

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: 2026-10-08 03:00:13. · Rows: 500 · Generated: 2026-10-08 16:41:14

Note: PDF export is limited to the first 500 rows. Use TSV or CSV format for the complete export.

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
colon adenocarcinoma	colorectal adenocarcinoma	0	0		0.25000	0.00000	1.000e+0	1.000e+0	
colon adenocarcinoma	cutaneous melanoma	0	0		0.25000	0.00000	1.000e+0	1.000e+0	
colorectal adenocarcinoma	cutaneous melanoma	0	0		0.25000	0.00000	1.000e+0	1.000e+0	
Anauxetic dysplasia	Diabetes mellitus type 2	1	1	CCDC107 (2)	0.00032	0.25000	5.905e-1	5.906e-1	
Autism	Chromosome y microdeletion syndrome	1	1	DDX3Y (2)	0.00068	0.12500	5.502e-1	5.503e-1	
2,4-dienoyl-coa reductase deficiency	Diabetes mellitus type 2	1	1	NADK2 (4)	0.00032	0.50000	3.601e-1	3.601e-1	
Auroneurodental syndrome	Diabetes mellitus type 2	1	1	HYAL3 (2)	0.00032	0.50000	3.601e-1	3.601e-1	2
Cartilage-hair hypoplasia	Diabetes mellitus type 2	1	1	CCDC107 (2)	0.00032	0.50000	3.601e-1	3.601e-1	
Diabetes mellitus type 2	Trimethylaminuria	1	1	FMO4 (2)	0.00032	0.50000	3.601e-1	3.601e-1	
Diabetes mellitus type 2	Intellectual developmental disorder speech peripheral neuropathy	1	1	NEMF (5)	0.00032	0.50000	3.601e-1	3.601e-1	
Breast cancer	Hydatidiform mole	1	1	TOP6BL (5)	0.00093	0.16667	3.498e-1	3.500e-1	
Ear disorder	Schizophrenia	1	0	SCML4 (1)	0.00039	0.50000	3.028e-1	3.030e-1	2
Atrial fibrillation	Hydatidiform mole	1	1	MEI1 (6)	0.00115	0.16667	2.926e-1	2.927e-1	
Gout	Hydatidiform mole	1	1	TOP6BL (5)	0.00121	0.16667	2.796e-1	2.798e-1	
Alzheimer disease	Peroxisomal acyl-coa oxidase deficiency	1	1	ACOX1 (6)	0.00045	0.50000	2.673e-1	2.675e-1	
Alzheimer disease	Partial hydatidiform mole	1	1	NLRP7 (2)	0.00045	0.50000	2.673e-1	2.675e-1	
Alzheimer disease	Primary coenzyme q10 deficiency	1	1	COQ6 (2)	0.00045	0.50000	2.673e-1	2.675e-1	

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Alzheimer disease	Ear disorder	1	0	SCML4 (1)	0.00045	0.50000	2.673e-1	2.675e-1	2
Alzheimer disease	Carey-fineman-ziter syndrome	1	1	MYMK (6)	0.00045	0.50000	2.673e-1	2.675e-1	
Alzheimer disease	Auditory neuropathy with optic atrophy	1	1	GRIN2C (2)	0.00045	0.50000	2.673e-1	2.675e-1	
3m syndrome	Autism	1	1	CUL7 (5)	0.00068	0.33333	2.588e-1	2.591e-1	
Birk-aharoni syndrome	Major depressive disorder	1	1	PSMC1 (3)	0.00051	0.50000	2.384e-1	2.386e-1	2
Carboxypeptidase n deficiency	Diabetes mellitus type 2	1	1	CPN1 (4)	0.00032	1.00000	2.000e-1	2.002e-1	
Bilateral cleft lip	Diabetes mellitus type 2	1	1	PLEKHA5 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Ataxia, combined cerebellar and peripheral, with hearing loss and diabetes mellitus	Diabetes mellitus type 2	1	1	DNAJC3 (4)	0.00032	1.00000	2.000e-1	2.002e-1	
Autoinflammatory disease, systemic, with vasculitis	Diabetes mellitus type 2	1	1	LYN (4)	0.00032	1.00000	2.000e-1	2.002e-1	
Autoinflammatory disease, multisystem, with immune dysregulation, x-linked	Diabetes mellitus type 2	1	1	DOCK11 (6)	0.00032	1.00000	2.000e-1	2.002e-1	
COG8-congenital disorder of glycosylation	Diabetes mellitus type 2	1	1	COG8 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Cimdag syndrome	Diabetes mellitus type 2	1	1	VPS4A (3)	0.00032	1.00000	2.000e-1	2.002e-1	
ciliary dyskinesia, primary, 49, without situs inversus	Diabetes mellitus type 2	1	1	CFAP74 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
ciliary dyskinesia, primary, 48, without situs inversus	Diabetes mellitus type 2	1	1	NME5 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Cerebellar hypoplasia-intellectual disability-congenital microcephaly-dystonia-anemia-growth retardation syndrome	Diabetes mellitus type 2	1	1	VPS4A (4)	0.00032	1.00000	2.000e-1	2.002e-1	
Congenital malrotation of intestine	Diabetes mellitus type 2	1	1	GALNT14 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Congenital malabsorptive diarrhea with diabetes mellitus and combined pituitary hormone deficiency	Diabetes mellitus type 2	1	1	NEUROG3 (3)	0.00032	1.00000	2.000e-1	2.002e-1	
Congenital malabsorptive diarrhea	Diabetes mellitus type 2	1	1	NEUROG3 (4)	0.00032	1.00000	2.000e-1	2.002e-1	
congenital anomaly of kidney and urinary tract	Diabetes mellitus type 2	1	1	CHD1L (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Congenital hypopituitarism	Diabetes mellitus type 2	1	0	FOXA2 (1)	0.00032	1.00000	2.000e-1	2.002e-1	
Alopecia-neurological defects-endocrinopathy syndrome	Diabetes mellitus type 2	1	1	RBM28 (3)	0.00032	1.00000	2.000e-1	2.002e-1	2

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Anaphylatoxin inactivator deficiency	Diabetes mellitus type 2	1	1	CPN1 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Adenosine deaminase 2 deficiency	Diabetes mellitus type 2	1	1	ADA2 (3)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	Dimethylglycine dehydrogenase deficiency	1	1	DMGDH (7)	0.00032	1.00000	2.000e-1	2.002e-1	
Developmental delay with variable neurological abnormalities	Diabetes mellitus type 2	1	1	LMBRD2 (5)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	Early-onset immune dysregulation with autoimmunity due to dock11 partial deficiency	1	1	DOCK11 (3)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	Early-onset immune dysregulation due to dock11 complete deficiency	1	1	DOCK11 (3)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	Dihydropyrimidinase deficiency	1	1	DPYS (5)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	El-hayek-chahrouh neurodevelopmental syndrome	1	1	KDM5A (5)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	Phosphoserine phosphatase deficiency	1	1	PSPH (3)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	pterin-4 alpha-carbinolamine dehydratase 1 deficiency	1	1	PCBD1 (2)	0.00032	1.00000	2.000e-1	2.002e-1	2
Diabetes mellitus type 2	Primary hypomagnesemia with hypocalciuria	1	1	FXD2 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	progressive encephalopathy with leukodystrophy due to DECR deficiency	1	1	NADK2 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	Warsaw breakage syndrome	1	1	DDX11 (7)	0.00032	1.00000	2.000e-1	2.002e-1	2
Diabetes mellitus type 2	VPS11-related neurological disorder	1	1	VPS11 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	Thoracic malformation	1	1	FGF4 (3)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	opsismodysplasia	1	1	INPPL1 (3)	0.00032	1.00000	2.000e-1	2.002e-1	2
Diabetes mellitus type 2	Oculocerebrorenal syndrome	1	1	PIK3C2A (3)	0.00032	1.00000	2.000e-1	2.002e-1	2
Diabetes mellitus type 2	non-severe combined immunodeficiency due to CDPG1 deficiency	1	1	CDPG1 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	nephronophthisis 7	1	1	GLIS2 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	nephronophthisis 20	1	1	MAPKBP1 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	Nasopalpebral lipoma-coloiboma syndrome	1	1	ZDBF2 (3)	0.00032	1.00000	2.000e-1	2.002e-1	

