qPCR

2023-07-21

```
library(tidyverse)
```

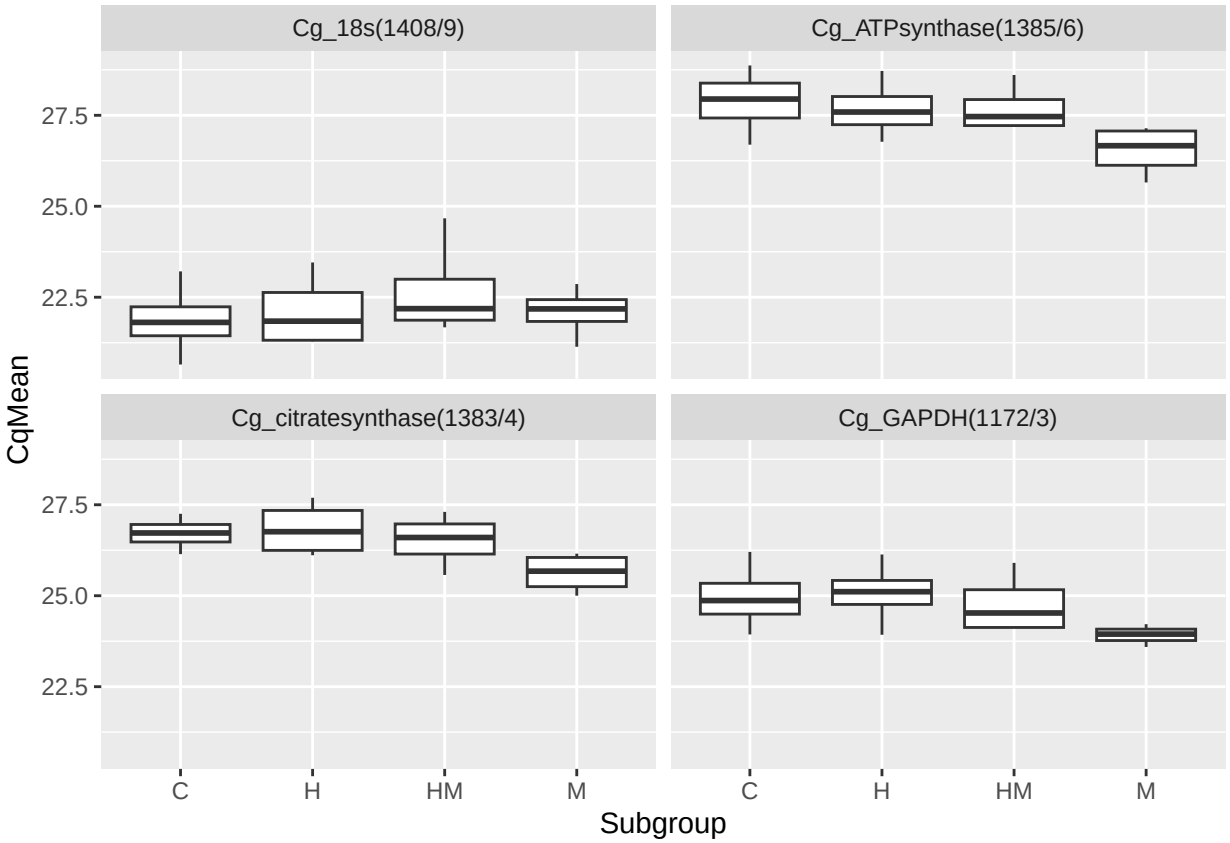
```
## -- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
## v dplyr     1.1.0     v readr     2.1.4
## v forcats   1.0.0     v stringr   1.5.0
## v ggplot2   3.4.1     v tibble    3.1.8
## v lubridate 1.9.2     v tidyr     1.3.0
## v purrr     1.0.1
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

Converted Cq value to aev with: =10^(-(0.3012 * E2) + 11.434)

