## DisGeNET Top pathways by non-permulation

Geneset	stat	num.genes	pval	p.adj	gene.vals
46, XX Testicular Disorders of Sex Devel	-0.124849654	7	2.527e-01	9.921e-01	SOX9:377 SOX3:610 NR5A1:8062.5 RSPO1:8062.5 FOXL2:8062.5 NR0B1:8062.5
46, XY Disorders of Sex Development	-0.139802893	15	6.087e-02	9.921e-01	SOX9:377 WT1:382 CYB5A:756 TLX1:836 ZFPM2:1289 CYP11A1:1598
46, XY female	-0.048133098	16	5.051e-01	9.921e-01	DMRT1:351 SOX9:377 STAR:1719 NR0B1:8062.5 SRD5A2:8062.5 HSD17B3:8062.5
46,XY partial gonadal dysgenesis	-0.128068642	10	1.608e-01	9.921e-01	SOX9:377 WT1:382 ZFPM2:1289 NR5A1:8062.5 NR0B1:8062.5 MAP3K1:8062.5
5,10-Methylenetetrahydrofolate reductase	0.030672814	18	6.524e-01	9.921e-01	AKAP9:186 XRCC4:1376 CASP9:1446 GPX3:7725.5 SERPINE1:7725.5 MTHFR:7725.5
Abnormalities, Drug-Induced	-0.107202414	4	4.577e-01	9.921e-01	CAT:736 CRBN:1412 EPHX1:8062.5 WNT11:14504 NA NA
Abortion, Habitual	-0.113336774	4	4.324e-01	9.921e-01	VEGFA:135 MTHFR:8062.5 F2:8062.5 F5:8062.5 NA NA
Abortion, Tubal	0.039825279	91	1.898e-01	9.921e-01	ECM2:101 SPAG5:107 IL9:179 ARNT:333 CD84:687 EMP1:1242
Achondrogenesis, type IB (disorder)	0.185228717	5	1.514e-01	9.921e-01	SLC26A2:778 DCN:1062 SLC26A3:7725.5 SLC26A5:7725.5 SLC26A4:7725.5 NA
Acidosis, Lactic	0.046964230	149	4.838e-02	9.921e-01	LRPPRC:13 TMEM126B:52 POLG:79 COX20:99 SCO1:149 TIMMDC1:180
ACROMESOMELIC DYSPLASIA, MAROTEAUX TYPE	0.012784880	4	9.294e-01	9.921e-01	IGF1:7725.5 NPPC:7725.5 NPR2:7725.5 GDF5:7725.5 NA NA
ACTH Syndrome, Ectopic	-0.069679161	5	5.895e-01	9.921e-01	GHSR:1568 CRH:8062.5 AVPR1B:8062.5 NR3C1:8062.5 PAK3:8062.5 NA
Acute Myeloid Leukemia, M1	0.013282388	100	6.468e-01	9.921e-01	ASXL2:83 CSF1R:104 KMT2A:286 NF1:392 KIT:496 FLT3:713
Acute myeloid leukemia, minimal differen	0.056960013	18	4.029e-01	9.921e-01	KMT2A:286 NCR1:640 FLT3:713 DNMT3A:951 MPO:1155 RUNX1:7725.5
Adenocarcinoma of lung, stage I	0.007663892	17	9.129e-01	9.921e-01	ADAM12:595 ACTN4:1080 MET:7725.5 HOXA9:7725.5 MYC:7725.5 EIF4EBP1:7725.5
Adenocarcinoma of lung, stage IV	0.065173478	17	3.523e-01	9.921e-01	ERBB2:703 BRAF:981 CD74:1341 MET:7725.5 TP53:7725.5 KRAS:7725.5
Adenocarcinoma, Basal Cell	-0.015565336	100	5.912e-01	9.921e-01	CA2:132 VEGFA:135 NR1I2:142 HRH4:200 DAPK1:293 CDKN1C:774
Adenocarcinoma, Clear Cell	0.015685658	91	6.055e-01	9.921e-01	ATF1:246 HAGH:302 BRCA2:319 NEU3:663 ERBB2:703 BRAF:981
Adenocarcinoma, Endometrioid	0.015112088	53	7.037e-01	9.921e-01	ABCC1:497 CCL22:554 SHBG:581 ERBB2:703 NDC80:742 IRS1:881
Adenocarcinoma, intestinal type	0.007595021	12	9.274e-01	9.921e-01	BRAF:981 CDX2:1581 TP53:7725.5 KRAS:7725.5 EGFR:7725.5 CDKN2A:7725.5
