# Block\_report

#### 2023-02-12

#### R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
## Loading required package: ggplot2
## -- Attaching packages -----
## v tibble 3.1.6
                    v dplyr
## v tidyr
           1.1.4
                    v stringr 1.4.0
                    v forcats 0.5.2
## v readr
           2.1.0
## v purrr
           0.3.4
## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()
                  masks stats::lag()
```

# Overview of all KD regions/TADs

#### SLAMF1\_TAD

```
donor  

1  

3  

5  

KO  

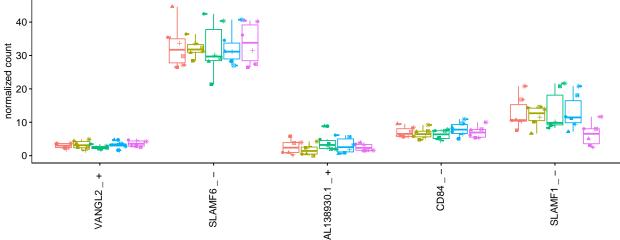
CD46_KO  

HIVEP3_KO  

LZTFL1_KO  

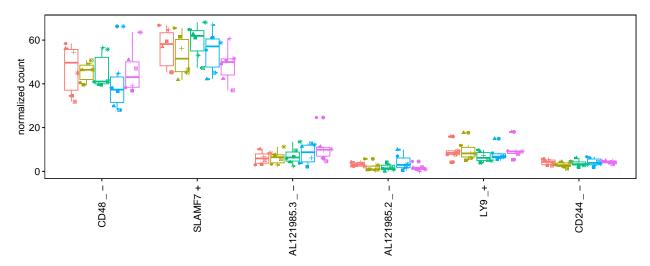
POU51B_KO  

SLAMF1_KO
```



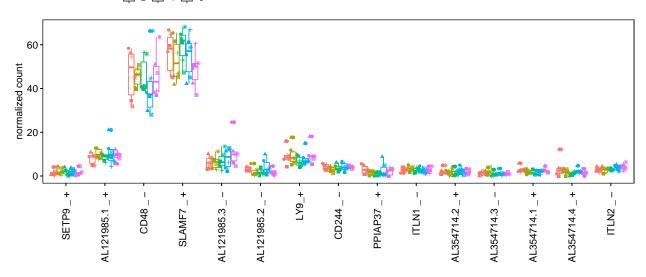
### SLAMF1\_neighbour\_small\_TAD





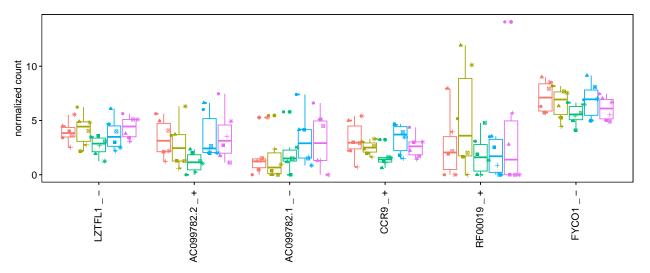
#### SLAMF1\_neighbour\_TAD





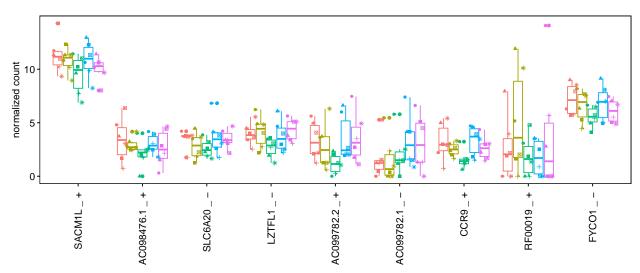
LZTFL1\_small\_TAD





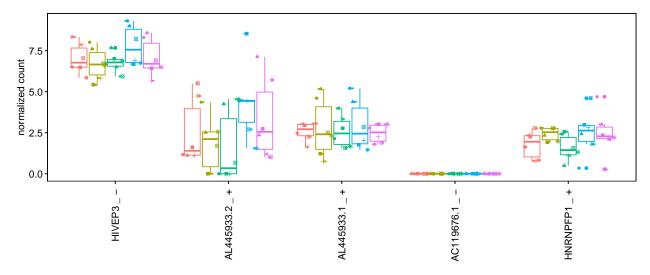
LZTFL1\_big\_TAD



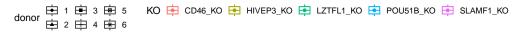


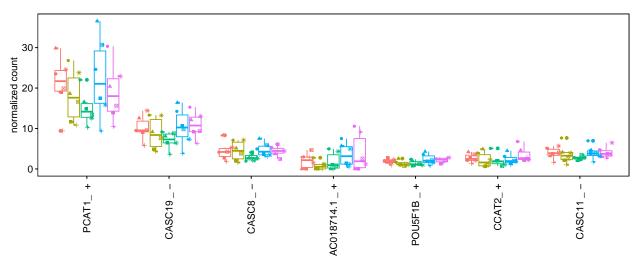
HIVEP3\_TAD





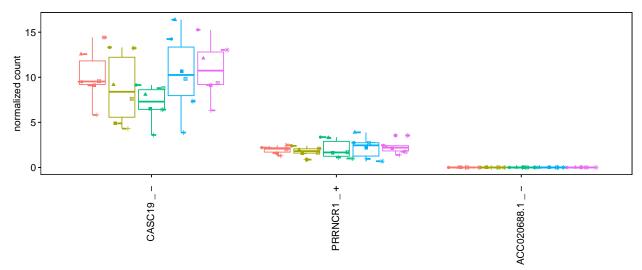
### POU5F1B\_TAD



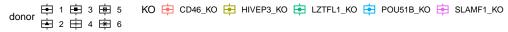


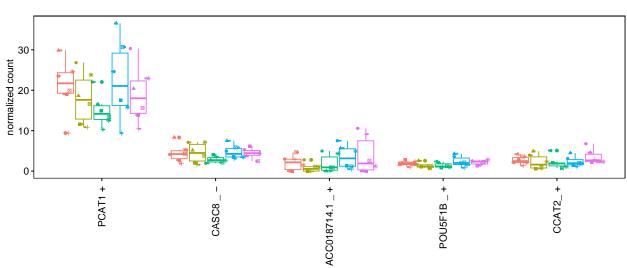
