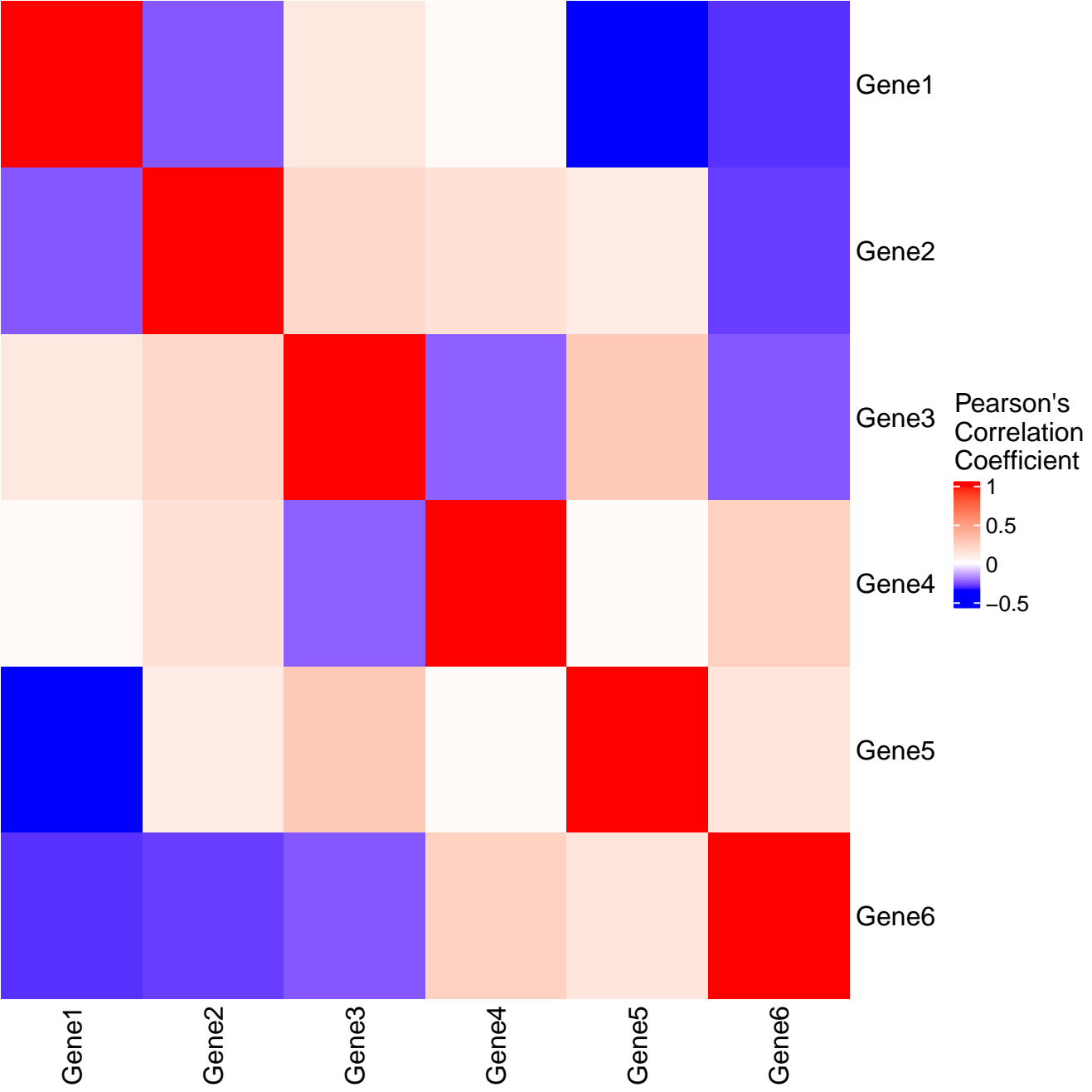


Cohen's d Heatmap



Cohen's d for variable Condition (Case vs others)