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Diabetes mellitus type 2	fanconi anemia complementation group p	1	1	SLX4 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	GNPTG-mucopolipidosis	1	1	GNPTG (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	glycogen storage disorder due to hepatic glycogen synthase deficiency	1	1	GYS2 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	Midline facial cleft	1	1	PCSK7 (2)	0.00032	1.00000	2.000e-1	2.002e-1	2
Diabetes mellitus type 2	lysinuric protein intolerance	1	1	SLC7A7 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	Hepatic glycogen synthase deficiency	1	1	GYS2 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	hyper-IgE recurrent infection syndrome 3, autosomal recessive	1	1	ZNF341 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	hemochromatosis type 2A	1	1	HJV (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	immunodeficiency, common variable, 7	1	1	CR2 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	Intellectual developmental disorder dysmorphic strabismus	1	1	ADAT3 (5)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	inflammatory skin and bowel disease, neonatal, 1	1	1	ADAM17 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	Insulinomatosis and diabetes mellitus	1	1	MAFA (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	SNUPN-related muscular dystrophy with or without multi-system involvement	1	1	SNUPN (2)	0.00032	1.00000	2.000e-1	2.002e-1	2
Diabetes mellitus type 2	siddiqi syndrome	1	1	FITM2 (2)	0.00032	1.00000	2.000e-1	2.002e-1	2
Diabetes mellitus type 2	spondyloepimetaphyseal dysplasia with joint laxity, type 3	1	1	EXOC6B (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	renal hypomagnesemia 2	1	1	FXYP2 (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Diabetes mellitus type 2	syndactyly-telecanthus-anogenital and renal malformations syndrome	1	1	CCNQ (2)	0.00032	1.00000	2.000e-1	2.002e-1	
Autism	Intellectual developmental disorder speech peripheral neuropathy	1	1	NEMF (5)	0.00068	0.50000	1.810e-1	1.817e-1	
Autism	Carnitine acetyltransferase deficiency	1	1	SLC25A20 (6)	0.00068	0.50000	1.810e-1	1.817e-1	
Intellectual disability with strabismus syndrome	Neurodevelopmental disorder	1	1	ADAT3 (3)	0.00106	0.33333	1.719e-1	1.725e-1	
hypotaurinemic retinal degeneration and cardiomyopathy	Schizophrenia	1	1	SLC6A6 (2)	0.00039	1.00000	1.650e-1	1.656e-1	

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intellectual disability, autosomal recessive 61	Schizophrenia	1	1	RUSC2 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
immunodeficiency 23	Schizophrenia	1	1	PGM3 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
inflammatory bowel disease 28	Schizophrenia	1	1	IL10RA (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Glyoxalase ii deficiency	Schizophrenia	1	0	HAGH (1)	0.00039	1.00000	1.650e-1	1.656e-1	2
glycogen storage disorder due to hepatic glycogen synthase deficiency	Schizophrenia	1	1	GYS2 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
foveal hypoplasia - optic nerve decussation defect - anterior segment dysgenesis syndrome	Schizophrenia	1	1	SLC38A8 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
glyceronephosphate O-acyltransferase deficiency	Schizophrenia	1	1	GNPAT (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Galactose mutarotase deficiency	Schizophrenia	1	0	GALM (1)	0.00039	1.00000	1.650e-1	1.656e-1	
Pyridoxamine 5'-phosphate oxidase deficiency	Schizophrenia	1	1	PNPO (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Phosphoribosylaminoimidazole carboxylase deficiency	Schizophrenia	1	0	PAICS (1)	0.00039	1.00000	1.650e-1	1.656e-1	2
Pulmonary agenesis	Schizophrenia	1	1	EFNB2 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
pyridoxal phosphate-responsive seizures	Schizophrenia	1	1	PNPO (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Pash syndrome	Schizophrenia	1	1	NCSTN (2)	0.00039	1.00000	1.650e-1	1.656e-1	
primary ciliary dyskinesia 18	Schizophrenia	1	1	DNAAF5 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
progressive essential tremor-speech impairment-facial dysmorphism-intellectual disability-abnormal behavior syndrome	Schizophrenia	1	1	SLC6A17 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
orofaciodigital syndrome type 14	Schizophrenia	1	1	C2CD3 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
optic atrophy 15	Schizophrenia	1	1	MCAT (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Oculocerebrodentatal syndrome	Schizophrenia	1	1	PIK3C2A (3)	0.00039	1.00000	1.650e-1	1.656e-1	2
Nonobstructive azoospermia	Schizophrenia	1	1	SLC26A8 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Nasopalpebral lipoma-coloboma syndrome	Schizophrenia	1	1	ZDBF2 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Schizophrenia	SNRNP200-related dominant retinopathy	1	1	SNRNP200 (2)	0.00039	1.00000	1.650e-1	1.656e-1	

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Schizophrenia	spinocerebellar ataxia, autosomal recessive 23	1	1	TDP2 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Schizophrenia	spondyloepimetaphyseal dysplasia with joint laxity, type 3	1	1	EXOC6B (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Schizophrenia	sulfite oxidase deficiency due to molybdenum cofactor deficiency type B2	1	1	MOCS3 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
retinitis pigmentosa 86	Schizophrenia	1	1	KIAA1549 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
multiple congenital anomalies-hypotonia-seizures syndrome 1	Schizophrenia	1	1	PIGN (2)	0.00039	1.00000	1.650e-1	1.656e-1	
mucopolysaccharidosis type 9	Schizophrenia	1	1	HYAL1 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Hepatic glycogen synthase deficiency	Schizophrenia	1	0	GYS2 (1)	0.00039	1.00000	1.650e-1	1.656e-1	
Hemorrhagic destruction of the brain subependymal calcification and cataracts	Schizophrenia	1	1	JAM3 (4)	0.00039	1.00000	1.650e-1	1.656e-1	2
Hyaluronoglucosaminidase deficiency	Schizophrenia	1	1	HYAL1 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
hydroxyprolinemia	Schizophrenia	1	1	PRODH2 (2)	0.00039	1.00000	1.650e-1	1.656e-1	2
cardiomyopathy, dilated, 2g	Schizophrenia	1	1	LMOD2 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Birbeck granule deficiency	Schizophrenia	1	1	CD207 (4)	0.00039	1.00000	1.650e-1	1.656e-1	
Brain calcification	Schizophrenia	1	1	FARSB (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Early-onset dystonia with spastic paraplegia	Schizophrenia	1	1	ATP5MC3 (5)	0.00039	1.00000	1.650e-1	1.656e-1	
Catatonia	Schizophrenia	1	1	CHRM4 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Cayman type cerebellar ataxia	Schizophrenia	1	1	ATCAY (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Childhood-onset dystonia with optic atrophy and basal ganglia abnormalities	Schizophrenia	1	1	MECR (5)	0.00039	1.00000	1.650e-1	1.656e-1	
