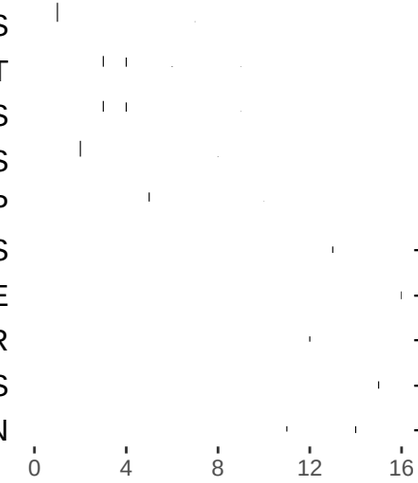
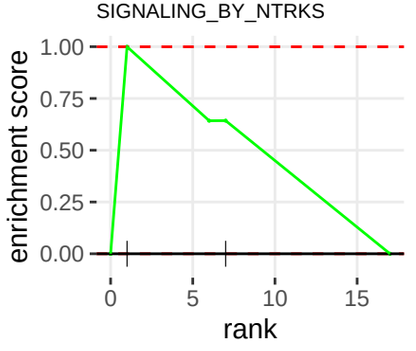
D2 ECs : Top enriched Pathways (GSEA), Old vs Young

Pathway	NES	pval	padj
REACTOME_SIGNALING_BY_NTRKS	1.26	1.5e−03	7.7e−01
REACTOME_ABC_FAMILY_PROTEINS_MEDIATED_TRANSPORT	1.21	1.7e−01	7.8e−01
REACTOME_ABC_TRANSPORTER_DISORDERS	1.24	1.6e−01	7.8e−01
REACTOME_ACTIVATION_OF_AMPK_DOWNSTREAM_OF_NMDARS	1.31	4.0e−02	7.8e−01
REACTOME_ACTIVATION_OF_GENE_EXPRESSION_BY_SREBF_SREBP	1.30	1.8e−01	7.8e−01
REACTOME_CELLULAR_RESPONSE_TO_HEAT_STRESS	−1.37	2.1e−01	7.8e−01
REACTOME_CDC42_GTPASE_CYCLE	−1.44	2.0e−01	7.8e−01
REACTOME_CARGO_CONCENTRATION_IN_THE_ER	−1.37	2.0e−01	7.8e−01
REACTOME_A_TETRASACCHARIDE_LINKER_SEQUENCE_IS_REQUIRED_FOR_GAG_SYNTHESIS	−1.39	1.1e−01	7.8e−01
REACTOME_ANCHORING_FIBRIL_FORMATION	−1.37	2.0e−01	7.8e−01





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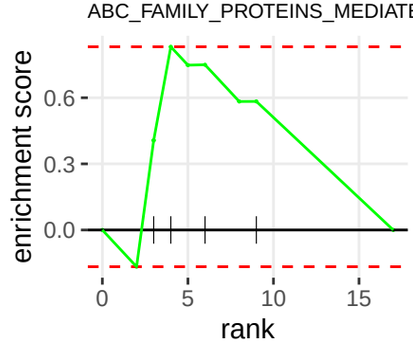

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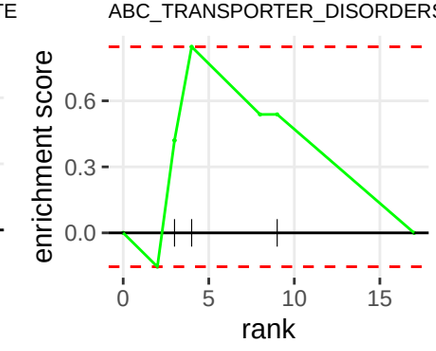

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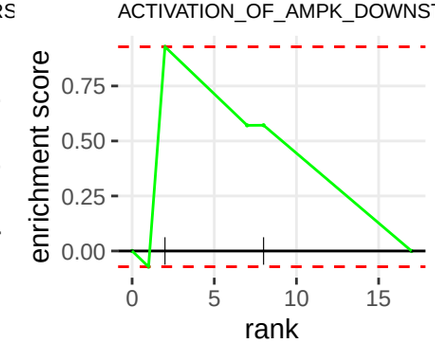

