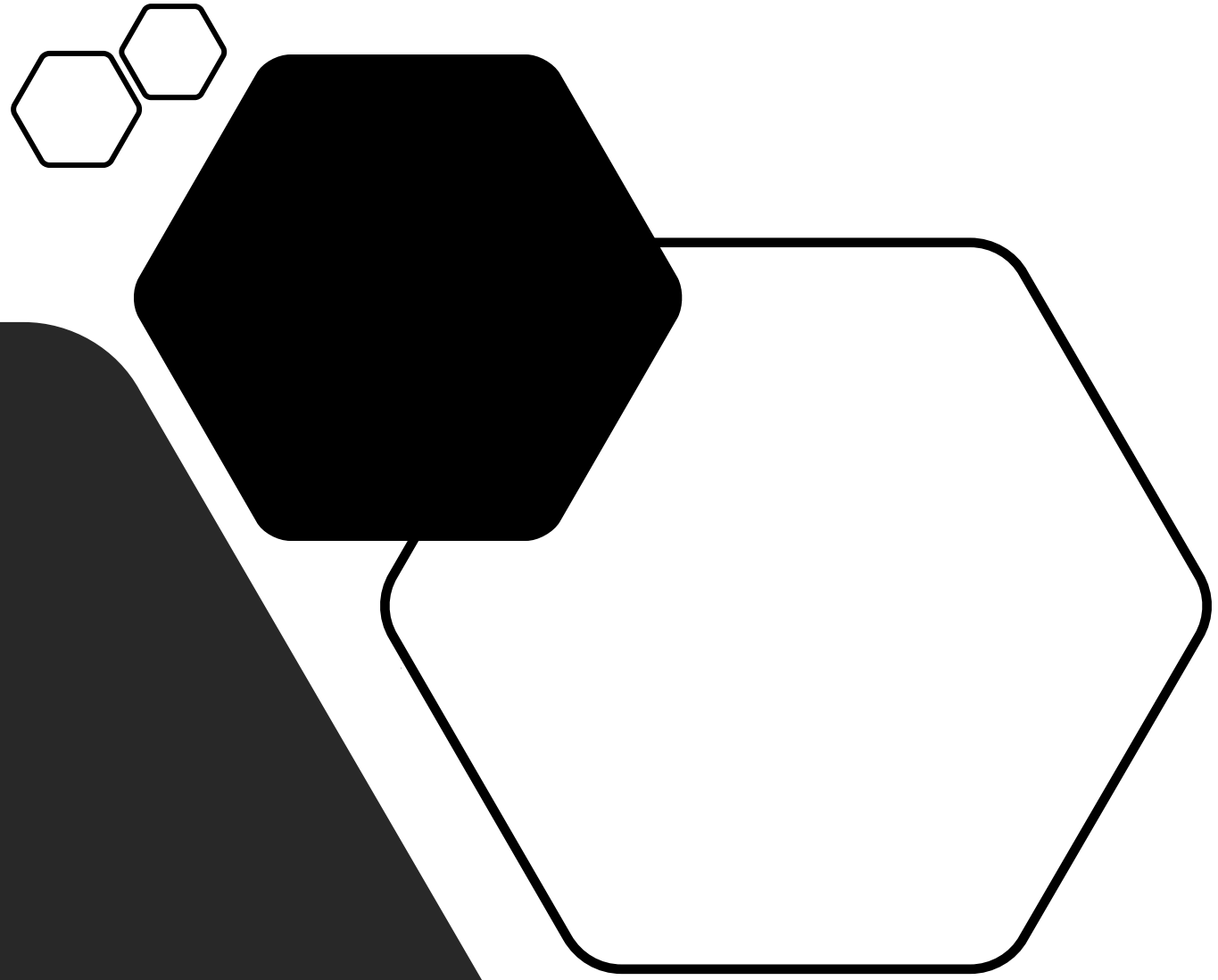
Bioinformatic Analysis CD151, EWI2, TSPAN8

