

# bulk-org figures (AB) V1.35

Raphael Kubler

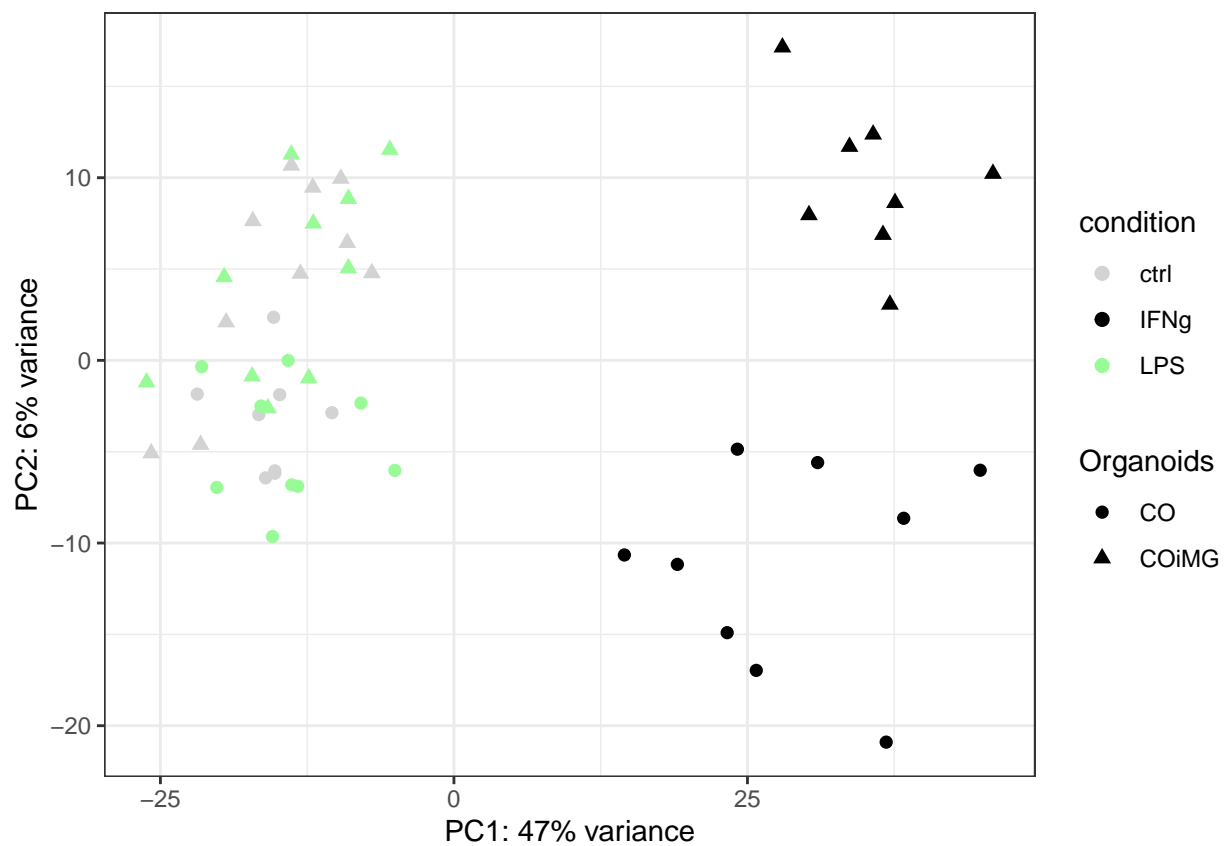
02/22/2024

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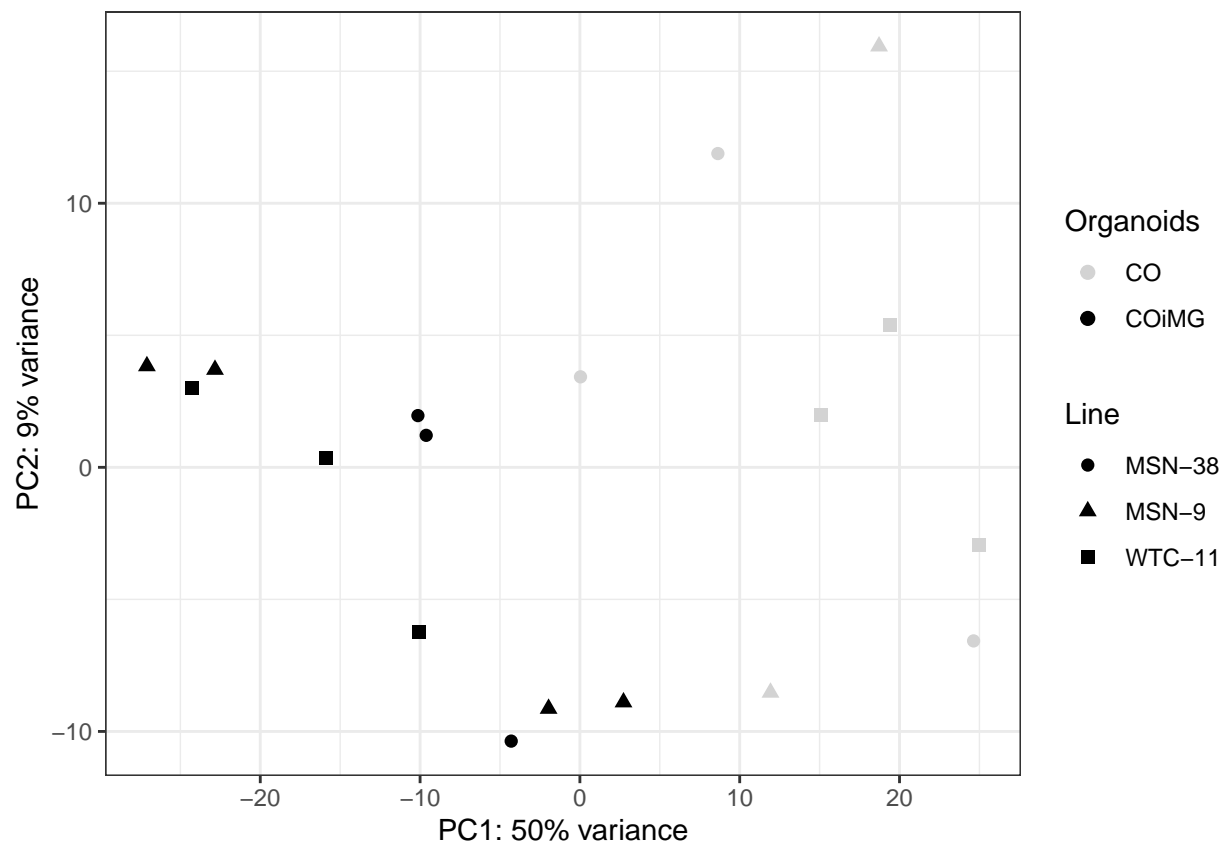
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## PCA IFN $\gamma$ , LPS, ctr

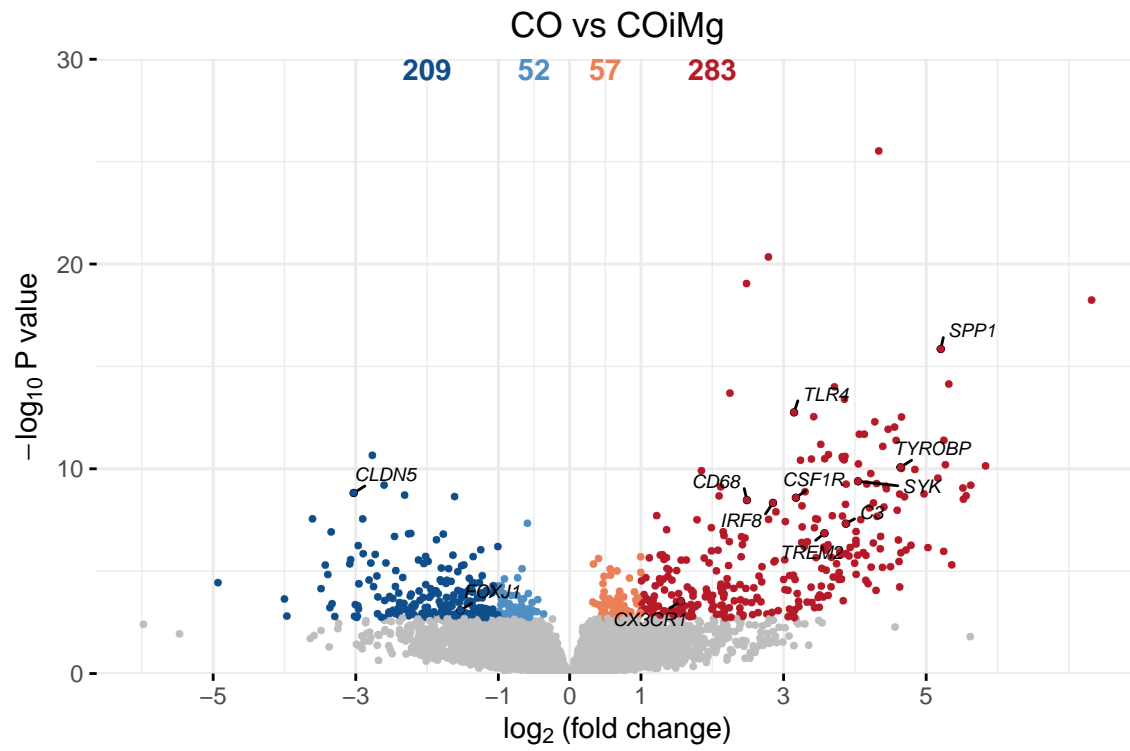


# CO vs COiMG in control samples

PCA plots

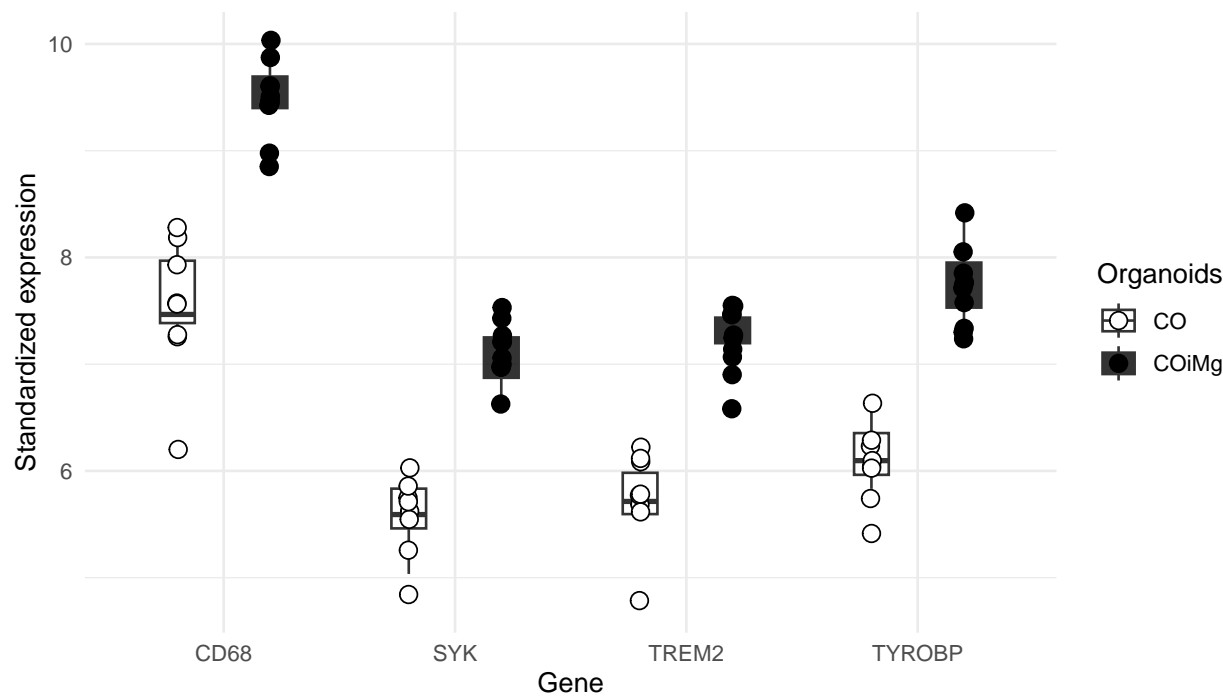
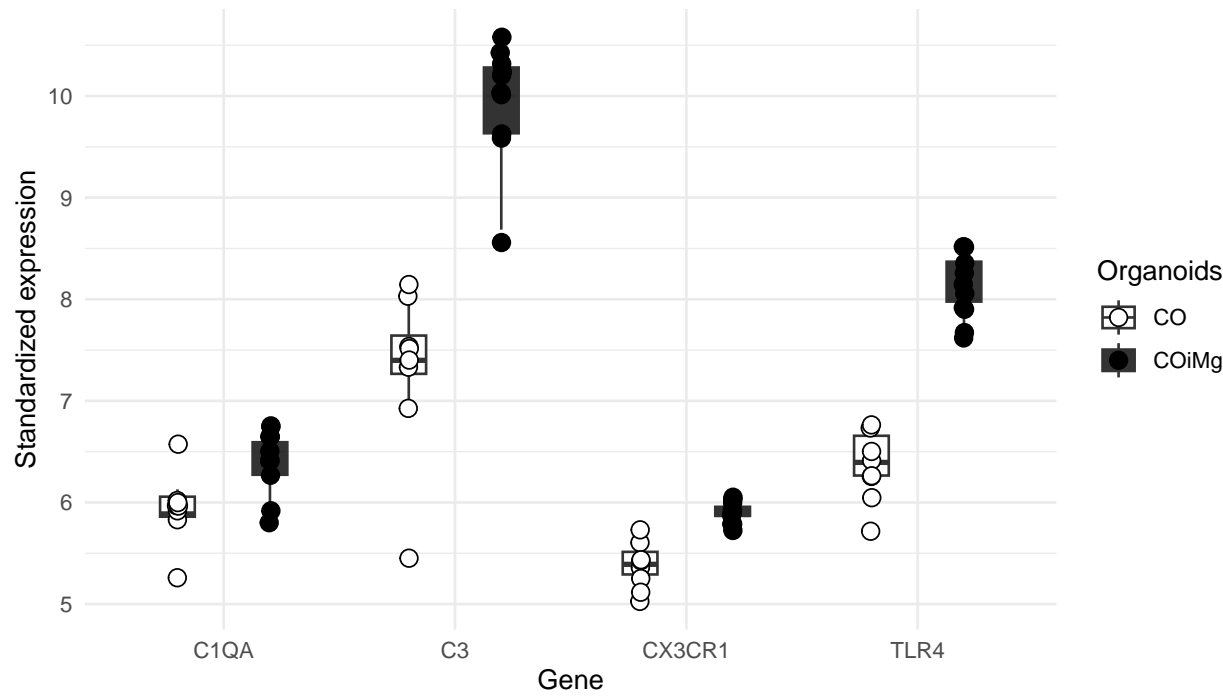


