

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: 2026-10-20 03:00:20. Filters applied: disease name contains "Hereditary optic neuropathy" (15 matching pairs). · Rows: 15 · Generated: 2026-10-20 03:39:34

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Hereditary optic neuropathy	Schizophrenia	1	1	MCAT (2)	0.00039	1.00000	1.639e-1	1.643e-1	
Hereditary optic neuropathy	Optic atrophy	1	1	MCAT (7)	0.00526	1.00000	1.220e-2	1.348e-2	
Leber-like hereditary optic neuropathy, autosomal recessive 1	Optic atrophy	1	1	DNAJC30 (3)	0.00526	1.00000	1.220e-2	1.348e-2	
Cardiomyopathy, infantile histiocytoid	Leber hereditary optic neuropathy	1	1	CYTB (3)	0.03571	1.00000	1.743e-3	2.422e-3	
Leber hereditary optic neuropathy	Leber optic atrophy and dystonia	1	1	ND3 (2)	0.03571	1.00000	1.743e-3	2.422e-3	12
Leber hereditary optic neuropathy	Leber-like hereditary optic neuropathy, autosomal recessive 1	1	1	DNAJC30 (8)	0.03571	1.00000	1.743e-3	2.422e-3	
Leber-like hereditary optic neuropathy, autosomal recessive 1	Williams syndrome	1	1	DNAJC30 (4)	0.04000	1.00000	1.550e-3	2.192e-3	639
Hereditary optic neuropathy	Optic atrophy 15	1	1	MCAT (2)	0.50000	1.00000	6.457e-5	1.985e-4	
Developmental delay	Leber hereditary optic neuropathy	5	5	ND2 (3), COX3 (3), ND5 (3), ND4 (3), CYTB (3)	0.04950	0.18519	2.106e-7	1.408e-6	
Leber hereditary optic neuropathy	Mitochondrial complex deficiency	14	14	ND1 (3), ND2 (3), NDUFS2 (6), ATP6 (3), COX3 (3), COX1 (2), ATP8 (2), ND5 (3), COX2 (2), ND3 (2), ND4 (3), ND4L (3)	0.10526	0.51852	2.095e-23	3.407e-22	
Leber hereditary optic neuropathy	Postaxial polydactyly	11	9	ND1 (3), ND2 (3), ATP6 (3), COX3 (3), COX1 (2), ATP8 (1), ND5 (3), COX2 (1), ND3 (2), ND4 (3), ND4L (3)	0.27500	0.47826	5.676e-26	9.939e-25	12
Cleft palate and bilateral cleft lip	Leber hereditary optic neuropathy	11	9	ND1 (3), ND2 (3), ATP6 (3), COX3 (3), COX1 (2), ATP8 (1), ND5 (3), COX2 (1), ND3 (2), ND4 (3), ND4L (3)	0.35484	0.78571	1.541e-29	2.985e-28	12
Leber hereditary optic neuropathy	Neuropathy, ataxia, and retinitis pigmentosa	11	9	ND1 (3), ND2 (3), ATP6 (3), COX3 (3), COX1 (2), ATP8 (1), ND5 (3), COX2 (1), ND3 (2), ND4 (3), ND4L (3)	0.36667	0.84615	3.305e-30	6.503e-29	12
Leber hereditary optic neuropathy	ROD-CONE DYSTROPHY	14	12	LRAT (2), ND1 (3), ND2 (3), RP1 (2), RPE65 (2), ATP6 (3), COX3 (3), COX1 (2), ATP8 (1), ND5 (3), COX2 (1), ND3 (2)	0.28000	0.51852	1.436e-31	2.909e-30	12
Leber hereditary optic neuropathy	Melas syndrome	15	14	IL1A (2), IL1B (2), ND1 (3), ND2 (3), SOD2 (2), ATP6 (3), ND6 (3), COX3 (3), COX1 (3), ATP8 (1), ND5 (3), COX2 (2)	0.46875	0.78947	1.250e-40	2.961e-39	12