```
qpcr <- read.csv("../data/SR-qpcr-data-1.csv", header = TRUE)
```

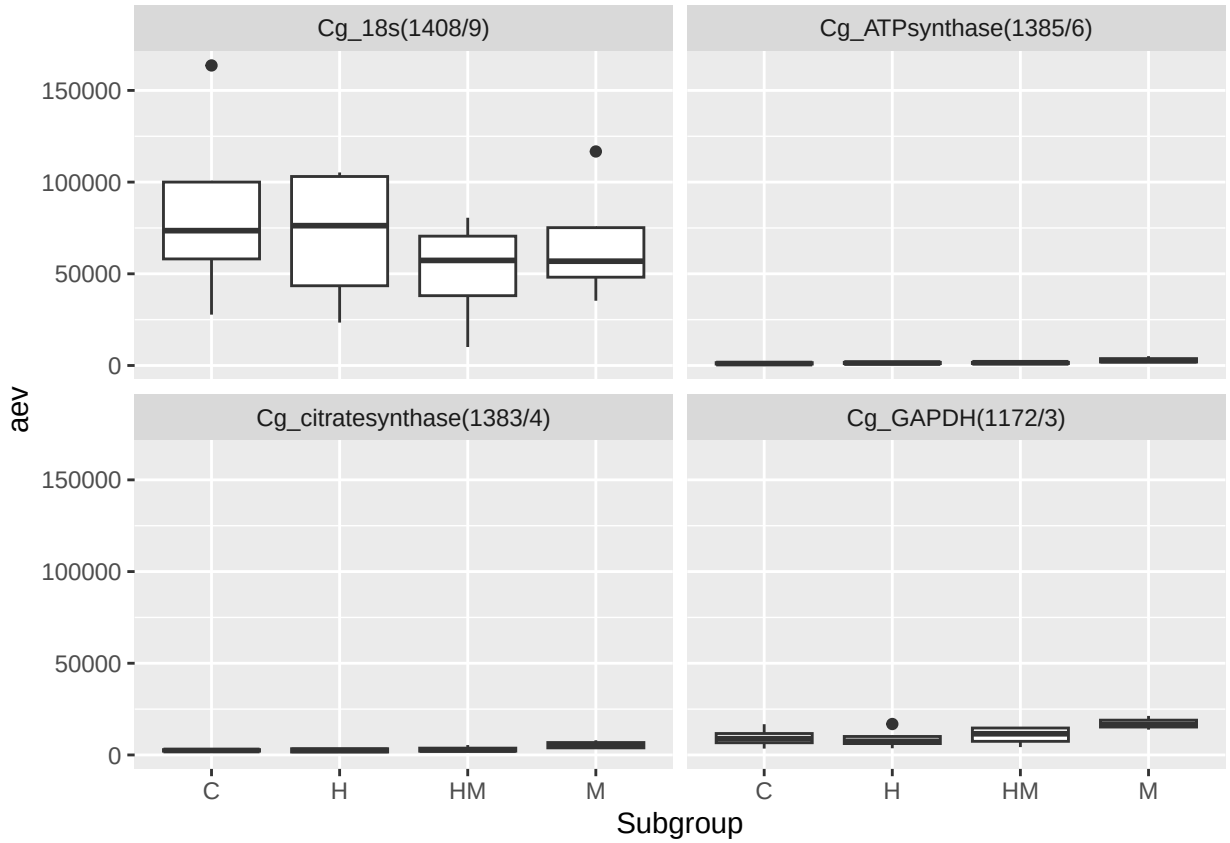
```
ggplot(data = qpcr, mapping = aes(x = Subgroup, y = CqMean)) +
  geom_boxplot()  +
  facet_wrap('Target')
```