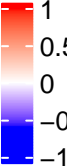




A

B

Pearson's
Correlation
Coefficient



1
0.5
0
-0.5
-1

Gene1

Gene2

Gene3

Gene4

Gene5

Gene6

Gene1

Gene2

Gene3

Gene4

Gene5

Gene6

Gene1

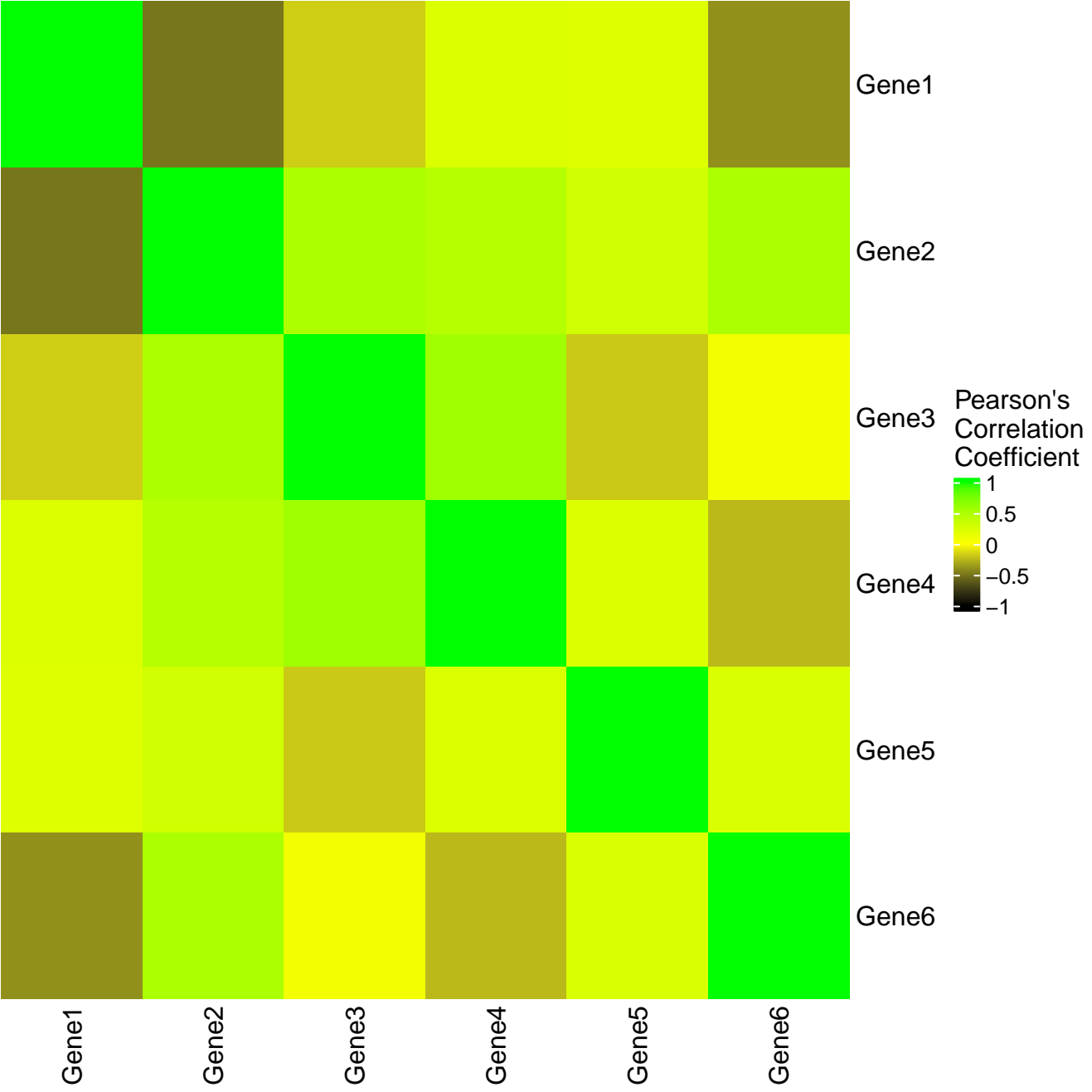
Gene2

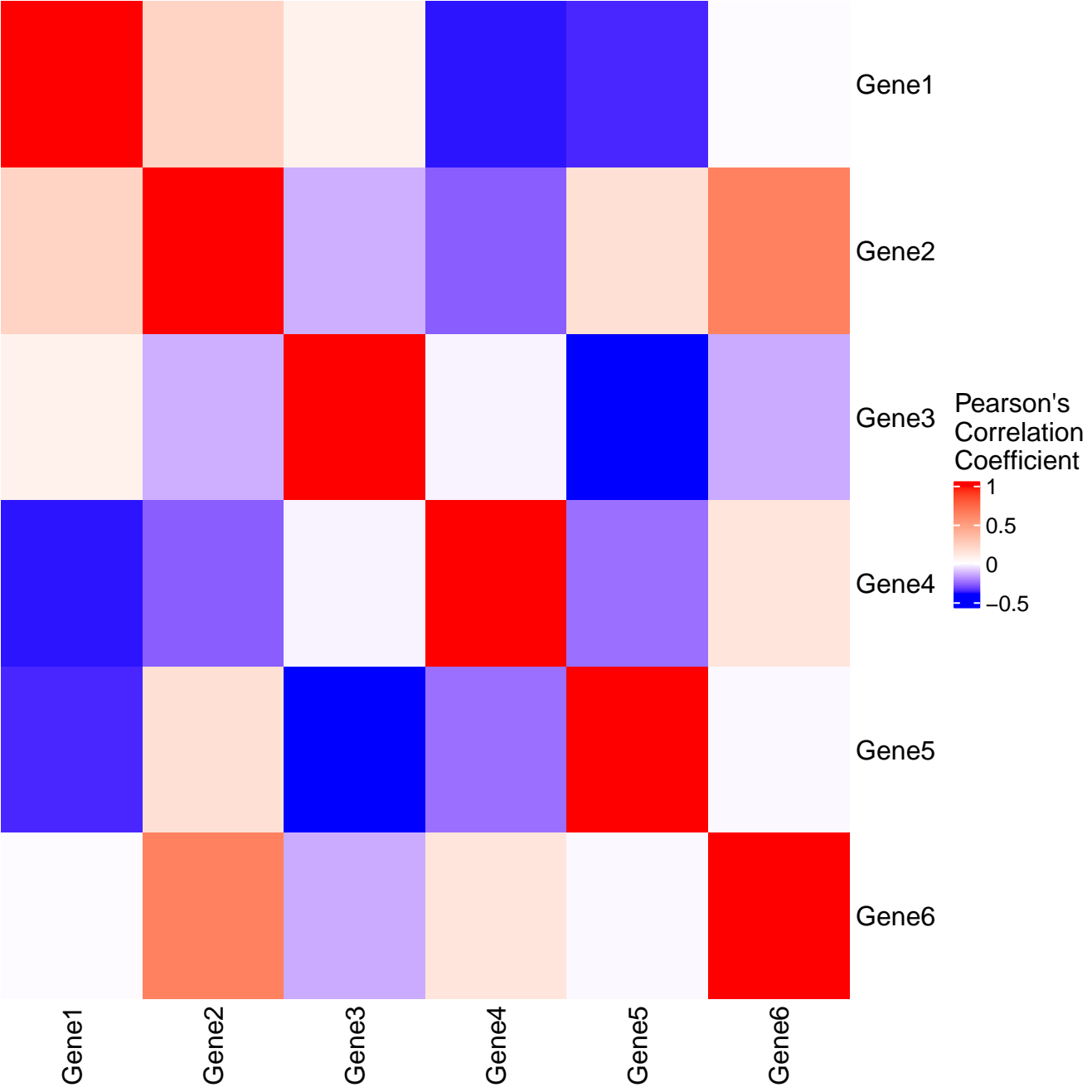
Gene3

Gene4

Gene5

Gene6





Condition Batch

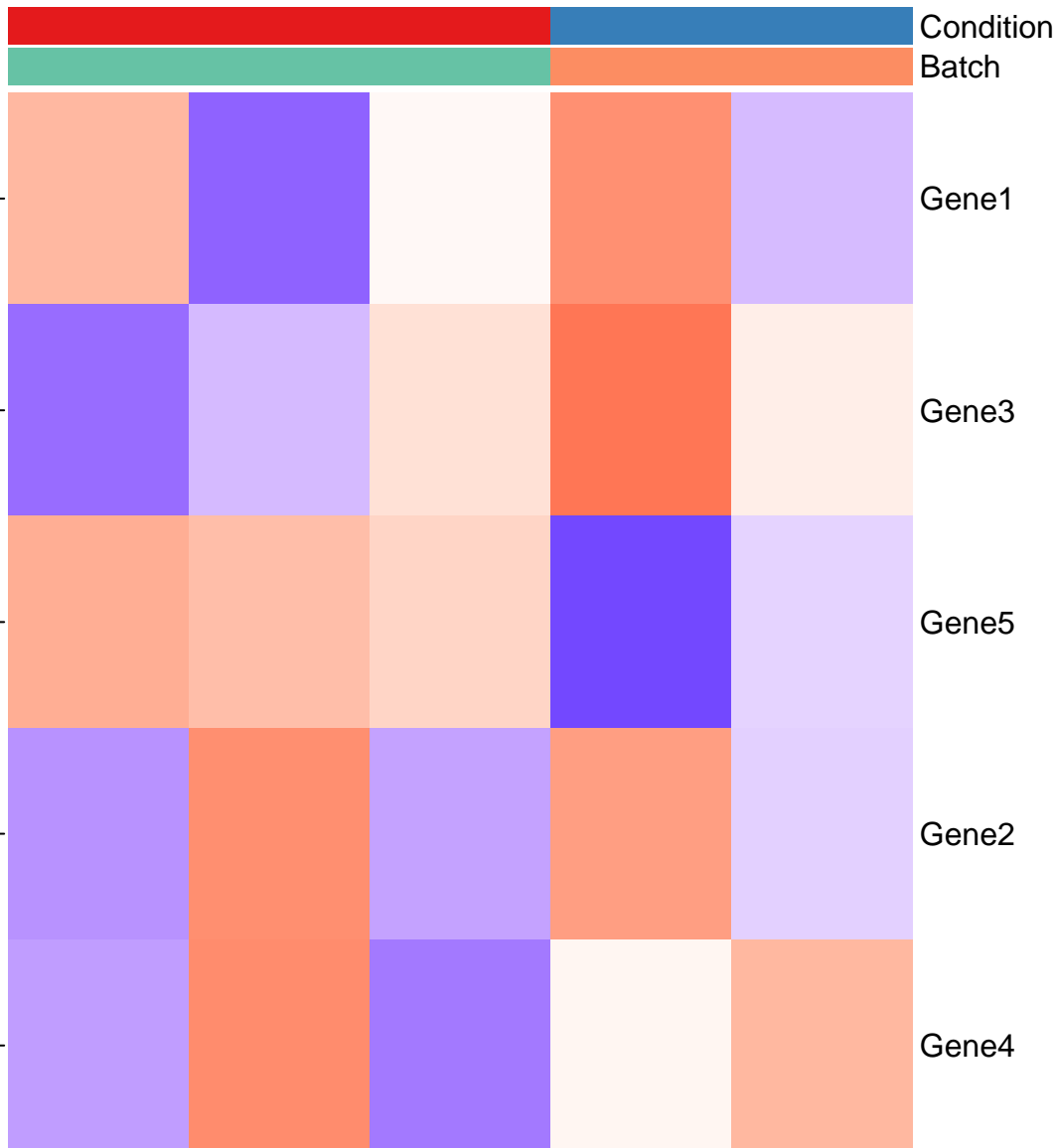


A
B



X
Y