Childhood-onset dystonia	Schizophrenia	1	1	MECR (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Cednik syndrome	Schizophrenia	1	1	SNAP29 (4)	0.00039	1.00000	1.650e-1	1.656e-1	
Charcot-Marie-Tooth disease, axonal, type 2FF	Schizophrenia	1	1	CADM3 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Cerebral dysgenesis-neuropathy-ichthyosis-palmoplantar keratoderma syndrome	Schizophrenia	1	1	SNAP29 (3)	0.00039	1.00000	1.650e-1	1.656e-1	

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aspartylglucosaminuria	Schizophrenia	1	1	AGA (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Asplenia	Schizophrenia	1	1	RPSA (3)	0.00039	1.00000	1.650e-1	1.656e-1	
ALG12-congenital disorder of glycosylation	Schizophrenia	1	1	ALG12 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Dentatorubral pallidoluysian atrophy	Schizophrenia	1	1	ATN1 (6)	0.00039	1.00000	1.650e-1	1.656e-1	
Corneal injury	Schizophrenia	1	1	ALDH3A1 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Congenital intrinsic factor deficiency	Schizophrenia	1	1	CBLIF (3)	0.00039	1.00000	1.650e-1	1.656e-1	
Congenital hypotonia, epilepsy, developmental delay, and digital anomalies	Schizophrenia	1	1	ATN1 (4)	0.00039	1.00000	1.650e-1	1.656e-1	
Congenital cranial dysinnervation disorder	Schizophrenia	1	1	NEUROG1 (3)	0.00039	1.00000	1.650e-1	1.656e-1	
congenital disorder of glycosylation, type 2v	Schizophrenia	1	1	EDEM3 (2)	0.00039	1.00000	1.650e-1	1.656e-1	
Bile duct disease	Metabolic syndrome	1	1	FECH (3)	0.00077	0.50000	1.621e-1	1.631e-1	
Auroneurodental syndrome	Metabolic syndrome	1	1	HYAL3 (2)	0.00077	0.50000	1.621e-1	1.631e-1	2
Bipolar disorder	Birk-aharoni syndrome	1	1	PSMC1 (3)	0.00082	0.50000	1.522e-1	1.532e-1	2
Intellectual developmental disorder	Thiamine-responsive maple syrup urine disease	1	1	BCKDHA (2)	0.00123	0.33333	1.495e-1	1.505e-1	
Atrichia with papular lesions	Obesity	1	1	HR (6)	0.00084	0.50000	1.491e-1	1.500e-1	
Alzheimer disease	Cleft lip and palate, craniofacial dysmorphism, congenital heart defect, hearing loss syndrome	1	1	HYAL2 (3)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	ciliary dyskinesia, primary, 53	1	1	CLXN (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	ciliary dyskinesia, primary, 49, without situs inversus	1	1	CFAP74 (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	ciliary dyskinesia, primary, 48, without situs inversus	1	1	NME5 (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Desanto-shinawi syndrome	1	1	WAC (6)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Desmosterolosis	1	1	DHCR24 (7)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Developmental delay and seizures	1	1	DHDDS (5)	0.00045	1.00000	1.440e-1	1.450e-1	

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Alzheimer disease	DHDDS-CDG	1	1	DHDDS (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Dihydropteridine reductase deficiency	1	1	QDPR (5)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Ehrlich tumor carcinoma	1	1	CEACAM20 (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Cardiofacio-neurodevelopmental syndrome	1	1	CCDC32 (5)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Carbonic anhydrase deficiency	1	1	CA5A (4)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Costeff optic atrophy syndrome	1	1	OPA3 (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Acyl-coa binding domain containing protein 5 deficiency	Alzheimer disease	1	1	ACBD5 (3)	0.00045	1.00000	1.440e-1	1.450e-1	
agammaglobulinemia 4, autosomal recessive	Alzheimer disease	1	1	BLNK (2)	0.00045	1.00000	1.440e-1	1.450e-1	
5-oxoprolinase deficiency	Alzheimer disease	1	0	OPLAH (1)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	X-linked opitz syndrome	1	1	MID1 (4)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Vacuolar neuromyopathy	1	1	PLIN4 (5)	0.00045	1.00000	1.440e-1	1.450e-1	2
Alzheimer disease	HAVCR2-related cancer predisposition	1	1	HAVCR2 (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Hyperammonemic encephalopathy	1	1	CA5A (5)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	perrault syndrome 3	1	1	CLPP (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	polyglucosan body myopathy 1 with or without immunodeficiency	1	1	RBCK1 (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Pash syndrome	1	1	NCSTN (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Parkinsonism with polyneuropathy	1	1	UQCRC1 (3)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	purine nucleoside phosphorylase deficiency	1	1	PNP (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Pancreatic insufficiency syndrome	1	1	COX4I2 (4)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	immunodeficiency 65, susceptibility to viral infections	1	1	IRF9 (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Intellectual developmental disorder dysmorphic ocular	1	1	MTSS2 (4)	0.00045	1.00000	1.440e-1	1.450e-1	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Alzheimer disease	inflammatory skin and bowel disease, neonatal, 1	1	1	ADAM17 (3)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Intellectual developmental disorder dysmorphic cardiac	1	1	TMEM94 (4)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	FNIP1-associated syndrome	1	1	FNIP1 (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Galactose mutarotase deficiency	1	1	GALM (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	glutamate pyruvate transaminase 2 deficiency	1	1	GPT2 (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Muggenthaler-chowdhury-chioza syndrome	1	1	HYAL2 (3)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	mosaic variegated aneuploidy syndrome 2	1	1	CEP57 (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	mittell syndrome	1	1	ACOX1 (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	Mak-related retinopathy	1	1	MAK (3)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	optic atrophy 3	1	1	OPA3 (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Alzheimer disease	nemaline myopathy 10	1	1	LMOD3 (2)	0.00045	1.00000	1.440e-1	1.450e-1	
Hypertension	Trimethylaminuria	1	1	FMO3 (5)	0.00087	0.50000	1.437e-1	1.449e-1	
adult neuronal ceroid lipofuscinosis	Hypertension	1	1	DNAJC5 (2)	0.00087	0.50000	1.437e-1	1.449e-1	
Coronary artery disease	Ear disorder	1	0	SCML4 (1)	0.00087	0.50000	1.430e-1	1.442e-1	2
Coronary artery disease	Ververi-brady syndrome	1	1	QRICH1 (5)	0.00087	0.50000	1.430e-1	1.442e-1	
Anauxetic dysplasia	Desbuquois syndrome	1	1	POP1 (5)	0.00175	0.25000	1.394e-1	1.406e-1	
Attention deficit hyperactivity disorder	Fructokinase deficiency	1	1	CGREF1 (2)	0.00090	0.50000	1.384e-1	1.396e-1	
2,4-dienoyl-coa reductase deficiency	Insomnia	1	1	DECR1 (3)	0.00093	0.50000	1.352e-1	1.364e-1	
Carnitine acetyltransferase deficiency	Insomnia	1	1	SLC25A20 (7)	0.00093	0.50000	1.352e-1	1.364e-1	
adult neuronal ceroid lipofuscinosis	Breast cancer	1	1	CTSF (2)	0.00094	0.50000	1.337e-1	1.349e-1	
