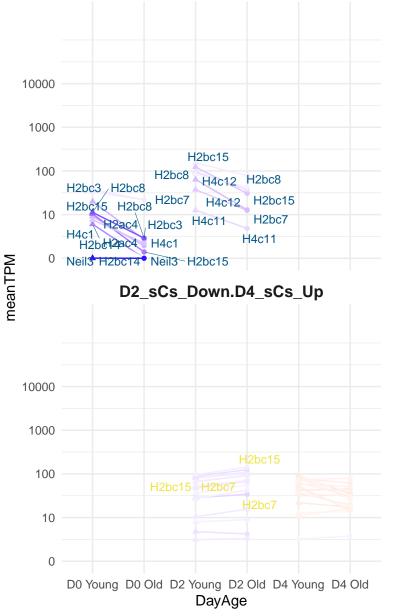


REACTOME_BASE_EXCISION_REPAIR D0_FAPs_Down.D2_FAPs_Down 10000 1000 log2F H2bc15 4 100 H4c12 H2bc8 H2bc8 H2bc3 H2bc15 H2bc8 H2bc3 H2bc7c12 H2bc15 0 H2bc7 H2bc8_H4c1^{H4c11} -4 H4c11 H2bc12ac4 H2bc15 -8 Neil3 H2bc14 Neil3 meanTPM D2_sCs_Down.D4_sCs_Up Genes padj <0.05 & |log2F| > 1 DE in **FAPs** а sCs 10000 age Old 1000 Young 100 10 0 D0 Young D0 Old D2 Young D2 Old D4 Young D4 Old DayAge