# POU5F1B\_neighbour\_TAD

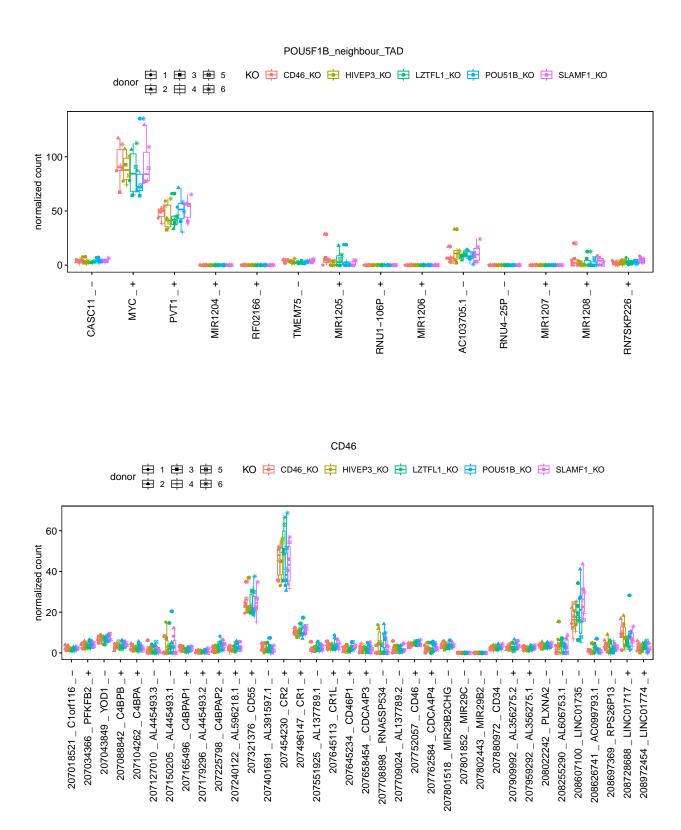




# POU5F1B\_neighbour\_TAD







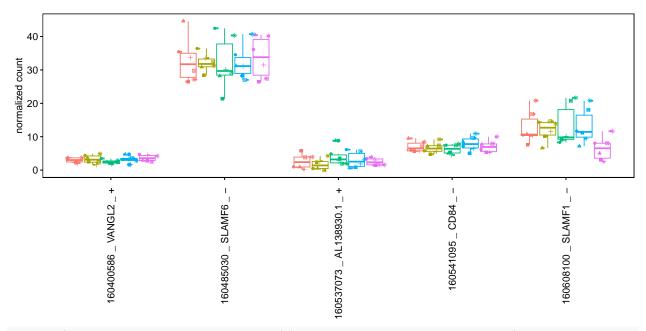
#### Removal of unsuccessful KDs

Removals based on the difference between KD and control samples per patient. Maybe provide deterministic "formula" to compute boolean vector keep/disregard?

slamf1 <- df plotTAD(slamf1, "1:160420210-160615210(5)", "SLAMF1\_TAD")

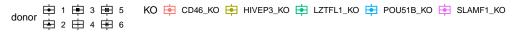


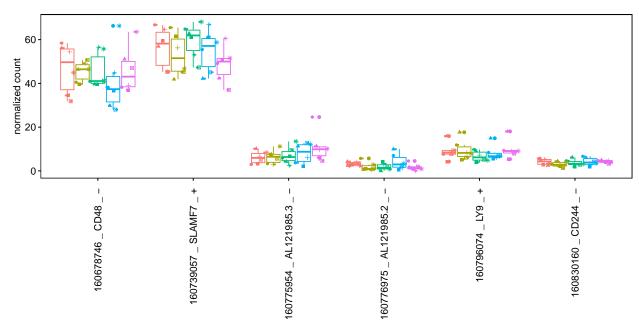




plotTAD(slamf1, "1:160705210-160835210(6)", "SLAMF1\_neighbour\_small\_TAD")

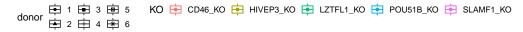
