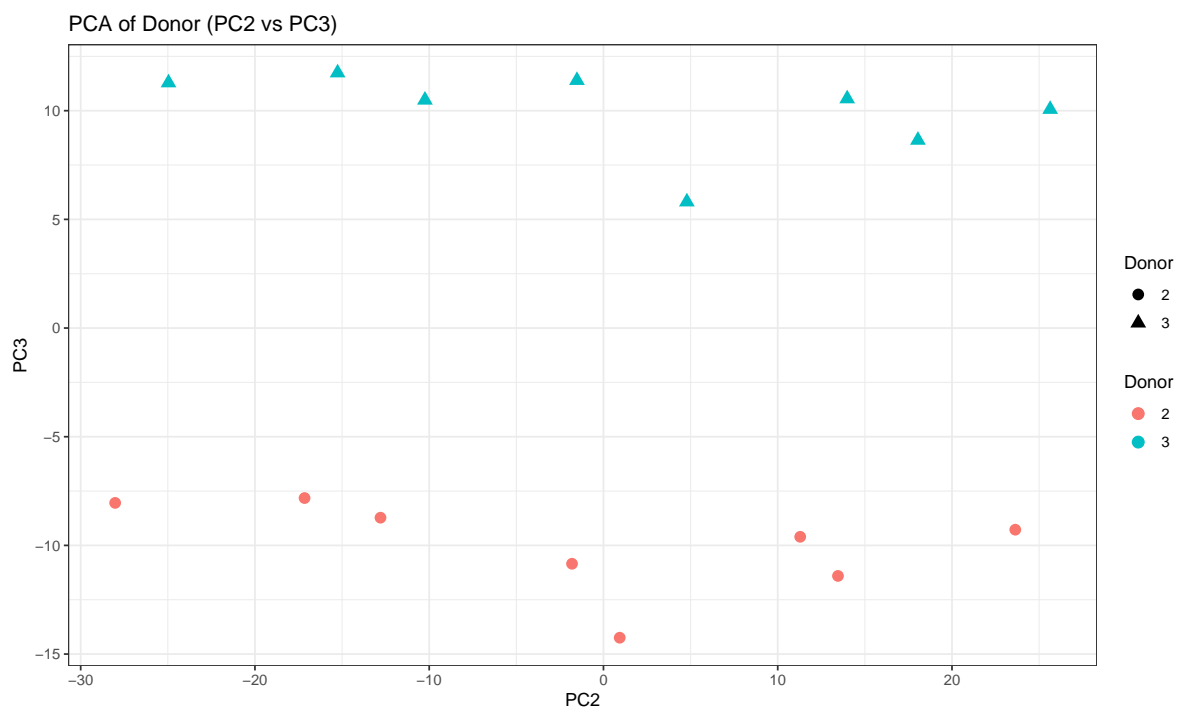# Rapport - Batch 1

General Overview Analysis: Global Expression Patterns
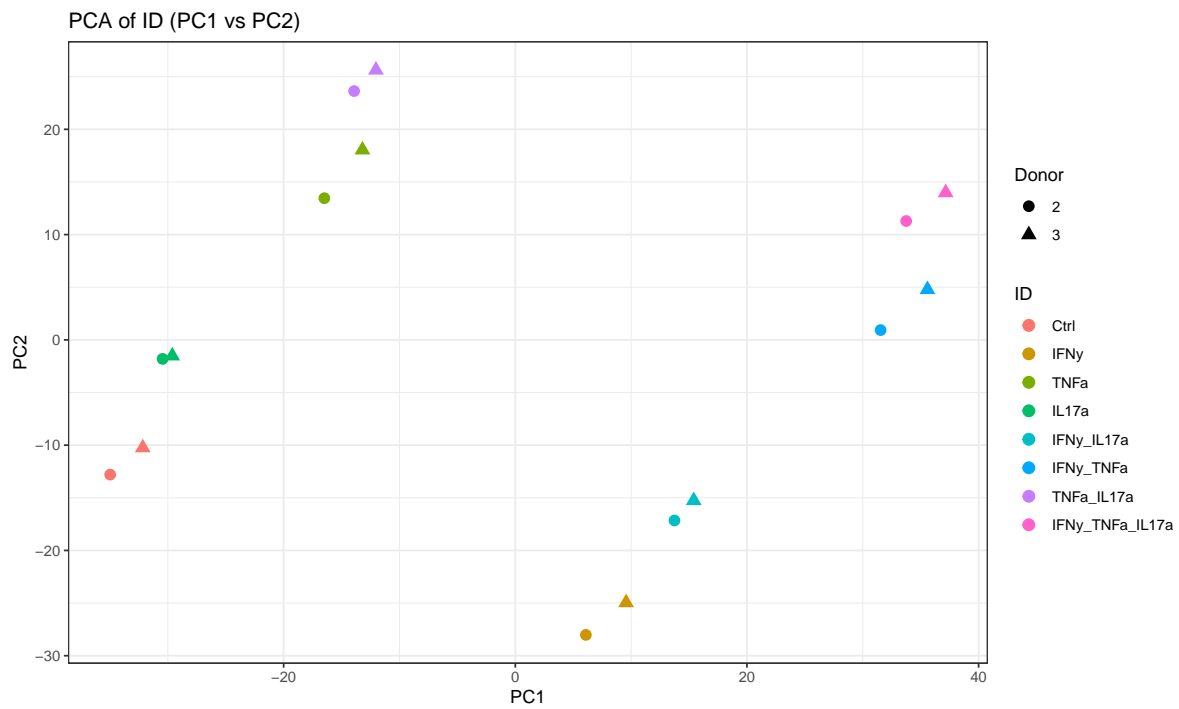
PCA - Donor Grouping of donors is seen in PC3.