REACTOME_BASE_EXCISION_REPAIR_AP_SITE_FORMATION D0_FAPs_Down.D2_FAPs_Down





а

log2F

4

0

-4

-8

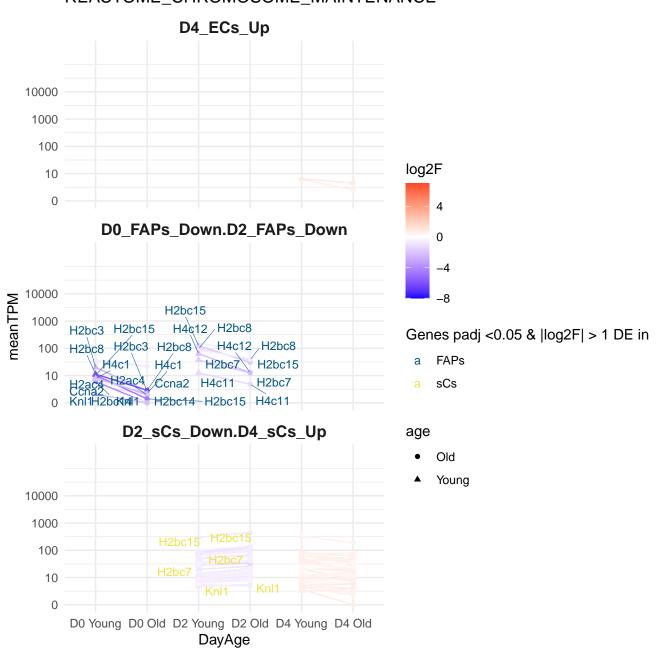
FAPs

sCs

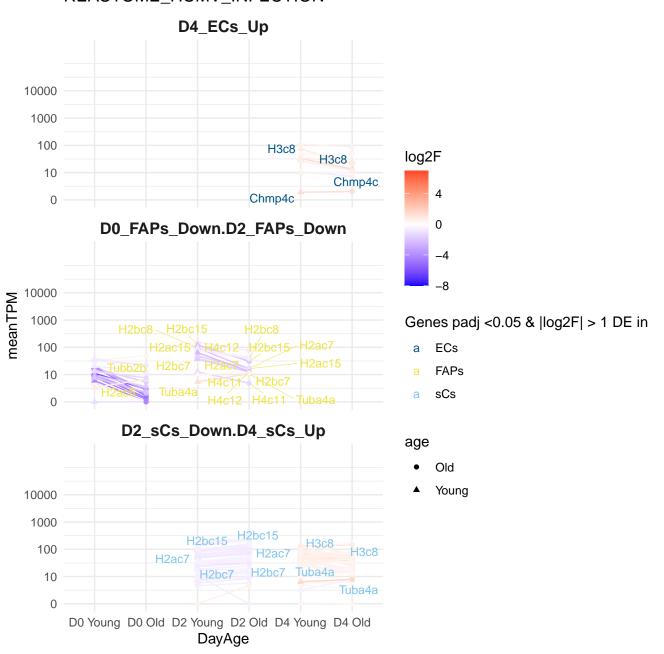
Genes padj <0.05 & |log2F| > 1 DE in

- Old
- ▲ Young

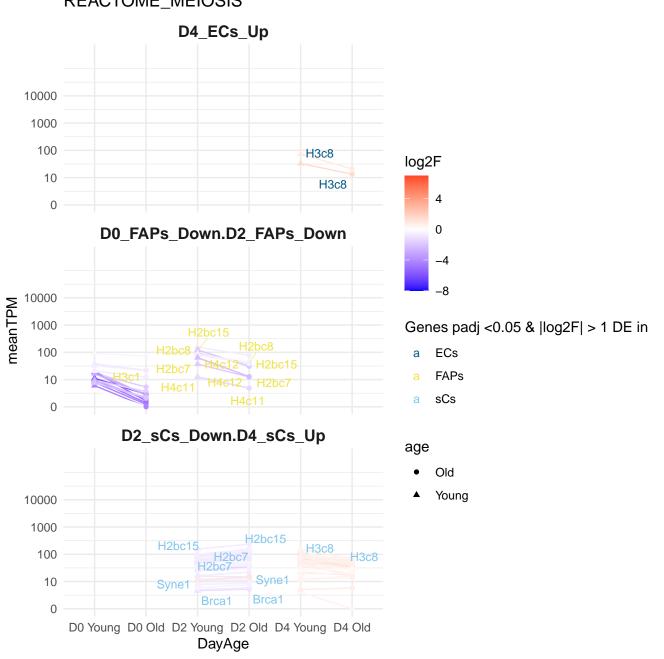
REACTOME_CHROMOSOME_MAINTENANCE



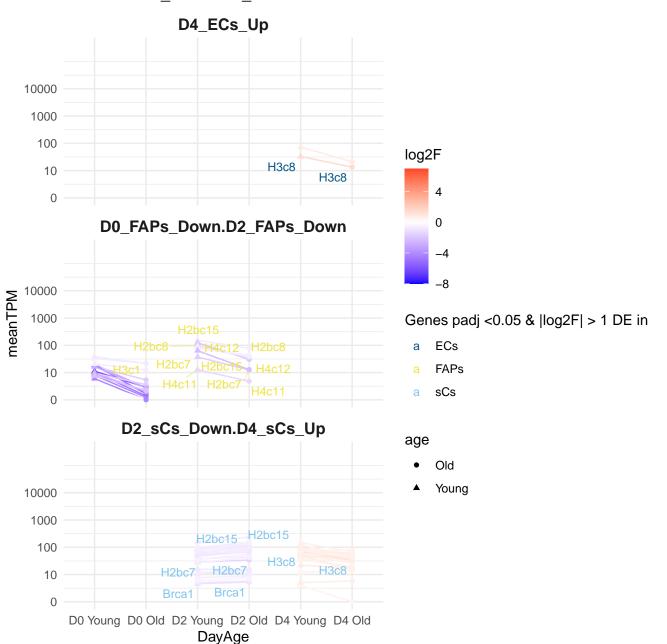
REACTOME_HCMV_INFECTION



REACTOME_MEIOSIS

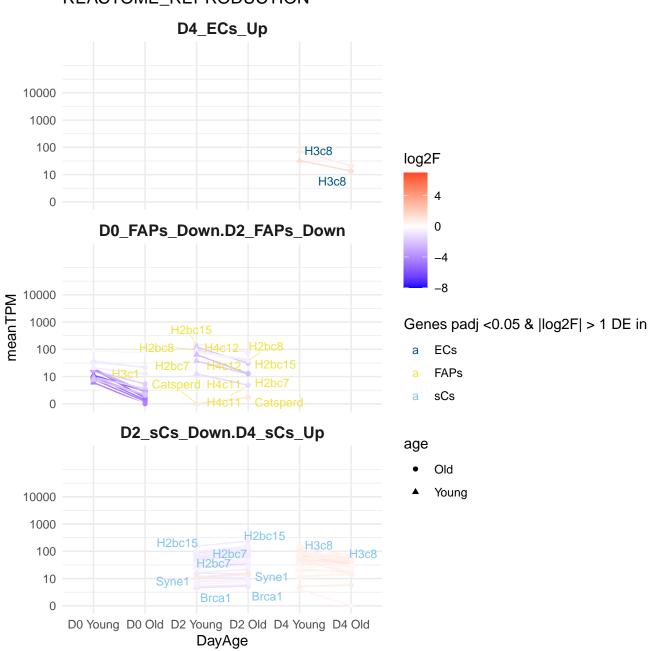


REACTOME_MEIOTIC_RECOMBINATION