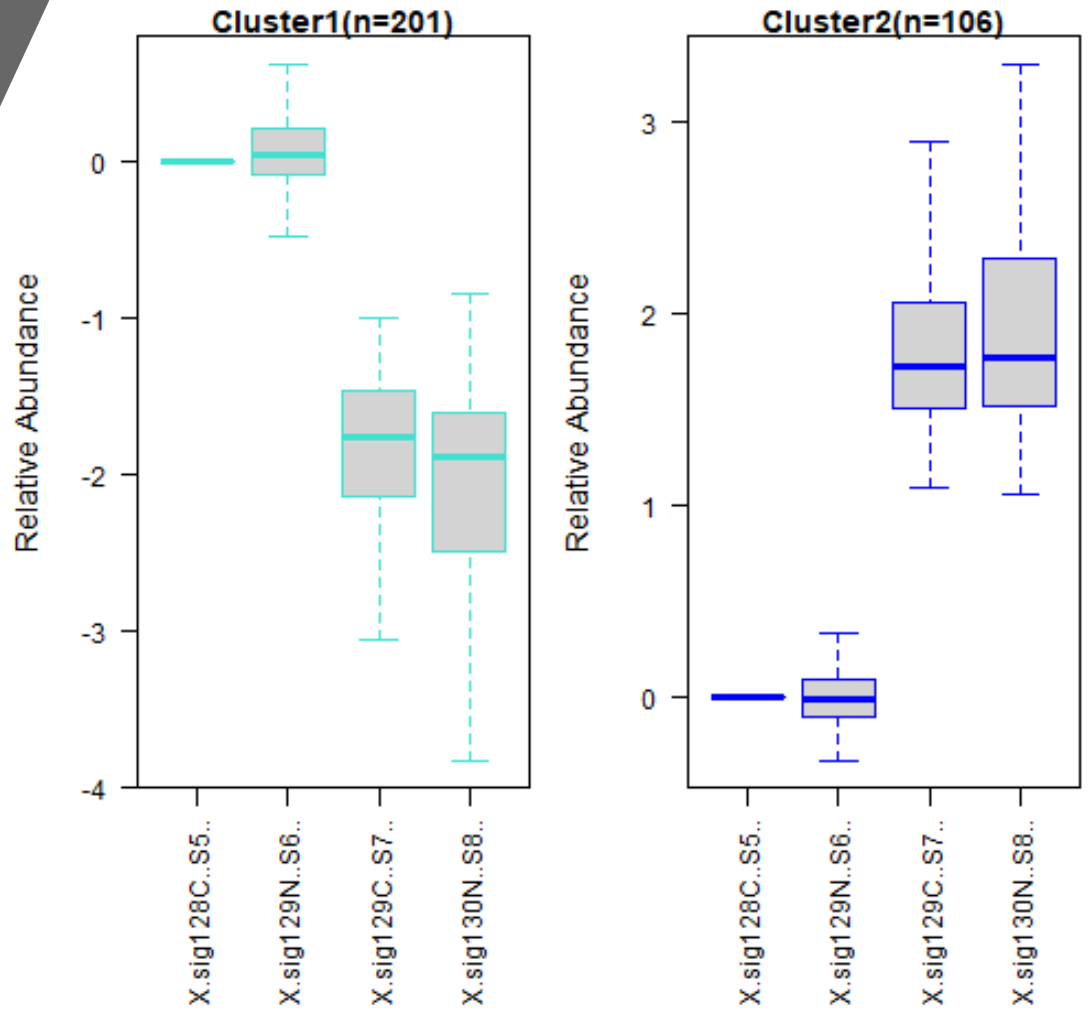
David R Vanderwall

EWI2 Knockout

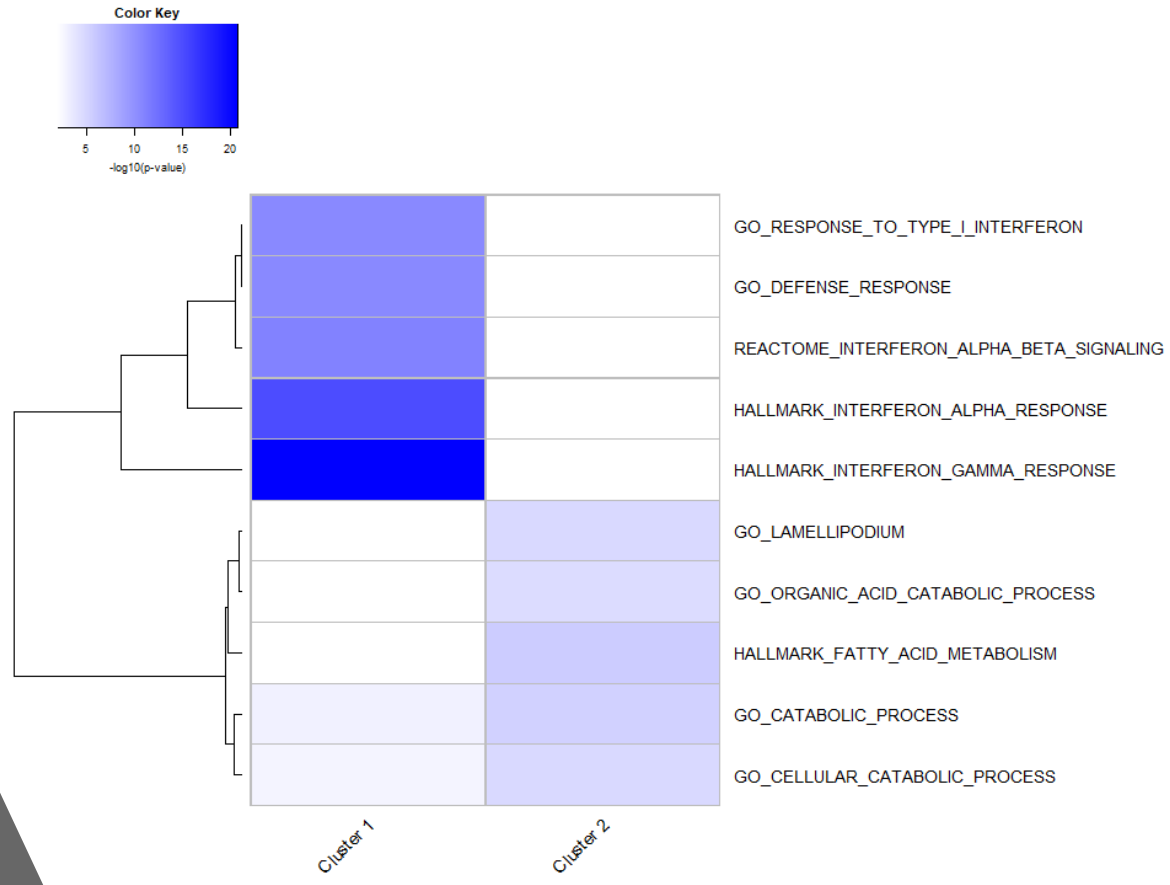


WGCNA Co-Expression Clustering

Upregulated and Downregulated Clusters identified

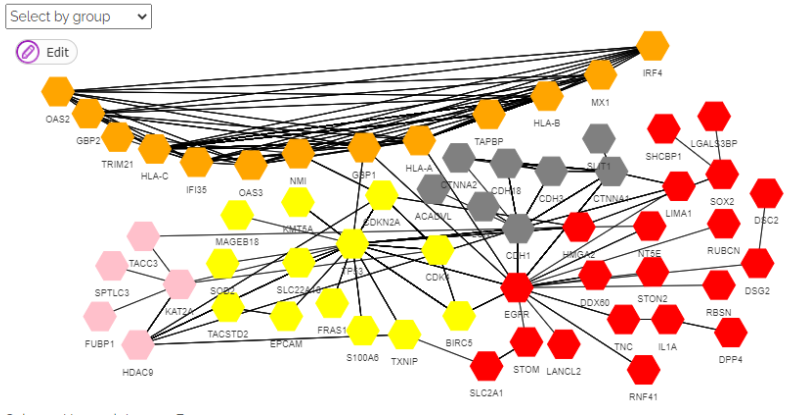


Cluster Pathway Analysis

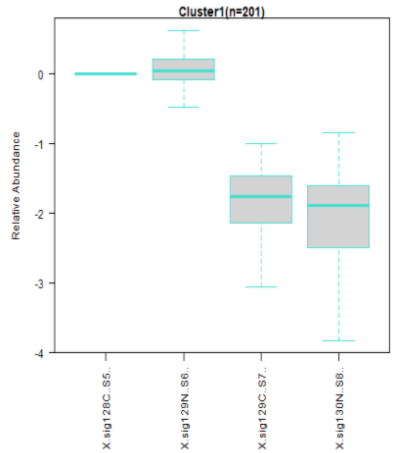


PPI Modularization of Downregulated Cluster

Co-Expression Cluster 1: 11 Modules Found, 73 Constituent Genes

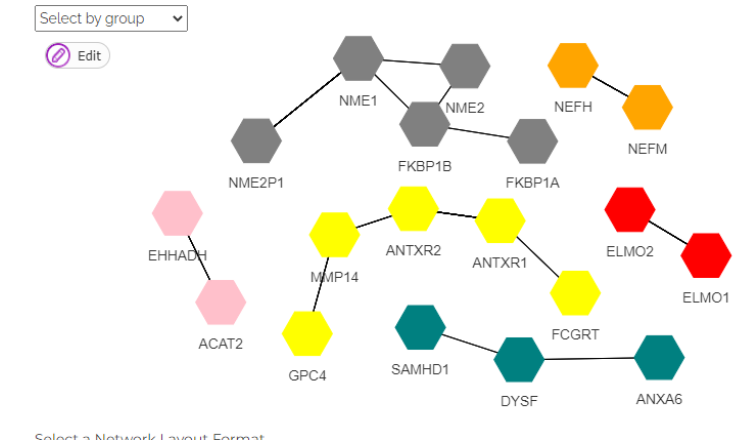


Cluster 1 Boxplot Trend

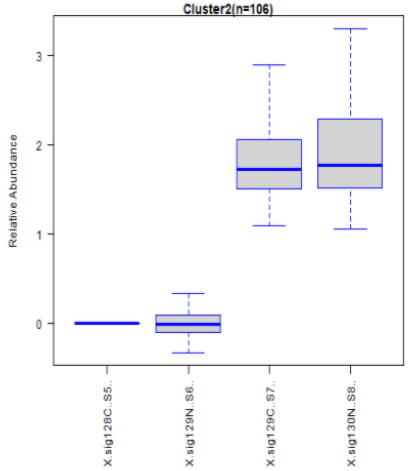


PPI Modularization of Upregulated Cluster

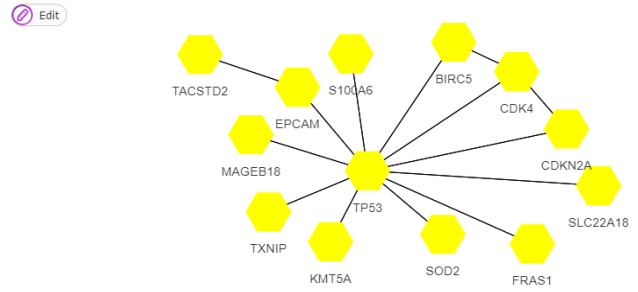
Co-Expression Cluster 2: 6 Modules Found, 19 Constituent Genes



