Figures 4 Panels

Figure 4a

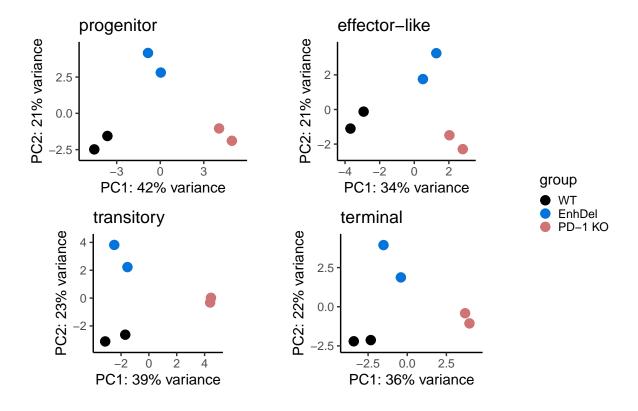


Figure 4b

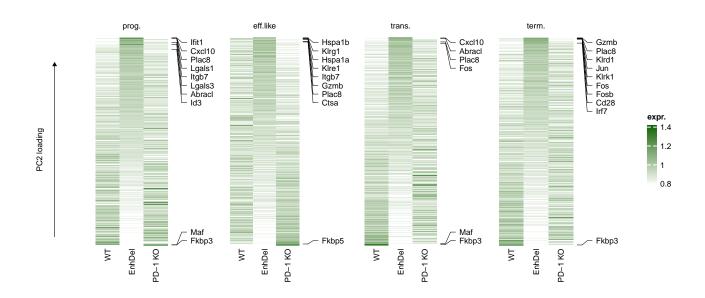
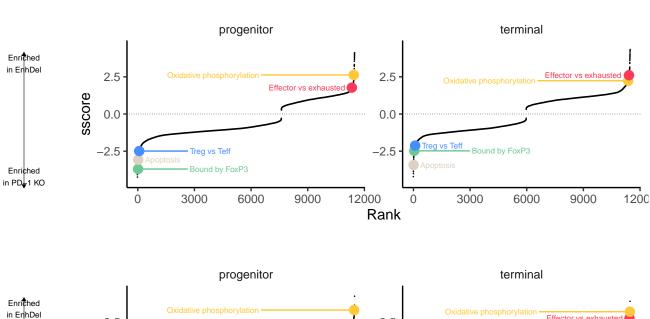
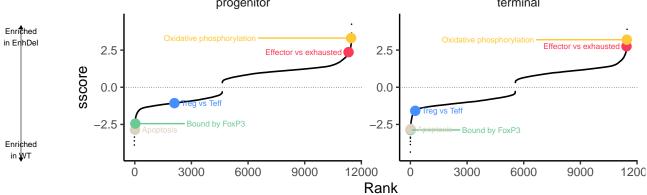
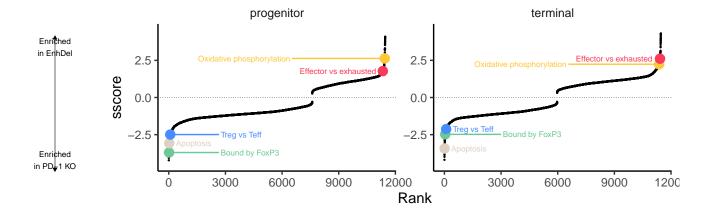


