

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: 2026-10-20 03:00:20. Filters applied: disease name contains "Mental retardation, autosomal recessive 13" (5 matching pairs). · Rows: 5 · Generated: 2026-10-20 03:55:54

| Disease A                                            | Disease B                                  | Shared Genes | Corroborated Shared Genes | Shared Gene Names | Similarity Score | Overlap Coefficient | P-value  | FDR Q-value | Shared Cluster |
|------------------------------------------------------|--------------------------------------------|--------------|---------------------------|-------------------|------------------|---------------------|----------|-------------|----------------|
| Liver cirrhosis                                      | Mental retardation, autosomal recessive 13 | 1            | 1                         | TRAPPC9 (2)       | 0.00377          | 1.00000             | 1.705e-2 | 1.845e-2    |                |
| Mental retardation, autosomal recessive 13           | Nonsyndromic intellectual disability       | 1            | 1                         | TRAPPC9 (4)       | 0.00699          | 1.00000             | 9.168e-3 | 1.032e-2    |                |
| Congenital neurologic anomalies                      | Mental retardation, autosomal recessive 13 | 1            | 1                         | TRAPPC9 (2)       | 0.00862          | 1.00000             | 7.425e-3 | 8.572e-3    |                |
| Malunion fracture                                    | Mental retardation, autosomal recessive 13 | 1            | 1                         | TRAPPC9 (2)       | 0.07143          | 1.00000             | 8.394e-4 | 1.336e-3    |                |
| Intellectual developmental disorder dysmorphic brain | Mental retardation, autosomal recessive 13 | 1            | 1                         | TRAPPC9 (5)       | 0.50000          | 1.00000             | 6.457e-5 | 1.985e-4    |                |