

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: 2026-10-10 03:00:13. Filters applied: disease name contains "Fatty liver" (49 matching pairs). · Rows: 49 · Generated: 2026-10-10 20:57:16

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Fatty liver	Fatty liver, alcoholic	84	75	INS (2), MTTP (2), CAT (2), PTEN (2), SCD (1), APOB (2), APOE (2), ATP7B (2), CYCS (2), F2R (2), FGF21 (2), GPX4 (2)	0.87500	0.97674	2.614e-210	1.134e-207	
Liver cirrhosis	Nonalcoholic fatty liver disease	78	37	CAT (2), PTEN (2), CDH2 (1), SERPINA1 (3), ACE (2), APOC1 (1), APOE (1), COMMD1 (3), CYP1A2 (2), FARP1 (1), HLA-DQA1 (2), HLA-DRB1 (2)	0.15507	0.29545	9.775e-70	6.944e-68	226
Liver disease	Nonalcoholic fatty liver disease	46	25	INS (2), MTTP (3), SERPINA1 (3), APOC1 (1), APOE (1), CYP1A2 (2), HS3ST1 (1), TRIB1 (3), HFE (2), ALDH2 (2), GSTP1 (2), GSTT1 (2)	0.10748	0.29299	1.375e-40	5.828e-39	226
Fatty liver, alcoholic	Nonalcoholic fatty liver disease	27	24	INS (2), MTTP (3), CAT (2), PTEN (2), APOE (2), FGF21 (2), LDLR (2), SREBF1 (2), F2 (2), LEP (2), MTHFR (1), NFE2L2 (2)	0.07181	0.31395	4.780e-25	1.170e-23	
Kidney failure	Nonalcoholic fatty liver disease	39	38	INS (2), CAT (2), SERPINA1 (3), ACE (2), APOE (2), ATP5F1B (2), CYP1A2 (3), MLXIPL (3), SCARB1 (2), SREBF1 (2), VEGFA (2), GSTP1 (2)	0.07372	0.15538	2.613e-23	5.817e-22	
Myocardial ischemia	Nonalcoholic fatty liver disease	46	40	CDH2 (3), SERPINA1 (3), ACE (2), APOC1 (1), APOE (2), BTNL2 (2), JCAD (2), LDLR (3), MLXIPL (2), NYAP2 (1), PTPRD (2), SCARB1 (3)	0.06949	0.14557	3.726e-22	7.787e-21	
Cardiomegaly	Fatty liver, alcoholic	13	13	LEP (2), PPARA (2), SOD2 (2), TNF (2), POMC (2), AKT1 (2), CYP1B1 (2), CYP2E1 (2), HTR2B (2), PPARD (2), UCP2 (2), CEBPB (2)	0.08228	0.15476	9.104e-16	1.367e-14	
Cardiomegaly	Fatty liver	13	13	LEP (2), PPARA (2), SOD2 (2), TNF (2), POMC (2), AKT1 (2), CYP1B1 (2), CYP2E1 (2), HTR2B (2), PPARD (2), UCP2 (2), CEBPB (2)	0.07879	0.15476	2.634e-15	3.823e-14	
Fatty liver, alcoholic	Hyperglycemia	11	9	INS (2), LEP (2), NFE2L2 (2), PON1 (1), TF (1), SOD1 (2), GPX1 (2), CCL2 (2), COL3A1 (2), NUS1 (2), LEPR (2)	0.08594	0.21154	4.270e-15	6.120e-14	
Fatty liver	Hyperglycemia	11	11	INS (2), LEP (2), NFE2L2 (2), PON1 (2), TF (2), SOD1 (2), GPX1 (2), CCL2 (2), COL3A1 (2), NUS1 (2), LEPR (2)	0.08148	0.21154	1.046e-14	1.466e-13	
Fatty liver, alcoholic	Hyperinsulinism	10	9	INS (2), MTTP (1), LEP (2), TNF (2), GPX1 (2), CCL2 (2), COL3A1 (2), UCP2 (2), LEPR (2), NEIL1 (2)	0.08403	0.23810	2.191e-14	2.994e-13	
Fatty liver	Hepatomegaly	11	10	LDLR (2), LEP (2), NFE2L2 (2), PPARA (2), AKT1 (2), IFNA2 (1), CYP1B1 (2), MET (2), NR1H4 (2), NR1I2 (2), LEPR (2)	0.07801	0.18966	3.828e-14	5.114e-13	
Fatty liver	Hyperinsulinism	10	10	INS (2), MTTP (2), LEP (2), TNF (2), GPX1 (2), CCL2 (2), COL3A1 (2), UCP2 (3), LEPR (2), NEIL1 (2)	0.07937	0.23810	4.934e-14	6.528e-13	
Fatty liver, alcoholic	Ventricular dysfunction	10	10	INS (2), NFE2L2 (2), SOD2 (2), TLR4 (2), TNF (2), AKT1 (2), SIRT1 (2), ADRB2 (2), LEPR (2), SIRT6 (2)	0.08130	0.21739	5.962e-14	7.859e-13	
Fatty liver, alcoholic	Hepatomegaly	10	10	LDLR (2), LEP (2), NFE2L2 (2), PPARA (2), AKT1 (2), CYP1B1 (2), MET (2), NR1H4 (2), NR1I2 (2), LEPR (2)	0.07407	0.17241	7.230e-13	8.821e-12	
Fatty liver, alcoholic	Trifunctional protein deficiency	2	1	HADHA (2), HADHB (1)	0.02273	0.66667	9.216e-5	3.280e-4	
Fatty liver	Trifunctional protein deficiency	2	2	HADHA (2), HADHB (2)	0.02105	0.66667	1.078e-4	3.826e-4	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Cervical polyp	Nonalcoholic fatty liver disease	2	0	IRAK1BP1 (1), MEI4 (1)	0.00631	1.00000	4.199e-4	9.332e-4	
