

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: 2026-10-10 03:00:13. Filters applied: disease name contains "microcephaly with or without chorioretinopathy, lymphedema, or intellectual disability" (5 matching pairs). · Rows: 5 · Generated: 2026-10-10 02:34:33

| Disease A                                                                              | Disease B                                                                              | Shared Genes | Corroborated Shared Genes | Shared Gene Names | Similarity Score | Overlap Coefficient | P-value  | FDR Q-value | Shared Cluster |
|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------|---------------------------|-------------------|------------------|---------------------|----------|-------------|----------------|
| Aneuploidy                                                                             | microcephaly with or without chorioretinopathy, lymphedema, or intellectual disability | 1            | 1                         | KIF11 (2)         | 0.16667          | 1.00000             | 3.247e-4 | 7.709e-4    |                |
| Chromosomal instability                                                                | microcephaly with or without chorioretinopathy, lymphedema, or intellectual disability | 1            | 1                         | KIF11 (2)         | 0.11111          | 1.00000             | 5.195e-4 | 1.061e-3    |                |
| Lymphedema                                                                             | microcephaly with or without chorioretinopathy, lymphedema, or intellectual disability | 1            | 1                         | KIF11 (2)         | 0.05882          | 1.00000             | 1.039e-3 | 1.739e-3    |                |
| microcephaly with or without chorioretinopathy, lymphedema, or intellectual disability | Usher syndrome                                                                         | 1            | 1                         | KIF11 (2)         | 0.02222          | 1.00000             | 2.858e-3 | 3.806e-3    |                |
| Ciliopathy                                                                             | microcephaly with or without chorioretinopathy, lymphedema, or intellectual disability | 1            | 1                         | KIF11 (3)         | 0.01389          | 1.00000             | 4.611e-3 | 5.734e-3    |                |