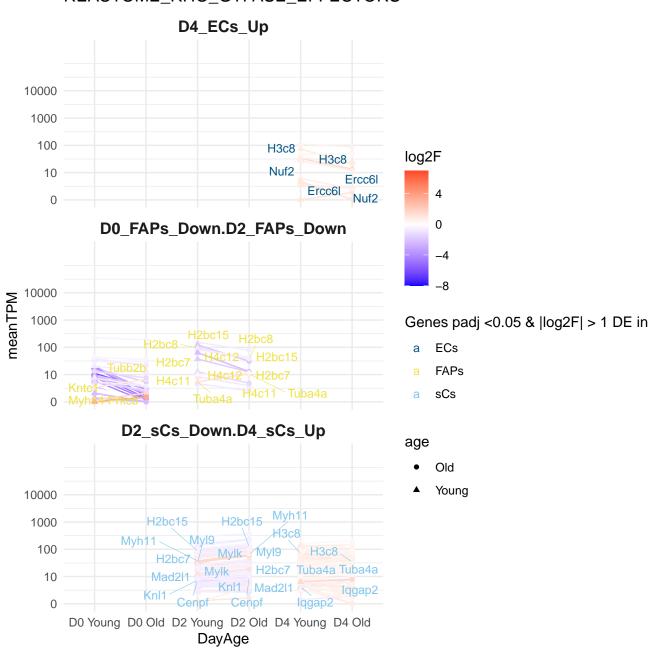


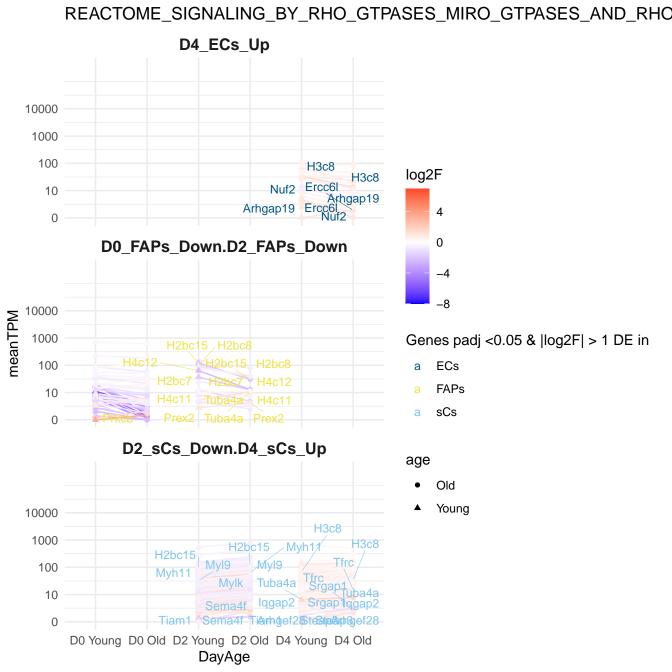
REACTOME_MEIOTIC_SYNAPSIS D0_FAPs_Down.D2_FAPs_Down 10000 1000 log2F H2bc15 4 H2bc3 100 H4c12 H2bc8 H2bc8 H2bc15 H2bl276c15 0 H2bc8 H2bc8 10 H2ac4 H2bc34c11 H2bc7 H4c12 -4 H4c11 H4c/1 H4c1 -H2ac4 -8 meanTPM H2bc1H2bc15 H2bc14 D2_sCs_Down.D4_sCs_Up Genes padj <0.05 & |log2F| > 1 DE in **FAPs** а sCs 10000 age Old 1000 Young 100 10 0 D0 Young D0 Old D2 Young D2 Old D4 Young D4 Old DayAge