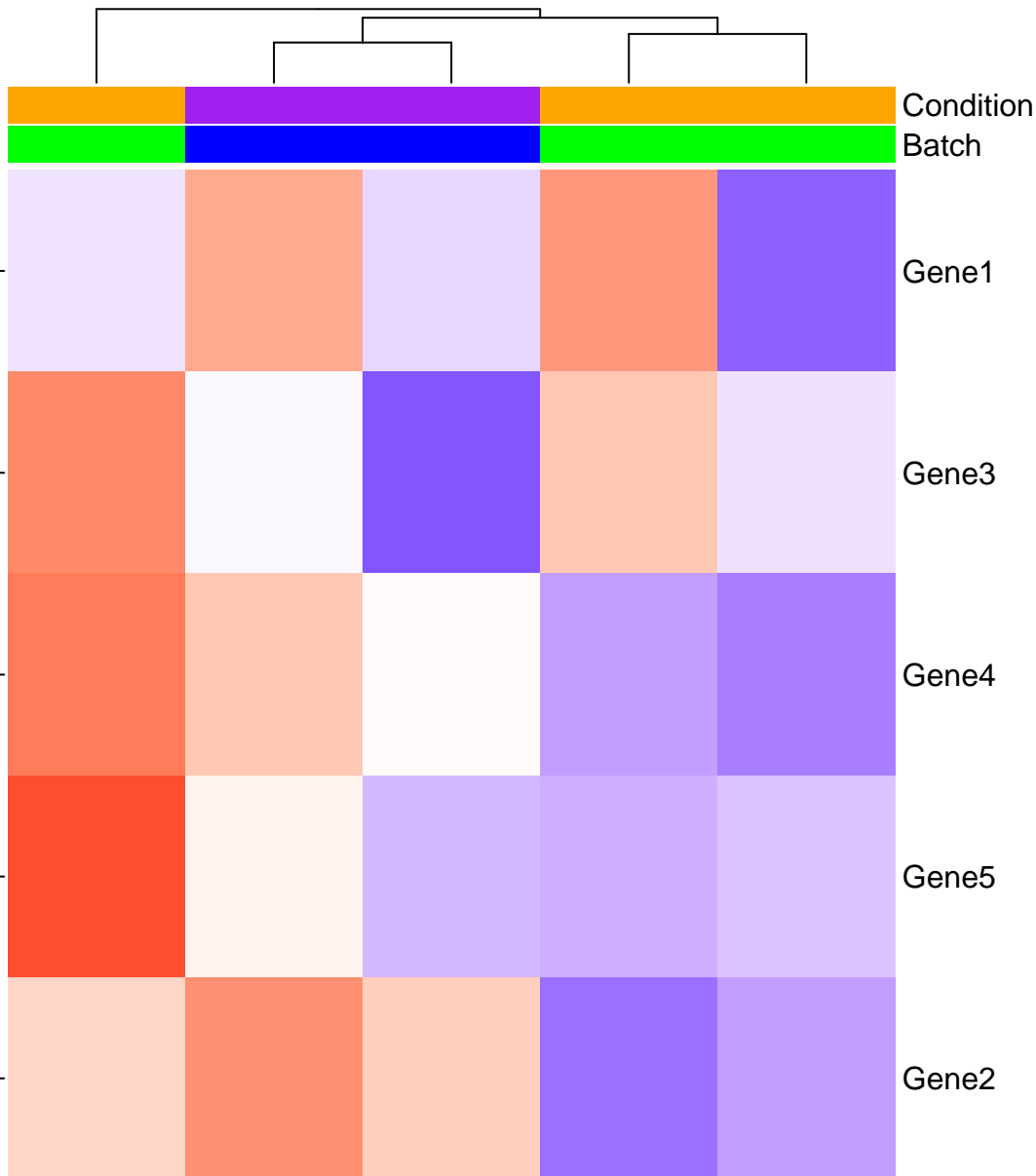
Demo Expression Heatmap



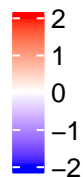
Condition Batch

A
B

X
Y



Expression
Z-score



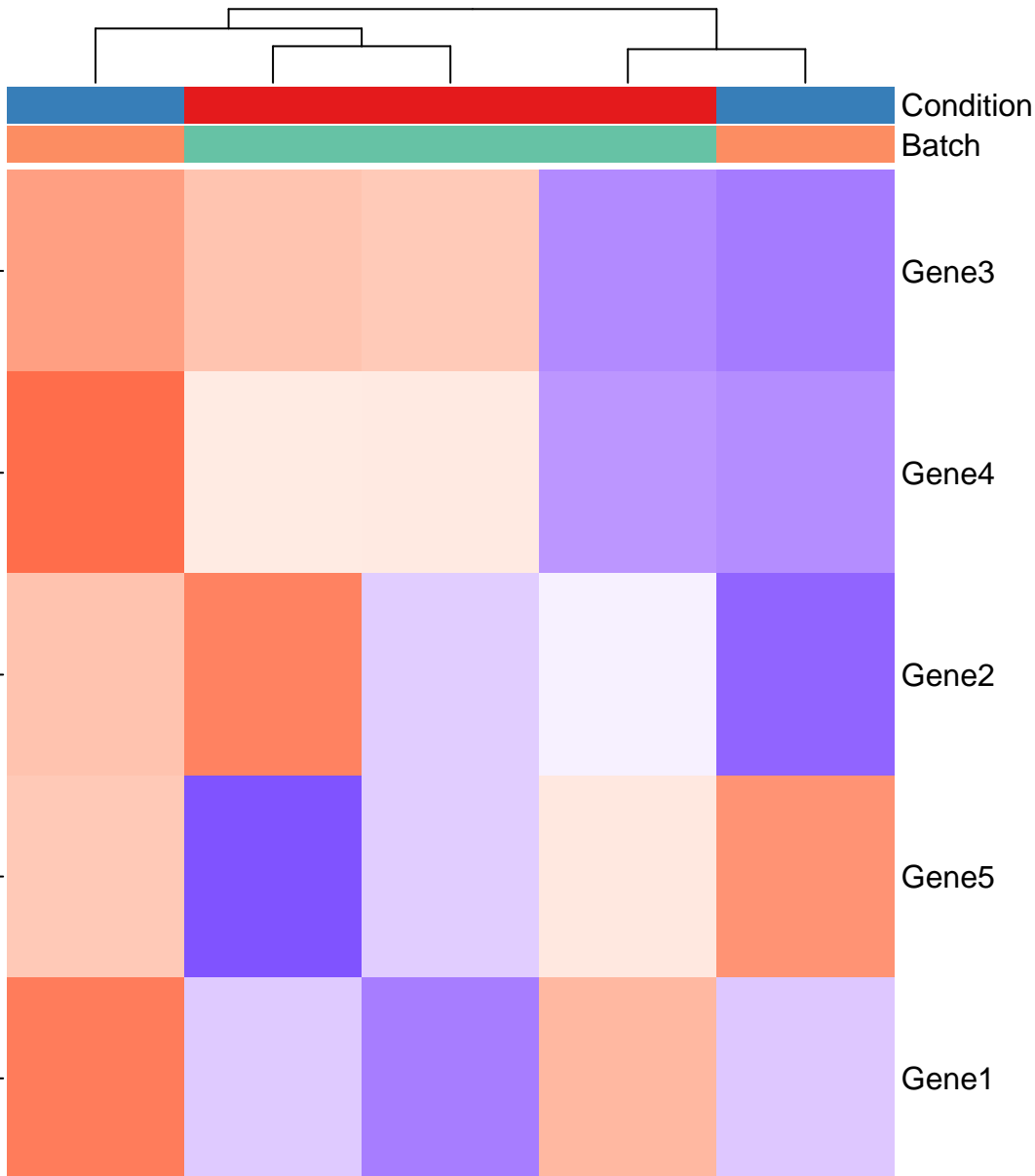
Condition Batch



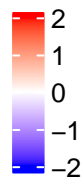
A
B

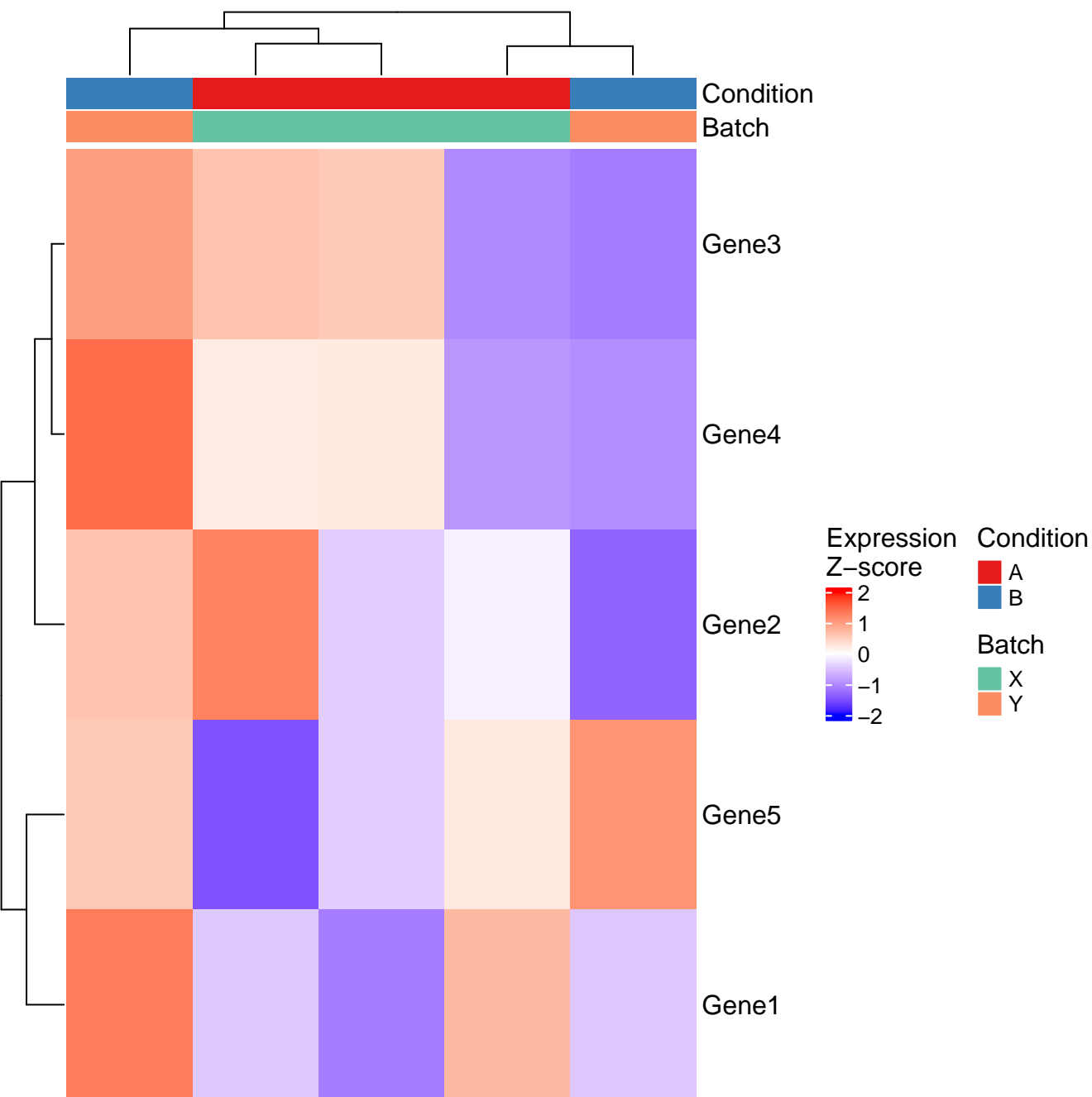


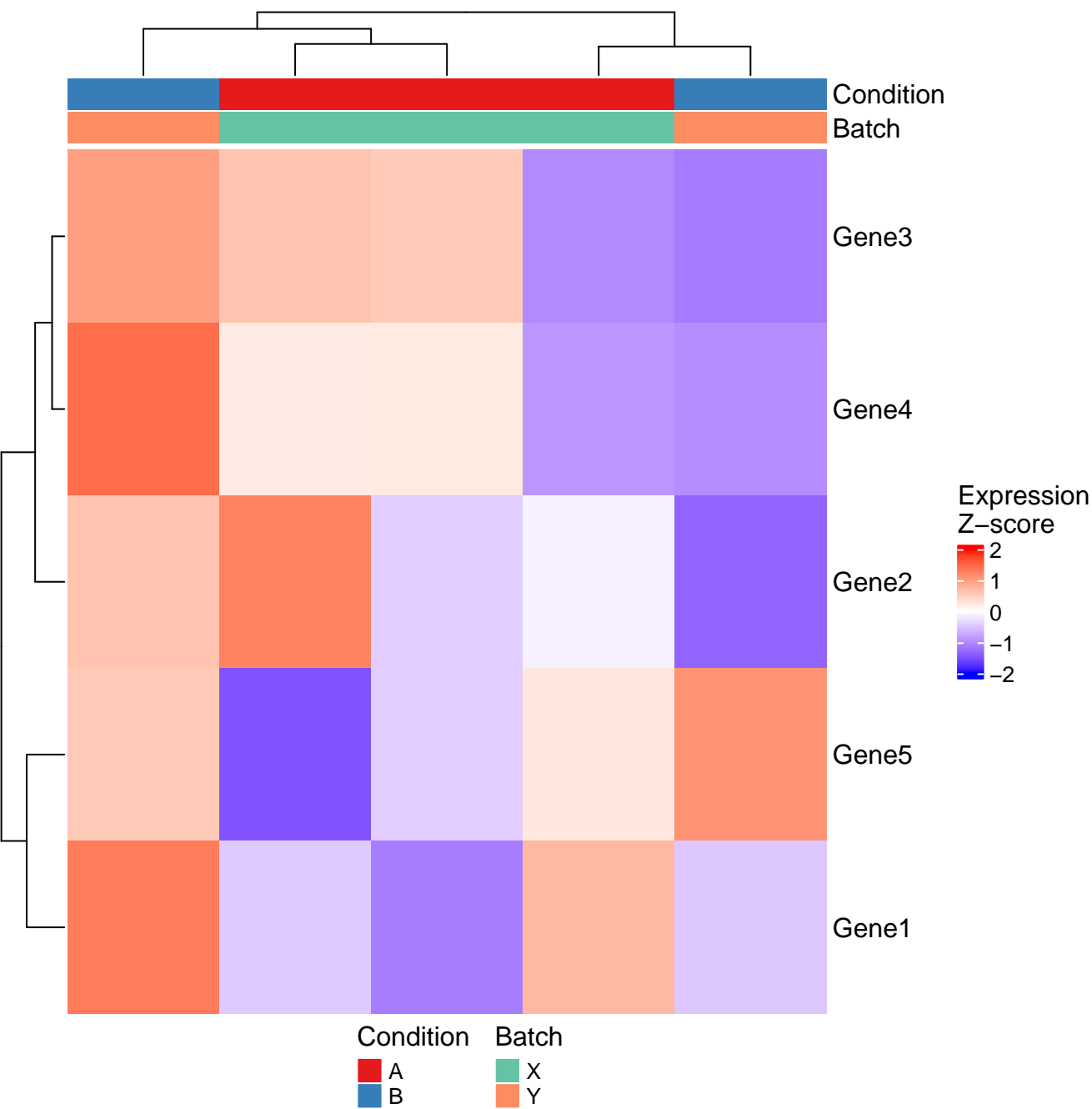
X
Y



Expression
Z-score







Condition Batch



