

# Supplementary Material Item Descriptions

The supplementary material contains 4 subdirectories: **Code**, **Data**, **Graphs** and **Results**.

## Code

**core\_functions.R:** Contains all core functions of the EM algorithm of MCLUST-ME. (R file)

**simulation\_functions.R:** Contains all functions required to run the simulations in the paper. (R file)

**sim 1.R:** Runs Simulation 1 in Section 7. (R file)

**sim 2.R:** Runs Simulation 2 in Section 7. (R file)

**bic\_simulation.R:** Runs the BIC simulation in Section 8. (R file)

**rnaseq\_analysis.R:** Performs cluster analysis in Section 9. (R file)

## Data

**rna\_raw.RData:** Raw RNA-seq data used in Section 9. (RData file)

**rna\_processed.RData:** Processed RNA-seq data for Section 9. (RData file)

## Graphs

**Figure \*.pdf, Figure \*.png:** Graphs used in the paper. (PDF and PNG files)

## Results

**res\_sim1\_0\*.RData:** Contains results from Simulation 1 with  $p = 0.*$ . (RData files)

**res\_sim2\_0\*.RData:** Contains results from Simulation 2 with  $p = 0.*$ . (RData files)

**bic1\_multiseeds.RData:** Contains results from Case 1 of BIC simulation. (RData file)

**bic2\_79.RData:** Contains results from Case 2 of BIC simulation. (RData file)

**bic3\_51.RData:** Contains results from Case 3 of BIC simulation. (RData file)

**rna\_\*group.RData:** Contains MCLUST-ME clustering result of RNA-seq data assuming  $G = *$  groups. (RData files)

**rna\_cluster\_res.RData:** Contains MCLUST-ME clustering result of RNA-seq data with the optimal BIC value. (RData file)