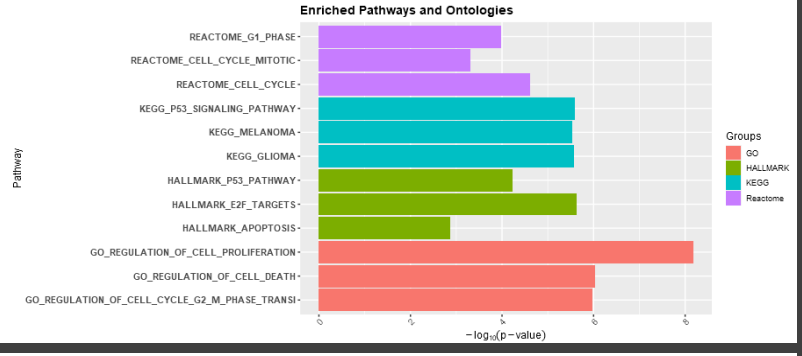
Cluster 2 Boxplot Trend



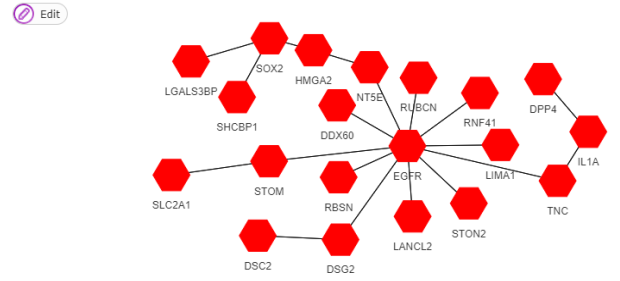
Cluster1_Module2: 13 Constituent Genes



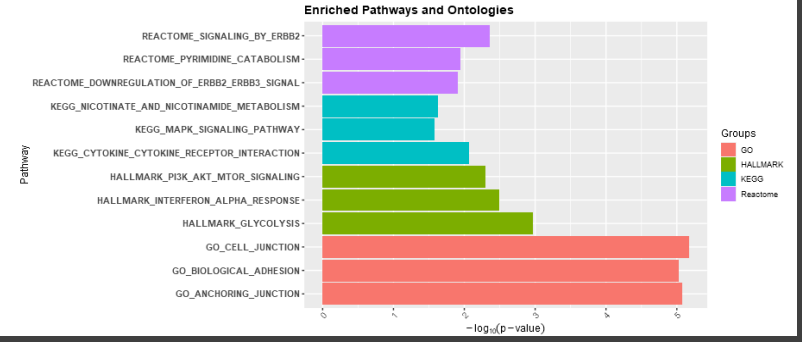
Cluster1_Module2 Pathway Barplot



Cluster1_Module1: 20 Constituent Genes

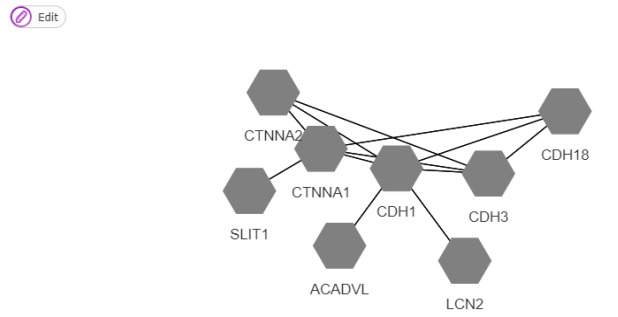


Cluster1_Module1 Pathway Barplot

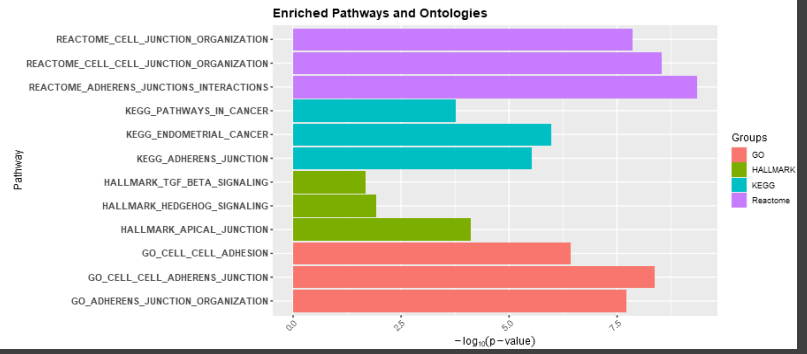


Pathway Analysis Part I

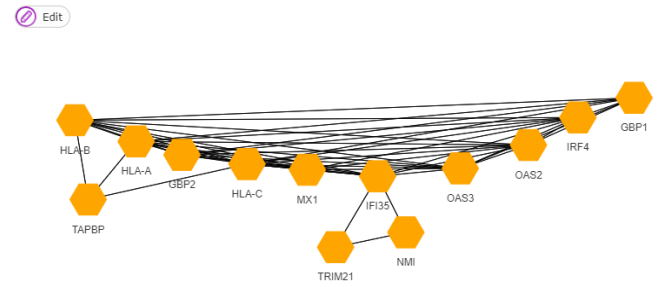
Cluster1_Module4: 8 Constituent Genes



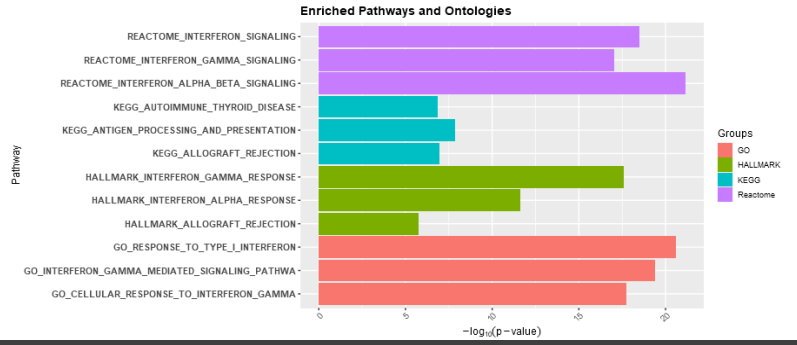
Cluster1_Module4 Pathway Barplot



Cluster1_Module3: 13 Constituent Genes

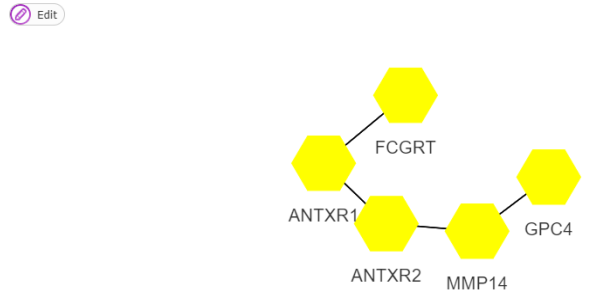


Cluster1_Module3 Pathway Barplot

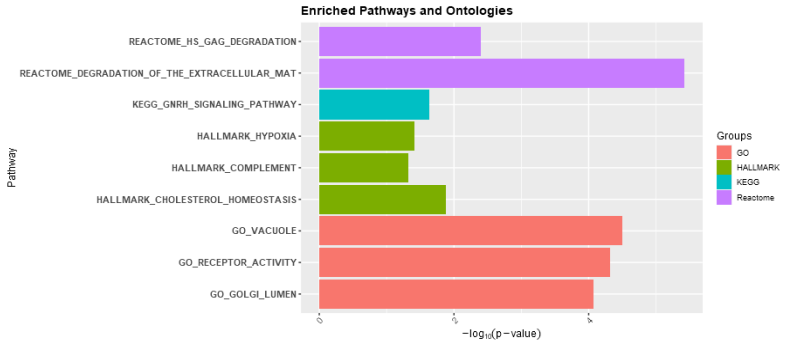


Pathway Analysis Part II

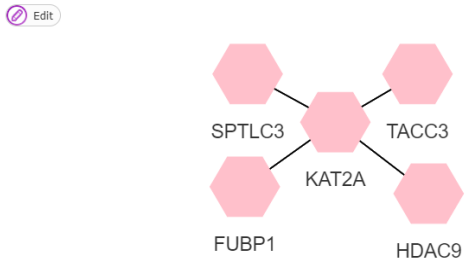
Cluster2_Module2: 5 Constituent Genes