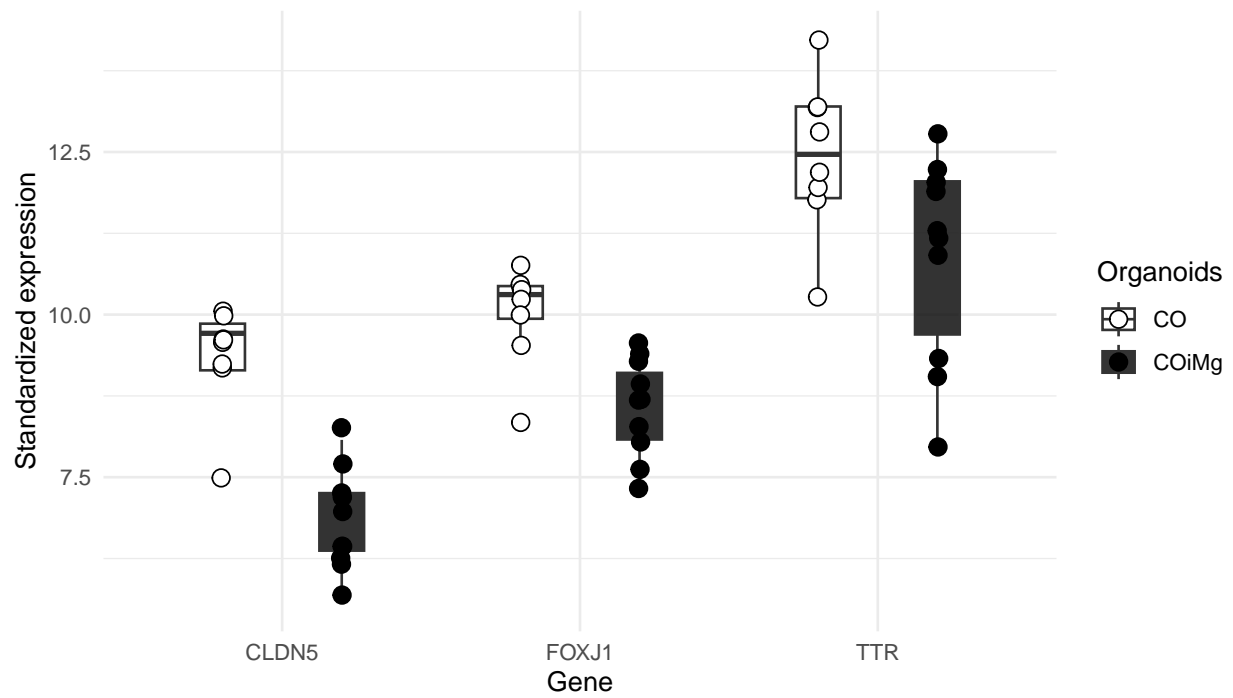
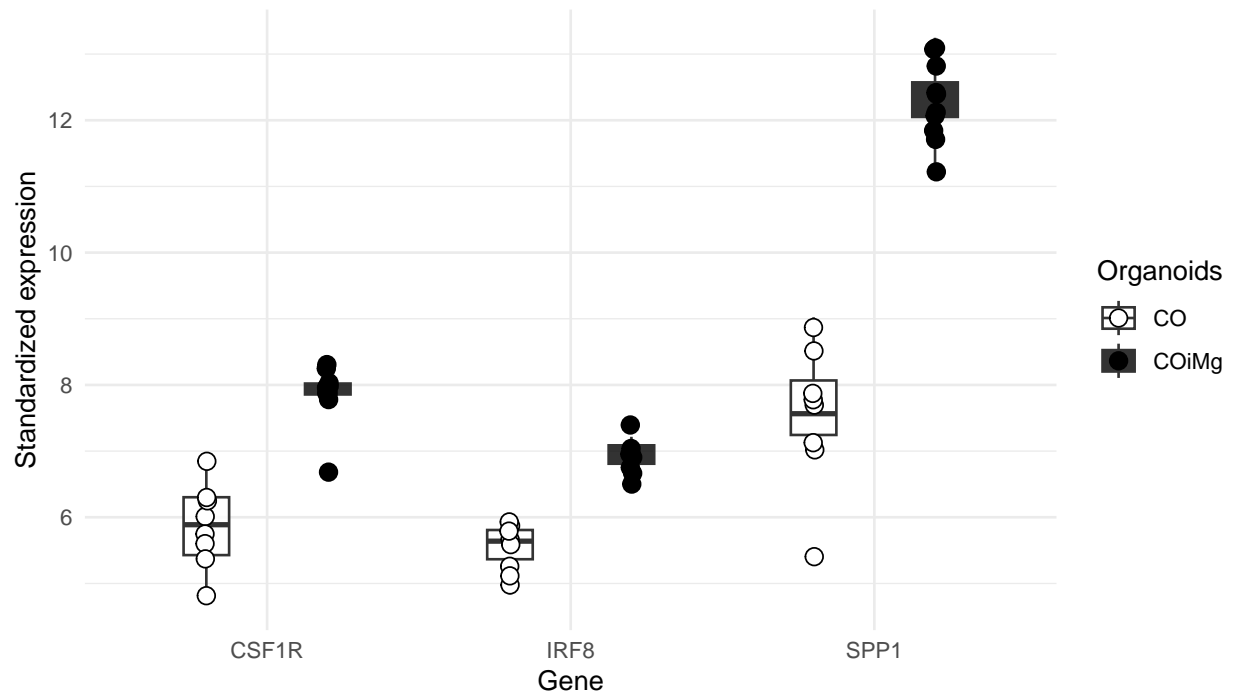
## Volcano plot