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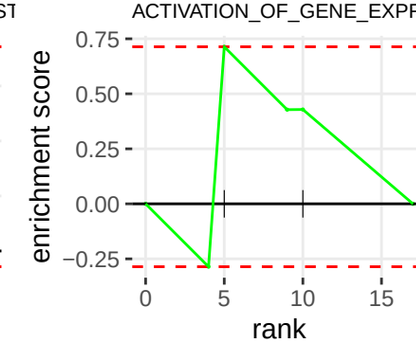

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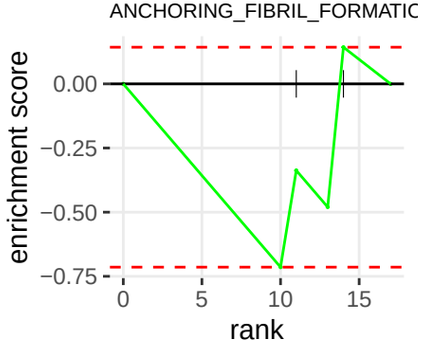
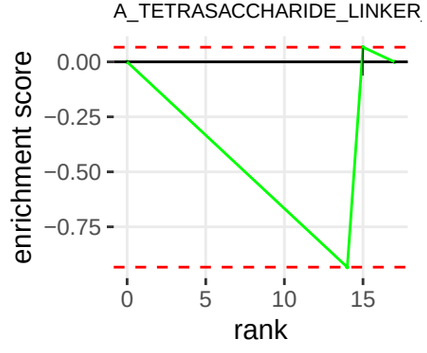


(NES: −1.37 , padj : 0.78)



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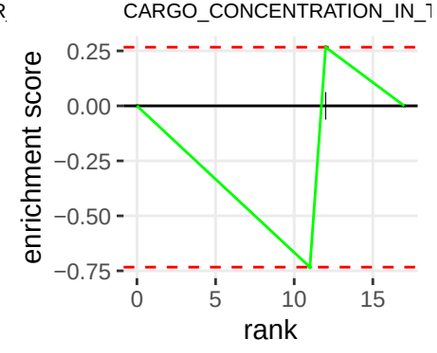

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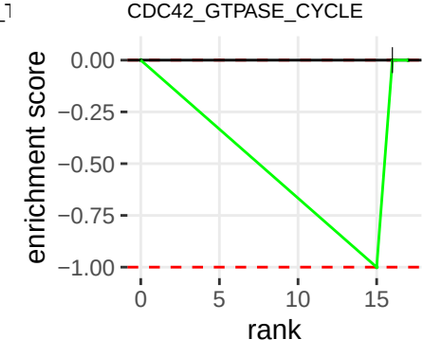

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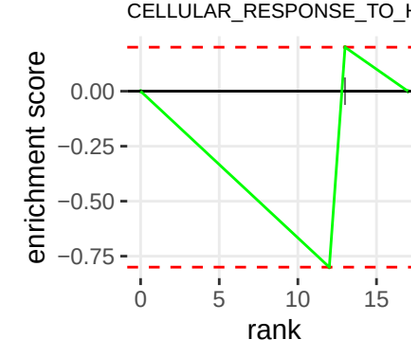
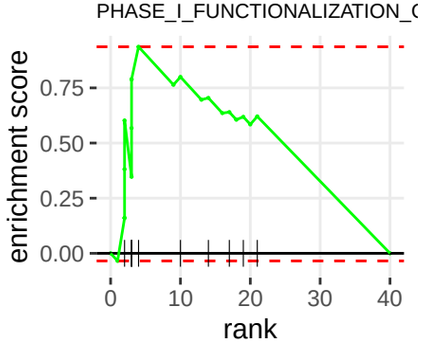


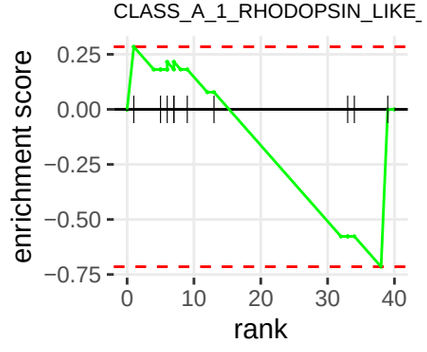
(NES: −1.37 , padj : 0.78)

