

# Short Read Workshop Day 7

## Differential Expression

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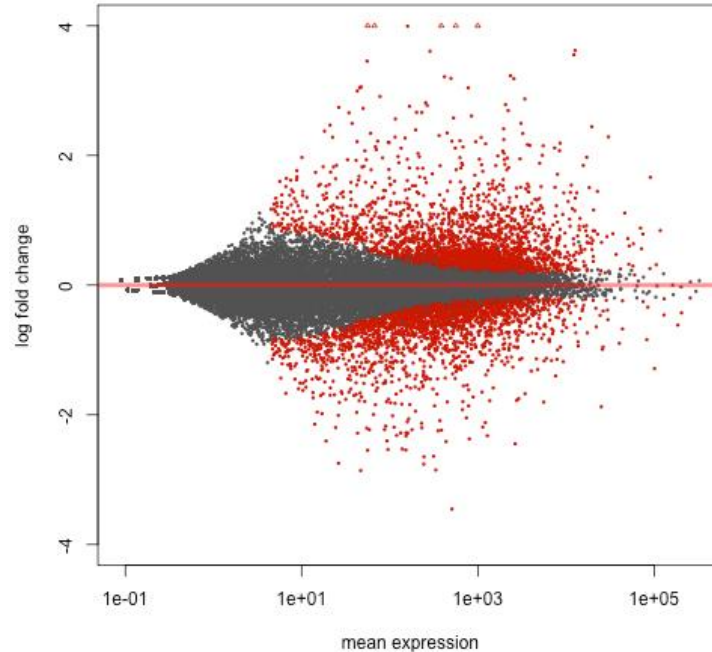
# Day 7 overview