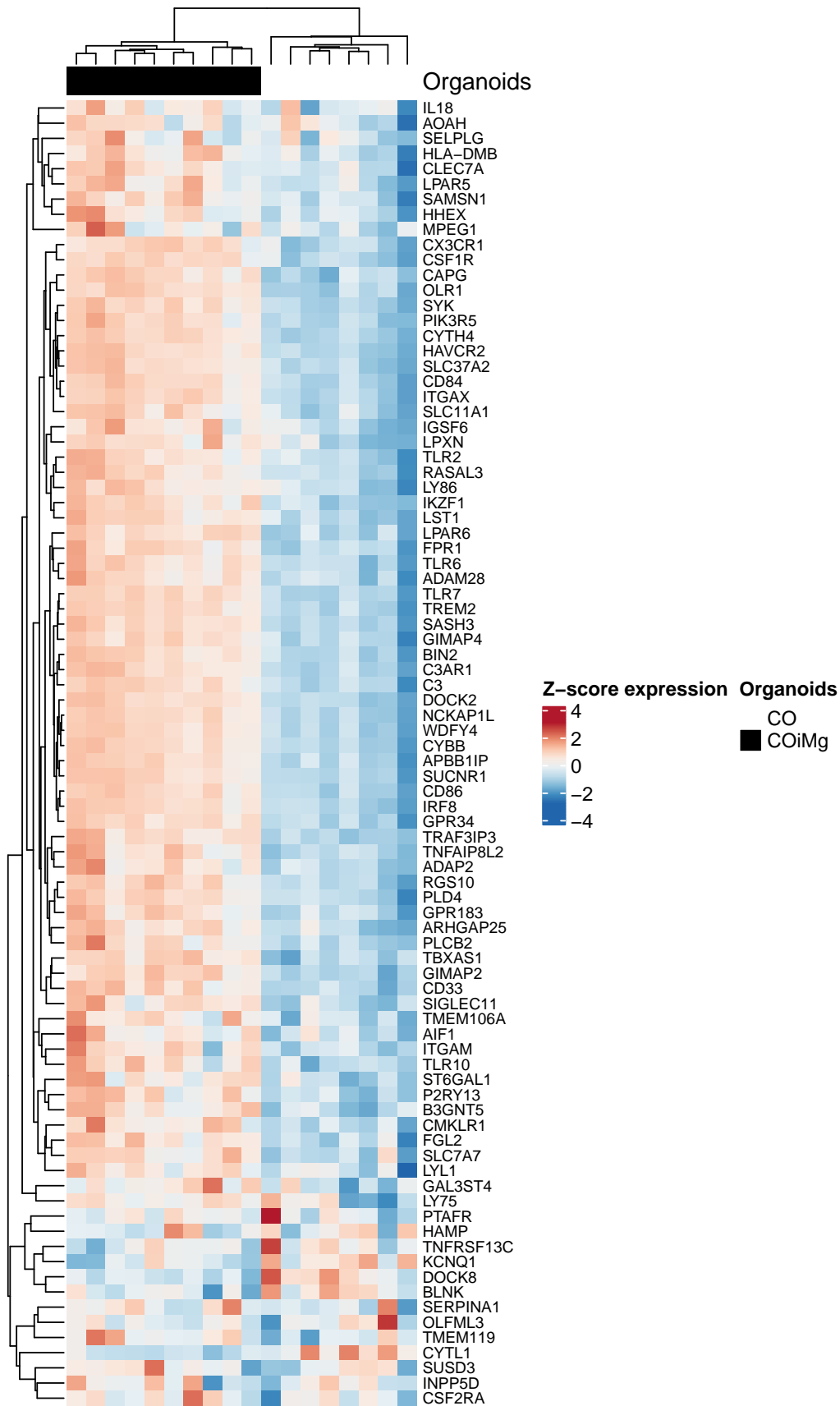
DEG table

Boxplot CO vs COiMg in CTR

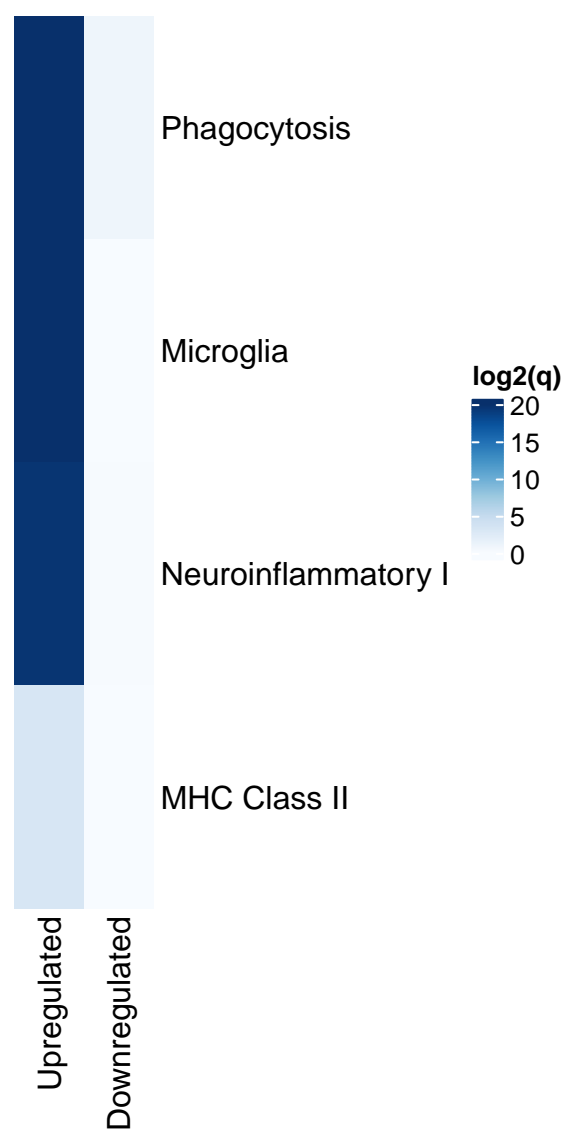




Patir microglia genes heatmap

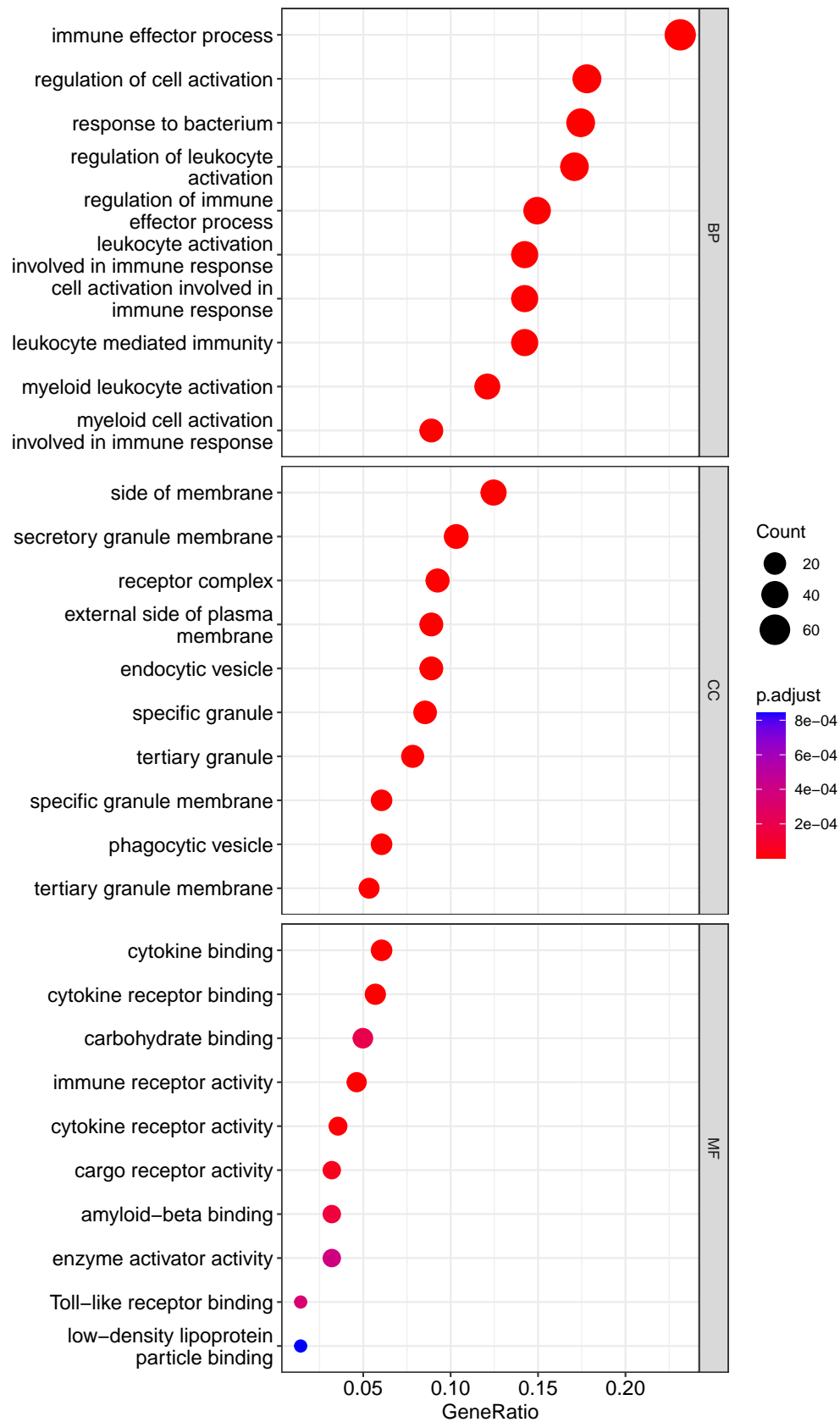


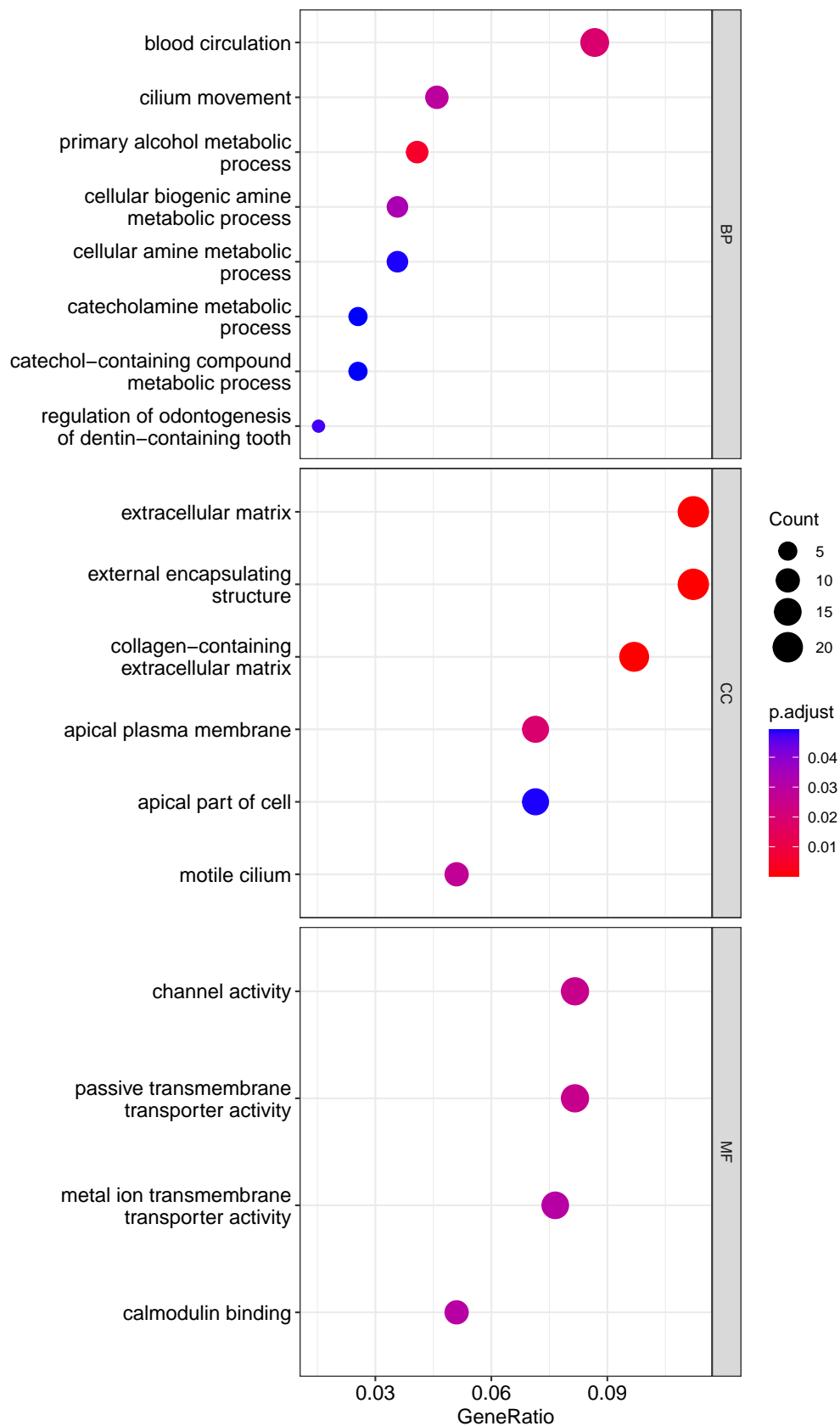
Enrichment heatmap (gene sets of interest)





## GO enrichment





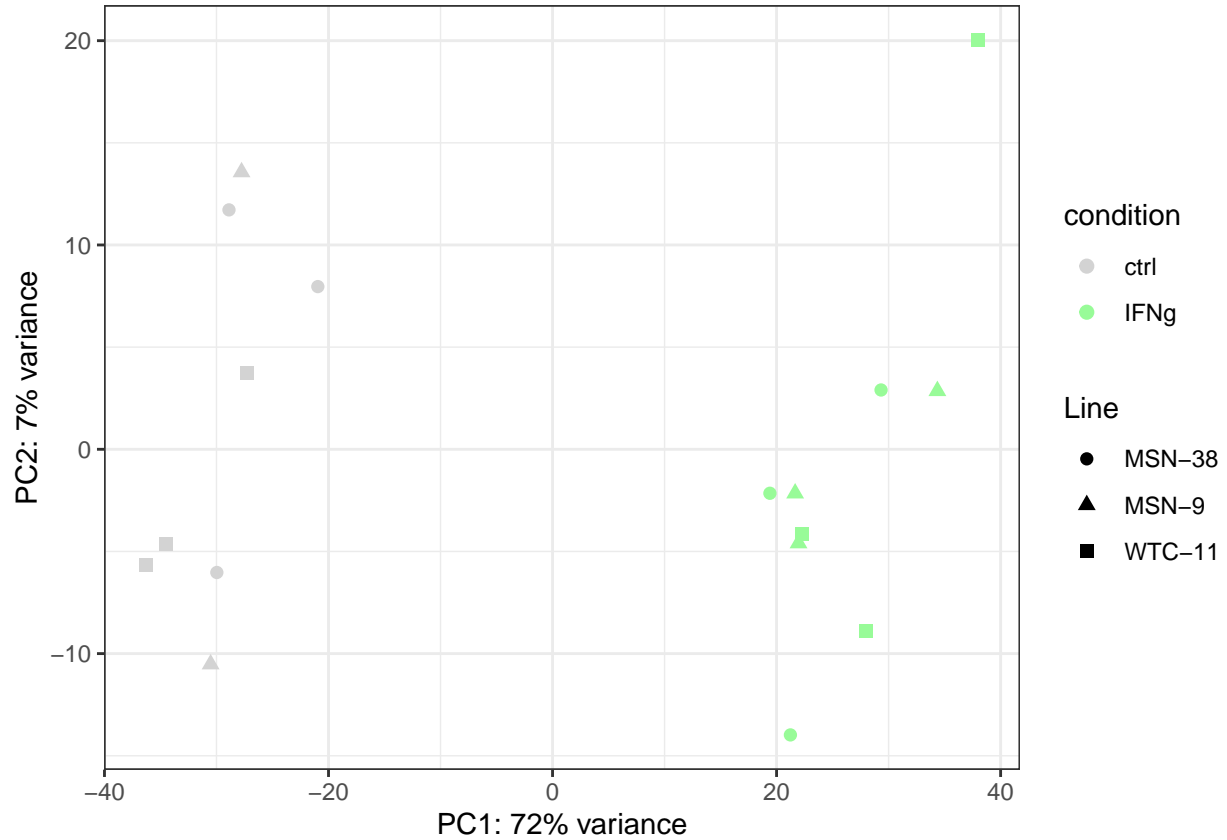
## Stimulation (IFN $\gamma$ ) samples

### PCA plots

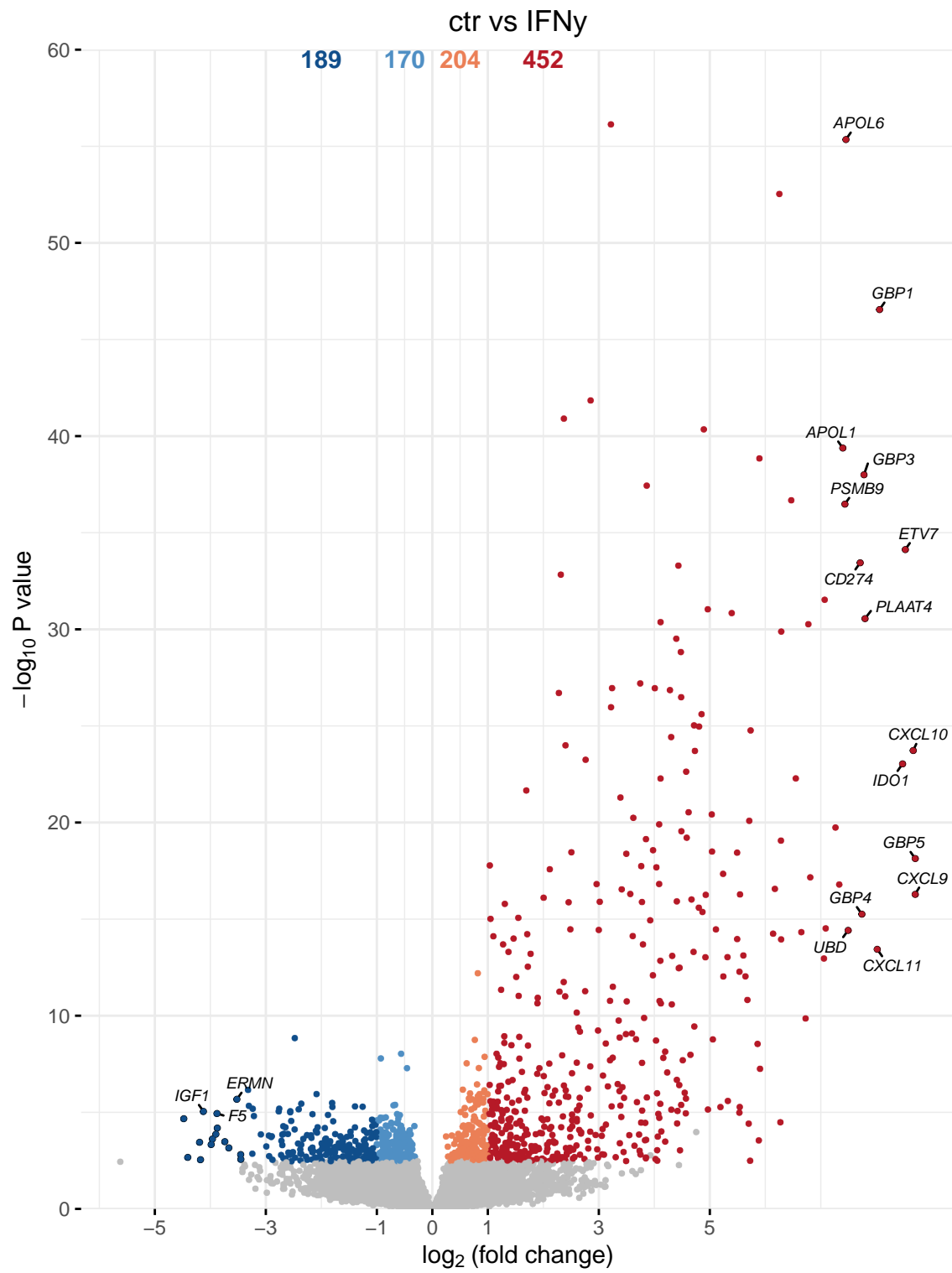
```
## [1] TRUE
```

```
## [1] TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE
```

```
## [16] TRUE TRUE
```

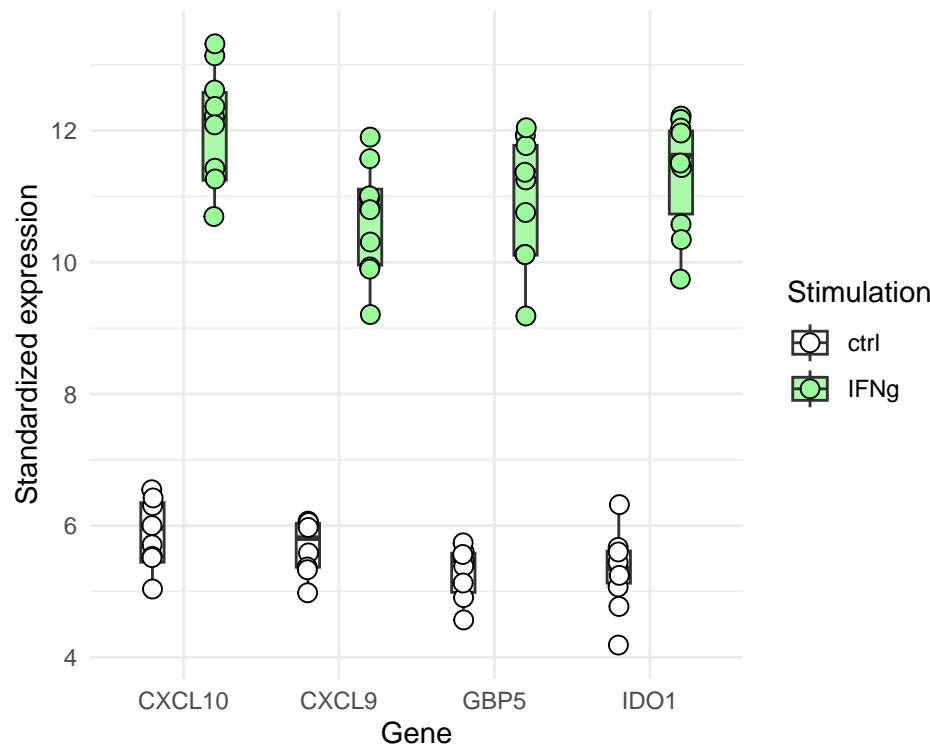
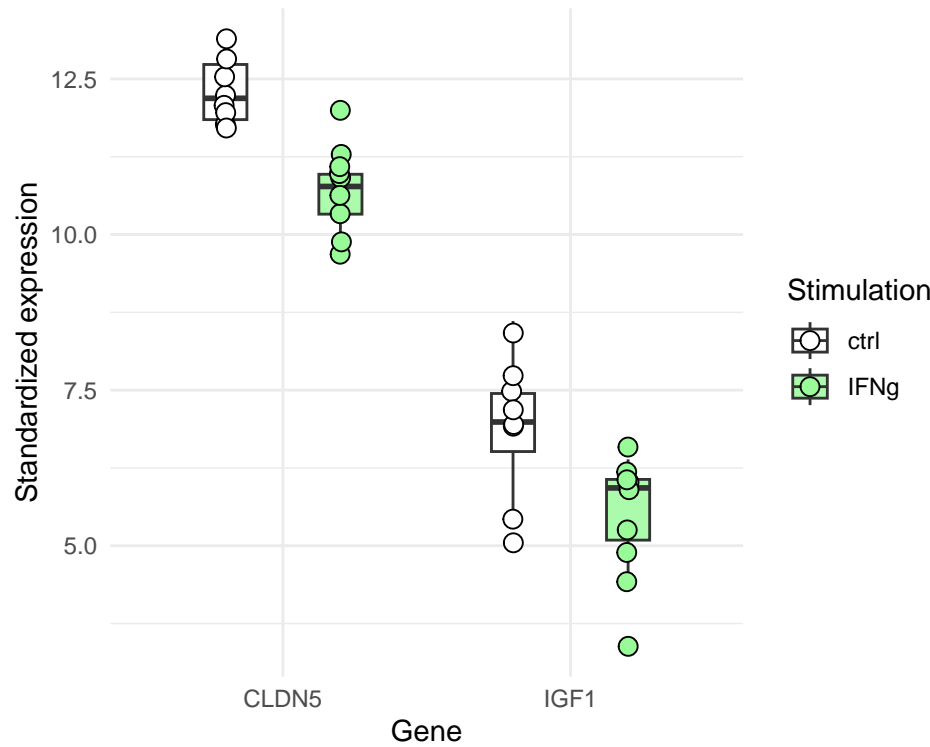


