

Category	Functions Annotation	p-Value	Molecules	# Molecules
Tissue Development	tissue development	3.74E-07	ADM, AGTR1, ALDH1A1, ANGPTL4, ARHGAP35, ARSE, ATF7, BCOR, C10orf58, COL12A1, COL8A1, CXCL14, DLL4, EMP1, EN1, EYA1, F2RL1, FBN1, FCGR2B, FIG4, FOXF1, FOXF2, FOXQ1, FZD1, GAL, HMGA2, HOXA13, HOXB2, HOXB3, HOXC4, HOXC8, HSD17B2, HSPG2, IL11RA, INSIG2, INSR, ISL1, LAMA3, LAMB2, LRP4, MEOX2, MITF, MSX1, MYCBP2, NCAM1, NRN1, ODC1, OPHN1, PAPP, PITX1, PLAU, POSTN, PRKAR2B, PTCH2, PTN, RBL2 (includes EG:100331892), SATB2, SGCD, SHROOM4, SIX2, SPAG4, STRA6, STRBP, SYNE1, TBX19, TBX4, TET2, TOB2, TRPC6, WNT2, XIRP1, ZEB2	72
Embryonic Development	organogenesis	6.87E-07	ADM, AGTR1, ALDH1A1, ANGPTL4, ARHGAP35, ATF7, BCOR, CCBE1, COL8A1, CXCL14, DLL4, EMP1, EN1, EYA1, FBN1, FOXF1, FOXF2, FOXQ1, GAL, HMGA2, HOXA13, HOXB3, HOXC4, HSD17B2, HSPG2, IL11RA, INSIG2, INSR, ISL1, LAMA3, LAMB2, LRP4, MEOX2, MITF, MSX1, NCAM1, ODC1, PITX1, PLAU, PRKAR2B, PTCH2, RBL2 (includes EG:100331892), SHROOM4, SIX2, SPAG4, STRA6, STRBP, TBX19, TBX4, TET2, TOB2, WNT2, XIRP1, ZEB2	54
Organ Development	organogenesis	6.87E-07	ADM, AGTR1, ALDH1A1, ANGPTL4, ARHGAP35, ATF7, BCOR, CCBE1, COL8A1, CXCL14, DLL4, EMP1, EN1, EYA1, FBN1, FOXF1, FOXF2, FOXQ1, GAL, HMGA2, HOXA13, HOXB3, HOXC4, HSD17B2, HSPG2, IL11RA, INSIG2, INSR, ISL1, LAMA3, LAMB2, LRP4, MEOX2, MITF, MSX1, NCAM1, ODC1, PITX1, PLAU, PRKAR2B, PTCH2, RBL2 (includes EG:100331892), SHROOM4, SIX2, SPAG4, STRA6, STRBP, TBX19, TBX4, TET2, TOB2, WNT2, XIRP1, ZEB2	54
Organismal Development	organogenesis	6.87E-07	ADM, AGTR1, ALDH1A1, ANGPTL4, ARHGAP35, ATF7, BCOR, CCBE1, COL8A1, CXCL14, DLL4, EMP1, EN1, EYA1, FBN1, FOXF1, FOXF2, FOXQ1, GAL, HMGA2, HOXA13, HOXB3, HOXC4, HSD17B2, HSPG2, IL11RA, INSIG2, INSR, ISL1, LAMA3, LAMB2, LRP4, MEOX2, MITF, MSX1, NCAM1, ODC1, PITX1, PLAU, PRKAR2B, PTCH2, RBL2 (includes EG:100331892), SHROOM4, SIX2, SPAG4, STRA6, STRBP, TBX19, TBX4, TET2, TOB2, WNT2, XIRP1, ZEB2	54
Skeletal and Muscular System Development and Function	morphogenesis of skeleton	8.92E-07	EYA1, HOXB2, HOXB3, HOXB5, HOXB6, HSPG2, SATB2, SIX2	8

Gastrointestinal Disease	disorder of pancreas	1.35E-06	ACAA2, ADAMTS5, AGMO, AGTR1, AKAP7, ALDH1A1, ANKRD44, ANO4, ATP9A, AUTS2, BRWD1, C10orf58, CA12, CBLB, CCBE1, CHRM2, COL8A1, CPE (includes EG:12876), CXCL14, DAAM1, DKK2, DMXL1, DOK6, FAM172A, FBN1, GAL, GALNT13, GAN, GCA, GPAM, HIST1H3A (includes others), HLA-DMA, HOXC8, HPSE2, HTATIP2, HTR2A, IL1RAP, INSR, JMY, KCNB2, KDM4C, KIAA0408, KIFAP3, KLHL29, LAMA3, LRRC2, LXN, MAGI1 (includes EG:14924), MCTP1, MXI1, MYO1D, NCAM1, NLRP1, ODZ2, PAPP, PLA, POSTN, PRSS1/PRSS3, RASSF8, RBL2 (includes EG:100331892), SBF2, SESTD1, SGCD, SH3GL2, SH3YL1, SLC23A2, SORL1, SYNE1, TNS1, TSPAN18, TTL7, UMODL1, VGLL4, WDFY3, YPEL2, ZEB2	76
Metabolic Disease	glucose metabolism disorder	1.46E-06	ACAA2, ADAMTS5, ADARB1, AGMO, AGTR1, AKAP7, ALDH1A1, ANKRD44, ANO4, ATP9A, AUTS2, BRWD1, C10orf58, CA12, CBLB, CCBE1, CHRM2, COL8A1, CPE (includes EG:12876), CXCL14, DAAM1, DKK2, DOK6, FAM172A, FBN1, GAL, GALNT13, GAN, GCA, GPAM, HIST1H3A (includes others), HLA-DMA, HOXC8, HPSE2, HTATIP2, HTR2A, IL1RAP, INSR, JMY, KCNB2, KDM4C, KIAA0408, KIFAP3, KLHL29, LAMA3, LRRC2, LXN, MAGI1 (includes EG:14924), MCTP1, MXI1, MYO1D, NCAM1, NLRP1, ODZ2, PAPP, RASSF8, RBL2 (includes EG:100331892), SBF2, SESTD1, SGCD, SH3GL2, SH3YL1, SLC23A2, SLC27A1, SORL1, SYNE1, TNS1, TSPAN18, TTL7, UMODL1, VGLL4, WDFY3, YPEL2, ZEB2	74
Tissue Development	development of connective tissue	1.69E-06	ADM, ALDH1A1, ARSE, BCOR, C10orf58, COL12A1, EN1, EYA1, FBN1, FCGR2B, FZD1, HOXA13, HOXB2, HOXB3, HOXC4, HOXC8, HSPG2, INSIG2, LAMA3, MITF, MSX1, PITX1, POSTN, PTN, RBL2 (includes EG:100331892), SATB2, SIX2, TBX4, TOB2	29
Gastrointestinal Disease	diabetes mellitus	3.34E-06	ACAA2, ADAMTS5, AGMO, AGTR1, AKAP7, ALDH1A1, ANKRD44, ANO4, ATP9A, AUTS2, BRWD1, C10orf58, CA12, CBLB, CCBE1, CHRM2, COL8A1, DAAM1, DKK2, DOK6, FAM172A, FBN1, GAL, GALNT13, GAN, GCA, GPAM, HIST1H3A (includes others), HLA-DMA, HOXC8, HPSE2, HTATIP2, HTR2A, IL1RAP, INSR, JMY, KCNB2, KDM4C, KIAA0408, KIFAP3, KLHL29, LAMA3, LRRC2, LXN, MAGI1 (includes EG:14924), MCTP1, MXI1, MYO1D, NCAM1, NLRP1, ODZ2, PAPP, RASSF8, RBL2 (includes EG:100331892), SBF2, SESTD1, SGCD, SH3GL2, SH3YL1, SLC23A2, SORL1, SYNE1, TNS1, TSPAN18, TTL7, UMODL1, VGLL4, WDFY3, YPEL2, ZEB2	70
Metabolic Disease	diabetes mellitus	3.34E-06	ACAA2, ADAMTS5, AGMO, AGTR1, AKAP7, ALDH1A1, ANKRD44, ANO4, ATP9A, AUTS2, BRWD1, C10orf58, CA12, CBLB, CCBE1, CHRM2, COL8A1, DAAM1, DKK2, DOK6, FAM172A, FBN1, GAL, GALNT13, GAN, GCA, GPAM, HIST1H3A (includes others), HLA-DMA, HOXC8, HPSE2, HTATIP2, HTR2A, IL1RAP, INSR, JMY, KCNB2, KDM4C, KIAA0408, KIFAP3, KLHL29, LAMA3, LRRC2, LXN, MAGI1 (includes EG:14924), MCTP1, MXI1, MYO1D, NCAM1, NLRP1, ODZ2, PAPP, RASSF8, RBL2 (includes EG:100331892), SBF2, SESTD1, SGCD, SH3GL2, SH3YL1, SLC23A2, SORL1, SYNE1, TNS1, TSPAN18, TTL7, UMODL1, VGLL4, WDFY3, YPEL2, ZEB2	70

Endocrine System Disorders	diabetes mellitus	3.34E-06	ACAA2, ADAMTS5, AGMO, AGTR1, AKAP7, ALDH1A1, ANKRD44, ANO4, ATP9A, AUTS2, BRWD1, C10orf58, CA12, CBLB, CCBE1, CHRM2, COL8A1, DAAM1, DKK2, DOK6, FAM172A, FBN1, GAL, GALNT13, GAN, GCA, GPAM, HIST1H3A (includes others), HLA-DMA, HOXC8, HPSE2, HTATIP2, HTR2A, IL1RAP, INSR, JMY, KCNB2, KDM4C, KIAA0408, KIFAP3, KLHL29, LAMA3, LRRC2, LXN, MAGI1 (includes EG:14924), MCTP1, MXI1, MYO1D, NCAM1, NLRP1, ODZ2, PAPP, RASSF8, RBL2 (includes EG:100331892), SBF2, SESTD1, SGCD, SH3GL2, SH3YL1, SLC23A2, SORL1, SYNE1, TNS1, TSPAN18, TTL7, UMODL1, VGLL4, WDFY3, YPEL2, ZEB2	70
Skeletal and Muscular System Development and Function	development of skeleton	4.84E-06	BCOR, EN1, EYA1, HOXB2, HOXB3, HOXB5, HOXB6, HOXC8, HSPG2, MEOX2, POSTN, PTN, SATB2, SIX2, TOB2	15
Tissue Development	development of organ	4.90E-06	ADM, AGTR1, ALDH1A1, ANGPTL4, ARHGAP35, ATF7, BCOR, COL8A1, CXCL14, EMP1, EN1, EYA1, FBN1, FOXF1, FOXF2, FOXQ1, GAL, HMGA2, HOXA13, HOXB3, HOXC4, HSD17B2, HSPG2, IL11RA, INSIG2, INSR, ISL1, LAMA3, LAMB2, LRP4, MEOX2, MITF, MSX1, NCAM1, ODC1, PITX1, PLAU, PRKAR2B, PTCH2, SHROOM4, SIX2, SPAG4, STRA6, STRBP, TBX19, TBX4, TET2, TOB2, WNT2, XIRP1, ZEB2	51
Embryonic Development	development of organ	4.90E-06	ADM, AGTR1, ALDH1A1, ANGPTL4, ARHGAP35, ATF7, BCOR, COL8A1, CXCL14, EMP1, EN1, EYA1, FBN1, FOXF1, FOXF2, FOXQ1, GAL, HMGA2, HOXA13, HOXB3, HOXC4, HSD17B2, HSPG2, IL11RA, INSIG2, INSR, ISL1, LAMA3, LAMB2, LRP4, MEOX2, MITF, MSX1, NCAM1, ODC1, PITX1, PLAU, PRKAR2B, PTCH2, SHROOM4, SIX2, SPAG4, STRA6, STRBP, TBX19, TBX4, TET2, TOB2, WNT2, XIRP1, ZEB2	51
Organ Development	development of organ	4.90E-06	ADM, AGTR1, ALDH1A1, ANGPTL4, ARHGAP35, ATF7, BCOR, COL8A1, CXCL14, EMP1, EN1, EYA1, FBN1, FOXF1, FOXF2, FOXQ1, GAL, HMGA2, HOXA13, HOXB3, HOXC4, HSD17B2, HSPG2, IL11RA, INSIG2, INSR, ISL1, LAMA3, LAMB2, LRP4, MEOX2, MITF, MSX1, NCAM1, ODC1, PITX1, PLAU, PRKAR2B, PTCH2, SHROOM4, SIX2, SPAG4, STRA6, STRBP, TBX19, TBX4, TET2, TOB2, WNT2, XIRP1, ZEB2	51
Organismal Development	development of organ	4.90E-06	ADM, AGTR1, ALDH1A1, ANGPTL4, ARHGAP35, ATF7, BCOR, COL8A1, CXCL14, EMP1, EN1, EYA1, FBN1, FOXF1, FOXF2, FOXQ1, GAL, HMGA2, HOXA13, HOXB3, HOXC4, HSD17B2, HSPG2, IL11RA, INSIG2, INSR, ISL1, LAMA3, LAMB2, LRP4, MEOX2, MITF, MSX1, NCAM1, ODC1, PITX1, PLAU, PRKAR2B, PTCH2, SHROOM4, SIX2, SPAG4, STRA6, STRBP, TBX19, TBX4, TET2, TOB2, WNT2, XIRP1, ZEB2	51

Cancer	neoplasia	9.21E-06	ADAMTS5, ADARB1, ADM, AGTR1, ALDH1A1, ALDOC, ANGPTL4, ARL4C, ARSE, ASB5, B3GNT6, BDKRB2, C7orf68, CAPG, CBLB, CHRM2, CLDN7, COL12A1, CXCL14, DMXL1, DYRK2, EMP1, EN1, EYA1, FAM46C, FBN1, FOXF1, FOXF2, FOXQ1, FZD1, GAL, GPRC5A, GPRC5C, H2AFY, HIST1H3A (includes others), HMGA2, HOXB2, HOXB3, HOXB5, HOXB6, HOXC4, HOXC5, HSD17B2, HTATIP2, HTR2A, IFT81, IL1RAP, INSR, ISOC1, KCNK2, KDM5A, KLF3, LAMA3, LRRN4, MEOX2, MFAP3L, MGST2, MITF, MLH3 (includes EG:217716), MPDZ, MSX1, MXI1, NAMPT, NBR2, NCAM1, NLRP1, NRN1, ODC1, PAPP, PDK4, PEAK1, PLAU, PMAIP1, POSTN, PTCH2, PTN, RARRES1, RBL2 (includes EG:100331892), SATB2, SLC23A2, SLC27A1, SMG1, SNCAIP, STRA6, SYNE1, TBX4, TET2, TIMP4, TNS1, TRPC6, WNK1, WNT2, XIRP1, ZEB2	94
Cancer	cancer	1.06E-05	ADAMTS5, ADARB1, ADM, AGTR1, ALDH1A1, ALDOC, ANGPTL4, ARL4C, ARSE, ASB5, B3GNT6, BDKRB2, C7orf68, CAPG, CBLB, CHRM2, CLDN7, COL12A1, CXCL14, DMXL1, DYRK2, EMP1, EN1, EYA1, FAM46C, FBN1, FOXF1, FOXF2, FOXQ1, FZD1, GAL, GPRC5A, GPRC5C, H2AFY, HIST1H3A (includes others), HMGA2, HOXB2, HOXB3, HOXB5, HOXB6, HOXC4, HOXC5, HSD17B2, HTATIP2, HTR2A, IFT81, IL1RAP, INSR, KCNK2, KDM5A, KLF3, LAMA3, LRRN4, MEOX2, MFAP3L, MGST2, MITF, MLH3 (includes EG:217716), MPDZ, MSX1, MXI1, NAMPT, NBR2, NCAM1, NLRP1, NRN1, ODC1, PAPP, PDK4, PEAK1, PLAU, PMAIP1, POSTN, PTCH2, RARRES1, RBL2 (includes EG:100331892), SATB2, SLC23A2, SLC27A1, SMG1, SNCAIP, STRA6, SYNE1, TBX4, TET2, TIMP4, TNS1, TRPC6, WNK1, WNT2, XIRP1, ZEB2	92
Cancer	tumorigenesis	2.04E-05	ADAMTS5, ADARB1, ADM, AGTR1, ALDH1A1, ALDOC, ANGPTL4, ARL4C, ARSE, ASB5, B3GNT6, BDKRB2, C7orf68, CAPG, CBLB, CHRM2, CLDN7, COL12A1, CXCL14, DLL4, DMXL1, DYRK2, EMP1, EN1, EYA1, FAM46C, FBN1, FOXF1, FOXF2, FOXQ1, FZD1, GAL, GPRC5A, GPRC5C, H2AFY, HIST1H3A (includes others), HMGA2, HOXB2, HOXB3, HOXB5, HOXB6, HOXC4, HOXC5, HSD17B2, HTATIP2, HTR2A, IFT81, IL1RAP, INSR, ISOC1, KCNK2, KDM5A, KLF3, LAMA3, LRRN4, MEOX2, MFAP3L, MGST2, MITF, MLH3 (includes EG:217716), MPDZ, MPI, MSX1, MXI1, NAMPT, NBR2, NCAM1, NLRP1, NRN1, ODC1, PAPP, PDK4, PEAK1, PITX1, PLAU, PMAIP1, POSTN, PRSS1/PRSS3, PTCH2, PTN, RARRES1, RBL2 (includes EG:100331892), SATB2, SLC23A2, SLC27A1, SMG1, SNCAIP, STRA6, SYNE1, TBX4, TET2, TIMP4, TNS1, TRPC6, WNK1, WNT2, XIRP1, ZEB2	98
Tissue Development	development of bone	3.27E-05	ALDH1A1, ARSE, BCOR, C10orf58, COL12A1, EN1, EYA1, FBN1, FCGR2B, FZD1, HOXA13, HOXB2, HOXC4, HOXC8, HSPG2, MITF, MSX1, PITX1, POSTN, PTN, RBL2 (includes EG:100331892), SATB2, TBX4, TOB2	24
Skeletal and Muscular System Development and Function	development of bone	3.27E-05	ALDH1A1, ARSE, BCOR, C10orf58, COL12A1, EN1, EYA1, FBN1, FCGR2B, FZD1, HOXA13, HOXB2, HOXC4, HOXC8, HSPG2, MITF, MSX1, PITX1, POSTN, PTN, RBL2 (includes EG:100331892), SATB2, TBX4, TOB2	24