Breast cancer	Keratitis palmoplantaris papulosa	1	1	COL14A1 (2)	0.00094	0.50000	1.337e-1	1.349e-1	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Ear disorder	Scoliosis	1	0	SCML4 (1)	0.00097	0.50000	1.297e-1	1.308e-1	2
ciliary dyskinesia, primary, 45	Major depressive disorder	1	1	TTC12 (2)	0.00051	1.00000	1.273e-1	1.284e-1	
Cayman type cerebellar ataxia	Major depressive disorder	1	1	ATCAY (2)	0.00051	1.00000	1.273e-1	1.284e-1	
chondrodysplasia with joint dislocations, gpapp type	Major depressive disorder	1	1	BPNT2 (2)	0.00051	1.00000	1.273e-1	1.284e-1	
Congenital isolated acth deficiency	Major depressive disorder	1	1	TBX19 (4)	0.00051	1.00000	1.273e-1	1.284e-1	
BBS4-related ciliopathy	Major depressive disorder	1	1	BBS4 (2)	0.00051	1.00000	1.273e-1	1.284e-1	
band heterotopia of brain	Major depressive disorder	1	1	EML1 (2)	0.00051	1.00000	1.273e-1	1.284e-1	2
Corticosteroid-binding globulin deficiency	Major depressive disorder	1	1	SERPINA6 (6)	0.00051	1.00000	1.273e-1	1.284e-1	
Copper metabolism disorder	Major depressive disorder	1	1	CCS (2)	0.00051	1.00000	1.273e-1	1.284e-1	
hypotaurinemic retinal degeneration and cardiomyopathy	Major depressive disorder	1	1	SLC6A6 (2)	0.00051	1.00000	1.273e-1	1.284e-1	
immunodeficiency, common variable, 5	Major depressive disorder	1	1	MS4A1 (2)	0.00051	1.00000	1.273e-1	1.284e-1	
Galactose mutarotase deficiency	Major depressive disorder	1	1	GALM (2)	0.00051	1.00000	1.273e-1	1.284e-1	
hereditary leiomyomatosis and renal cell cancer	Major depressive disorder	1	1	FH (2)	0.00051	1.00000	1.273e-1	1.284e-1	
hyperphenylalaninemia due to DNAJC12 deficiency	Major depressive disorder	1	1	DNAJC12 (2)	0.00051	1.00000	1.273e-1	1.284e-1	
Major depressive disorder	Zinc deficiency	1	1	SLC30A2 (4)	0.00051	1.00000	1.273e-1	1.284e-1	2
Major depressive disorder	Peho-like syndrome	1	1	CCDC88A (5)	0.00051	1.00000	1.273e-1	1.284e-1	
Major depressive disorder	primary ciliary dyskinesia 9	1	1	DNAI2 (2)	0.00051	1.00000	1.273e-1	1.284e-1	
Major depressive disorder	systemic lupus erythematosus 17	1	1	TLR7 (2)	0.00051	1.00000	1.273e-1	1.284e-1	
Major depressive disorder	Yoon-bellen neurodevelopmental syndrome	1	1	OGDHL (3)	0.00051	1.00000	1.273e-1	1.284e-1	2
Major depressive disorder	Telangiectasia–intellectual disability–microcephaly–metaphyseal dysplasia–eye abnormalities–short stature syndrome	1	1	LRRC8C (3)	0.00051	1.00000	1.273e-1	1.284e-1	
Major depressive disorder	Wernicke encephalopathy	1	1	TKT (3)	0.00051	1.00000	1.273e-1	1.284e-1	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Major depressive disorder	Vibratory urticaria	1	1	ADGRE2 (6)	0.00051	1.00000	1.273e-1	1.284e-1	2
Major depressive disorder	TRIP11-related skeletal dysplasia	1	1	TRIP11 (2)	0.00051	1.00000	1.273e-1	1.284e-1	
Major depressive disorder	Mak-related retinopathy	1	1	MAK (3)	0.00051	1.00000	1.273e-1	1.284e-1	
Major depressive disorder	SNRNP200-related dominant retinopathy	1	1	SNRNP200 (2)	0.00051	1.00000	1.273e-1	1.284e-1	
Major depressive disorder	syndromic X-linked intellectual disability Siderius type	1	1	PHF8 (2)	0.00051	1.00000	1.273e-1	1.284e-1	
Color vision deficiency	White sponge nevus	1	1	KRT13 (5)	0.00103	0.50000	1.215e-1	1.228e-1	
Nephronophthisis-like nephropathy	Prostate cancer	1	1	SLC41A1 (4)	0.00104	0.50000	1.211e-1	1.223e-1	
Neurodevelopmental disorder	Ververi-brady syndrome	1	1	SEPHS1 (3)	0.00106	0.50000	1.181e-1	1.193e-1	
Central nervous system malformation	Neurodevelopmental disorder	1	1	LMNB2 (2)	0.00106	0.50000	1.181e-1	1.193e-1	
adult neuronal ceroid lipofuscinosis	Neurodevelopmental disorder	1	1	CTSF (2)	0.00106	0.50000	1.181e-1	1.193e-1	
1p36.33 duplication syndrome	Prostatic neoplasms	1	1	ATAD3A (3)	0.00159	0.33333	1.173e-1	1.185e-1	
Gout	Pyruvate kinase deficiency	1	1	PKLR (2)	0.00122	0.50000	1.036e-1	1.046e-1	
Gout	Renal glycosuria	1	1	SLC5A1 (2)	0.00122	0.50000	1.036e-1	1.046e-1	
Intellectual developmental disorder	Ververi-brady syndrome	1	1	QRICH1 (4)	0.00123	0.50000	1.023e-1	1.034e-1	
Intellectual developmental disorder	Turnpenny-fry syndrome	1	1	PCGF2 (5)	0.00123	0.50000	1.023e-1	1.034e-1	
Atelis syndrome	Squamous cell carcinoma	1	1	SLF2 (4)	0.00126	0.50000	9.986e-2	1.009e-1	
Argininosuccinic aciduria	Autism	1	1	ASL (7)	0.00068	1.00000	9.501e-2	9.603e-2	
Arthrogryposis with neurodevelopmental impairment and seizures	Autism	1	1	SLC35A3 (6)	0.00068	1.00000	9.501e-2	9.603e-2	
aspartylglucosaminuria	Autism	1	1	AGA (2)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	Autism-epilepsy syndrome	1	1	BCKDK (2)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	Deafness, y-linked	1	1	TBL1Y (4)	0.00068	1.00000	9.501e-2	9.603e-2	2

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Autism	Corneal injury	1	1	ALDH3A1 (2)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	Desmosterolosis	1	1	DHCR24 (7)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	Developmental delay due to metabolic enzyme deficiency	1	1	ALDH6A1 (3)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	Cohen-gibson syndrome	1	1	EED (6)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	congenital disorder of glycosylation, type Iw, autosomal dominant	1	1	STT3A (2)	0.00068	1.00000	9.501e-2	9.603e-2	
Aminoaciduria	Autism	1	0	CLTRN (1)	0.00068	1.00000	9.501e-2	9.603e-2	
2-methylbutyryl-coa dehydrogenase deficiency	Autism	1	1	ACADSB (5)	0.00068	1.00000	9.501e-2	9.603e-2	
Adenylosuccinate lyase deficiency	Autism	1	1	ADSL (4)	0.00068	1.00000	9.501e-2	9.603e-2	
Al kaissi syndrome	Autism	1	0	CDK10 (1)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	Cerebral arterial disease	1	0	ADGRE3 (1)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	Branched-chain keto acid dehydrogenase kinase deficiency	1	1	BCKDK (5)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	Brainstem dysplasia	1	0	SMG9 (1)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	Bosch-boonstra-schaaf optic atrophy syndrome	1	1	NR2F1 (6)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	t-cell immunodeficiency, congenital alopecia, and nail dystrophy	1	1	FOXN1 (2)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	X-linked hereditary motor and sensory neuropathy	1	0	DRP2 (1)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	X-linked epilepsy with or without intellectual disability and dysmorphic features	1	1	GABRA3 (5)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	Thiopurine s-methyltransferase deficiency	1	1	TPMT (3)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	gaze palsy, familial horizontal, with progressive scoliosis 1	1	1	ROBO3 (3)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	hypotonia, infantile, with psychomotor retardation and characteristic facies 2	1	1	UNC80 (3)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	Intellectual developmental disorder growth seizures	1	1	ABCA2 (4)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	Intellectual developmental disorder behavioral short stature	1	1	PUS7 (4)	0.00068	1.00000	9.501e-2	9.603e-2	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Autism	Hemorrhagic destruction of the brain subependymal calcification and cataracts	1	1	JAM3 (3)	0.00068	1.00000	9.501e-2	9.603e-2	2