# SLAMF1\_neighbour\_small\_TAD

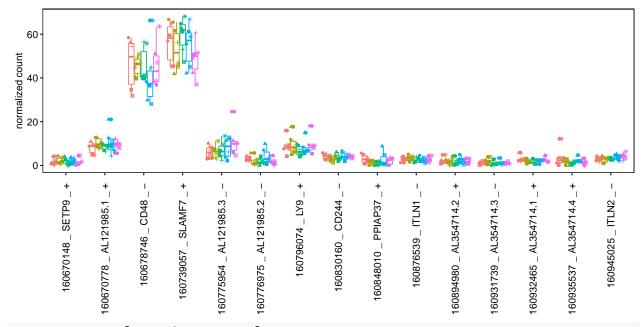




# plotTAD(slamf1, "1:160670210-160995210(15)", "SLAMF1\_neighbour\_TAD")

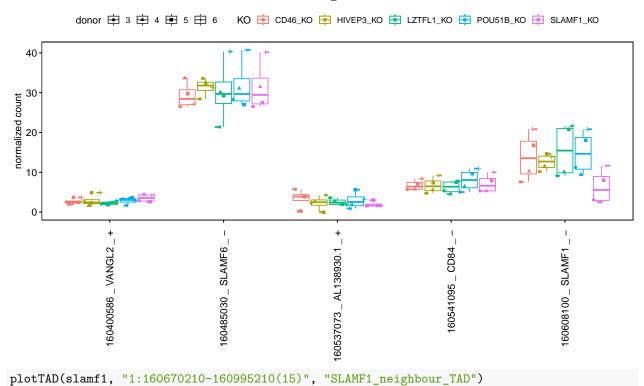
#### SLAMF1\_neighbour\_TAD

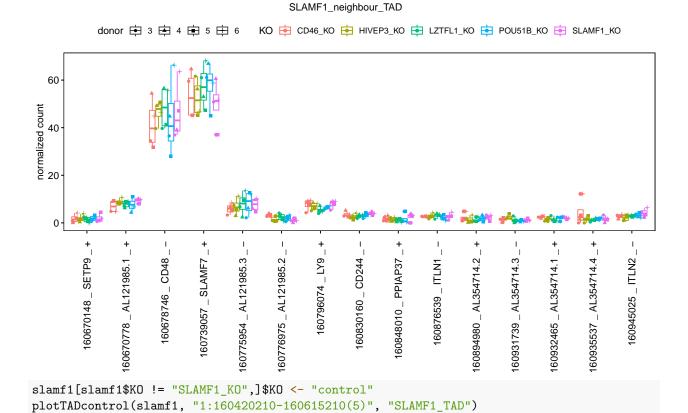




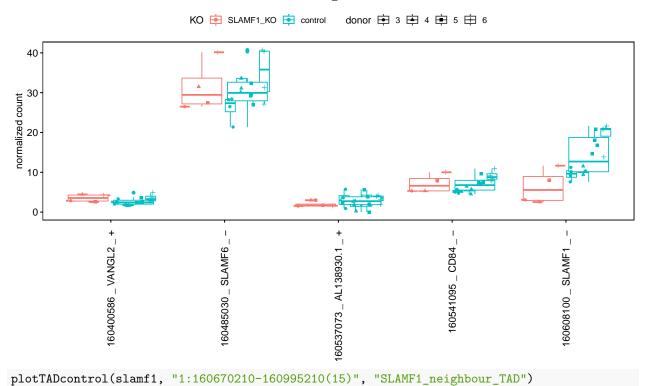
```
slamf1 <- slamf1[slamf1$donor != 1,]
slamf1 <- slamf1[slamf1$donor != 2,]
plotTAD(slamf1, "1:160420210-160615210(5)", "SLAMF1_TAD")</pre>
```

SLAMF1\_TAD

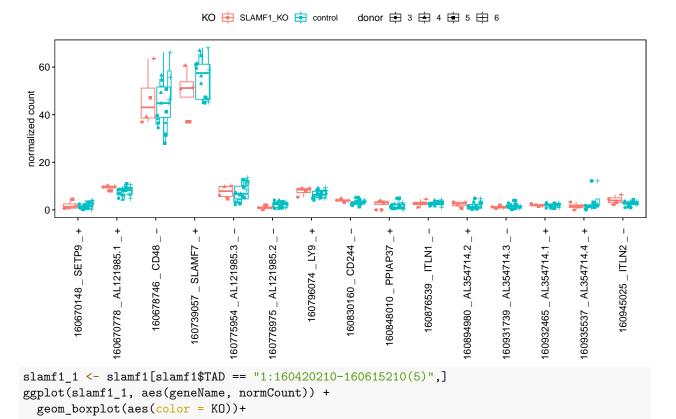




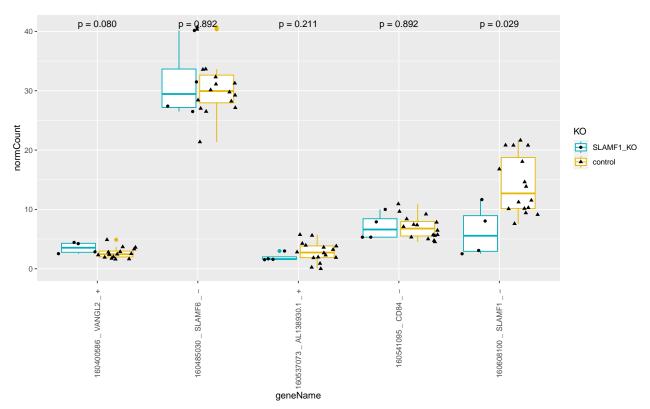




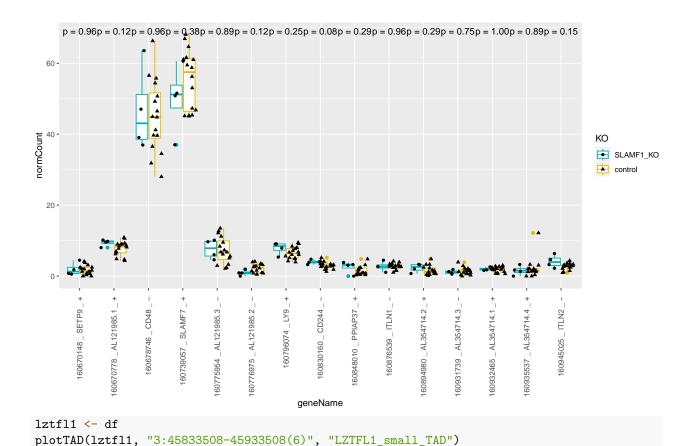




