## Cardiomycytes RNA analysis volcano plot

## 2023-04-06

{r setup, include=FALSE} knitr::opts\_chunk\$set(echo = TRUE)

```
library(tidyverse) library(ggplot2) { r } ICD <- read.csv ("ALLgenenew.csv")</pre>
volcano <- ggplot(ICD, aes(x = b, y = -\log 10(qval.x))) + +
                                                                  geom point(alpha
= 0.5, size = 2) + scale_color_gradient2(midpoint = 0, low =
"blue", mid = "white", high = "red") + labs(color = "b") + guides(color
= guide_colorbar(title.position = "top", direction = "horizontal"))
        geom_hline(yintercept = -log10(0.05), linetype = "dashed",
color = "yellow") + +
                           geom_vline(xintercept = c(-1, 1),
linetype = "dashed", color = "yellow") + +
                                                 labs(x = "Fold)
change", y = "-log10(p-value)") + +
                                          ggtitle("Volcano plot") >
print(volcano) This code above will give a good volcano plot however; Even I
program it to have different color but it seems this doesn't work. to add gene
names this code used however the gene names added to the background whihc
make it unreadable; I wil try make it in a way that genes appear once you click
on dots if that is possible the code below for add gene name
volcano \leftarrow ggplot(ICD, aes(x = b, y = -log10(qval.x))) +
      geom_point(alpha = 0.5, size = 2) + scale_color_gradient2(midpoint = 0, low = "blue",
      geom_hline(yintercept = -log10(0.05), linetype = "dashed", color = "yellow") +
      geom_vline(xintercept = c(-1, 1), linetype = "dashed", color = "yellow") +
      labs(x = "Fold change", y = "-log10(p-value)") +
      ggtitle("Volcano plot")
volcano <- volcano + geom_text(aes(label = ext_gene.x), hjust = 0, vjust = 0, size = 3, cole</pre>
> print(volcano)
```