Autism	spastic tetraplegia-thin corpus callosum-progressive postnatal microcephaly syndrome	1	1	SLC14A (3)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	STT3A-congenital disorder of glycosylation	1	1	STT3A (2)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	SYNCRIP-related neurodevelopmental disorder	1	1	SYNCRIP (2)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	retinitis pigmentosa 18	1	1	PRPF3 (2)	0.00068	1.00000	9.501e-2	9.603e-2	2
Autism	primary ciliary dyskinesia 10	1	1	DNAAF2 (3)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	primary ciliary dyskinesia 11	1	1	RSPH4A (3)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	primary ciliary dyskinesia 13	1	1	DNAAF1 (3)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	primary ciliary dyskinesia 14	1	1	CCDC39 (3)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	primary ciliary dyskinesia 20	1	1	ODAD1 (3)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	Paraparesis	1	1	TECPR2 (2)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	primary ciliary dyskinesia 9	1	1	DNAI2 (3)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	mucopolysaccharidosis type 4A	1	1	GALNS (3)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	methylmalonate semialdehyde dehydrogenase deficiency	1	1	ALDH6A1 (3)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	megalencephalic leukoencephalopathy with subcortical cysts 2B, remitting, with or without intellectual disability	1	1	HEPACAM (2)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	megalencephalic leukoencephalopathy with subcortical cysts 2a	1	1	HEPACAM (2)	0.00068	1.00000	9.501e-2	9.603e-2	
Autism	macular corneal dystrophy	1	1	CHST6 (3)	0.00068	1.00000	9.501e-2	9.603e-2	
Degenerative polyarthritis	Osteoarthritis	1	1	FRZB (3)	0.00137	0.50000	9.257e-2	9.376e-2	
Crohn disease	Progressive arterial occlusive disease with hypertension	1	1	DAP3 (2)	0.00145	0.50000	8.762e-2	8.875e-2	
Metabolic syndrome	opsismodysplasia	1	1	INPPL1 (3)	0.00077	1.00000	8.462e-2	8.572e-2	2
Metabolic syndrome	Nasopalpebral lipoma-coloboma syndrome	1	1	ZDBF2 (3)	0.00077	1.00000	8.462e-2	8.572e-2	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
fanconi anemia complementation group p	Metabolic syndrome	1	1	SLX4 (2)	0.00077	1.00000	8.462e-2	8.572e-2	
Metabolic syndrome	Midline facial cleft	1	1	PCSK7 (2)	0.00077	1.00000	8.462e-2	8.572e-2	2
Metabolic syndrome	SF3B4-related acrofacial dysostosis	1	1	SF3B4 (2)	0.00077	1.00000	8.462e-2	8.572e-2	
Metabolic syndrome	Ribose-5-phosphate isomerase deficiency	1	1	RPIA (2)	0.00077	1.00000	8.462e-2	8.572e-2	
Metabolic syndrome	Ribose 5-phosphate isomerase deficiency	1	1	RPIA (5)	0.00077	1.00000	8.462e-2	8.572e-2	
Bile acid conjugation defect	Metabolic syndrome	1	1	BAAT (5)	0.00077	1.00000	8.462e-2	8.572e-2	
Bilateral cleft lip	Metabolic syndrome	1	1	PLEKHA5 (2)	0.00077	1.00000	8.462e-2	8.572e-2	
autosomal recessive osteopetrosis 8	Metabolic syndrome	1	1	SNX10 (2)	0.00077	1.00000	8.462e-2	8.572e-2	
Dimethylglycine dehydrogenase deficiency	Metabolic syndrome	1	1	DMGDH (7)	0.00077	1.00000	8.462e-2	8.572e-2	
Dihydropyrimidinase deficiency	Metabolic syndrome	1	1	DPYS (5)	0.00077	1.00000	8.462e-2	8.572e-2	
COG8-congenital disorder of glycosylation	Metabolic syndrome	1	1	COG8 (2)	0.00077	1.00000	8.462e-2	8.572e-2	
Cimdag syndrome	Metabolic syndrome	1	1	VPS4A (3)	0.00077	1.00000	8.462e-2	8.572e-2	
ciliary dyskinesia, primary, 49, without situs inversus	Metabolic syndrome	1	1	CFAP74 (2)	0.00077	1.00000	8.462e-2	8.572e-2	
Cerebellar hypoplasia-intellectual disability-congenital microcephaly-dystonia-anemia-growth retardation syndrome	Metabolic syndrome	1	1	VPS4A (4)	0.00077	1.00000	8.462e-2	8.572e-2	
CEP164-related ciliopathy	Metabolic syndrome	1	1	CEP164 (2)	0.00077	1.00000	8.462e-2	8.572e-2	
Colobomatous macrophthalmia microcornea syndrome	Metabolic syndrome	1	1	CRIM1 (2)	0.00077	1.00000	8.462e-2	8.572e-2	
Systemic lupus erythematosus	Thiamine metabolism dysfunction syndrome	1	1	SLC25A19 (3)	0.00152	0.50000	8.314e-2	8.429e-2	
Hepatocellular carcinoma	Peroxisomal acyl-coa oxidase deficiency	1	1	ACOX1 (5)	0.00154	0.50000	8.252e-2	8.367e-2	
Congenital chronic diarrhea with protein-losing enteropathy	Hepatocellular carcinoma	1	1	PLVAP (3)	0.00154	0.50000	8.252e-2	8.367e-2	
Atelis syndrome	Lung cancer	1	1	SLF2 (4)	0.00154	0.50000	8.252e-2	8.367e-2	
Acral peeling skin syndrome	Lung cancer	1	1	TGM5 (2)	0.00154	0.50000	8.252e-2	8.367e-2	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Kidney disease	multiple acyl-CoA dehydrogenase deficiency	1	1	ETFB (2)	0.00234	0.33333	8.054e-2	8.168e-2	
Bipolar disorder	Maleylacetoacetate isomerase deficiency	1	1	GSTZ1 (5)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	leukodystrophy, hypomyelinating, 22	1	1	CLDN11 (2)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	X-linked epilepsy with or without intellectual disability and dysmorphic features	1	1	GABRA3 (4)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	Oculocerebrodental syndrome	1	1	PIK3C2A (3)	0.00082	1.00000	7.923e-2	8.035e-2	2
Bipolar disorder	hypotaurinemic retinal degeneration and cardiomyopathy	1	1	SLC6A6 (2)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	Intellectual developmental disorder short stature facial speech	1	1	FBXL3 (2)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	Intellectual developmental disorder short stature facial	1	1	FBXL3 (3)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	inherited interstitial lung disease	1	1	LAMP3 (2)	0.00082	1.00000	7.923e-2	8.035e-2	2
Bipolar disorder	Intellectual developmental disorder behavioral short stature	1	1	PUS7 (4)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	syndromic X-linked intellectual disability Siderius type	1	1	PHF8 (2)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	STT3A-congenital disorder of glycosylation	1	1	STT3A (2)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	sulfite oxidase deficiency due to molybdenum cofactor deficiency type B2	1	1	MOCS3 (2)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	retinitis pigmentosa 18	1	1	PRPF3 (2)	0.00082	1.00000	7.923e-2	8.035e-2	2
Bipolar disorder	Hypertryptophanemia	1	1	TDO2 (6)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	holocarboxylase synthetase deficiency	1	1	HLCS (2)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	glycogen storage disease III	1	1	AGL (2)	0.00082	1.00000	7.923e-2	8.035e-2	
21q22.11q22.12 microdeletion syndrome	Bipolar disorder	1	1	KIF15 (3)	0.00082	1.00000	7.923e-2	8.035e-2	