```
scale_color_manual(values = c("#00AFBB", "#E7B800")) +
stat_compare_means(aes(group = KO), label = "p.format") + rotate_x_text(angle = 90) + geom_point(aes(
```



```
slamf1_2 <- slamf1[slamf1$TAD == "1:160670210-160995210(15)",]
ggplot(slamf1_2, aes(geneName, normCount)) +
  geom_boxplot(aes(color = KO))+
  scale_color_manual(values = c("#00AFBB", "#E7B800")) +
  stat_compare_means(aes(group = KO), label = "p.format") + rotate_x_text(angle = 90)+ geom_point(aes(state))</pre>
```



LZTFL1\_small\_TAD

```
plotTAD(lztfl1, "3:45743508-45933508(9)", "LZTFL1_big_TAD")
```

# LZTFL1\_big\_TAD

```
donor 

↑ 1 

↑ 3 

↑ 5 KO 

↑ CD46_KO 

↑ HIVEP3_KO 

↑ LZTFL1_KO 

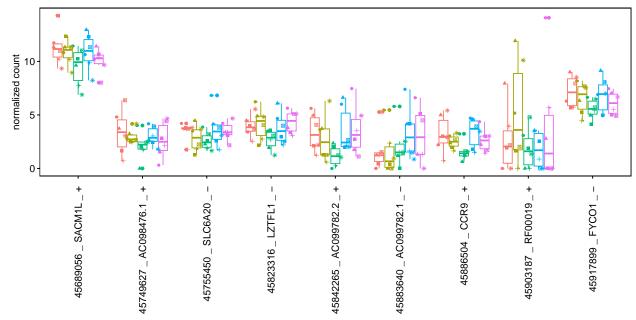
↑ POU51B_KO 

↑ SLAMF1_KO 

↑ 2 

↑ 4 

↑ 6
```

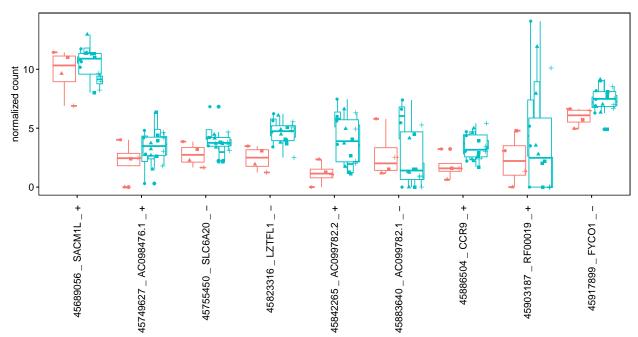


```
lztfl1 <- lztfl1[lztfl1$donor != 3,]
lztfl1 <- lztfl1[lztfl1$donor != 4,]
lztfl1[lztfl1$KO != "LZTFL1_KO",]$KO <- "control"
plotTADcontrol(lztfl1, "3:45743508-45933508(9)", "LZTFL1_big_TAD")</pre>
