

# Pathway Analysis

## Gene Set Enrichment

Identify coordinated changes in functional groups

## Over-representation

Fisher's exact test for enrichment in DE genes

## GSEA Algorithm

Uses full ranked gene list, not just DE genes

## Pathway Databases

GO, KEGG, Reactome, MSigDB

## Network Analysis

Protein-protein interactions and regulatory networks

💡 Pathways provide biological context for gene expression changes