```
## Warning: Removed 1 rows containing non-finite values (`stat_boxplot()`).
```

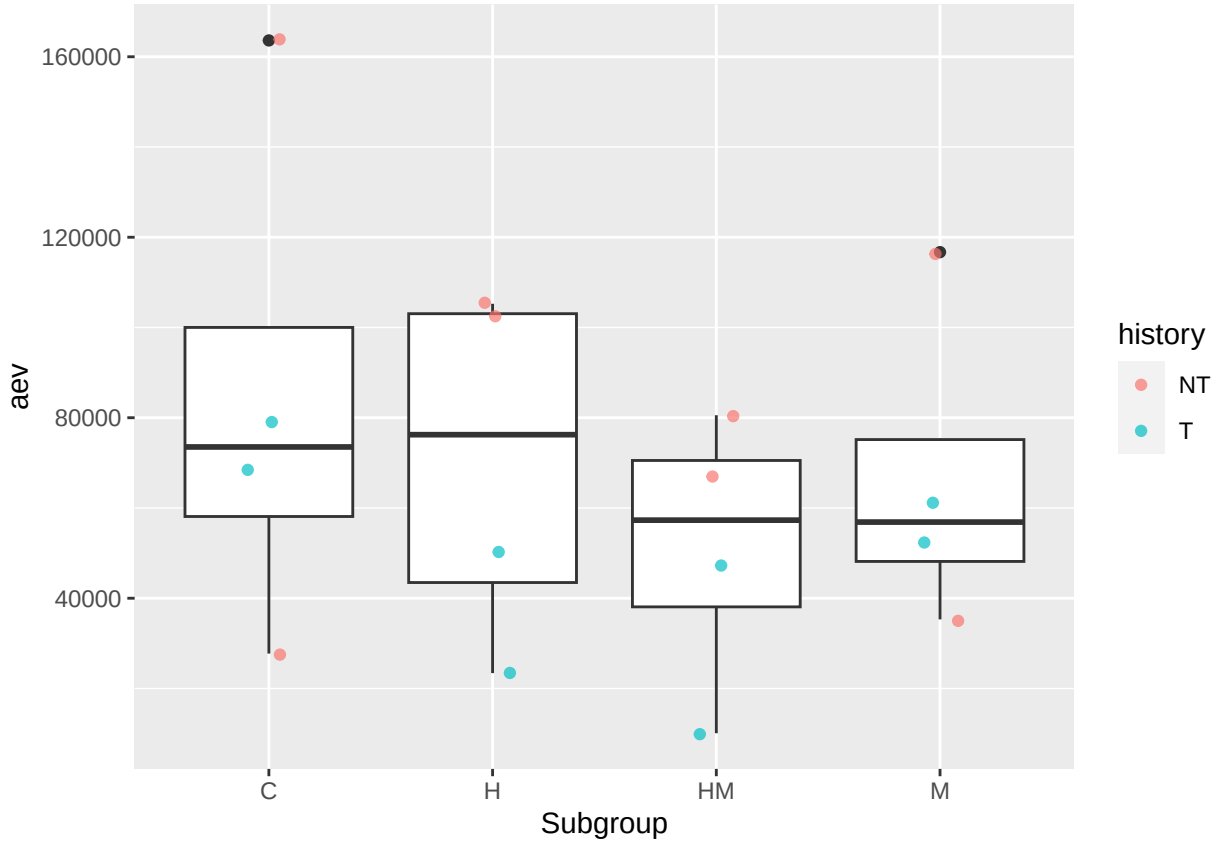



```
ggplot(data = qpcr, mapping = aes(x = Subgroup, y = aev)) +
  geom_boxplot() +
  facet_wrap('Target')
```

```
## Warning: Removed 1 rows containing non-finite values (`stat_boxplot()`).
```



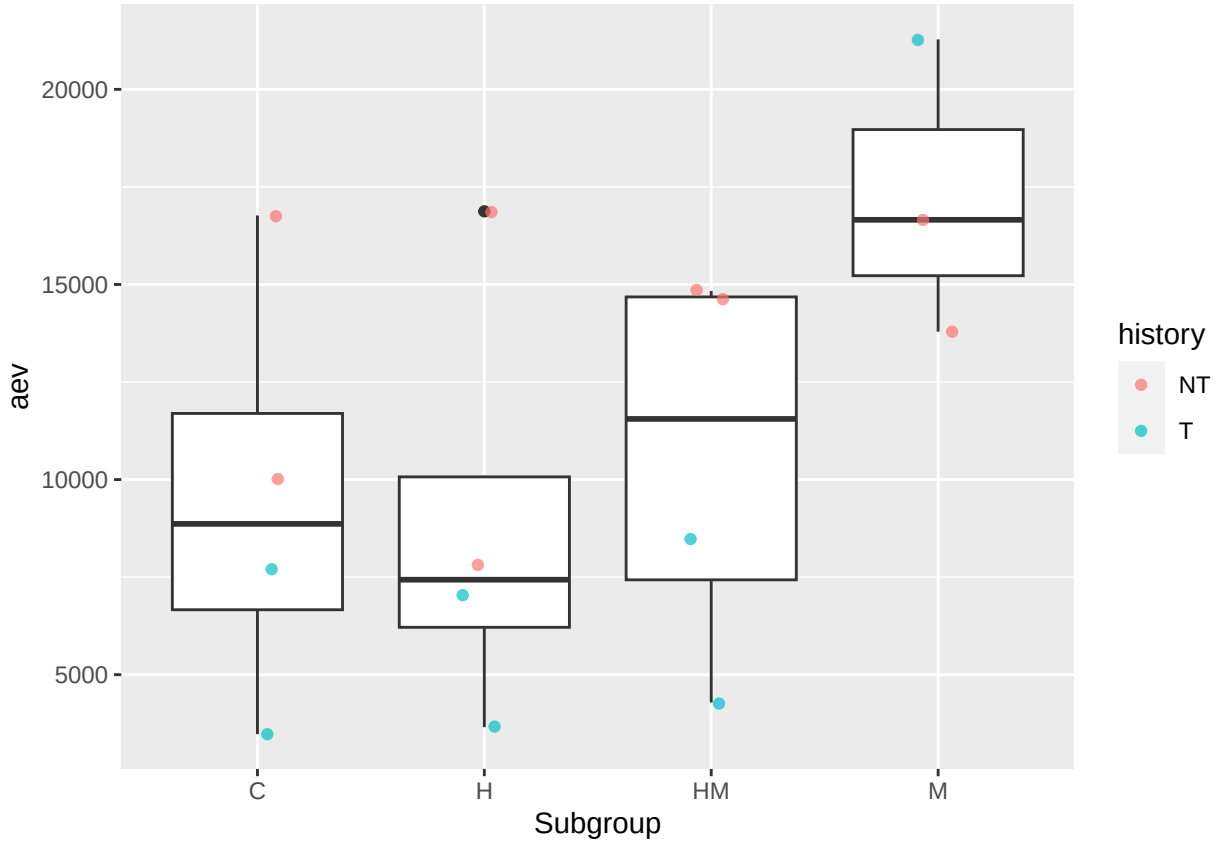