```

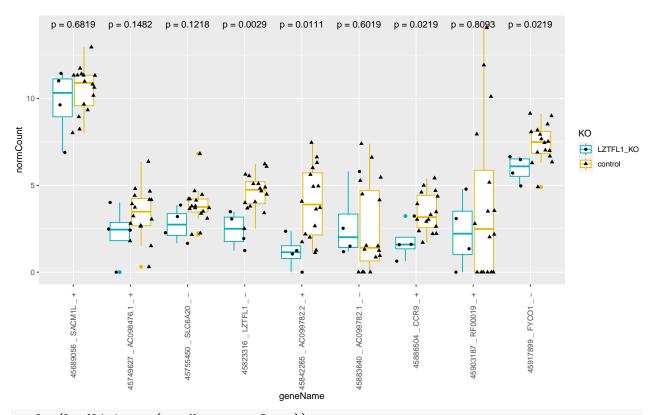
LZTFL1\_big\_TAD

donor 🔁 1 🖨 2 🖶 5 🛱 6

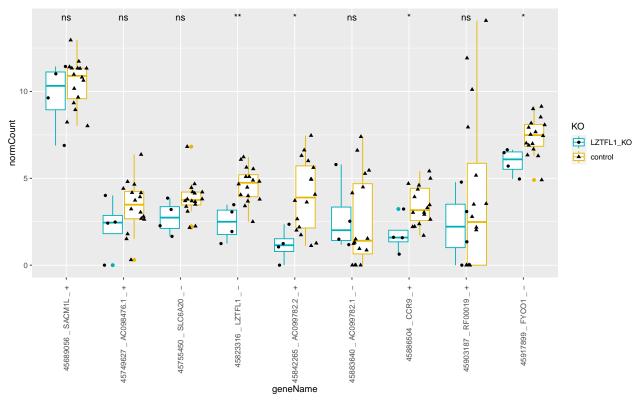
KO 🔁 LZTFL1\_KO 🔁 control



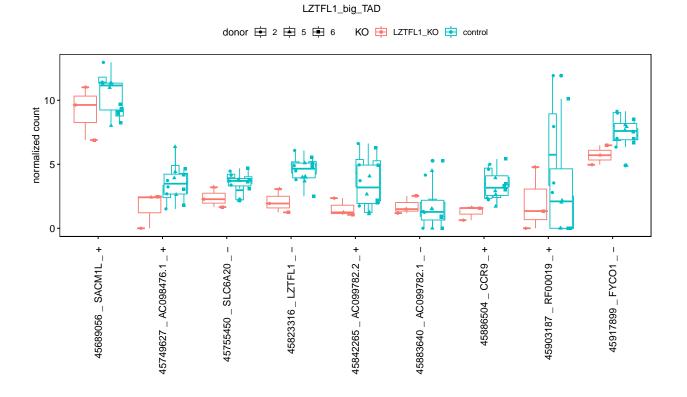
```
lztfl1_1 <- lztfl1[lztfl1$TAD == "3:45743508-45933508(9)",]
ggplot(lztfl1_1, aes(geneName, normCount)) +
  geom_boxplot(aes(color = KO))+
  scale_color_manual(values = c("#00AFBB", "#E7B800")) +
  stat_compare_means(aes(group = KO), label = "p.format") + rotate_x_text(angle = 90) + geom_point(aes(</pre>
```



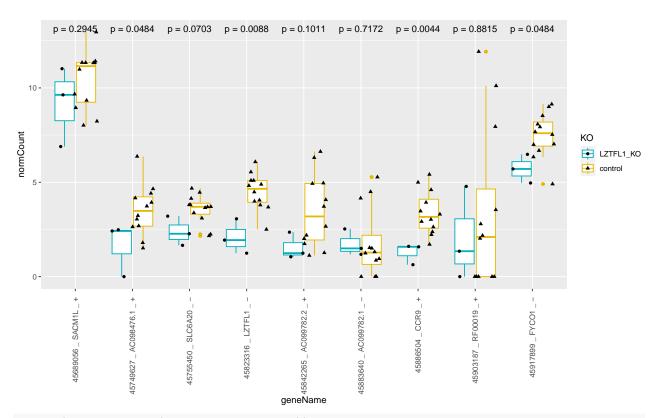
```
ggplot(lztfl1_1, aes(geneName, normCount)) +
  geom_boxplot(aes(color = KO))+
  scale_color_manual(values = c("#00AFBB", "#E7B800")) +
  stat_compare_means(aes(group = KO), label = "p.signif") + rotate_x_text(angle = 90) + geom_point(aes(
```



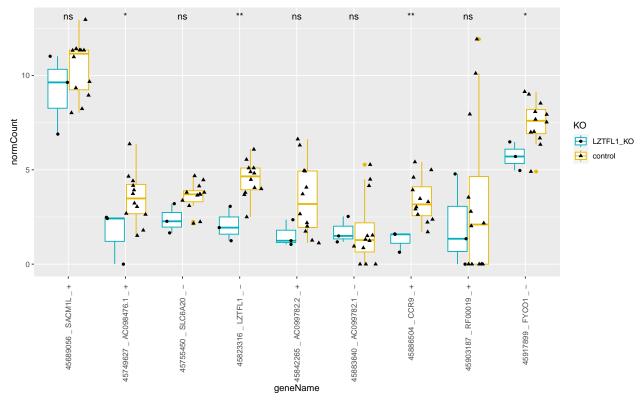
# remove also donor 1
lztfl1 <- lztfl1[lztfl1\$donor != 1,]
plotTADcontrol(lztfl1, "3:45743508-45933508(9)", "LZTFL1\_big\_TAD")</pre>