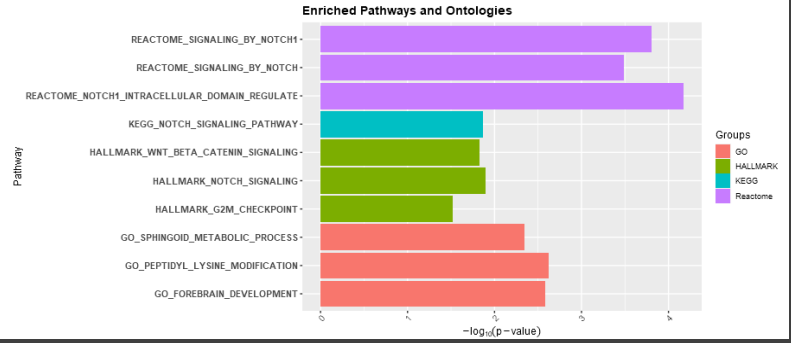
Cluster2_Module2 Pathway Barplot



Cluster1_Module5: 5 Constituent Genes



Cluster1_Module5 Pathway Barplot

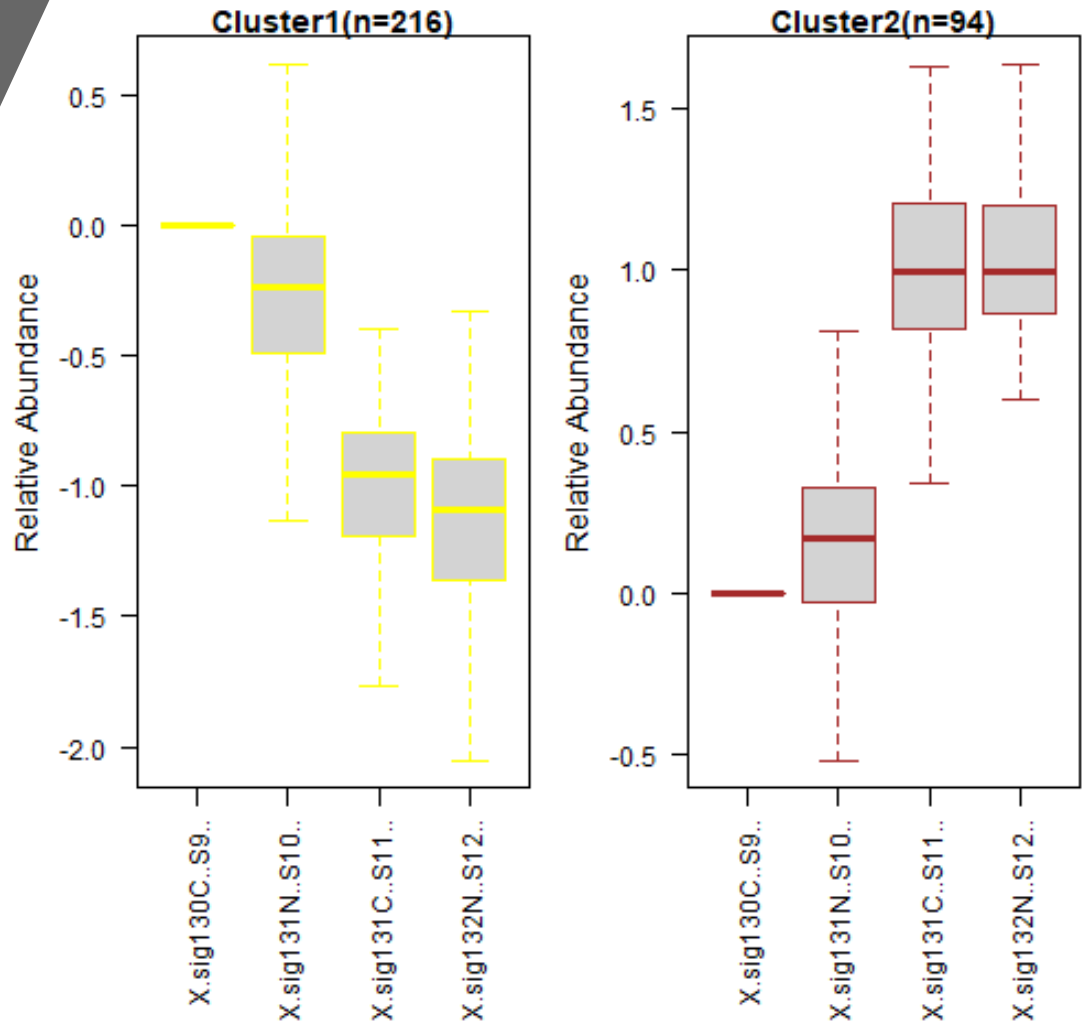


Pathway Analysis Part III

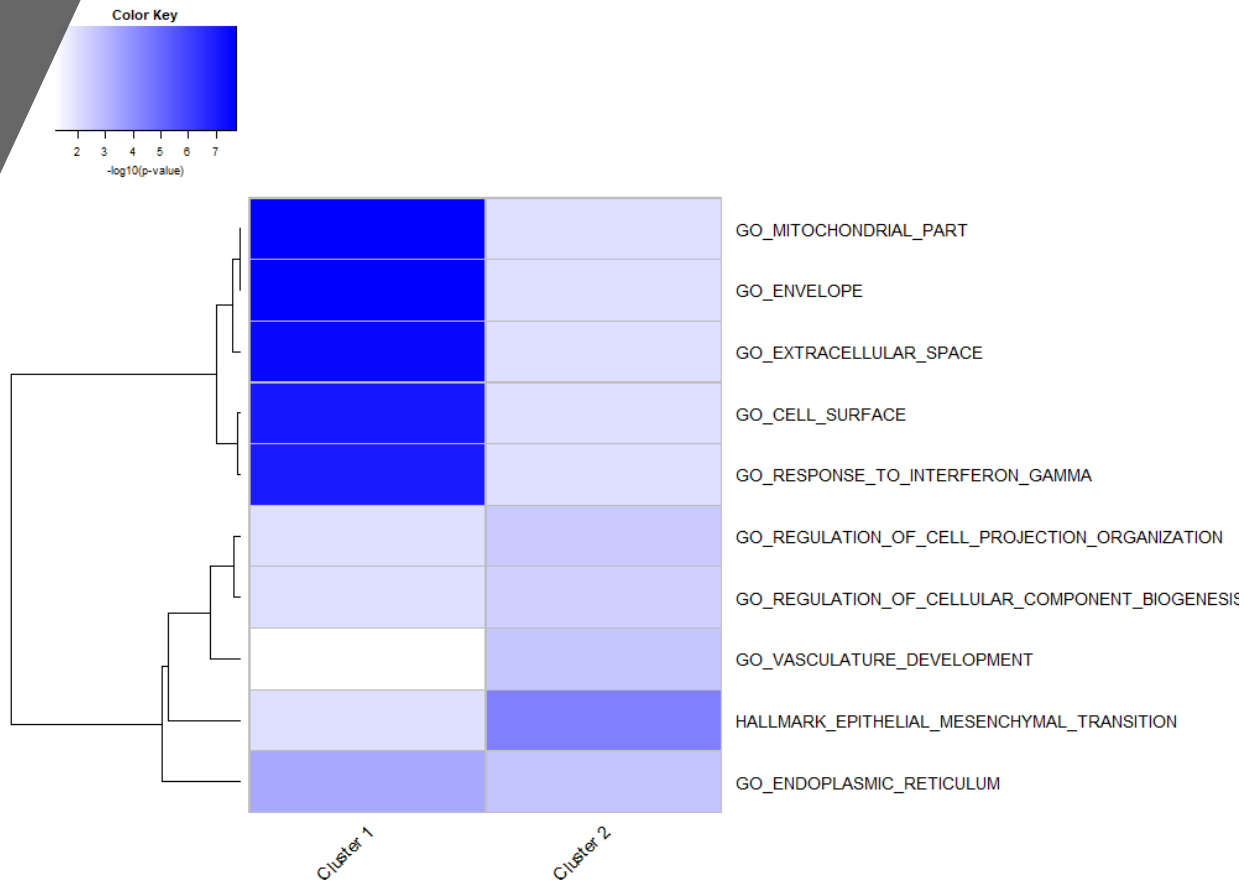
EWI2 Overexpression

WGCNA Co-Expression Clustering

Upregulated and Downregulated Clusters identified

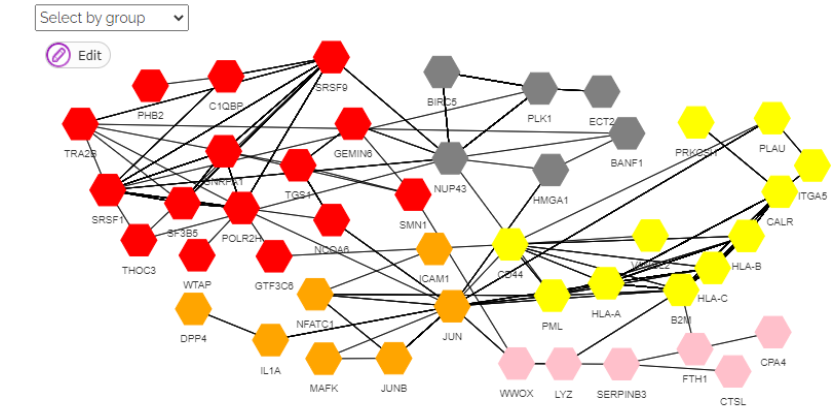


Cluster Pathway Analysis

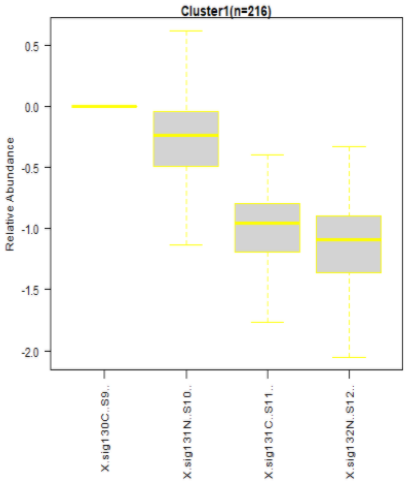


PPI Modularization of Downregulated Cluster

Co-Expression Cluster 1: 13 Modules Found, 68 Constituent Genes

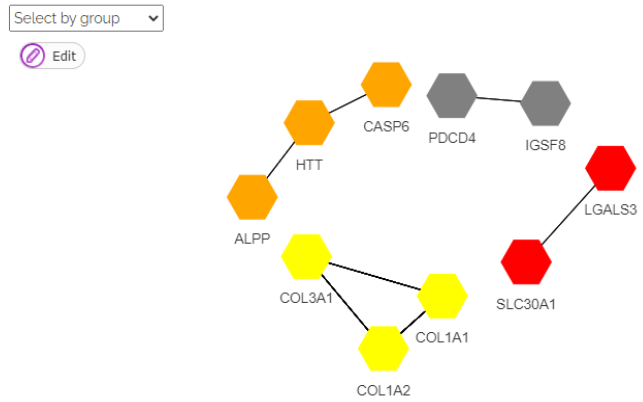


Cluster 1 Boxplot Trend

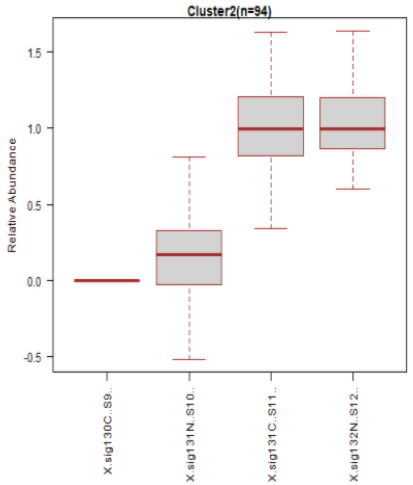


PPI Modularization of Upregulated Cluster

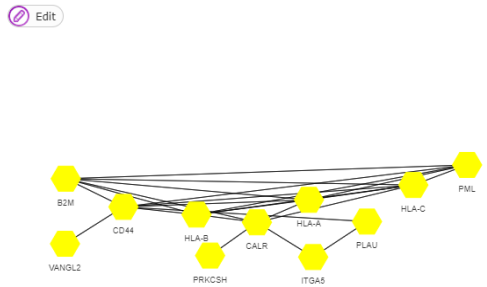
Co-Expression Cluster 2: 4 Modules Found, 10 Constituent Genes