Connective Tissue Development and Function	development of bone	3.27E-05	ALDH1A1, ARSE, BCOR, C10orf58, COL12A1, EN1, EYA1, FBN1, FCGR2B, FZD1, HOXA13, HOXB2, HOXC4, HOXC8, HSPG2, MITF, MSX1, PITX1, POSTN, PTN, RBL2 (includes EG:100331892), SATB2, TBX4, TOB2	24
Gastrointestinal Disease	non-insulin-dependent diabetes mellitus	3.85E-05	ACAA2, AGMO, AGTR1, ALDH1A1, ANKRD44, ATP9A, AUTS2, BRWD1, C10orf58, CA12, CBLB, CHRM2, DAAM1, DKK2, DOK6, FAM172A, FBN1, GALNT13, GPAM, HOXC8, HPSE2, HTR2A, IL1RAP, INSR, JMY, KCNB2, KIFAP3, LXN, MCTP1, ODZ2, RBL2 (includes EG:100331892), SBF2, SGCD, SH3GL2, SH3YL1, SLC23A2, SORL1, SYNE1, TNS1, TSPAN18, TTLL7, UMODL1, VGLL4, YPEL2	44
Metabolic Disease	non-insulin-dependent diabetes mellitus	3.85E-05	ACAA2, AGMO, AGTR1, ALDH1A1, ANKRD44, ATP9A, AUTS2, BRWD1, C10orf58, CA12, CBLB, CHRM2, DAAM1, DKK2, DOK6, FAM172A, FBN1, GALNT13, GPAM, HOXC8, HPSE2, HTR2A, IL1RAP, INSR, JMY, KCNB2, KIFAP3, LXN, MCTP1, ODZ2, RBL2 (includes EG:100331892), SBF2, SGCD, SH3GL2, SH3YL1, SLC23A2, SORL1, SYNE1, TNS1, TSPAN18, TTLL7, UMODL1, VGLL4, YPEL2	44
Endocrine System Disorders	non-insulin-dependent diabetes mellitus	3.85E-05	ACAA2, AGMO, AGTR1, ALDH1A1, ANKRD44, ATP9A, AUTS2, BRWD1, C10orf58, CA12, CBLB, CHRM2, DAAM1, DKK2, DOK6, FAM172A, FBN1, GALNT13, GPAM, HOXC8, HPSE2, HTR2A, IL1RAP, INSR, JMY, KCNB2, KIFAP3, LXN, MCTP1, ODZ2, RBL2 (includes EG:100331892), SBF2, SGCD, SH3GL2, SH3YL1, SLC23A2, SORL1, SYNE1, TNS1, TSPAN18, TTLL7, UMODL1, VGLL4, YPEL2	44
Genetic Disorder	non-insulin-dependent diabetes mellitus	3.85E-05	ACAA2, AGMO, AGTR1, ALDH1A1, ANKRD44, ATP9A, AUTS2, BRWD1, C10orf58, CA12, CBLB, CHRM2, DAAM1, DKK2, DOK6, FAM172A, FBN1, GALNT13, GPAM, HOXC8, HPSE2, HTR2A, IL1RAP, INSR, JMY, KCNB2, KIFAP3, LXN, MCTP1, ODZ2, RBL2 (includes EG:100331892), SBF2, SGCD, SH3GL2, SH3YL1, SLC23A2, SORL1, SYNE1, TNS1, TSPAN18, TTLL7, UMODL1, VGLL4, YPEL2	44
Genetic Disorder	bipolar disorder	5.05E-05	AGPAT4, ANO4, AUTS2, CA12, CCBE1, CHRM2, COL8A1, DOK6, FAM172A, GNAZ, HPSE2, HSD17B2, HSPG2, HTR2A, INSR, KIFAP3, KLHL29, LAMA3, LRRC2, MAGI1 (includes EG:14924), MCTP1, MITF, NCAM1, NLRP1, OLFM2, OLFML2B, RAB38, SATB2, SGCD, SLC27A6, SORL1, STARD9, SYNE1, TRPC6, TTLL7, ZEB2	36
Neurological Disease	bipolar disorder	5.05E-05	AGPAT4, ANO4, AUTS2, CA12, CCBE1, CHRM2, COL8A1, DOK6, FAM172A, GNAZ, HPSE2, HSD17B2, HSPG2, HTR2A, INSR, KIFAP3, KLHL29, LAMA3, LRRC2, MAGI1 (includes EG:14924), MCTP1, MITF, NCAM1, NLRP1, OLFM2, OLFML2B, RAB38, SATB2, SGCD, SLC27A6, SORL1, STARD9, SYNE1, TRPC6, TTLL7, ZEB2	36
Psychological Disorders	bipolar disorder	5.05E-05	AGPAT4, ANO4, AUTS2, CA12, CCBE1, CHRM2, COL8A1, DOK6, FAM172A, GNAZ, HPSE2, HSD17B2, HSPG2, HTR2A, INSR, KIFAP3, KLHL29, LAMA3, LRRC2, MAGI1 (includes EG:14924), MCTP1, MITF, NCAM1, NLRP1, OLFM2, OLFML2B, RAB38, SATB2, SGCD, SLC27A6, SORL1, STARD9, SYNE1, TRPC6, TTLL7, ZEB2	36

Tissue Development	development of endocrine gland	5.23E-05	EYA1, HMGA2, HOXB3, ISL1, PITX1, PLAU, STRA6, TBX19	8
Embryonic Development	development of endocrine gland	5.23E-05	EYA1, HMGA2, HOXB3, ISL1, PITX1, PLAU, STRA6, TBX19	8
Organ Development	development of endocrine gland	5.23E-05	EYA1, HMGA2, HOXB3, ISL1, PITX1, PLAU, STRA6, TBX19	8
Organismal Development	development of endocrine gland	5.23E-05	EYA1, HMGA2, HOXB3, ISL1, PITX1, PLAU, STRA6, TBX19	8
Embryonic Development	development of body axis	5.74E-05	ARL13B, EYA1, FOXF1, HOXB2, HOXB3, HOXB5, HOXB6, HOXC4, HOXC5, HOXC8, PITX1, STRA6	12
Organismal Development	development of body axis	5.74E-05	ARL13B, EYA1, FOXF1, HOXB2, HOXB3, HOXB5, HOXB6, HOXC4, HOXC5, HOXC8, PITX1, STRA6	12
Cellular Function and Maintenance	depolarization of tissue	6.22E-05	FOXF1, FOXF2, TRPC6	3
Tissue Morphology	depolarization of tissue	6.22E-05	FOXF1, FOXF2, TRPC6	3
Digestive System Development and Function	development of palate	7.12E-05	BCOR, FOXF2, INSIG2, MEOX2, MSX1, PITX1, SATB2	7
Psychological Disorders	mood disorder	7.15E-05	AGPAT4, ANO4, AUTS2, CA12, CCBE1, CHRM2, COL8A1, DOK6, FAM172A, GNAZ, HPSE2, HSD17B2, HSPG2, HTR2A, INSR, KIFAP3, KLHL29, LAMA3, LRP4, LRRC2, MAGI1 (includes EG:14924), MCTP1, MITF, NCAM1, NLRP1, NPIPL3 (includes others), OLFM2, OLFML2B, PTN, RAB38, SATB2, SGCD, SLC27A6, SORL1, STARD9, SYNE1, TRPC6, TLL7, ZEB2	39
Tissue Development	development of skeletal system	9.21E-05	ARSE, COL12A1, EN1, FBN1, HOXA13, HOXB2, HOXC4, HOXC8, PITX1, POSTN, TBX4	11
Skeletal and Muscular System Development and Function	development of skeletal system	9.21E-05	ARSE, COL12A1, EN1, FBN1, HOXA13, HOXB2, HOXC4, HOXC8, PITX1, POSTN, TBX4	11
Connective Tissue Development and Function	development of skeletal system	9.21E-05	ARSE, COL12A1, EN1, FBN1, HOXA13, HOXB2, HOXC4, HOXC8, PITX1, POSTN, TBX4	11
Gastrointestinal Disease	metastatic colorectal cancer	9.67E-05	CAPG, EMP1, EN1, FOXF1, FOXF2, KCNK2, LAMA3, MSX1, NLRP1, NRN1, PAPP	11
Cancer	metastatic colorectal cancer	9.67E-05	CAPG, EMP1, EN1, FOXF1, FOXF2, KCNK2, LAMA3, MSX1, NLRP1, NRN1, PAPP	11
Cardiovascular Disease	heart disease	1.06E-04	ADARB1, ADM, AGTR1, ALDH1A1, ANO4, AUTS2, BDKRB2, CA12, CACNG4, CHRM2, COL12A1, DAAM1, DOK6, F2RL1, FER, HMGA2, INSR, ISL1, KCNB2, KCNK2, KDM4C, KIFAP3, KLHL29, MCTP1, MEF2A, MYO1D, NBEAL1, ODZ2, OLFM2, PAPP, PEAK1, PHF20, PLAU, PLEKHA6, POSTN, RASSF8, SBF2, SCAPER, SGCD, SH3GL2, SIX2, SLC23A2, SYNE1, TET2, TNS1, TRPC6, WNK1	47

Cancer	solid tumor	1.35E-04	ADAMTS5, ADM, AGTR1, ALDH1A1, ALDOC, ANGPTL4, ARL4C, ARSE, B3GNT6, BDKRB2, C7orf68, CAPG, CHRM2, CLDN7, CXCL14, DMXL1, EMP1, EN1, EYA1, FBN1, FOXF1, FOXF2, FOXQ1, FZD1, GAL, GPRC5A, GPRC5C, H2AFY, HIST1H3A (includes others), HMGA2, HOXB2, HOXB5, HOXB6, HOXC4, HOXC5, HSD17B2, HTATIP2, HTR2A, IFT81, INSR, KCNK2, KDM5A, LAMA3, LRRN4, MEOX2, MGST2, MLH3 (includes EG:217716), MSX1, MXI1, NAMPT, NBR2, NCAM1, NLRP1, NRN1, ODC1, PAPP, PEAK1, PLAU, PMAIP1, POSTN, PTCH2, RARRES1, RBL2 (includes EG:100331892), SATB2, SLC23A2, SLC27A1, SMG1, SNCAIP, SYNE1, TBX4, TIMP4, WNK1, WNT2, ZEB2	74
Tissue Development	development of gland	1.46E-04	EN1, EYA1, FOXF1, HMGA2, HOXB3, ISL1, PITX1, PLAU, STRA6, TBX19	10
Embryonic Development	development of gland	1.46E-04	EN1, EYA1, FOXF1, HMGA2, HOXB3, ISL1, PITX1, PLAU, STRA6, TBX19	10
Organ Development	development of gland	1.46E-04	EN1, EYA1, FOXF1, HMGA2, HOXB3, ISL1, PITX1, PLAU, STRA6, TBX19	10
Organismal Development	development of gland	1.46E-04	EN1, EYA1, FOXF1, HMGA2, HOXB3, ISL1, PITX1, PLAU, STRA6, TBX19	10
Cancer	carcinoma	1.88E-04	ADAMTS5, AGTR1, ALDH1A1, ALDOC, ANGPTL4, ARL4C, ARSE, B3GNT6, BDKRB2, C7orf68, CAPG, CHRM2, CLDN7, CXCL14, DMXL1, EMP1, EN1, EYA1, FBN1, FOXF1, FOXF2, FOXQ1, FZD1, GAL, GPRC5A, GPRC5C, H2AFY, HIST1H3A (includes others), HMGA2, HOXB2, HOXB5, HOXB6, HOXC4, HOXC5, HSD17B2, HTATIP2, IFT81, INSR, KCNK2, KDM5A, LAMA3, LRRN4, MEOX2, MGST2, MLH3 (includes EG:217716), MSX1, MXI1, NAMPT, NBR2, NCAM1, NLRP1, NRN1, ODC1, PAPP, PEAK1, PLAU, PMAIP1, POSTN, PTCH2, RARRES1, RBL2 (includes EG:100331892), SATB2, SLC23A2, SLC27A1, SMG1, SNCAIP, SYNE1, TBX4, TIMP4, WNK1, WNT2, ZEB2	72
Tissue Development	formation of tissue	2.03E-04	ALDH1A1, ARSE, C10orf58, COL12A1, EN1, FBN1, FCGR2B, FZD1, HOXA13, HOXB2, HOXC4, HOXC8, MEOX2, MITF, NCAM1, PAPP, PITX1, PLAU, POSTN, PTN, TBX4, TOB2, TRPC6	23
Behavior	navigation	2.19E-04	GAL, HOMER1	2
Developmental Disorder	hypoplasia of smooth muscle cells	2.19E-04	FOXF1, FOXF2	2
Skeletal and Muscular Disorders	hypoplasia of smooth muscle cells	2.19E-04	FOXF1, FOXF2	2
Cellular Function and Maintenance	depolarization of epithelial tissue	2.19E-04	FOXF1, FOXF2	2
Tissue Morphology	depolarization of epithelial tissue	2.19E-04	FOXF1, FOXF2	2
Organ Development	morphogenesis of middle ear	2.31E-04	EYA1, INSIG2, MSX1, SIX2	4