```
lztfl1_1 <- lztfl1[lztfl1$TAD == "3:45743508-45933508(9)",]
ggplot(lztfl1_1, aes(geneName, normCount)) +
  geom_boxplot(aes(color = KO))+
  scale_color_manual(values = c("#00AFBB", "#E7B800")) +
  stat_compare_means(aes(group = KO), label = "p.format") + rotate_x_text(angle = 90) + geom_point(aes(</pre>
```

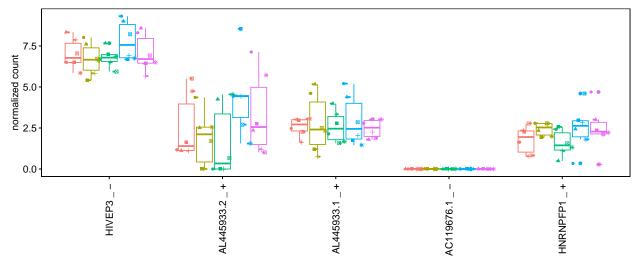


```
ggplot(lztfl1_1, aes(geneName, normCount)) +
  geom_boxplot(aes(color = KO))+
  scale_color_manual(values = c("#00AFBB", "#E7B800")) +
  stat_compare_means(aes(group = KO), label = "p.signif") + rotate_x_text(angle = 90) + geom_point(aes(
```



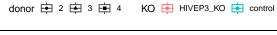
hivep1 <- df plotTAD(hivep1, "1:41519329-42059329(5)", "HIVEP3\_TAD")

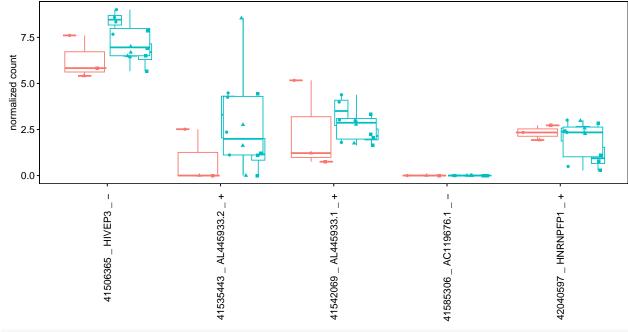




```
hivep1 <- hivep1[hivep1$donor != 1,]
hivep1 <- hivep1[hivep1$donor != 5,]
hivep1 <- hivep1[hivep1$donor != 6,]
hivep1[hivep1$KO != "HIVEP3_KO",]$KO <- "control"
plotTAD(hivep1, "1:41519329-42059329(5)", "HIVEP3_TAD")</pre>
```

# HIVEP3\_TAD

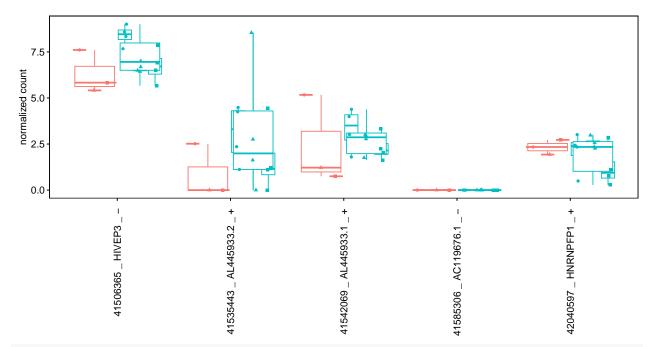




plotTADcontrol(hivep1, "1:41519329-42059329(5)", "HIVEP3\_TAD")

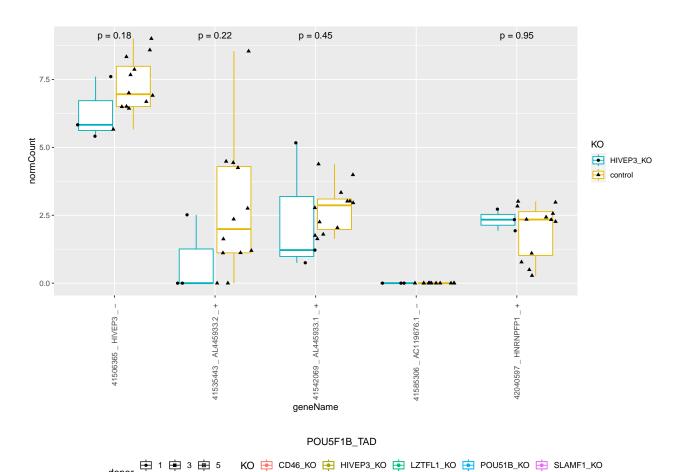
### HIVEP3\_TAD

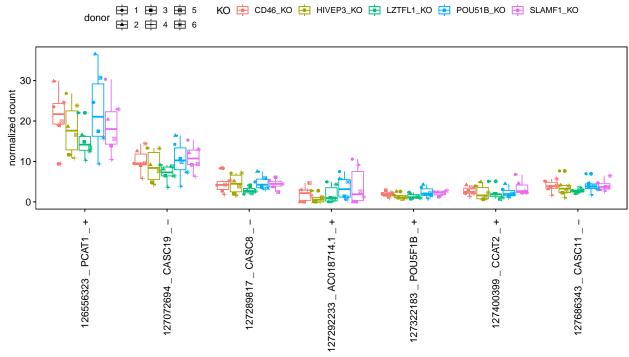




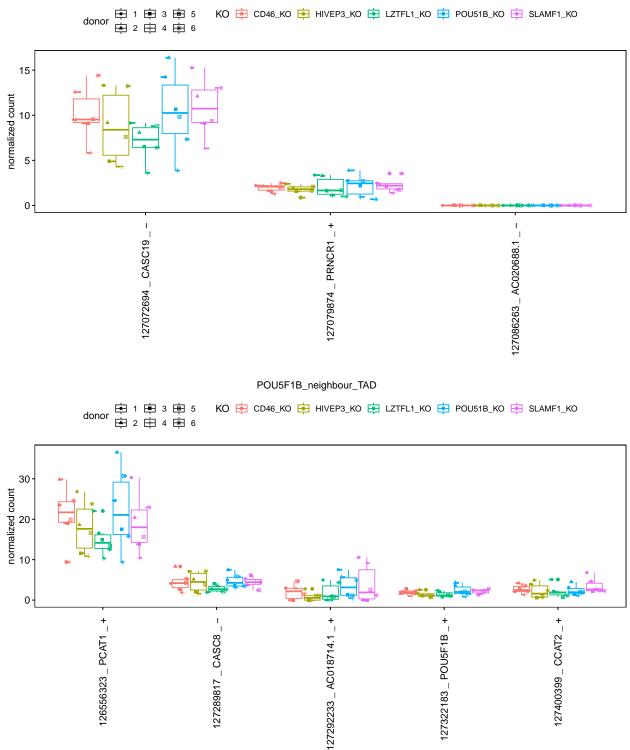
```
hivep1_1 <- hivep1[hivep1$TAD == "1:41519329-42059329(5)",]