## Volcano plot



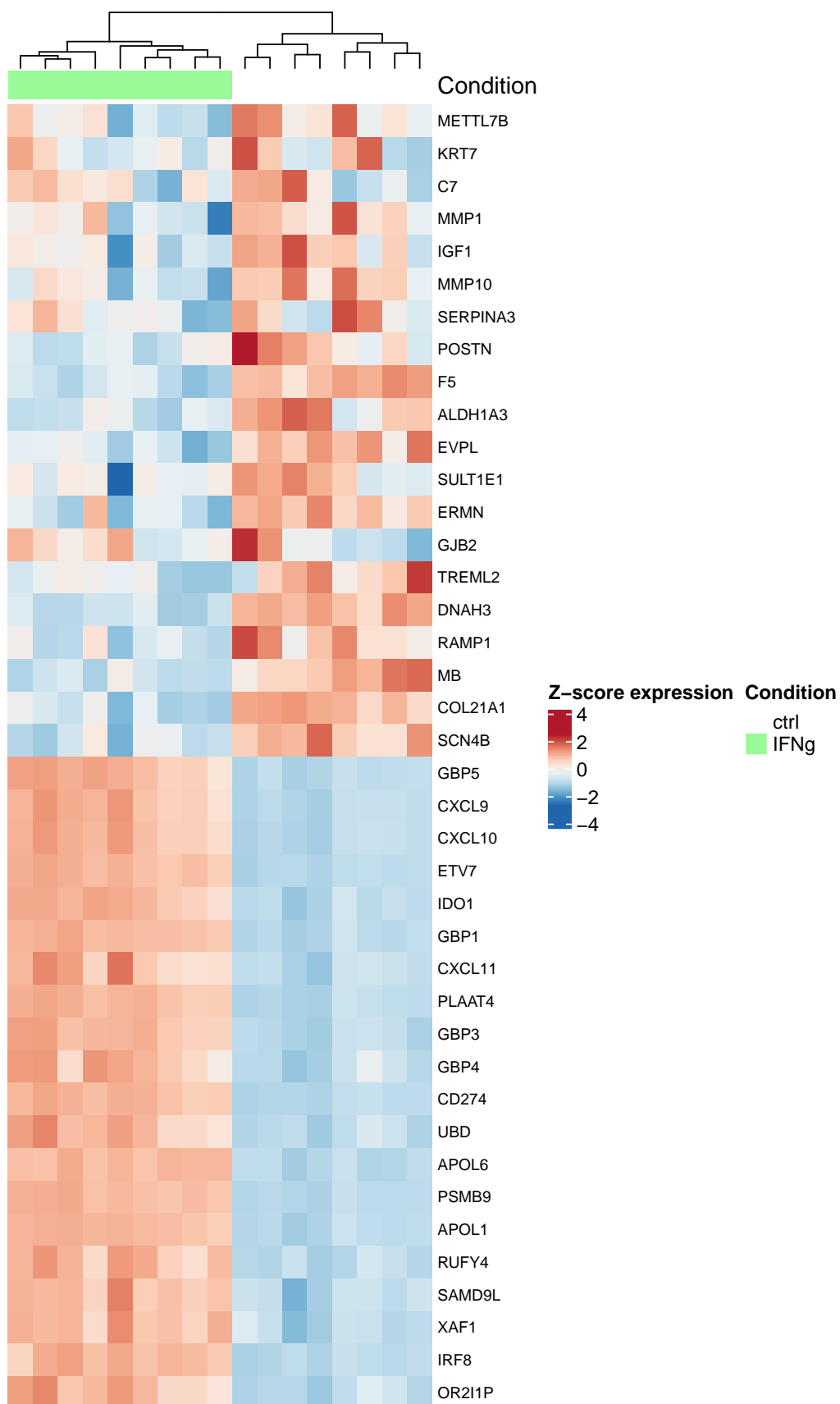
DEG table

Boxplot genes of interest

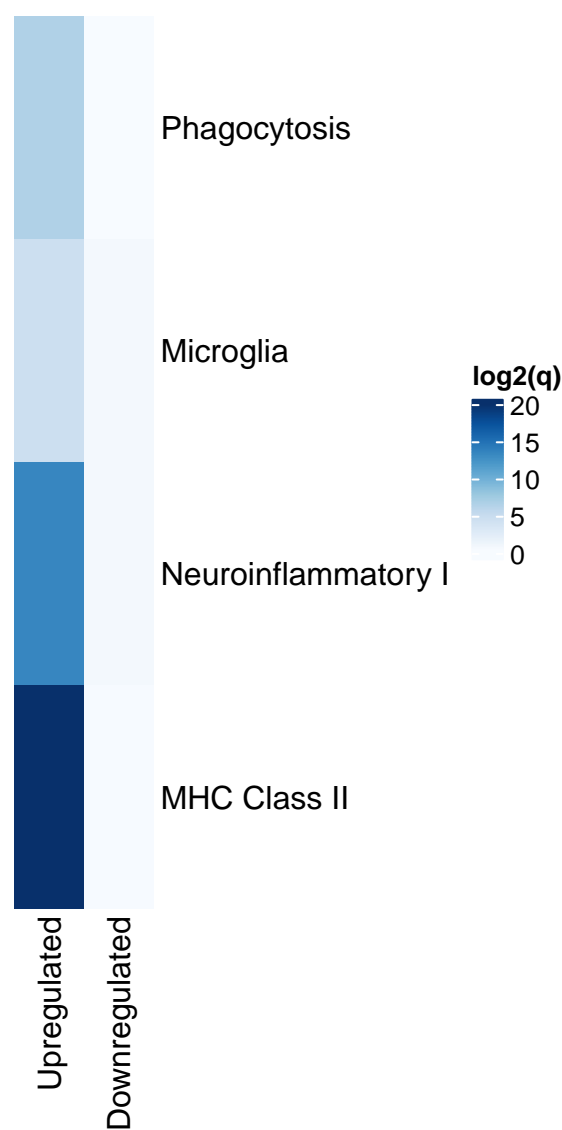


## Top 40 DEGs heatmap

```
## [1] FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE FALSE
## [13] FALSE FALSE FALSE FALSE FALSE
```

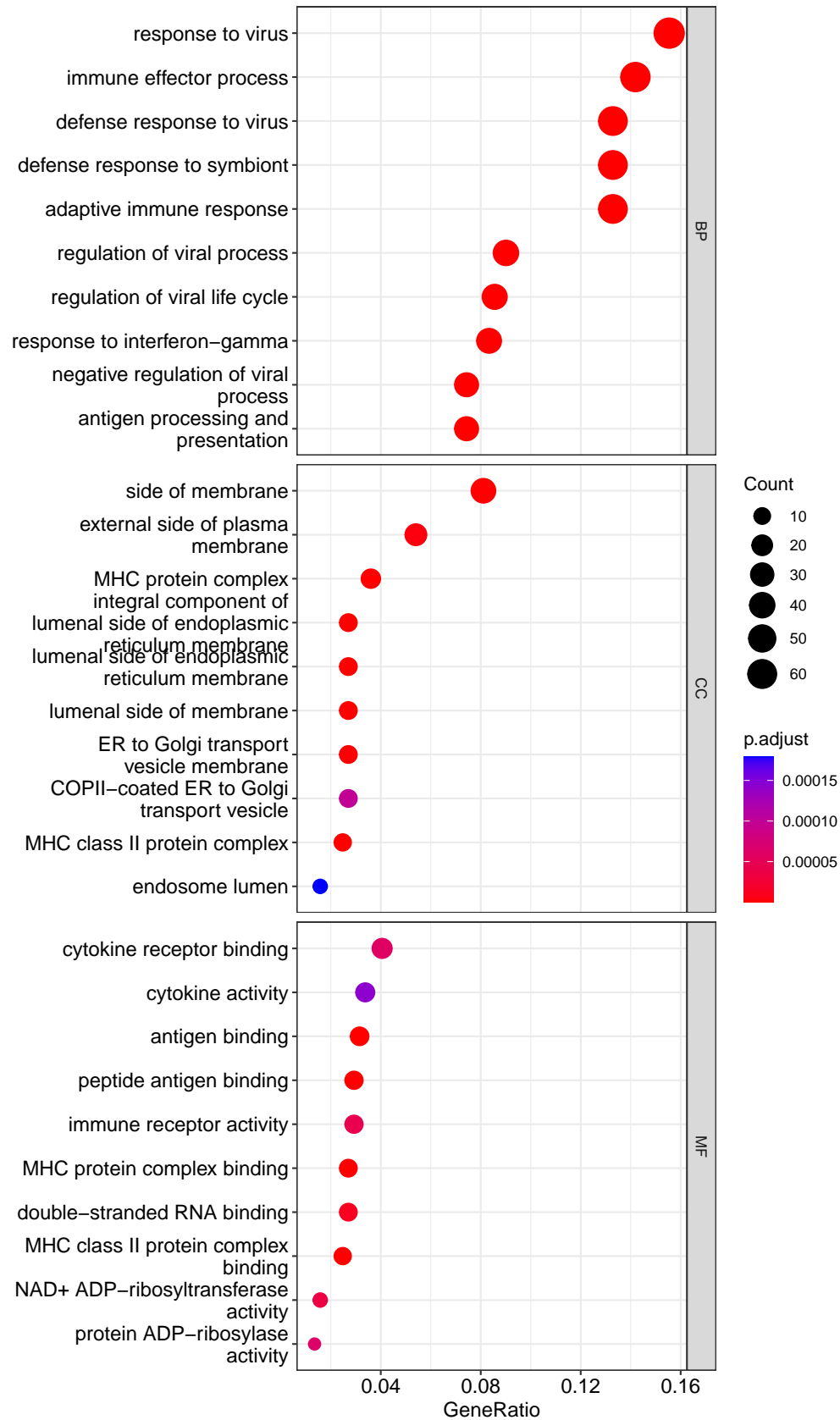


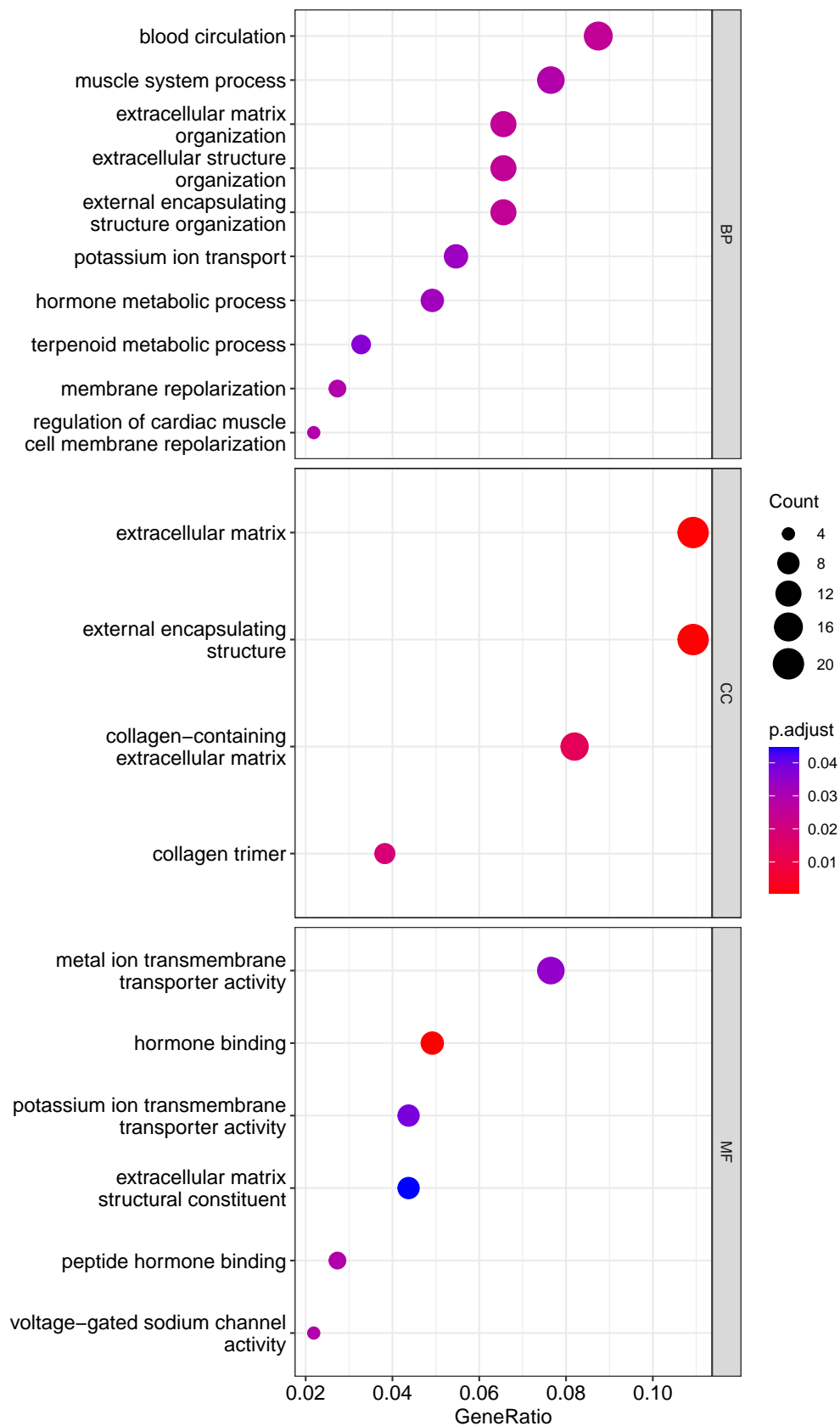
Enrichment heatmap (gene sets of interest)





