

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 "Breast-ovarian cancer, familial, susceptibility to, 3" (5 matching pairs). · Rows: 5 · Generated: 2026-10-20 05:47:02

| Disease A                                             | Disease B                                     | Shared Genes | Corroborated Shared Genes | Shared Gene Names | Similarity Score | Overlap Coefficient | P-value  | FDR Q-value | Shared Cluster |
|-------------------------------------------------------|-----------------------------------------------|--------------|---------------------------|-------------------|------------------|---------------------|----------|-------------|----------------|
| Breast-ovarian cancer, familial, susceptibility to, 3 | Fanconi anemia complementation group o        | 1            | 1                         | RAD51C (2)        | 0.50000          | 1.00000             | 6.457e-5 | 1.985e-4    |                |
| Breast-ovarian cancer, familial, susceptibility to, 3 | Familial ovarian cancer                       | 1            | 0                         | RAD51C (1)        | 0.14286          | 1.00000             | 3.874e-4 | 7.329e-4    |                |
| Breast-ovarian cancer, familial, susceptibility to, 3 | Cancer predisposition                         | 1            | 1                         | RAD51C (2)        | 0.10000          | 1.00000             | 5.811e-4 | 1.000e-3    |                |
| Breast-ovarian cancer, familial, susceptibility to, 3 | Hereditary breast and ovarian cancer syndrome | 1            | 1                         | RAD51C (6)        | 0.06667          | 1.00000             | 9.039e-4 | 1.411e-3    |                |
| Breast-ovarian cancer, familial, susceptibility to, 3 | Hepatosplenic t-cell lymphoma                 | 1            | 0                         | RAD51C (1)        | 0.03846          | 1.00000             | 1.614e-3 | 2.265e-3    |                |