PCA of Donor (PC2 vs PC3)

PCA - Treatment Grouping of treatment (ID) is seen in PC1 and PC2.

PC1 seems to separate treatments (ID) with and without INFy.

PC2 seems to separate treatments (ID) with and without TNFa.

Hierarchical clustering heatmap of the 100 most variable genes

General Overview Analysis: Differential Expression Analysis

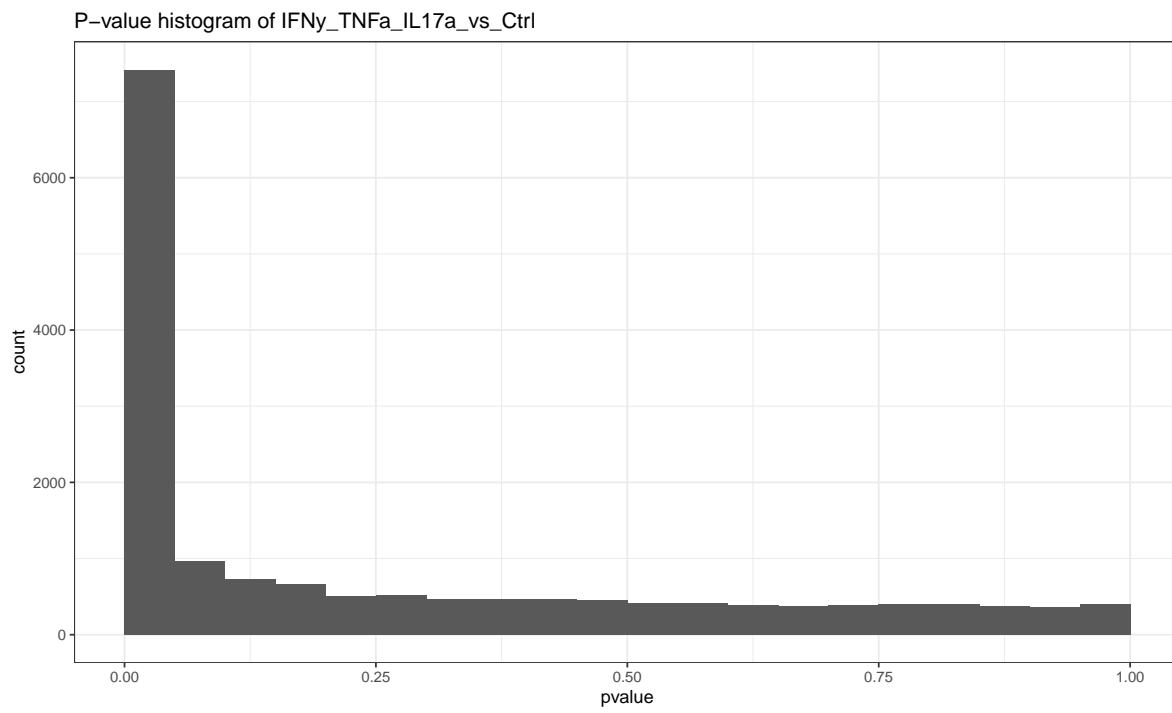Example of p-value histogram. They all show this pattern which shows that the model fits the data well.