REACTOME_REPRODUCTION

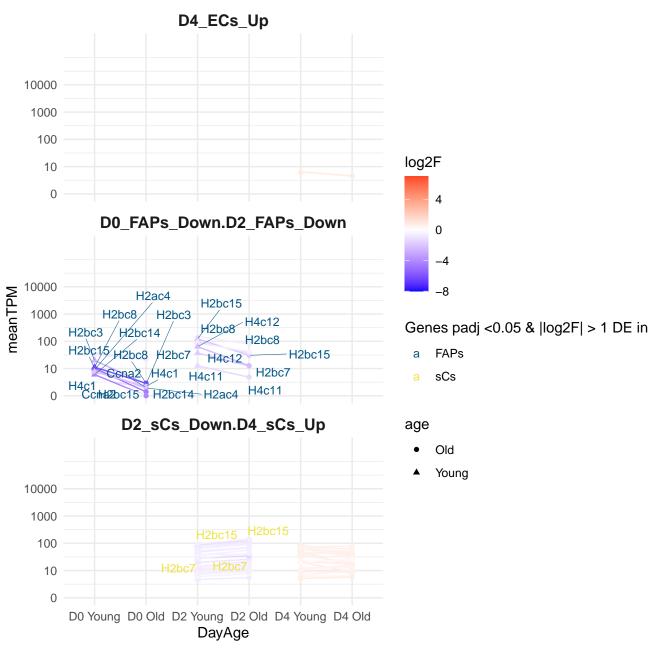


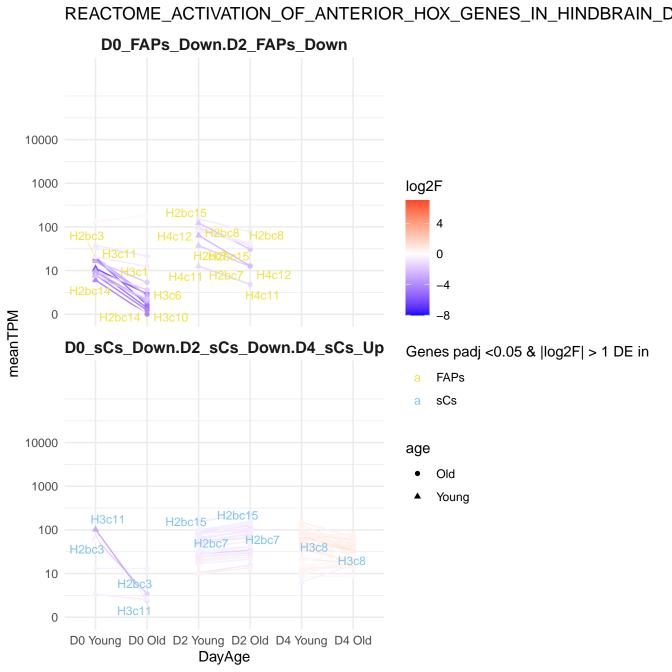
REACTOME_RHO_GTPASE_EFFECTORS

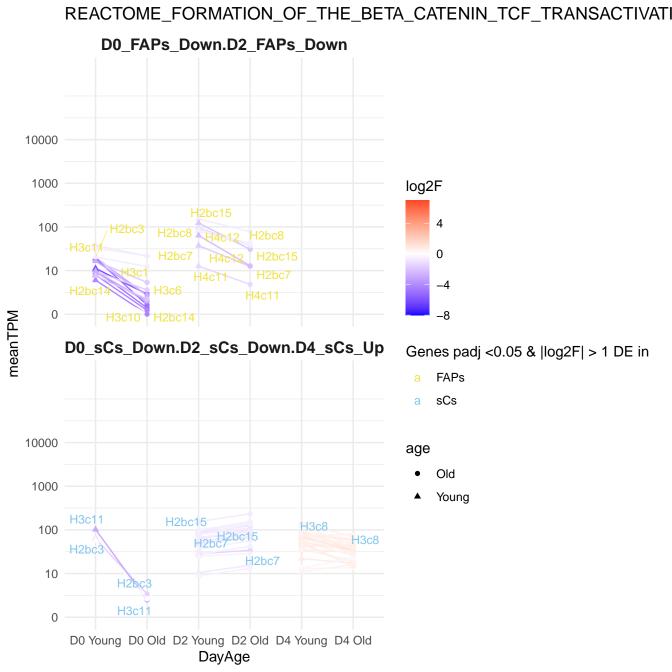




REACTOME_TELOMERE_MAINTENANCE





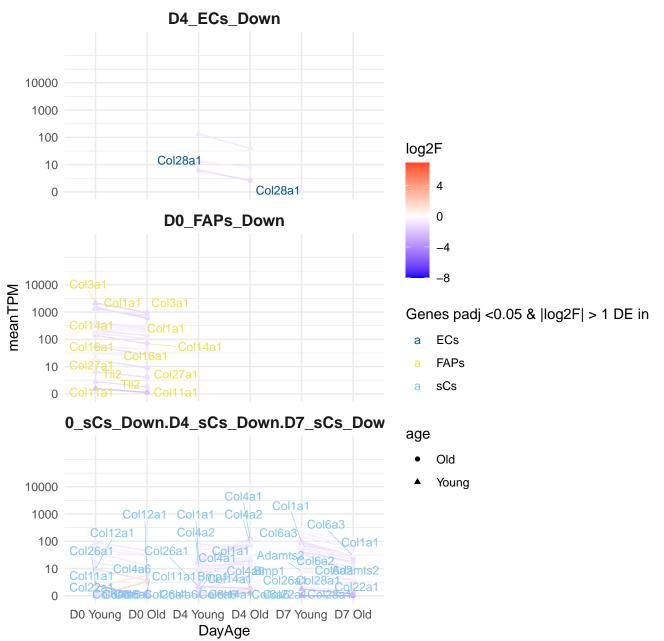


REACTOME_HDACS_DEACETYLATE_HISTONES D0_FAPs_Down.D2_FAPs_Down 10000 1000 log2F 4 100 0 10 -4 0 -8 meanTPM D0_sCs_Down.D2_sCs_Down.D4_sCs_Up Genes padj <0.05 & |log2F| > 1 DE in **FAPs** sCs a 10000 age Old 1000 Young H2bc15 H2bc15 H3c11 H3c8 100 H2ac7 H2ac7 H₂bc7 **H3c8** H2bc7 10 H2bc3 H3c11 0 D0 Young D0 Old D2 Young D2 Old D4 Young D4 Old DayAge