D2 FAPs : Top enriched Pathways (GSEA), Old vs Young

Pathway	Gene ranks	NES	pval	padj
REACTOME_PHASE_I_FUNCTIONALIZATION_OF_COMPOUNDS		1.75	1.6e−03	1.3e−02
REACTOME_CLASS_A_1_RHODOPSIN_LIKE_RECEPTORS		1.72	2.8e−03	2.2e−02
REACTOME_BIOLOGICAL_OXIDATIONS		1.73	4.6e−03	3.4e−02
REACTOME_CYTOCHROME_P450_ARRANGED_BY_SUBSTRATE_TYPE		1.63	1.0e−02	6.7e−02
REACTOME_INTERLEUKIN_3_INTERLEUKIN_5_AND_GM_CSF_SIGNALING		1.49	1.7e−02	1.1e−01
_ACTIVATION_OF_ANTERIOR_HOX_GENES_IN_HINDBRAIN_DEVELOPMENT_DURING_EARLY_EMBRYOGENESIS		−2.16	2.8e−06	1.8e−04
REACTOME_HDACS_DEACETYLATE_HISTONES		−2.25	5.2e−07	7.4e−05
REACTOME_TCF_DEPENDENT_SIGNALING_IN_RESPONSE_TO_WNT		−2.23	2.9e−07	5.5e−05
REACTOME_HCMV_LATE_EVENTS		−2.26	1.2e−07	3.4e−05
REACTOME_HATS_ACETYLATE_HISTONES		−2.31	8.5e−08	3.4e−05



(NES: 1.75 , padj : 0.01)



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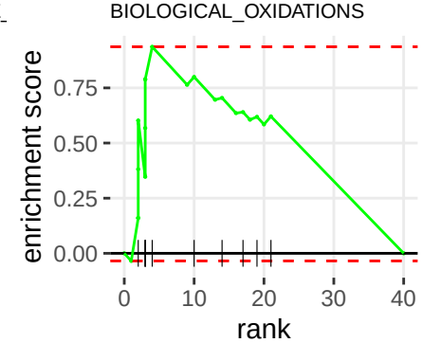

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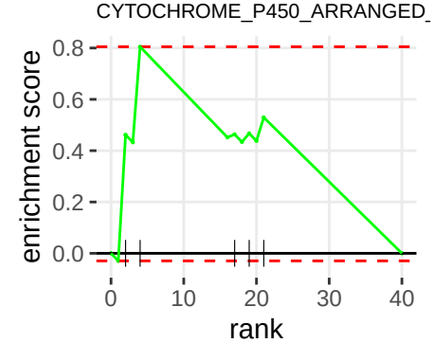

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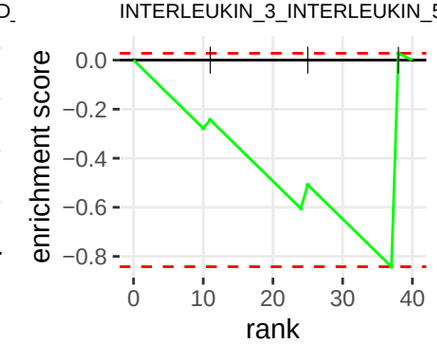

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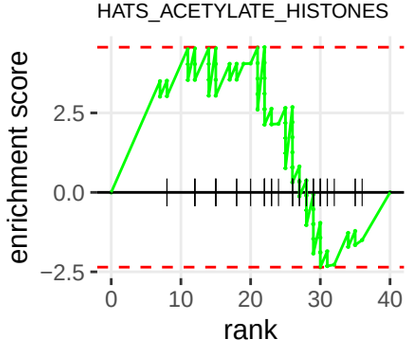

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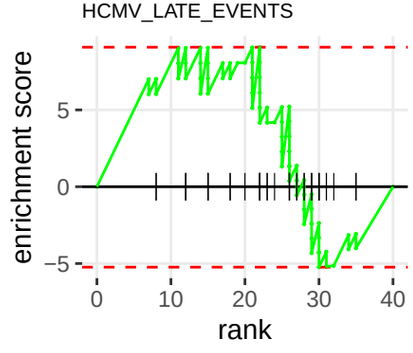