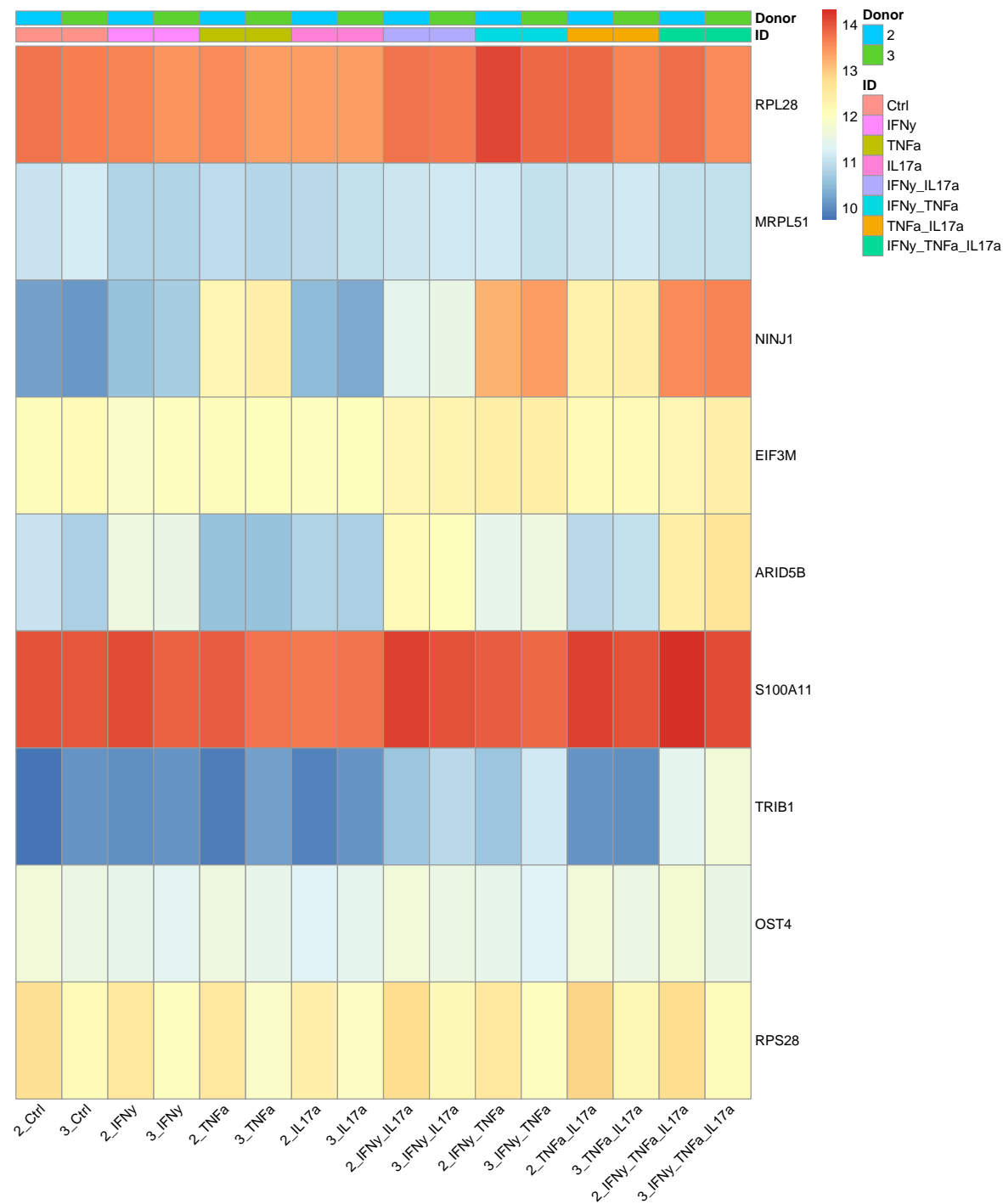P−value histogram of IFNy_TNFa_IL17a_vs_Ctrl

