

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: 2026-10-11 03:00:14. Filters applied: disease name contains "primary ciliary dyskinesia 28" (5 matching pairs). · Rows: 5 · Generated: 2026-10-11 11:16:50

| Disease A                         | Disease B                     | Shared Genes | Corroborated Shared Genes | Shared Gene Names | Similarity Score | Overlap Coefficient | P-value  | FDR Q-value | Shared Cluster |
|-----------------------------------|-------------------------------|--------------|---------------------------|-------------------|------------------|---------------------|----------|-------------|----------------|
| Ciliary dyskinesia                | primary ciliary dyskinesia 28 | 1            | 1                         | SPAG1 (8)         | 0.01099          | 1.00000             | 5.845e-3 | 7.049e-3    |                |
| Interstitial lung disease         | primary ciliary dyskinesia 28 | 1            | 1                         | SPAG1 (2)         | 0.01493          | 1.00000             | 4.286e-3 | 5.383e-3    |                |
| Congenital nasopharyngeal atresia | primary ciliary dyskinesia 28 | 1            | 1                         | SPAG1 (2)         | 0.03226          | 1.00000             | 1.948e-3 | 2.828e-3    |                |
| Nocturnal frontal lobe epilepsy   | primary ciliary dyskinesia 28 | 1            | 1                         | SPAG1 (2)         | 0.10000          | 1.00000             | 5.845e-4 | 1.156e-3    |                |
| Complex regional pain syndrome    | primary ciliary dyskinesia 28 | 1            | 1                         | SPAG1 (2)         | 0.11111          | 1.00000             | 5.195e-4 | 1.061e-3    |                |