Figure 4c







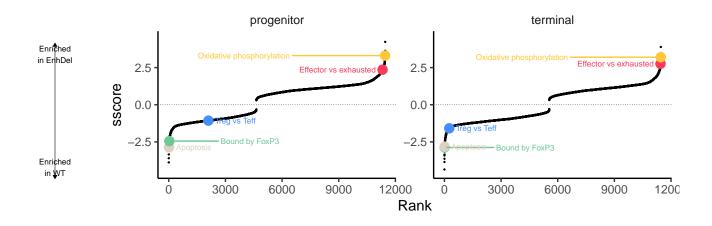


Figure 4e and 4f

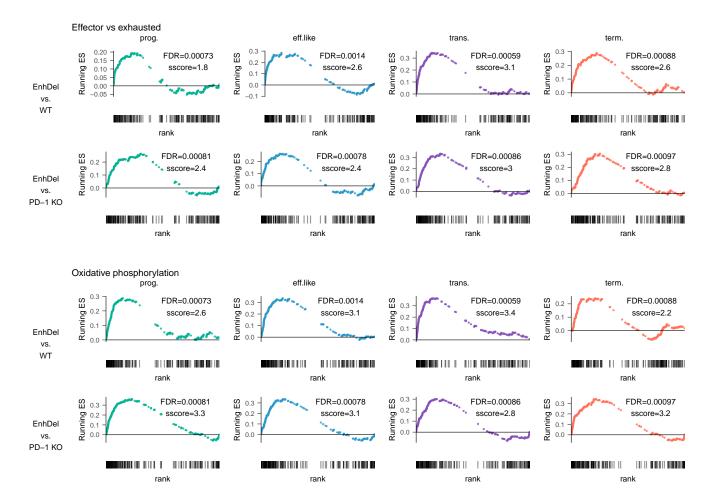
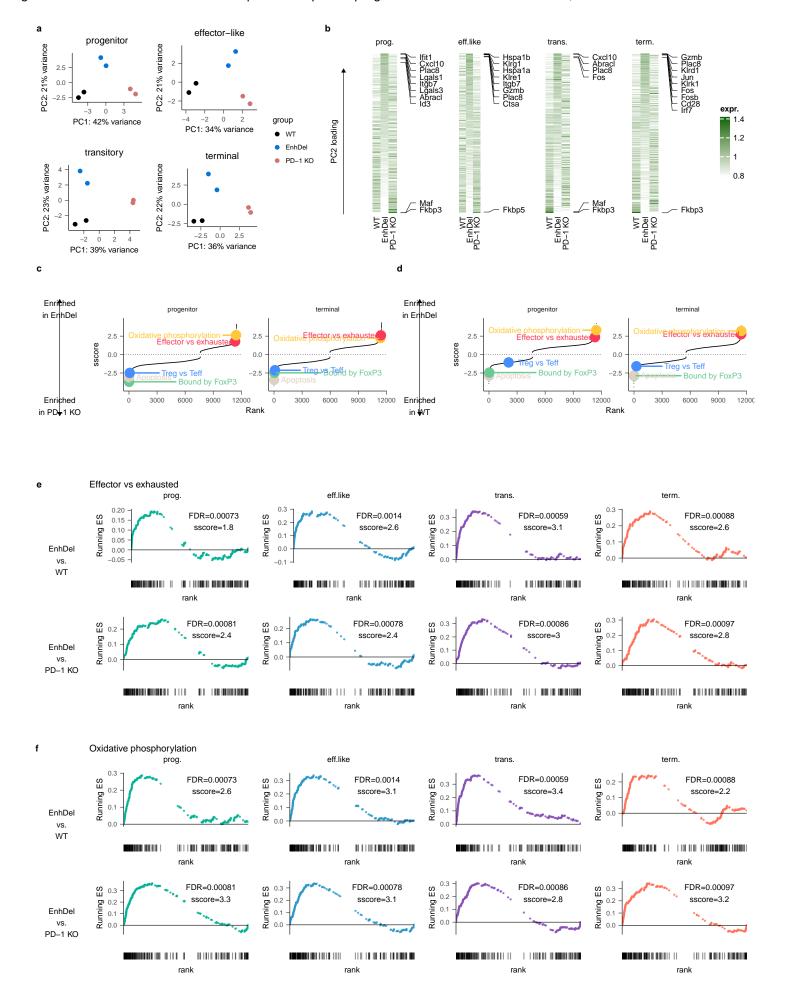


