

# RNA-seq Workflow

## Experimental Design

Plan your study carefully with appropriate controls and biological questions

## Replication Strategies

Biological replicates ( $\geq 3$ ) are essential for statistical power

## Batch Effect Prevention

Randomize sample processing to avoid confounding variables

## Power Analysis

Determine sample size needed to detect biological effects

## Cost Optimization

Balance sequencing depth and sample number for your budget

 **Key Recommendation**

More biological replicates with moderate depth > few samples with deep sequencing