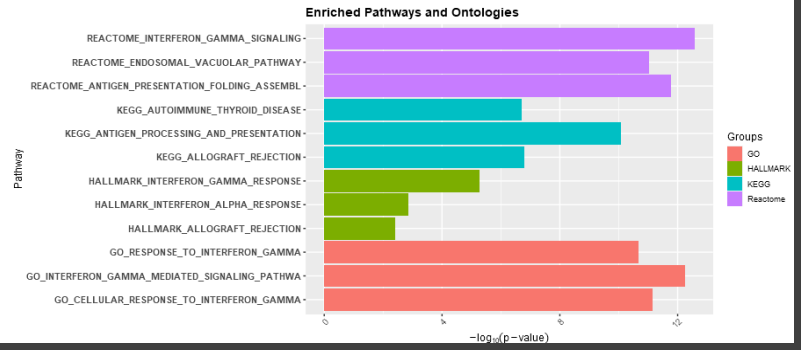
Cluster 2 Boxplot Trend



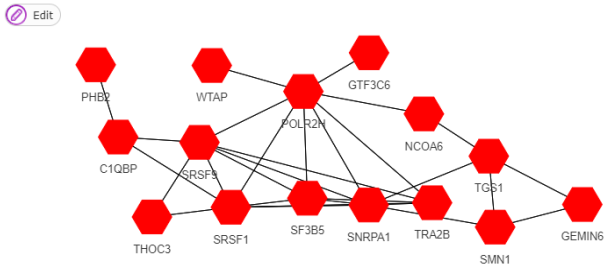
Cluster1_Module2: 11 Constituent Genes



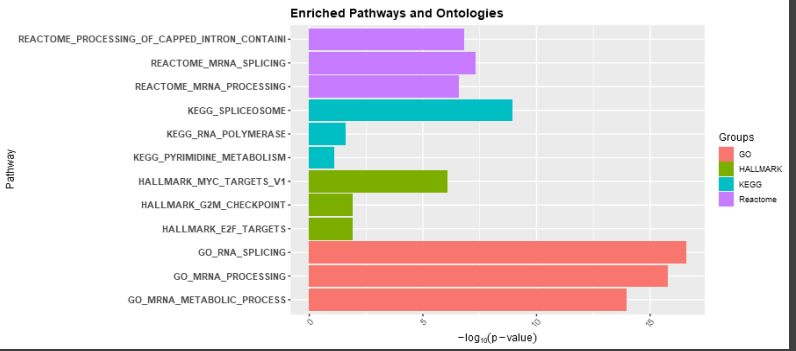
Cluster1_Module2 Pathway Barplot



Cluster1_Module1: 15 Constituent Genes

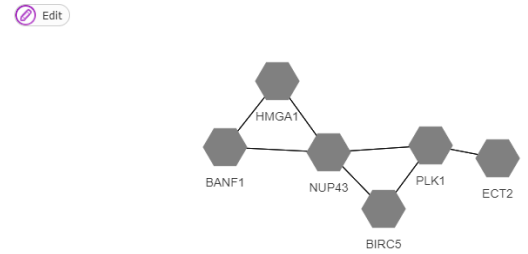


Cluster1_Module1 Pathway Barplot

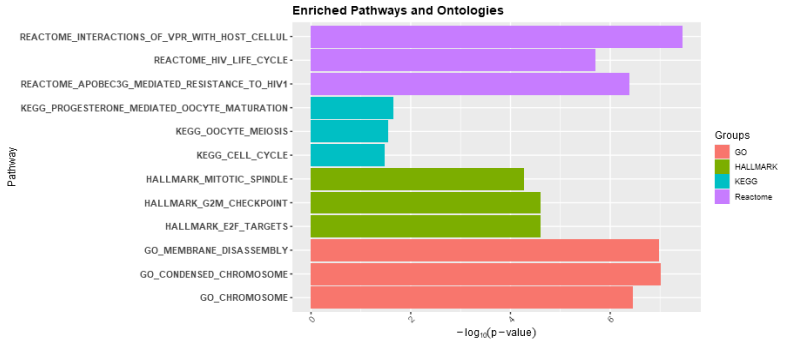


Pathway Analysis Part I

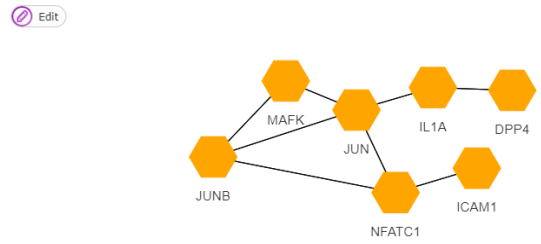
Cluster1_Module4: 6 Constituent Genes



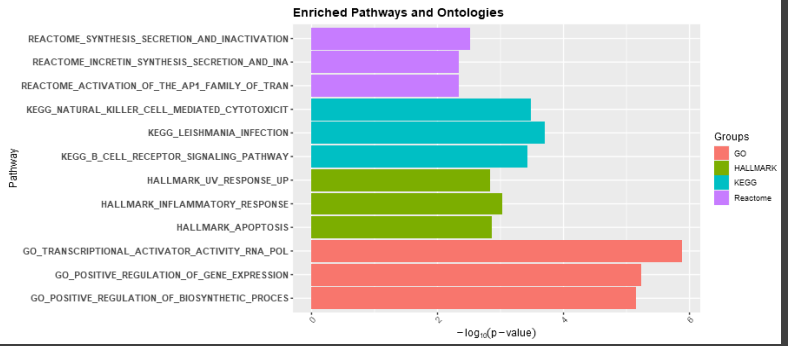
Cluster1_Module4 Pathway Barplot



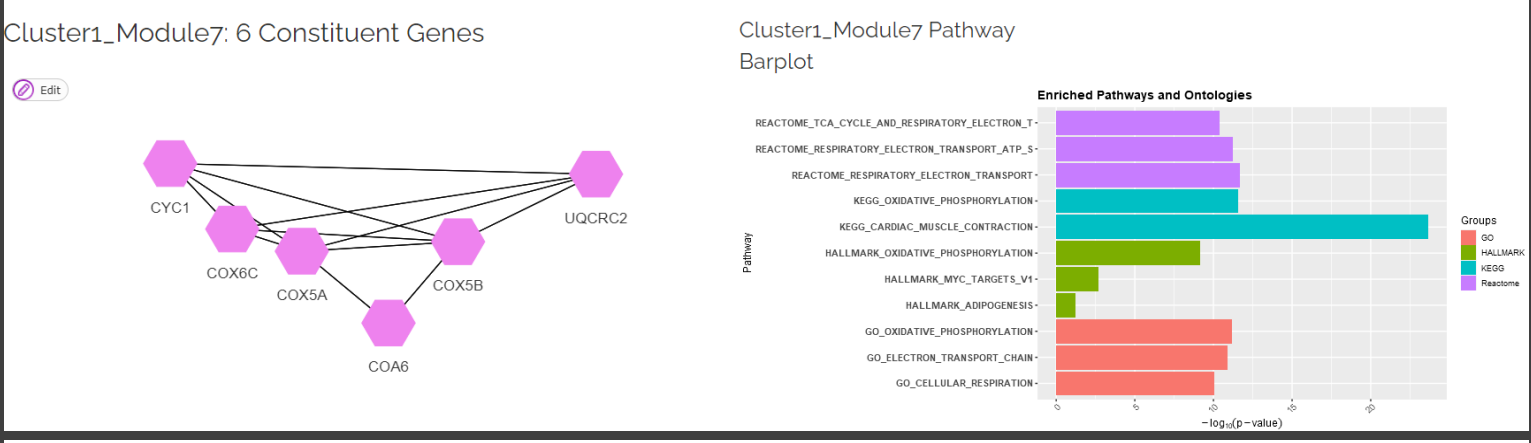
Cluster1_Module3: 7 Constituent Genes

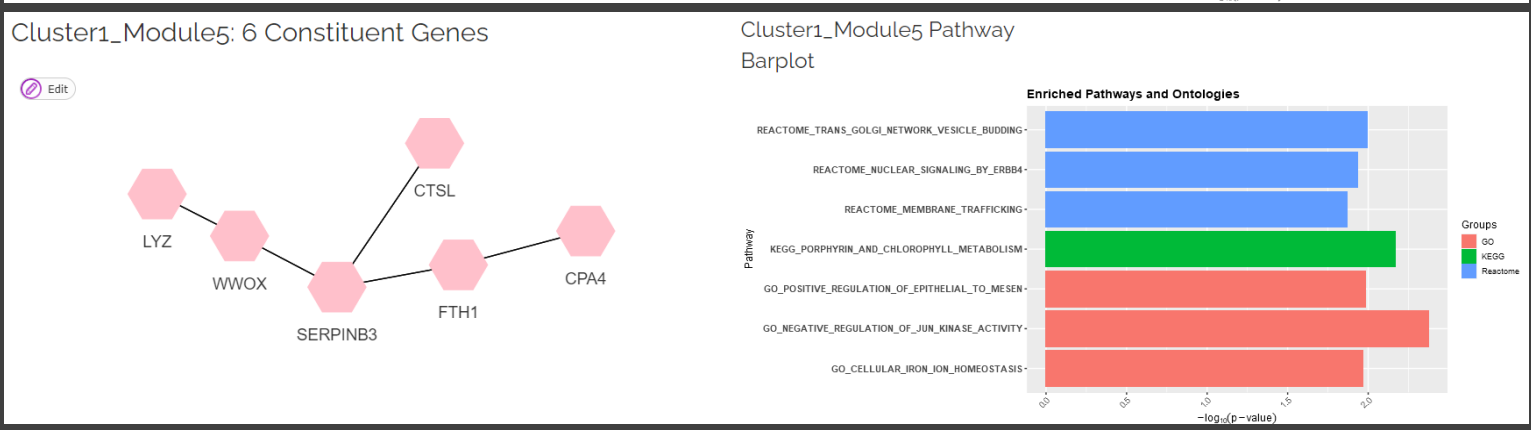


Cluster1_Module3 Pathway Barplot



