

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 "GM3 synthase deficiency" (5 matching pairs). · Rows: 5 · Generated: 2026-10-10 21:54:09

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
GM3 synthase deficiency	Salt and pepper developmental regression syndrome	1	1	ST3GAL5 (2)	0.50000	1.00000	6.494e-5	2.331e-4	
Amish infantile epilepsy syndrome	GM3 synthase deficiency	1	1	ST3GAL5 (3)	0.33333	1.00000	1.299e-4	3.931e-4	
GM3 synthase deficiency	Psychiatric disorders	1	1	ST3GAL5 (2)	0.00455	1.00000	1.422e-2	1.582e-2	
Astrocytoma	GM3 synthase deficiency	1	1	ST3GAL5 (2)	0.00331	1.00000	1.955e-2	2.130e-2	
Cardiovascular disease	GM3 synthase deficiency	1	1	ST3GAL5 (2)	0.00231	1.00000	2.806e-2	2.988e-2	