Al kaissi syndrome	Bipolar disorder	1	0	CDK10 (1)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	Congenital intrinsic factor deficiency	1	1	CBLIF (2)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	combined immunodeficiency due to STK4 deficiency	1	1	STK4 (4)	0.00082	1.00000	7.923e-2	8.035e-2	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Bipolar disorder	congenital disorder of glycosylation, type Iw, autosomal dominant	1	1	STT3A (2)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	Blepharospasm	1	1	DRD5 (3)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	Braddock-carey syndrome	1	1	KIF15 (4)	0.00082	1.00000	7.923e-2	8.035e-2	
Benign essential blepharospasm	Bipolar disorder	1	1	DRD5 (2)	0.00082	1.00000	7.923e-2	8.035e-2	
autosomal dominant cerebellar ataxia	Bipolar disorder	1	1	NPTX1 (2)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	dyskeratosis congenita and related telomere biology disorder	1	1	RPA1 (2)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	Cayman type cerebellar ataxia	1	1	ATCAY (2)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	Charcot-Marie-Tooth disease, axonal, type 2FF	1	1	CADM3 (2)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	Cerebrofacial arteriovenous metameris syndrome	1	1	GNA14 (2)	0.00082	1.00000	7.923e-2	8.035e-2	
Bipolar disorder	Cerebral arterial disease	1	0	ADGRE3 (1)	0.00082	1.00000	7.923e-2	8.035e-2	
Progressive arterial occlusive disease with hypertension	Ulcerative colitis	1	1	DAP3 (2)	0.00163	0.50000	7.779e-2	7.900e-2	
Obesity	PLIN1-related familial partial lipodystrophy	1	1	PLIN1 (3)	0.00084	1.00000	7.754e-2	7.875e-2	
Obesity	Pancreatic beta-cell agenesis with neonatal diabetes mellitus	1	1	PTF1A (2)	0.00084	1.00000	7.754e-2	7.875e-2	
immunodeficiency 72 with autoinflammation	Obesity	1	1	NCKAP1L (2)	0.00084	1.00000	7.754e-2	7.875e-2	
inflammatory bowel disease 28	Obesity	1	1	IL10RA (2)	0.00084	1.00000	7.754e-2	7.875e-2	
Isobutyryl-coa dehydrogenase deficiency	Obesity	1	1	ACAD8 (3)	0.00084	1.00000	7.754e-2	7.875e-2	
Obesity	White blood cell count quantitative trait locus	1	1	ACKR1 (2)	0.00084	1.00000	7.754e-2	7.875e-2	
mitochondrial short-chain enoyl-coa hydratase 1 deficiency	Obesity	1	1	ECHS1 (3)	0.00084	1.00000	7.754e-2	7.875e-2	
methylmalonate semialdehyde dehydrogenase deficiency	Obesity	1	1	ALDH6A1 (3)	0.00084	1.00000	7.754e-2	7.875e-2	
medium chain acyl-coa dehydrogenase deficiency	Obesity	1	1	ACADM (3)	0.00084	1.00000	7.754e-2	7.875e-2	
Obesity	opsismodysplasia	1	1	INPPL1 (2)	0.00084	1.00000	7.754e-2	7.875e-2	2

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
NACC1-related neurodevelopmental disorder with epilepsy, cataracts and episodic irritability	Obesity	1	1	NACC1 (2)	0.00084	1.00000	7.754e-2	7.875e-2	
Nasopalpebral lipoma-coloboma syndrome	Obesity	1	1	ZDBF2 (3)	0.00084	1.00000	7.754e-2	7.875e-2	
Essential pentosuria	Obesity	1	1	DCXR (3)	0.00084	1.00000	7.754e-2	7.875e-2	
hawkinsinuria	Obesity	1	1	HPD (2)	0.00084	1.00000	7.754e-2	7.875e-2	
Hyperinflammatory lymphoproliferative immunodeficiency	Obesity	1	1	NCKAP1L (2)	0.00084	1.00000	7.754e-2	7.875e-2	
Obesity	Spasticity with hyperglycinemia	1	1	GLRX5 (3)	0.00084	1.00000	7.754e-2	7.875e-2	
Combined immunodeficiency with autoimmunity and spondylometaphyseal dysplasia	Obesity	1	1	ACP5 (2)	0.00084	1.00000	7.754e-2	7.875e-2	
congenital disorder of glycosylation, type 2v	Obesity	1	1	EDEM3 (2)	0.00084	1.00000	7.754e-2	7.875e-2	
congenital disorder of glycosylation with defective fucosylation 2	Obesity	1	1	FCSK (2)	0.00084	1.00000	7.754e-2	7.875e-2	
Dalmatian hypouricemia	Obesity	1	1	SLC22A12 (2)	0.00084	1.00000	7.754e-2	7.875e-2	
Alopecia universalis	Obesity	1	0	HR (1)	0.00084	1.00000	7.754e-2	7.875e-2	
Developmental delay due to metabolic enzyme deficiency	Obesity	1	1	ALDH6A1 (3)	0.00084	1.00000	7.754e-2	7.875e-2	
BBS4-related ciliopathy	Obesity	1	1	BBS4 (2)	0.00084	1.00000	7.754e-2	7.875e-2	
Androgenetic alopecia	Thiamine-responsive maple syrup urine disease	1	1	BCKDHA (2)	0.00243	0.33333	7.741e-2	7.871e-2	
Acral peeling skin syndrome	Glioblastoma	1	1	CSTA (2)	0.00164	0.50000	7.729e-2	7.859e-2	
Birk-aharoni syndrome	Dementia	1	1	PSMC1 (3)	0.00169	0.50000	7.517e-2	7.644e-2	2
Congenital arthrogryposis with anterior horn cell disease	Hypertension	1	1	GLE1 (3)	0.00087	1.00000	7.462e-2	7.588e-2	
Arthrogryposis with anterior horn cell disease	Hypertension	1	1	GLE1 (2)	0.00087	1.00000	7.462e-2	7.588e-2	
Autoinflammatory disease, systemic, with vasculitis	Hypertension	1	1	LYN (4)	0.00087	1.00000	7.462e-2	7.588e-2	
Hypertension	Wernicke encephalopathy	1	1	TKT (3)	0.00087	1.00000	7.462e-2	7.588e-2	
Hypertension	renal hypomagnesemia 2	1	1	FXD2 (3)	0.00087	1.00000	7.462e-2	7.588e-2	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Hypertension	immunodeficiency-centromeric instability-facial anomalies syndrome 4	1	1	HELLS (2)	0.00087	1.00000	7.462e-2	7.588e-2	
Hypertension	Primary hypomagnesemia with hypocalciuria	1	1	FXD2 (3)	0.00087	1.00000	7.462e-2	7.588e-2	
Hypertension	MPI-congenital disorder of glycosylation	1	1	MPI (2)	0.00087	1.00000	7.462e-2	7.588e-2	
Hypertension	LIPE-related familial partial lipodystrophy	1	1	LIPE (2)	0.00087	1.00000	7.462e-2	7.588e-2	
Hypertension	opsismodysplasia	1	1	INPL1 (3)	0.00087	1.00000	7.462e-2	7.588e-2	2
fanconi anemia complementation group I	Hypertension	1	1	FANCL (2)	0.00087	1.00000	7.462e-2	7.588e-2	
Coronary artery disease	Genetic transient congenital hypothyroidism	1	1	DUOX2 (3)	0.00087	1.00000	7.423e-2	7.553e-2	
Coronary artery disease	polycystic liver disease 2	1	1	SEC63 (2)	0.00087	1.00000	7.423e-2	7.553e-2	
Coronary artery disease	VPS11-related neurological disorder	1	1	VPS11 (2)	0.00087	1.00000	7.423e-2	7.553e-2	
Coronary artery disease	Thrombocytopenia with anemia and myelofibrosis	1	1	MPIG6B (6)	0.00087	1.00000	7.423e-2	7.553e-2	
Coronary artery disease	tooth agenesis, selective, 9	1	1	GREM2 (2)	0.00087	1.00000	7.423e-2	7.553e-2	
Coronary artery disease	TMEM165-congenital disorder of glycosylation	1	1	TMEM165 (2)	0.00087	1.00000	7.423e-2	7.553e-2	
Coronary artery disease	immunodeficiency 126, susceptibility to	1	1	PTCRA (2)	0.00087	1.00000	7.423e-2	7.553e-2	
Coronary artery disease	Intellectual developmental disorder growth metabolic	1	1	DIP2B (3)	0.00087	1.00000	7.423e-2	7.553e-2	2
Coronary artery disease	Oculocerebrofacial syndrome	1	1	UBE3B (4)	0.00087	1.00000	7.423e-2	7.553e-2	
Coronary artery disease	hemochromatosis type 2A	1	1	HJV (2)	0.00087	1.00000	7.423e-2	7.553e-2	
Coronary artery disease	macular corneal dystrophy	1	1	CHST6 (2)	0.00087	1.00000	7.423e-2	7.553e-2	
Barth syndrome	Coronary artery disease	1	1	TFAZZIN (6)	0.00087	1.00000	7.423e-2	7.553e-2	
band heterotopia of brain	Coronary artery disease	1	1	EML1 (2)	0.00087	1.00000	7.423e-2	7.553e-2	2
Coronary artery disease	Cytosolic acetoacetyl-coa thiolase deficiency	1	1	ACAT2 (2)	0.00087	1.00000	7.423e-2	7.553e-2	