```
qpcr %>%
  filter(Target == "Cg_18s(1408/9)") %>%
ggplot(mapping = aes(x = Subgroup, y = aev)) +
  geom_boxplot()  +
  geom_jitter(aes(color = history), width = 0.1, alpha = 0.7)
```



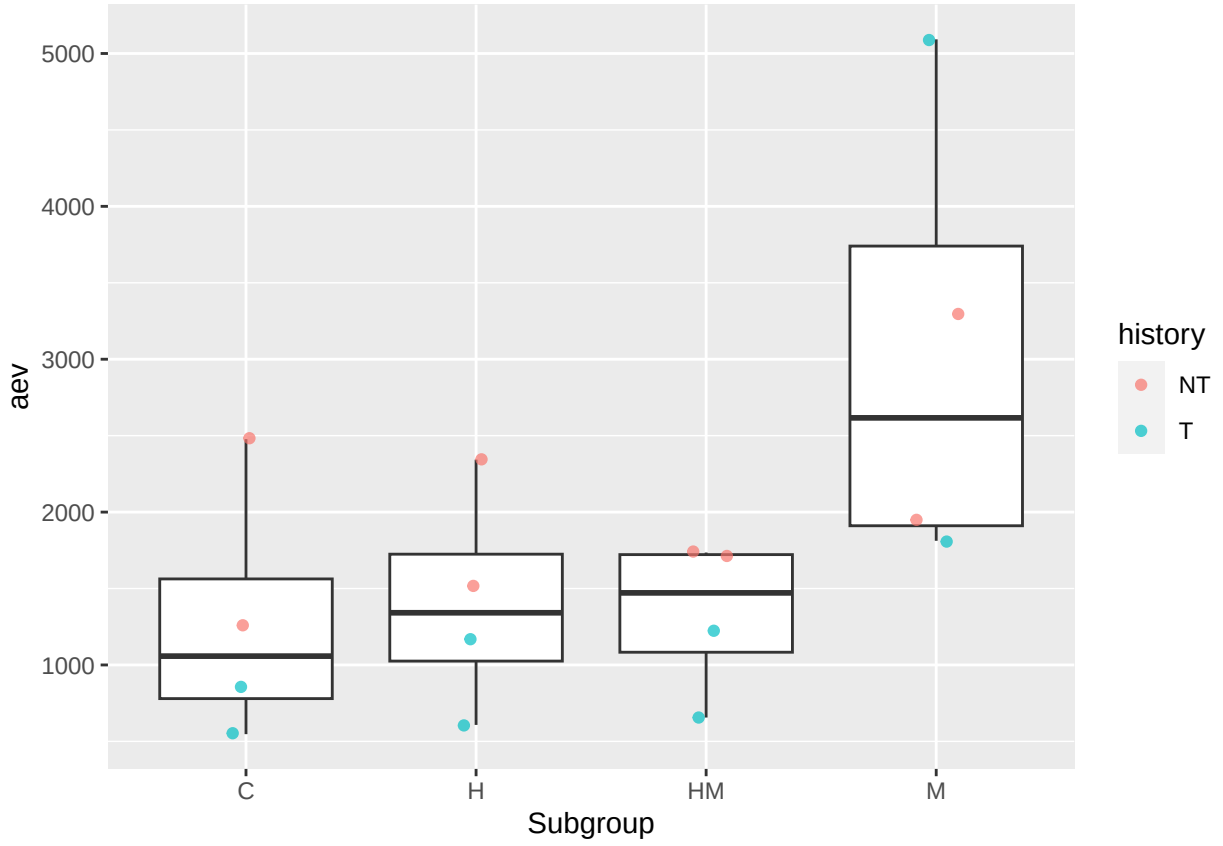