Auditory and Vestibular System Development and Function	morphogenesis of middle ear	2.31E-04	EYA1, INSIG2, MSX1, SIX2	4
Lipid Metabolism	metabolism of acylglycerol	3.15E-04	BDKRB2, CPS1, GK, GPAM, INSIG2, NCAM1, PLAU, SLC27A1	8
Small Molecule Biochemistry	metabolism of acylglycerol	3.15E-04	BDKRB2, CPS1, GK, GPAM, INSIG2, NCAM1, PLAU, SLC27A1	8
Cardiovascular Disease	myocardial ischemia	3.45E-04	ADARB1, AGTR1, ALDH1A1, ANO4, AUTS2, BDKRB2, CACNG4, COL12A1, DAAM1, DOK6, FER, HMGA2, INSR, KCNB2, KCNK2, KDM4C, KLHL29, MCTP1, MEF2A, MYO1D, NBEAL1, ODZ2, OLFM2, PEAK1, PHF20, PLEKHA6, POSTN, RASSF8, SBF2, SCAPER, SH3GL2, SIX2, SLC23A2, SYNE1, TET2, TNS1, WNK1	37
Hematological Disease	myocardial ischemia	3.45E-04	ADARB1, AGTR1, ALDH1A1, ANO4, AUTS2, BDKRB2, CACNG4, COL12A1, DAAM1, DOK6, FER, HMGA2, INSR, KCNB2, KCNK2, KDM4C, KLHL29, MCTP1, MEF2A, MYO1D, NBEAL1, ODZ2, OLFM2, PEAK1, PHF20, PLEKHA6, POSTN, RASSF8, SBF2, SCAPER, SH3GL2, SIX2, SLC23A2, SYNE1, TET2, TNS1, WNK1	37
Cardiovascular Disease	aortic aneurysm	3.57E-04	ADM, AGTR1, FBN1	3
Tissue Development	formation of bone	3.62E-04	ALDH1A1, ARSE, C10orf58, COL12A1, EN1, FBN1, FCGR2B, FZD1, HOXA13, HOXB2, HOXC4, HOXC8, MITF, PITX1, POSTN, TBX4, TOB2	17
Skeletal and Muscular System Development and Function	formation of bone	3.62E-04	ALDH1A1, ARSE, C10orf58, COL12A1, EN1, FBN1, FCGR2B, FZD1, HOXA13, HOXB2, HOXC4, HOXC8, MITF, PITX1, POSTN, TBX4, TOB2	17
Connective Tissue Development and Function	formation of bone	3.62E-04	ALDH1A1, ARSE, C10orf58, COL12A1, EN1, FBN1, FCGR2B, FZD1, HOXA13, HOXB2, HOXC4, HOXC8, MITF, PITX1, POSTN, TBX4, TOB2	17
Genetic Disorder	coronary artery disease	3.92E-04	ADARB1, AGTR1, ALDH1A1, ANO4, AUTS2, BDKRB2, CACNG4, COL12A1, DAAM1, DOK6, FER, HMGA2, KCNB2, KCNK2, KDM4C, KLHL29, MCTP1, MEF2A, MYO1D, NBEAL1, ODZ2, OLFM2, PEAK1, PHF20, PLEKHA6, POSTN, RASSF8, SBF2, SCAPER, SH3GL2, SIX2, SLC23A2, SYNE1, TET2, TNS1, WNK1	36
Cardiovascular Disease	coronary artery disease	3.92E-04	ADARB1, AGTR1, ALDH1A1, ANO4, AUTS2, BDKRB2, CACNG4, COL12A1, DAAM1, DOK6, FER, HMGA2, KCNB2, KCNK2, KDM4C, KLHL29, MCTP1, MEF2A, MYO1D, NBEAL1, ODZ2, OLFM2, PEAK1, PHF20, PLEKHA6, POSTN, RASSF8, SBF2, SCAPER, SH3GL2, SIX2, SLC23A2, SYNE1, TET2, TNS1, WNK1	36
Hematological Disease	coronary artery disease	3.92E-04	ADARB1, AGTR1, ALDH1A1, ANO4, AUTS2, BDKRB2, CACNG4, COL12A1, DAAM1, DOK6, FER, HMGA2, KCNB2, KCNK2, KDM4C, KLHL29, MCTP1, MEF2A, MYO1D, NBEAL1, ODZ2, OLFM2, PEAK1, PHF20, PLEKHA6, POSTN, RASSF8, SBF2, SCAPER, SH3GL2, SIX2, SLC23A2, SYNE1, TET2, TNS1, WNK1	36



Immunological Disease	autoimmune disease	5.02E-04	ADAMTS5, ADM, AGTR1, AKAP7, ANKRD12, ANO4, ATP9A, AUTS2, BDKRB2, CBLB, CCBE1, CHRM2, COL8A1, CXCL14, DLL4, DMXL1, DOK6, F2RL1, FBN1, FCGR2B, FCHO2, GAN, GCA, GLRB, GPC4, HIST1H3A (includes others), HLA-DMA, HOXC4, HPSE2, HTATIP2, HTR2A, INSR, KCNB2, KDM4C, KIAA0408, KLHL29, LAMA3, LRRC2, MAGI1 (includes EG:14924), MAPK1IP1L, MXI1, MYCBP2, MYO1D, NAMPT, NCAM1, NLRP1, ODZ2, PAPP, PRKAR2B, RASSF8, SBF2, SESTD1, SGCD, SH3GL2, SORL1, SYNE1, TBX19, TNS1, TTC7A, VGLL4, WDFY3, WNK1	62
Gastrointestinal Disease	insulin-dependent diabetes mellitus	5.66E-04	ADAMTS5, AGTR1, AKAP7, ANO4, CBLB, CCBE1, COL8A1, DOK6, GAN, GCA, HIST1H3A (includes others), HLA-DMA, HPSE2, HTATIP2, INSR, KCNB2, KDM4C, KIAA0408, KLHL29, LAMA3, LRRC2, MAGI1 (includes EG:14924), MXI1, MYO1D, NCAM1, NLRP1, PAPP, RASSF8, SBF2, SESTD1, SH3GL2, VGLL4, WDFY3	33
Metabolic Disease	insulin-dependent diabetes mellitus	5.66E-04	ADAMTS5, AGTR1, AKAP7, ANO4, CBLB, CCBE1, COL8A1, DOK6, GAN, GCA, HIST1H3A (includes others), HLA-DMA, HPSE2, HTATIP2, INSR, KCNB2, KDM4C, KIAA0408, KLHL29, LAMA3, LRRC2, MAGI1 (includes EG:14924), MXI1, MYO1D, NCAM1, NLRP1, PAPP, RASSF8, SBF2, SESTD1, SH3GL2, VGLL4, WDFY3	33
Endocrine System Disorders	insulin-dependent diabetes mellitus	5.66E-04	ADAMTS5, AGTR1, AKAP7, ANO4, CBLB, CCBE1, COL8A1, DOK6, GAN, GCA, HIST1H3A (includes others), HLA-DMA, HPSE2, HTATIP2, INSR, KCNB2, KDM4C, KIAA0408, KLHL29, LAMA3, LRRC2, MAGI1 (includes EG:14924), MXI1, MYO1D, NCAM1, NLRP1, PAPP, RASSF8, SBF2, SESTD1, SH3GL2, VGLL4, WDFY3	33
Immunological Disease	insulin-dependent diabetes mellitus	5.66E-04	ADAMTS5, AGTR1, AKAP7, ANO4, CBLB, CCBE1, COL8A1, DOK6, GAN, GCA, HIST1H3A (includes others), HLA-DMA, HPSE2, HTATIP2, INSR, KCNB2, KDM4C, KIAA0408, KLHL29, LAMA3, LRRC2, MAGI1 (includes EG:14924), MXI1, MYO1D, NCAM1, NLRP1, PAPP, RASSF8, SBF2, SESTD1, SH3GL2, VGLL4, WDFY3	33
Neurological Disease	neuropathy	5.99E-04	AKAP7, CA12, CAPG, CHRM2, CPE (includes EG:12876), EFCAB4B, F2RL1, FAM172A, FER, FIG4, GAN, GPC4, GREB1L, HIST1H3A (includes others), HLA-DMA, HOMER1, HTR2A, INSR, JHDM1D, KDM4C, KDM5A, KLHL29, LTBP2, MYO1D, NAMPT, ODZ2, PRKAR2B, RNF122, RPS6KA6, SBF2, SH3GL2, SHROOM4, SNCAIP, TTC7A, WDFY3, WNK1, ZNF652	37
Gastrointestinal Disease	Hirschsprung disease	6.40E-04	FOXF1, FOXF2, ZEB2	3
Genetic Disorder	Hirschsprung disease	6.40E-04	FOXF1, FOXF2, ZEB2	3
Neurological Disease	Hirschsprung disease	6.40E-04	FOXF1, FOXF2, ZEB2	3
Developmental Disorder	Hirschsprung disease	6.40E-04	FOXF1, FOXF2, ZEB2	3
Tissue Development	development of colon	6.50E-04	FOXF1, FOXF2	2
Embryonic Development	development of colon	6.50E-04	FOXF1, FOXF2	2

Organ Development	development of colon	6.50E-04	FOXF1, FOXF2	2
Organismal Development	development of colon	6.50E-04	FOXF1, FOXF2	2
Digestive System Development and Function	development of colon	6.50E-04	FOXF1, FOXF2	2
Endocrine System Disorders	Simpson-Golabi-Behmel syndrome	6.50E-04	GPC4, OFD1	2
Genetic Disorder	Simpson-Golabi-Behmel syndrome	6.50E-04	GPC4, OFD1	2
Developmental Disorder	Simpson-Golabi-Behmel syndrome	6.50E-04	GPC4, OFD1	2
Skeletal and Muscular Disorders	Simpson-Golabi-Behmel syndrome	6.50E-04	GPC4, OFD1	2
Tissue Development	morphogenesis of organ	7.02E-04	ALDH1A1, ARHGAP35, COL8A1, EYA1, FOXF1, HOXA13, HOXC4, INSR, ISL1, MITF, MSX1, PRKAR2B, STRA6, XIRP1	14
Embryonic Development	morphogenesis of organ	7.02E-04	ALDH1A1, ARHGAP35, COL8A1, EYA1, FOXF1, HOXA13, HOXC4, INSR, ISL1, MITF, MSX1, PRKAR2B, STRA6, XIRP1	14
Organ Development	morphogenesis of organ	7.02E-04	ALDH1A1, ARHGAP35, COL8A1, EYA1, FOXF1, HOXA13, HOXC4, INSR, ISL1, MITF, MSX1, PRKAR2B, STRA6, XIRP1	14
Organismal Development	morphogenesis of organ	7.02E-04	ALDH1A1, ARHGAP35, COL8A1, EYA1, FOXF1, HOXA13, HOXC4, INSR, ISL1, MITF, MSX1, PRKAR2B, STRA6, XIRP1	14
Organ Morphology	morphogenesis of organ	7.02E-04	ALDH1A1, ARHGAP35, COL8A1, EYA1, FOXF1, HOXA13, HOXC4, INSR, ISL1, MITF, MSX1, PRKAR2B, STRA6, XIRP1	14
Tissue Development	cardiogenesis	7.15E-04	ADM, AGTR1, ATF7, BCOR, FBN1, FOXF1, HOXA13, HSPG2, INSR, ISL1, MSX1, STRA6, XIRP1	13
Embryonic Development	cardiogenesis	7.15E-04	ADM, AGTR1, ATF7, BCOR, FBN1, FOXF1, HOXA13, HSPG2, INSR, ISL1, MSX1, STRA6, XIRP1	13
Organ Development	cardiogenesis	7.15E-04	ADM, AGTR1, ATF7, BCOR, FBN1, FOXF1, HOXA13, HSPG2, INSR, ISL1, MSX1, STRA6, XIRP1	13
Organismal Development	cardiogenesis	7.15E-04	ADM, AGTR1, ATF7, BCOR, FBN1, FOXF1, HOXA13, HSPG2, INSR, ISL1, MSX1, STRA6, XIRP1	13
Cardiovascular System Development and Function	cardiogenesis	7.15E-04	ADM, AGTR1, ATF7, BCOR, FBN1, FOXF1, HOXA13, HSPG2, INSR, ISL1, MSX1, STRA6, XIRP1	13
Genetic Disorder	disorder of stature	7.96E-04	ARSE, GPC4, HMGA2, HSPG2, INSR, OFD1	6
Developmental Disorder	disorder of stature	7.96E-04	ARSE, GPC4, HMGA2, HSPG2, INSR, OFD1	6
Genetic Disorder	amyotrophic lateral sclerosis	7.98E-04	AKAP7, CAPG, CHRM2, FER, GPC4, HIST1H3A (includes others), HTR2A, INSR, JHDM1D, KDM5A, KLHL29, LTBP2, MYO1D, NAMPT, ODZ2, RNF122, RPS6KA6, SHROOM4, TTC7A, WDFY3, ZNF652	21

Neurological Disease	amyotrophic lateral sclerosis	7.98E-04	AKAP7, CAPG, CHRM2, FER, GPC4, HIST1H3A (includes others), HTR2A, INSR, JHDM1D, KDM5A, KLHL29, LTBP2, MYO1D, NAMPT, ODZ2, RNF122, RPS6KA6, SHROOM4, TTC7A, WDFY3, ZNF652	21
Inflammatory Response	inflammation of synovial joint	8.24E-04	BDKRB2, F2RL1, FCGR2B	3
Cardiovascular Disease	vascular disease	8.80E-04	ADARB1, ADM, AGTR1, ALDH1A1, ANO4, AUTS2, BDKRB2, CA12, CACNG4, COL12A1, DAAM1, DOK6, FBN1, FER, HMGA2, INSR, KCNB2, KCNK2, KDM4C, KLHL29, MCTP1, MEF2A, MYO1D, NBEAL1, ODZ2, OLFM2, PEAK1, PHF20, PLAU, PLEKHA6, POSTN, RASSF8, SBF2, SCAPER, SH3GL2, SIX2, SLC23A2, SYNE1, TET2, TNS1, WNK1	41
Genetic Disorder	obesity	8.93E-04	ADARB1, AGTR1, ANGPTL4, CA12, CHRM2, CPE (includes EG:12876), GAL, HMGA2, HTR2A, INSIG2, INSR, NAMPT, PDK4, PRKAR2B, SLC27A1	15
Nutritional Disease	obesity	8.93E-04	ADARB1, AGTR1, ANGPTL4, CA12, CHRM2, CPE (includes EG:12876), GAL, HMGA2, HTR2A, INSIG2, INSR, NAMPT, PDK4, PRKAR2B, SLC27A1	15
Tissue Development	kidney development	9.20E-04	ADM, AGTR1, EYA1, FBN1, INSR, LRP4, ODC1, SIX2, STRA6, TET2	10
Embryonic Development	kidney development	9.20E-04	ADM, AGTR1, EYA1, FBN1, INSR, LRP4, ODC1, SIX2, STRA6, TET2	10
Organ Development	kidney development	9.20E-04	ADM, AGTR1, EYA1, FBN1, INSR, LRP4, ODC1, SIX2, STRA6, TET2	10
Organismal Development	kidney development	9.20E-04	ADM, AGTR1, EYA1, FBN1, INSR, LRP4, ODC1, SIX2, STRA6, TET2	10
Renal and Urological System Development and Function	kidney development	9.20E-04	ADM, AGTR1, EYA1, FBN1, INSR, LRP4, ODC1, SIX2, STRA6, TET2	10
Embryonic Development	patterning of rostrocaudal axis	1.01E-03	HOXB2, HOXB3, HOXB5, HOXB6, HOXC4, HOXC5, HOXC8	7
Organismal Development	patterning of rostrocaudal axis	1.01E-03	HOXB2, HOXB3, HOXB5, HOXB6, HOXC4, HOXC5, HOXC8	7
Cellular Movement	migration of carcinoma cell lines	1.01E-03	CLDN7, HTATIP2, POSTN, PTN, SATB2	5
Lipid Metabolism	synthesis of diacylglycerol	1.37E-03	BDKRB2, GPAM, NCAM1, PLAU	4
Small Molecule Biochemistry	synthesis of diacylglycerol	1.37E-03	BDKRB2, GPAM, NCAM1, PLAU	4
Cardiovascular Disease	atherosclerosis	1.38E-03	ADARB1, AGTR1, ALDH1A1, ANO4, AUTS2, BDKRB2, CACNG4, COL12A1, DAAM1, DOK6, FER, HMGA2, KCNB2, KCNK2, KDM4C, KLHL29, MCTP1, MEF2A, MYO1D, NBEAL1, ODZ2, OLFM2, PEAK1, PHF20, PLAU, PLEKHA6, POSTN, RASSF8, SBF2, SCAPER, SH3GL2, SIX2, SLC23A2, SYNE1, TET2, TNS1, WNK1	37
Tissue Development	organization of extracellular matrix	1.64E-03	CCDC80, FOXF1, FOXF2, HSPG2, OLFML2B, POSTN	6
Cancer	leiomyomatosis	1.65E-03	ADARB1, ALDH1A1, ARSE, ASB5, CXCL14, DYRK2, FBN1, INSR, ISOC1, MFAP3L, PDK4, SMG1	12