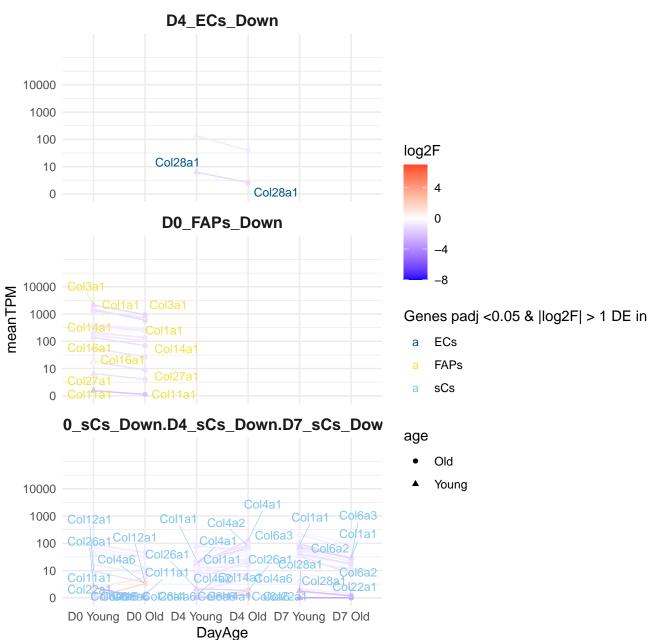
REACTOME_RMTS_METHYLATE_HISTONE_ARGININES D0_FAPs_Down.D2_FAPs_Down 10000 1000 log2F 4 0 10 -4 -8 0 H2ac6H2ac15 H2ac6 meanTPM D0_sCs_Down.D2_sCs_Down.D4_sCs_Up Genes padj <0.05 & |log2F| > 1 DE in **FAPs** sCs a 10000 age Old 1000 Young H3c11 100 H2ac7 H2ac7 **H3c8** -Ccnd1 Cond1 H3c11 0 D0 Young D0 Old D2 Young D2 Old D4 Young D4 Old DayAge

REACTOME_RNA_POLYMERASE_I_TRANSCRIPTION D0_FAPs_Down.D2_FAPs_Down 10000 1000 log2F 4 100 H4c12 H2bc8 0 10 -4 0 -8 meanTPM H2bc14 H3c10 D0_sCs_Down.D2_sCs_Down.D4_sCs_Up Genes padj <0.05 & |log2F| > 1 DE in **FAPs** sCs a 10000 age Old 1000 Young H3c11 H2bc7 100 H2bc15 H3c8 H2bc15 H2bc7 10 H2bc3 H3c11 0 D0 Young D0 Old D2 Young D2 Old D4 Young D4 Old DayAge

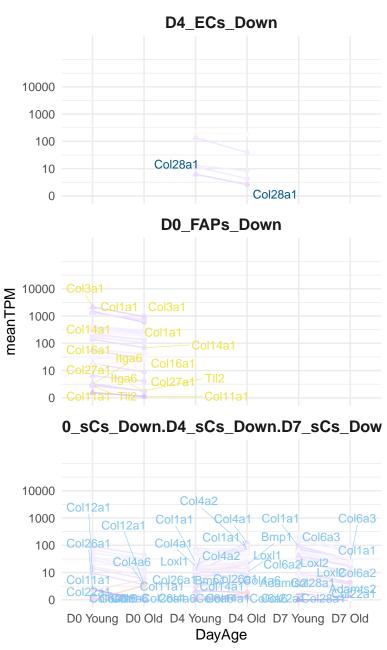
REACTOME_COLLAGEN_BIOSYNTHESIS_AND_MODIFYING_ENZYMES



