

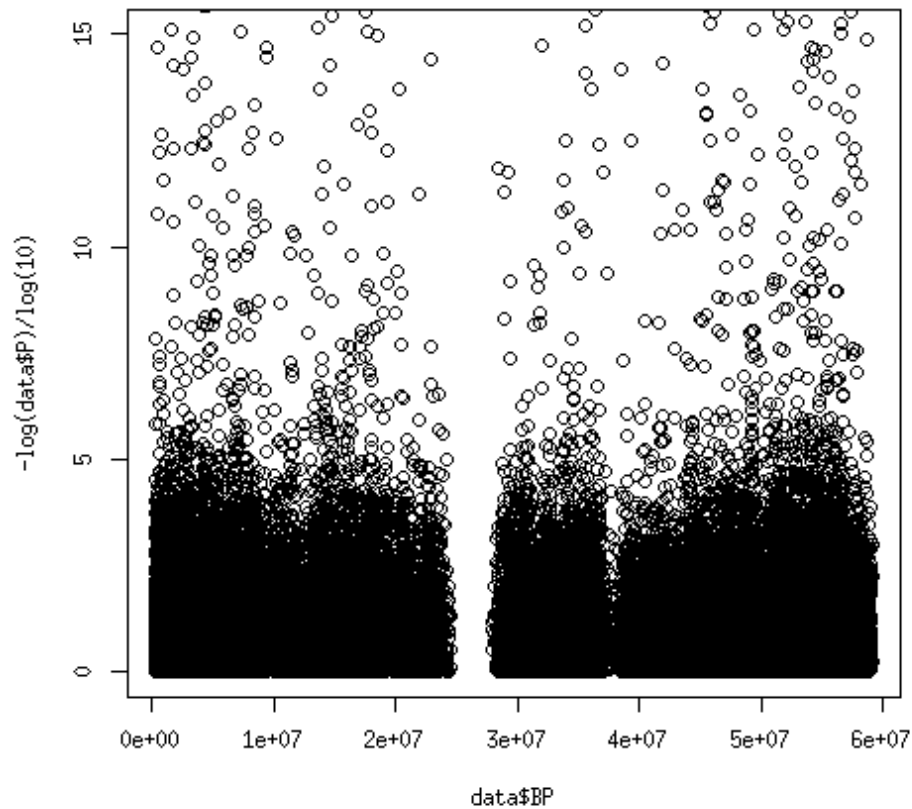
Introduction to Genome-wide Association Studies (GWAS)

