

# 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: 2026-10-12 03:00:13. Filters applied: disease name contains "Peeling skin syndrome" (14 matching pairs). · Rows: 14 · Generated: 2026-10-11 22:37:09

| Disease A                                                           | Disease B                                                           | Shared Genes | Corroborated Shared Genes | Shared Gene Names      | Similarity Score | Overlap Coefficient | P-value  | FDR Q-value | Shared Cluster |
|---------------------------------------------------------------------|---------------------------------------------------------------------|--------------|---------------------------|------------------------|------------------|---------------------|----------|-------------|----------------|
| Acral peeling skin syndrome                                         | Peeling skin syndrome                                               | 2            | 2                         | CSTA (4), TGM5 (4)     | 0.25000          | 1.00000             | 1.772e-7 | 1.182e-6    |                |
| Peeling skin syndrome with leukonychia and acral punctate keratoses | Uveitis                                                             | 2            | 2                         | CAST (7), ERAP1 (2)    | 0.05882          | 1.00000             | 4.454e-6 | 2.335e-5    |                |
| Hypotrichosis simplex                                               | Peeling skin syndrome                                               | 2            | 1                         | PSORS1C1 (1), CDSN (7) | 0.11111          | 0.28571             | 1.167e-5 | 5.715e-5    |                |
| Peeling skin syndrome                                               | Rheumatic disease                                                   | 2            | 2                         | PSORS1C1 (2), CDSN (7) | 0.10526          | 0.28571             | 1.379e-5 | 6.665e-5    |                |
| Peeling skin syndrome with leukonychia and acral punctate keratoses | Pemphigus                                                           | 1            | 1                         | CAST (6)               | 0.10000          | 0.50000             | 1.039e-3 | 1.739e-3    | 1              |
| Acral peeling skin syndrome                                         | Junctional epidermolysis bullosa                                    | 1            | 1                         | CSTA (3)               | 0.05000          | 0.50000             | 2.337e-3 | 3.243e-3    |                |
| Acral peeling skin syndrome                                         | Nasopharyngeal carcinoma                                            | 1            | 1                         | CSTA (2)               | 0.04167          | 0.50000             | 2.856e-3 | 3.806e-3    |                |
| Blood coagulation disorder                                          | Peeling skin syndrome with leukonychia and acral punctate keratoses | 1            | 1                         | CAST (7)               | 0.03846          | 0.50000             | 3.115e-3 | 4.096e-3    |                |
| Aneurysm                                                            | Peeling skin syndrome with leukonychia and acral punctate keratoses | 1            | 1                         | CAST (7)               | 0.03448          | 0.50000             | 3.504e-3 | 4.517e-3    |                |
| Peeling skin syndrome with leukonychia and acral punctate keratoses | Vasculitis                                                          | 1            | 1                         | CAST (6)               | 0.03226          | 0.50000             | 3.763e-3 | 4.809e-3    |                |
| Cutaneous lupus erythematosus                                       | Peeling skin syndrome                                               | 1            | 1                         | PSORS1C1 (2)           | 0.05556          | 0.14286             | 4.991e-3 | 6.120e-3    |                |
| Hypotrichosis                                                       | Peeling skin syndrome                                               | 1            | 1                         | CDSN (7)               | 0.04167          | 0.14286             | 7.704e-3 | 9.000e-3    |                |
| Acral peeling skin syndrome                                         | Glioblastoma                                                        | 1            | 1                         | CSTA (2)               | 0.00164          | 0.50000             | 7.729e-2 | 7.858e-2    |                |
| Acral peeling skin syndrome                                         | Lung cancer                                                         | 1            | 1                         | TGM5 (2)               | 0.00154          | 0.50000             | 8.252e-2 | 8.366e-2    |                |