

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  $\geq 2$  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: 2026-10-09 03:00:13. Filters applied: disease name contains "DHDDS-CDG" (5 matching pairs). · Rows: 5 · Generated: 2026-10-09 01:52:05

| Disease A                                  | Disease B            | Shared Genes | Corroborated Shared Genes | Shared Gene Names | Similarity Score | Overlap Coefficient | P-value  | FDR Q-value | Shared Cluster |
|--------------------------------------------|----------------------|--------------|---------------------------|-------------------|------------------|---------------------|----------|-------------|----------------|
| Developmental delay and seizures           | DHDDS-CDG            | 1            | 1                         | DHDDS (5)         | 0.50000          | 1.00000             | 6.494e-5 | 2.329e-4    |                |
| Congenital disorder of glycosylation       | DHDDS-CDG            | 1            | 1                         | DHDDS (2)         | 0.01000          | 1.00000             | 6.429e-3 | 7.680e-3    |                |
| Developmental and epileptic encephalopathy | DHDDS-CDG            | 1            | 1                         | DHDDS (4)         | 0.00452          | 1.00000             | 1.429e-2 | 1.587e-2    |                |
| DHDDS-CDG                                  | Retinitis pigmentosa | 1            | 1                         | DHDDS (7)         | 0.00280          | 1.00000             | 2.312e-2 | 2.493e-2    |                |
| Alzheimer disease                          | DHDDS-CDG            | 1            | 1                         | DHDDS (2)         | 0.00045          | 1.00000             | 1.440e-1 | 1.450e-1    |                |