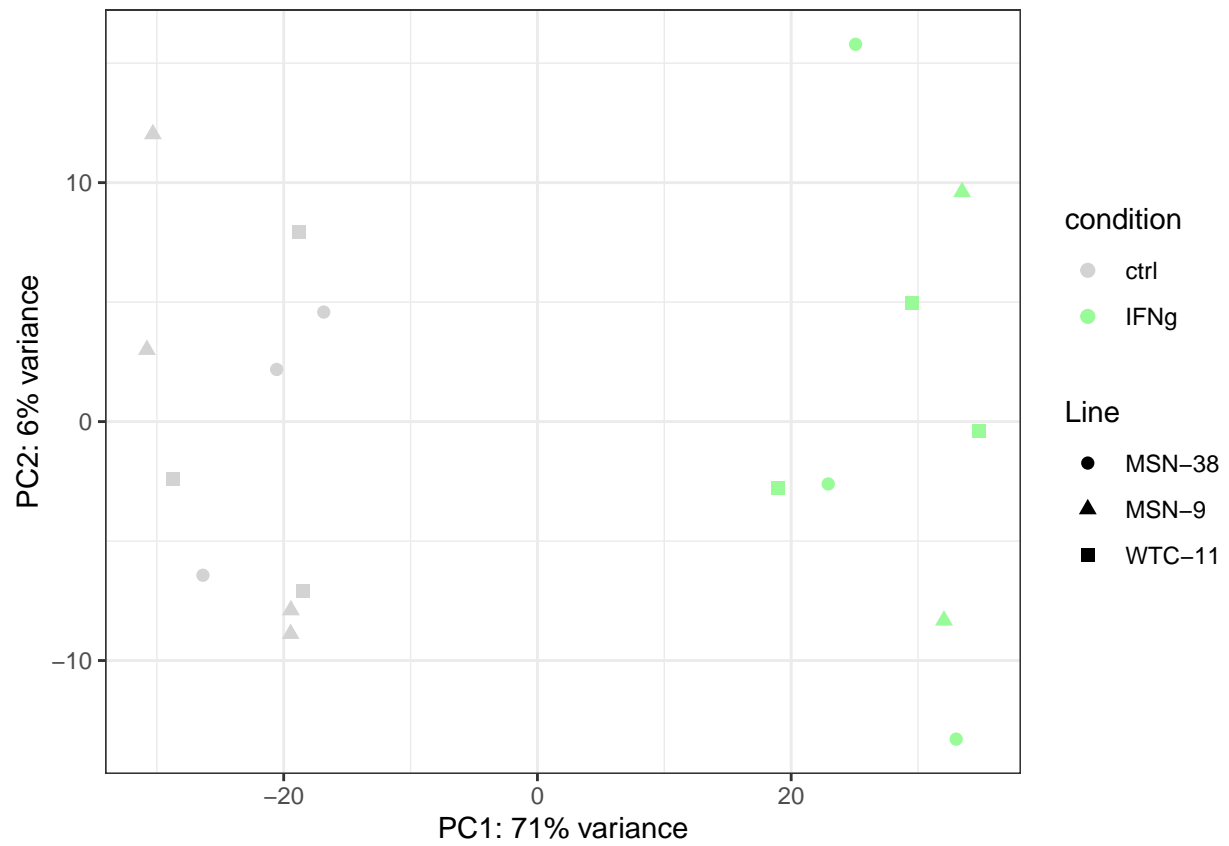
GO enrichment



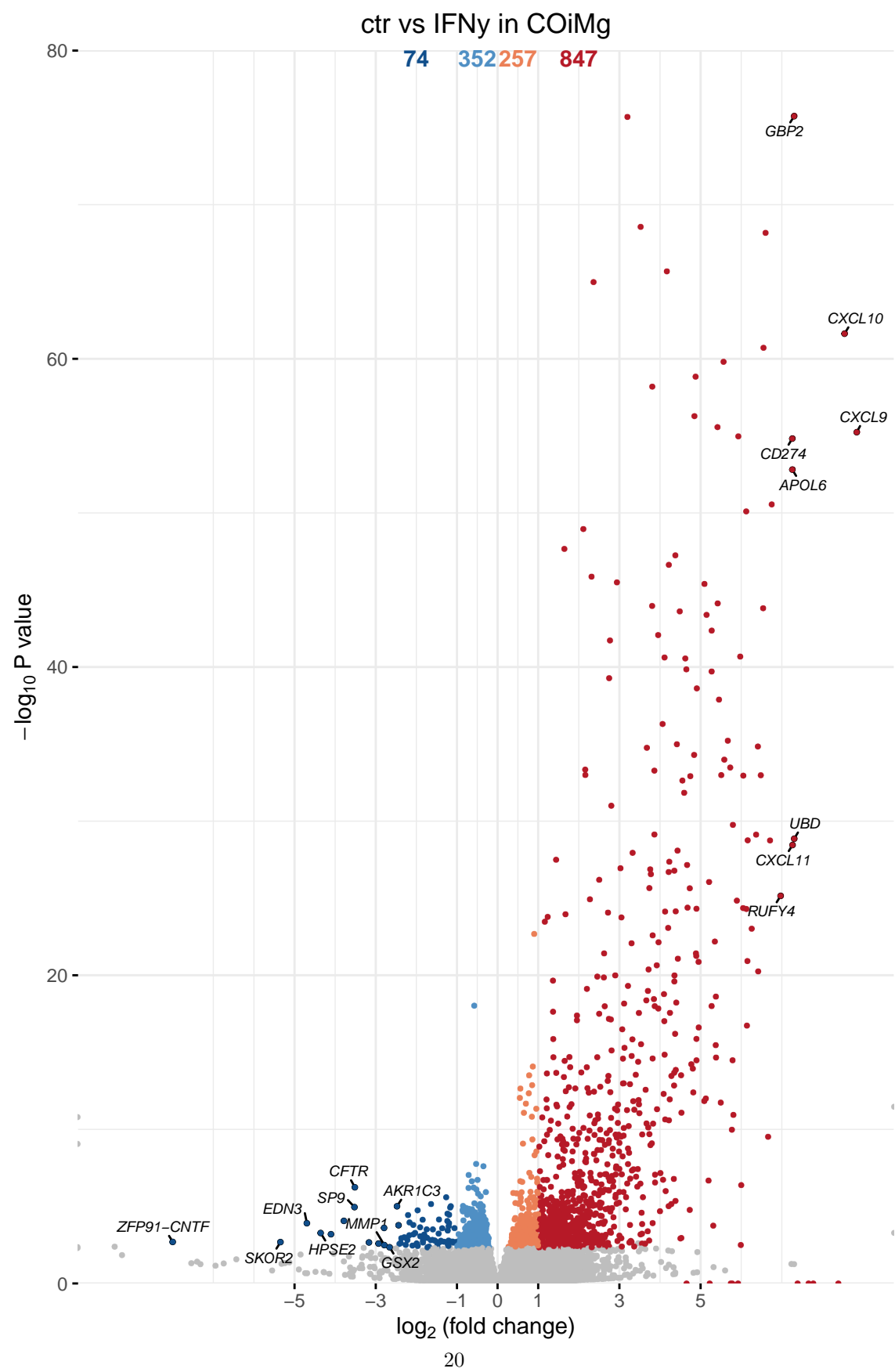


# IFN $\gamma$ in COiMG

## PCA plots

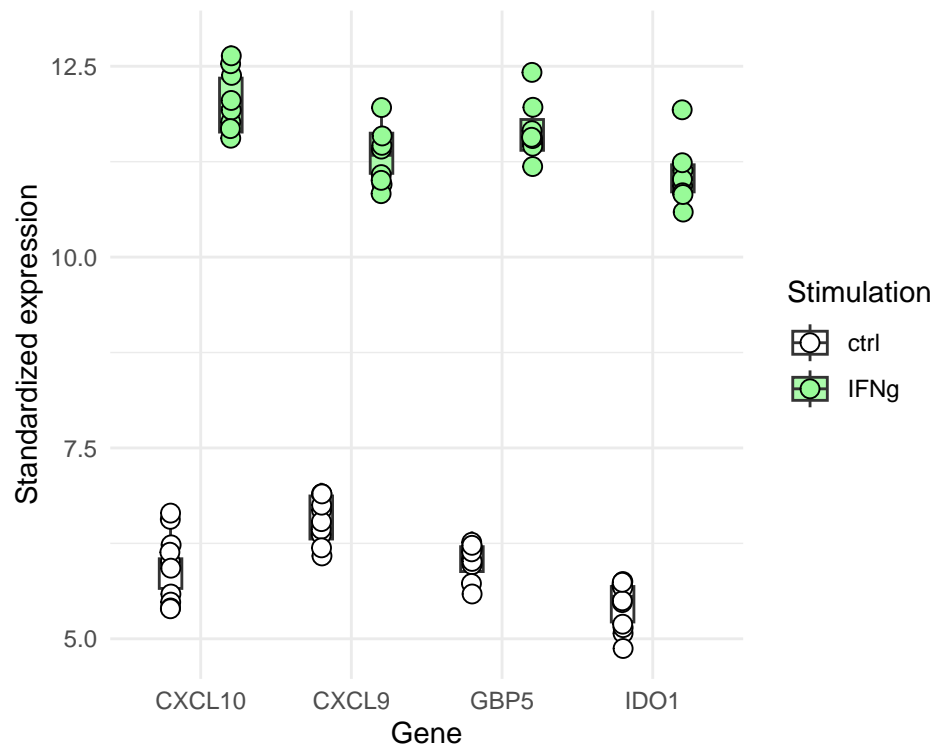
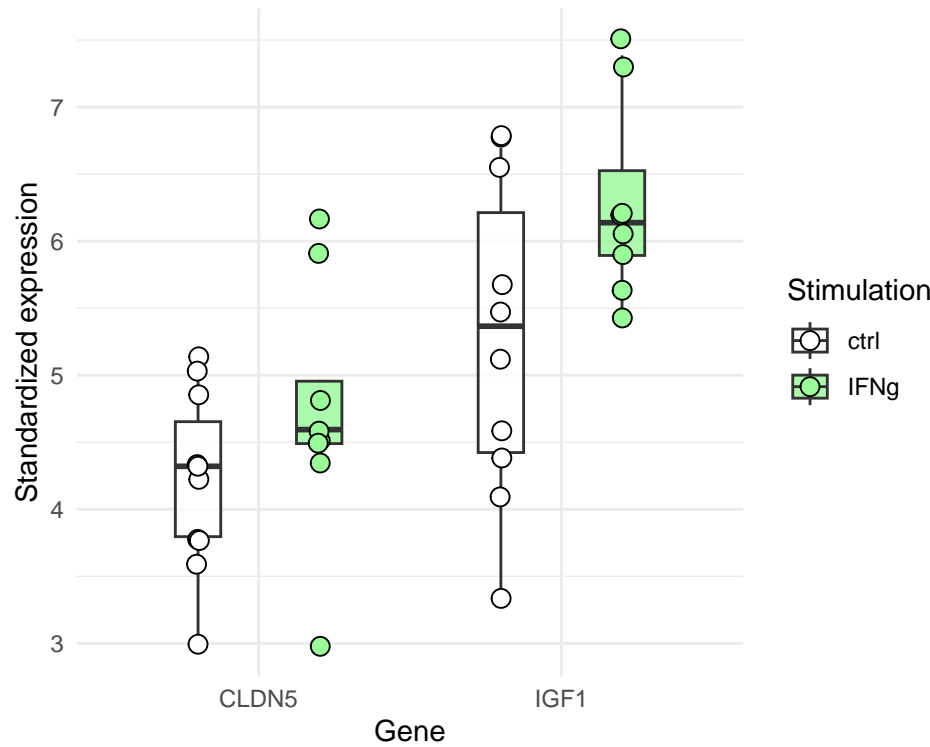


