

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: 2026-10-14 03:00:13. Filters applied: disease name contains "Deafness and myopia" (5 matching pairs). · Rows: 5 · Generated: 2026-10-14 17:32:54

| Disease A           | Disease B                                   | Shared Genes | Corroborated Shared Genes | Shared Gene Names | Similarity Score | Overlap Coefficient | P-value  | FDR Q-value | Shared Cluster |
|---------------------|---------------------------------------------|--------------|---------------------------|-------------------|------------------|---------------------|----------|-------------|----------------|
| Deafness and myopia | Isolated sensorineural deafness             | 1            | 1                         | SLITRK6 (3)       | 0.00833          | 1.00000             | 7.728e-3 | 9.016e-3    |                |
| Deafness and myopia | Lewy body disease                           | 1            | 1                         | SLITRK6 (4)       | 0.01042          | 1.00000             | 6.170e-3 | 7.415e-3    |                |
| Deafness and myopia | Gestational diabetes                        | 1            | 1                         | SLITRK6 (4)       | 0.01099          | 1.00000             | 5.845e-3 | 7.049e-3    |                |
| Deafness and myopia | Marshall syndrome                           | 1            | 1                         | SLITRK6 (3)       | 0.05000          | 1.00000             | 1.234e-3 | 1.986e-3    |                |
| Deafness and myopia | high myopia-sensorineural deafness syndrome | 1            | 1                         | SLITRK6 (4)       | 0.50000          | 1.00000             | 6.494e-5 | 2.331e-4    |                |