Fatty liver, alcoholic	long chain 3-hydroxyacyl-coa dehydrogenase deficiency	1	1	HADHA (2)	0.01149	1.00000	5.585e-3	6.785e-3	
Fatty liver, alcoholic	Mucoepithelial dysplasia	1	1	SREBF1 (2)	0.01149	1.00000	5.585e-3	6.785e-3	
Fatty liver, alcoholic	mitochondrial trifunctional protein deficiency	1	1	HADHB (2)	0.01149	1.00000	5.585e-3	6.785e-3	
Fatty liver, alcoholic	Oxysterol accumulation disorder	1	1	CYP7B1 (2)	0.01149	1.00000	5.585e-3	6.785e-3	
Corticosteroid-binding globulin deficiency	Fatty liver, alcoholic	1	1	SERPINA6 (6)	0.01149	1.00000	5.585e-3	6.785e-3	
Fatty liver, alcoholic	Urban-schossler-spoehr syndrome	1	0	SREBF1 (1)	0.01149	1.00000	5.585e-3	6.785e-3	
Fatty liver, alcoholic	X-linked ichthyosis with steryl-sulfatase deficiency	1	1	STS (2)	0.01149	1.00000	5.585e-3	6.785e-3	
Abetalipoproteinemia	Fatty liver, alcoholic	1	1	MTTP (2)	0.01149	1.00000	5.585e-3	6.785e-3	
Fatty liver	Oxysterol accumulation disorder	1	1	CYP7B1 (3)	0.01064	1.00000	6.040e-3	7.267e-3	
Fatty liver	Mucoepithelial dysplasia	1	1	SREBF1 (3)	0.01064	1.00000	6.040e-3	7.267e-3	
Fatty liver	Urban-schossler-spoehr syndrome	1	1	SREBF1 (2)	0.01064	1.00000	6.040e-3	7.267e-3	
Fatty liver	X-linked ichthyosis with steryl-sulfatase deficiency	1	1	STS (3)	0.01064	1.00000	6.040e-3	7.267e-3	
Fatty liver	mitochondrial trifunctional protein deficiency	1	1	HADHB (3)	0.01064	1.00000	6.040e-3	7.267e-3	
Abetalipoproteinemia	Fatty liver	1	1	MTTP (3)	0.01064	1.00000	6.040e-3	7.267e-3	
Fatty liver	long chain 3-hydroxyacyl-coa dehydrogenase deficiency	1	1	HADHA (2)	0.01064	1.00000	6.040e-3	7.267e-3	
congenital disorder of glycosylation, type iit	Fatty liver	1	1	GALNT2 (2)	0.01064	1.00000	6.040e-3	7.267e-3	
Corticosteroid-binding globulin deficiency	Fatty liver	1	1	SERPINA6 (6)	0.01064	1.00000	6.040e-3	7.267e-3	
Amelocerebrohypohidrotic syndrome	Fatty liver, alcoholic	1	1	SLC13A5 (3)	0.01136	0.50000	1.114e-2	1.254e-2	
Amelocerebrohypohidrotic syndrome	Fatty liver	1	1	SLC13A5 (4)	0.01053	0.50000	1.204e-2	1.348e-2	
hereditary spastic paraplegia 62	Nonalcoholic fatty liver disease	1	1	ERLIN1 (2)	0.00315	1.00000	2.052e-2	2.230e-2	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
foveal hypoplasia - optic nerve decussation defect - anterior segment dysgenesis syndrome	Nonalcoholic fatty liver disease	1	1	SLC38A8 (2)	0.00315	1.00000	2.052e-2	2.230e-2	
Nonalcoholic fatty liver disease	platelet abnormalities with eosinophilia and immune-mediated inflammatory disease	1	1	ARPC1B (2)	0.00315	1.00000	2.052e-2	2.230e-2	
Carboxypeptidase n deficiency	Nonalcoholic fatty liver disease	1	1	CPN1 (4)	0.00315	1.00000	2.052e-2	2.230e-2	
autosomal recessive cerebellar ataxia	Nonalcoholic fatty liver disease	1	1	CWF19L1 (2)	0.00315	1.00000	2.052e-2	2.230e-2	
Anaphylatoxin inactivator deficiency	Nonalcoholic fatty liver disease	1	1	CPN1 (2)	0.00315	1.00000	2.052e-2	2.230e-2	
methylmalonic aciduria and homocystinuria type cblF	Nonalcoholic fatty liver disease	1	1	LMBRD1 (2)	0.00315	1.00000	2.052e-2	2.230e-2	
Hyperprolinemia	Nonalcoholic fatty liver disease	1	1	ALDH4A1 (7)	0.00314	0.50000	4.062e-2	4.251e-2	
Intestinal vascular insufficiency	Nonalcoholic fatty liver disease	1	0	NEDD9 (1)	0.00314	0.50000	4.062e-2	4.251e-2	
Nonalcoholic fatty liver disease	Primary microcephaly-mild intellectual disability-young-onset diabetes syndrome	1	1	TRMT10A (3)	0.00314	0.50000	4.062e-2	4.251e-2	
Atelis syndrome	Nonalcoholic fatty liver disease	1	1	SLF2 (4)	0.00314	0.50000	4.062e-2	4.251e-2	
Nonalcoholic fatty liver disease	Thiamine-responsive maple syrup urine disease	1	1	BCKDHB (2)	0.00313	0.33333	6.032e-2	6.203e-2	