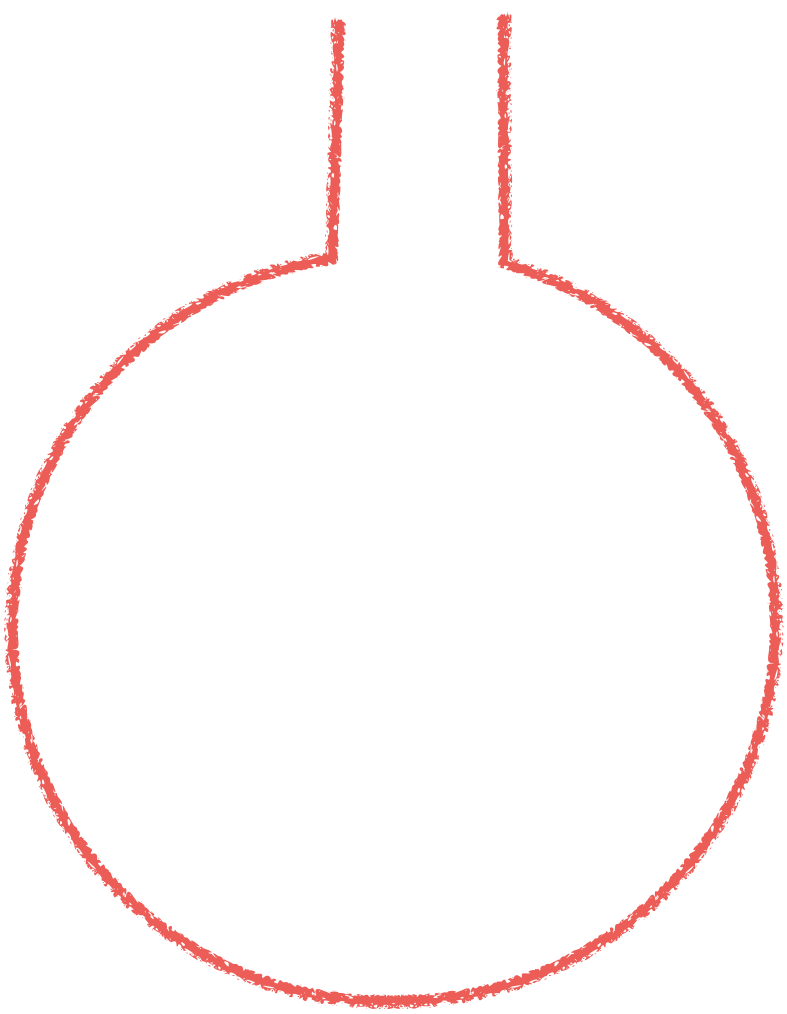




Over-representation analysis























































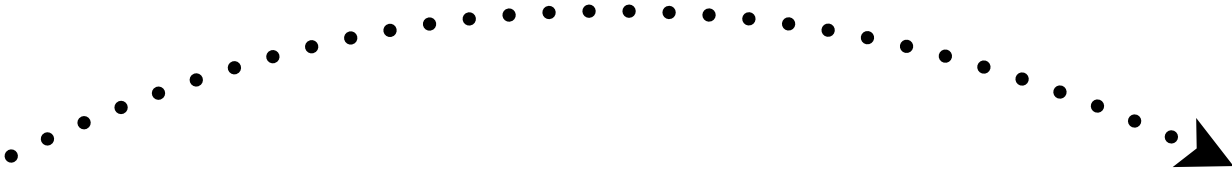




Genome with 34,000 genes

340 have GO term:

“Cell wall modification”

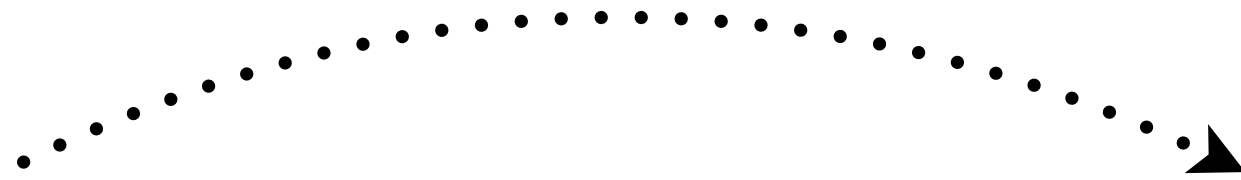


Find 1,000 genes differentially  
expressed in response to shade.

How many do you expect to have the GO term “cell wall modification”?