A



B

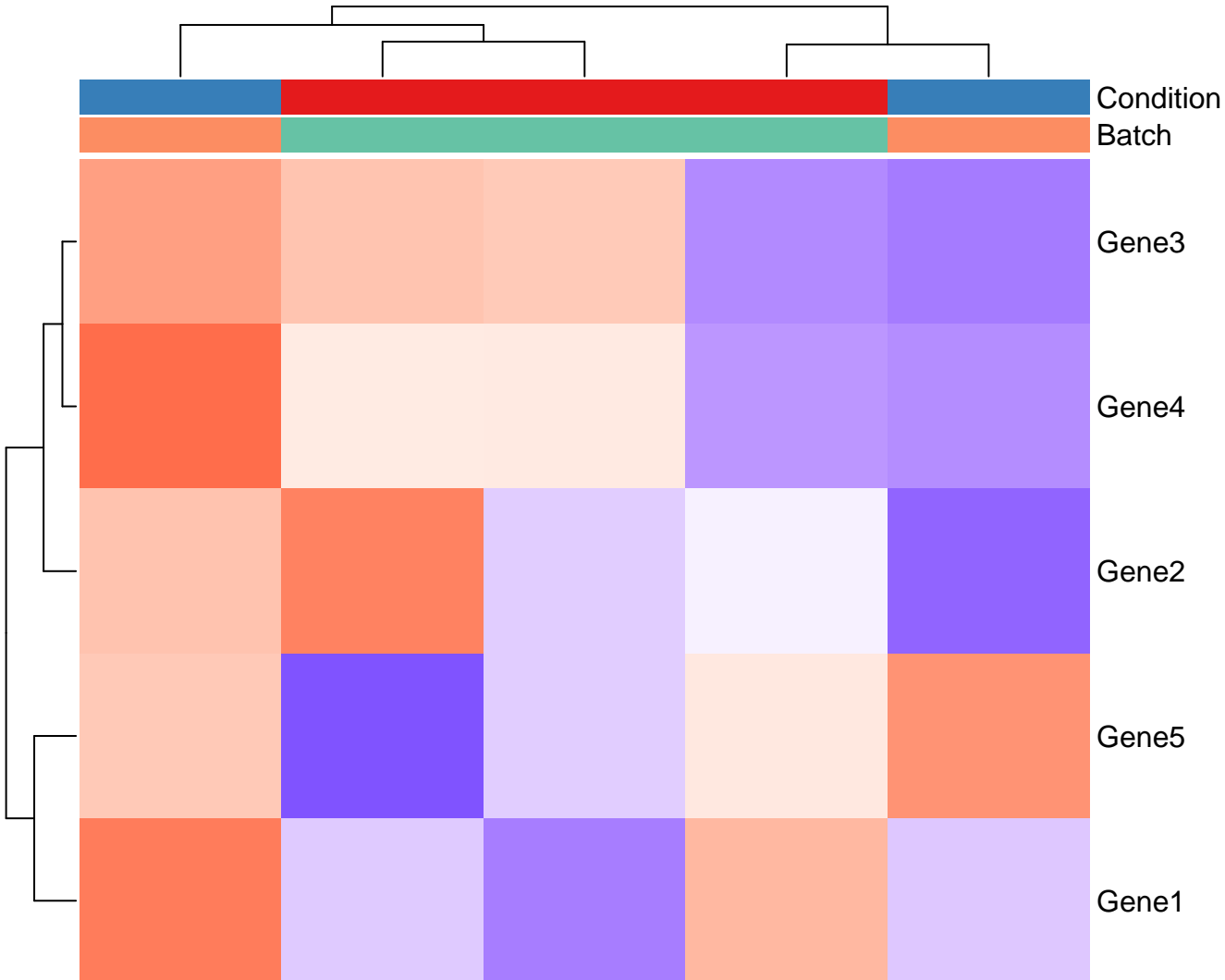
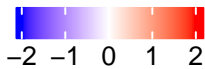


X

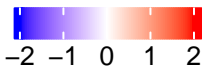


Y

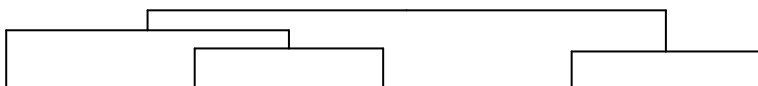
Expression
Z-score



Expression
Z-score



-2 -1 0 1 2



Condition

Batch

Gene3

Gene4

Gene2

Gene5

Gene1

Condition

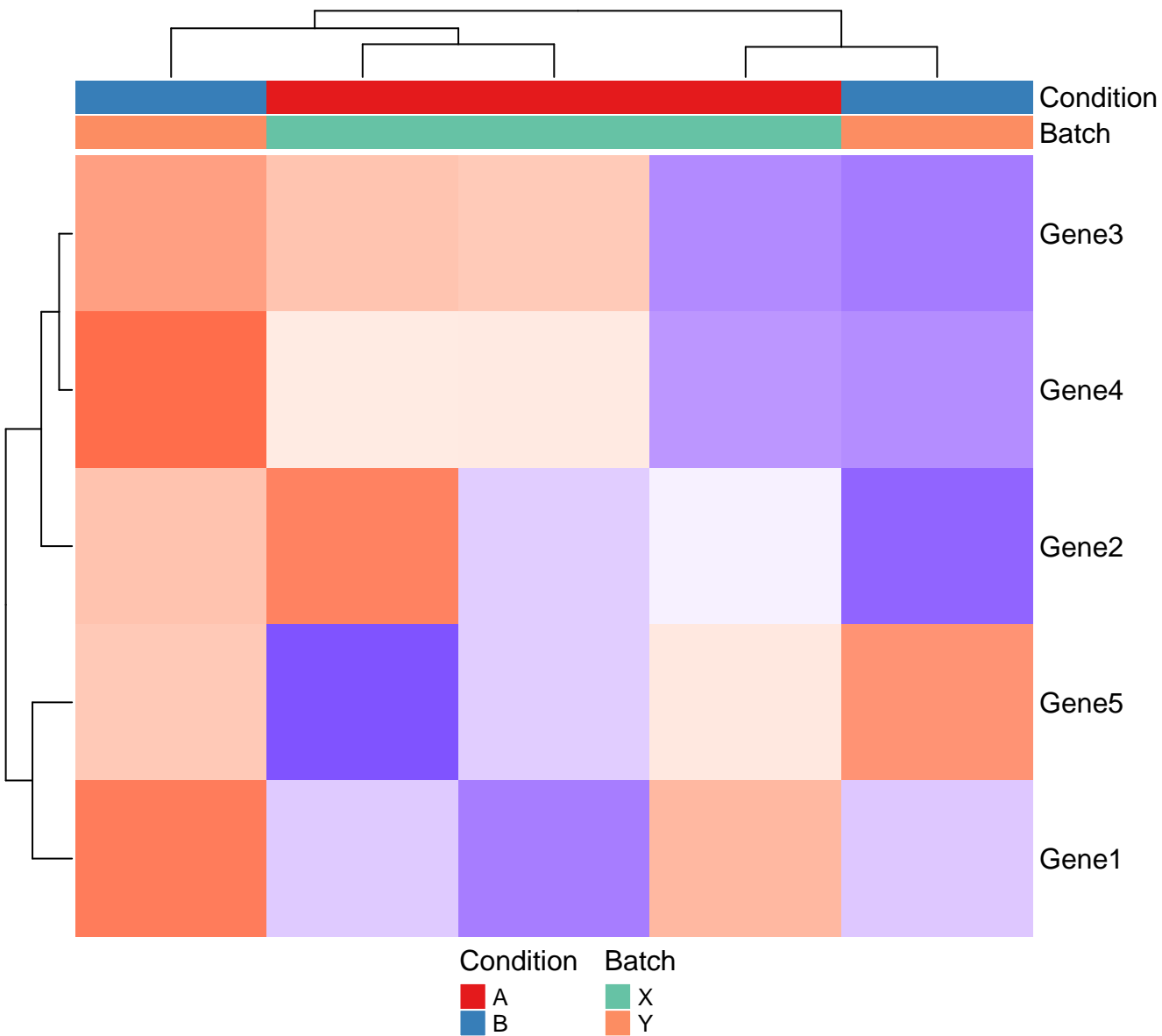
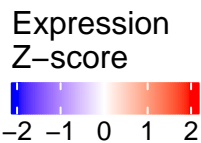
A