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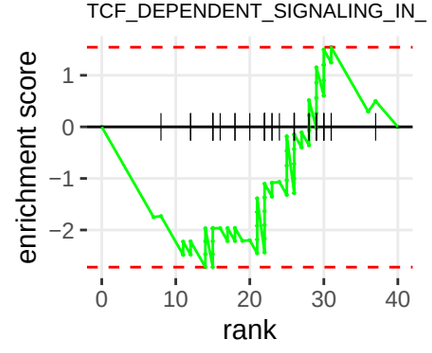

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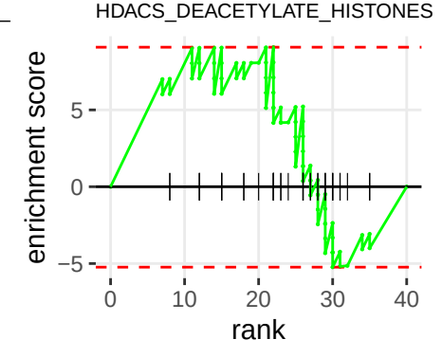

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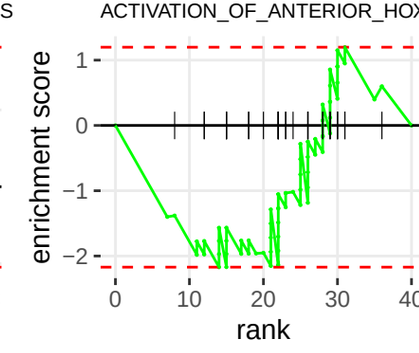
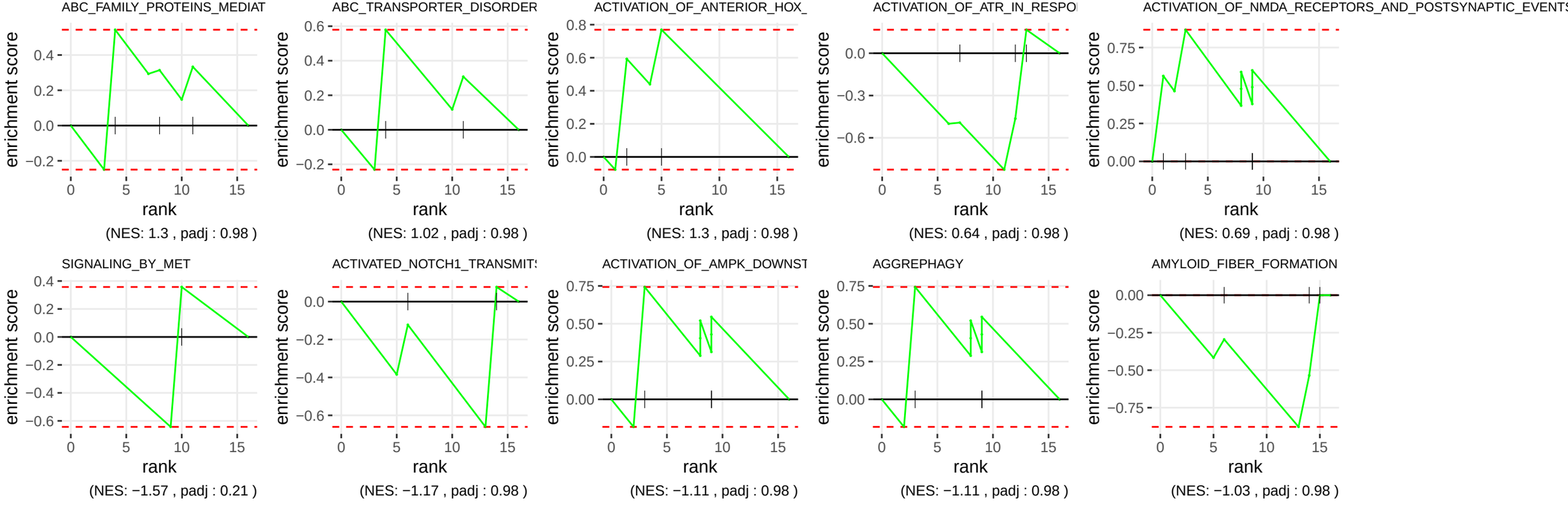


(NES: −2.16 , padj : 0)

