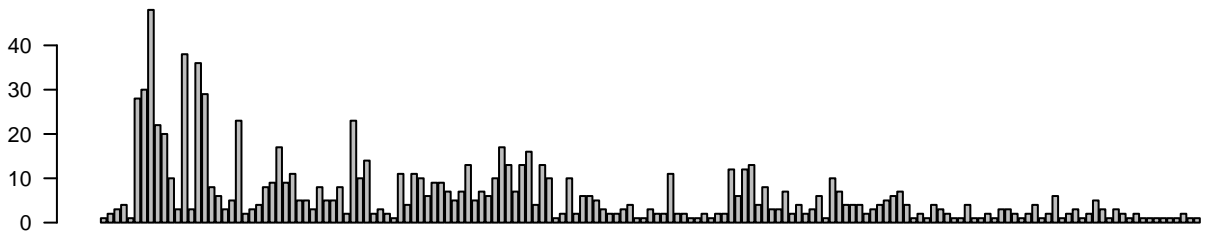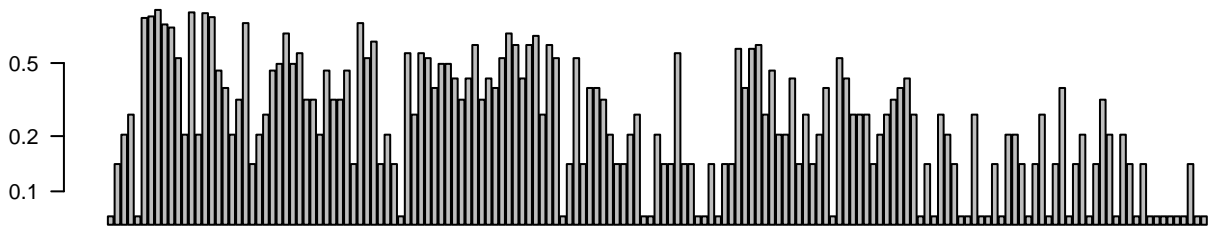**n. mutated genes per sample**
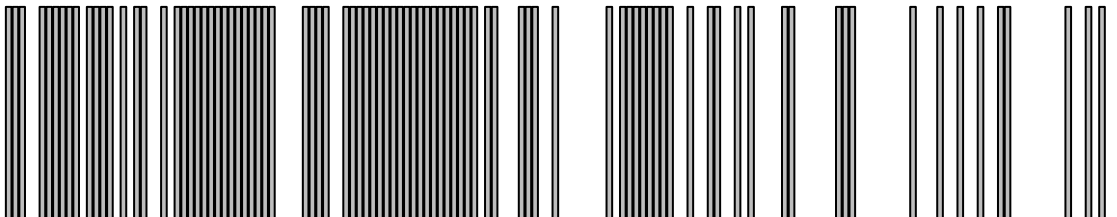
p(one mutation in this pathway)

Expected number of samples with mutation in this pathway = 50

Samples with mutations in this pathway = 90

samples