B

Batch

X

Y



Condition Batch

A
B

X
Y

Condition

Batch

Gene3

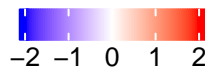
Gene4

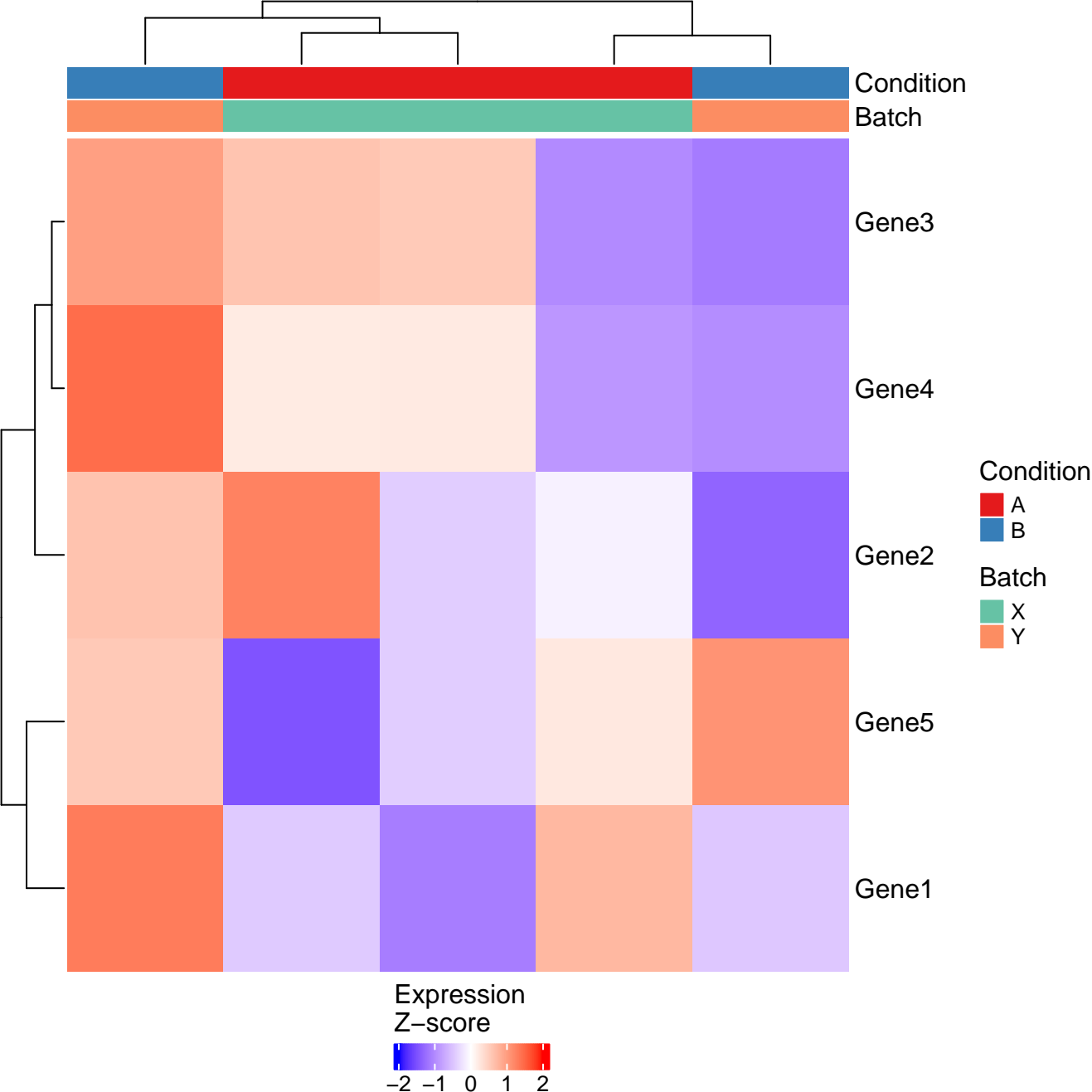
Gene2

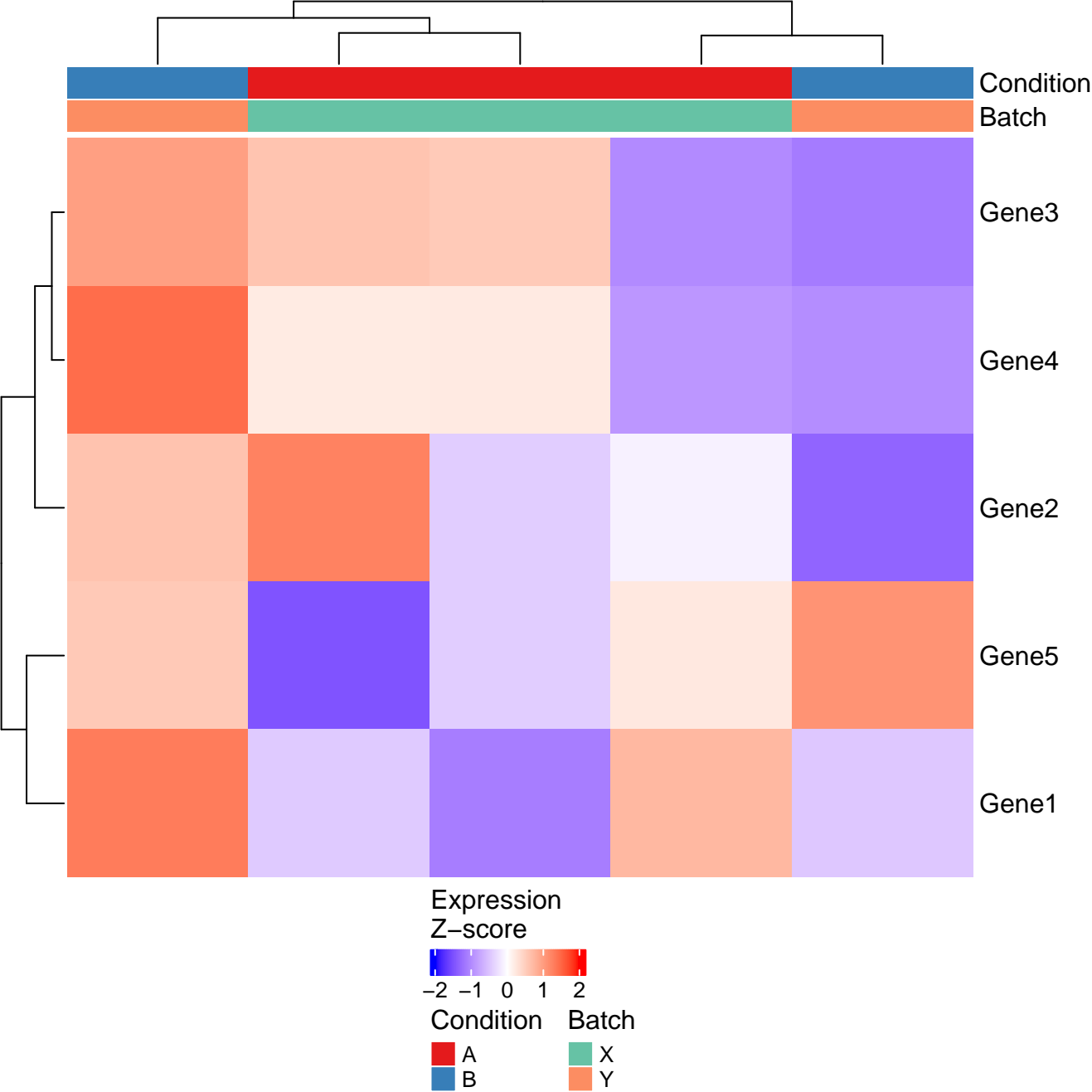
Gene5

Gene1

Expression
Z-score







Condition Batch



A
B

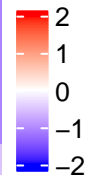


X
Y

Condition

Batch

Expression
Z-score



Sample1

Sample5

Sample2

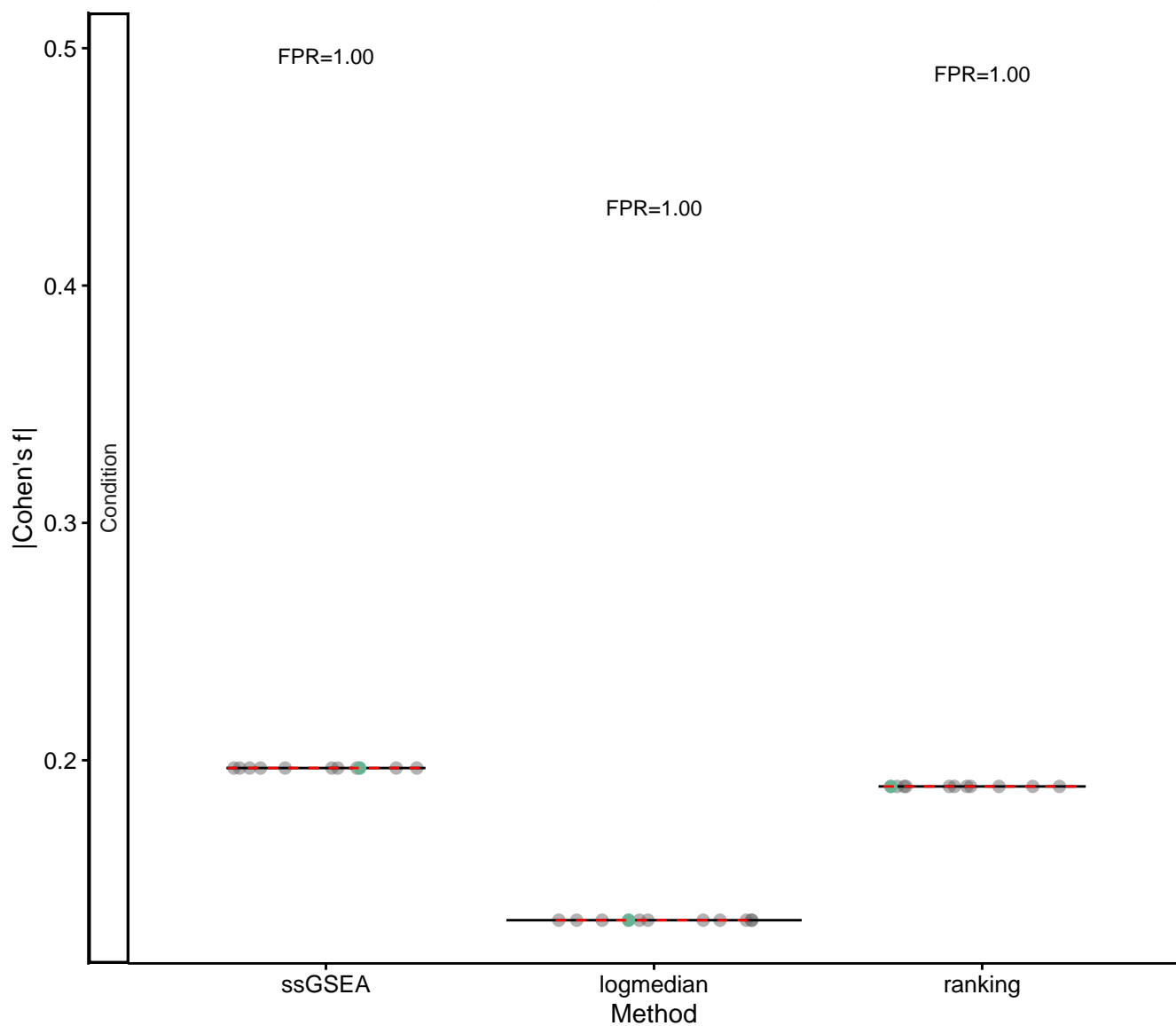