Cancer	metastasis	1.69E-03	ANGPTL4, CAPG, CHRM2, EMP1, EN1, FOXF1, FOXF2, HTATIP2, HTR2A, KCNK2, LAMA3, MITF, MSX1, NCAM1, NLRP1, NRN1, PAPP, PLAU, PTCH2	19
Behavior	mechanical allodynia behavior of mice	1.87E-03	F2RL1, GAL, PRSS1/PRSS3	3
Genetic Disorder	Marfan's syndrome	1.87E-03	AGTR1, ALDOC, FBN1	3
Developmental Disorder	Marfan's syndrome	1.87E-03	AGTR1, ALDOC, FBN1	3
Behavior	olfactory memory	2.12E-03	GAL, PLAU	2
Nervous System Development and Function	olfactory memory	2.12E-03	GAL, PLAU	2
Tissue Development	angiogenesis of skeletal muscle	2.12E-03	F2RL1, PLAU	2
Organismal Development	angiogenesis of skeletal muscle	2.12E-03	F2RL1, PLAU	2
Skeletal and Muscular System Development and Function	angiogenesis of skeletal muscle	2.12E-03	F2RL1, PLAU	2
Cardiovascular System Development and Function	angiogenesis of skeletal muscle	2.12E-03	F2RL1, PLAU	2
Hematological System Development and Function	circulation of blood	2.12E-03	ADM, DLL4, HOXB2, MEOX2	4
Tissue Development	growth of tissue	2.46E-03	F2RL1, HSPG2, INSR, ODC1, PITX1, SIX2	6
Tissue Development	development of pituitary gland	2.58E-03	HMGA2, ISL1, PITX1, TBX19	4
Embryonic Development	development of pituitary gland	2.58E-03	HMGA2, ISL1, PITX1, TBX19	4
Organ Development	development of pituitary gland	2.58E-03	HMGA2, ISL1, PITX1, TBX19	4
Organismal Development	development of pituitary gland	2.58E-03	HMGA2, ISL1, PITX1, TBX19	4
Endocrine System Development and Function	development of pituitary gland	2.58E-03	HMGA2, ISL1, PITX1, TBX19	4
Reproductive System Development and Function	development of pituitary gland	2.58E-03	HMGA2, ISL1, PITX1, TBX19	4
Tissue Development	development of muscle	2.87E-03	F2RL1, FOXF1, HMGA2, HOXA13, HSPG2, MEOX2, MSX1, PAPP, PLAU, SGCD, STRA6, TRPC6, XIRP1	13

Skeletal and Muscular System Development and Function	development of muscle	2.87E-03	F2RL1, FOXF1, HMGA2, HOXA13, HSPG2, MEOX2, MSX1, PAPP, PLAU, SGCD, STRA6, TRPC6, XIRP1	13
Cardiovascular Disease	thoracic aortic aneurysm	3.15E-03	AGTR1, FBN1	2
Lipid Metabolism	release of aldosterone	3.15E-03	ADM, AGTR1	2
Small Molecule Biochemistry	release of aldosterone	3.15E-03	ADM, AGTR1	2
Endocrine System Development and Function	release of aldosterone	3.15E-03	ADM, AGTR1	2
Molecular Transport	release of aldosterone	3.15E-03	ADM, AGTR1	2
Organismal Development	development of secretory structure	3.42E-03	EN1, EYA1, FOXF1, GAL, HMGA2, HOXB3, ISL1, PITX1, PLAU, STRA6, TBX19	11
Neurological Disease	progressive motor neuropathy	3.45E-03	AKAP7, CA12, CAPG, CHRM2, CPE (includes EG:12876), EFCAB4B, F2RL1, FAM172A, FER, GPC4, GREB1L, HIST1H3A (includes others), HLA-DMA, HOMER1, HTR2A, INSR, JHDM1D, KDM4C, KDM5A, KLHL29, LTBP2, MYO1D, NAMPT, ODZ2, PRKAR2B, RNF122, RPS6KA6, SH3GL2, SHROOM4, SNCAIP, TTC7A, WDFY3, ZNF652	33
Cardiovascular System Development and Function	vasoconstriction	3.57E-03	ADM, AGTR1, F2RL1, HTR2A, PLAU	5
Skeletal and Muscular Disorders	arthritis	3.62E-03	ADAMTS5, ADM, ANKRD12, ATP9A, AUTS2, BDKRB2, CCBE1, CPE (includes EG:12876), CXCL14, DMXL1, DOK6, F2RL1, FBN1, FCGR2B, FCHO2, GAN, GCA, GPC4, HLA-DMA, HOXC4, HPSE2, HSPG2, HTR2A, IL11RA, KCNB2, LAMA3, LRRC2, MAGI1 (includes EG:14924), MAPK1IP1L, MYCBP2, NAMPT, ODZ2, PAPP, PLAU, PRKAR2B, RASSF8, SBF2, SGCD, SH3GL2, SORL1, SYNE1, TBX19, TIMP4, TNS1, TTC7A, WNK1	46
Connective Tissue Disorders	arthritis	3.62E-03	ADAMTS5, ADM, ANKRD12, ATP9A, AUTS2, BDKRB2, CCBE1, CPE (includes EG:12876), CXCL14, DMXL1, DOK6, F2RL1, FBN1, FCGR2B, FCHO2, GAN, GCA, GPC4, HLA-DMA, HOXC4, HPSE2, HSPG2, HTR2A, IL11RA, KCNB2, LAMA3, LRRC2, MAGI1 (includes EG:14924), MAPK1IP1L, MYCBP2, NAMPT, ODZ2, PAPP, PLAU, PRKAR2B, RASSF8, SBF2, SGCD, SH3GL2, SORL1, SYNE1, TBX19, TIMP4, TNS1, TTC7A, WNK1	46
Inflammatory Disease	arthritis	3.62E-03	ADAMTS5, ADM, ANKRD12, ATP9A, AUTS2, BDKRB2, CCBE1, CPE (includes EG:12876), CXCL14, DMXL1, DOK6, F2RL1, FBN1, FCGR2B, FCHO2, GAN, GCA, GPC4, HLA-DMA, HOXC4, HPSE2, HSPG2, HTR2A, IL11RA, KCNB2, LAMA3, LRRC2, MAGI1 (includes EG:14924), MAPK1IP1L, MYCBP2, NAMPT, ODZ2, PAPP, PLAU, PRKAR2B, RASSF8, SBF2, SGCD, SH3GL2, SORL1, SYNE1, TBX19, TIMP4, TNS1, TTC7A, WNK1	46
Tissue Development	cartilage development	3.73E-03	HOXB3, HOXC4, MSX1, PITX1, SATB2, SIX2	6

Skeletal and Muscular System Development and Function	cartilage development	3.73E-03	HOXB3, HOXC4, MSX1, PITX1, SATB2, SIX2	6
Connective Tissue Development and Function	cartilage development	3.73E-03	HOXB3, HOXC4, MSX1, PITX1, SATB2, SIX2	6
Tissue Development	morphogenesis of tissue	3.77E-03	EYA1, FOXF1, HOXA13, HOXB2, HOXB3, INSIG2, INSR, MEOX2, MSX1, TBX4	10
Reproductive System Disease	gynecological disorder	3.82E-03	ADAMTS5, ADARB1, ALDH1A1, ARL4C, ARSE, ASB5, C7orf68, CLDN7, CXCL14, DYRK2, FBN1, H2AFY, HMGA2, HOXB2, HOXB5, HOXB6, INSR, LRRN4, MFAP3L, MSX1, NCAM1, NLRP1, ODC1, PDK4, PLAU, POSTN, SATB2, SMG1, SNCAIP	29
Cancer	uterine leiomyoma	3.88E-03	ADARB1, ALDH1A1, ARSE, ASB5, CXCL14, DYRK2, FBN1, MFAP3L, PDK4, SMG1	10
Reproductive System Disease	uterine leiomyoma	3.88E-03	ADARB1, ALDH1A1, ARSE, ASB5, CXCL14, DYRK2, FBN1, MFAP3L, PDK4, SMG1	10
Renal and Urological Disease	glomerulosclerosis	4.01E-03	ADM, AGTR1, BDKRB2, TRPC6	4
Embryonic Development	transformation of embryonic cell lines	4.02E-03	ADM, MXI1, ODC1	3
Cancer	transformation of embryonic cell lines	4.02E-03	ADM, MXI1, ODC1	3
Embryonic Development	cellularity of organ	4.02E-03	DLL4, HOXB3, RBL2 (includes EG:100331892)	3
Organ Development	cellularity of organ	4.02E-03	DLL4, HOXB3, RBL2 (includes EG:100331892)	3
Organismal Development	cellularity of organ	4.02E-03	DLL4, HOXB3, RBL2 (includes EG:100331892)	3
Cell Morphology	cellularity of organ	4.02E-03	DLL4, HOXB3, RBL2 (includes EG:100331892)	3
Behavior	behavior	4.03E-03	ADM, AGTR1, ARSA, CHRM2, CRIP2, F2RL1, GAL, GLRB, HOMER1, HTR2A, INSIG2, OPHN1, PLAU, PRKAR2B, PRSS1/PRSS3, PTN, STRA6	17
Cancer	transformation of fibroblast cell lines	4.11E-03	ADM, HMGA2, HTR2A, KIFAP3, MITF, MXI1, ODC1, PTN, RBL2 (includes EG:100331892), WNT2	10
Genetic Disorder	x-linked hereditary disease	4.18E-03	ARSE, CA12, CXCL14, GPC4, HOMER1, IL11RA, OFD1, OPHN1, SHROOM4	9
Genetic Disorder	cleft face	4.37E-03	INSIG2, MSX1	2
Developmental Disorder	cleft face	4.37E-03	INSIG2, MSX1	2
Skeletal and Muscular Disorders	cleft face	4.37E-03	INSIG2, MSX1	2
Tissue Development	development of adrenal gland	4.57E-03	HMGA2, PLAU, STRA6	3

Embryonic Development	development of adrenal gland	4.57E-03	HMGA2, PLAU, STRA6	3
Organ Development	development of adrenal gland	4.57E-03	HMGA2, PLAU, STRA6	3
Organismal Development	development of adrenal gland	4.57E-03	HMGA2, PLAU, STRA6	3
Endocrine System Development and Function	development of adrenal gland	4.57E-03	HMGA2, PLAU, STRA6	3
Carbohydrate Metabolism	uptake of carbohydrate	5.02E-03	ADM, BDKRB2, CXCL14, GPAM, INSR, PDK4, PLAU, SLC23A2, SLC27A1	9
Embryonic Development	morphogenesis of embryo	5.08E-03	EN1, HOXA13, LRP4, MSX1, PITX1, TBX4, ZEB2	7
Organismal Development	morphogenesis of embryo	5.08E-03	EN1, HOXA13, LRP4, MSX1, PITX1, TBX4, ZEB2	7
Organismal Injury and Abnormalities	edema	5.30E-03	BDKRB2, CA12, CHRM2, F2RL1, GAL, HTR2A, PLAU, PRSS1/PRSS3	8
Lipid Metabolism	oxidation of retinaldehyde	5.77E-03	ALDH1A1, AOX1	2
Small Molecule Biochemistry	oxidation of retinaldehyde	5.77E-03	ALDH1A1, AOX1	2
Energy Production	oxidation of retinaldehyde	5.77E-03	ALDH1A1, AOX1	2
Vitamin and Mineral Metabolism	oxidation of retinaldehyde	5.77E-03	ALDH1A1, AOX1	2
Post-Translational Modification	heterotetramerization of protein	5.77E-03	ALDOC, INSR	2
Protein Synthesis	heterotetramerization of protein	5.77E-03	ALDOC, INSR	2
Cancer	ovarian cancer	5.77E-03	ALDH1A1, ARL4C, C7orf68, CLDN7, CXCL14, H2AFY, HMGA2, HOXB2, HOXB5, HOXB6, LRRN4, MSX1, NCAM1, PLAU, POSTN	15
Reproductive System Disease	ovarian cancer	5.77E-03	ALDH1A1, ARL4C, C7orf68, CLDN7, CXCL14, H2AFY, HMGA2, HOXB2, HOXB5, HOXB6, LRRN4, MSX1, NCAM1, PLAU, POSTN	15
Immunological Disease	angioedema	5.81E-03	BDKRB2, CHRM2, HTR2A	3
Organismal Injury and Abnormalities	angioedema	5.81E-03	BDKRB2, CHRM2, HTR2A	3
Dermatological Diseases and Conditions	angioedema	5.81E-03	BDKRB2, CHRM2, HTR2A	3

Cancer	genital tumor	6.15E-03	AGTR1, ALDH1A1, ARL4C, C7orf68, CLDN7, CXCL14, GPRC5A, H2AFY, HMGA2, HOXB2, HOXB5, HOXB6, HOXC4, HOXC5, INSR, KCNK2, LRRN4, MSX1, MXI1, NCAM1, ODC1, PEAK1, PLAU, POSTN, PTCH2, RARRES1, RBL2 (includes EG:100331892)	27
Reproductive System Disease	genital tumor	6.15E-03	AGTR1, ALDH1A1, ARL4C, C7orf68, CLDN7, CXCL14, GPRC5A, H2AFY, HMGA2, HOXB2, HOXB5, HOXB6, HOXC4, HOXC5, INSR, KCNK2, LRRN4, MSX1, MXI1, NCAM1, ODC1, PEAK1, PLAU, POSTN, PTCH2, RARRES1, RBL2 (includes EG:100331892)	27
Lipid Metabolism	formation of acylglycerol	6.35E-03	BDKRB2, GPAM, NCAM1, PLAU, SLC27A1	5
Small Molecule Biochemistry	formation of acylglycerol	6.35E-03	BDKRB2, GPAM, NCAM1, PLAU, SLC27A1	5
Lipid Metabolism	biosynthesis of acylglycerol	6.35E-03	BDKRB2, GPAM, NCAM1, PLAU, SLC27A1	5
Small Molecule Biochemistry	biosynthesis of acylglycerol	6.35E-03	BDKRB2, GPAM, NCAM1, PLAU, SLC27A1	5
Tissue Development	organization of tissue	6.43E-03	CCDC80, FOXF1, FOXF2, HSPG2, LAMB2, OLFML2B, POSTN, XIRP1	8
Small Molecule Biochemistry	quantity of inositol phosphate	6.50E-03	BDKRB2, GAL, GNAZ	3
Molecular Transport	quantity of inositol phosphate	6.50E-03	BDKRB2, GAL, GNAZ	3
Carbohydrate Metabolism	quantity of inositol phosphate	6.50E-03	BDKRB2, GAL, GNAZ	3
Lipid Metabolism	production of acylglycerol	6.70E-03	BDKRB2, GPAM, NCAM1, PLAU, SLC27A1	5
Small Molecule Biochemistry	production of acylglycerol	6.70E-03	BDKRB2, GPAM, NCAM1, PLAU, SLC27A1	5
Molecular Transport	quantity of Ca <sup>2+</sup>	7.02E-03	ADM, AGTR1, BDKRB2, CHRM2, F2RL1, GAL, HTR2A, INSR, MYCBP2, NCAM1, PLAU, PRSS1/PRSS3, RASGRP3, TRPC6	14
Vitamin and Mineral Metabolism	quantity of Ca <sup>2+</sup>	7.02E-03	ADM, AGTR1, BDKRB2, CHRM2, F2RL1, GAL, HTR2A, INSR, MYCBP2, NCAM1, PLAU, PRSS1/PRSS3, RASGRP3, TRPC6	14
Cell Signaling	quantity of Ca <sup>2+</sup>	7.02E-03	ADM, AGTR1, BDKRB2, CHRM2, F2RL1, GAL, HTR2A, INSR, MYCBP2, NCAM1, PLAU, PRSS1/PRSS3, RASGRP3, TRPC6	14
Organ Development	function of organ	7.03E-03	ADM, FBN1, HOMER1, HSPG2, INSR, MITF	6
Lipid Metabolism	metabolism of triacylglycerol	7.05E-03	CPS1, GK, GPAM, INSIG2, SLC27A1	5
Small Molecule Biochemistry	metabolism of triacylglycerol	7.05E-03	CPS1, GK, GPAM, INSIG2, SLC27A1	5
Tissue Development	development of epithelial tissue	7.17E-03	ADM, ANGPTL4, DLL4, FOXF1, HOXA13, HOXB2, LAMA3, MEOX2, MITF, ODC1, TBX4, WNT2	12
Endocrine System Development and Function	insulin sensitivity	7.23E-03	ADM, GAL, SLC27A1	3