Practical Part 1: discovery

Teresa Ferreira and Nilufer Rahmioglu

Wellcome Centre for Human Genetics/Big Data Institute

chr19-example data

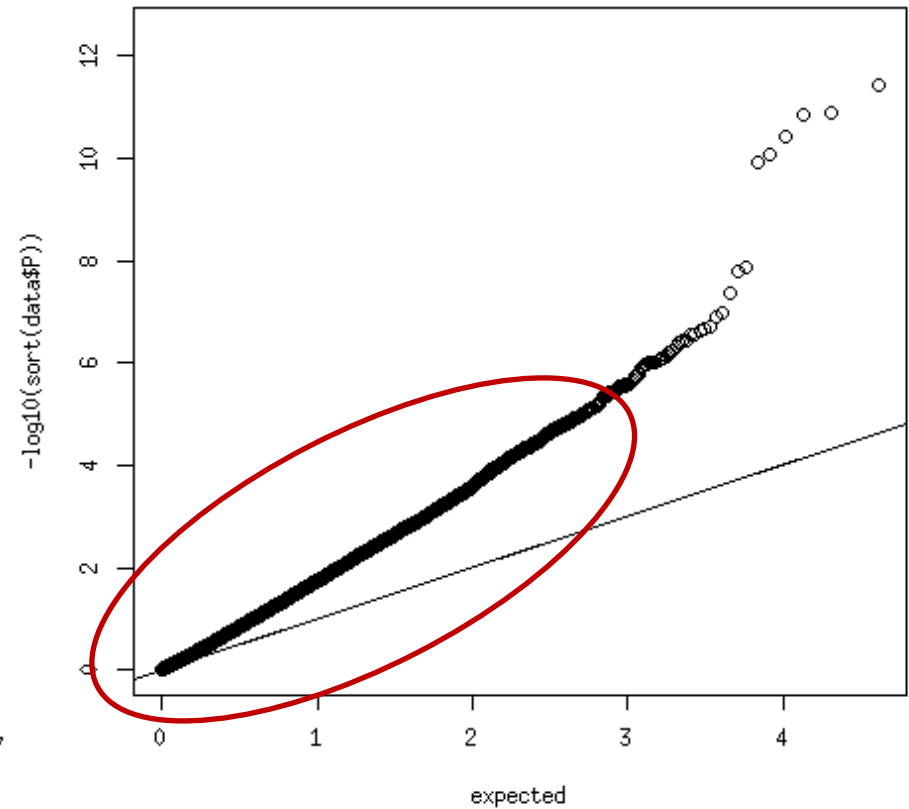
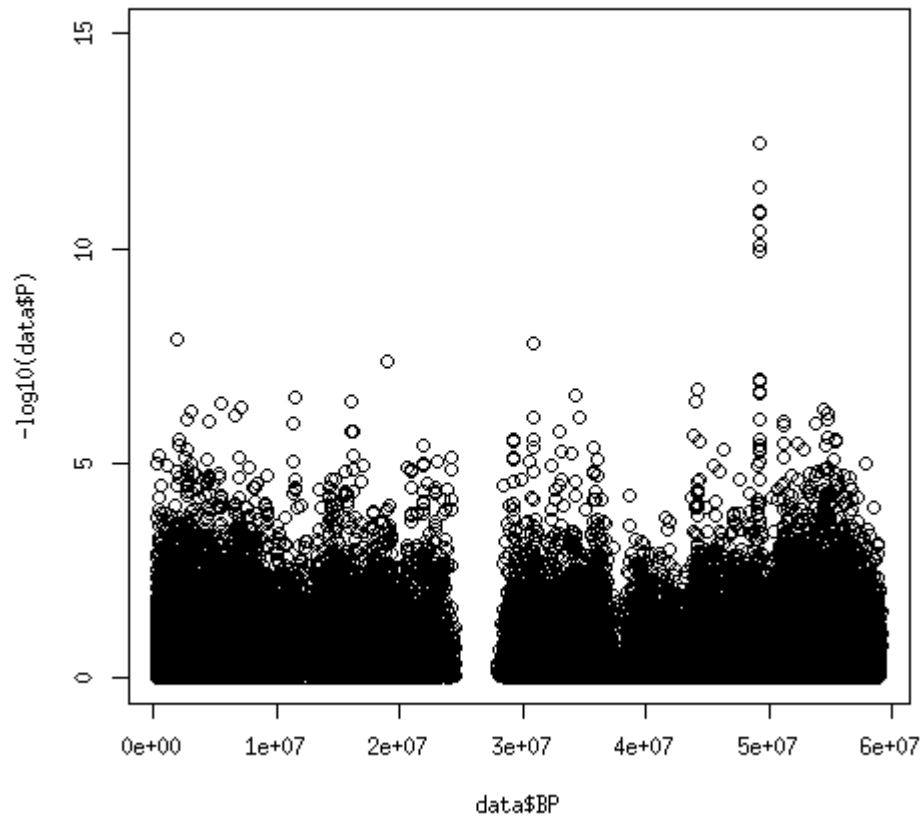


QC

- Missingness per indiv > 0.02
- Missingness per marker > 0.01
- Heterozygosity <0, >0.2
- HWE $p < 1 \times 10^{-04}$
- MAF < 1%