Pathway Analysis Part II



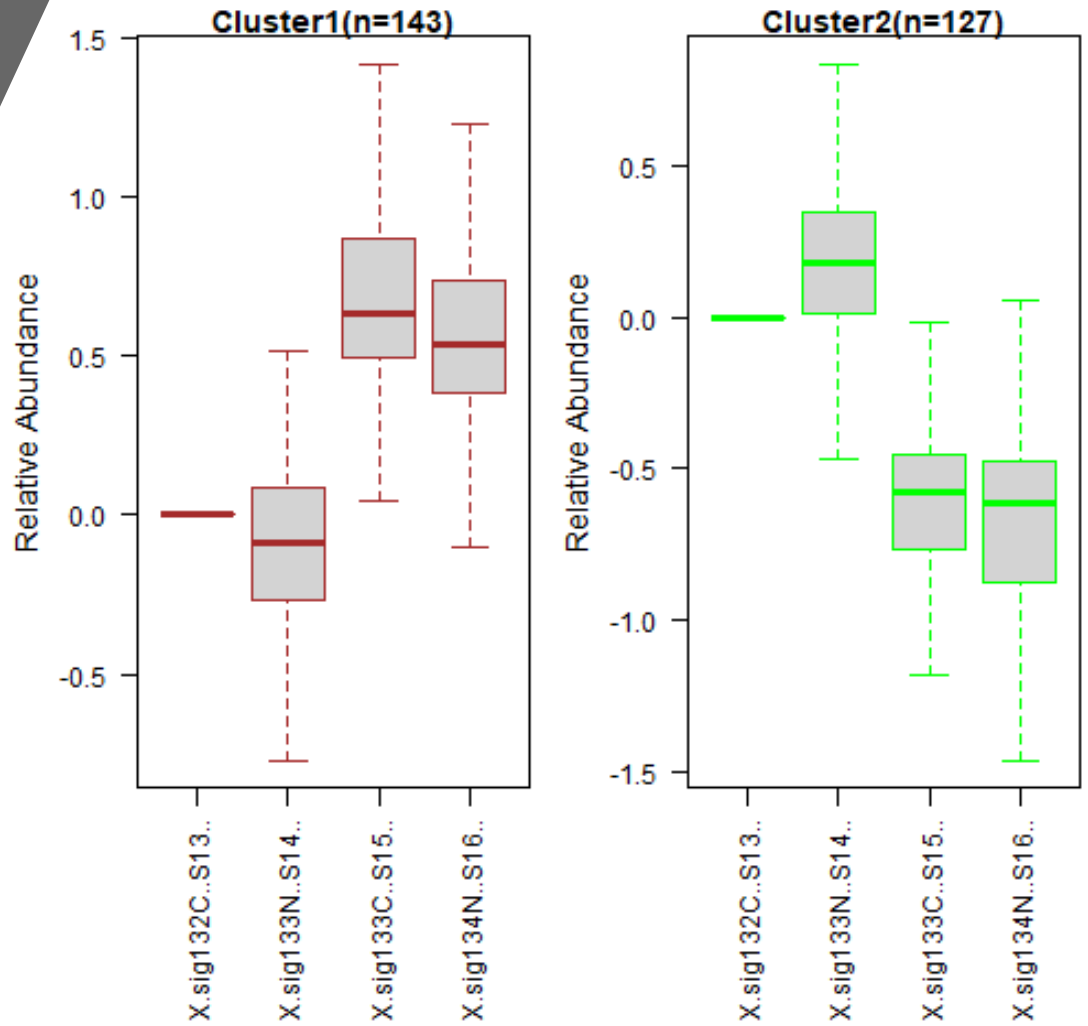


Pathway Analysis Part III

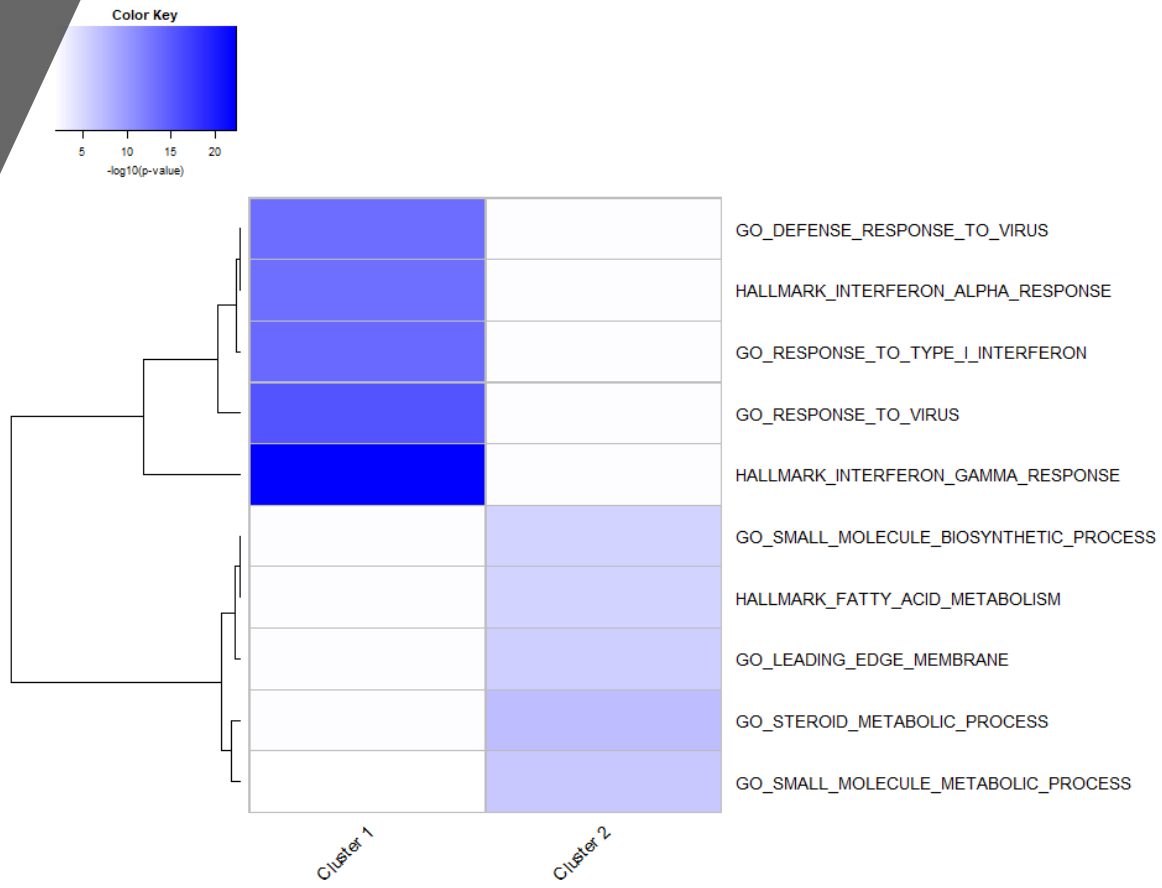
TSPAN8 Knockdown

WGCNA Co-Expression Clustering

Upregulated and Downregulated Clusters identified

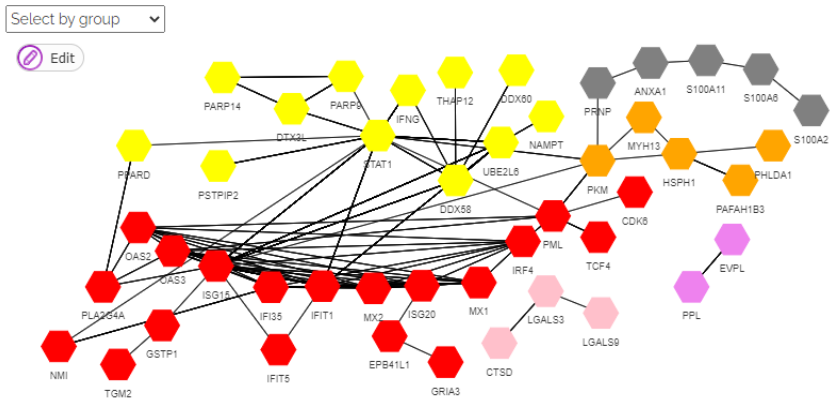


Cluster Pathway Analysis

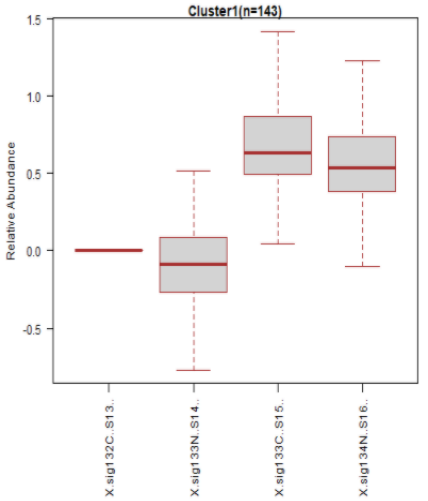


PPI Modularization of Upregulated Cluster

Co-Expression Cluster 1: 7 Modules Found, 48 Constituent Genes

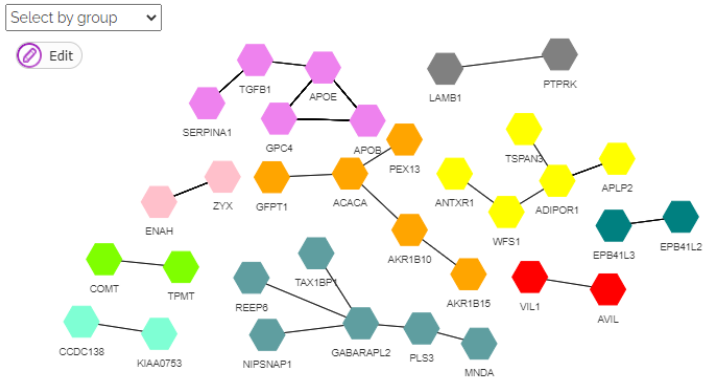


Cluster 1 Boxplot Trend

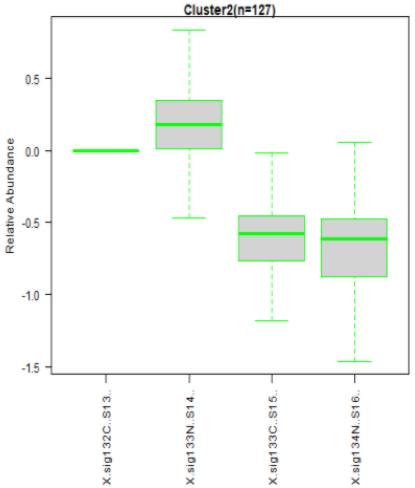


PPI Modularization of Downregulated Cluster

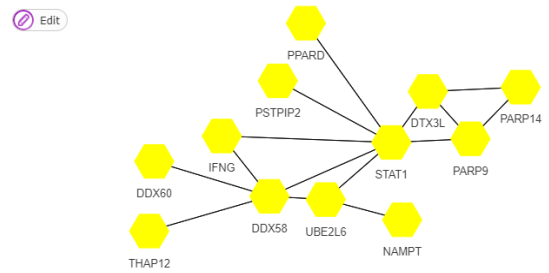
Co-Expression Cluster 2: 10 Modules Found, 33 Constituent Genes