Organismal Development	density of blood vessel	7.30E-03	BDKRB2, DLL4, HOXB3, MEOX2	4
Tissue Morphology	density of blood vessel	7.30E-03	BDKRB2, DLL4, HOXB3, MEOX2	4
Cardiovascular System Development and Function	density of blood vessel	7.30E-03	BDKRB2, DLL4, HOXB3, MEOX2	4
Skeletal and Muscular System Development and Function	development of axial skeleton	7.35E-03	HOXC8, MEOX2	2
Lipid Metabolism	deposition of triacylglycerol	7.35E-03	GPAM, SLC27A1	2
Small Molecule Biochemistry	deposition of triacylglycerol	7.35E-03	GPAM, SLC27A1	2
Molecular Transport	deposition of triacylglycerol	7.35E-03	GPAM, SLC27A1	2
Cell Death	condensation of cells	7.35E-03	EMP1, HOXA13	2
Molecular Transport	quantity of metal	7.43E-03	ADM, AGTR1, BDKRB2, CHRM2, F2RL1, GAL, HTR2A, INSR, MYCBP2, NCAM1, PLAU, PRSS1/PRSS3, RASGRP3, TRPC6, WNK1	15
Carbohydrate Metabolism	uptake of monosaccharide	7.51E-03	ADM, BDKRB2, CXCL14, GPAM, INSR, PDK4, PLAU, SLC27A1	8
Skeletal and Muscular Disorders	rheumatoid arthritis	7.71E-03	ADM, ANKRD12, ATP9A, AUTS2, BDKRB2, CCBE1, CXCL14, DMXL1, DOK6, F2RL1, FBN1, FCGR2B, FCHO2, GAN, GCA, GPC4, HLA-DMA, HOXC4, HPSE2, HTR2A, KCNB2, LAMA3, LRRC2, MAGI1 (includes EG:14924), MAPK1IP1L, MYCBP2, NAMPT, ODZ2, PAPP, PRKAR2B, RASSF8, SBF2, SGCD, SH3GL2, SORL1, SYNE1, TBX19, TNS1, TTC7A, WNK1	40
Immunological Disease	rheumatoid arthritis	7.71E-03	ADM, ANKRD12, ATP9A, AUTS2, BDKRB2, CCBE1, CXCL14, DMXL1, DOK6, F2RL1, FBN1, FCGR2B, FCHO2, GAN, GCA, GPC4, HLA-DMA, HOXC4, HPSE2, HTR2A, KCNB2, LAMA3, LRRC2, MAGI1 (includes EG:14924), MAPK1IP1L, MYCBP2, NAMPT, ODZ2, PAPP, PRKAR2B, RASSF8, SBF2, SGCD, SH3GL2, SORL1, SYNE1, TBX19, TNS1, TTC7A, WNK1	40
Connective Tissue Disorders	rheumatoid arthritis	7.71E-03	ADM, ANKRD12, ATP9A, AUTS2, BDKRB2, CCBE1, CXCL14, DMXL1, DOK6, F2RL1, FBN1, FCGR2B, FCHO2, GAN, GCA, GPC4, HLA-DMA, HOXC4, HPSE2, HTR2A, KCNB2, LAMA3, LRRC2, MAGI1 (includes EG:14924), MAPK1IP1L, MYCBP2, NAMPT, ODZ2, PAPP, PRKAR2B, RASSF8, SBF2, SGCD, SH3GL2, SORL1, SYNE1, TBX19, TNS1, TTC7A, WNK1	40
Inflammatory Disease	rheumatoid arthritis	7.71E-03	ADM, ANKRD12, ATP9A, AUTS2, BDKRB2, CCBE1, CXCL14, DMXL1, DOK6, F2RL1, FBN1, FCGR2B, FCHO2, GAN, GCA, GPC4, HLA-DMA, HOXC4, HPSE2, HTR2A, KCNB2, LAMA3, LRRC2, MAGI1 (includes EG:14924), MAPK1IP1L, MYCBP2, NAMPT, ODZ2, PAPP, PRKAR2B, RASSF8, SBF2, SGCD, SH3GL2, SORL1, SYNE1, TBX19, TNS1, TTC7A, WNK1	40

Organismal Development	development of vessel	7.77E-03	ADM, AGTR1, ANGPTL4, BDKRB2, CXCL14, DLL4, F2RL1, FBN1, FOXF1, HOXA13, HOXB3, HTATIP2, INSR, MEOX2, ODC1, PLAU, RBL2 (includes EG:100331892), STRA6, WNT2	19
Cell Cycle	ploidy of epithelial cell lines	8.01E-03	DYRK2, PDK3, WNK1	3
Cardiovascular Disease	bradycardia	8.01E-03	AGTR1, CHRM2, HTR2A	3
Behavior	memory	8.13E-03	CHRM2, GAL, HOMER1, HTR2A, NCAM1, OPHN1, PLAU	7
Nervous System Development and Function	memory	8.13E-03	CHRM2, GAL, HOMER1, HTR2A, NCAM1, OPHN1, PLAU	7
Small Molecule Biochemistry	production of inositol phosphate	8.33E-03	AGTR1, CHRM2, GAL, HTR2A	4
Carbohydrate Metabolism	production of inositol phosphate	8.33E-03	AGTR1, CHRM2, GAL, HTR2A	4
Embryonic Development	morphogenesis of limb	8.61E-03	EN1, HOXA13, LRP4, MSX1, PITX1, TBX4	6
Organismal Development	morphogenesis of limb	8.61E-03	EN1, HOXA13, LRP4, MSX1, PITX1, TBX4	6
Skeletal and Muscular System Development and Function	morphogenesis of limb	8.61E-03	EN1, HOXA13, LRP4, MSX1, PITX1, TBX4	6
Embryonic Development	invasion of embryonic cell lines	9.10E-03	ODC1, POSTN	2
Cellular Movement	invasion of embryonic cell lines	9.10E-03	ODC1, POSTN	2
Organismal Development	area of vessel component	9.10E-03	PAPPA, PLAU	2
Lymphoid Tissue Structure and Development	area of vessel component	9.10E-03	PAPPA, PLAU	2
Nervous System Development and Function	reflex	9.71E-03	CPE (includes EG:12876), GLRB, PLAU	3
Embryonic Development	limb development	1.02E-02	EN1, HOXA13, LRP4, MEOX2, MSX1, PITX1, TBX4	7
Organismal Development	limb development	1.02E-02	EN1, HOXA13, LRP4, MEOX2, MSX1, PITX1, TBX4	7
Skeletal and Muscular System Development and Function	limb development	1.02E-02	EN1, HOXA13, LRP4, MEOX2, MSX1, PITX1, TBX4	7
Tissue Development	neuritogenesis of cells	1.06E-02	NCAM1, PLAU, PTN	3

Nervous System Development and Function	neuritogenesis of cells	1.06E-02	NCAM1, PLAU, PTN	3
Cellular Assembly and Organization	neuritogenesis of cells	1.06E-02	NCAM1, PLAU, PTN	3
Cellular Development	neuritogenesis of cells	1.06E-02	NCAM1, PLAU, PTN	3
Cancer	benign tumor	1.07E-02	ADARB1, ADM, ALDH1A1, ALDOC, ARSE, ASB5, CXCL14, DYRK2, FBN1, GAL, HMGA2, HOXC5, INSR, ISOC1, MFAP3L, ODC1, PDK4, PLAU, SMG1, ZEB2	20
Neurological Disease	heat hyperalgesia	1.10E-02	F2RL1, PRSS1/PRSS3	2
Lipid Metabolism	esterification of fatty acid	1.10E-02	GK, SLC27A1	2
Small Molecule Biochemistry	esterification of fatty acid	1.10E-02	GK, SLC27A1	2
Tissue Development	development of hindgut	1.10E-02	ALDH1A1, HOXA13	2
Embryonic Development	development of hindgut	1.10E-02	ALDH1A1, HOXA13	2
Organismal Development	development of hindgut	1.10E-02	ALDH1A1, HOXA13	2
Neurological Disease	damage of axons	1.10E-02	F2RL1, IL11RA	2
Tissue Development	development of embryonic tissue	1.11E-02	ALDH1A1, EN1, EYA1, FOXF1, HOXA13, HOXB2, INSR, MEOX2, MITF, MSX1, PITX1, SIX2, STRA6	13
Embryonic Development	development of embryonic tissue	1.11E-02	ALDH1A1, EN1, EYA1, FOXF1, HOXA13, HOXB2, INSR, MEOX2, MITF, MSX1, PITX1, SIX2, STRA6	13
Organismal Development	development of embryonic tissue	1.11E-02	ALDH1A1, EN1, EYA1, FOXF1, HOXA13, HOXB2, INSR, MEOX2, MITF, MSX1, PITX1, SIX2, STRA6	13
Embryonic Development	tooth development	1.27E-02	BCOR, ISL1, LRP4, PLAU	4
Organ Development	tooth development	1.27E-02	BCOR, ISL1, LRP4, PLAU	4
Organismal Development	tooth development	1.27E-02	BCOR, ISL1, LRP4, PLAU	4
Digestive System Development and Function	tooth development	1.27E-02	BCOR, ISL1, LRP4, PLAU	4
Metabolic Disease	hyperlipidemia	1.27E-02	CA12, GPAM, HTR2A, INSIG2	4
Cardiovascular Disease	hyperlipidemia	1.27E-02	CA12, GPAM, HTR2A, INSIG2	4
Gastrointestinal Disease	hyperinsulinism	1.27E-02	CPE (includes EG:12876), CXCL14, GPAM, INSR	4
Metabolic Disease	hyperinsulinism	1.27E-02	CPE (includes EG:12876), CXCL14, GPAM, INSR	4
Endocrine System Disorders	hyperinsulinism	1.27E-02	CPE (includes EG:12876), CXCL14, GPAM, INSR	4

Metabolic Disease	dyslipidemia	1.30E-02	AGTR1, ANGPTL4, CA12, HTR2A, INSR	5
Hematological Disease	dyslipidemia	1.30E-02	AGTR1, ANGPTL4, CA12, HTR2A, INSR	5
Cardiovascular Disease	diastolic dysfunction	1.31E-02	AGTR1, SLC27A1	2
Cardiovascular System Development and Function	vasoconstriction of blood vessel	1.34E-02	ADM, AGTR1, HTR2A, PLAU	4
Psychological Disorders	anorexia	1.37E-02	ADM, HTR2A, IL11RA	3
Nutritional Disease	anorexia	1.37E-02	ADM, HTR2A, IL11RA	3
Organismal Development	development of blood vessel	1.47E-02	ADM, AGTR1, ANGPTL4, BDKRB2, CXCL14, DLL4, F2RL1, FOXF1, HOXA13, HOXB3, HTATIP2, INSR, MEOX2, ODC1, PLAU, RBL2 (includes EG:100331892), STRA6, WNT2	18
Cardiovascular System Development and Function	development of blood vessel	1.47E-02	ADM, AGTR1, ANGPTL4, BDKRB2, CXCL14, DLL4, F2RL1, FOXF1, HOXA13, HOXB3, HTATIP2, INSR, MEOX2, ODC1, PLAU, RBL2 (includes EG:100331892), STRA6, WNT2	18
Developmental Disorder	virilization	1.48E-02	INSR	1
Reproductive System Disease	virilization	1.48E-02	INSR	1
Organismal Development	vasodilation of basilar artery	1.48E-02	KCNK2	1
Tissue Morphology	vasodilation of basilar artery	1.48E-02	KCNK2	1
Cardiovascular System Development and Function	vasodilation of basilar artery	1.48E-02	KCNK2	1
Organismal Development	vasodilation of abdominal aorta	1.48E-02	ADM	1
Tissue Morphology	vasodilation of abdominal aorta	1.48E-02	ADM	1
Cardiovascular System Development and Function	vasodilation of abdominal aorta	1.48E-02	ADM	1
Cardiovascular System Development and Function	vasoconstriction of aortic ring tissue	1.48E-02	PLAU	1
Lipid Metabolism	utilization of triacylglycerol	1.48E-02	ANGPTL4	1
Small Molecule Biochemistry	utilization of triacylglycerol	1.48E-02	ANGPTL4	1
Lipid Metabolism	uptake of vitamin A	1.48E-02	STRA6	1

Small Molecule Biochemistry	uptake of vitamin A	1.48E-02	STRA6	1
Molecular Transport	uptake of vitamin A	1.48E-02	STRA6	1
Vitamin and Mineral Metabolism	uptake of vitamin A	1.48E-02	STRA6	1
Cancer	tumorigenesis of lipoma	1.48E-02	HMGA2	1
Gastrointestinal Disease	tumorigenesis of colorectal adenocarcinoma	1.48E-02	B3GNT6	1
Cancer	tumorigenesis of colorectal adenocarcinoma	1.48E-02	B3GNT6	1
Digestive System Development and Function	thickness of colon	1.48E-02	F2RL1	1
Organ Morphology	thickness of colon	1.48E-02	F2RL1	1
Behavior	taste aversion learning	1.48E-02	PLAU	1
Cellular Assembly and Organization	targeting of plasma membrane	1.48E-02	AKAP7	1
Cell-To-Cell Signaling and Interaction	targeting of plasma membrane	1.48E-02	AKAP7	1
Cell-To-Cell Signaling and Interaction	targeting of B lymphocytes	1.48E-02	FCGR2B	1
Cardiovascular System Development and Function	synthesis of neointima	1.48E-02	AGTR1	1
Nervous System Development and Function	synaptic transmission of glutamatergic neuron	1.48E-02	GAL	1
Cell-To-Cell Signaling and Interaction	synaptic transmission of glutamatergic neuron	1.48E-02	GAL	1
Connective Tissue Development and Function	survival of odontoblasts	1.48E-02	MSX1	1
Cell Death	survival of odontoblasts	1.48E-02	MSX1	1
Tissue Development	survival of dental pulp	1.48E-02	MSX1	1
Small Molecule Biochemistry	suppression of cyclic GMP	1.48E-02	ADM	1
Nucleic Acid Metabolism	suppression of cyclic GMP	1.48E-02	ADM	1

Cardiovascular Disease	stenosis of blood vessel lumen	1.48E-02	PLAU	1
Organismal Injury and Abnormalities	stenosis of blood vessel lumen	1.48E-02	PLAU	1
Tissue Development	size of thyroid lobe	1.48E-02	EYA1	1
Embryonic Development	size of thyroid lobe	1.48E-02	EYA1	1
Organ Development	size of thyroid lobe	1.48E-02	EYA1	1
Organismal Development	size of thyroid lobe	1.48E-02	EYA1	1
Organ Morphology	size of thyroid lobe	1.48E-02	EYA1	1
Endocrine System Development and Function	size of thyroid lobe	1.48E-02	EYA1	1
Cancer	signet ring-cell carcinoma	1.48E-02	HMGA2	1
Skeletal and Muscular Disorders	shortening of rib 13	1.48E-02	EN1	1
Connective Tissue Disorders	shortening of rib 13	1.48E-02	EN1	1
Organ Morphology	relaxation of trachea	1.48E-02	F2RL1	1
Respiratory System Development and Function	relaxation of trachea	1.48E-02	F2RL1	1
Digestive System Development and Function	relaxation of ileum	1.48E-02	ADM	1
Organ Morphology	relaxation of ileum	1.48E-02	ADM	1
Organ Morphology	relaxation of bronchus	1.48E-02	F2RL1	1
Respiratory System Development and Function	relaxation of bronchus	1.48E-02	F2RL1	1
Tissue Morphology	relaxation of bronchial tissue	1.48E-02	F2RL1	1
Respiratory System Development and Function	relaxation of bronchial tissue	1.48E-02	F2RL1	1
Organ Morphology	relaxation of bronchia	1.48E-02	CHRM2	1
Respiratory System Development and Function	relaxation of bronchia	1.48E-02	CHRM2	1
Tissue Morphology	regression of artery	1.48E-02	DLL4	1

