

GeDiPNet Shared-Gene Disease Pairs

Similarity: Jaccard index on shared curated genes (disease_gdp). Significance: upper-tail hypergeometric test ($P(X \geq k)$), Benjamini-Hochberg FDR-corrected across all tested pairs. Corroborated Shared Genes: count of shared genes backed by ≥ 2 distinct disease_gdp.main_source values combined across both diseases (e.g. GWAS-backed for one, ClinVar-backed for the other still counts); Shared Gene Names lists each gene's own source count in parentheses. Overlap Coefficient: shared genes / MIN(each disease's own total gene count) -- complements the Jaccard-based Similarity Score by showing how much of the SMALLER disease's entire known gene-set is covered by this pair, which Jaccard (dividing by the union) can understate. Shared Cluster: cluster id if both diseases fall in the same label-propagation cluster (scripts/build_disease_clusters.php), blank otherwise. See scripts/build_related.php on gedipnet.bicnirrh.res.in. Data as of: 2026-10-11 03:00:14. Filters applied: disease name contains "Tay-sachs disease" (5 matching pairs). · Rows: 5 · Generated: 2026-10-11 16:19:40

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Gm2 gangliosidosis	Tay-sachs disease	2	2	HEXA (7), GM2A (6)	0.50000	1.00000	2.531e-8	1.927e-7	
Beta-hexosaminidase a deficiency	Tay-sachs disease	1	1	HEXA (7)	0.25000	1.00000	1.948e-4	5.354e-4	
Ataxia with oculomotor apraxia	Tay-sachs disease	1	0	SETX (1)	0.12500	0.33333	9.739e-4	1.665e-3	
Proximal spinal muscular atrophy	Tay-sachs disease	1	0	SETX (1)	0.11111	0.33333	1.169e-3	1.895e-3	
Leukodystrophy	Tay-sachs disease	1	1	HEXA (7)	0.03448	0.33333	5.057e-3	6.197e-3	