

Figure 1: A multi-panel plot showing the distribution of gene lists. The top panel is a line plot of the number of genes in the set (blue line) versus the Gene List Index (x-axis, 0 to 18307). The line starts at approximately 18307, decreases to a minimum of 89 at index 15932, and then increases back to 18307. A vertical green dashed line marks the 'Zero crossing at 9647' and a vertical blue dashed line marks the 'Peak at 15932'. The middle panel shows a barcode of vertical lines representing the number of genes in the set for each gene list index. The bottom panel is a filled area plot showing the distribution of gene lists, with a green area under the curve. The x-axis is labeled 'Gene List Index' and 'Number of genes: 18307 (in list), 89 (in gene set)'. The y-axis is labeled 'clus1' and 'NON.clus1'.

A density plot showing the distribution of ES values for two gene sets. The x-axis is labeled 'ES' and ranges from -0.6 to 0.6. The y-axis is labeled 'P(ES)' and ranges from 0.0 to 3.0. A red curve represents the 'Gene Set Null Density', which is bimodal with peaks at approximately -0.3 and 0.3. A vertical black line at ES = -0.411 represents the 'Observed Gene Set ES value'. The area to the left of this line is labeled 'Neg. ES "NON.clus1"' and the area to the right is labeled 'Pos. ES: "clus1"'. Below the x-axis, the following statistics are provided: ES = -0.411 NES = -1.24 Nom. p-val= 0.215 FWER= 0.99 FDR= 1.

Heatmap visualization showing gene expression patterns across two clusters: **clus1** and **NON.clus1**. The y-axis lists 100 genes, and the x-axis represents individual samples. The color scale ranges from -2 (blue) to 2 (red).

Genes listed on the y-axis (from top to bottom):

- Class
- TUBA1C
- POGF1
- CDK1
- TUBB4A
- POGFA
- LRRT1
- GNAT3
- NRAS
- PCP4
- HTR2B
- TUBB1
- EGFR
- TUBA1
- POGFR
- TUBA1A
- TUBB2C
- PLCB2
- TUBB1
- ITPR1
- PRKACA
- MAPK1
- GJA1
- POGFO
- MAP2K2
- GNAT2
- TUBB2R
- TUBB3
- ADCY6
- TUBB3
- MAP2K2
- GNAT3
- HRAS
- ADCY4
- RAF1
- CSNK1B
- MAPK9
- GRB2
- PRKCI
- MAP2K1
- PRKQ
- GNA11
- KRAS
- GNAO1
- ADCY7
- GUCY1A2
- MAPK1
- SOS1
- GUCY1B3
- MAPK3
- TUBA2
- PRKAB1
- ITPR1
- PLCB3
- TUBB4
- TUBB1
- PRKQ
- SOS2
- ADCY1
- ADORA1
- TUBA4A
- TUBA3D
- PRKCA
- ADCY8
- POGFR
- TUBA8
- GUCY1A3
- TUBA8
- TUBB8
- DEF1
- ADCY2
- TUBA4
- PRKACG
- GNAT1
- PLCB4
- PRKCB
- PLCB1
- GRIIR
- PRKCG
- GRM1
- HTR2A
- HTR2C
- PRKGC