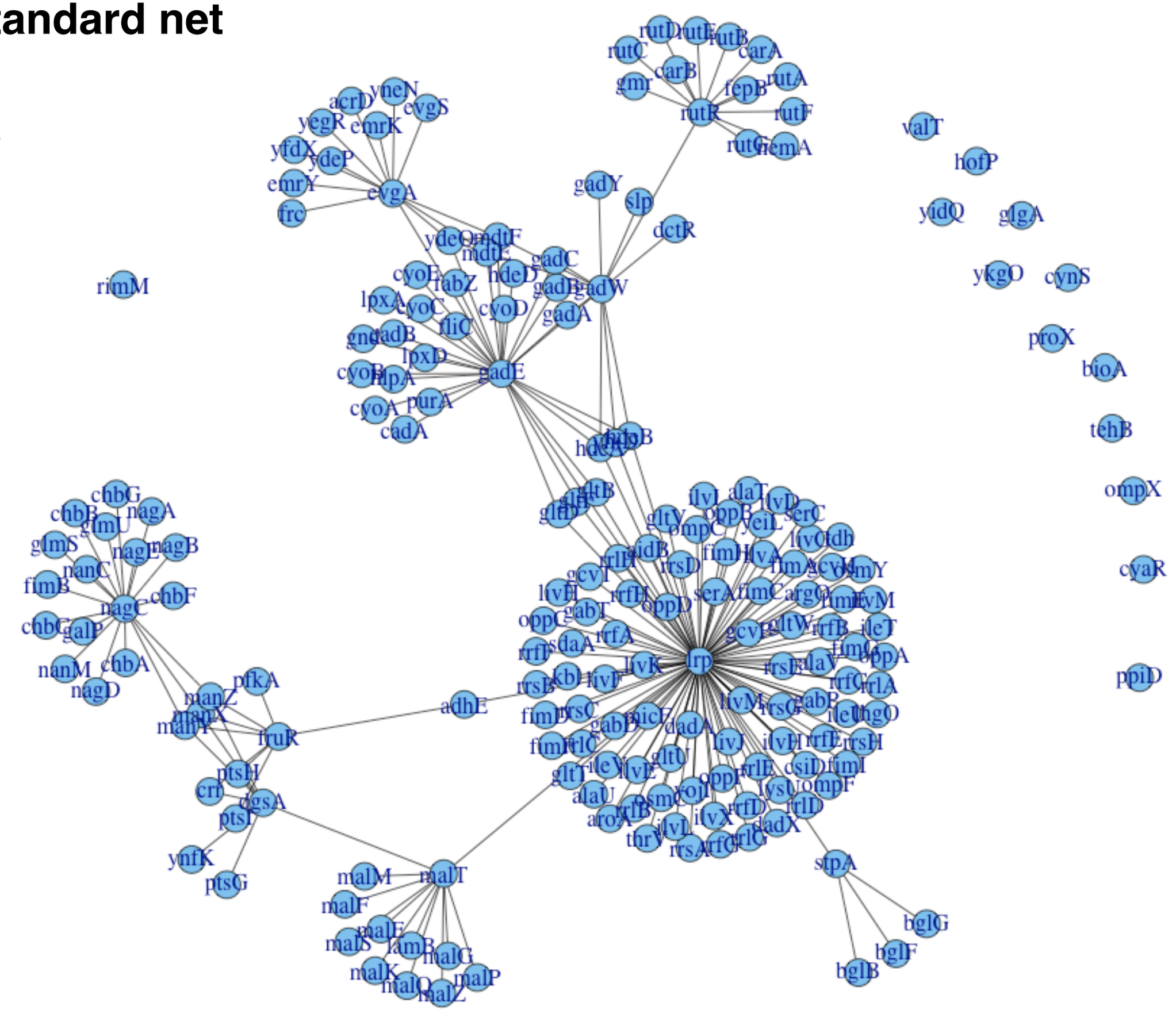
Regression2Net

Preliminary results Jan/2014

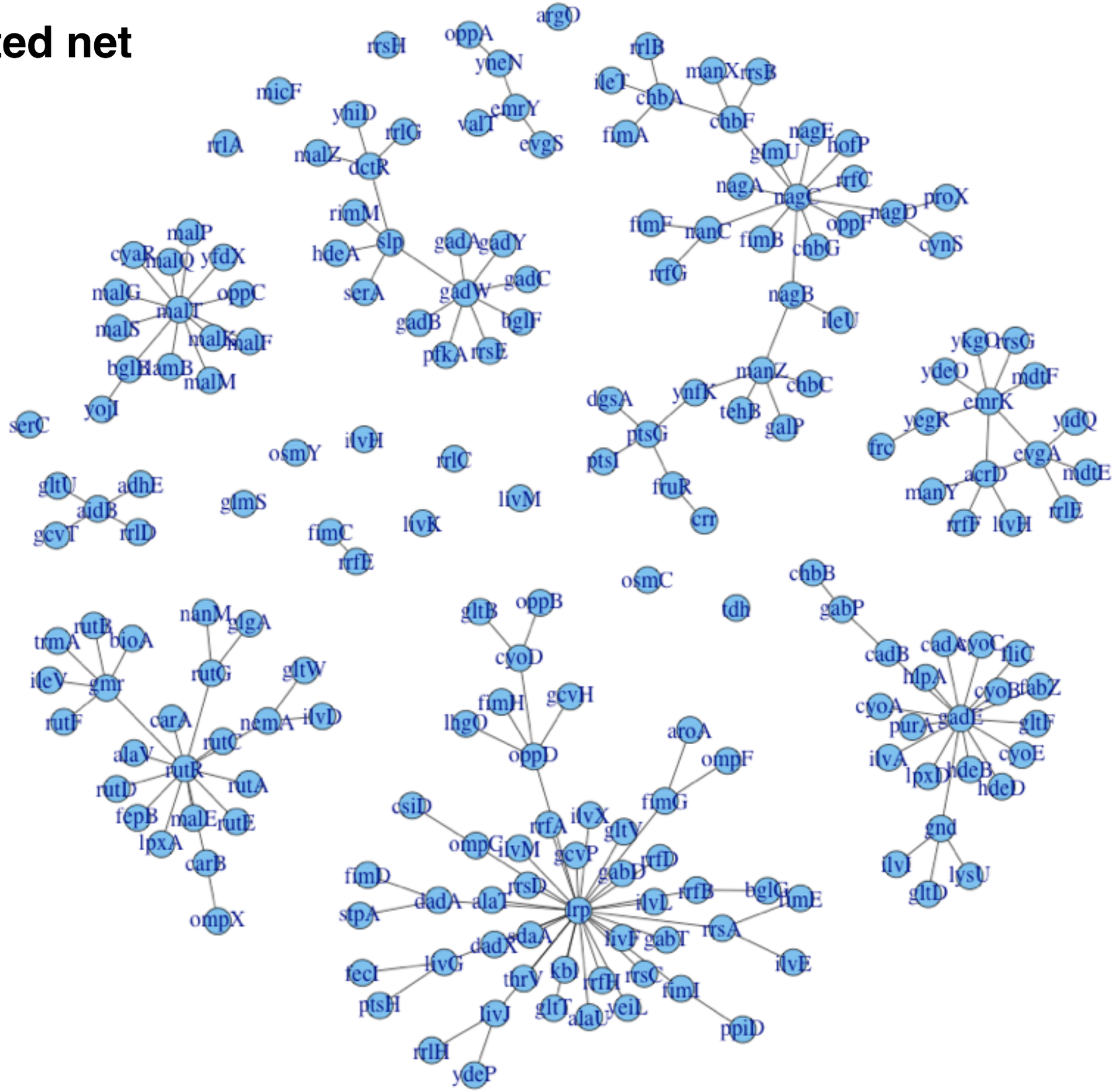
