

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 "Short stature-delayed bone age due to thyroid hormone metabolism deficiency" (5 matching pairs). · Rows: 5 · Generated: 2026-10-20 04:23:03

| Disease A                                                                   | Disease B                                                                   | Shared Genes | Corroborated Shared Genes | Shared Gene Names | Similarity Score | Overlap Coefficient | P-value  | FDR Q-value | Shared Cluster |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------|---------------------------|-------------------|------------------|---------------------|----------|-------------|----------------|
| Short stature-delayed bone age due to thyroid hormone metabolism deficiency | Thyroid disease                                                             | 1            | 1                         | SECISBP2 (2)      | 0.01852          | 1.00000             | 3.422e-3 | 4.286e-3    |                |
| Growth disorder                                                             | Short stature-delayed bone age due to thyroid hormone metabolism deficiency | 1            | 1                         | SECISBP2 (2)      | 0.02857          | 1.00000             | 2.195e-3 | 2.917e-3    |                |
| Short stature-delayed bone age due to thyroid hormone metabolism deficiency | Thoracic aortic aneurysm                                                    | 1            | 0                         | SECISBP2 (1)      | 0.03448          | 1.00000             | 1.808e-3 | 2.494e-3    |                |
| Amino acid metabolism disorder                                              | Short stature-delayed bone age due to thyroid hormone metabolism deficiency | 1            | 1                         | SECISBP2 (3)      | 0.03704          | 1.00000             | 1.679e-3 | 2.343e-3    |                |
| Short stature-delayed bone age due to thyroid hormone metabolism deficiency | Thyroid hormone metabolism disorder                                         | 1            | 1                         | SECISBP2 (5)      | 0.33333          | 1.00000             | 1.291e-4 | 3.269e-4    |                |