Figure 1: H

General Overview Analysis: Top Differential Expressed Genes

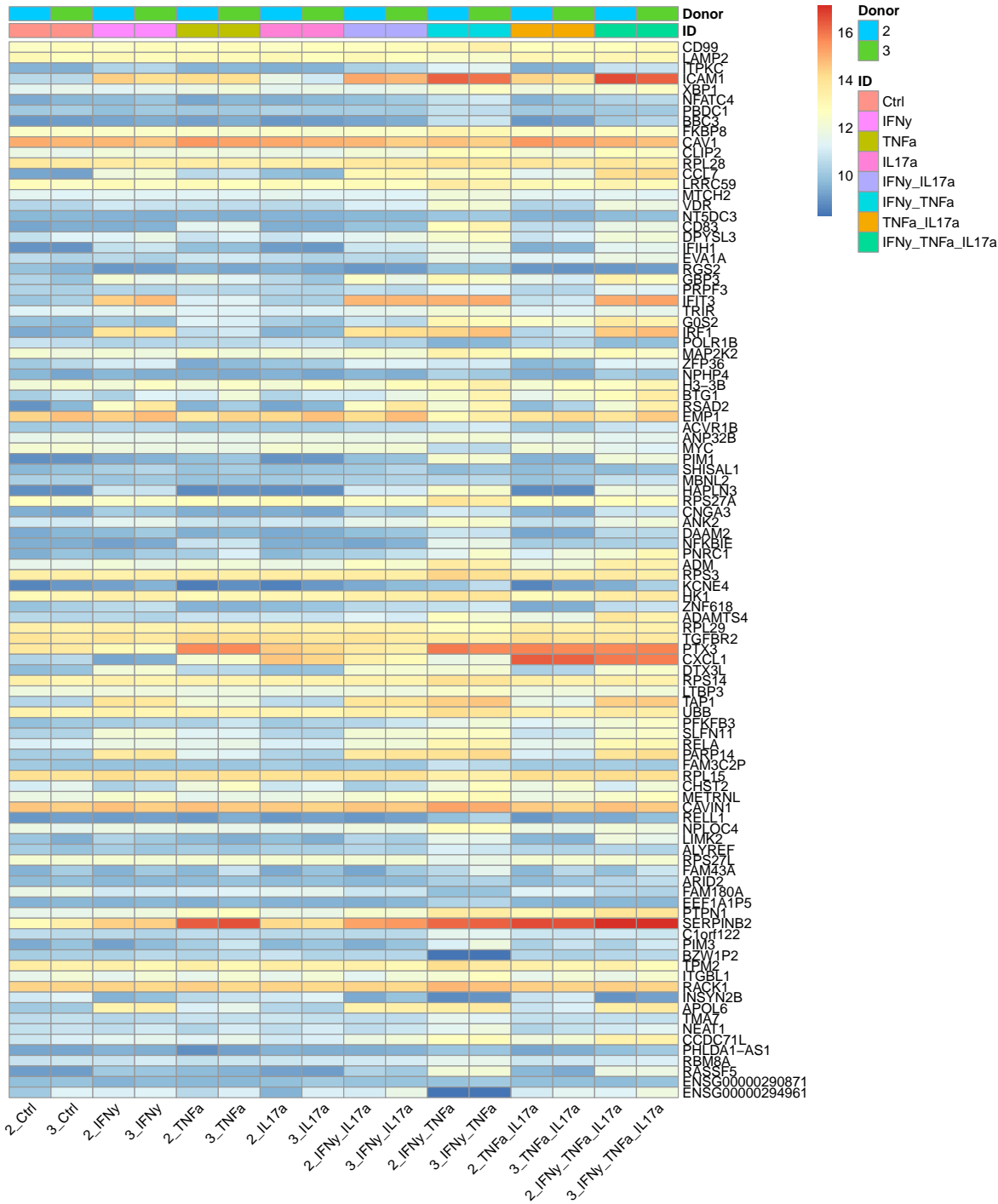Number of DEGs in each comparison. Notice the thresholds in the subtitle of the plot.