Coronary artery disease	ectodermal dysplasia 12, hypohidrotic/hair/tooth/nail type	1	1	KDF1 (2)	0.00087	1.00000	7.423e-2	7.553e-2	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Myocardial infarction	Periventricular leukomalacia	1	1	PLEKHG1 (2)	0.00172	0.50000	7.392e-2	7.526e-2	
Burn-mckeown syndrome	Desbuquois syndrome	1	1	POLR1A (3)	0.00176	0.50000	7.229e-2	7.361e-2	
Attention deficit hyperactivity disorder	cardiomyopathy, dilated, 2j	1	1	FLII (2)	0.00090	1.00000	7.176e-2	7.308e-2	
Attention deficit hyperactivity disorder	Blepharospasm	1	1	DRD5 (3)	0.00090	1.00000	7.176e-2	7.308e-2	
Attention deficit hyperactivity disorder	Diffuse cerebral and cerebellar atrophy–intractable seizures–progressive microcephaly syndrome	1	1	QARS1 (4)	0.00090	1.00000	7.176e-2	7.308e-2	
Attention deficit hyperactivity disorder	Cerebral arterial disease	1	0	ADGRE3 (1)	0.00090	1.00000	7.176e-2	7.308e-2	
Attention deficit hyperactivity disorder	Bilateral cleft lip	1	1	PLEKHA5 (2)	0.00090	1.00000	7.176e-2	7.308e-2	
Attention deficit hyperactivity disorder	Benign essential blepharospasm	1	1	DRD5 (2)	0.00090	1.00000	7.176e-2	7.308e-2	
Attention deficit hyperactivity disorder	Delayed sleep phase syndrome	1	1	CRY1 (2)	0.00090	1.00000	7.176e-2	7.308e-2	
agammaglobulinemia 4, autosomal recessive	Attention deficit hyperactivity disorder	1	1	BLNK (2)	0.00090	1.00000	7.176e-2	7.308e-2	
Al kaissi syndrome	Attention deficit hyperactivity disorder	1	0	CDK10 (1)	0.00090	1.00000	7.176e-2	7.308e-2	
Attention deficit hyperactivity disorder	Cohen-gibson syndrome	1	1	EED (6)	0.00090	1.00000	7.176e-2	7.308e-2	
Attention deficit hyperactivity disorder	congenital disorder of glycosylation, type lw, autosomal dominant	1	1	STT3A (2)	0.00090	1.00000	7.176e-2	7.308e-2	
Attention deficit hyperactivity disorder	primary ciliary dyskinesia 32	1	1	RSPH3 (2)	0.00090	1.00000	7.176e-2	7.308e-2	
Attention deficit hyperactivity disorder	mucopolysaccharidosis type 6	1	1	ARSB (2)	0.00090	1.00000	7.176e-2	7.308e-2	
Attention deficit hyperactivity disorder	STT3A-congenital disorder of glycosylation	1	1	STT3A (2)	0.00090	1.00000	7.176e-2	7.308e-2	
Attention deficit hyperactivity disorder	retinitis pigmentosa 18	1	1	PRPF3 (2)	0.00090	1.00000	7.176e-2	7.308e-2	2
Attention deficit hyperactivity disorder	Young syndrome	1	1	CFAP221 (3)	0.00090	1.00000	7.176e-2	7.308e-2	
Attention deficit hyperactivity disorder	X-linked ichthyosis with steryl-sulfatase deficiency	1	1	STS (3)	0.00090	1.00000	7.176e-2	7.308e-2	
Attention deficit hyperactivity disorder	Intellectual developmental disorder behavioral short stature	1	1	PUS7 (4)	0.00090	1.00000	7.176e-2	7.308e-2	
Mountain sickness	Obstructive pulmonary disease	1	0	AEBP2 (1)	0.00178	0.50000	7.129e-2	7.266e-2	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Oligodendroglioma	Thyroid hemiagenesis	1	1	VPS13C (2)	0.00178	0.50000	7.129e-2	7.266e-2	
Hypothyroidism	Nephropathic cystinosis	1	1	SLC66A1 (2)	0.00265	0.33333	7.112e-2	7.249e-2	
Insomnia	Oculocerebrofacial syndrome	1	1	UBE3B (4)	0.00093	1.00000	7.007e-2	7.143e-2	
Insomnia	Oculocerebrodental syndrome	1	1	PIK3C2A (3)	0.00093	1.00000	7.007e-2	7.143e-2	2
Insomnia	myopathy caused by variation in POMGNT2	1	1	POMGNT2 (2)	0.00093	1.00000	7.007e-2	7.143e-2	
immunodeficiency 23	Insomnia	1	1	PGM3 (2)	0.00093	1.00000	7.007e-2	7.143e-2	
fanconi anemia complementation group e	Insomnia	1	1	FANCE (2)	0.00093	1.00000	7.007e-2	7.143e-2	
glutaryl-CoA dehydrogenase deficiency	Insomnia	1	1	GCDH (2)	0.00093	1.00000	7.007e-2	7.143e-2	
Insomnia	X-linked reticulate pigmentary disorder	1	1	POLA1 (5)	0.00093	1.00000	7.007e-2	7.143e-2	
Insomnia	Van esch-o'driscoll syndrome	1	1	POLA1 (2)	0.00093	1.00000	7.007e-2	7.143e-2	
COG5-congenital disorder of glycosylation	Insomnia	1	1	COG5 (2)	0.00093	1.00000	7.007e-2	7.143e-2	
C3hex olfactory ability	Insomnia	1	1	OR2J3 (2)	0.00093	1.00000	7.007e-2	7.143e-2	
Developmental delay with dysmorphic facies and brain anomalies	Insomnia	1	1	U2AF2 (5)	0.00093	1.00000	7.007e-2	7.143e-2	
Benign familial pemphigus	Insomnia	1	1	ATP2C1 (2)	0.00093	1.00000	7.007e-2	7.143e-2	
BBS1-related ciliopathy	Insomnia	1	1	BBS1 (2)	0.00093	1.00000	7.007e-2	7.143e-2	
Autoinflammatory disease, systemic, with vasculitis	Insomnia	1	1	LYN (4)	0.00093	1.00000	7.007e-2	7.143e-2	
Autoinflammation with pulmonary and cutaneous vasculitis	Insomnia	1	1	HCK (4)	0.00093	1.00000	7.007e-2	7.143e-2	
Craniolenticulosutural dysplasia	Insomnia	1	1	SEC23A (6)	0.00093	1.00000	7.007e-2	7.143e-2	2
Congenital myelofibrosis with anemia	Insomnia	1	1	RBSN (3)	0.00093	1.00000	7.007e-2	7.143e-2	
Asthma	Cleft palate proliferative retinopathy developmental delay	1	1	LRRC32 (4)	0.00094	1.00000	6.936e-2	7.076e-2	
Asthma	Catifa syndrome	1	1	RIC1 (5)	0.00094	1.00000	6.936e-2	7.076e-2	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Asthma	Charcot-Marie-Tooth disease, axonal, type 2FF	1	1	CADM3 (2)	0.00094	1.00000	6.936e-2	7.076e-2	
Asthma	Diaphanospondylodysostosis	1	1	BMPER (6)	0.00094	1.00000	6.936e-2	7.076e-2	
Asthma	Udp-glucose-hexose-1-phosphate uridylyltransferase	1	1	GALT (2)	0.00094	1.00000	6.936e-2	7.076e-2	
Asthma	seizures, early-onset, with neurodegeneration and brain calcifications	1	1	NRROS (2)	0.00094	1.00000	6.936e-2	7.076e-2	
Asthma	SEC61B-related polycystic liver disease	1	1	SEC61B (2)	0.00094	1.00000	6.936e-2	7.076e-2	
Asthma	Rothmund-Thomson syndrome type 1	1	1	ANAPC1 (2)	0.00094	1.00000	6.936e-2	7.076e-2	
Asthma	Mineralocorticoid excess	1	1	HSD11B2 (7)	0.00094	1.00000	6.936e-2	7.076e-2	
Breast cancer	Midline facial cleft	1	1	PCSK7 (2)	0.00094	1.00000	6.923e-2	7.066e-2	
Breast cancer	Thrombocytopenia with platelet secretion defect	1	1	SLFN14 (3)	0.00094	1.00000	6.923e-2	7.066e-2	
Breast cancer	thrombotic disease	1	1	MAST2 (2)	0.00094	1.00000	6.923e-2	7.066e-2	
Breast cancer	tooth agenesis, selective, 3	1	1	PAX9 (2)	0.00094	1.00000	6.923e-2	7.066e-2	
Breast cancer	NTHL1-deficiency tumor predisposition syndrome	1	1	NTHL1 (2)	0.00094	1.00000	6.923e-2	7.066e-2	
Breast cancer	platelet-type bleeding disorder 20	1	1	SLFN14 (2)	0.00094	1.00000	6.923e-2	7.066e-2	
Breast cancer	scalp-ear-nipple syndrome	1	1	KCTD1 (2)	0.00094	1.00000	6.923e-2	7.066e-2	
Breast cancer	GPR161-related medulloblastoma predisposition	1	1	GPR161 (2)	0.00094	1.00000	6.923e-2	7.066e-2	
Breast cancer	glycosylphosphatidylinositol biosynthesis defect 17	1	1	PIGH (2)	0.00094	1.00000	6.923e-2	7.066e-2	
Breast cancer	Curly hair ankyloblepharon nail dysplasia syndrome	1	1	RIPK4 (3)	0.00094	1.00000	6.923e-2	7.066e-2	
Breast cancer	Congenital cataract severe neonatal hepatopathy developmental delay syndrome	1	1	CYP51A1 (3)	0.00094	1.00000	6.923e-2	7.066e-2	
Breast cancer	C3hex olfactory ability	1	1	OR2J3 (2)	0.00094	1.00000	6.923e-2	7.066e-2	17
Acyl-coa binding domain containing protein 5 deficiency	Breast cancer	1	1	ACBD5 (3)	0.00094	1.00000	6.923e-2	7.066e-2	
BBS2-related ciliopathy	Breast cancer	1	1	BBS2 (2)	0.00094	1.00000	6.923e-2	7.066e-2	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