Golden standard net

200 nodes
212 edges

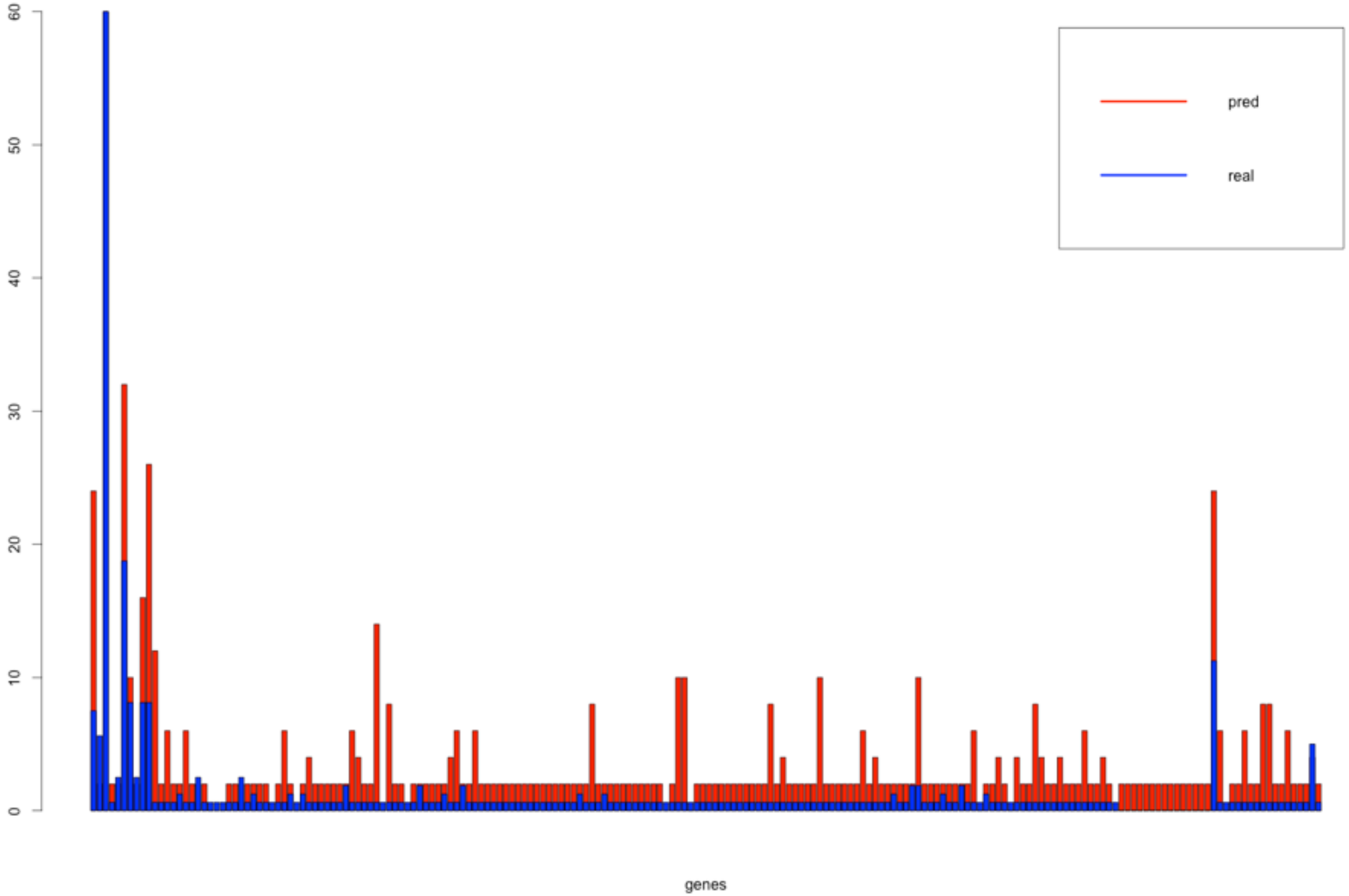


Best predicted net