Volcano plot

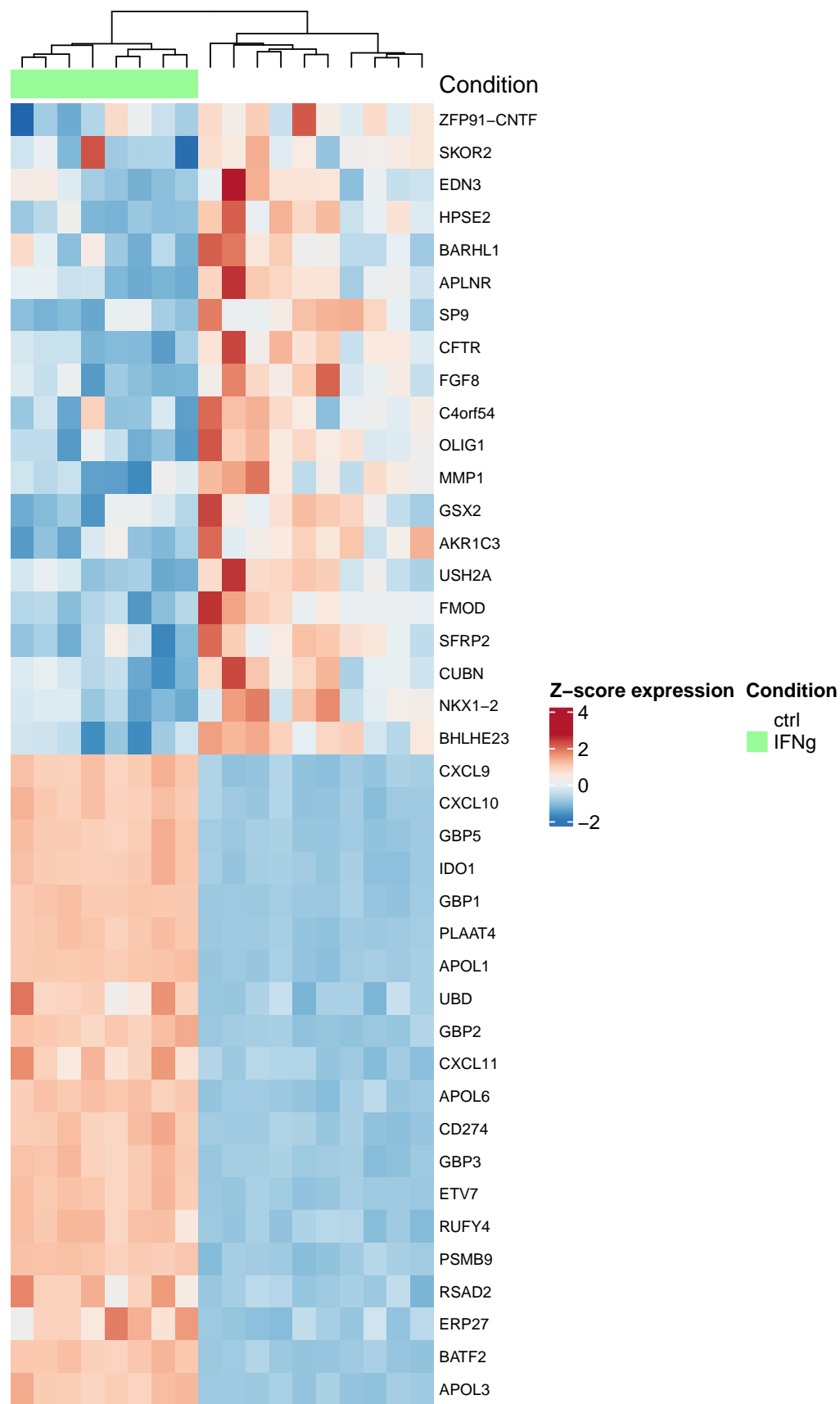


DEG table

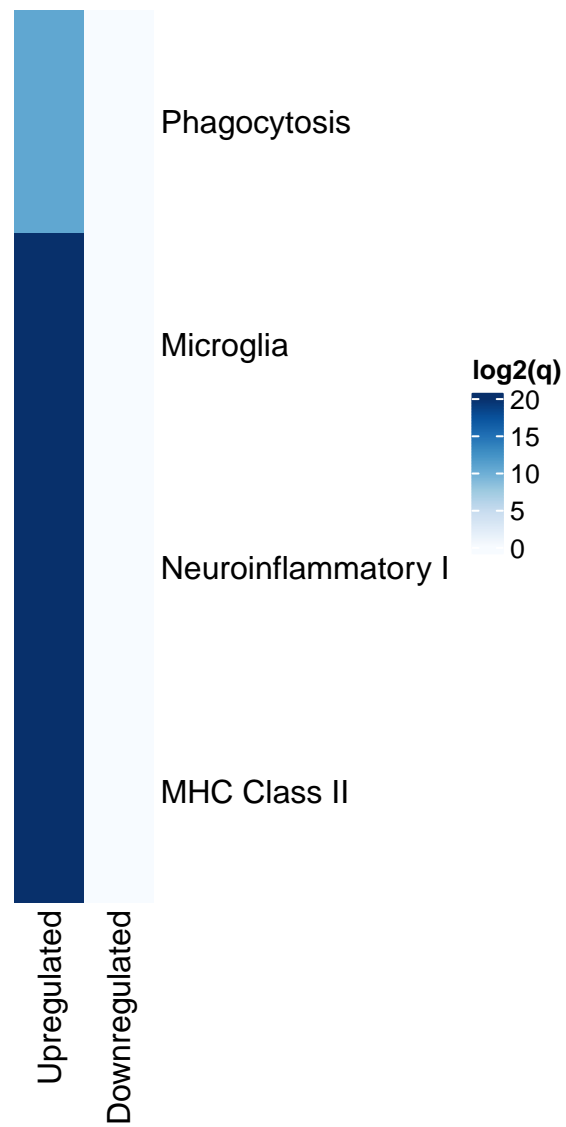
Boxplot genes of interest



Top 40 DEGs heatmap

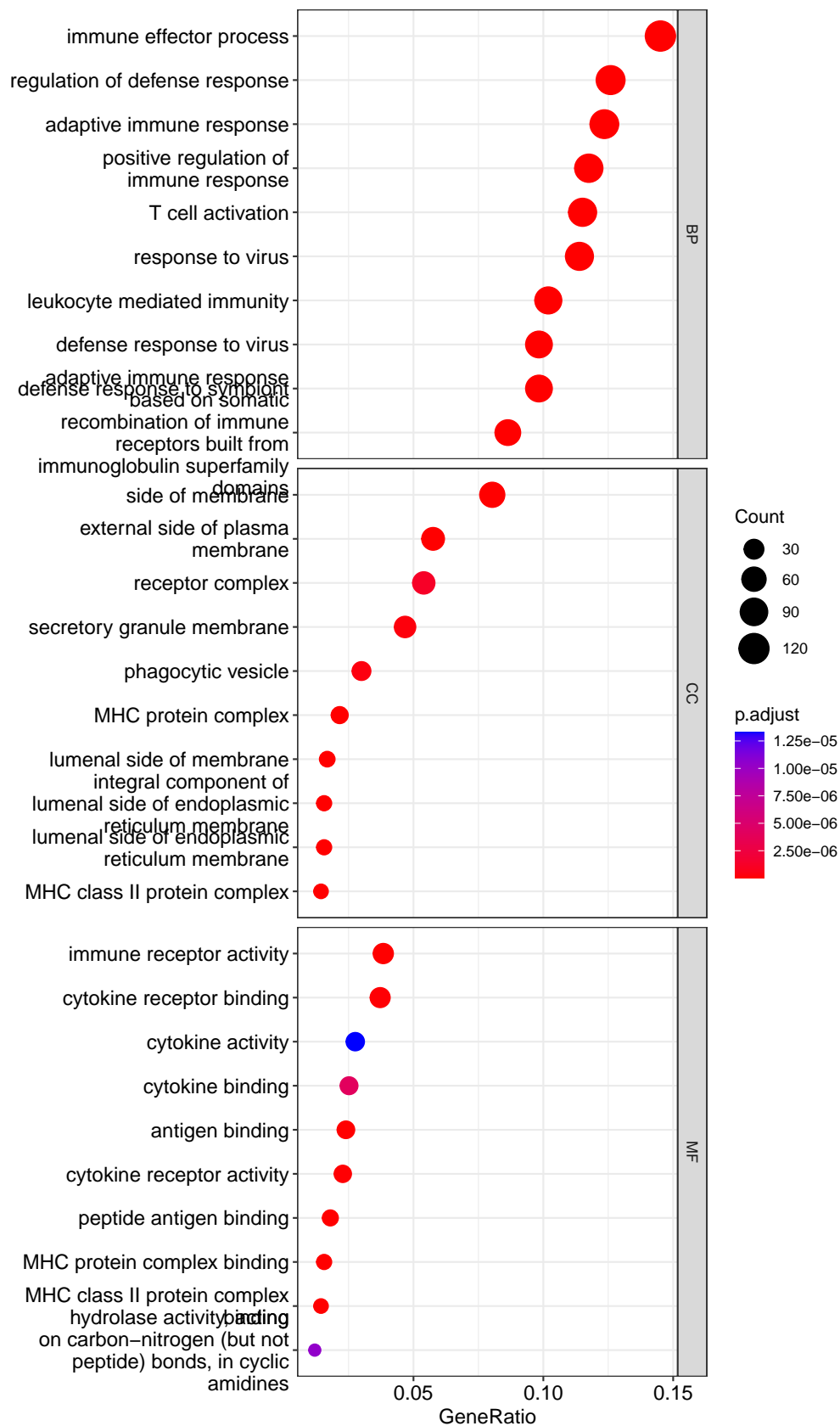


## Enrichment heatmap (gene sets of interest)



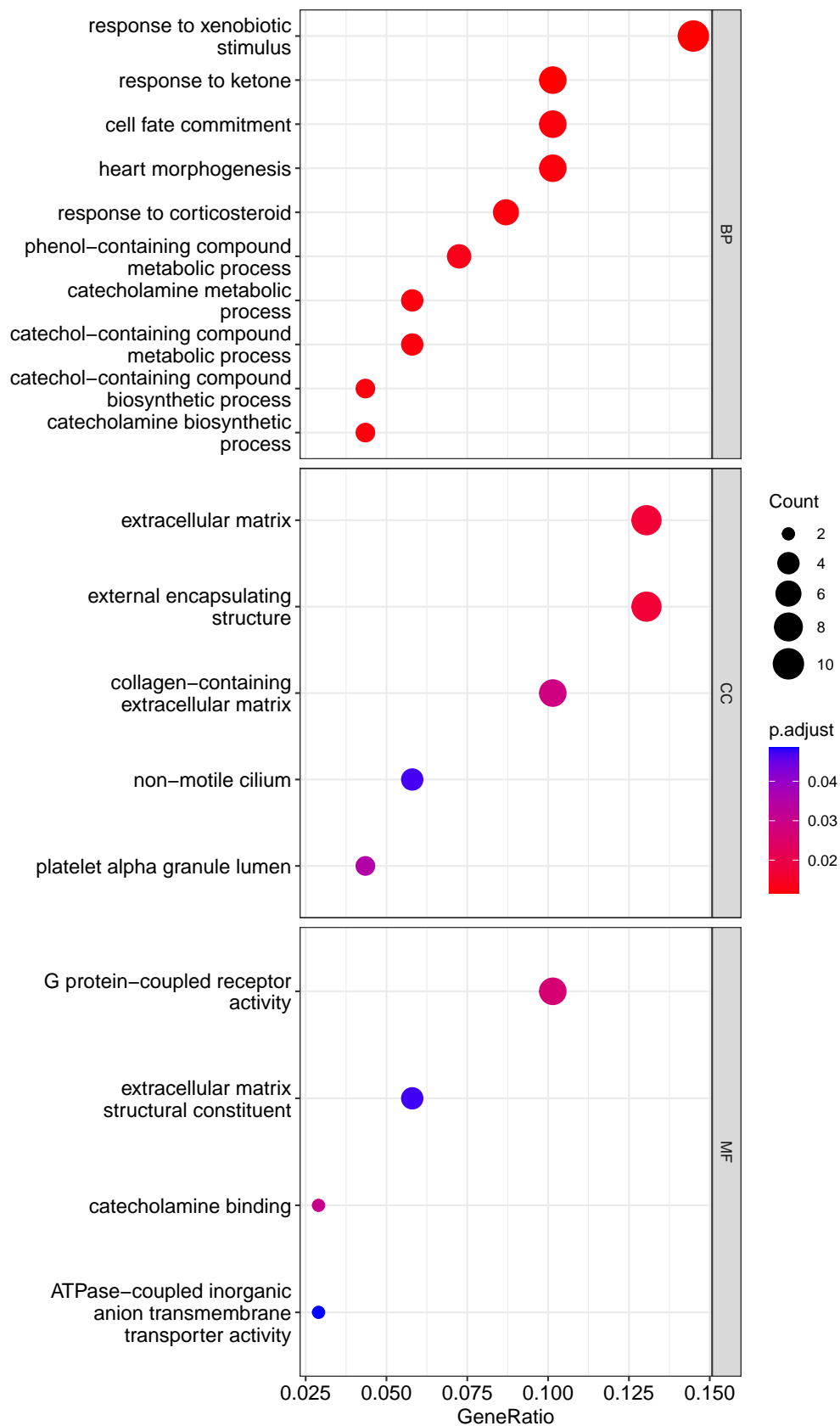
## GO enrichment

```
## [1] "Upregulated"
```



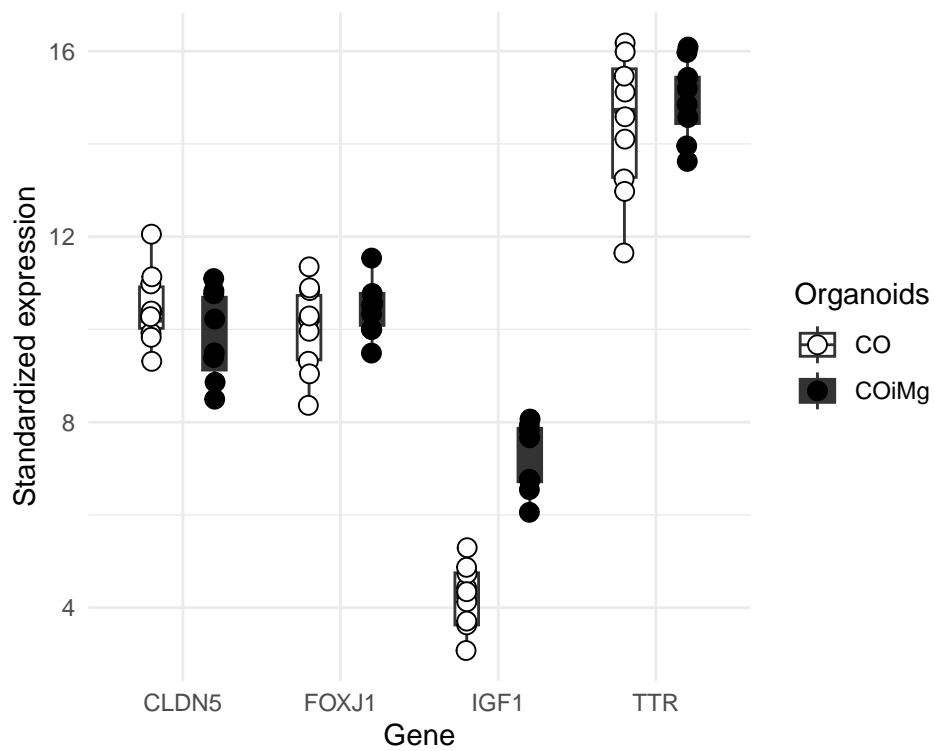
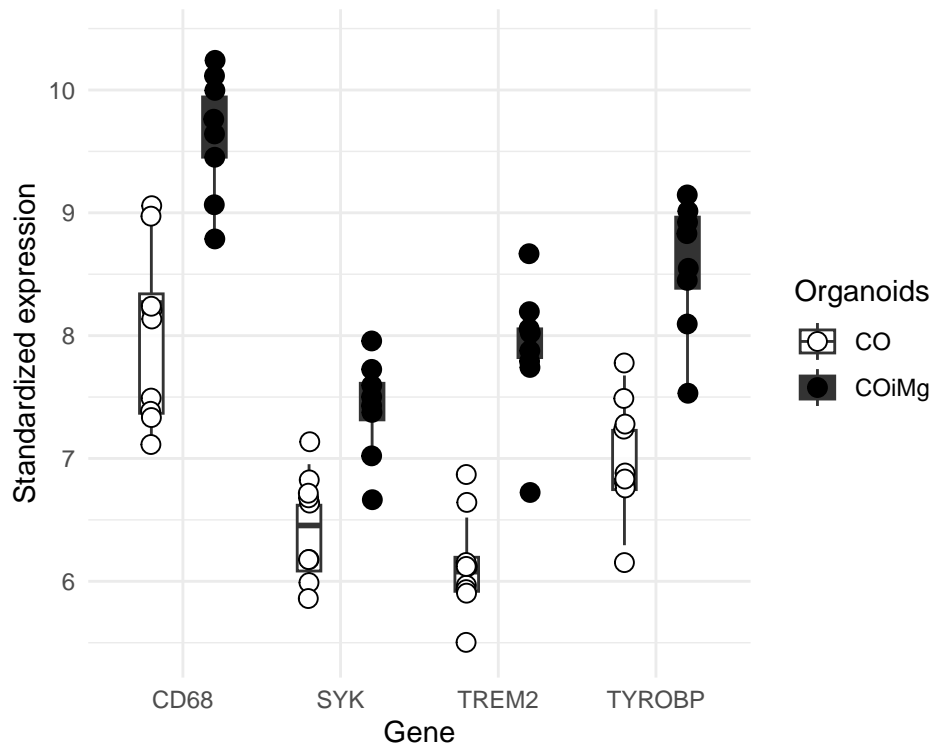


```
## [1] "Downregulated"
```