REACTOME_COLLAGEN_CHAIN_TRIMERIZATION



REACTOME_COLLAGEN_FORMATION





log2F

4

0

-4

-8

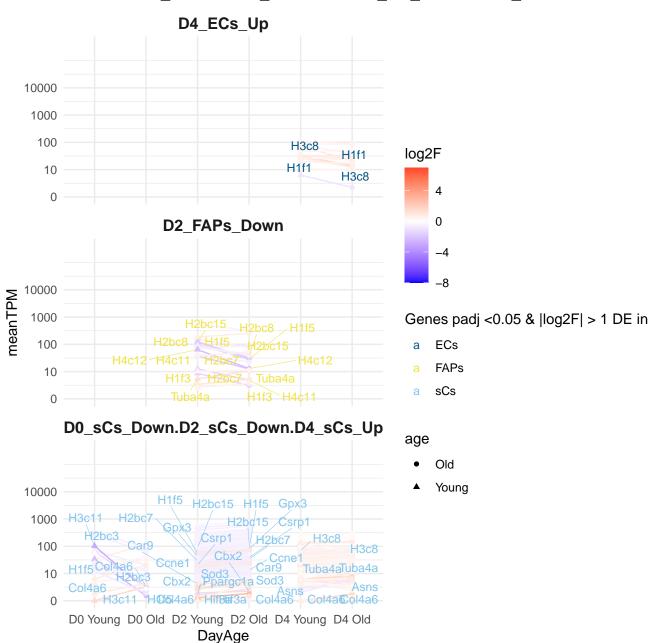
Genes padj <0.05 & |log2F| > 1 DE in

age

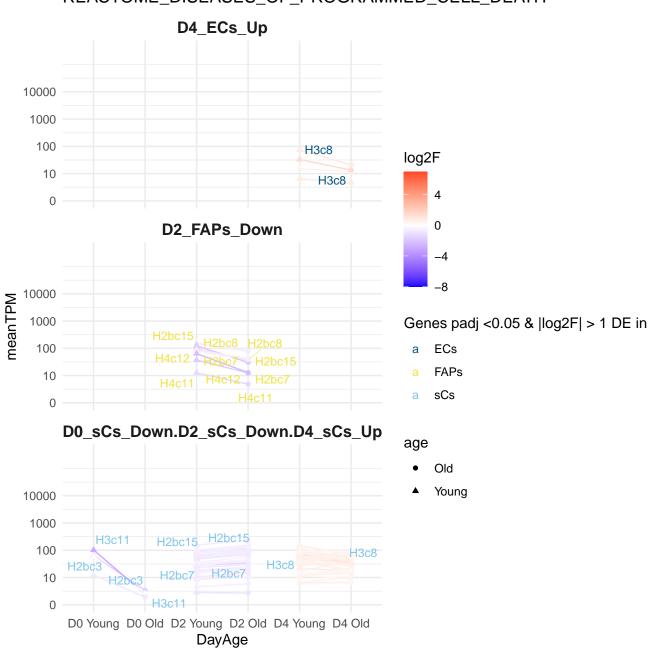
Young

Old

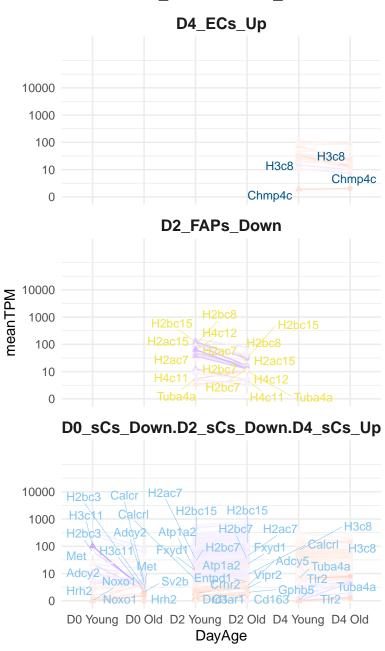
REACTOME_CELLULAR_RESPONSES_TO_EXTERNAL_STIMULI



REACTOME_DISEASES_OF_PROGRAMMED_CELL_DEATH



REACTOME_INFECTIOUS_DISEASE



a sCs

а

log2F

4

0

-4

-8

ECs

FAPs

Genes padj <0.05 & |log2F| > 1 DE in

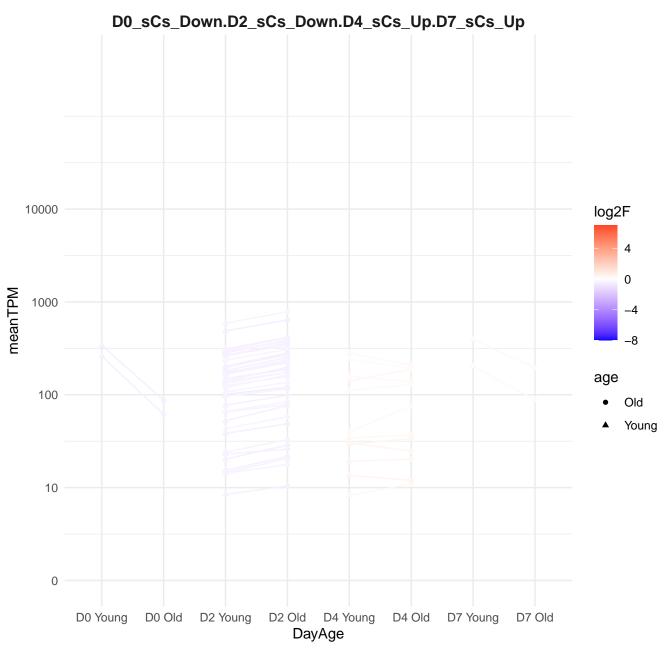
- age
 - Old
 - Young

REACTOME_EUKARYOTIC_TRANSLATION_ELONGATION D0_sCs_Down.D2_sCs_Down.D4_sCs_Up.D7_sCs_Up 10000 log2F 4 0 1000 -8 age 100 Old Young 10 0 D0 Young D0 Old D2 Young D2 Old D4 Young D4 Old D7 Young D7 Old