```
qpcr %>%
  filter(Target == "Cg_GAPDH(1172/3)")  %>%
ggplot(mapping = aes(x = Subgroup, y = aev)) +
  geom_boxplot()  +
  geom_jitter(aes(color = history), width = 0.1, alpha = 0.7)
```

```
## Warning: Removed 1 rows containing non-finite values (`stat_boxplot()`).
```

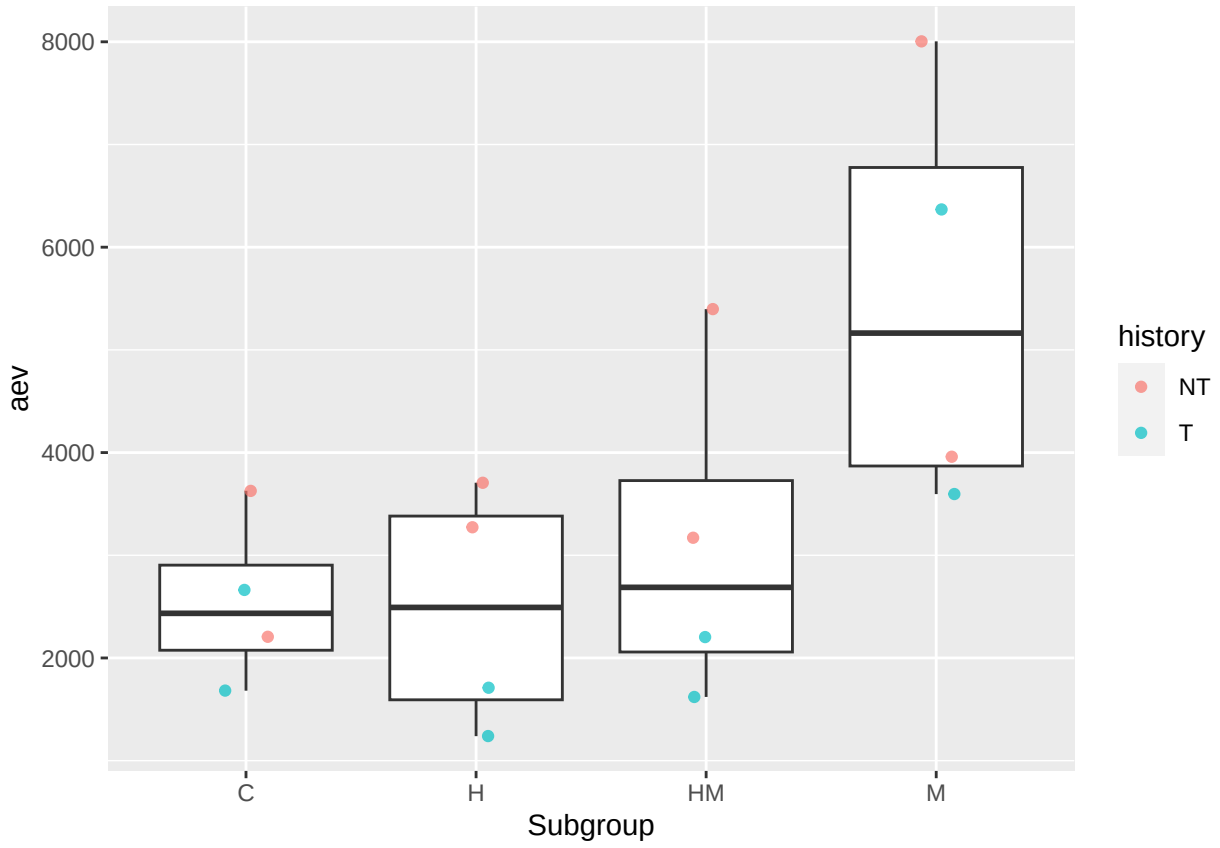
```
## Warning: Removed 1 rows containing missing values (`geom_point()`).
```




```
qpcr %>%
  filter(Target == "Cg_ATPsynthase(1385/6)")  %>%
ggplot(mapping = aes(x = Subgroup, y = aev)) +
  geom_boxplot()  +
  geom_jitter(aes(color = history), width = 0.1, alpha = 0.7)
```




```
qpcr %>%
  filter(Target == "Cg_citratesynthase(1383/4)")  %>%
ggplot(mapping = aes(x = Subgroup, y = aev)) +
  geom_boxplot()  +
  geom_jitter(aes(color = history), width = 0.1, alpha = 0.7)
```


8000
6000
4000
2000
aev
C
H
HM
M
Subgroup
history
NT
T