Cancer	recurrence of squamous-cell carcinoma	1.48E-02	HMGA2	1
Cellular Function and Maintenance	reabsorption of chloride	1.48E-02	SORL1	1
Molecular Transport	reabsorption of chloride	1.48E-02	SORL1	1
Nervous System Development and Function	quantity of postsynaptic density	1.48E-02	NCAM1	1
Cellular Assembly and Organization	quantity of postsynaptic density	1.48E-02	NCAM1	1
Cellular Assembly and Organization	quantity of microfibrils	1.48E-02	HSPG2	1
Lipid Metabolism	production of 11-cis-retinol	1.48E-02	SLC27A1	1
Small Molecule Biochemistry	production of 11-cis-retinol	1.48E-02	SLC27A1	1
Vitamin and Mineral Metabolism	production of 11-cis-retinol	1.48E-02	SLC27A1	1
Endocrine System Development and Function	polarity of islet cells	1.48E-02	NCAM1	1
Cell Morphology	polarity of islet cells	1.48E-02	NCAM1	1
Gastrointestinal Disease	pineal hyperplasia insulin-resistant diabetes mellitus	1.48E-02	INSR	1
Metabolic Disease	pineal hyperplasia insulin-resistant diabetes mellitus	1.48E-02	INSR	1
Endocrine System Disorders	pineal hyperplasia insulin-resistant diabetes mellitus	1.48E-02	INSR	1
Genetic Disorder	pineal hyperplasia insulin-resistant diabetes mellitus	1.48E-02	INSR	1
Renal and Urological System Development and Function	perfusion pressure of kidney	1.48E-02	ADM	1
Cellular Function and Maintenance	paired-pulse facilitation of hippocampal CA1 region	1.48E-02	OPHN1	1

Nervous System Development and Function	paired-pulse facilitation of hippocampal CA1 region	1.48E-02	OPHN1	1
Cellular Compromise	oxidative stress response of heart cell lines	1.48E-02	NAMPT	1
Genetic Disorder	otofaciocervical syndrome	1.48E-02	EYA1	1
Neurological Disease	otofaciocervical syndrome	1.48E-02	EYA1	1
Developmental Disorder	otofaciocervical syndrome	1.48E-02	EYA1	1
Genetic Disorder	orofaciodigital syndrome	1.48E-02	OFD1	1
Developmental Disorder	orofaciodigital syndrome	1.48E-02	OFD1	1
Skeletal and Muscular Disorders	orofaciodigital syndrome	1.48E-02	OFD1	1
Cell Death	necrosis of skeletal muscle	1.48E-02	SGCD	1
Organ Morphology	necrosis of myocardium	1.48E-02	SGCD	1
Cell Death	necrosis of myocardium	1.48E-02	SGCD	1
Tissue Development	myogenesis of embryonic stem cell lines	1.48E-02	HMGA2	1
Embryonic Development	myogenesis of embryonic stem cell lines	1.48E-02	HMGA2	1
Skeletal and Muscular System Development and Function	myogenesis of embryonic stem cell lines	1.48E-02	HMGA2	1
Cellular Development	myogenesis of embryonic stem cell lines	1.48E-02	HMGA2	1
Inflammatory Response	mobilization of macrophages	1.48E-02	CXCL14	1
Cellular Movement	mobilization of macrophages	1.48E-02	CXCL14	1
Hematological System Development and Function	mobilization of macrophages	1.48E-02	CXCL14	1
Immune Cell Trafficking	mobilization of macrophages	1.48E-02	CXCL14	1
Skeletal and Muscular System Development and Function	migration of osteoblasts	1.48E-02	PTN	1
Connective Tissue Development and Function	migration of osteoblasts	1.48E-02	PTN	1



Cellular Movement	migration of osteoblasts	1.48E-02	PTN	1
Embryonic Development	migration of mesenchyme	1.48E-02	FOXF1	1
Nervous System Development and Function	mass of adenohypophysis	1.48E-02	GAL	1
Nervous System Development and Function	long-term potentiation of medial perforant path	1.48E-02	GAL	1
Cell-To-Cell Signaling and Interaction	long-term potentiation of medial perforant path	1.48E-02	GAL	1
Connective Tissue Development and Function	lipolysis of white adipose tissue	1.48E-02	PRKAR2B	1
Tissue Morphology	lipolysis of white adipose tissue	1.48E-02	PRKAR2B	1
Lipid Metabolism	lipolysis of white adipose tissue	1.48E-02	PRKAR2B	1
Small Molecule Biochemistry	lipolysis of white adipose tissue	1.48E-02	PRKAR2B	1
Gastrointestinal Disease	lipotrophic diabetes	1.48E-02	INSR	1
Metabolic Disease	lipotrophic diabetes	1.48E-02	INSR	1
Endocrine System Disorders	lipotrophic diabetes	1.48E-02	INSR	1
Cellular Development	lifespan of heart cell lines	1.48E-02	NAMPT	1
Metabolic Disease	leprechaunism	1.48E-02	INSR	1
Genetic Disorder	leprechaunism	1.48E-02	INSR	1
Developmental Disorder	leprechaunism	1.48E-02	INSR	1
Genetic Disorder	laryngo-onychocutaneous syndrome	1.48E-02	LAMA3	1
Developmental Disorder	laryngo-onychocutaneous syndrome	1.48E-02	LAMA3	1
Dermatological Diseases and Conditions	laryngo-onychocutaneous syndrome	1.48E-02	LAMA3	1
Molecular Transport	internalization of lipoprotein	1.48E-02	HSPG2	1
Protein Trafficking	internalization of lipoprotein	1.48E-02	HSPG2	1

Gastrointestinal Disease	insulin-resistant diabetes mellitus and acanthosis nigricans	1.48E-02	INSR	1
Metabolic Disease	insulin-resistant diabetes mellitus and acanthosis nigricans	1.48E-02	INSR	1
Endocrine System Disorders	insulin-resistant diabetes mellitus and acanthosis nigricans	1.48E-02	INSR	1
Genetic Disorder	insulin-resistant diabetes mellitus and acanthosis nigricans	1.48E-02	INSR	1
Dermatological Diseases and Conditions	insulin-resistant diabetes mellitus and acanthosis nigricans	1.48E-02	INSR	1
Genetic Disorder	hypoplastic enamel-onycholysis-hypohidrosis syndrome	1.48E-02	MSX1	1
Developmental Disorder	hypoplastic enamel-onycholysis-hypohidrosis syndrome	1.48E-02	MSX1	1
Dermatological Diseases and Conditions	hypoplastic enamel-onycholysis-hypohidrosis syndrome	1.48E-02	MSX1	1
Developmental Disorder	hypoplasia of calvaria	1.48E-02	EN1	1
Skeletal and Muscular Disorders	hypoplasia of calvaria	1.48E-02	EN1	1
Connective Tissue Disorders	hypoplasia of calvaria	1.48E-02	EN1	1
Endocrine System Disorders	hypertrophy of pancreas	1.48E-02	ODC1	1
Developmental Disorder	hypertrophy of pancreas	1.48E-02	ODC1	1
Cancer	hyperplasia of placenta	1.48E-02	MPI	1
Reproductive System Disease	hyperplasia of placenta	1.48E-02	MPI	1
Lipid Metabolism	hydrolysis of sulfatides	1.48E-02	ARSA	1
Small Molecule Biochemistry	hydrolysis of sulfatides	1.48E-02	ARSA	1
Genetic Disorder	hand-foot-uterus syndrome	1.48E-02	HOXA13	1

Tissue Development	growth of intestinal mucosa	1.48E-02	ODC1	1
Embryonic Development	growth of hindlimb	1.48E-02	PITX1	1
Organismal Development	growth of hindlimb	1.48E-02	PITX1	1
Skeletal and Muscular System Development and Function	growth of hindlimb	1.48E-02	PITX1	1
Tissue Development	growth of cartilage tissue	1.48E-02	SIX2	1
Cellular Development	growth of atypical lipomatous tumor cells	1.48E-02	HMGA2	1
Cellular Growth and Proliferation	growth of atypical lipomatous tumor cells	1.48E-02	HMGA2	1
Cancer	growth of Wilms' tumor	1.48E-02	TIMP4	1
Genetic Disorder	giant axonal neuropathy 1	1.48E-02	GAN	1
Neurological Disease	giant axonal neuropathy 1	1.48E-02	GAN	1
Organ Development	function of urinary bladder	1.48E-02	HOMER1	1
Skeletal and Muscular Disorders	fragmentation of myofibrils	1.48E-02	MEF2A	1
Cardiovascular Disease	fragmentation of elastic membrane	1.48E-02	PLAU	1
Skeletal and Muscular System Development and Function	formation of junctional folds	1.48E-02	LAMB2	1
Cellular Assembly and Organization	formation of junctional folds	1.48E-02	LAMB2	1
Nervous System Development and Function	formation of hippocampus	1.48E-02	ZEB2	1
Nervous System Development and Function	formation of active zone	1.48E-02	LAMB2	1
Cellular Assembly and Organization	formation of active zone	1.48E-02	LAMB2	1
Cellular Growth and Proliferation	formation of B cell lymphoma cells	1.48E-02	MXI1	1
Skeletal and Muscular System Development and Function	force generation of detrusor muscle	1.48E-02	HOMER1	1

Nervous System Development and Function	excitation of cholinergic neurons	1.48E-02	GAL	1
Cell-To-Cell Signaling and Interaction	excitation of cholinergic neurons	1.48E-02	GAL	1
Cellular Growth and Proliferation	excitation of cholinergic neurons	1.48E-02	GAL	1
Cellular Development	epithelial-mesenchymal transition of skin cancer cell lines	1.48E-02	ZEB2	1
Tissue Morphology	enlargement of pericardium	1.48E-02	DLL4	1
Organ Morphology	enlargement of pericardium	1.48E-02	DLL4	1
Cellular Function and Maintenance	endocytosis by keratinocytes	1.48E-02	F2RL1	1
Genetic Disorder	ectopia lentis	1.48E-02	FBN1	1
Developmental Disorder	ectopia lentis	1.48E-02	FBN1	1
Ophthalmic Disease	ectopia lentis	1.48E-02	FBN1	1
Genetic Disorder	early onset glaucoma	1.48E-02	SBF2	1
Ophthalmic Disease	early onset glaucoma	1.48E-02	SBF2	1
Genetic Disorder	dyssegmental dysplasia, Silverman-Handmaker type	1.48E-02	HSPG2	1
Developmental Disorder	dyssegmental dysplasia, Silverman-Handmaker type	1.48E-02	HSPG2	1
Tissue Morphology	disruption of extracellular matrix	1.48E-02	PLAU	1
Tissue Morphology	disintegration of epithelial tissue	1.48E-02	FOXF2	1
Organismal Development	development of tunica media	1.48E-02	FBN1	1
Lymphoid Tissue Structure and Development	development of tunica media	1.48E-02	FBN1	1
Tissue Development	development of pineal gland	1.48E-02	EN1	1
Embryonic Development	development of pineal gland	1.48E-02	EN1	1

Organ Development	development of pineal gland	1.48E-02	EN1	1
Organismal Development	development of pineal gland	1.48E-02	EN1	1
Endocrine System Development and Function	development of pineal gland	1.48E-02	EN1	1
Embryonic Development	development of paw	1.48E-02	EN1	1
Organismal Development	development of paw	1.48E-02	EN1	1
Skeletal and Muscular System Development and Function	development of paw	1.48E-02	EN1	1
Tissue Development	development of neuroretina cells	1.48E-02	MITF	1
Embryonic Development	development of neuroretina cells	1.48E-02	MITF	1
Organismal Development	development of neuroretina cells	1.48E-02	MITF	1
Cellular Development	development of neuroretina cells	1.48E-02	MITF	1
Tissue Development	development of ilium	1.48E-02	PITX1	1
Skeletal and Muscular System Development and Function	development of ilium	1.48E-02	PITX1	1
Connective Tissue Development and Function	development of ilium	1.48E-02	PITX1	1
Cellular Assembly and Organization	development of hemidesmosomes	1.48E-02	LAMA3	1
Tissue Development	development of fibula	1.48E-02	PITX1	1
Embryonic Development	development of fibula	1.48E-02	PITX1	1
Organismal Development	development of fibula	1.48E-02	PITX1	1
Skeletal and Muscular System Development and Function	development of fibula	1.48E-02	PITX1	1
Connective Tissue Development and Function	development of fibula	1.48E-02	PITX1	1

Tissue Development	development of colliculus	1.48E-02	EN1	1
Embryonic Development	development of colliculus	1.48E-02	EN1	1
Organ Development	development of colliculus	1.48E-02	EN1	1
Organismal Development	development of colliculus	1.48E-02	EN1	1
Nervous System Development and Function	development of colliculus	1.48E-02	EN1	1
Cellular Assembly and Organization	development of cell-matrix contacts	1.48E-02	TNS1	1
Cell-To-Cell Signaling and Interaction	development of cell-matrix contacts	1.48E-02	TNS1	1
Tissue Development	development of ameloblasts	1.48E-02	LAMA3	1
Connective Tissue Development and Function	development of ameloblasts	1.48E-02	LAMA3	1
Cellular Development	development of ameloblasts	1.48E-02	LAMA3	1
Tissue Morphology	deterioration of basement membrane	1.48E-02	HSPG2	1
Cell-To-Cell Signaling and Interaction	desensitization of pheochromocytoma cell lines	1.48E-02	ADM	1
Tissue Development	deposition of calvaria	1.48E-02	EN1	1
Connective Tissue Development and Function	deposition of calvaria	1.48E-02	EN1	1
Small Molecule Biochemistry	depletion of putrescine	1.48E-02	ODC1	1
Molecular Transport	depletion of putrescine	1.48E-02	ODC1	1
Cellular Compromise	depletion of projection neurons	1.48E-02	ISL1	1
Cellular Compromise	depletion of interneurons	1.48E-02	ISL1	1
Cellular Movement	delay in withdrawal of neurons	1.48E-02	NCAM1	1
Nervous System Development and Function	delay in withdrawal of neurons	1.48E-02	NCAM1	1
Cellular Movement	delay in shift of cells	1.48E-02	EN1	1

Cellular Function and Maintenance	delay in regulation of T lymphocytes	1.48E-02	CBLB	1
Hematological System Development and Function	delay in regulation of T lymphocytes	1.48E-02	CBLB	1
Tissue Development	delay in multilayering of cells	1.48E-02	EN1	1
Cell Cycle	delay in initiation of sub-G1 phase of salivary gland cell lines	1.48E-02	HMGA2	1
Cell Cycle	delay in initiation of G2/M phase of salivary gland cell lines	1.48E-02	HMGA2	1
Tissue Development	delay in formation of neural fold	1.48E-02	NCAM1	1
Embryonic Development	delay in formation of neural fold	1.48E-02	NCAM1	1
Organismal Development	delay in formation of neural fold	1.48E-02	NCAM1	1
Cell Cycle	delay in G1/S phase transition of pancreatic cancer cell lines	1.48E-02	INSR	1
Lipid Metabolism	degradation of gangliotetraosylceramide II3,IV3-disulfate	1.48E-02	ARSA	1
Small Molecule Biochemistry	degradation of gangliotetraosylceramide II3,IV3-disulfate	1.48E-02	ARSA	1
Metabolic Disease	deficiency of glycerol kinase	1.48E-02	GK	1
Genetic Disorder	deficiency of glycerol kinase	1.48E-02	GK	1
Developmental Disorder	deficiency of glycerol kinase	1.48E-02	GK	1
Developmental Disorder	dedifferentiation of myotube	1.48E-02	MSX1	1
Skeletal and Muscular Disorders	dedifferentiation of myotube	1.48E-02	MSX1	1
Small Molecule Biochemistry	decarboxylation of L-ornithine	1.48E-02	ODC1	1
Post-Translational Modification	decarboxylation of L-ornithine	1.48E-02	ODC1	1