Figure 4 Panel Layout

Figure 4. Enhancer deletion confers unique transcriptional programs in exhausted CD8+ T cells, distinct from PD-1 KO and WT



```
## R version 4.0.3 (2020-10-10)
## Platform: x86_64-apple-darwin17.0 (64-bit)
## Running under: macOS Big Sur 10.16
##
## Matrix products: default
## BLAS:
           /Library/Frameworks/R.framework/Versions/4.0/Resources/lib/libRblas.dylib
## LAPACK: /Library/Frameworks/R.framework/Versions/4.0/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] grid
                  parallel
                             stats4
                                       stats
                                                  graphics grDevices utils
##
    [8] datasets
                  methods
                             base
##
## other attached packages:
##
   [1] Rsc_0.0.0.9000
                                     Seurat_3.1.1
   [3] ggrastr_1.0.1
##
                                     scattermore_0.8
##
   [5] ggforce_0.3.3
                                     ggrepel_0.9.1
##
   [7] circlize_0.4.14
                                     ComplexHeatmap_2.4.3
##
   [9] ggridges_0.5.3
                                     gridExtra_2.3
## [11] viridis_0.6.2
                                     viridisLite_0.4.0
## [13] ggpubr_0.4.0
                                     cowplot 1.1.1
## [15] readr_2.1.2
                                     tibble_3.1.6
                                     tidyr_1.2.0
## [17] purrr_0.3.4
## [19] stringr_1.4.0
                                     ggplot2_3.3.6
                                     DESeq2_1.28.1
## [21] dplyr_1.0.9
## [23] SummarizedExperiment_1.18.2 DelayedArray_0.14.1
## [25] matrixStats_0.61.0
                                     Biobase_2.48.0
## [27] GenomicRanges_1.40.0
                                     GenomeInfoDb_1.24.2
## [29] IRanges_2.22.2
                                     S4Vectors_0.26.1
## [31] BiocGenerics_0.34.0
                                     here_1.0.1
##
## loaded via a namespace (and not attached):
##
     [1] utf8_1.2.2
                                 reticulate_1.24
                                                         R.utils_2.11.0
##
     [4] tidyselect 1.1.2
                                 RSQLite_2.2.12
                                                         AnnotationDbi 1.50.3
##
    [7] htmlwidgets_1.5.4
                                 BiocParallel_1.22.0
                                                         Rtsne_0.15
##
   [10] munsell_0.5.0
                                 codetools_0.2-18
                                                         mutoss 0.1-12
    [13] ica_1.0-2
                                                         withr_2.5.0
##
                                 future_1.25.0
##
    [16] colorspace_2.0-3
                                 knitr_1.39
                                                         rstudioapi 0.13
##
   [19] ROCR 1.0-11
                                 ggsignif_0.6.3
                                                         listenv 0.8.0
   [22] labeling_0.4.2
##
                                 Rdpack_2.3
                                                         GenomeInfoDbData_1.2.3
##
    [25] mnormt_2.0.2
                                 polyclip_1.10-0
                                                         bit64_4.0.5
                                                         parallelly_1.31.1
##
   [28] farver_2.1.0
                                 rprojroot_2.0.3
##
   [31] vctrs_0.4.1
                                 generics_0.1.2
                                                         TH.data_1.1-1
                                 R6_2.5.1
##
    [34] xfun_0.30
                                                         ggbeeswarm_0.6.0
##
    [37] clue_0.3-60
                                 rsvd_1.0.5
                                                         locfit_1.5-9.4
##
    [40] bitops_1.0-7
                                 cachem_1.0.6
                                                         assertthat_0.2.1
   [43] vroom_1.5.7
                                 SDMTools_1.1-221
                                                         scales_1.2.0
##
   [46] multcomp_1.4-19
                                 beeswarm_0.4.0
                                                         gtable_0.3.0
##
    [49] globals_0.14.0
                                 sandwich_3.0-1
                                                         rlang_1.0.2
##
    [52] genefilter_1.70.0
                                 GlobalOptions_0.1.2
                                                         splines_4.0.3
                                                         broom 0.8.0
##
    [55] rstatix 0.7.0
                                 lazyeval 0.2.2
                                 yaml_2.3.5
##
    [58] reshape2_1.4.4
                                                         abind_1.4-5
##
    [61] backports_1.4.1
                                 tools_4.0.3
                                                         ellipsis_0.3.2
    [64] RColorBrewer_1.1-3
##
                                 TFisher_0.2.0
                                                         Rcpp_1.0.9
##
    [67] plyr_1.8.7
                                 zlibbioc_1.34.0
                                                         RCurl_1.98-1.6
##
    [70] pbapply_1.5-0
                                 GetoptLong_1.0.5
                                                         zoo 1.8-9
##
   [73] cluster_2.1.3
                                 magrittr_2.0.3
                                                         data.table_1.14.2
   [76] lmtest_0.9-40
                                 RANN 2.6.1
                                                         tmvnsim_1.0-2
##
                                                         hms_1.1.1
    [79] mvtnorm_1.1-3
                                 fitdistrplus_1.1-8
##
    [82] evaluate_0.15
                                 xtable_1.8-4
                                                         XML_3.99-0.9
##
                                 compiler_4.0.3
                                                         KernSmooth_2.23-20
    [85] shape_1.4.6
```

## ## ## ## ## ##	[91] [94] [97] [100] [103] [106] [112] [115] [118] [121] [124] [127]	crayon_1.5.1 tzdb_0.3.0 tweenr_1.0.2 car_3.0-13 rbibutils_2.2.7 igraph_1.3.0 numDeriv_2016.8-1.1 vipor_0.4.5 digest_0.6.29 RcppAnnoy_0.0.19 uwot_0.1.11 nlme_3.1-157 fansi_1.0.3 fastmap_1.1.0 survival_3.3-1	R.oo_1.24.0 geneplotter_1.66.0 MASS_7.3-56 cli_3.2.0 metap_1.8 pkgconfig_2.0.3 plotly_4.10.0 multtest_2.44.0 tsne_0.1-3.1 rmarkdown_2.14 rjson_0.2.21 jsonlite_1.8.0 pillar_1.7.0 httr_1.4.2 glue_1.6.2	htmltools_0.5.2 DBI_1.1.2 Matrix_1.4-1 R.methodsS3_1.8.1 qqconf_1.2.3 sn_2.0.2 annotate_1.66.0 XVector_0.28.0 sctransform_0.3.3 leiden_0.3.10 lifecycle_1.0.1 carData_3.0-5 lattice_0.20-45 plotrix_3.8-2 png_0.1-7
## ## ##	[130] [133] [136]	<u></u>	_	-