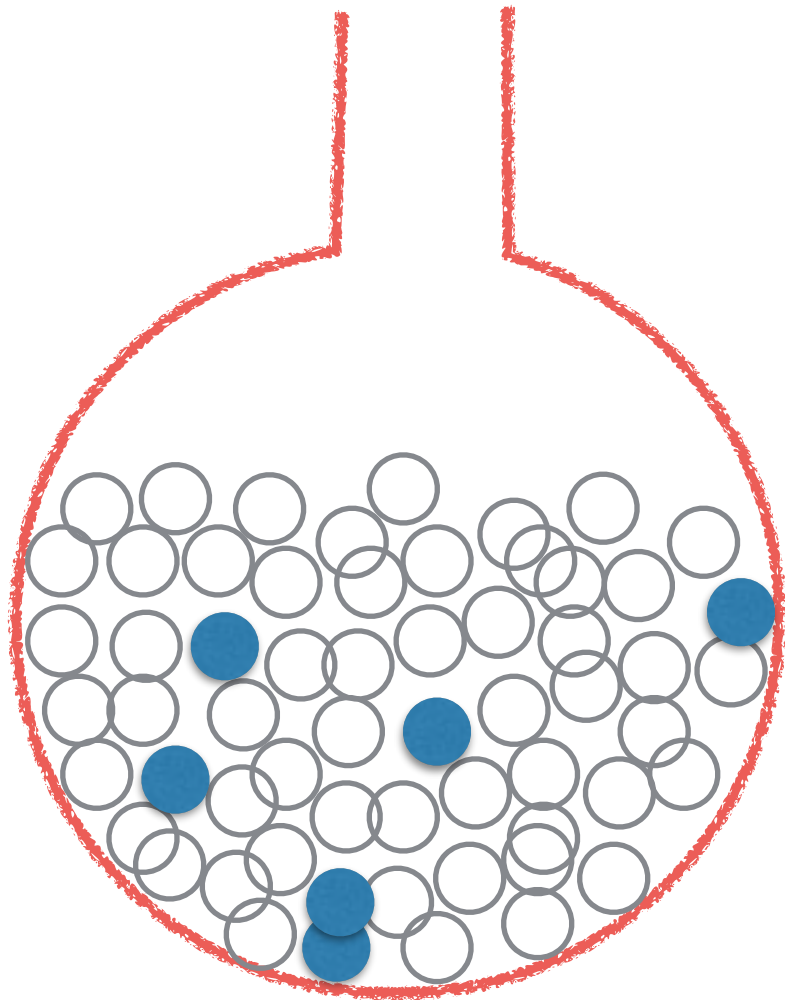


# Over-representation analysis



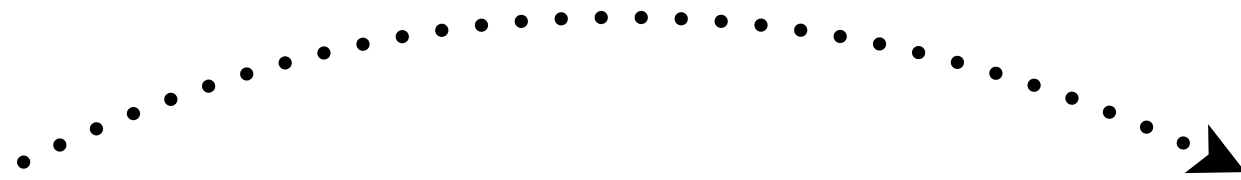
Find 1,000 genes differentially expressed in response to shade.

How many do you expect to have the GO term “cell wall modification”?

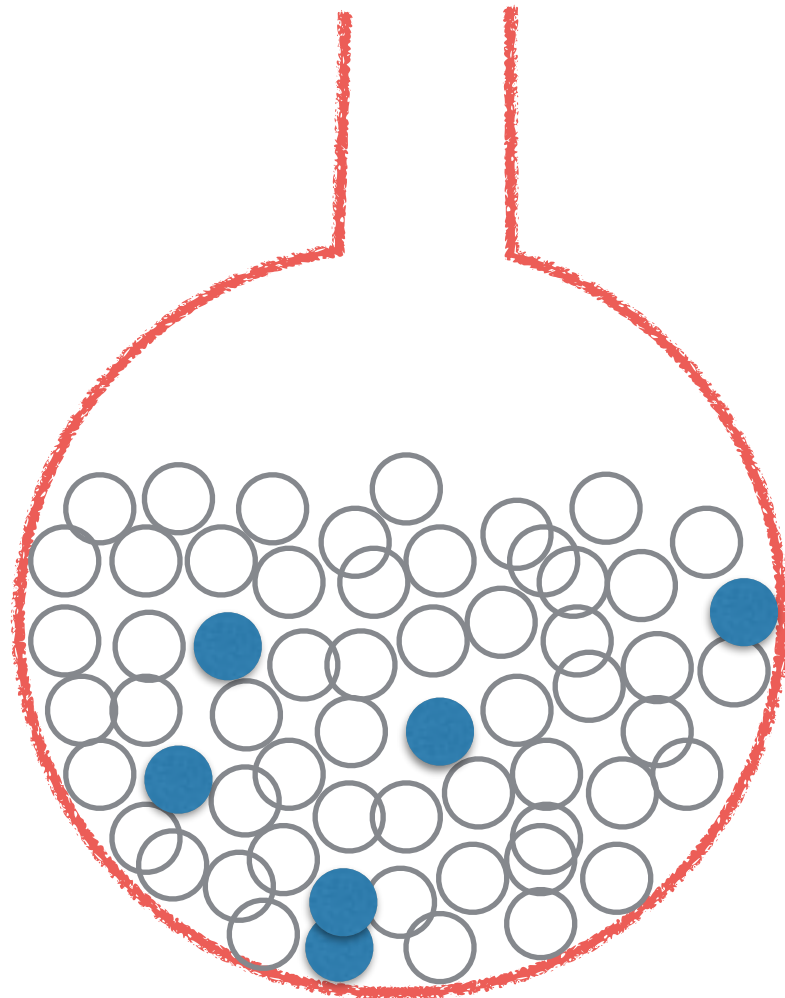


Genome with 34,000 genes  
340 have GO term:  
“Cell wall modification”

# Over-representation analysis



Find 1,000 genes differentially expressed in response to shade.



If instead of expectation, you find that 50 of these 1,000 have the GO term “Cell wall modification”, then what do you conclude?

Genome with 34,000 genes  
340 have GO term:  
“Cell wall modification”