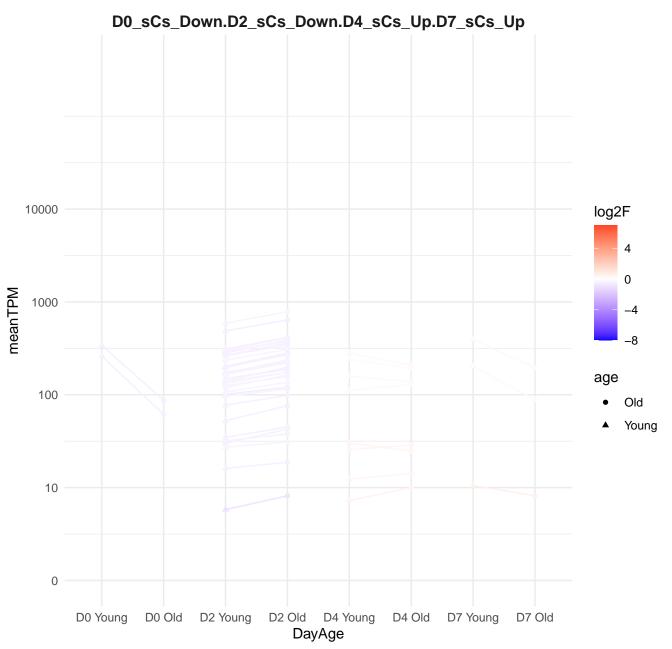
DayAge

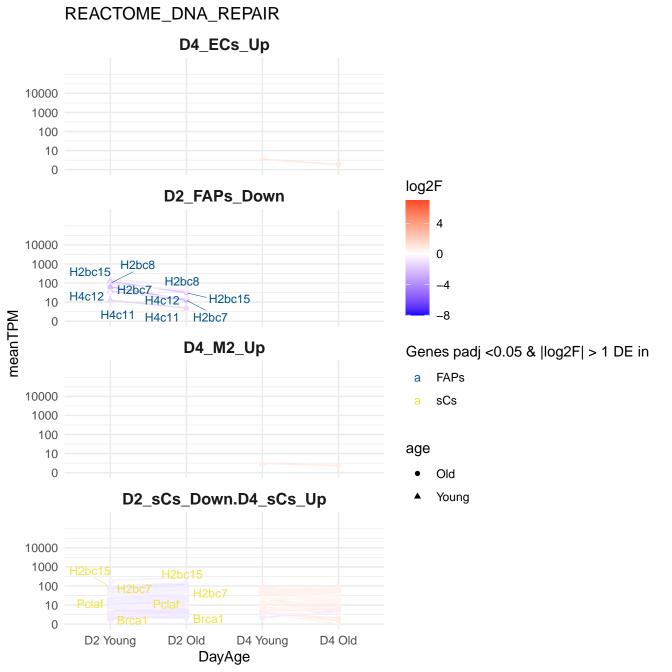
meanTPM

REACTOME_EUKARYOTIC_TRANSLATION_INITIATION



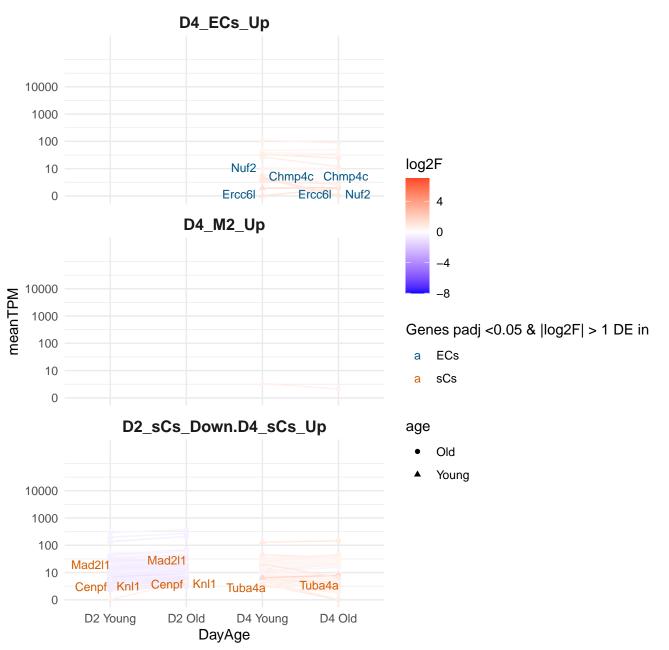
REACTOME_NONSENSE_MEDIATED_DECAY_NMD



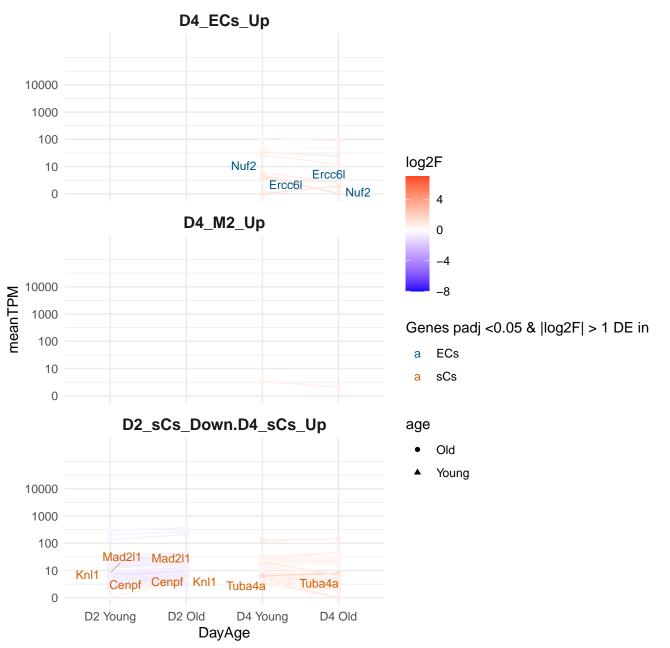


REACTOME_G2_M_CHECKPOINTS D4_ECs_Up 10000 1000 100 log2F 10 0 4 D2_FAPs_Down 0 -4 10000 meanTPM -8 1000 H2bc15 Genes padj <0.05 & |log2F| > 1 DE in 100 H2bc8 H4c12 H2bc8 **FAPs** а H2bc7 H4c12 10 H2bc7 sCs H4c11 H4c11 0 D2_sCs_Down.D4_sCs_Up age Old Young 10000 1000 100 10 0 D2 Young D2 Old D4 Young D4 Old DayAge

REACTOME_MITOTIC_METAPHASE_AND_ANAPHASE

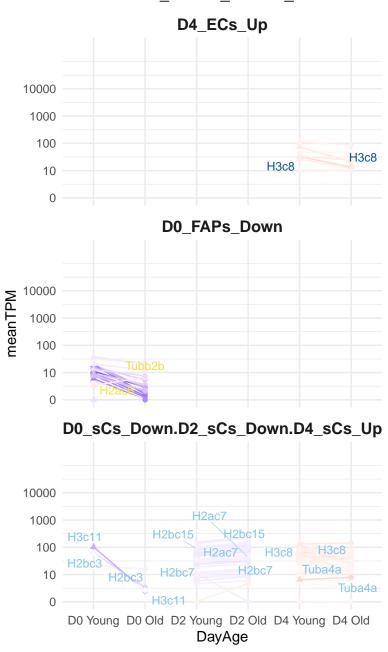


REACTOME_SEPARATION_OF_SISTER_CHROMATIDS



REACTOME_DEVELOPMENTAL_BIOLOGY D0 FAPs Down.D2 FAPs Down 10000 1000 log2F 4 100 0 10 -4 -8 meanTPM Gap43 Efna5 Gap43 0_sCs_Down.D2_sCs_Down.D7_sCs_Dow