

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: 2026-10-12 03:00:13. Filters applied: disease name contains "Dubowitz syndrome" (5 matching pairs). · Rows: 5 · Generated: 2026-10-12 02:31:00

| Disease A                | Disease B                         | Shared Genes | Corroborated Shared Genes | Shared Gene Names | Similarity Score | Overlap Coefficient | P-value  | FDR Q-value | Shared Cluster |
|--------------------------|-----------------------------------|--------------|---------------------------|-------------------|------------------|---------------------|----------|-------------|----------------|
| Dna ligase iv deficiency | Dubowitz syndrome                 | 1            | 1                         | LIG4 (4)          | 0.33333          | 1.00000             | 1.299e-4 | 3.931e-4    |                |
| Dubowitz syndrome        | Lig4 syndrome                     | 1            | 1                         | LIG4 (4)          | 0.25000          | 0.50000             | 2.598e-4 | 6.509e-4    |                |
| Dubowitz syndrome        | Omenn syndrome                    | 1            | 1                         | LIG4 (3)          | 0.08333          | 0.50000             | 1.298e-3 | 2.063e-3    |                |
| Dubowitz syndrome        | Spondylosis                       | 1            | 1                         | LIG4 (3)          | 0.03125          | 0.50000             | 3.893e-3 | 4.941e-3    |                |
| Dubowitz syndrome        | syndromic intellectual disability | 1            | 1                         | NSUN2 (3)         | 0.02632          | 0.50000             | 4.671e-3 | 5.787e-3    |                |