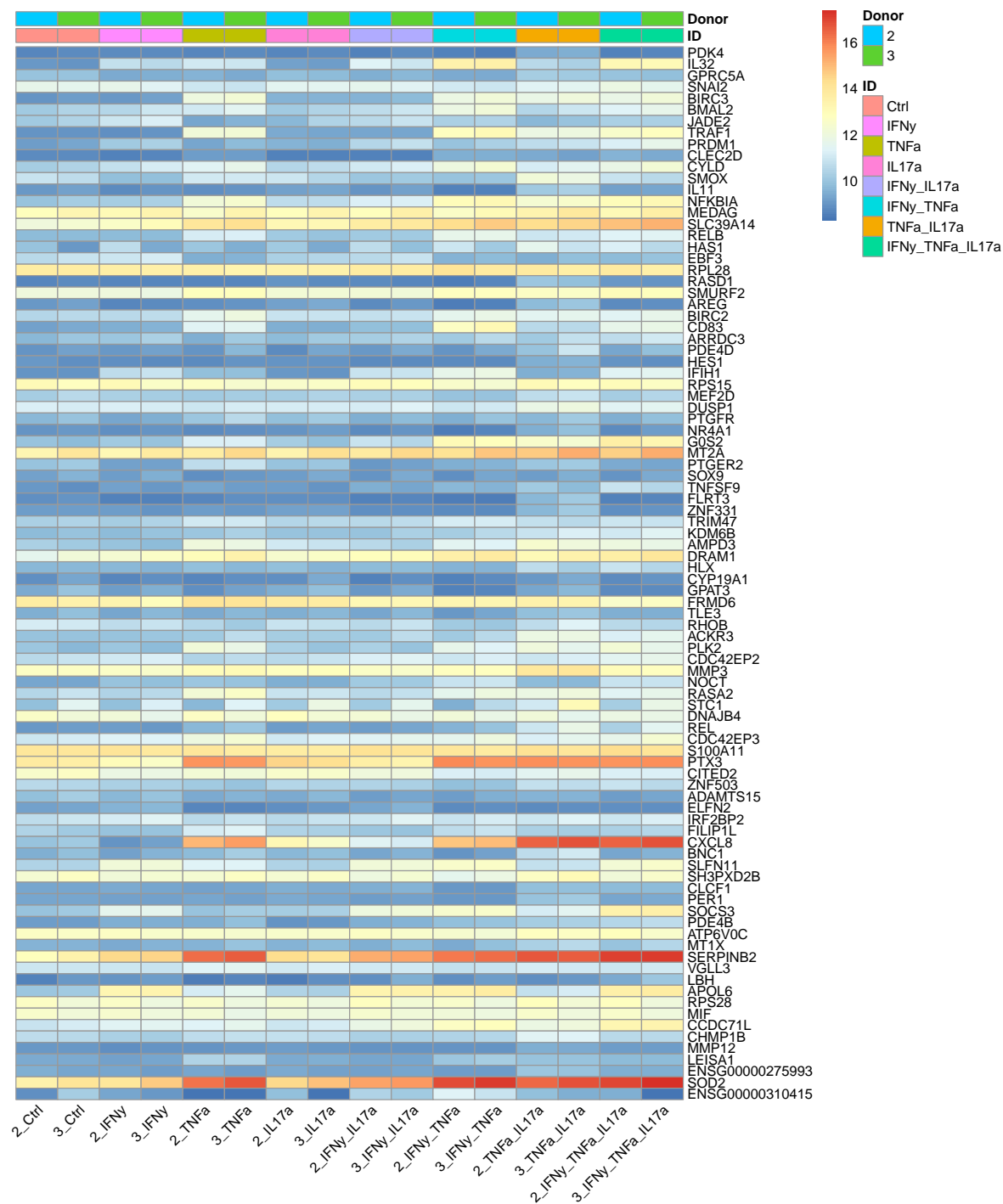Number of DEGs per Comparison
Down: padj < 0.05 & log2FoldChange < 1