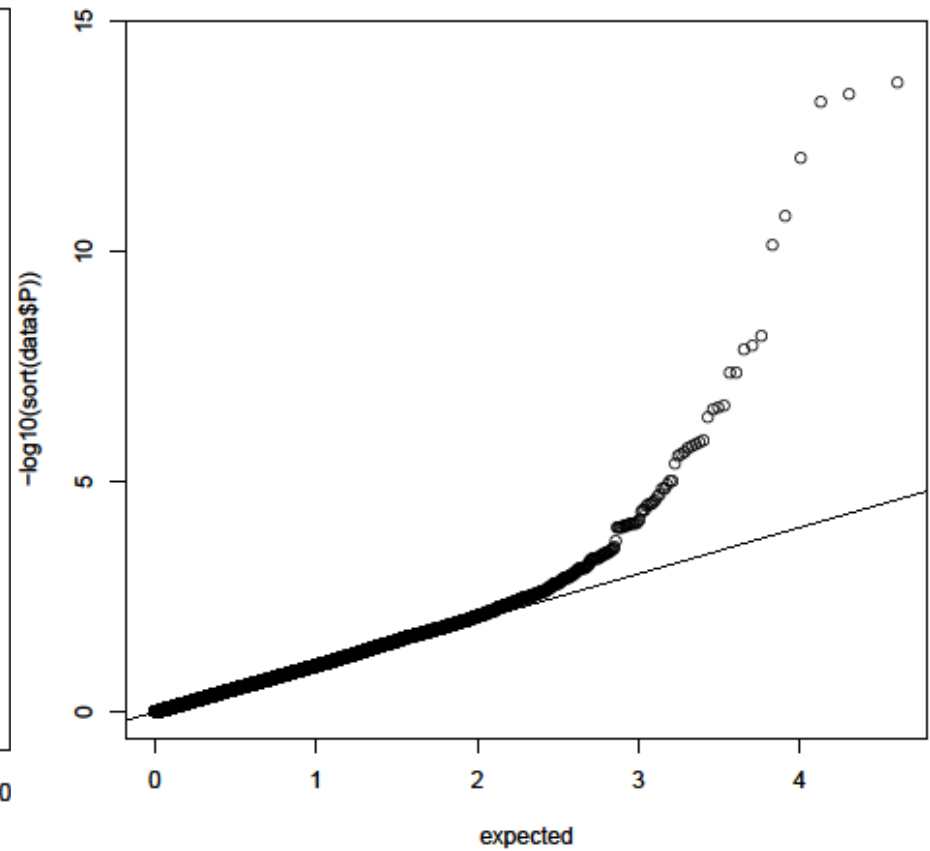
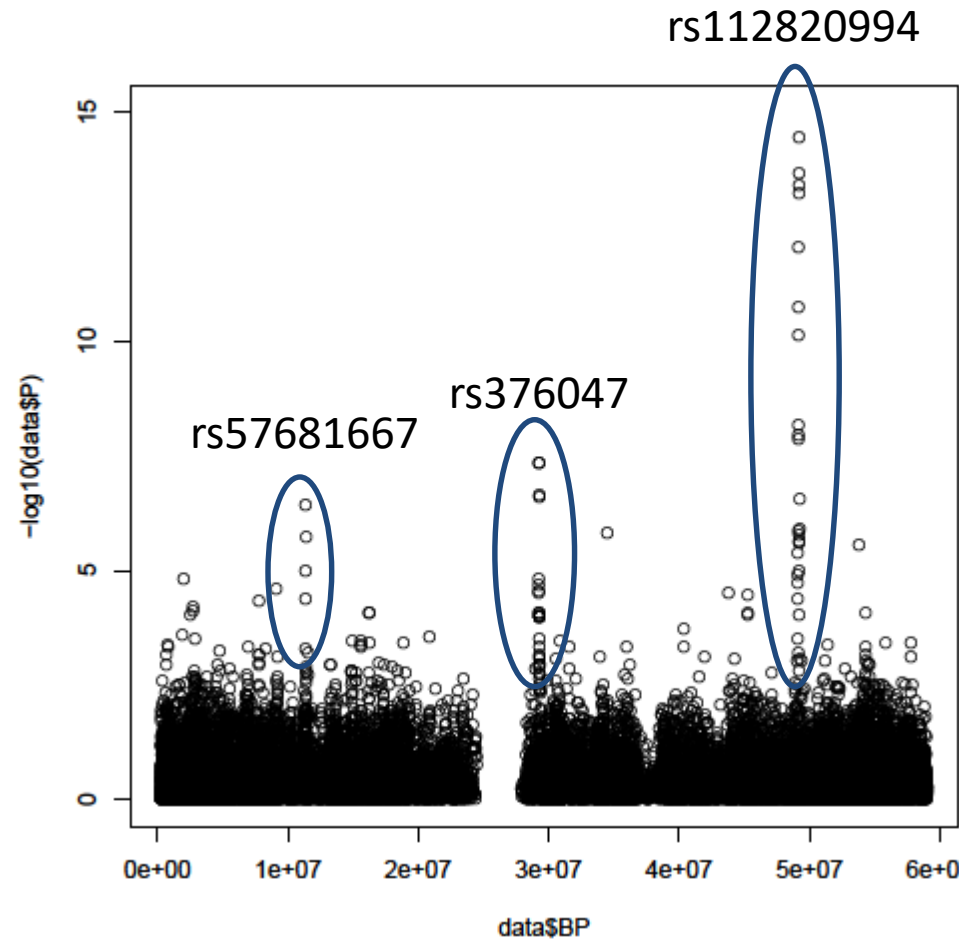
chr19-example data