Amino Acid Metabolism	decarboxylation of L-ornithine	1.48E-02	ODC1	1
Gastrointestinal Disease	damage of large intestine	1.48E-02	CBLB	1
Organismal Injury and Abnormalities	damage of large intestine	1.48E-02	CBLB	1
Genetic Disorder	congenital fibrosis of extraocular muscles	1.48E-02	KIF21A	1
Developmental Disorder	congenital fibrosis of extraocular muscles	1.48E-02	KIF21A	1
Skeletal and Muscular Disorders	congenital fibrosis of extraocular muscles	1.48E-02	KIF21A	1
Ophthalmic Disease	congenital fibrosis of extraocular muscles	1.48E-02	KIF21A	1
Skeletal and Muscular Disorders	collapse of diaphragm	1.48E-02	FBN1	1
Respiratory Disease	collapse of diaphragm	1.48E-02	FBN1	1
Cellular Assembly and Organization	clustering of cell-cell contacts	1.48E-02	NCAM1	1
Cell-To-Cell Signaling and Interaction	clustering of cell-cell contacts	1.48E-02	NCAM1	1
Genetic Disorder	chondrodysplasia punctata, x-linked recessive type	1.48E-02	ARSE	1
Developmental Disorder	chondrodysplasia punctata, x-linked recessive type	1.48E-02	ARSE	1
Skeletal and Muscular Disorders	chondrodysplasia punctata, x-linked recessive type	1.48E-02	ARSE	1
Connective Tissue Disorders	chondrodysplasia punctata, x-linked recessive type	1.48E-02	ARSE	1
Cancer	chemosensitivity of melanoma cell lines	1.48E-02	MITF	1
Behavior	chaining behavior of mice	1.48E-02	HOMER1	1
Cell Death	cell viability of salivary gland cell lines	1.48E-02	HMGA2	1
Connective Tissue Development and Function	cell spreading of dermal fibroblasts	1.48E-02	FBN1	1



Cell Morphology	cell spreading of dermal fibroblasts	1.48E-02	FBN1	1
Embryonic Development	cell death of mesodermal cells	1.48E-02	ISL1	1
Cell Death	cell death of mesodermal cells	1.48E-02	ISL1	1
Metabolic Disease	carbamoyl-phosphate synthase i deficiency disease	1.48E-02	CPS1	1
Genetic Disorder	carbamoyl-phosphate synthase i deficiency disease	1.48E-02	CPS1	1
Developmental Disorder	carbamoyl-phosphate synthase i deficiency disease	1.48E-02	CPS1	1
Tissue Development	calcification of myocardium	1.48E-02	SGCD	1
Organismal Development	branching of artery	1.48E-02	DLL4	1
Cardiovascular System Development and Function	branching of artery	1.48E-02	DLL4	1
Cellular Development	branching of artery	1.48E-02	DLL4	1
Lipid Metabolism	biosynthesis of phosphatidylglycerol	1.48E-02	SLC27A1	1
Small Molecule Biochemistry	biosynthesis of phosphatidylglycerol	1.48E-02	SLC27A1	1
Carbohydrate Metabolism	biosynthesis of phosphatidylglycerol	1.48E-02	SLC27A1	1
Small Molecule Biochemistry	biosynthesis of carbamoyl phosphate	1.48E-02	CPS1	1
Cell-To-Cell Signaling and Interaction	binding of pheochromocytoma cell lines	1.48E-02	LAMA3	1
Gene Expression	binding of osteocalcin box	1.48E-02	MSX1	1
Gene Expression	binding of E4f binding site	1.48E-02	HMGGA2	1
Organismal Injury and Abnormalities	autotomy of rats	1.48E-02	GAL	1
Cardiovascular Disease	atresia of aorta	1.48E-02	DLL4	1

Developmental Disorder	atresia of aorta	1.48E-02	DLL4	1
Cell-To-Cell Signaling and Interaction	architecture of synapse	1.48E-02	LAMB2	1
Cell Death	apoptosis of urethra	1.48E-02	HOXA13	1
Cell Death	apoptosis of atypical lipomatous tumor cells	1.48E-02	HMGA2	1
Inflammatory Response	antibody-dependent cell-mediated cytotoxicity of PBMCs	1.48E-02	IL1RAP	1
Hematological System Development and Function	antibody-dependent cell-mediated cytotoxicity of PBMCs	1.48E-02	IL1RAP	1
Cell-To-Cell Signaling and Interaction	antibody-dependent cell-mediated cytotoxicity of PBMCs	1.48E-02	IL1RAP	1
Tissue Development	angiogenesis of adductor muscle	1.48E-02	F2RL1	1
Organismal Development	angiogenesis of adductor muscle	1.48E-02	F2RL1	1
Skeletal and Muscular System Development and Function	angiogenesis of adductor muscle	1.48E-02	F2RL1	1
Cardiovascular System Development and Function	angiogenesis of adductor muscle	1.48E-02	F2RL1	1
Neurological Disease	allodynia of hindlimb	1.48E-02	GAL	1
Skeletal and Muscular Disorders	allodynia of hindlimb	1.48E-02	GAL	1
Metabolic Disease	albinism-deafness syndrome of tietz	1.48E-02	MITF	1
Genetic Disorder	albinism-deafness syndrome of tietz	1.48E-02	MITF	1
Developmental Disorder	albinism-deafness syndrome of tietz	1.48E-02	MITF	1
Dermatological Diseases and Conditions	albinism-deafness syndrome of tietz	1.48E-02	MITF	1
Ophthalmic Disease	albinism-deafness syndrome of tietz	1.48E-02	MITF	1
Developmental Disorder	agenesis of mullerian duct	1.48E-02	HOXA13	1

Cellular Assembly and Organization	adhesion of cell surface	1.48E-02	NCAM1	1
Cell-To-Cell Signaling and Interaction	adhesion of cell surface	1.48E-02	NCAM1	1
Tissue Development	adhesion of cardiomyocytes	1.48E-02	POSTN	1
Cell-To-Cell Signaling and Interaction	adhesion of cardiomyocytes	1.48E-02	POSTN	1
Cell-To-Cell Signaling and Interaction	activation of fibrosarcoma cell lines	1.48E-02	B3GNT6	1
Small Molecule Biochemistry	accumulation of spermine	1.48E-02	ODC1	1
Molecular Transport	accumulation of spermine	1.48E-02	ODC1	1
Small Molecule Biochemistry	accumulation of spermidine	1.48E-02	ODC1	1
Organismal Development	accumulation of cast	1.48E-02	ADM	1
Genetic Disorder	Syndromic microphthalmia 9	1.48E-02	STRA6	1
Developmental Disorder	Syndromic microphthalmia 9	1.48E-02	STRA6	1
Ophthalmic Disease	Syndromic microphthalmia 9	1.48E-02	STRA6	1
Genetic Disorder	Syndromic microphthalmia 2	1.48E-02	BCOR	1
Developmental Disorder	Syndromic microphthalmia 2	1.48E-02	BCOR	1
Ophthalmic Disease	Syndromic microphthalmia 2	1.48E-02	BCOR	1
Genetic Disorder	Shprintzen-Goldberg craniosynostosis syndrome	1.48E-02	FBN1	1
Developmental Disorder	Shprintzen-Goldberg craniosynostosis syndrome	1.48E-02	FBN1	1
Genetic Disorder	Schwartz-Jampel syndrome type 1	1.48E-02	HSPG2	1
Skeletal and Muscular Disorders	Schwartz-Jampel syndrome type 1	1.48E-02	HSPG2	1
Genetic Disorder	Pierson syndrome	1.48E-02	LAMB2	1
Renal and Urological Disease	Pierson syndrome	1.48E-02	LAMB2	1

Genetic Disorder	Mowat-Wilson syndrome	1.48E-02	ZEB2	1
Neurological Disease	Mowat-Wilson syndrome	1.48E-02	ZEB2	1
Cancer	Merkel-cell carcinoma	1.48E-02	NCAM1	1
Dermatological Diseases and Conditions	Merkel-cell carcinoma	1.48E-02	NCAM1	1
Genetic Disorder	Mass syndrome	1.48E-02	FBN1	1
Connective Tissue Disorders	Mass syndrome	1.48E-02	FBN1	1
Genetic Disorder	Guttmacher syndrome	1.48E-02	HOXA13	1
Developmental Disorder	Guttmacher syndrome	1.48E-02	HOXA13	1
Skeletal and Muscular Disorders	Guttmacher syndrome	1.48E-02	HOXA13	1
Genetic Disorder	Charcot-Marie-Tooth disease type 4j	1.48E-02	FIG4	1
Neurological Disease	Charcot-Marie-Tooth disease type 4j	1.48E-02	FIG4	1
Skeletal and Muscular Disorders	Charcot-Marie-Tooth disease type 4j	1.48E-02	FIG4	1
Genetic Disorder	Charcot-Marie-Tooth disease type 4b2	1.48E-02	SBF2	1
Neurological Disease	Charcot-Marie-Tooth disease type 4b2	1.48E-02	SBF2	1
Skeletal and Muscular Disorders	Charcot-Marie-Tooth disease type 4b2	1.48E-02	SBF2	1
Genetic Disorder	Branchio-Oto-Renal syndrome	1.48E-02	EYA1	1
Embryonic Development	patterning of embryo	1.49E-02	EN1, LRP4, MEOX2, SATB2	4
Organismal Development	patterning of embryo	1.49E-02	EN1, LRP4, MEOX2, SATB2	4
Nervous System Development and Function	survival of spinal cord cells	1.53E-02	IL11RA, PTN	2
Cell Death	survival of spinal cord cells	1.53E-02	IL11RA, PTN	2
Cell Morphology	shape change of smooth muscle cells	1.53E-02	FBN1, PLAU	2
Lipid Metabolism	incorporation of oleic acid	1.53E-02	GPAM, SLC27A1	2

Small Molecule Biochemistry	incorporation of oleic acid	1.53E-02	GPAM, SLC27A1	2
Embryonic Development	development of leg	1.53E-02	PITX1, TBX4	2
Organismal Development	development of leg	1.53E-02	PITX1, TBX4	2
Skeletal and Muscular System Development and Function	development of leg	1.53E-02	PITX1, TBX4	2
Cell Morphology	cell spreading of muscle cells	1.53E-02	FBN1, PLAU	2
Cancer	hyperplasia	1.54E-02	AGTR1, CLDN7, HMGA2, IL1RAP, INSR, MPI, MXI1, ODC1, PLAU, POSTN, PRSS1/PRSS3, RBL2 (includes EG:100331892)	12
Cancer	carcinoma in situ	1.56E-02	AGTR1, GPRC5A, GPRC5C, HMGA2, KCNK2, PEAK1, RBL2 (includes EG:100331892)	7
Organismal Development	dilation of blood vessel	1.59E-02	ADM, CPS1, F2RL1, KCNK2, PLAU	5
Tissue Morphology	dilation of blood vessel	1.59E-02	ADM, CPS1, F2RL1, KCNK2, PLAU	5
Cardiovascular System Development and Function	dilation of blood vessel	1.59E-02	ADM, CPS1, F2RL1, KCNK2, PLAU	5
Tissue Development	development of cranial nerve	1.60E-02	EN1, HOXB3, ISL1	3
Nervous System Development and Function	development of cranial nerve	1.60E-02	EN1, HOXB3, ISL1	3
Lipid Metabolism	oxidation of lipid	1.61E-02	ACAA2, ALDH1A1, AOX1, GPAM, HSD17B2, INSR, SLC27A1	7
Small Molecule Biochemistry	oxidation of lipid	1.61E-02	ACAA2, ALDH1A1, AOX1, GPAM, HSD17B2, INSR, SLC27A1	7
Energy Production	oxidation of lipid	1.61E-02	ACAA2, ALDH1A1, AOX1, GPAM, HSD17B2, INSR, SLC27A1	7
Organismal Development	vasculogenesis	1.64E-02	ADM, ANGPTL4, BDKRB2, CXCL14, DLL4, F2RL1, FOXF1, HOXA13, HOXB3, INSR, MEOX2, ODC1, PLAU, RBL2 (includes EG:100331892), STRA6, WNT2	16
Cardiovascular System Development and Function	vasculogenesis	1.64E-02	ADM, ANGPTL4, BDKRB2, CXCL14, DLL4, F2RL1, FOXF1, HOXA13, HOXB3, INSR, MEOX2, ODC1, PLAU, RBL2 (includes EG:100331892), STRA6, WNT2	16
Psychological Disorders	eating disorder	1.65E-02	ADM, CA12, CHRM2, HTR2A, IL11RA	5
Nutritional Disease	eating disorder	1.65E-02	ADM, CA12, CHRM2, HTR2A, IL11RA	5
Tissue Development	development of intestine	1.72E-02	FOXF1, FOXF2, HOXA13	3
Embryonic Development	development of intestine	1.72E-02	FOXF1, FOXF2, HOXA13	3

Organ Development	development of intestine	1.72E-02	FOXF1, FOXF2, HOXA13	3
Organismal Development	development of intestine	1.72E-02	FOXF1, FOXF2, HOXA13	3
Digestive System Development and Function	development of intestine	1.72E-02	FOXF1, FOXF2, HOXA13	3
Metabolic Disease	albuminuria	1.72E-02	AGTR1, BDKRB2, LAMB2	3
Renal and Urological Disease	albuminuria	1.72E-02	AGTR1, BDKRB2, LAMB2	3
Lipid Metabolism	production of retinoid	1.77E-02	ALDH1A1, SLC27A1	2
Small Molecule Biochemistry	production of retinoid	1.77E-02	ALDH1A1, SLC27A1	2
Vitamin and Mineral Metabolism	production of retinoid	1.77E-02	ALDH1A1, SLC27A1	2
Post-Translational Modification	tetramerization of protein	1.83E-02	ALDH1A1, ALDOC, INSR, SBF2	4
Protein Synthesis	tetramerization of protein	1.83E-02	ALDH1A1, ALDOC, INSR, SBF2	4
Gastrointestinal Disease	inflammatory bowel disease	1.97E-02	ANO4, AUTS2, B3GNT6, CA12, CPS1, EFCAB4B, F2RL1, FIG4, GALNT13, GLRB, GREB1L, HPSE2, KDM4C, KIFAP3, KLHL2, MEF2A, NBEAL1, ODZ2, PAPP, PLEKHA6, RASGRP3, RASSF8, SBF2, SGCD, SNCAIP, SYNE1, TET2, TEX9, WDFY3, ZEB2	30
Genetic Disorder	inflammatory bowel disease	1.97E-02	ANO4, AUTS2, B3GNT6, CA12, CPS1, EFCAB4B, F2RL1, FIG4, GALNT13, GLRB, GREB1L, HPSE2, KDM4C, KIFAP3, KLHL2, MEF2A, NBEAL1, ODZ2, PAPP, PLEKHA6, RASGRP3, RASSF8, SBF2, SGCD, SNCAIP, SYNE1, TET2, TEX9, WDFY3, ZEB2	30
Inflammatory Disease	inflammatory bowel disease	1.97E-02	ANO4, AUTS2, B3GNT6, CA12, CPS1, EFCAB4B, F2RL1, FIG4, GALNT13, GLRB, GREB1L, HPSE2, KDM4C, KIFAP3, KLHL2, MEF2A, NBEAL1, ODZ2, PAPP, PLEKHA6, RASGRP3, RASSF8, SBF2, SGCD, SNCAIP, SYNE1, TET2, TEX9, WDFY3, ZEB2	30
Cellular Movement	migration of lung cancer cell lines	1.98E-02	HTATIP2, POSTN, PTN	3
Tissue Development	development of neurons	1.98E-02	EN1, FIG4, MYCBP2, NCAM1, PLAU, PTN	6
Nervous System Development and Function	development of neurons	1.98E-02	EN1, FIG4, MYCBP2, NCAM1, PLAU, PTN	6
Cellular Development	development of neurons	1.98E-02	EN1, FIG4, MYCBP2, NCAM1, PLAU, PTN	6
Small Molecule Biochemistry	disposal of D-glucose	2.02E-02	GAL, INSR	2
Carbohydrate Metabolism	disposal of D-glucose	2.02E-02	GAL, INSR	2
Genetic Disorder	Dupuytren contracture	2.11E-02	ADAMTS5, COL12A1, COL8A1, TIMP4	4