Adenocarcinoma, metastatic	0.009091511	12	9.132e-01	9.921e-01	ERBB2:703 HSPA5:7725.5 MYC:7725.5 KRAS:7725.5 EGF:7725.5 ESR2:7725.5
Adenocarcinoma, Oxyphilic	-0.011020879	102	7.010e-01	9.921e-01	CA2:132 VEGFA:135 NR1I2:142 HRH4:200 DAPK1:293 CDKN1C:774
Adenocarcinoma, Scirrhous	0.172236341	5	1.823e-01	9.921e-01	FGFR2:1249 MMP15:1641 MET:7725.5 MMP14:7725.5 FUT1:7725.5 NA
Adenocarcinoma, Tubular	-0.005976396	105	8.327e-01	9.921e-01	CA2:132 VEGFA:135 NR1I2:142 HRH4:200 DAPK1:293 CDKN1C:774
Adenoma, Basal Cell	-0.016756534	27	7.632e-01	9.921e-01	KCNJ5:1383 TXNRD1:1469 VHL:1488 IGF1:8062.5 TP53:8062.5 BCL2:8062.5
Adenoma, Microcystic	-0.012141862	32	8.122e-01	9.921e-01	KCNJ5:1383 TXNRD1:1469 VHL:1488 IGF1:8062.5 TP53:8062.5 BCL2:8062.5
Adenoma, Monomorphic	-0.016756534	27	7.632e-01	9.921e-01	KCNJ5:1383 TXNRD1:1469 VHL:1488 IGF1:8062.5 TP53:8062.5 BCL2:8062.5
Adenoma, Trabecular	-0.015701897	28	7.737e-01	9.921e-01	KCNJ5:1383 TXNRD1:1469 VHL:1488 IGF1:8062.5 TP53:8062.5 BCL2:8062.5
Adenoma, Villous	0.106582229	13	1.834e-01	9.921e-01	BRAF:981 MLH1:1441 PMS2:1559 TP53:7725.5 KRAS:7725.5 APC:7725.5
Adrenal hyperplasia, bilateral	-0.128606215	3	4.404e-01	9.921e-01	KCNJ5:1383 PRKAR1A:8062.5 REN:8062.5 NA NA NA
Adrenoleukodystrophy, Neonatal	-0.045578339	15	5.411e-01	9.921e-01	PEX11B:1164 PEX3:1202 PEX19:8062.5 PEX1:8062.5 HSD17B4:8062.5 PEX10:8062.5
Affective Disorders, Psychotic	0.043722686	12	6.000e-01	9.921e-01	FKBP5:378 DISC1:1167 BCL2L10:1547 MTHFR:7725.5 IL1RN:7725.5 HP:7725.5
Agammaglobulinemia, non-Bruton type	0.070861228	7	5.162e-01	9.921e-01	LRRC8A:1320 CD79B:7725.5 CD79A:7725.5 PIK3R1:7725.5 BTK:7725.5 BLNK:7725.5
Aganglionosis, Colonic	-0.012477927	19	8.507e-01	9.921e-01	RASGEF1A:525 FH:8062.5 TP53:8062.5 RET:8062.5 PPARG:8062.5 CSGALNACT2:8062.5
Aganglionosis, Rectosigmoid Colon	0.012788943	8	9.003e-01	9.921e-01	RET:7725.5 EDN3:7725.5 CAVIN2:7725.5 UTP25:7725.5 ECE1:7725.5 NRG1:7725.5
Aggressive periodontitis, generalized	-0.006795249	26	9.046e-01	9.921e-01	CCR5:253 VDR:522 MMP8:1815 TNF:1875 SERPINE1:8062.5 IL1B:8062.5
Albinism, Ocular	-0.006308782	26	9.114e-01	9.921e-01	GPR143:304 PMPCA:591 XG:867 BLOC1S6:1716 TYRP1:8062.5 HPS1:8062.5
Albinism, Oculocutaneous	0.044096587	28	4.195e-01	9.921e-01	BRCA2:319 KIT:496 BRAF:981 CSF3:7725.5 CDKN2A:7725.5 TYRP1:7725.5
ALBINOIDISM, OCULOCUTANEOUS, AUTOSOMAL D	0.052542157	25	3.633e-01	9.921e-01	HPS3:58 DBH:80 MLANA:804 SOX10:7725.5 TYRP1:7725.5 ZEB2:7725.5
Alcoholic Intoxication, Chronic	-0.014919573	370	3.274e-01	9.921e-01	BDNF:18 SLC6A6:33 IGSF22:52 DUSP8:165 GRM1:391 NPY2R:406