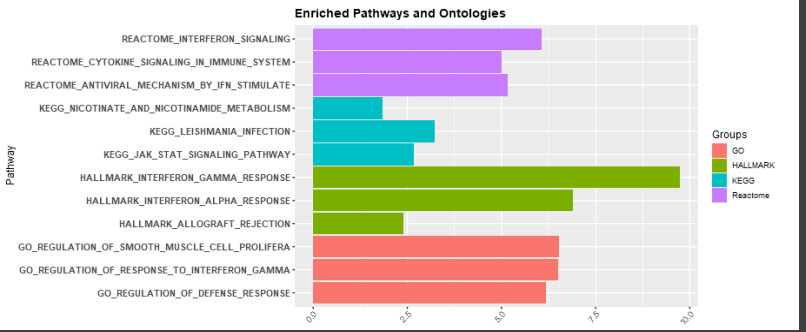
Cluster 2 Boxplot Trend



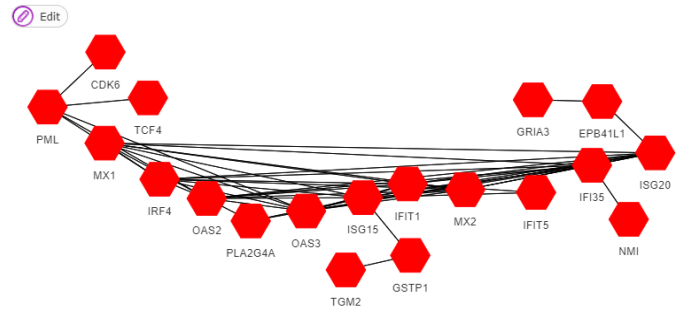
Cluster1_Module2: 12 Constituent Genes



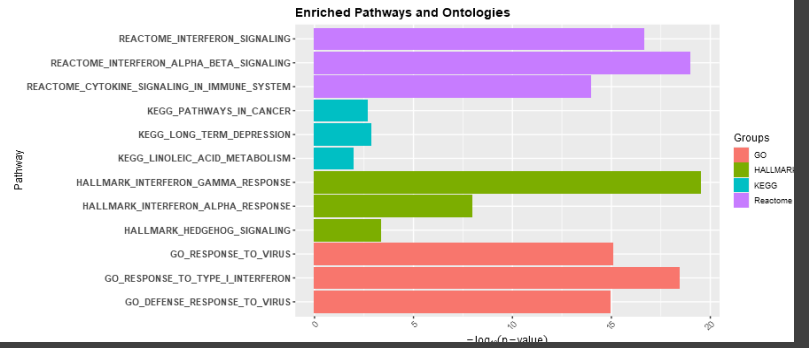
Cluster1_Module2 Pathway Barplot



Cluster1_Module1: 19 Constituent Genes

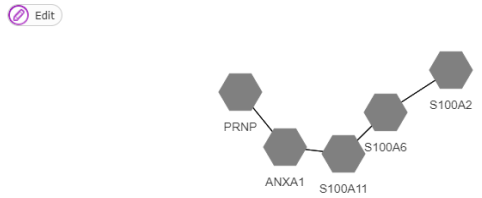


Cluster1_Module1 Pathway Barplot

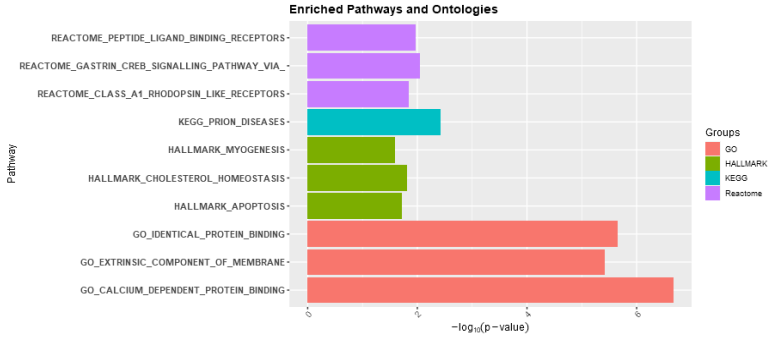


Pathway Analysis Part I

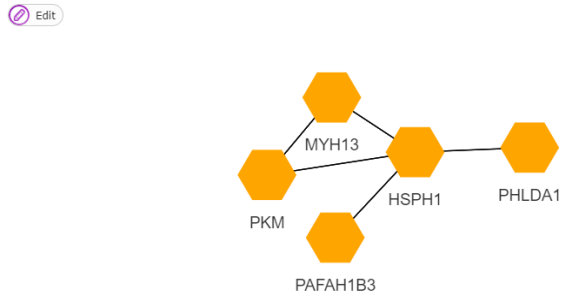
Cluster1_Module4: 5 Constituent Genes



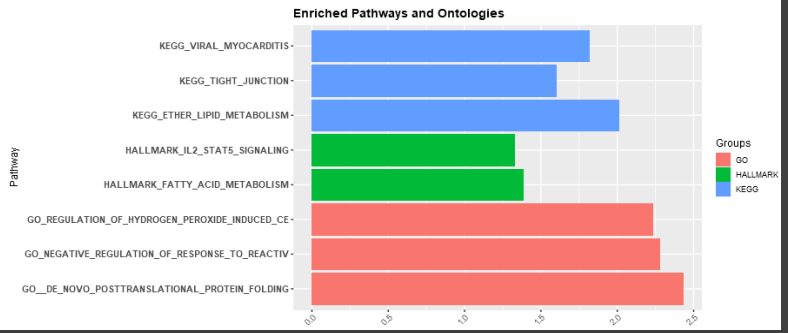
Cluster1_Module4 Pathway Barplot



Cluster1_Module3: 5 Constituent Genes

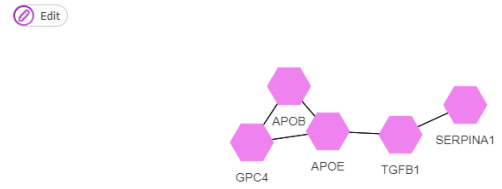


Cluster1_Module3 Pathway Barplot

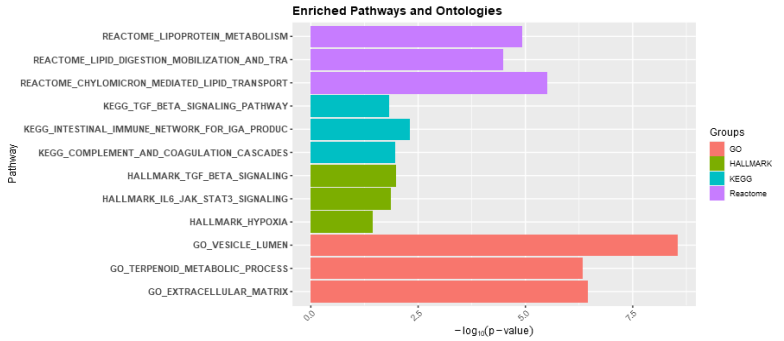


Pathway Analysis Part II

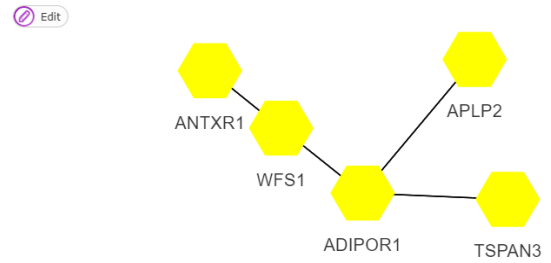
Cluster2_Module7: 5 Constituent Genes



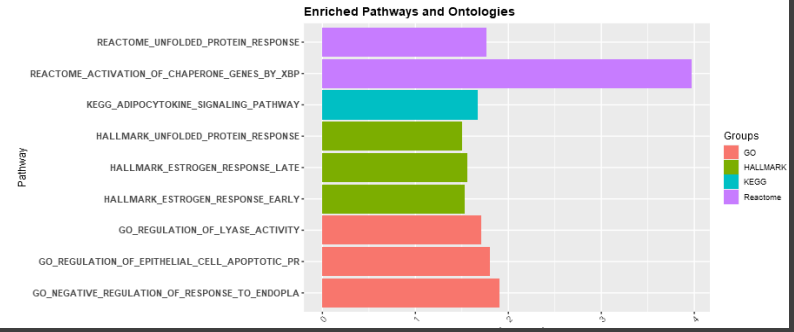
Cluster2_Module7 Pathway Barplot



Cluster2_Module2: 5 Constituent Genes



Cluster2_Module2 Pathway Barplot

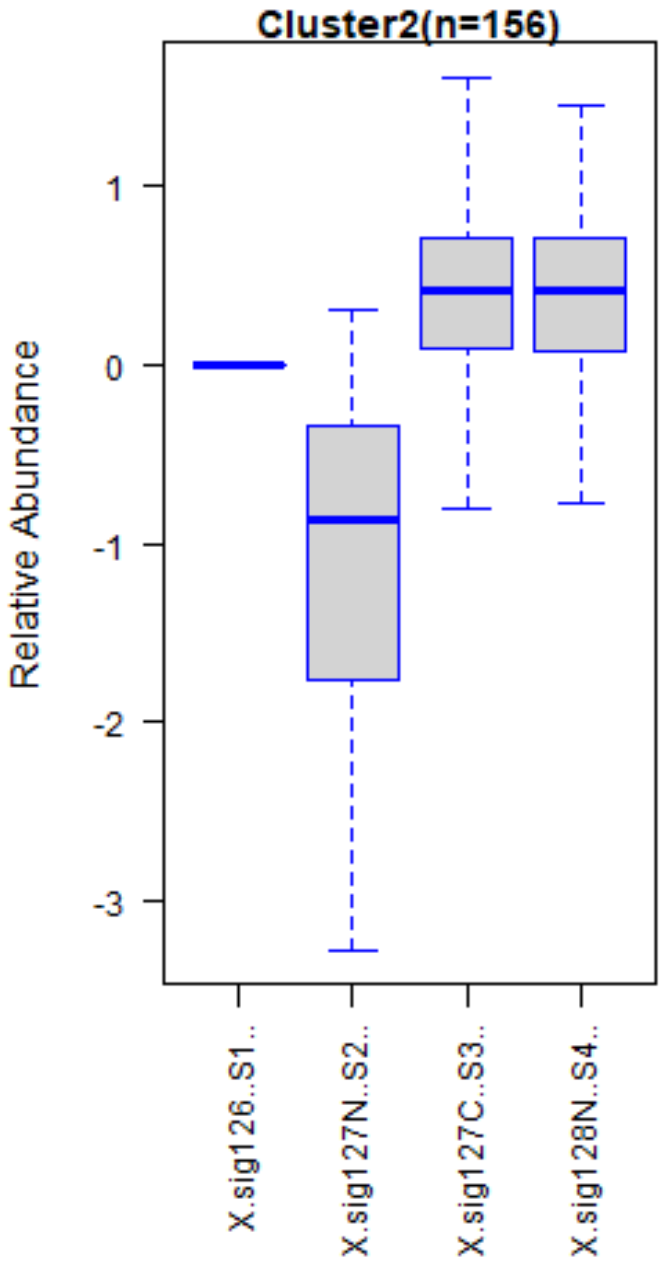


Pathway Analysis Part III

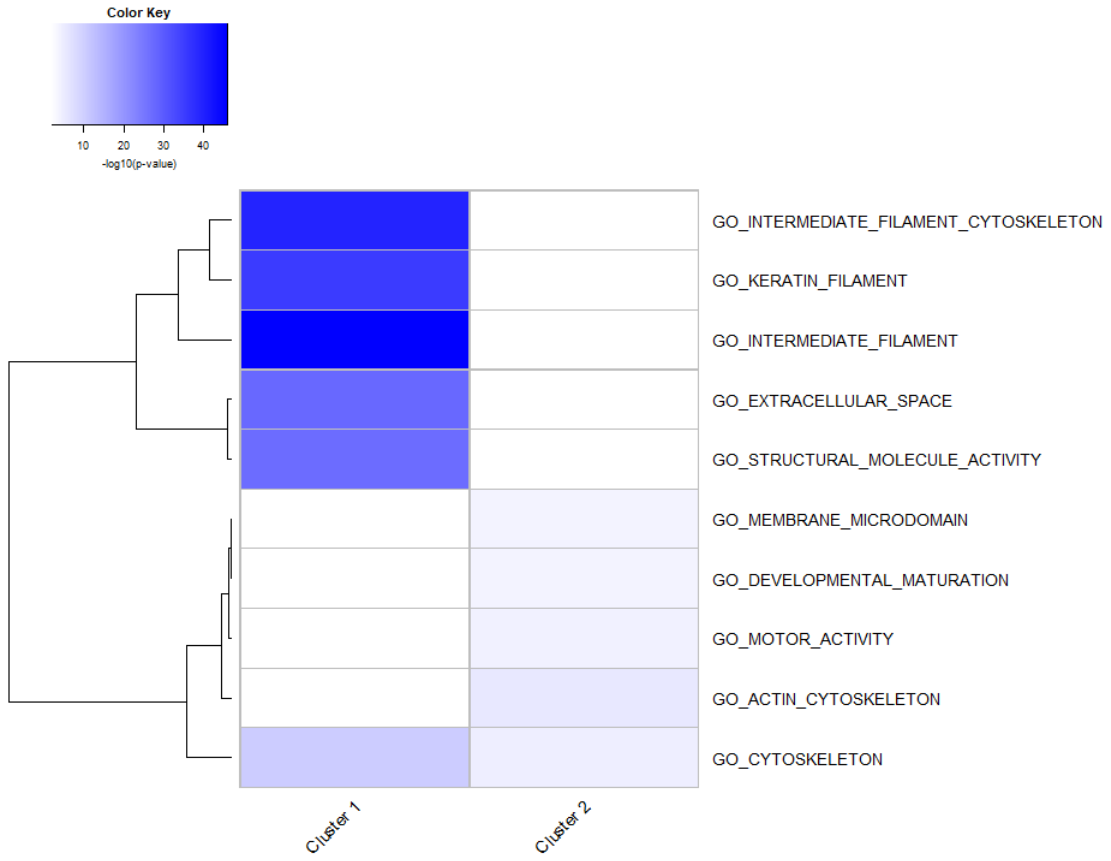
CD151 Knockdown

WGCNA Co-Expression Clustering

Upregulated and Downregulated Clusters identified

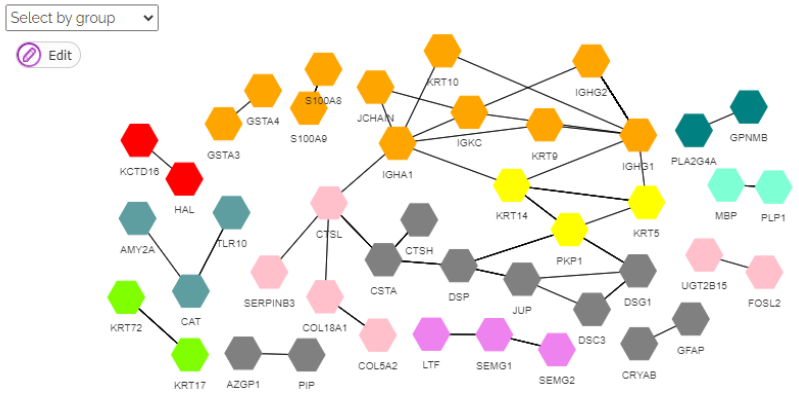


Cluster Pathway Analysis

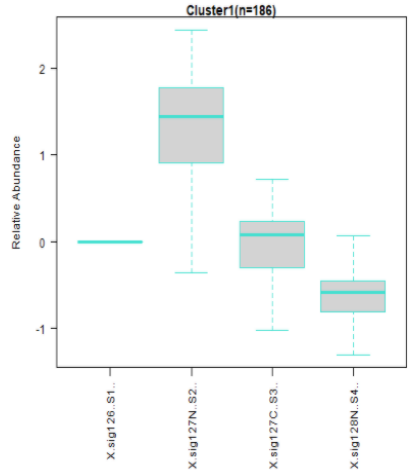


PPI Modularization of Downregulated Cluster