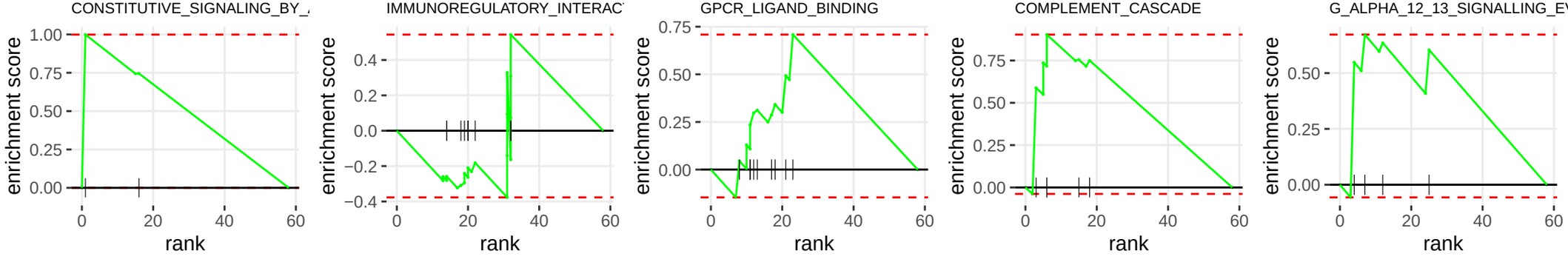
D2 M1 : Top enriched Pathways (GSEA), Old vs Young

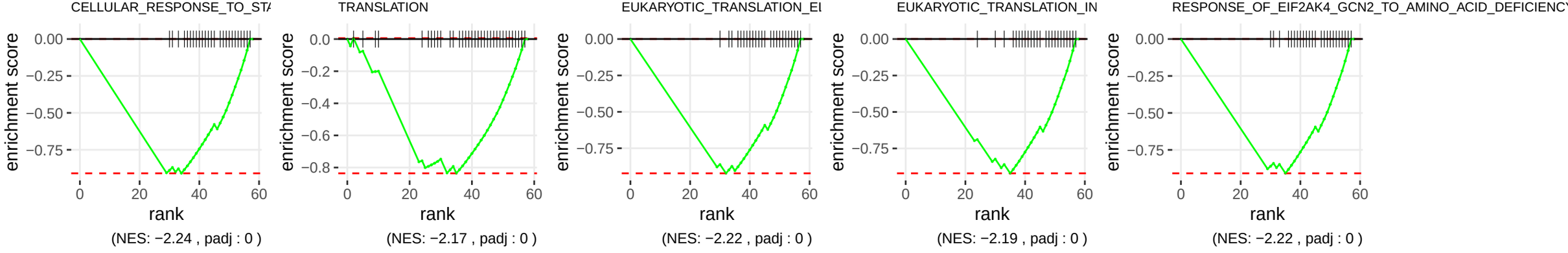
Pathway	Gene ranks	NES	pval	padj
REACTOME_ABC_FAMILY_PROTEINS_MEDIATED_TRANSPORT		1.30	1.9e−01	9.8e−01
REACTOME_ABC_TRANSPORTER_DISORDERS		1.02	4.8e−01	9.8e−01
_ACTIVATION_OF_ANTERIOR_HOX_GENES_IN_HINDBRAIN_DEVELOPMENT_DURING_EARLY_EMBRYOGENESIS		1.30	1.8e−01	9.8e−01
REACTOME_ACTIVATION_OF_ATR_IN_RESPONSE_TO_REPLICATION_STRESS		0.64	8.0e−01	9.8e−01
REACTOME_ACTIVATION_OF_NMDA_RECEPTORS_AND_POSTSYNAPTIC_EVENTS		0.69	7.7e−01	9.8e−01
REACTOME_AMYLOID_FIBER_FORMATION		−1.03	4.2e−01	9.8e−01
REACTOME_AGGREPHAGY		−1.11	3.5e−01	9.8e−01
REACTOME_ACTIVATION_OF_AMPK_DOWNSTREAM_OF_NMDARS		−1.11	3.5e−01	9.8e−01
REACTOME_ACTIVATED_NOTCH1_TRANSMITS_SIGNAL_TO_THE_NUCLEUS		−1.17	2.9e−01	9.8e−01
REACTOME_SIGNALING_BY_MET		−1.57	4.0e−04	2.1e−01



