

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: 2026-10-22 03:00:19. Filters applied: disease name contains "Pyruvate dehydrogenase E3 deficiency" (5 matching pairs). · Rows: 5 · Generated: 2026-10-22 02:20:53

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Nasopharyngeal neoplasms	Pyruvate dehydrogenase E3 deficiency	1	1	DLD (2)	0.02222	0.50000	5.545e-3	6.583e-3	
Maple syrup urine disease	Pyruvate dehydrogenase E3 deficiency	1	1	DLD (2)	0.11111	0.50000	9.038e-4	1.411e-3	
Dihydrolipoamide dehydrogenase deficiency	Pyruvate dehydrogenase E3 deficiency	1	1	DLD (4)	0.25000	0.50000	2.583e-4	5.385e-4	
Lacticacidemia	Pyruvate dehydrogenase E3 deficiency	1	0	PDHX (1)	0.33333	1.00000	1.291e-4	3.269e-4	
Leigh syndrome	Pyruvate dehydrogenase E3 deficiency	2	2	DLD (3), PDHX (3)	0.01818	1.00000	4.908e-5	1.985e-4	