Co-Expression Cluster 1: 15 Modules Found, 44 Constituent Genes

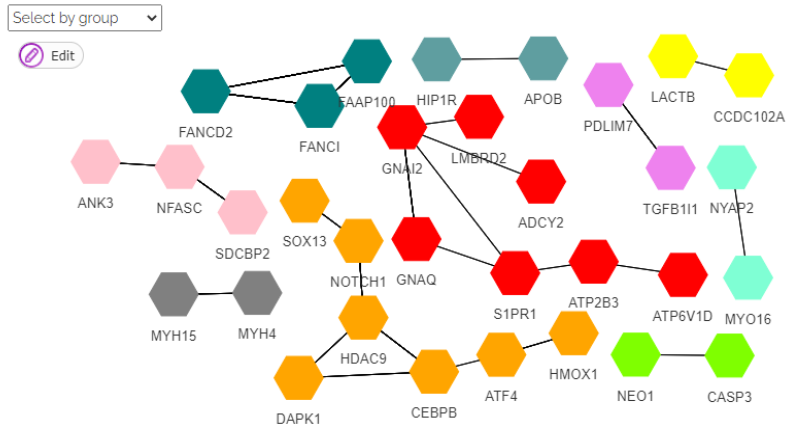


Cluster 1 Boxplot Trend

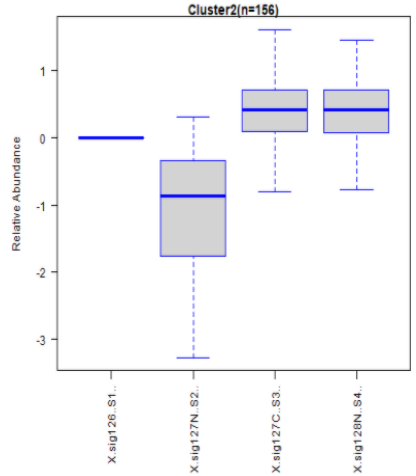


PPI Modularization of Upregulated Cluster

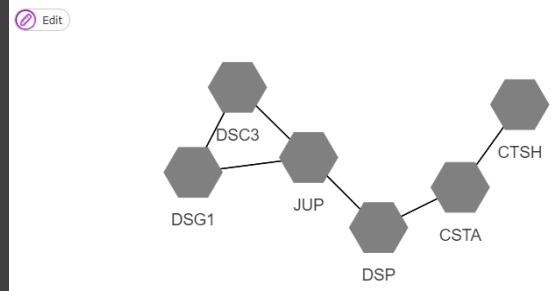
Co-Expression Cluster 2: 10 Modules Found, 32 Constituent Genes



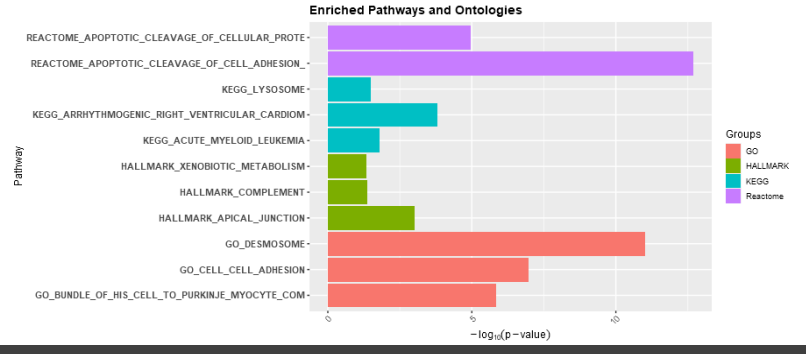
Cluster 2 Boxplot Trend



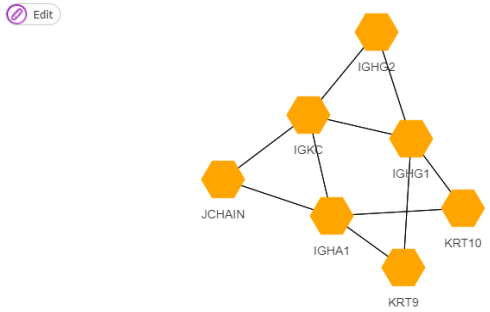
Cluster1_Module5: 6 Constituent Genes



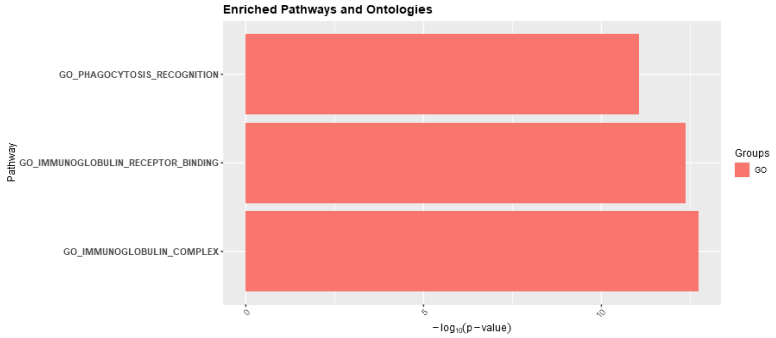
Cluster1_Module5 Pathway Barplot



Cluster1_Module4: 7 Constituent Genes

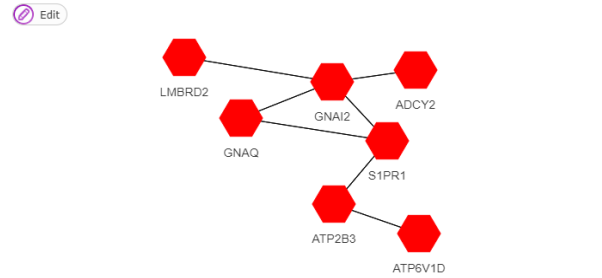


Cluster1_Module4 Pathway Barplot

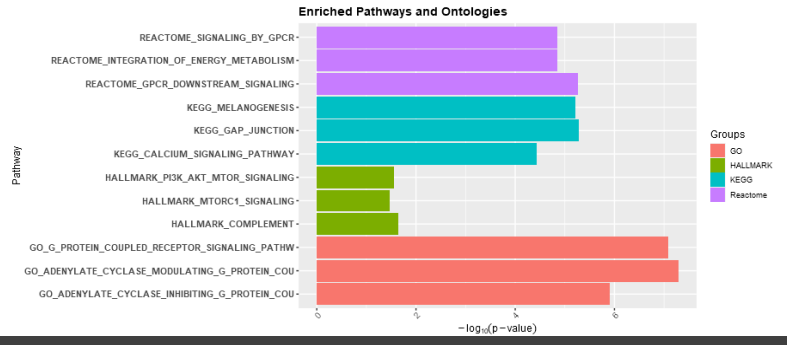


Pathway Analysis Part I

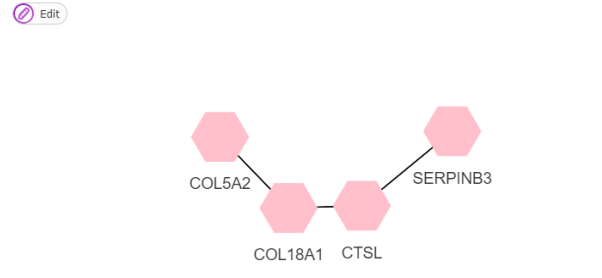
Cluster2_Module1: 7 Constituent Genes



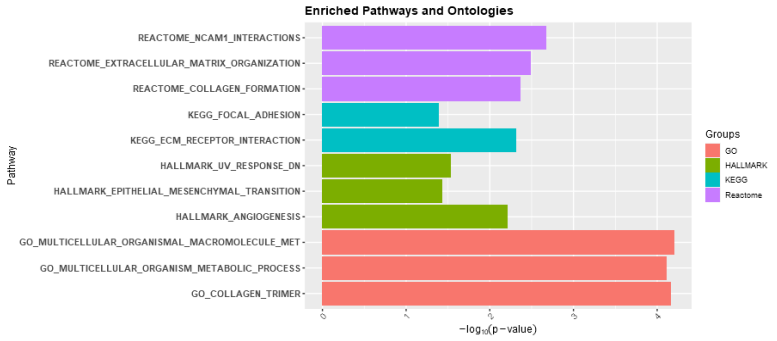
Cluster2_Module1 Pathway Barplot



Cluster1_Module6: 4 Constituent Genes

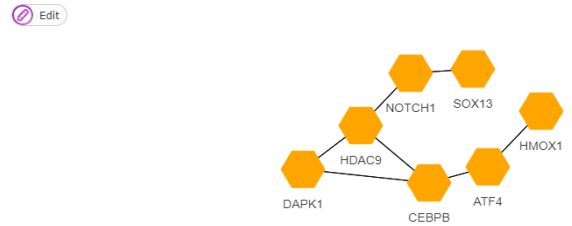


Cluster1_Module6 Pathway Barplot

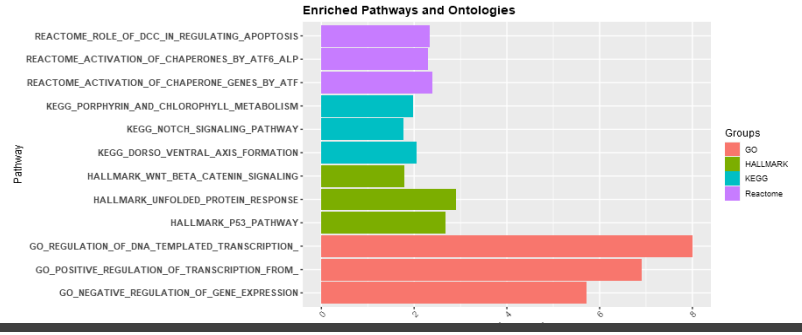


Pathway Analysis Part II

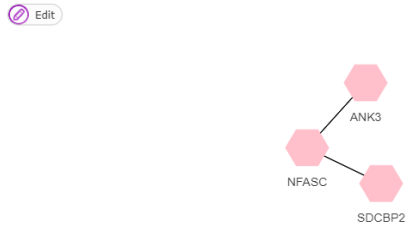
Cluster2_Module3: 7 Constituent Genes



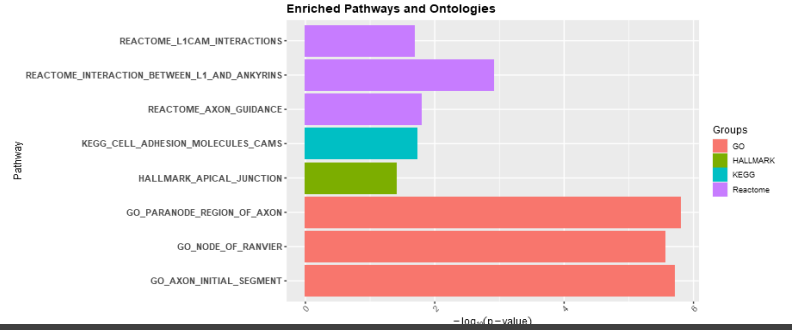
Cluster2_Module3 Pathway Barplot



Cluster2_Module5: 3 Constituent Genes



Cluster2_Module5 Pathway Barplot



Pathway Analysis Part III