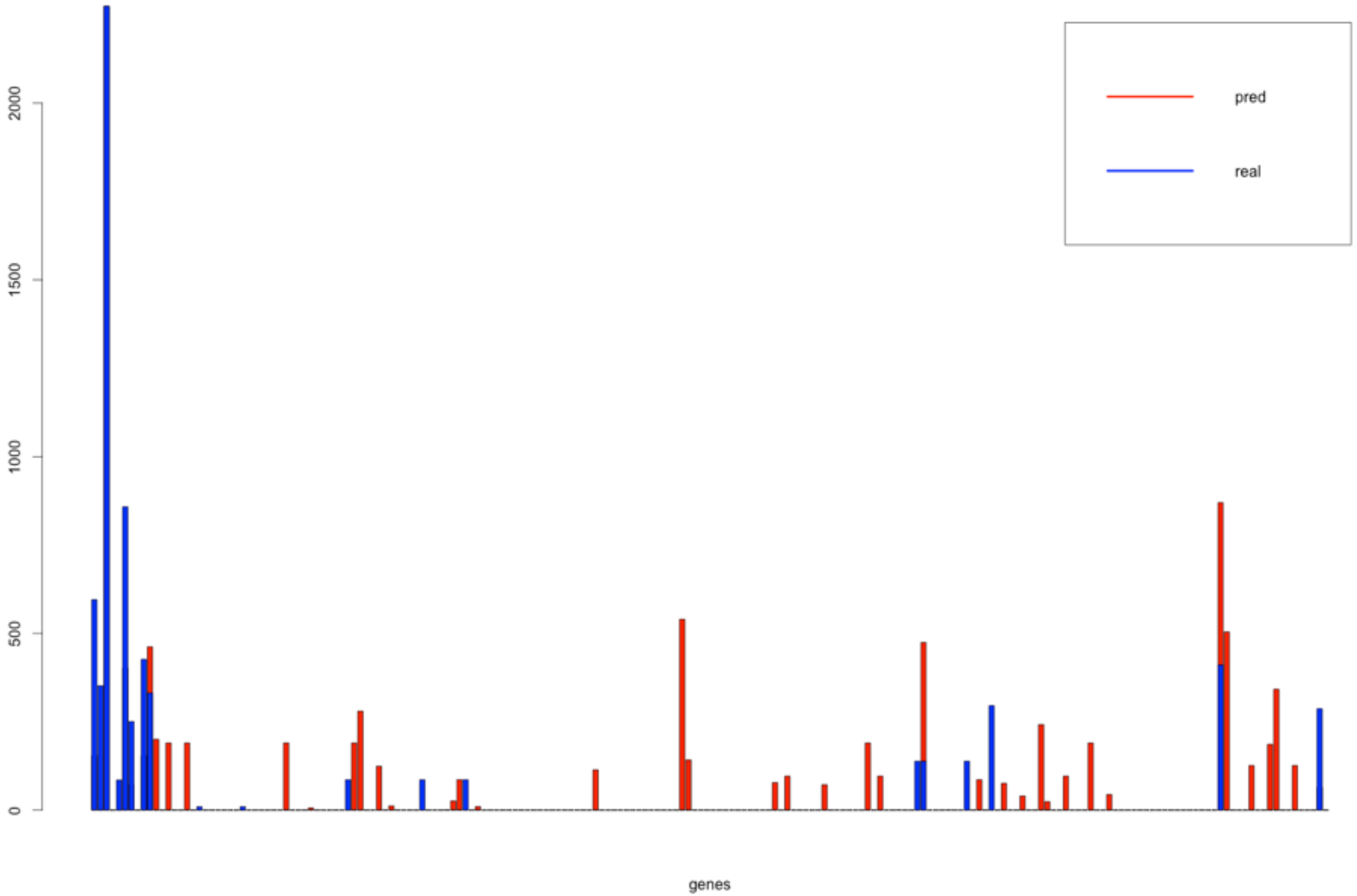
200 nodes
360 edges

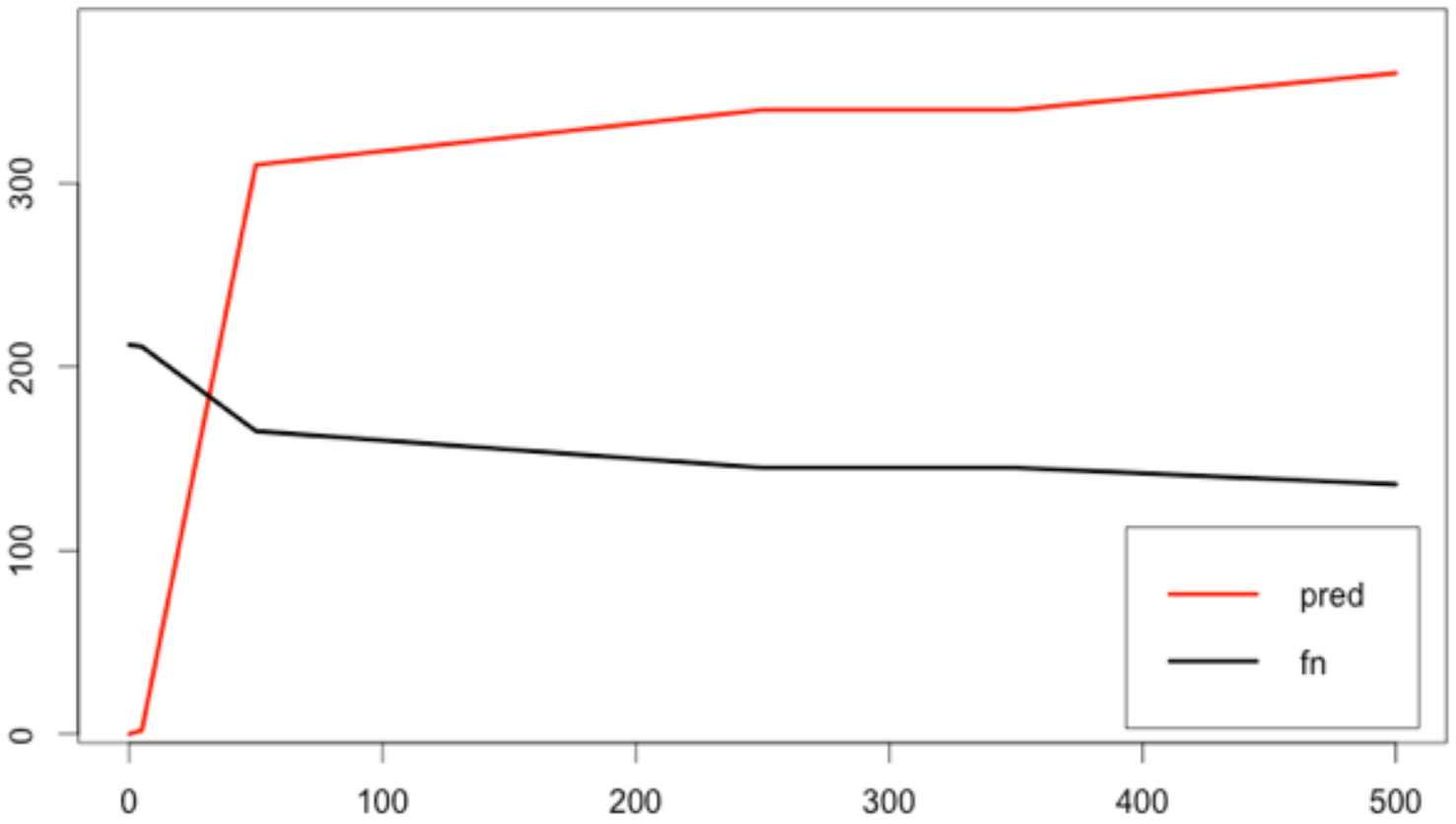