D2 M2 : Top enriched Pathways (GSEA), Old vs Young

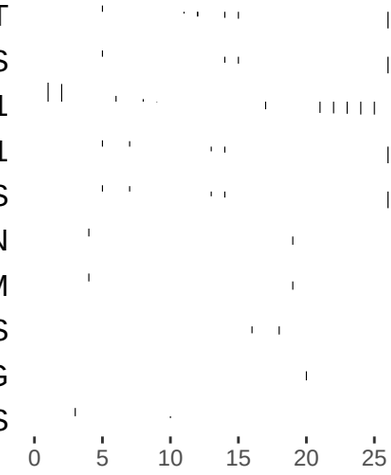
Pathway	Gene ranks	NES	pval	padj
REACTOME_CONSTITUTIVE_SIGNALING_BY_ABERRANT_PI3K_IN_CANCER		1.51	1.4e−02	4.2e−01
REACTOME_IMMUNOREGULATORY_INTERACTIONS_BETWEEN_A_LYMPHOID_AND_A_NON_LYMPHOID_CELL		1.61	1.5e−02	4.2e−01
REACTOME_GPCR_LIGAND_BINDING		1.54	3.8e−02	6.5e−01
REACTOME_COMPLEMENT_CASCADE		1.53	4.1e−02	6.7e−01
REACTOME_G_ALPHA_12_13_SIGNALLING_EVENTS		1.50	4.6e−02	6.8e−01
REACTOME_RESPONSE_OF_EIF2AK4_GCN2_TO_AMINO_ACID_DEFICIENCY		−2.22	9.3e−06	9.0e−04
REACTOME_EUKARYOTIC_TRANSLATION_INITIATION		−2.19	7.1e−06	9.0e−04
REACTOME_EUKARYOTIC_TRANSLATION_ELONGATION		−2.22	9.3e−06	9.0e−04
REACTOME_TRANSLATION		−2.17	2.1e−06	7.5e−04
REACTOME_CELLULAR_RESPONSE_TO_STARVATION		−2.24	2.6e−06	7.5e−04

