

Multiple Testing Correction

FDR vs FWER

False Discovery Rate vs Family-Wise Error Rate

Benjamini-Hochberg

Controls FDR - less conservative than Bonferroni

Q-value Estimation

Minimum FDR at which a test is called significant

Permutation Tests

Empirical null distribution for complex designs

Power Considerations

More tests = need more samples or larger effects

💡 Testing 20,000 genes requires careful multiple testing correction