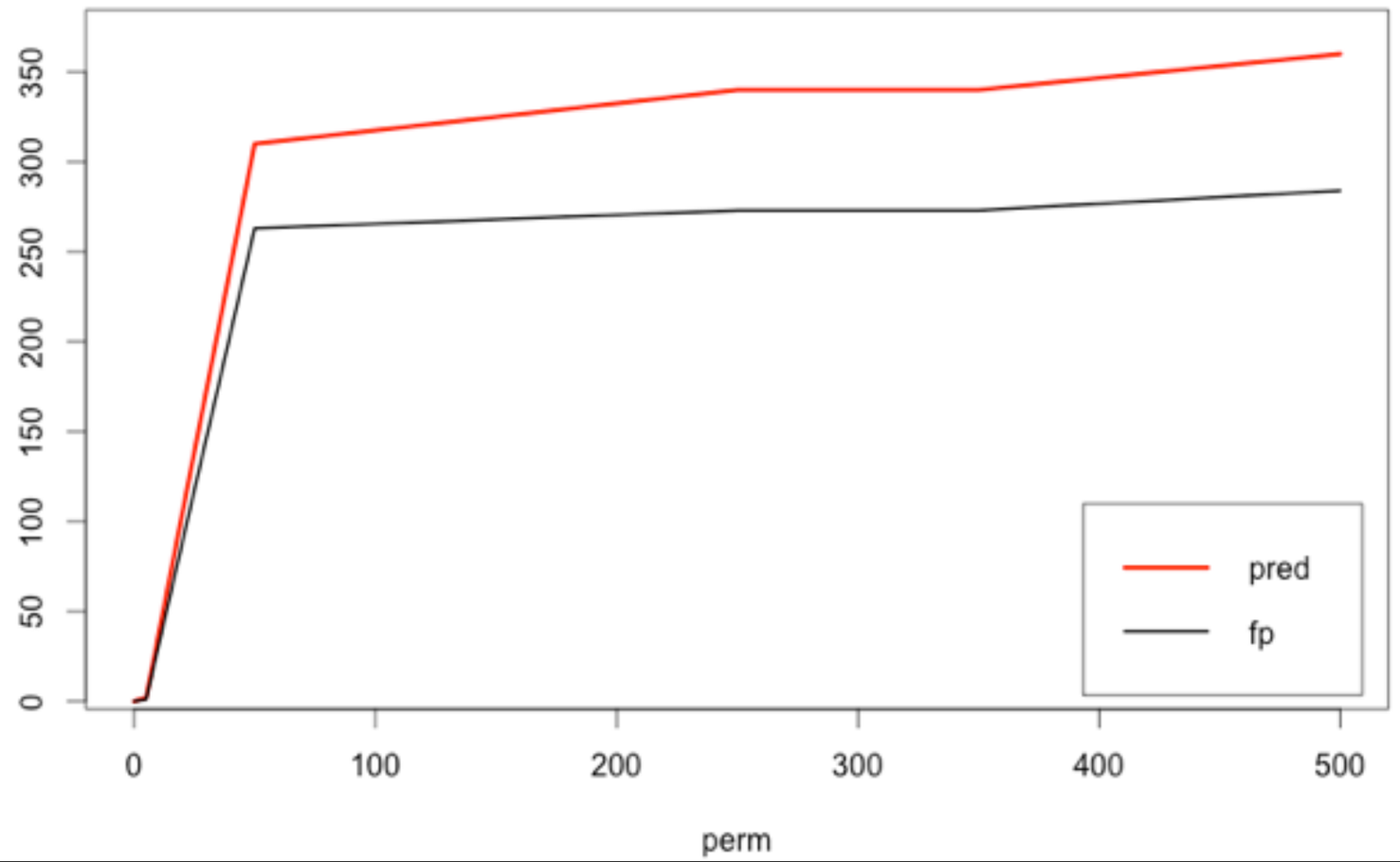
Degree correlation 0.86

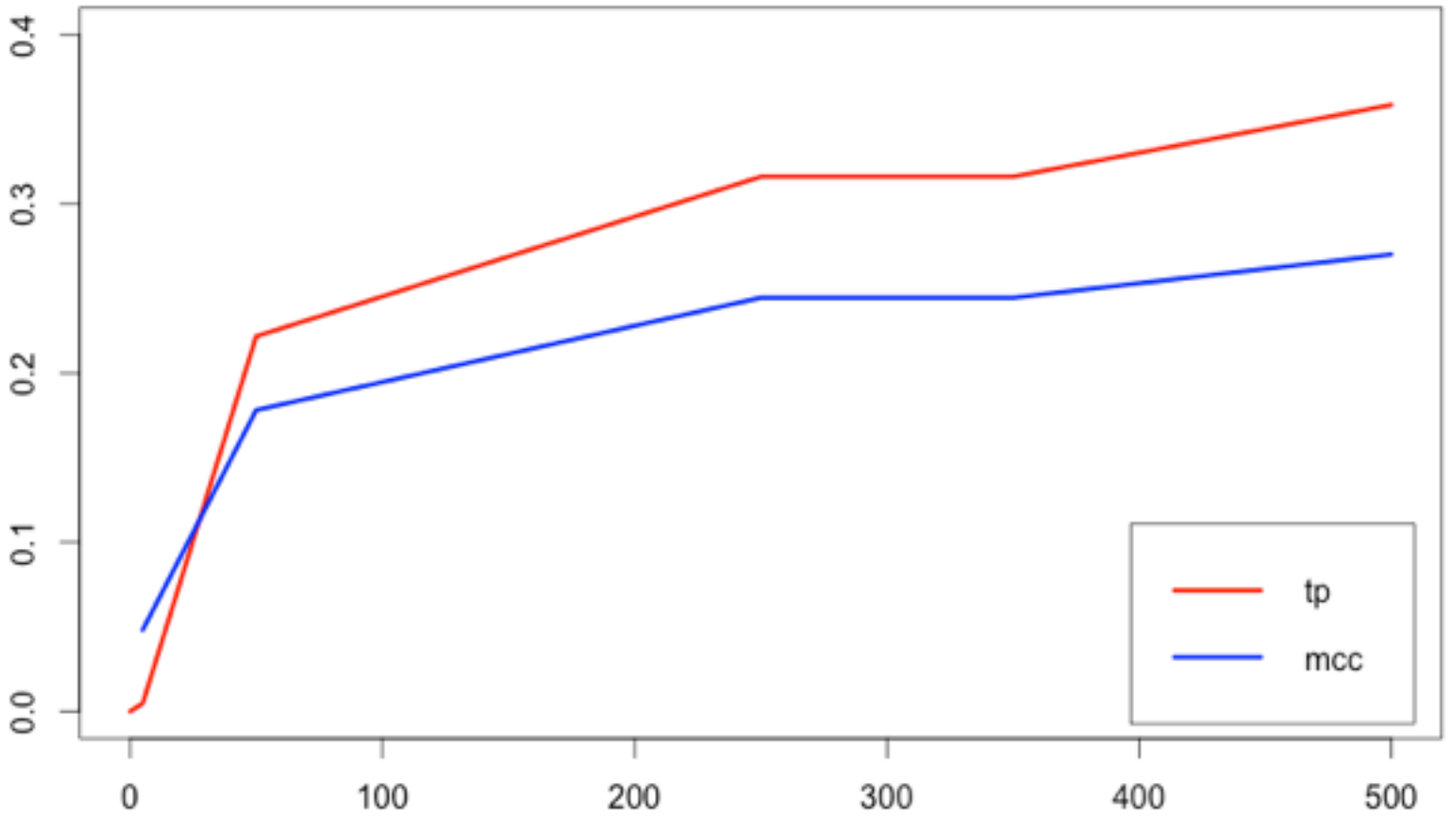


