

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 "Factor xii deficiency" (9 matching pairs). · Rows: 9 · Generated: 2026-10-11 07:58:14

| Disease A                        | Disease B                        | Shared Genes | Corroborated Shared Genes | Shared Gene Names | Similarity Score | Overlap Coefficient | P-value  | FDR Q-value | Shared Cluster |
|----------------------------------|----------------------------------|--------------|---------------------------|-------------------|------------------|---------------------|----------|-------------|----------------|
| Congenital factor xii deficiency | Factor xii deficiency            | 1            | 1                         | F12 (6)           | 0.50000          | 1.00000             | 6.494e-5 | 2.331e-4    |                |
| Cold autoinflammatory syndrome   | Congenital factor xii deficiency | 1            | 1                         | F12 (3)           | 0.14286          | 1.00000             | 3.897e-4 | 8.665e-4    |                |
| Cold autoinflammatory syndrome   | Factor xii deficiency            | 1            | 1                         | F12 (5)           | 0.14286          | 1.00000             | 3.897e-4 | 8.665e-4    |                |
| Congenital factor xii deficiency | Hereditary angioedema            | 1            | 1                         | F12 (6)           | 0.12500          | 1.00000             | 4.546e-4 | 9.726e-4    |                |
| Factor xii deficiency            | Hereditary angioedema            | 1            | 1                         | F12 (7)           | 0.12500          | 1.00000             | 4.546e-4 | 9.726e-4    |                |
| Congenital factor xii deficiency | Thromboembolism                  | 1            | 1                         | F12 (4)           | 0.07692          | 1.00000             | 7.793e-4 | 1.405e-3    |                |
| Factor xii deficiency            | Thromboembolism                  | 1            | 1                         | F12 (4)           | 0.07692          | 1.00000             | 7.793e-4 | 1.405e-3    |                |
| Congenital factor xii deficiency | Transient ischemic attack        | 1            | 1                         | F12 (3)           | 0.04000          | 1.00000             | 1.559e-3 | 2.376e-3    |                |
| Factor xii deficiency            | Transient ischemic attack        | 1            | 1                         | F12 (4)           | 0.04000          | 1.00000             | 1.559e-3 | 2.376e-3    |                |