Cleaned data

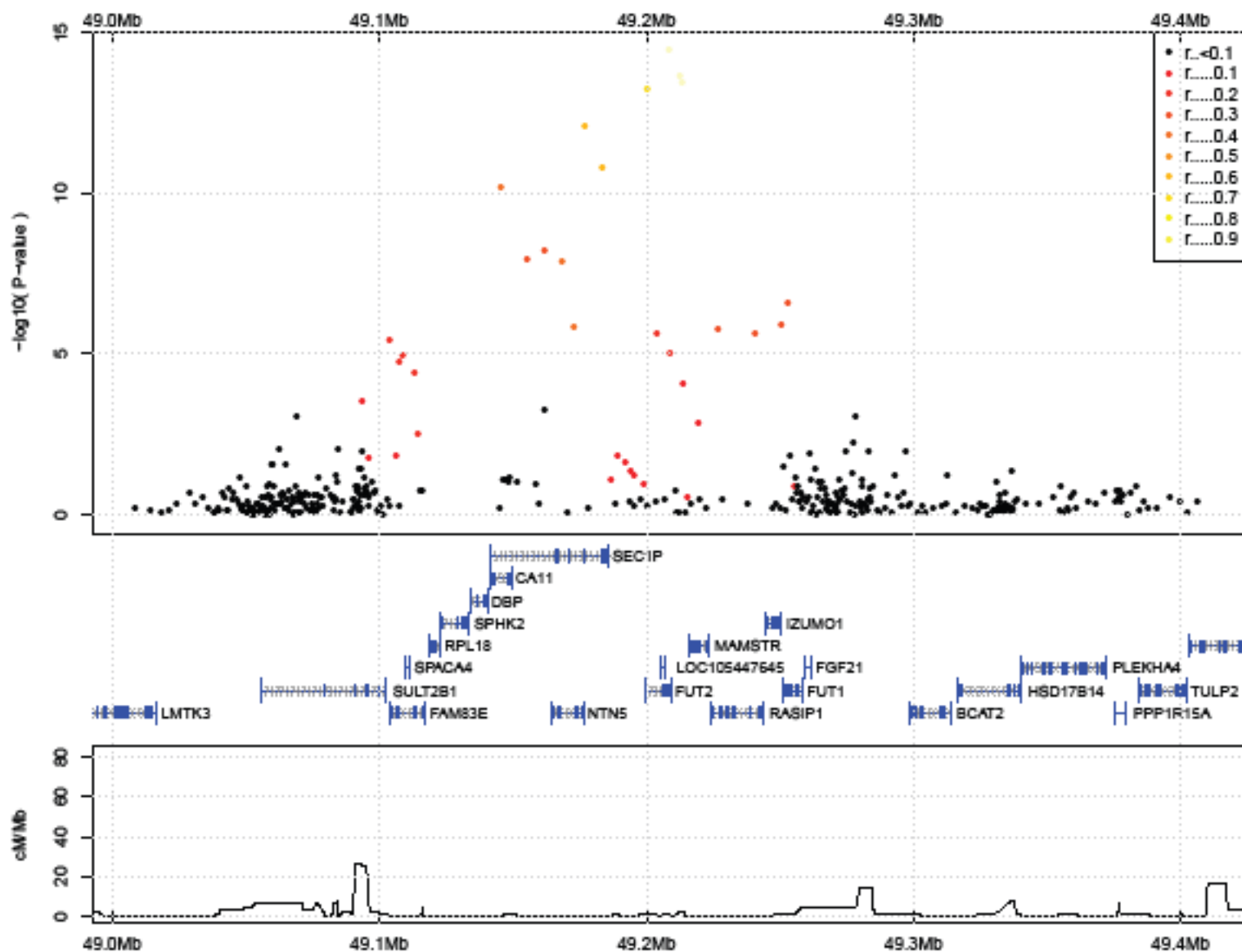


Population stratification?

Adjusting for PCs



rs112820994



rs112820994