Sample4

Sample3

Identical Sims

● Original ● Simulated

Sig1



Original Simulated

SigA

FPR=0.83

FPR=0.58

FPR=0.58

|Cohen's f|

Condition

0.6

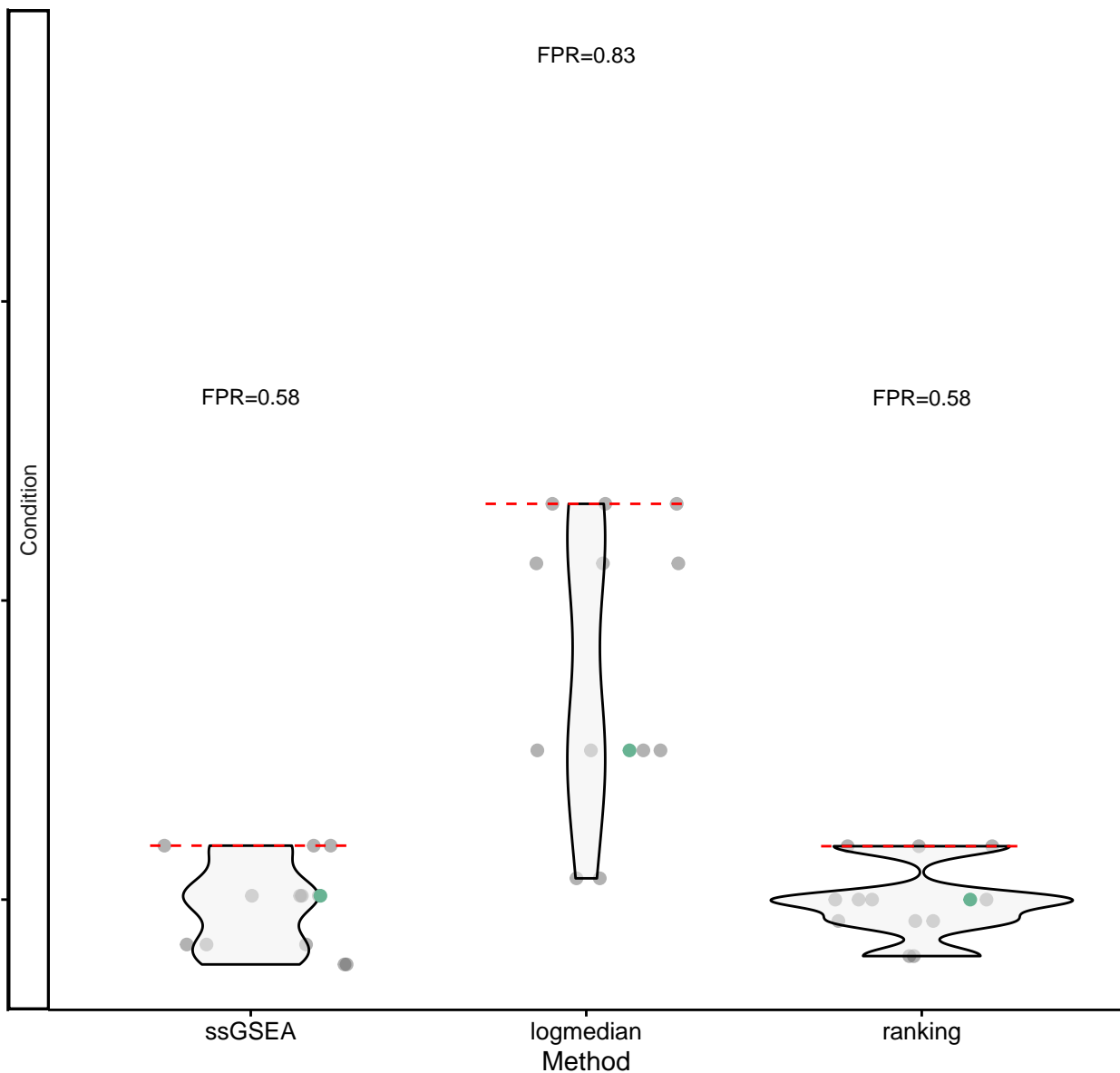
0.4

0.2

ssGSEA

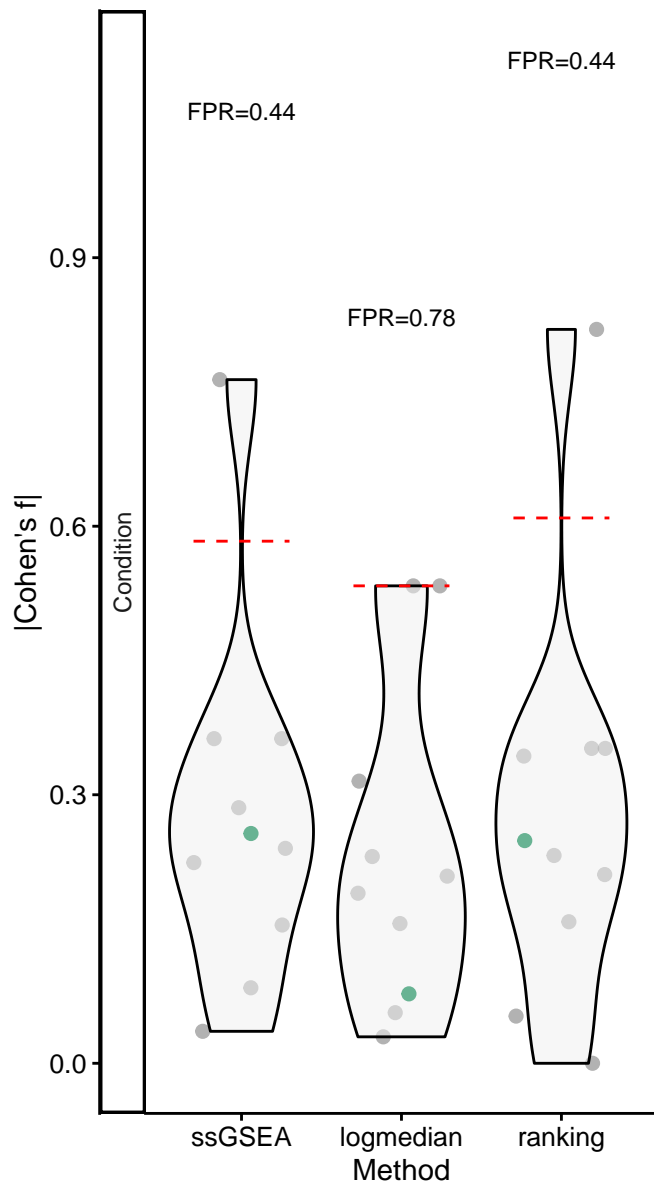
logmedian
Method

ranking

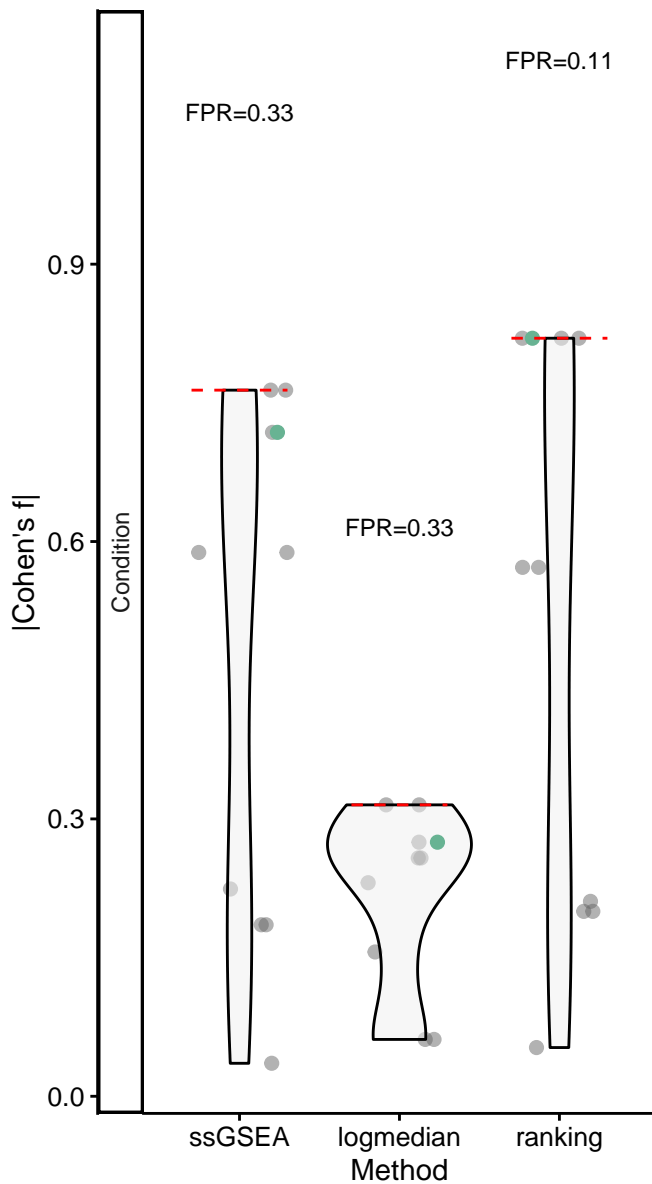


Original Simulated

Sig1



Sig2



Original Simulated

SigX

FPR=0.29

FPR=0.29

FPR=0.43