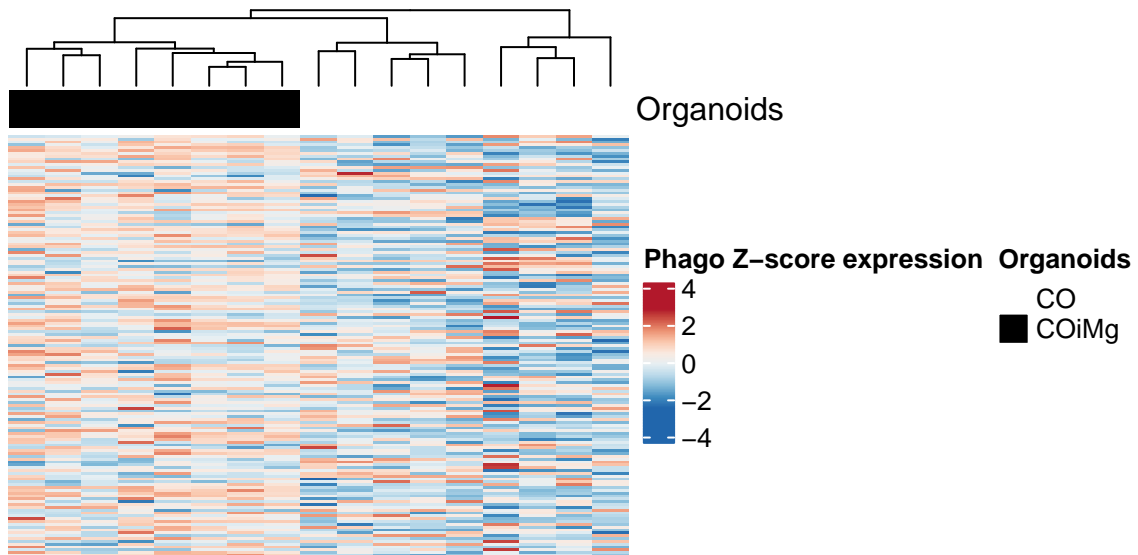
## CO vs COiMg under IFN $\gamma$

### Phagocytosis: CO vs COiMg under IFN $\gamma$

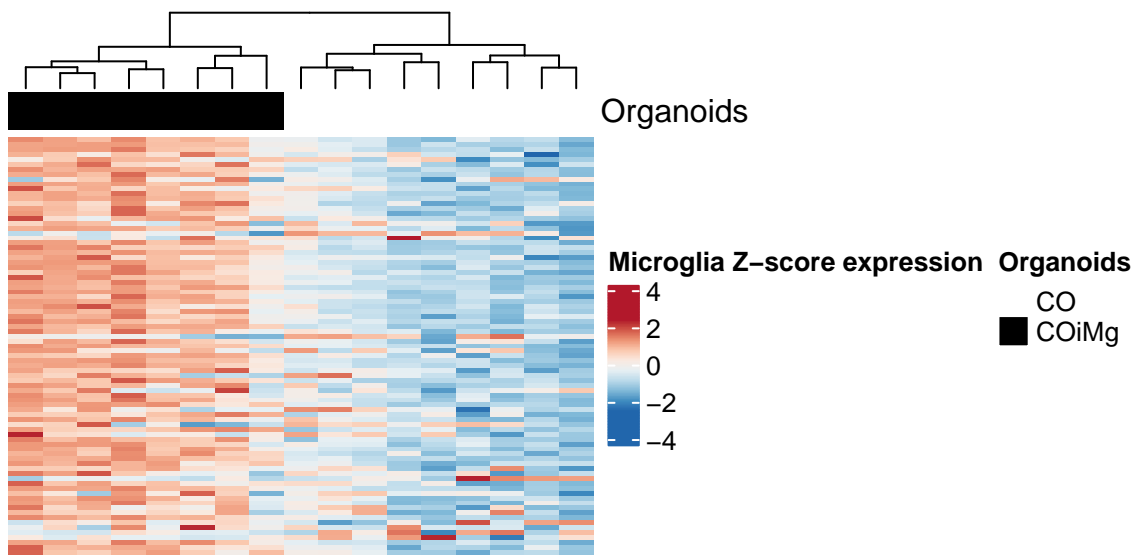


## Gene set heatmap

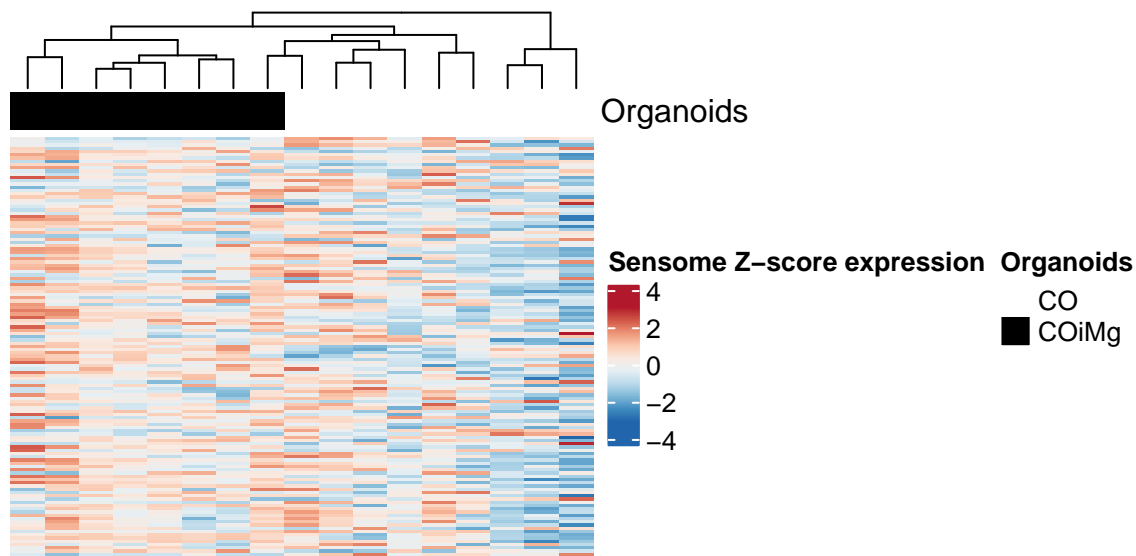
## [1] "Phagocytic heatmap"



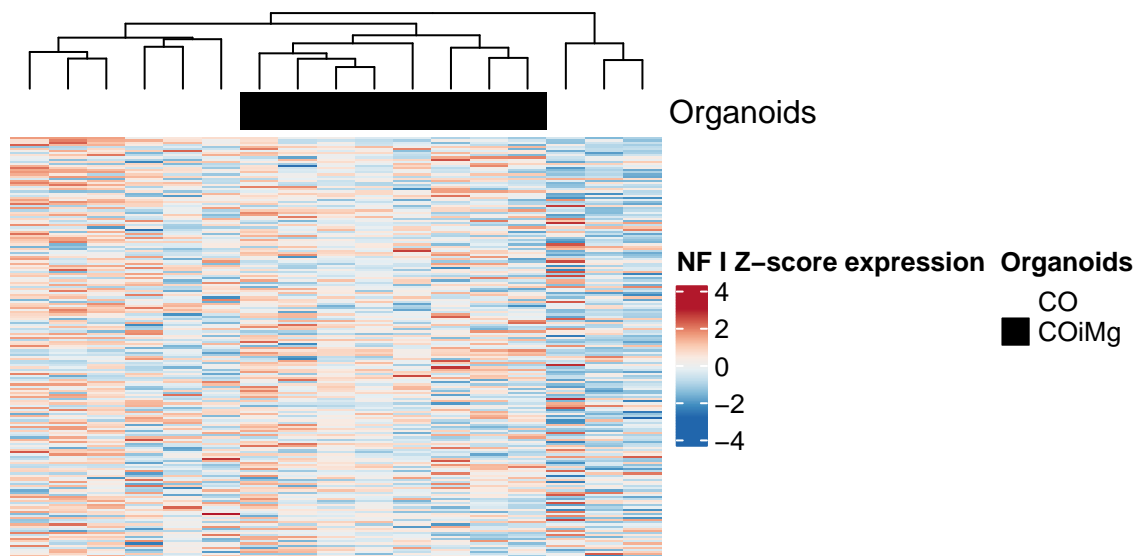
## [1] "Microglia heatmap"



## [1] "Sensome heatmap"



## [1] "Neuroinflammatory I heatmap"



## IFN $\gamma$ CO vs COiMG

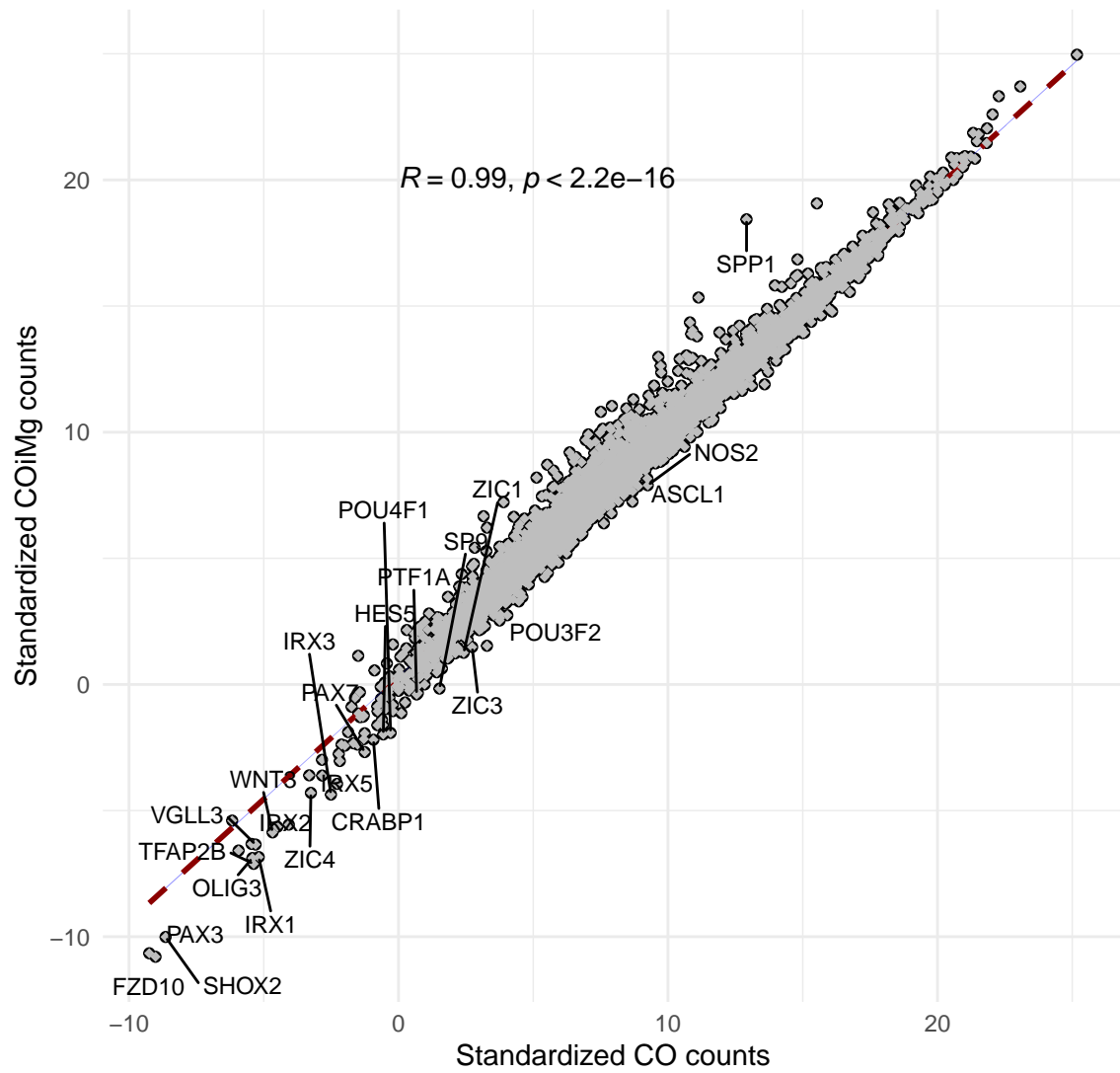
##		M13	M14	M15	M21	M27	M33	F9
##	M16	0.9888853	0.9750494	0.9854099	0.9860980	0.9844882	0.9665080	0.9772695
##	M17	0.9882932	0.9689689	0.9821487	0.9803589	0.9830655	0.9582293	0.9703453
##	M18	0.9853977	0.9796923	0.9773084	0.9801409	0.9848437	0.9628487	0.9773172
##	M24	0.9893057	0.9799679	0.9870001	0.9855227	0.9831987	0.9708646	0.9793361
##	M30	0.9839439	0.9849775	0.9782459	0.9812581	0.9760353	0.9881220	0.9857833
##	M36	0.9808666	0.9739084	0.9819043	0.9848451	0.9726188	0.9723869	0.9735683
##	F15	0.9896431	0.9848594	0.9858859	0.9880105	0.9875725	0.9839841	0.9898616
##	F16	0.9736695	0.9781072	0.9730415	0.9772165	0.9707696	0.9863550	0.9842931
##	F17	0.9837642	0.9760274	0.9815035	0.9841363	0.9823853	0.9590486	0.9744931

```
##          F10
## M16 0.9820133
## M17 0.9788688
## M18 0.9814824
## M24 0.9853527
## M30 0.9823925
## M36 0.9794674
## F15 0.9870064
## F16 0.9753547
## F17 0.9794916
```

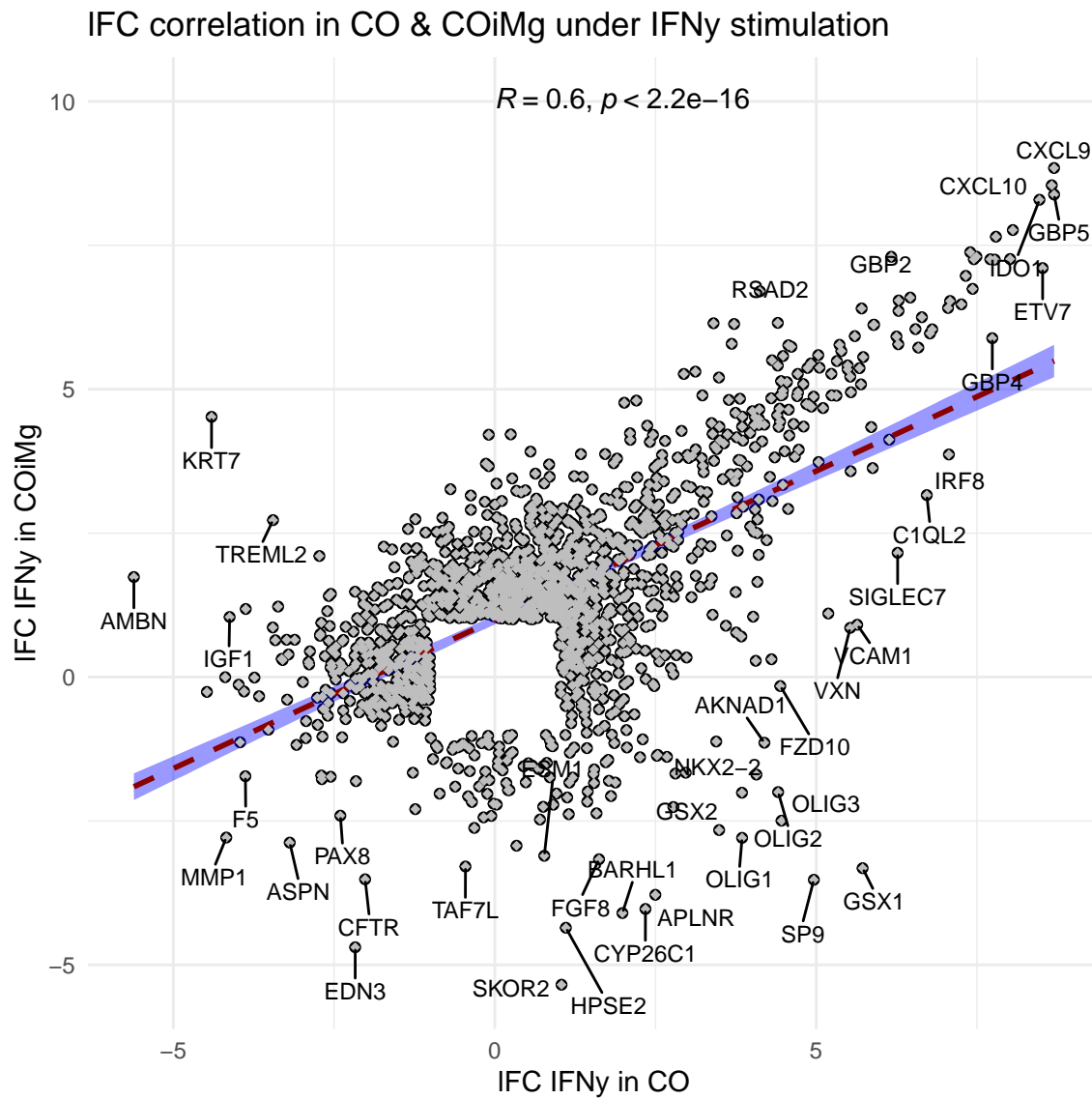
```
##          0%          25%          50%          75%          100%
## -5.52300947 -0.16864063 0.01132637 0.16271150 1.86109744
```

```
## [1] "DLX6"      "NOS2"      "TFAP2B"    "MGST1"     "PAX7"      "KITLG"     "ASIC4"
## [8] "NAALAD2"    "MOXD1"     "LRP2"      "SLC32A1"   "TOX3"      "WNT3"      "FZD10"
## [15] "SPP1"       "ONECUT2"   "PAX3"      "GAD2"      "ASCL1"     "ZFHX3"     "GREB1L"
## [22] "C1QL2"      "DLX1"      "SFRP2"     "TENM2"     "CDH8"      "POU4F1"    "ZIC1"
## [29] "ROBO3"      "WNT7A"     "ZIC3"      "H4C8"      "VCAM1"     "NDST3"     "CRABP1"
## [36] "PTF1A"      "GBX2"      "SHOX2"     "IRX1"      "IRX2"      "HSPA6"     "LRRN3"
## [43] "WFIKK2"     "ZIC4"      "PRIMA1"    "IRX5"      "OLIG3"     "IRX3"      "GSX2"
## [50] "FIGN"       "BGN"       "SOX1"      "POU3F2"    "PCDH18"    "GREB1"     "POU3F4"
## [57] "HES5"       "TOX"       "HSPA1B"    "HSPA1A"    "VGLL3"     "TRIM71"    "UBD"
## [64] "SP9"        "OR2I1P"    "H4C14"     "H2BC8"
```

