

# Merge featureCounts read count output files into one

Toshihiro Arae

## General directory setting

```
wd <- here::here()
shared <- fs::path(fs::path_dir(wd), "shared")
```

## Loading packages

```
library(magrittr)
library(ggplot2)
```

## Load common R scripts

```
#source(fs::path(wd, "script_r", "MISC.R"))
#source(fs::path(here::here(), "script_r", "MISC_PALETTE.R"))
```

## Merge featureCounts outputs

```
dirs_output <-
  c(
    fs::path("data_preproc", "readcount", "count_rna_exon"),
    fs::path("data_preproc", "readcount", "count_ribo_central_cds_psite"),
    fs::path("data_preproc", "readcount", "count_ribo_uorf_psite")
  )

for(dir_output in dirs_output) {
  count_files <- fs::dir_ls(fs::path(wd, dir_output), regexp = "counts.txt$")

  count_df <-
    count_files %>%
    purrr::map(ngsmisc::fC_read_count) %>%
    purrr::map(ngsmisc::rename_fpath_bam) %>%
    ngsmisc::fC_merge_count() %>%
    ngsmisc::fC_calc_tpm() %>%
    dplyr::select(-(Chr:Strand))
  readr::write_csv(count_df, fs::path(wd, dir_output, "count_by_gene.csv"))
}
```

## Sessioninfo

```
sessionInfo()
```

R version 4.2.1 (2022-06-23)

Platform: aarch64-apple-darwin20 (64-bit)

Running under: macOS Ventura 13.1

Matrix products: default

BLAS: /Library/Frameworks/R.framework/Versions/4.2-arm64/Resources/lib/libRblas.0.dylib

LAPACK: /Library/Frameworks/R.framework/Versions/4.2-arm64/Resources/lib/libRlapack.dylib

```

locale:
[1] en_US.UTF-8/en_US.UTF-8/en_US.UTF-8/C/en_US.UTF-8/en_US.UTF-8

attached base packages:
[1] stats      graphics  grDevices datasets  utils      methods    base

other attached packages:
[1] ggplot2_3.4.2  magrittr_2.0.3

loaded via a namespace (and not attached):
 [1] compiler_4.2.1      pillar_1.9.0        BiocManager_1.30.18
 [4] tools_4.2.1         bit_4.0.5           digest_0.6.31
 [7] jsonlite_1.8.4      evaluate_0.20       lifecycle_1.0.3
[10] tibble_3.2.1        gtable_0.3.1        pkgconfig_2.0.3
[13] rlang_1.1.0         cli_3.6.0           rstudioapi_0.14
[16] parallel_4.2.1      yaml_2.3.6          xfun_0.40
[19] fastmap_1.1.0       withr_2.5.0         dplyr_1.1.1
[22] stringr_1.5.0       knitr_1.42          hms_1.1.3
[25] generics_0.1.3      fs_1.5.2            vctrs_0.6.1
[28] ngsmisc_0.4.0       bit64_4.0.5         rprojroot_2.0.3
[31] grid_4.2.1          tidyselect_1.2.0    glue_1.6.2
[34] here_1.0.1          R6_2.5.1            fansi_1.0.3
[37] vroom_1.6.0         rmarkdown_2.24      tzdb_0.3.0
[40] readr_2.1.4         purrr_1.0.1         scales_1.2.1
[43] htmltools_0.5.3     colorspace_2.0-3    renv_1.0.3
[46] utf8_1.2.2          stringi_1.7.12      munsell_0.5.0
[49] crayon_1.5.2

```