Up: padj < 0.05 & log2FoldChange > 1
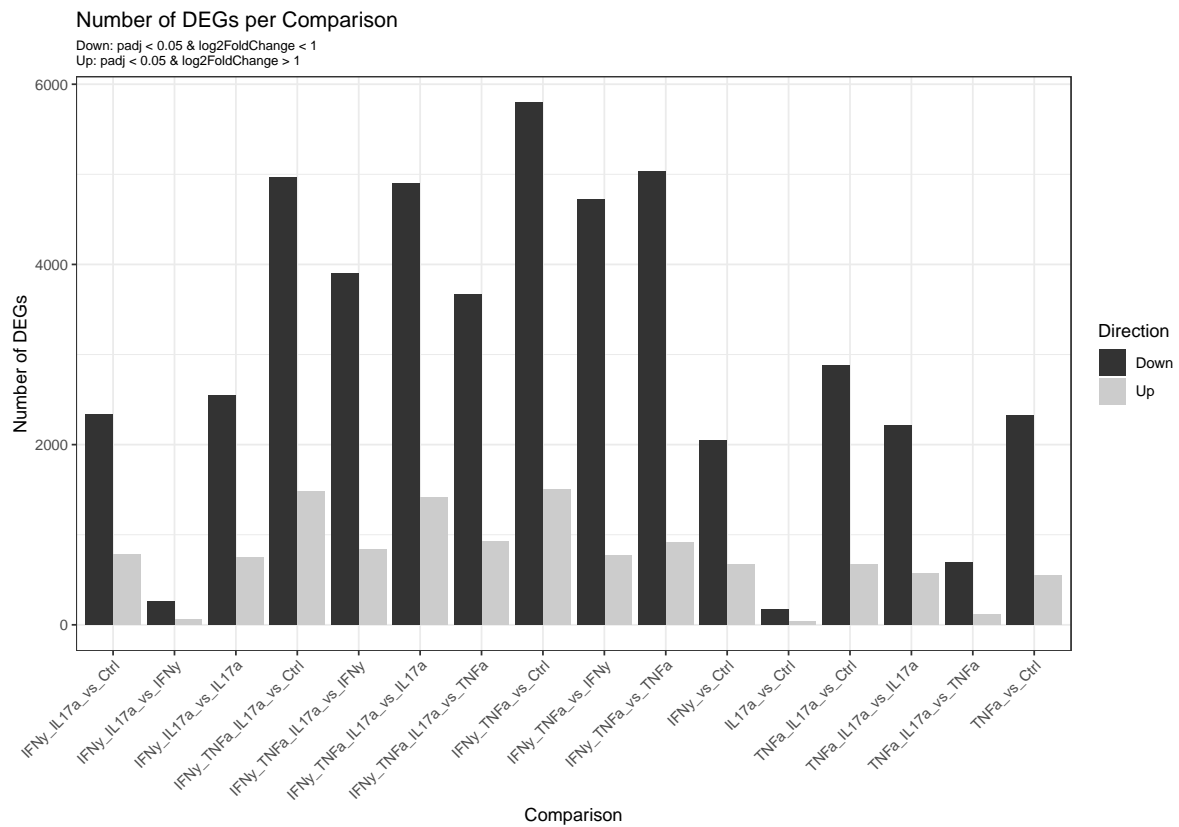
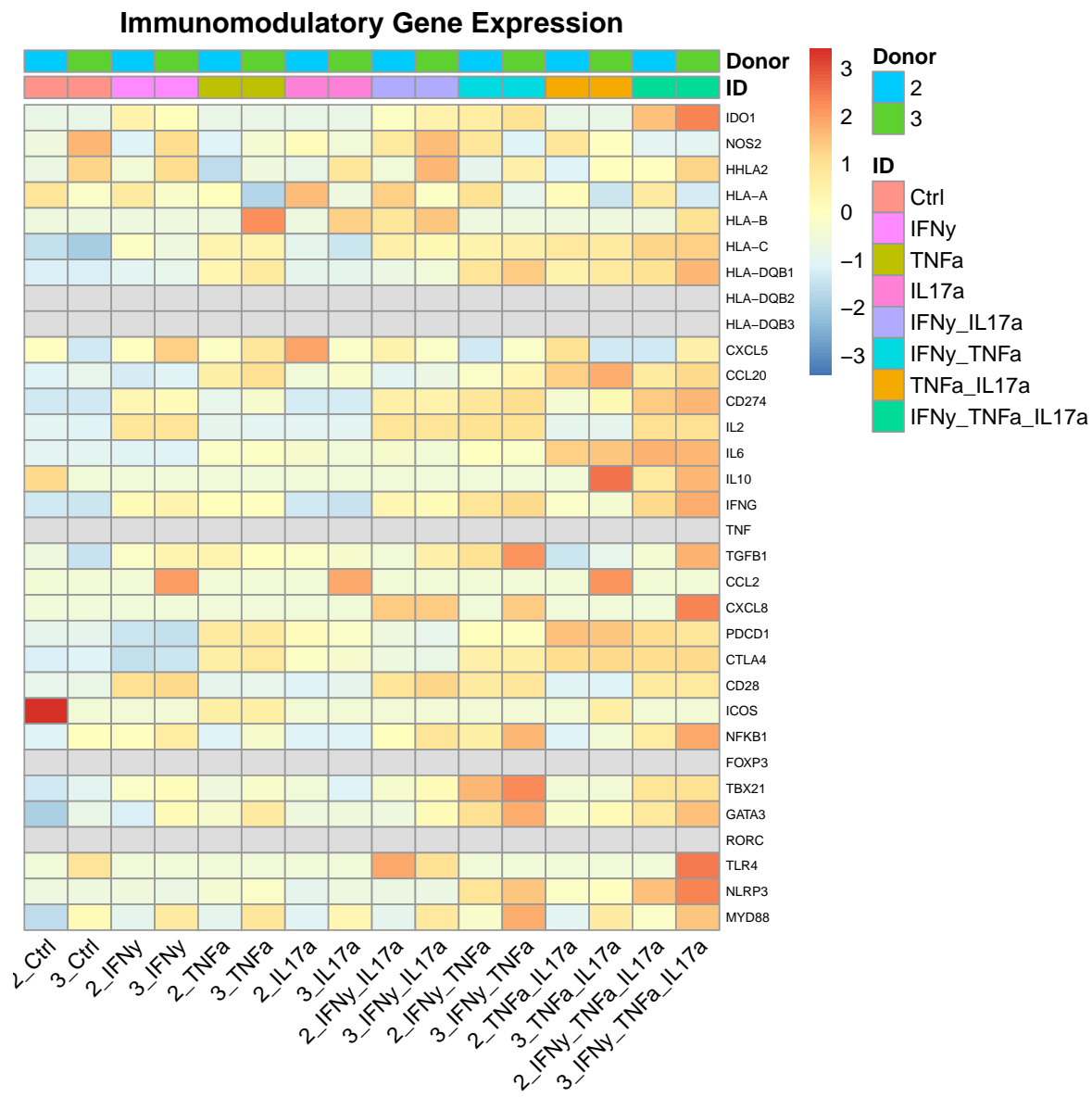# Syngergy analysis