# Expression overlap CO vs COiMg under IFN $\gamma$ stimulation

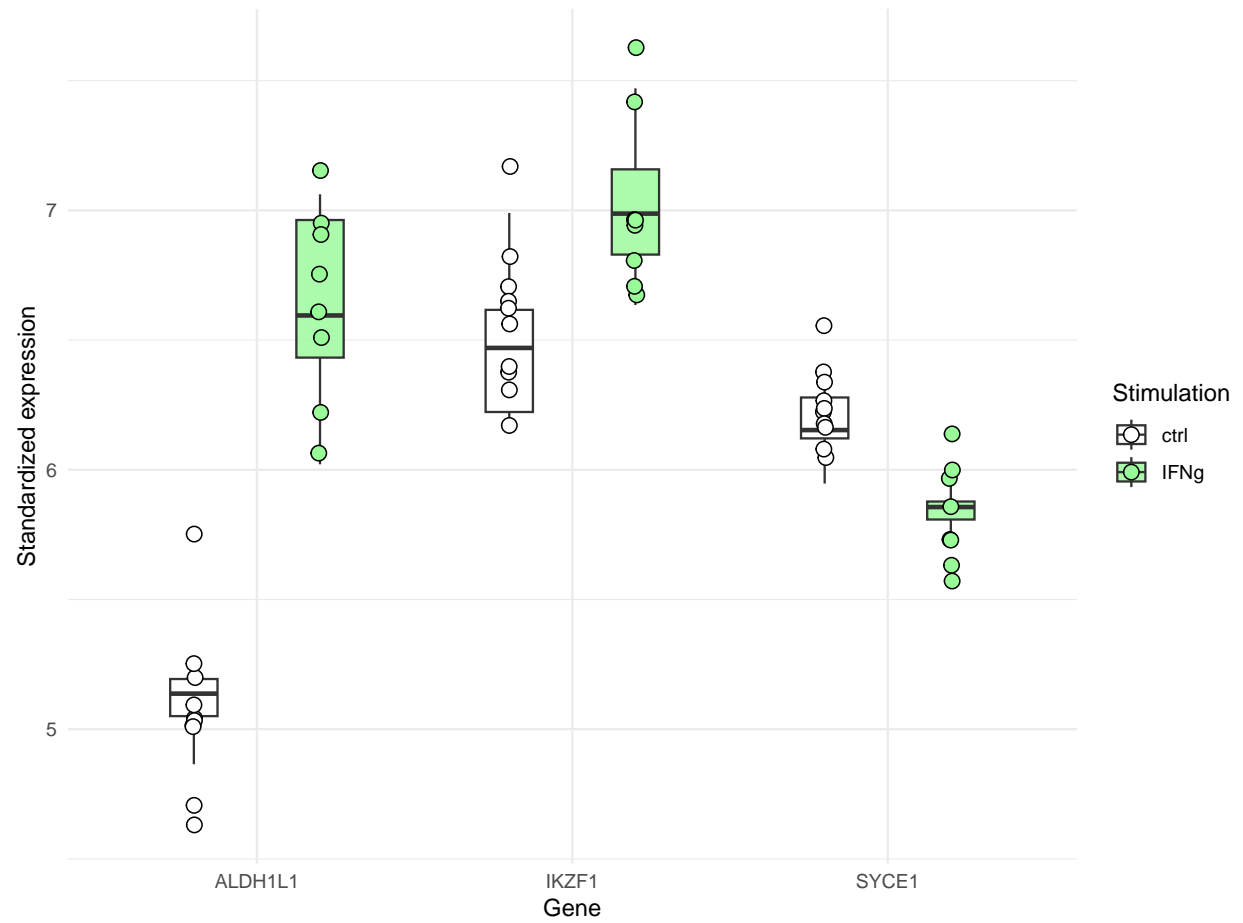


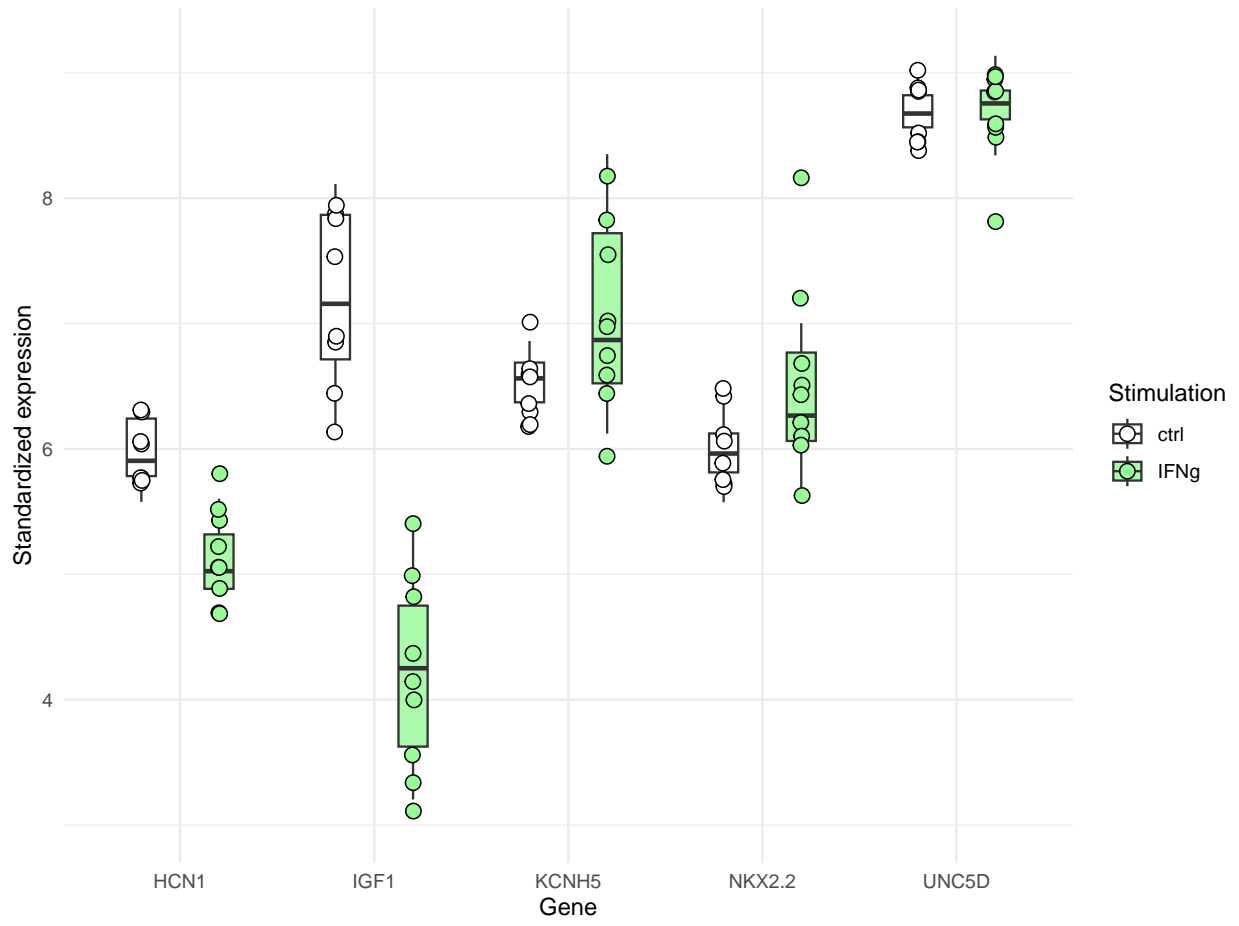
## CO vs COiMg IFC correlation plot



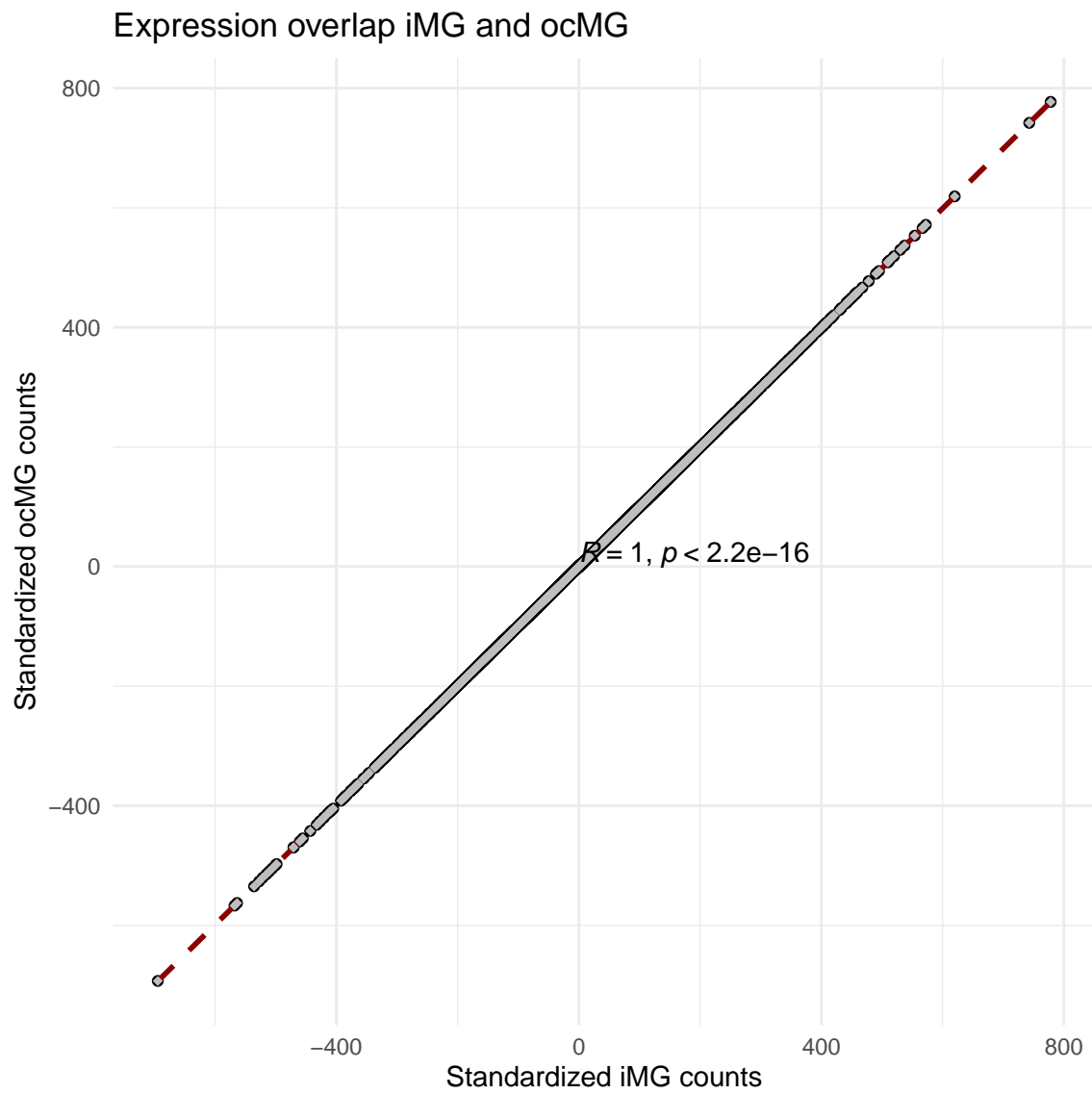


## SFARI response to IFN $\gamma$

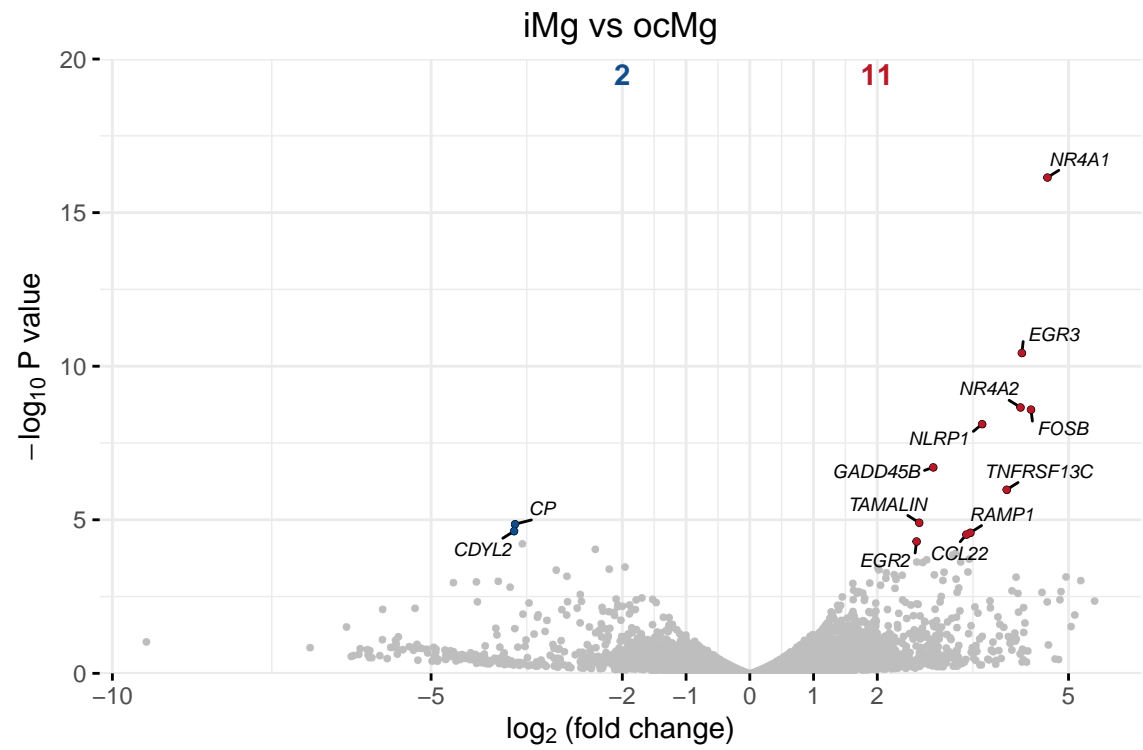




## iMG vs ocMG



Volcano



Interaction boxplots