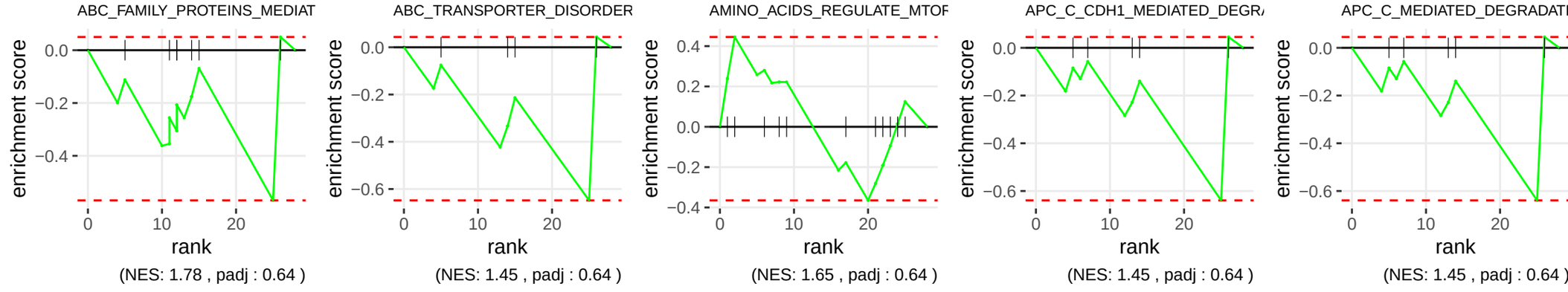




D2 Neutro : Top enriched Pathways (GSEA), Old vs Young

Pathway	NES	pval	padj
REACTOME_ABC_FAMILY_PROTEINS_MEDIATED_TRANSPORT	1.78	1.3e−02	6.4e−01
REACTOME_ABC_TRANSPORTER_DISORDERS	1.45	1.0e−01	6.4e−01
REACTOME_AMINO_ACIDS_REGULATE_MTORC1	1.65	2.2e−02	6.4e−01
_DEGRADATION_OF_CDC20_AND_OTHER_APC_C_CDH1_TARGETED_PROTEINS_IN_LATE_MITOSIS_EARLY_G1	1.45	9.2e−02	6.4e−01
REACTOME_APC_C_MEDIATED_DEGRADATION_OF_CELL_CYCLE_PROTEINS	1.45	9.2e−02	6.4e−01
REACTOME_DISEASES_OF_GLYCOSYLATION	−1.73	5.1e−03	6.4e−01
REACTOME_DISEASES_ASSOCIATED_WITH_GLYCOSAMINOGLYCAN_METABOLISM	−1.54	1.2e−02	6.4e−01
LATED_CDK5_TRIGGERS_MULTIPLE_NEURODEGENERATIVE_PATHWAYS_IN_ALZHEIMER_S_DISEASE_MODELS	−1.39	9.5e−02	6.4e−01
REACTOME_DEATH_RECEPTOR_SIGNALLING	−1.60	1.0e−02	6.4e−01
REACTOME_CLASS_B_2_SECRETIN_FAMILY_RECEPTORS	−1.48	2.4e−02	6.4e−01





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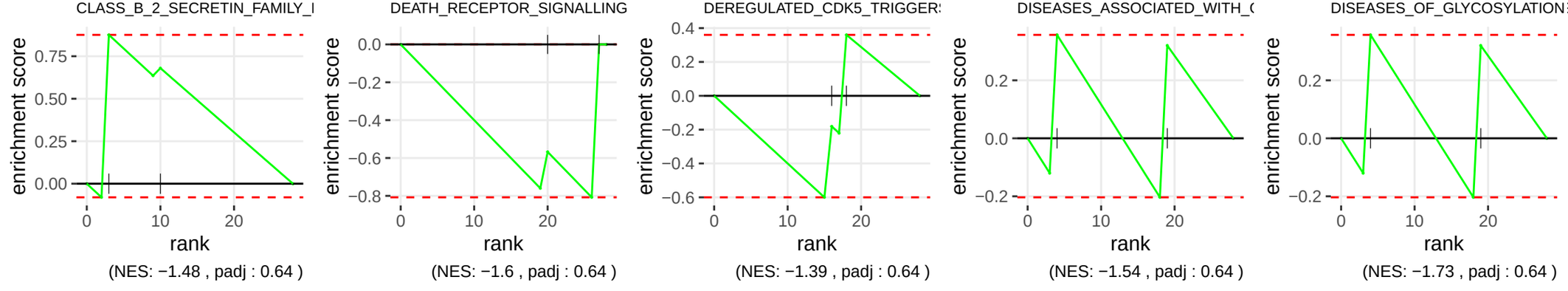

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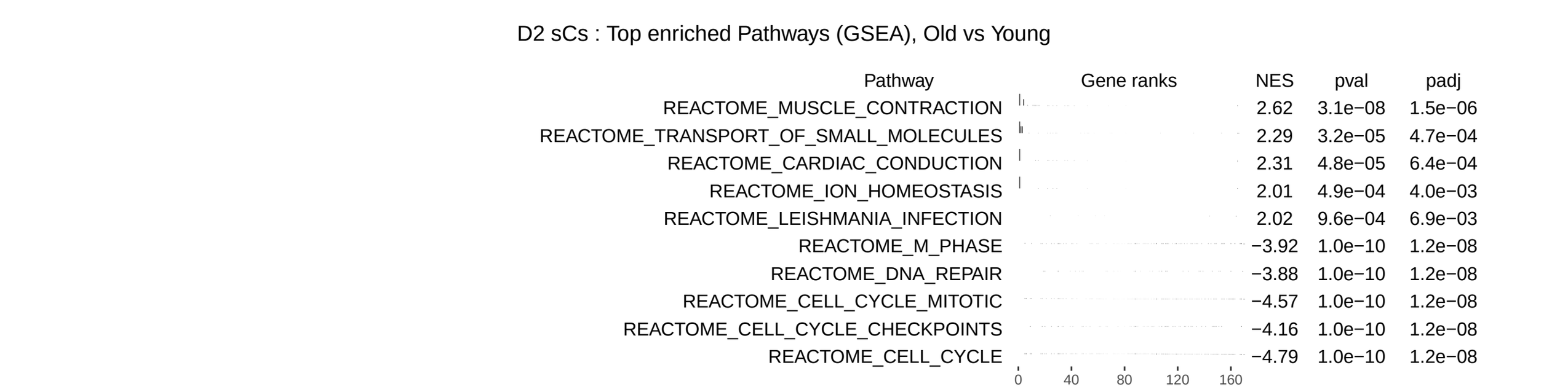
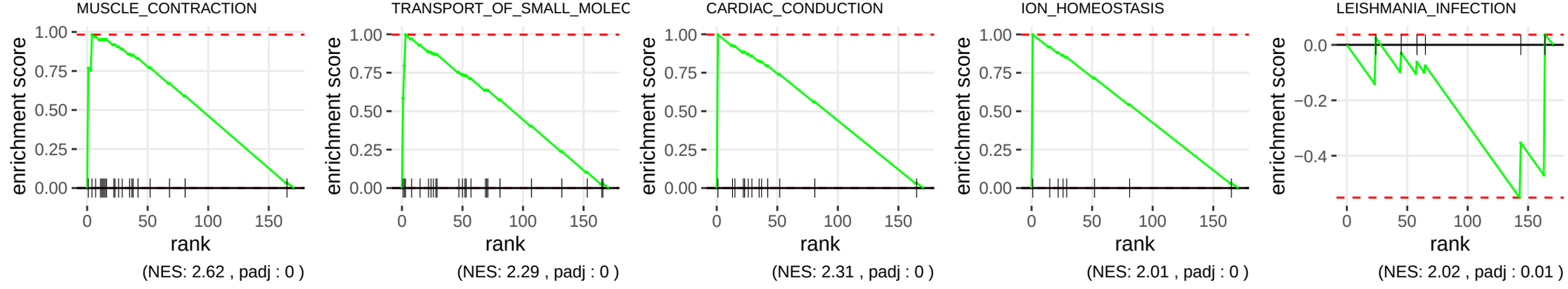
D2 sCs : Top enriched Pathways (GSEA), Old vs Young

