Final Result Comparisons MALAT1 vs CD19

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Description

This script will compile all relevant data and model summary information for the MALAT1 ~ CD19 pairings.

Script Dependencies

Package Dependencies

```
library(ggplot2)
library(plyr)
library(nlme)
```

SetWorking Directory & Seed

```
WD="/Users/lee/Documents/GitHub/MSproject_RBC/MSproject_RBC/Scripts/ResultSummaries"
setwd(WD)
set.seed(123)
```

Percent Change Matrices

Untransformed Percent Change Matrices

Intercept

Estimate

```
round(perct.change.matrix(int.estimate), 3)
```

```
##        [,1]  [,2]   [,3]   [,4]   [,5]   [,6]
## [1,]  0.000 0.292  0.221 -0.055 -0.054  0.000
## [2,] -0.226 0.000 -0.055 -0.268 -0.268 -0.226
## [3,] -0.181 0.058  0.000 -0.226 -0.225 -0.181
## [4,]  0.058 0.367  0.292  0.000  0.001  0.058
## [5,]  0.057 0.366  0.291 -0.001  0.000  0.057
## [6,]  0.000 0.292  0.221 -0.055 -0.054  0.000
```

Standard Error

```
round(perct.change.matrix(int.se), 3)
```

```
##        [,1]   [,2]   [,3]   [,4]   [,5]  [,6]
## [1,]  0.000  2.599  2.814  2.275  2.270 3.211
## [2,] -0.722  0.000  0.060 -0.090 -0.091 0.170
## [3,] -0.738 -0.057  0.000 -0.141 -0.143 0.104
## [4,] -0.695  0.099  0.165  0.000 -0.002 0.286
## [5,] -0.694  0.101  0.167  0.002  0.000 0.288
## [6,] -0.763 -0.146 -0.094 -0.222 -0.224 0.000
```

Slope

Estimate

```
round(perct.change.matrix(slope.estimate), 3)
```

```
##        [,1]   [,2]   [,3]   [,4]   [,5]   [,6]
## [1,]  0.000  2.592 23.748  2.498  2.040  0.000
## [2,] -0.722  0.000  5.889 -0.026 -0.154 -0.722
## [3,] -0.960 -0.855  0.000 -0.859 -0.877 -0.960
## [4,] -0.714  0.027  6.074  0.000 -0.131 -0.714
## [5,] -0.671  0.182  7.141  0.151  0.000 -0.671
## [6,]  0.000  2.592 23.748  2.498  2.040  0.000
```

Standard Error

```
round(perct.change.matrix(slope.se), 3)
```

```
##        [,1]   [,2]  [,3]   [,4]   [,5]   [,6]
## [1,]  0.000 -0.027 4.346 -0.033  0.165  0.622
## [2,]  0.028  0.000 4.494 -0.007  0.197  0.667
## [3,] -0.813 -0.818 0.000 -0.819 -0.782 -0.696
## [4,]  0.035  0.007 4.531  0.000  0.205  0.679
## [5,] -0.142 -0.165 3.589 -0.170  0.000  0.393
## [6,] -0.384 -0.400 2.295 -0.404 -0.282  0.000
```

Log-Transformed Models

Intercept

Estimate

```
round(perct.change.matrix(log.int.estimate), 3)
```

```
##       [,1]   [,2]   [,3]   [,4]   [,5]  [,6]
## [1,] 0.000 -0.108 -0.175 -0.006 -0.008 0.000
## [2,] 0.121  0.000 -0.075  0.115  0.112 0.121
## [3,] 0.212  0.082  0.000  0.206  0.203 0.212
## [4,] 0.006 -0.103 -0.170  0.000 -0.002 0.006
## [5,] 0.008 -0.101 -0.169  0.002  0.000 0.008
## [6,] 0.000 -0.108 -0.175 -0.006 -0.008 0.000
```

Standard Error

```
round(perct.change.matrix(log.int.se), 3)
```

```
##        [,1]   [,2]   [,3]   [,4]   [,5]  [,6]
## [1,]  0.000  1.691  2.042  1.589  2.055 3.032
## [2,] -0.628  0.000  0.131 -0.038  0.136 0.499
## [3,] -0.671 -0.116  0.000 -0.149  0.004 0.326
## [4,] -0.614  0.039  0.175  0.000  0.180 0.558
## [5,] -0.673 -0.119 -0.004 -0.153  0.000 0.320
## [6,] -0.752 -0.333 -0.246 -0.358 -0.242 0.000
```

Slope

Estimate

```
round(perct.change.matrix(log.slope.estimate), 3)
```

```
##        [,1]   [,2]  [,3]   [,4]   [,5]   [,6]
## [1,]  0.000 -0.017 9.457  0.000  0.207  0.000
## [2,]  0.018  0.000 9.641  0.018  0.229  0.018
## [3,] -0.904 -0.906 0.000 -0.904 -0.885 -0.904
## [4,]  0.000 -0.018 9.453  0.000  0.207  0.000
## [5,] -0.172 -0.186 7.661 -0.171  0.000 -0.171
## [6,]  0.000 -0.018 9.453  0.000  0.207  0.000
```

Standard Error

```
round(perct.change.matrix(log.slope.se), 3)
```

```
##        [,1]   [,2]  [,3]   [,4]   [,5]   [,6]
## [1,]  0.000 -0.051 3.135 -0.056  1.432  1.729
## [2,]  0.054  0.000 3.357 -0.005  1.562  1.875
## [3,] -0.758 -0.770 0.000 -0.772 -0.412 -0.340
## [4,]  0.059  0.005 3.379  0.000  1.575  1.889
## [5,] -0.589 -0.610 0.701 -0.612  0.000  0.122
## [6,] -0.634 -0.652 0.516 -0.654 -0.109  0.000
```