|Cohen's f|

Condition

0.8

0.6

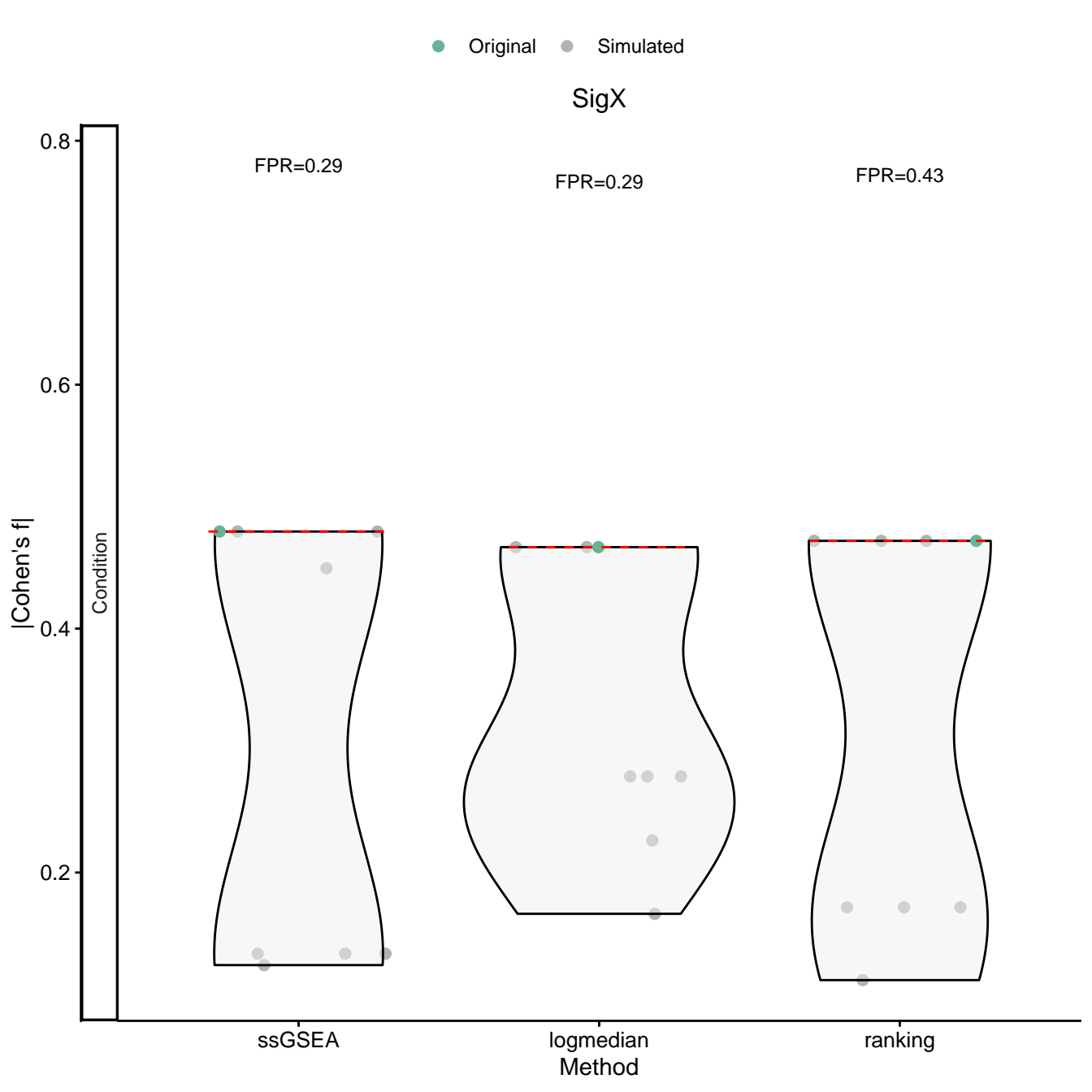
0.4

0.2

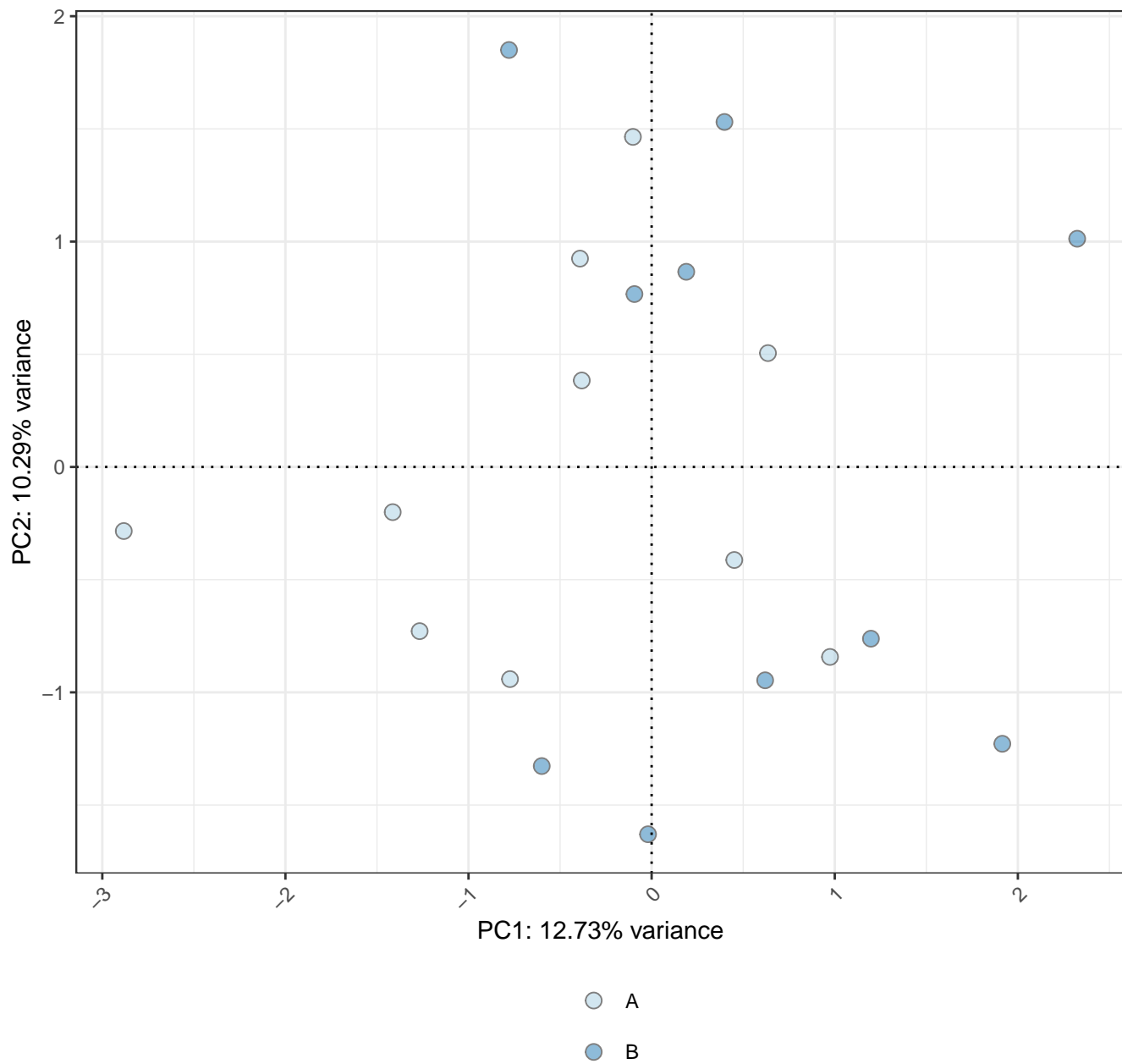
ssGSEA

logmedian
Method

ranking

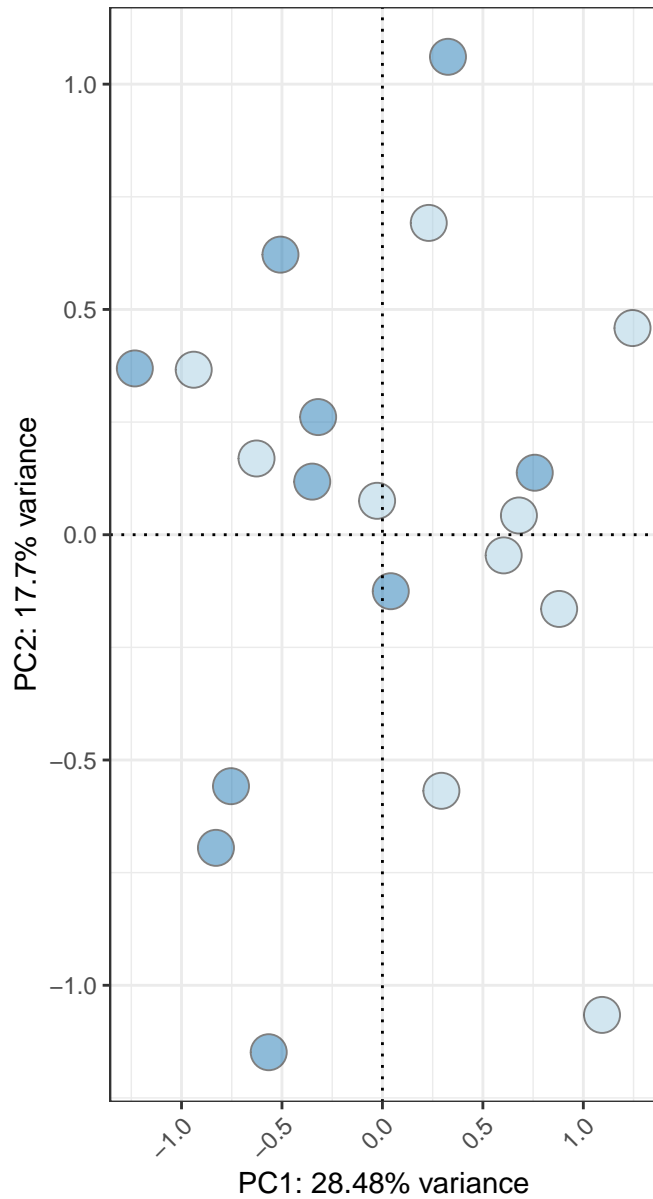


PC1 vs PC2

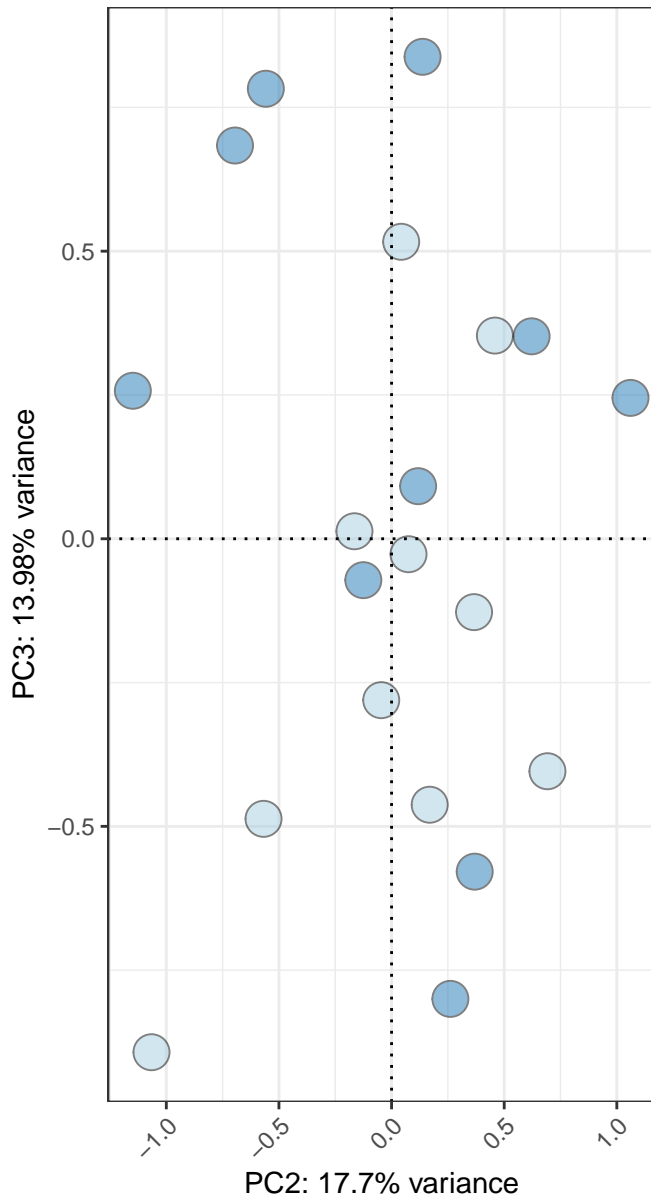


A B

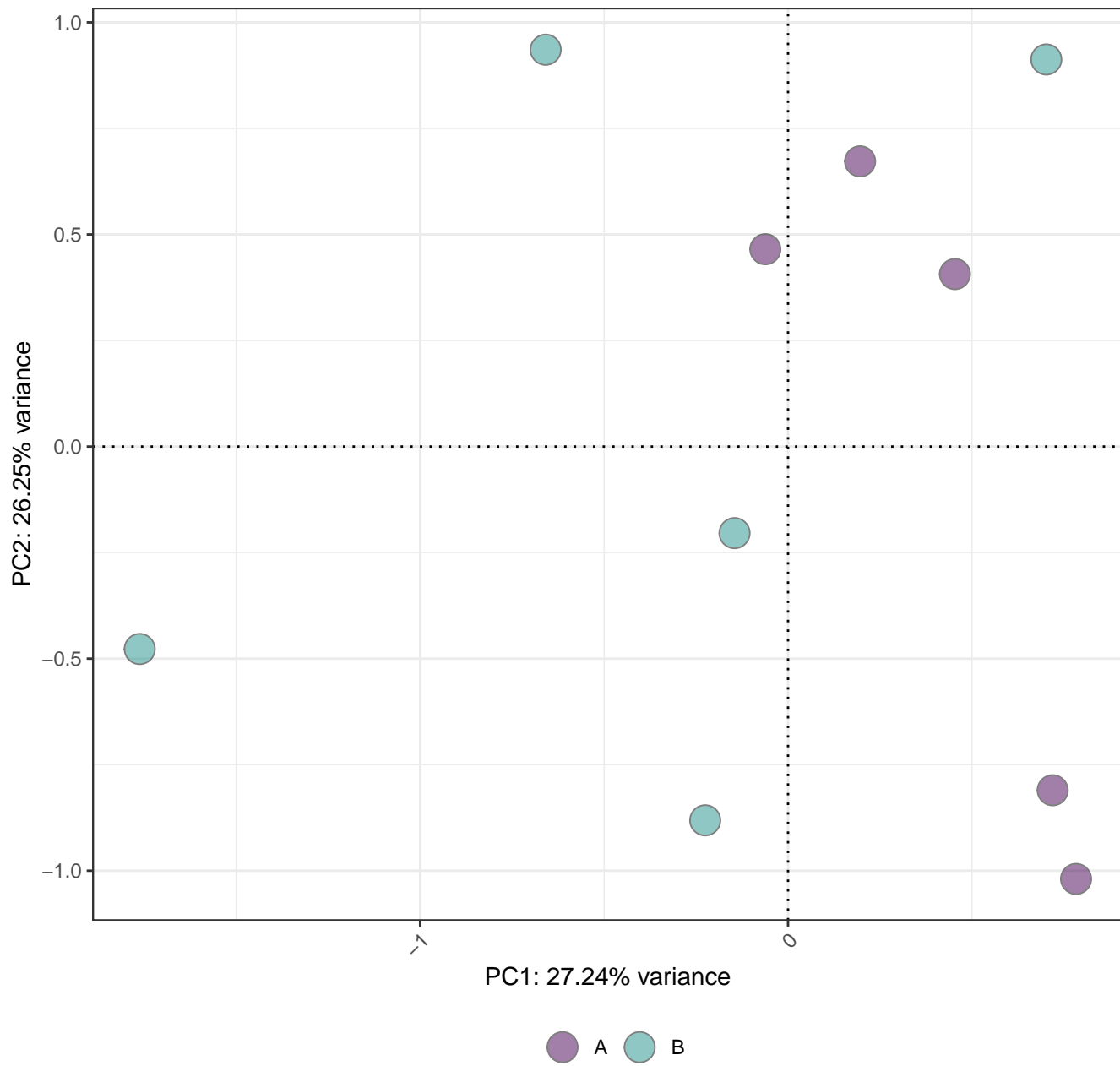
PC1 vs PC2



PC2 vs PC3

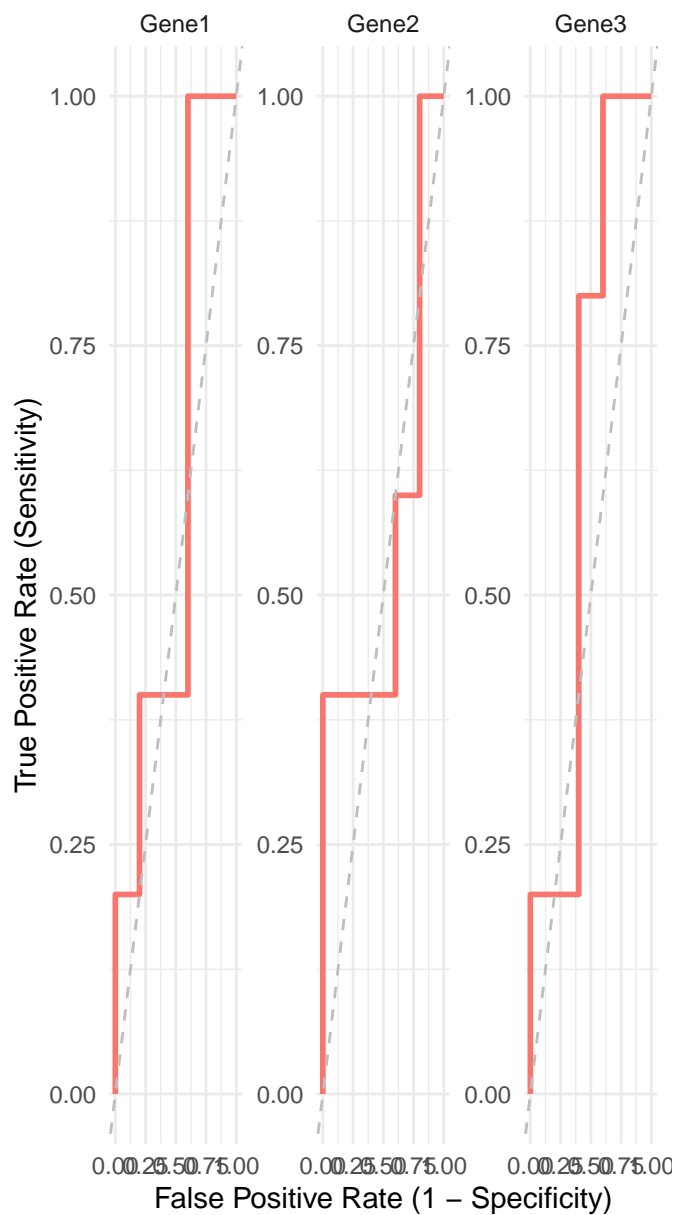


PC1 vs PC2

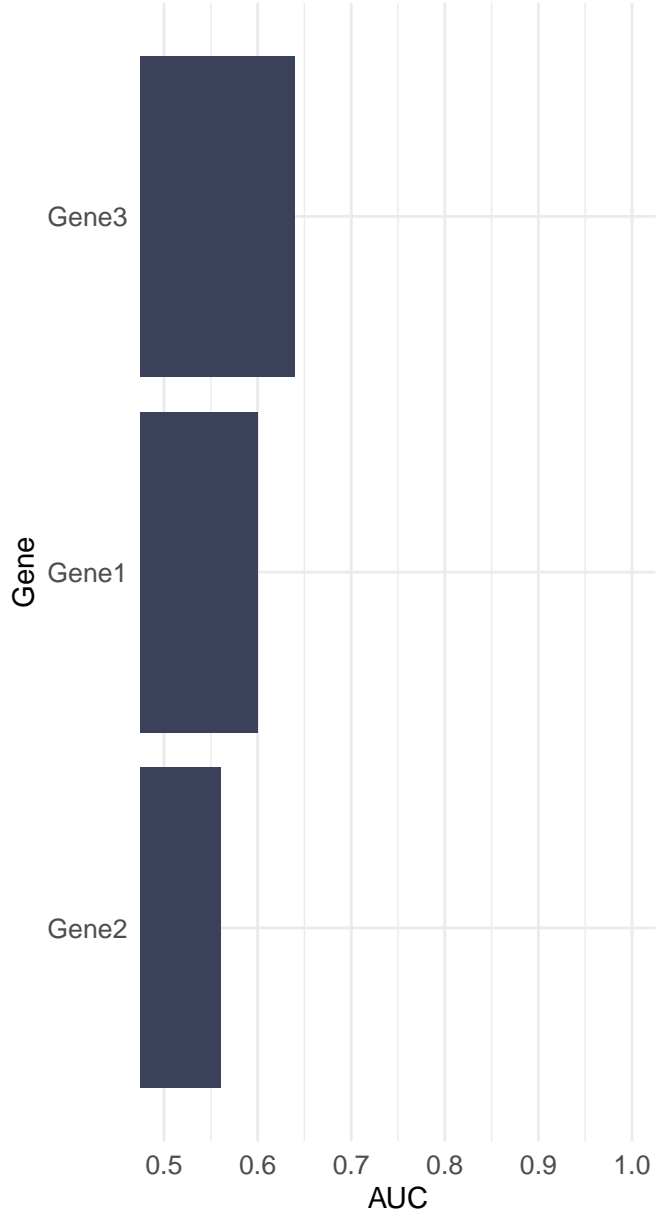