- M&Ms
- DESeq2

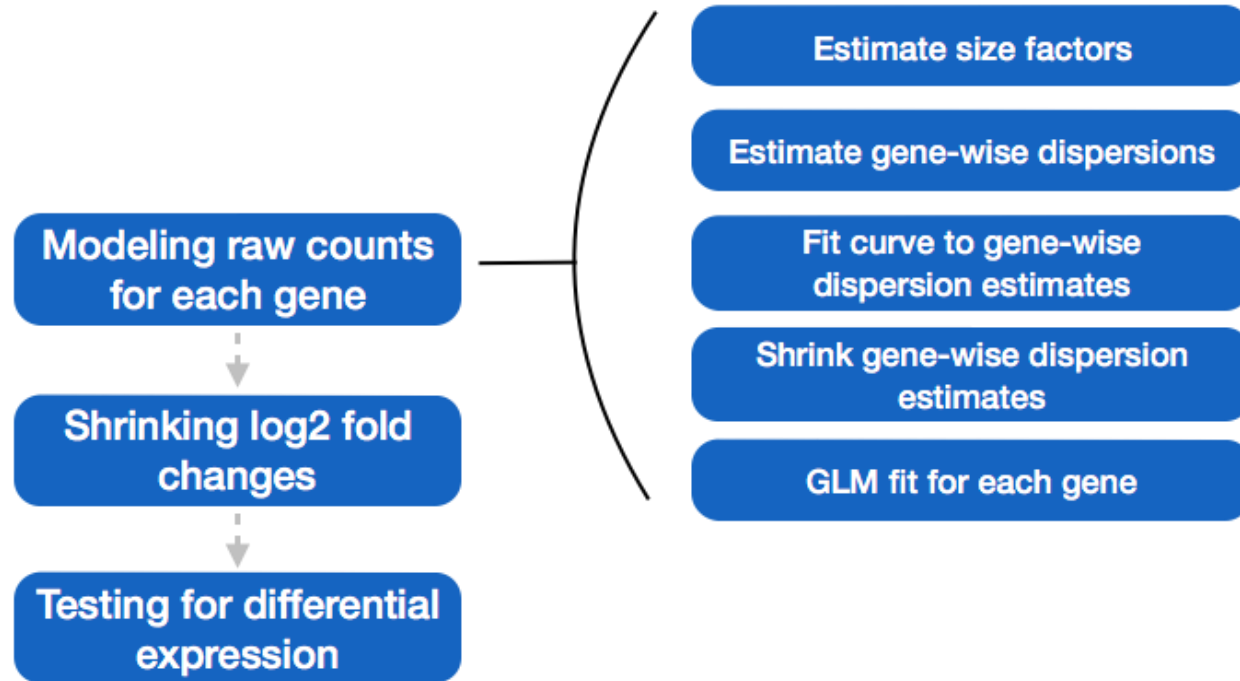


# Goal of the Day

Find genes that are different between samples

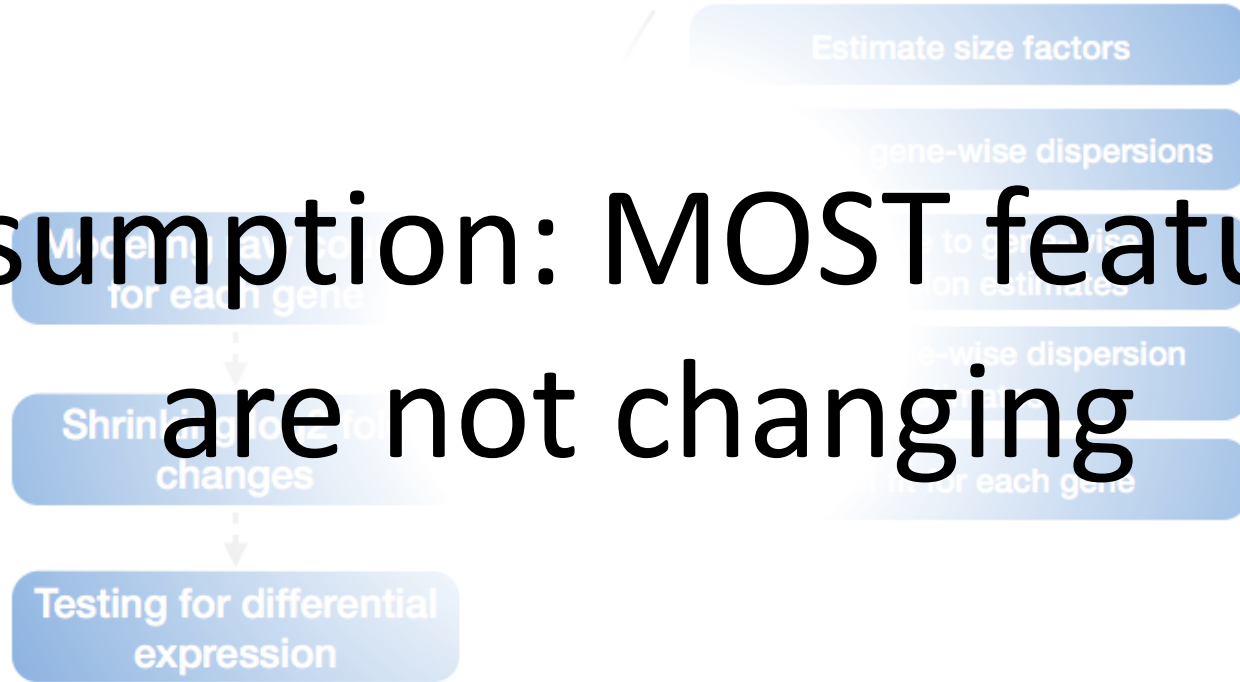


# DESeq2 recap



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Assumption: MOST features  
are not changing



# Run DESeq2 over Owl Monkey genes

- Follow worksheet
- Transfer count tables from *AWS* to local machine

# Challenge Question

- How would you run DESeq2 on the supercomputer?

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- How would you run DESeq2 on the supercomputer?
  - Install DESeq2 in your R packages directory
  - Make a conditions table that matches your count table
  - Run the R script through an sbatch script



# Homework

- Explore DE genes with a heatmap
- Run DESeq2 to explore differential expression with nicotine and caffeine treatments