

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 "C1q deficiency" (5 matching pairs). · Rows: 5 · Generated: 2026-10-10 22:34:55

| Disease A      | Disease B                                    | Shared Genes | Corroborated Shared Genes | Shared Gene Names            | Similarity Score | Overlap Coefficient | P-value   | FDR Q-value | Shared Cluster |
|----------------|----------------------------------------------|--------------|---------------------------|------------------------------|------------------|---------------------|-----------|-------------|----------------|
| C1q deficiency | Complement pathway abnormality               | 3            | 3                         | C1QA (5), C1QB (5), C1QC (4) | 0.33333          | 1.00000             | 9.205e-11 | 9.154e-10   |                |
| C1q deficiency | Stevens-johnson syndrome                     | 2            | 2                         | C1QA (5), C1QC (5)           | 0.02500          | 0.66667             | 7.575e-5  | 2.710e-4    |                |
| C1q deficiency | systemic lupus erythematosus related to C1QA | 1            | 1                         | C1QA (6)                     | 0.25000          | 1.00000             | 1.948e-4  | 5.354e-4    |                |
| C1q deficiency | Exanthema                                    | 1            | 1                         | C1QA (5)                     | 0.11111          | 0.33333             | 1.169e-3  | 1.895e-3    |                |
| C1q deficiency | Ovarian cysts                                | 1            | 1                         | C1QB (6)                     | 0.02632          | 0.33333             | 6.804e-3  | 8.082e-3    |                |