ggplot(hivep1_1, aes(geneName, normCount)) +
  geom_boxplot(aes(color = KO))+
  scale_color_manual(values = c("#00AFBB", "#E7B800")) +
  stat_compare_means(aes(group = KO), label = "p.format") + rotate_x_text(angle = 90) + geom_point(aes(</pre>
```

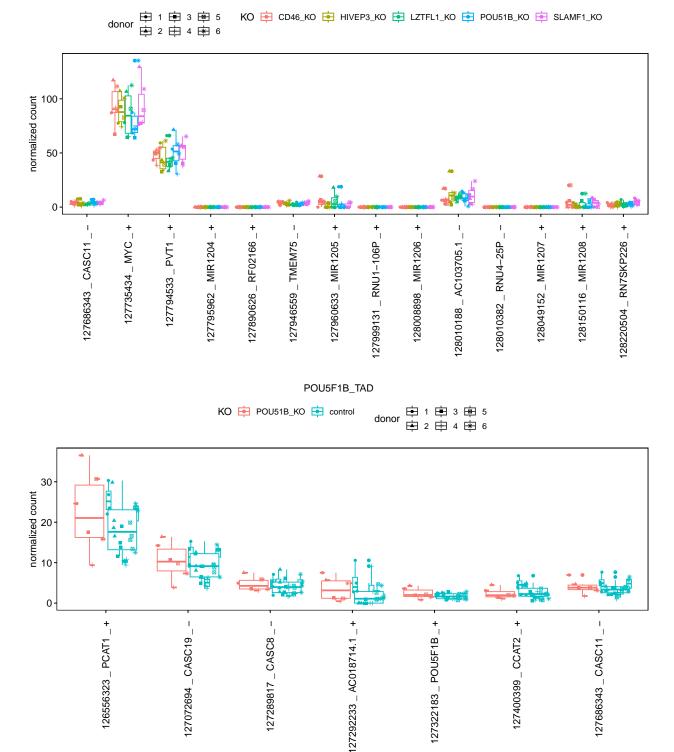




# POU5F1B\_neighbour\_TAD



# POU5F1B\_neighbour\_TAD



POU5F1B\_TAD

