

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 "Aortic valve disease" (17 matching pairs). · Rows: 17 · Generated: 2026-10-11 02:14:18

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Aortic stenosis	Aortic valve disease	49	0	HMGA2 (1), ACAN (1), ALPL (1), PRRX1 (1), ALDH1A2 (1), ARHGAP24 (1), ASCC2 (1), FADS1 (1), FADS2 (1), FLNB (1), HCN1 (1), LDLR (1)	0.52688	0.81667	5.196e-109	6.801e-107	
Aortic valve disease	Thoracic aortic aneurysm and aortic dissection	9	7	FBN1 (5), NOTCH1 (4), COL5A1 (1), TGFB2 (5), COL1A1 (2), COL3A1 (2), LOX (6), ROBO4 (5), GATA5 (1)	0.07895	0.21951	5.969e-13	7.329e-12	
Aortic valve disease	Heart valve disease	8	3	NOTCH1 (4), FADS1 (1), FADS2 (1), MECOM (1), LPA (1), COL1A1 (2), TIMP1 (2), CEP85L (1)	0.06957	0.19512	3.417e-11	3.543e-10	
Aortic valve disease	Bicuspid aortic valve	6	6	NOTCH1 (5), ROBO4 (6), GATA5 (2), MGP (2), SMAD6 (6), NKX2-5 (2)	0.06667	0.42857	5.096e-11	5.230e-10	
Aortic valve disease	Marfan syndrome	7	7	FBN1 (7), NOTCH1 (4), COL5A1 (2), TGFB2 (2), COL1A1 (2), COL3A1 (2), LOX (2)	0.05932	0.16279	2.367e-9	2.060e-8	
Aortic valve disease	Major salivary gland carcinoma	2	0	MYMK (1), SLC2A6 (1)	0.02326	0.33333	4.044e-4	8.990e-4	
aortic valve disease 3	Bicuspid aortic valve	1	1	ROBO4 (3)	0.06667	1.00000	9.092e-4	1.576e-3	188
aortic valve disease 3	Congenital diaphragmatic hernia	1	1	ROBO4 (2)	0.04762	1.00000	1.299e-3	2.063e-3	
aortic valve disease 3	Thoracic aortic aneurysm and aortic dissection	1	1	ROBO4 (2)	0.02381	1.00000	2.663e-3	3.596e-3	
Aortic aneurysm	aortic valve disease 3	1	1	ROBO4 (2)	0.01587	1.00000	4.026e-3	5.087e-3	
Aortic valve disease	Congenital hypogonadotropic hypogonadism	1	1	EMX2 (2)	0.01220	1.00000	5.260e-3	6.419e-3	
Aortic valve disease	Congenital progressive bone marrow failure-b-cell immunodeficiency-skeletal dysplasia syndrome	1	1	MYSM1 (3)	0.01220	1.00000	5.260e-3	6.419e-3	
Aortic valve disease	intellectual developmental disorder, autosomal recessive 75, with neuropsychiatric features and variant lissencephaly	1	1	PIDD1 (2)	0.01220	1.00000	5.260e-3	6.419e-3	
Aortic valve disease	lissencephaly 10	1	1	CEP85L (2)	0.01220	1.00000	5.260e-3	6.419e-3	
Aortic valve disease	aortic valve disease 3	1	1	ROBO4 (5)	0.01220	1.00000	5.260e-3	6.419e-3	
Aortic valve disease	Short stature spectrum	1	1	ACAN (2)	0.01220	1.00000	5.260e-3	6.419e-3	
Aortic valve disease	Carey-fineman-ziter syndrome	1	1	MYMK (6)	0.01205	0.50000	1.049e-2	1.186e-2	