Betweeness correlation 0.83



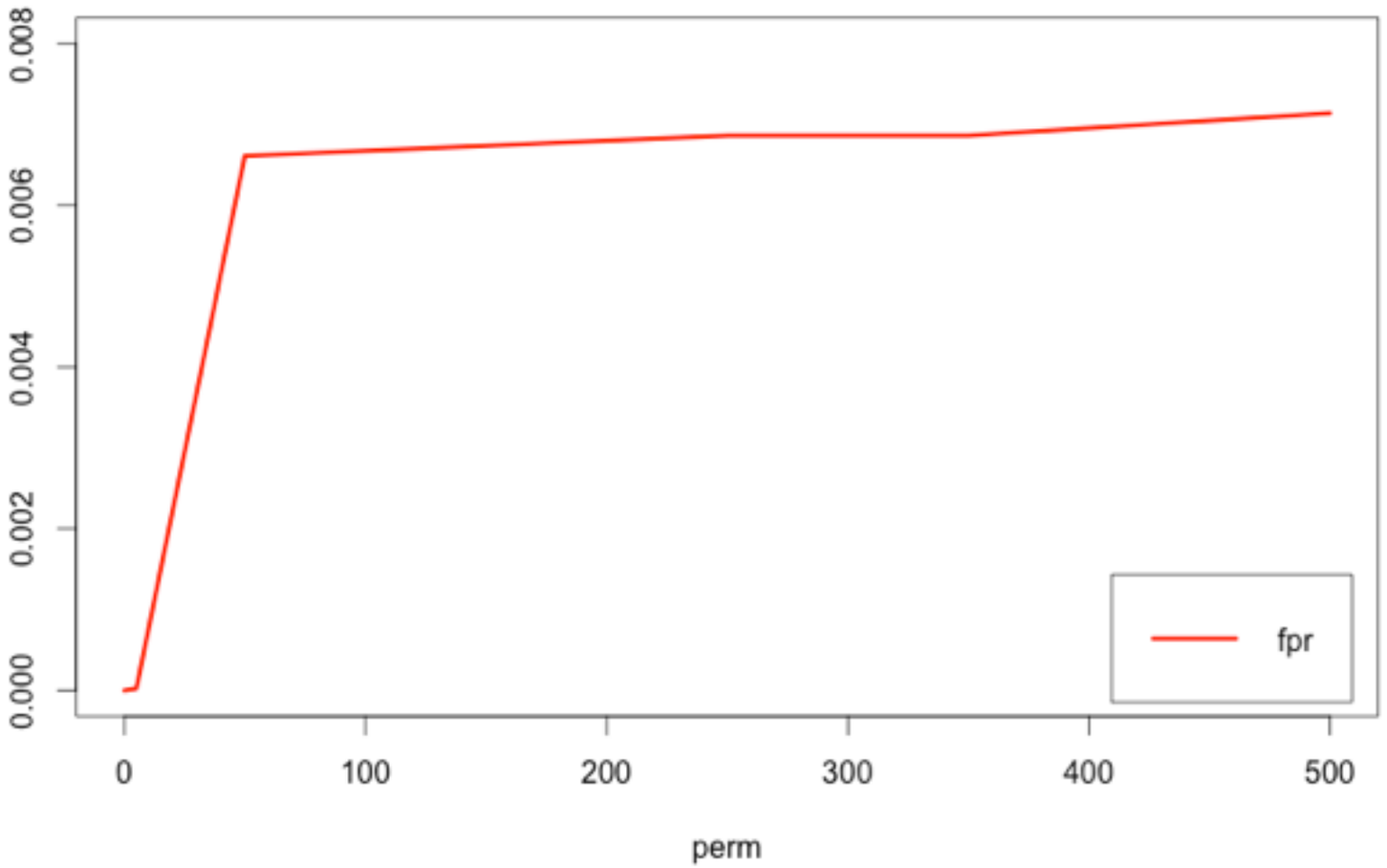

0
100
200
300
0
100
200
300
400
500
pred
fn


0
50
100
150
200
250
300
350
0
100
200
300
400
500
perm
pred
fp



Matthews Correlation Coefficient

$$\frac{TP \times TN - FP \times FN}{\sqrt{(TP + FP)(TP + FN)(TN + FP)(TN + FN)}}$$



Where is CItrees?

Precision = TP/(TP+FP) = 0.13

our result 0.21

False discovery rate = 0.85

our result 0.73

GENIE3 is not better than CItree