

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 ≥ 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 "SMAD6-related disease" (5 matching pairs). · Rows: 5 · Generated: 2026-10-11 10:10:15

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Atypical femoral fracture	SMAD6-related disease	1	1	SMAD6 (2)	0.02632	1.00000	2.403e-3	3.313e-3	
SMAD6-related disease	Thoracic aortic aneurysm	1	1	SMAD6 (2)	0.05263	1.00000	1.169e-3	1.895e-3	
Loeys-dietz syndrome	SMAD6-related disease	1	1	SMAD6 (2)	0.05882	1.00000	1.039e-3	1.739e-3	
Bicuspid aortic valve	SMAD6-related disease	1	1	SMAD6 (4)	0.06667	1.00000	9.092e-4	1.576e-3	
Congenital radioulnar synostosis	SMAD6-related disease	1	1	SMAD6 (2)	0.33333	1.00000	1.299e-4	3.931e-4	