Genes padj <0.05 & |log2F| > 1 DE in **FAPs** sCs a 10000 age Old 1000 H2bc15 Myh11 Young H3c11 Myl9 H2/bc15 Myf5 Myf5 100 Myh11 Col6a3 H2bc7 H2bc7 Trpc3 Met Dpyspysl3, Prkcq Mpz Col6a2 Robo1 Ret Ret Ret Mybl3c117 Met O Col6atRoladi6a6 Ret D0 Young D0 Old D2 Young D2 Old D7 Young D7 Old DayAge

REACTOME_HCMV_EARLY_EVENTS D4_ECs_Up





а

log2F

4

0

-4

-8

ECs

FAPs

Genes padj <0.05 & |log2F| > 1 DE in

age

- Old
- Young

REACTOME_TRANSCRIPTIONAL_REGULATION_BY_RUNX1 D0 FAPs Down.D2 FAPs Down 10000 1000 log2F 4 100 H2bc8 H2bt4c12 H2bc15 0 10 -4 -8 meanTPM D2_sCs_Down.D4_sCs_Up Genes padj <0.05 & |log2F| > 1 DE in **FAPs** sCs а 10000 age Old 1000 Young H2bc15 H2bc15 Myl9 H3c8 100 Thbs1 Myl9 H2bc7 Thbs1 Н3с8 10 Gata2 Gata2 Myb Cbx2 Cbx2 Myb 0 D0 Young D0 Old D2 Young D2 Old D4 Young D4 Old DayAge

REACTOME_MITOTIC_G1_PHASE_AND_G1_S_TRANSITION