IFNy_IL17a synergy

IFNy_TNFa synergy
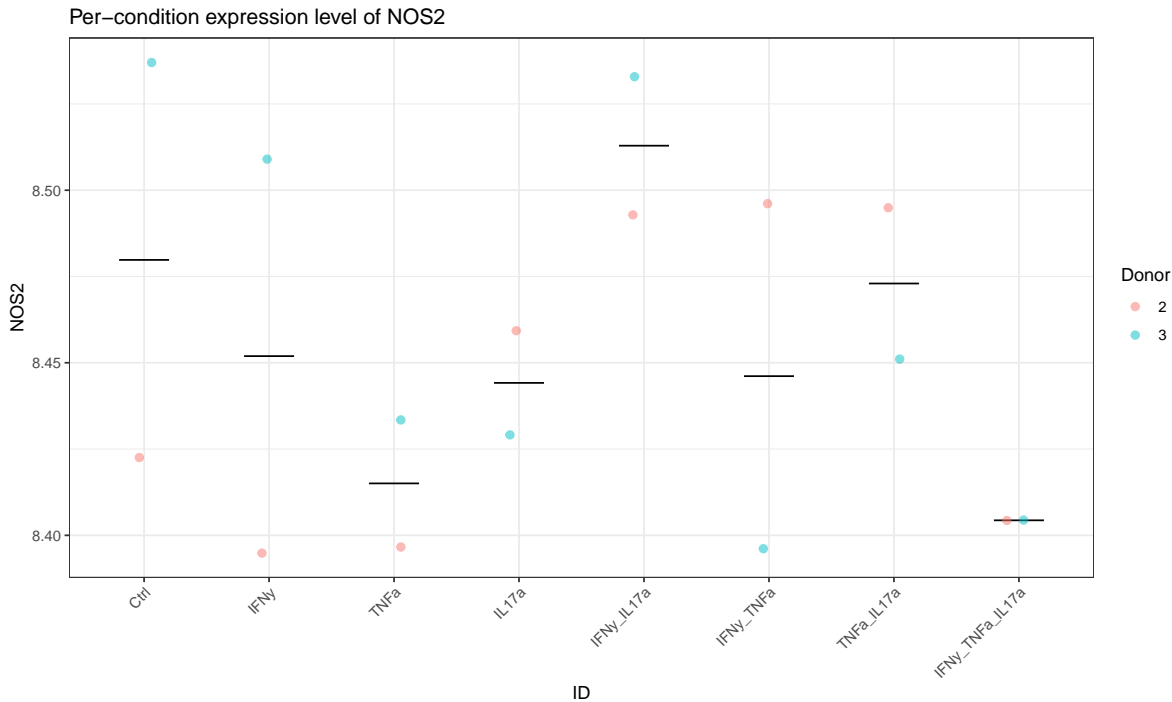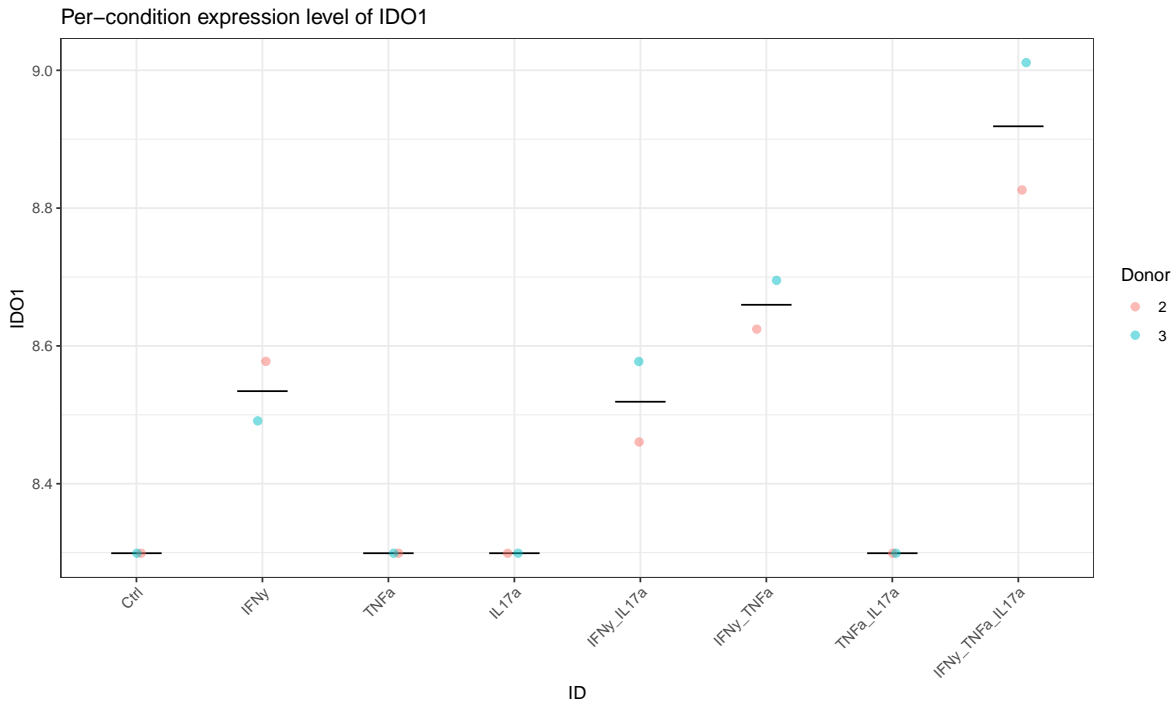
TNFa_IL17a synergy
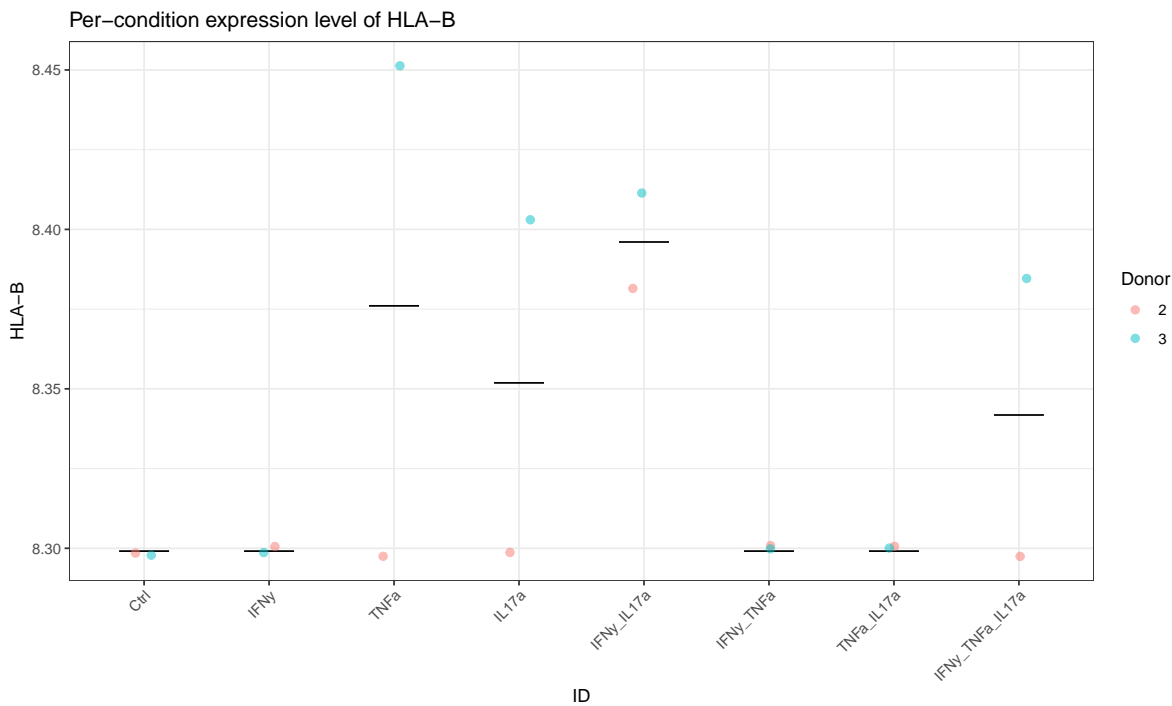
IFNy_TNFa_IL17a synergy

Immunomodulatory Gene Signatures

Heatmap of expression of some immunomodulatory genes.

Immunomodulatory Gene Expression

Zooming in on expression of specific immunomodulatory genes. Horizontal line is the mean.

Per−condition expression level of IDO1

Per−condition expression level of NOS2

Human Leukocyte Antigens (HLAs)

Per-condition expression level of HLA-A

Per-condition expression level of HLA-B

Per−condition expression level of HLA−C

HLA-DQBs

Per−condition expression level of HLA−DQB1

Per−condition expression level of HLA−DQB2

Per−condition expression level of HLA−DQB3