Pathway	Gene ranks	NES	pval	padj
REACTOME_MUSCLE_CONTRACTION		2.62	3.1e−08	1.5e−06
REACTOME_TRANSPORT_OF_SMALL_MOLECULES		2.29	3.2e−05	4.7e−04
REACTOME_CARDIAC_CONDUCTION		2.31	4.8e−05	6.4e−04
REACTOME_ION_HOMEOSTASIS		2.01	4.9e−04	4.0e−03
REACTOME_LEISHMANIA_INFECTION		2.02	9.6e−04	6.9e−03
REACTOME_M_PHASE		−3.92	1.0e−10	1.2e−08
REACTOME_DNA_REPAIR		−3.88	1.0e−10	1.2e−08
REACTOME_CELL_CYCLE_MITOTIC		−4.57	1.0e−10	1.2e−08
REACTOME_CELL_CYCLE_CHECKPOINTS		−4.16	1.0e−10	1.2e−08
REACTOME_CELL_CYCLE		−4.79	1.0e−10	1.2e−08





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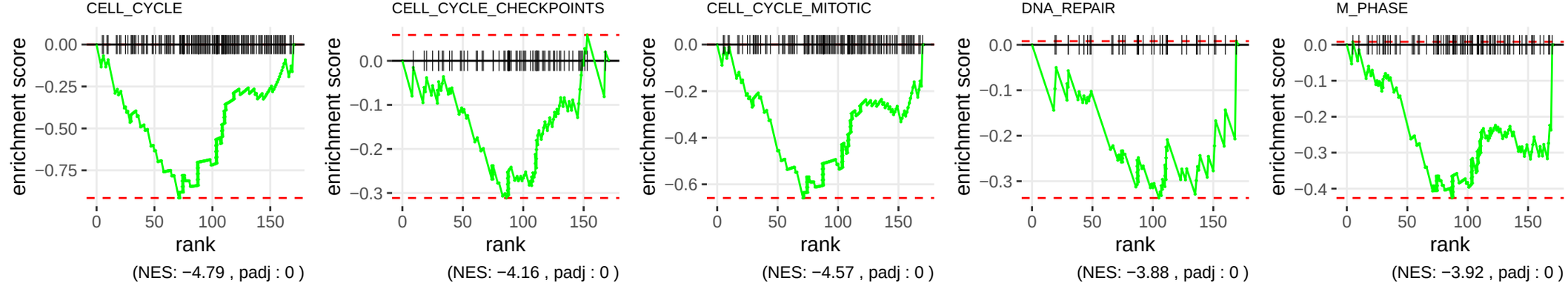

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