Test ROC

ROC curves



AUC values



ROC and AUC for variable Condition (A vs others)

AUC values

Gene

Gene2

Gene3

Gene1

0.5

0.6

0.7

0.8

0.9

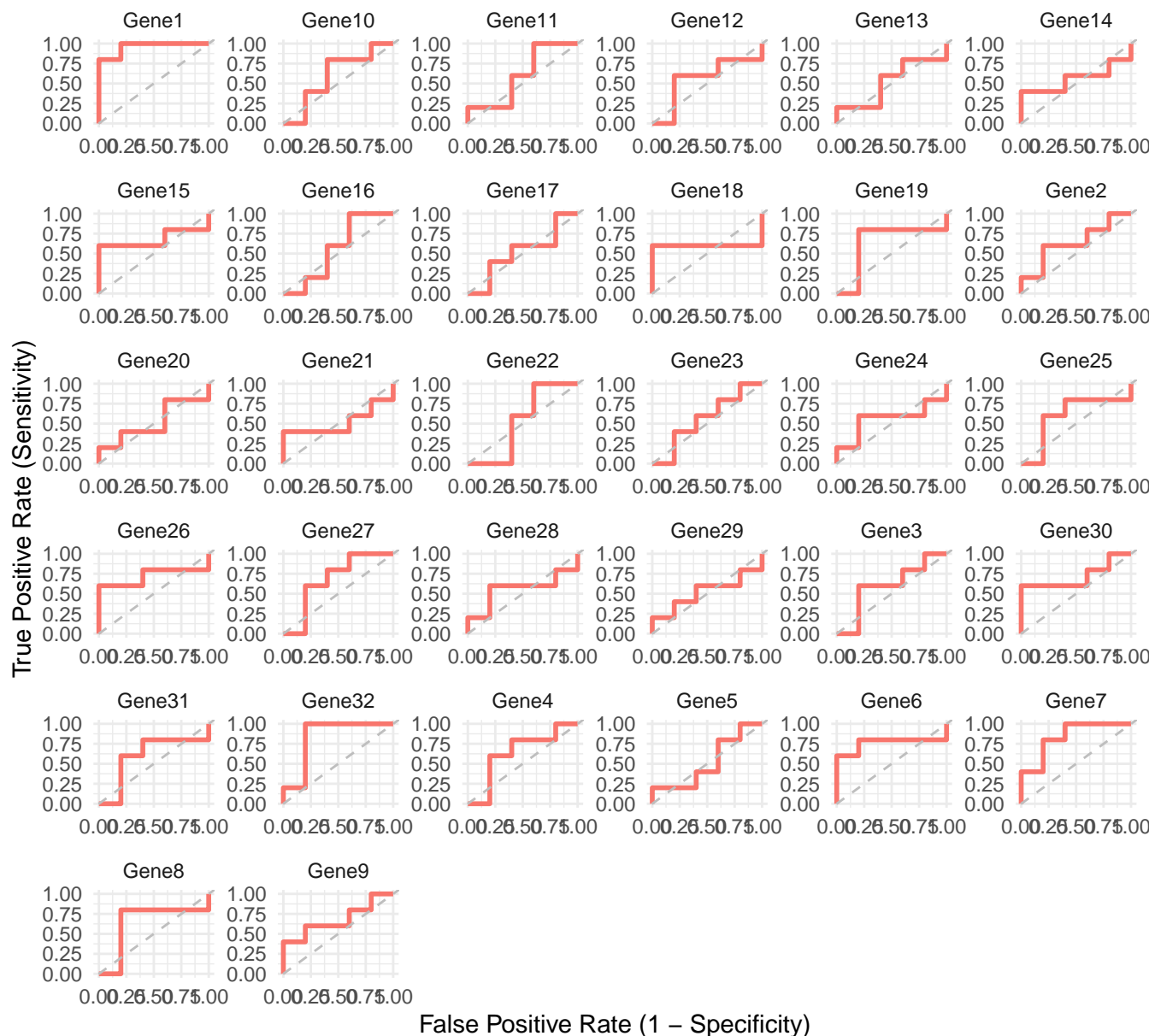
1.0

AUC



ROC and AUC for variable Condition (X vs others)

ROC curves



Sig1
Altered

Contrast

X - Y

$-\log_{10}(\text{Adj. p-value})$

3

2

1

0

-0.6

-0.4

-0.2

0.0

Normalized Enrichment Score (NES)