3-methylcrotonyl-coa carboxylase deficiency	Parkinson disease	1	1	MCCC1 (5)	0.00188	0.50000	6.753e-2	6.897e-2	2
Brody myopathy	Parkinson disease	1	1	RABEP2 (2)	0.00188	0.50000	6.753e-2	6.897e-2	
Nephronophthisis-like nephropathy	Parkinson disease	1	1	SLC41A1 (4)	0.00188	0.50000	6.753e-2	6.897e-2	
Parkinson disease	Thyroid hemiagenesis	1	1	VPS13C (6)	0.00188	0.50000	6.753e-2	6.897e-2	
Scoliosis	Webb-dattani syndrome	1	1	ARNT2 (5)	0.00097	1.00000	6.709e-2	6.853e-2	
optic atrophy 11	Scoliosis	1	1	YME1L1 (2)	0.00097	1.00000	6.709e-2	6.853e-2	
glycosylphosphatidylinositol biosynthesis defect 17	Scoliosis	1	1	PIGH (2)	0.00097	1.00000	6.709e-2	6.853e-2	
gaze palsy, familial horizontal, with progressive scoliosis 1	Scoliosis	1	1	ROBO3 (2)	0.00097	1.00000	6.709e-2	6.853e-2	
Keratitis linearis-ichthyosis congenita-sclerosing keratoderma syndrome	Scoliosis	1	1	POMP (6)	0.00097	1.00000	6.709e-2	6.853e-2	
Intellectual developmental disorder seizures dysmorphic gait	Scoliosis	1	1	WDR26 (2)	0.00097	1.00000	6.709e-2	6.853e-2	
hermansky-pudlak syndrome 5	Scoliosis	1	1	HPS5 (2)	0.00097	1.00000	6.709e-2	6.853e-2	
Hypervalinemia	Scoliosis	1	1	BCAT2 (5)	0.00097	1.00000	6.709e-2	6.853e-2	
Partial deletion of short arm of chromosome 3	Scoliosis	1	1	CHL1 (2)	0.00097	1.00000	6.709e-2	6.853e-2	2
primary ciliary dyskinesia 19	Scoliosis	1	1	DNAAF11 (2)	0.00097	1.00000	6.709e-2	6.853e-2	
Borderline personality disorder	Scoliosis	1	0	TPH1 (1)	0.00097	1.00000	6.709e-2	6.853e-2	
Delayed sleep phase syndrome	Scoliosis	1	1	CRY1 (3)	0.00097	1.00000	6.709e-2	6.853e-2	
Cerebrofacial arteriovenous metameris syndrome	Scoliosis	1	1	GNA14 (2)	0.00097	1.00000	6.709e-2	6.853e-2	
Autoinflammatory disease, systemic, with vasculitis	Scoliosis	1	1	LYN (4)	0.00097	1.00000	6.709e-2	6.853e-2	
Breast neoplasms	Progressive arterial occlusive disease with hypertension	1	1	DAP3 (2)	0.00193	0.50000	6.603e-2	6.749e-2	
3-methylcrotonyl-coa carboxylase deficiency	Substance abuse	1	1	MCCC2 (5)	0.00193	0.50000	6.590e-2	6.737e-2	2
Acces syndrome	Colorectal cancer	1	1	UBA2 (3)	0.00102	1.00000	6.338e-2	6.480e-2	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Acantholytic blistering of oral and laryngeal mucosa	Colorectal cancer	1	1	DSG3 (4)	0.00102	1.00000	6.338e-2	6.480e-2	
Chromosome 19q13.11 deletion syndrome	Colorectal cancer	1	1	UBA2 (2)	0.00102	1.00000	6.338e-2	6.480e-2	
Colorectal cancer	pili torti-developmental delay-neurological abnormalities syndrome	1	1	HEPHL1 (2)	0.00102	1.00000	6.338e-2	6.480e-2	17
Colorectal cancer	GPR143-related foveal hypoplasia	1	1	GPR143 (2)	0.00102	1.00000	6.338e-2	6.480e-2	
Colorectal cancer	glycogen storage disease VI	1	1	PYGL (2)	0.00102	1.00000	6.338e-2	6.480e-2	
Colorectal cancer	Osteootohepatoenteric syndrome	1	1	UNC45A (5)	0.00102	1.00000	6.338e-2	6.480e-2	
Colorectal cancer	neuropathy, hereditary sensory and autonomic, type 1C	1	1	SPTLC2 (2)	0.00102	1.00000	6.338e-2	6.480e-2	
Colorectal cancer	neurodevelopmental disorder with hypotonia, facial dysmorphism, and brain abnormalities	1	1	PPP1R21 (2)	0.00102	1.00000	6.338e-2	6.480e-2	
Colorectal cancer	Hypochromic sideroblastic anemia	1	1	STEAP3 (6)	0.00102	1.00000	6.338e-2	6.480e-2	
Colorectal cancer	spinocerebellar ataxia, autosomal recessive 23	1	1	TDP2 (2)	0.00102	1.00000	6.338e-2	6.480e-2	
Colorectal cancer	Rin2 syndrome	1	1	RIN2 (5)	0.00102	1.00000	6.338e-2	6.480e-2	
Colorectal cancer	Intellectual developmental disorder growth metabolic	1	1	DIP2B (3)	0.00102	1.00000	6.338e-2	6.480e-2	
Color vision deficiency	immunodeficiency 76	1	1	FCHO1 (2)	0.00103	1.00000	6.274e-2	6.418e-2	
Color vision deficiency	Inflammatory demyelinating polyneuropathy	1	0	CNBD1 (1)	0.00103	1.00000	6.274e-2	6.418e-2	
Color vision deficiency	goldberg-shprintzen syndrome	1	1	KIFBP (2)	0.00103	1.00000	6.274e-2	6.418e-2	
Color vision deficiency	GNAT2-related retinopathy	1	1	GNAT2 (3)	0.00103	1.00000	6.274e-2	6.418e-2	
Color vision deficiency	Webb-dattani syndrome	1	1	ARNT2 (5)	0.00103	1.00000	6.274e-2	6.418e-2	
Color vision deficiency	Ventriculomegaly with arthrogryposis	1	1	KIDINS220 (5)	0.00103	1.00000	6.274e-2	6.418e-2	
Color vision deficiency	lethal osteosclerotic bone dysplasia	1	1	FAM20C (2)	0.00103	1.00000	6.274e-2	6.418e-2	
Color vision deficiency	MEGF8-related Carpenter syndrome	1	1	MEGF8 (2)	0.00103	1.00000	6.274e-2	6.418e-2	
Color vision deficiency	phosphoenolpyruvate carboxykinase deficiency, cytosolic	1	1	PCK1 (2)	0.00103	1.00000	6.274e-2	6.418e-2	2

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Color vision deficiency	PLIN1-related familial partial lipodystrophy	1	1	PLIN1 (2)	0.00103	1.00000	6.274e-2	6.418e-2	
Color vision deficiency	primary ciliary dyskinesia 16	1	1	DNAL1 (2)	0.00103	1.00000	6.274e-2	6.418e-2	
Color vision deficiency	spastic paraplegia, intellectual disability, nystagmus, and obesity	1	1	KIDINS220 (2)	0.00103	1.00000	6.274e-2	6.418e-2	
Color vision deficiency	scott syndrome	1	1	ANO6 (2)	0.00103	1.00000	6.274e-2	6.418e-2	
Color vision deficiency	red color blindness	1	1	OPN1LW (4)	0.00103	1.00000	6.274e-2	6.418e-2	
Color vision deficiency	Saccharopinuria	1	1	AASS (3)	0.00103	1.00000	6.274e-2	6.418e-2	
Color vision deficiency	Retinitis pigmentosa, hearing loss, premature aging, short stature, facial dysmorphism syndrome	1	1	EXOSC2 (5)	0.00103	1.00000	6.274e-2	6.418e-2	
Color vision deficiency	Hip dislocation-facial dysmorphism syndrome	1	1	TRIM33 (3)	0.00103	1.00000	6.274e-2	6.418e-2	
Color vision deficiency	hyperlysinemia	1	1	AASS (2)	0.00103	1.00000	6.274e-2	6.418e-2	
Clark-baraitser syndrome	Color vision deficiency	1	1	TRIP12 (5)	0.00103	1.00000	6.274e-2	6.418e-2	
ciliary dyskinesia, primary, 53	Color vision deficiency	1	1	CLXN (2)	0.00103	1.00000	6.274e-2	6.418e-2	
Biliary-renal-neuro-skeletal syndrome	Color vision deficiency	1	1	IFT56 (4)	0.00103	1.00000	6.274e-2	6.418e-2	
Color vision deficiency	dilated cardiomyopathy 2B	1	1	GATAD1 (2)	0.00103	1.00000	6.274e-2	6.418e-2	
colobomatous microphthalmia-rhizomelic dysplasia syndrome	Color vision deficiency	1	1	MAB21L2 (2)	0.00103	1.00000	6.274e-2	6.418e-2	
alkylglycerone-phosphate synthase deficiency	Color vision deficiency	1	1	AGPS (2)	0.00103	1.00000	6.274e-2	6.418e-2	
band heterotopia of brain	Color vision deficiency	1	1	EML1 (2)	0.00103	1.00000	6.274e-2	6.418e-2	2
dyskeratosis congenita and related telomere biology disorder	Prostate cancer	1	1	RPA1 (2)	0.00104	1.00000	6.248e-2	6.399e-2	
DPM3-congenital disorder of glycosylation	Prostate cancer	1	1	DPM3 (2)	0.00104	1.00000	6.248e-2	6.399e-2	
bleeding disorder, platelet-type, 22	Prostate cancer	1	1	EPHB2 (4)	0.00104	1.00000	6.248e-2	6.399e-2	
3-hydroxyisobutyric aciduria	Prostate cancer	1	1	HIBADH (3)	0.00104	1.00000	6.248e-2	6.399e-2	
combined immunodeficiency due to GINS1 deficiency	Prostate cancer	1	1	GINS1 (2)	0.00104	1.00000	6.248e-2	6.399e-2	