Connective Tissue Disorders	Dupuytren contracture	2.11E-02	ADAMTS5, COL12A1, COL8A1, TIMP4	4
Gastrointestinal Disease	Crohn's disease	2.12E-02	ANO4, AUTS2, CA12, CPS1, EFCAB4B, FIG4, GALNT13, GLRB, GREB1L, HPSE2, KDM4C, KIFAP3, KLHL2, MEF2A, NBEAL1, ODZ2, PAPP, PLEKHA6, RASGRP3, RASSF8, SBF2, SGCD, SNCAIP, SYNE1, TET2, TEX9, WDFY3, ZEB2	28
Genetic Disorder	Crohn's disease	2.12E-02	ANO4, AUTS2, CA12, CPS1, EFCAB4B, FIG4, GALNT13, GLRB, GREB1L, HPSE2, KDM4C, KIFAP3, KLHL2, MEF2A, NBEAL1, ODZ2, PAPP, PLEKHA6, RASGRP3, RASSF8, SBF2, SGCD, SNCAIP, SYNE1, TET2, TEX9, WDFY3, ZEB2	28
Inflammatory Disease	Crohn's disease	2.12E-02	ANO4, AUTS2, CA12, CPS1, EFCAB4B, FIG4, GALNT13, GLRB, GREB1L, HPSE2, KDM4C, KIFAP3, KLHL2, MEF2A, NBEAL1, ODZ2, PAPP, PLEKHA6, RASGRP3, RASSF8, SBF2, SGCD, SNCAIP, SYNE1, TET2, TEX9, WDFY3, ZEB2	28
Tissue Development	adhesion of kidney cell lines	2.12E-02	PLAU, POSTN, ZEB2	3
Renal and Urological System Development and Function	adhesion of kidney cell lines	2.12E-02	PLAU, POSTN, ZEB2	3
Cell-To-Cell Signaling and Interaction	adhesion of kidney cell lines	2.12E-02	PLAU, POSTN, ZEB2	3
Cardiovascular System Development and Function	activation of endothelial cells	2.12E-02	DLL4, MEOX2, PLAU	3
Cell-To-Cell Signaling and Interaction	activation of endothelial cells	2.12E-02	DLL4, MEOX2, PLAU	3
Cardiovascular System Development and Function	angiogenesis	2.16E-02	AGTR1, ANGPTL4, BDKRB2, CXCL14, DLL4, F2RL1, HOXA13, HOXB3, HTATIP2, MEOX2, PLAU, RBL2 (includes EG:100331892), STRA6, TBX4, TRPC6	15
Neurological Disease	hyperalgesia	2.21E-02	ADM, F2RL1, PRSS1/PRSS3, TRPC6	4
Cancer	prostatic intraepithelial neoplasia	2.23E-02	AGTR1, GPRC5A, KCNK2, PEA1, RBL2 (includes EG:100331892)	5
Genetic Disorder	prostatic intraepithelial neoplasia	2.23E-02	AGTR1, GPRC5A, KCNK2, PEA1, RBL2 (includes EG:100331892)	5
Reproductive System Disease	prostatic intraepithelial neoplasia	2.23E-02	AGTR1, GPRC5A, KCNK2, PEA1, RBL2 (includes EG:100331892)	5
Tissue Development	growth of embryonic tissue	2.26E-02	F2RL1, INSR, PITX1	3
Embryonic Development	growth of embryonic tissue	2.26E-02	F2RL1, INSR, PITX1	3
Embryonic Development	development of head	2.26E-02	EYA1, PITX1, STRA6	3

Organismal Development	development of head	2.26E-02	EYA1, PITX1, STRA6	3
Genetic Disorder	exfoliation syndrome	2.29E-02	FBN1, LTBP2	2
Ophthalmic Disease	exfoliation syndrome	2.29E-02	FBN1, LTBP2	2
Respiratory Disease	dyspnea	2.29E-02	CHRM2, HTR2A	2
Tissue Development	morphogenesis of eye	2.31E-02	ALDH1A1, ARHGAP35, COL8A1, MITF	4
Embryonic Development	morphogenesis of eye	2.31E-02	ALDH1A1, ARHGAP35, COL8A1, MITF	4
Organ Development	morphogenesis of eye	2.31E-02	ALDH1A1, ARHGAP35, COL8A1, MITF	4
Organismal Development	morphogenesis of eye	2.31E-02	ALDH1A1, ARHGAP35, COL8A1, MITF	4
Organ Morphology	morphogenesis of eye	2.31E-02	ALDH1A1, ARHGAP35, COL8A1, MITF	4
Visual System Development and Function	morphogenesis of eye	2.31E-02	ALDH1A1, ARHGAP35, COL8A1, MITF	4
Cancer	adenocarcinoma	2.33E-02	ADAMTSS5, ALDOC, ARL4C, B3GNT6, CLDN7, CXCL14, H2AFY, HMGA2, HTATIP2, KCNK2, LRRN4, MXI1, NLRP1, PLAU, RBL2 (includes EG:100331892), SATB2, SNCAIP	17
Tissue Development	quantity of actin stress fibers	2.41E-02	INSR, LTBP2, PLAU	3
Cellular Assembly and Organization	quantity of actin stress fibers	2.41E-02	INSR, LTBP2, PLAU	3
Cell-To-Cell Signaling and Interaction	quantity of actin stress fibers	2.41E-02	INSR, LTBP2, PLAU	3
Tissue Development	eye development	2.42E-02	ALDH1A1, ANGPTL4, ARHGAP35, COL8A1, CXCL14, LAMB2, MITF, WNT2	8
Embryonic Development	eye development	2.42E-02	ALDH1A1, ANGPTL4, ARHGAP35, COL8A1, CXCL14, LAMB2, MITF, WNT2	8
Organ Development	eye development	2.42E-02	ALDH1A1, ANGPTL4, ARHGAP35, COL8A1, CXCL14, LAMB2, MITF, WNT2	8
Organismal Development	eye development	2.42E-02	ALDH1A1, ANGPTL4, ARHGAP35, COL8A1, CXCL14, LAMB2, MITF, WNT2	8
Visual System Development and Function	eye development	2.42E-02	ALDH1A1, ANGPTL4, ARHGAP35, COL8A1, CXCL14, LAMB2, MITF, WNT2	8
Cardiovascular System Development and Function	vasodilation	2.48E-02	ADM, CPS1, F2RL1, KCNK2, PLAU	5
Gene Expression	activation of DNA endogenous promoter	2.50E-02	ARID4A, BCOR, BRWD1, EN1, F2RL1, FOXF1, FOXF2, HMGA2, HOXA13, HOXC5, HOXC8, HTATIP2, ISL1, JMY, KDM5A, MEF2A, MITF, MSX1, MXI1, NRBF2, PITX1, RLF, SATB2, SIX2, TBX19	25
Tissue Development	mineralization of bone	2.52E-02	BCOR, EN1, POSTN, PTN	4



Skeletal and Muscular System Development and Function	mineralization of bone	2.52E-02	BCOR, EN1, POSTN, PTN	4
Connective Tissue Development and Function	mineralization of bone	2.52E-02	BCOR, EN1, POSTN, PTN	4
Organismal Injury and Abnormalities	fibrosis of organ	2.52E-02	AGTR1, BDKRB2, FCGR2B, IL11RA, PLAU, POSTN, SGCD	7
Carbohydrate Metabolism	quantity of carbohydrate	2.53E-02	ADM, BDKRB2, CPE (includes EG:12876), FCGR2B, FIG4, GAL, GNAZ, GPAM, INSR, PLAU	10
Cellular Development	growth of endocrine cells	2.57E-02	C8orf4, INSR	2
Cellular Growth and Proliferation	growth of endocrine cells	2.57E-02	C8orf4, INSR	2
Tissue Development	development of branchial arch	2.57E-02	MEOX2, PITX1	2
Embryonic Development	development of branchial arch	2.57E-02	MEOX2, PITX1	2
Organismal Development	development of branchial arch	2.57E-02	MEOX2, PITX1	2
Genetic Disorder	allergic rhinoconjunctivitis	2.57E-02	CHRM2, HTR2A	2
Immunological Disease	allergic rhinoconjunctivitis	2.57E-02	CHRM2, HTR2A	2
Inflammatory Disease	allergic rhinoconjunctivitis	2.57E-02	CHRM2, HTR2A	2
Respiratory Disease	allergic rhinoconjunctivitis	2.57E-02	CHRM2, HTR2A	2
Genetic Disorder	anaphylaxis	2.57E-02	CHRM2, FCGR2B, HTR2A	3
Immunological Disease	anaphylaxis	2.57E-02	CHRM2, FCGR2B, HTR2A	3
Tissue Development	morphogenesis of embryonic tissue	2.65E-02	EYA1, FOXF1, HOXA13, INSR, MEOX2	5
Embryonic Development	morphogenesis of embryonic tissue	2.65E-02	EYA1, FOXF1, HOXA13, INSR, MEOX2	5
Organismal Development	morphogenesis of embryonic tissue	2.65E-02	EYA1, FOXF1, HOXA13, INSR, MEOX2	5
Cellular Development	differentiation of connective tissue cells	2.71E-02	ADM, C10orf58, FCGR2B, HMGA2, HSPG2, INSR, MITF, NAMPT, PLAU, POSTN, PTN, RBL2 (includes EG:100331892), TOB2	13
Tissue Morphology	relaxation of artery	2.72E-02	ADM, F2RL1, GAL	3
Cardiovascular System Development and Function	relaxation of artery	2.72E-02	ADM, F2RL1, GAL	3

Tissue Development	morphogenesis of skeletal system	2.72E-02	HOXB2, HOXC8, TBX4	3
Skeletal and Muscular System Development and Function	morphogenesis of skeletal system	2.72E-02	HOXB2, HOXC8, TBX4	3
Connective Tissue Development and Function	morphogenesis of skeletal system	2.72E-02	HOXB2, HOXC8, TBX4	3
Lipid Metabolism	esterification of lipid	2.72E-02	AGTR1, GK, SLC27A1	3
Small Molecule Biochemistry	esterification of lipid	2.72E-02	AGTR1, GK, SLC27A1	3
Embryonic Development	cell movement of embryonic cell lines	2.74E-02	AGTR1, FOXF1, PLAU, POSTN	4
Cellular Movement	cell movement of embryonic cell lines	2.74E-02	AGTR1, FOXF1, PLAU, POSTN	4
Developmental Disorder	hypoplasia	2.74E-02	EN1, EYA1, FOXF1, FOXF2, HOXA13	5
Lipid Metabolism	cleavage of lipid	2.77E-02	ACAA2, ADM, ARSA, BDKRB2, CHRM2, F2RL1, HTR2A	7
Small Molecule Biochemistry	cleavage of lipid	2.77E-02	ACAA2, ADM, ARSA, BDKRB2, CHRM2, F2RL1, HTR2A	7
Genetic Disorder	psoriasis	2.80E-02	ADM, DKK2, FAR2, GAL, GK, H2AFY, IL20RB, MT1L, NAMPT, ODC1, PITX1, PLAU, POSTN, PRSS1/PRSS3, RAB38, RARRES1, SLC23A2	17
Dermatological Diseases and Conditions	psoriasis	2.80E-02	ADM, DKK2, FAR2, GAL, GK, H2AFY, IL20RB, MT1L, NAMPT, ODC1, PITX1, PLAU, POSTN, PRSS1/PRSS3, RAB38, RARRES1, SLC23A2	17
Cell Morphology	morphology of intercellular junctions	2.86E-02	LAMB2, NCAM1	2
Cell-To-Cell Signaling and Interaction	morphology of intercellular junctions	2.86E-02	LAMB2, NCAM1	2
Cellular Movement	migration of pancreatic cancer cell lines	2.86E-02	PEAK1, PLAU	2
Embryonic Development	cellularity of lymphoid organ	2.86E-02	DLL4, RBL2 (includes EG:100331892)	2
Organ Development	cellularity of lymphoid organ	2.86E-02	DLL4, RBL2 (includes EG:100331892)	2
Organismal Development	cellularity of lymphoid organ	2.86E-02	DLL4, RBL2 (includes EG:100331892)	2
Cell Morphology	cellularity of lymphoid organ	2.86E-02	DLL4, RBL2 (includes EG:100331892)	2
Tissue Development	adhesion of muscle cells	2.86E-02	PLAU, POSTN	2
Cell-To-Cell Signaling and Interaction	adhesion of muscle cells	2.86E-02	PLAU, POSTN	2

Tissue Development	development of skeletal muscle	2.86E-02	F2RL1, MEOX2, PLAU, STRA6	4
Skeletal and Muscular System Development and Function	development of skeletal muscle	2.86E-02	F2RL1, MEOX2, PLAU, STRA6	4
Cellular Movement	cell movement of epithelial cell lines	2.86E-02	AGTR1, LAMA3, PLAU, POSTN	4
Hair and Skin Development and Function	cell movement of epithelial cell lines	2.86E-02	AGTR1, LAMA3, PLAU, POSTN	4
Dermatological Diseases and Conditions	senile lentigo	2.89E-02	ANKRD12, FAR2, GAL	3
Gastrointestinal Disease	oral submucous fibrosis	2.89E-02	C7orf68, NAMPT, SLC27A6	3
Organismal Injury and Abnormalities	oral submucous fibrosis	2.89E-02	C7orf68, NAMPT, SLC27A6	3
Organ Morphology	vasodilation of kidney	2.94E-02	ADM	1
Cardiovascular System Development and Function	vasodilation of kidney	2.94E-02	ADM	1
Renal and Urological System Development and Function	vasodilation of kidney	2.94E-02	ADM	1
Cell Morphology	vacuolation of tubulovesicular structures	2.94E-02	SH3GL2	1
Lipid Metabolism	uptake of linoleic acid	2.94E-02	SLC27A6	1
Small Molecule Biochemistry	uptake of linoleic acid	2.94E-02	SLC27A6	1
Molecular Transport	uptake of linoleic acid	2.94E-02	SLC27A6	1
Cancer	tumorigenesis of endothelial cells	2.94E-02	ANGPTL4	1
Cancer	tumorigenesis of colon carcinoma cells	2.94E-02	PITX1	1
Cancer	transformation of thyroid cells	2.94E-02	HMGA2	1
Lipid Metabolism	toxicity of retinol	2.94E-02	ALDH1A1	1
Small Molecule Biochemistry	toxicity of retinol	2.94E-02	ALDH1A1	1
Vitamin and Mineral Metabolism	toxicity of retinol	2.94E-02	ALDH1A1	1
Tissue Morphology	thickness of skin tissue	2.94E-02	ODC1	1

Hair and Skin Development and Function	thickness of skin tissue	2.94E-02	ODC1	1
Cellular Assembly and Organization	targeting of mossy fibers	2.94E-02	EN1	1
Cell-To-Cell Signaling and Interaction	stimulation of pheochromocytoma cell lines	2.94E-02	NCAM1	1
Cellular Growth and Proliferation	stimulation of pheochromocytoma cell lines	2.94E-02	NCAM1	1
Tissue Development	size of motor endplates	2.94E-02	NCAM1	1
Skeletal and Muscular System Development and Function	size of motor endplates	2.94E-02	NCAM1	1
Nervous System Development and Function	size of motor endplates	2.94E-02	NCAM1	1
Cell Morphology	size of motor endplates	2.94E-02	NCAM1	1
Cellular Assembly and Organization	size of motor endplates	2.94E-02	NCAM1	1
Cell-To-Cell Signaling and Interaction	size of motor endplates	2.94E-02	NCAM1	1
Metabolic Disease	severe familial insulin resistance	2.94E-02	INSR	1
Genetic Disorder	severe familial insulin resistance	2.94E-02	INSR	1
Cell Cycle	senescence of heart cell lines	2.94E-02	NAMPT	1
Small Molecule Biochemistry	secretion of aldesleukin	2.94E-02	GPAM	1
Molecular Transport	secretion of aldesleukin	2.94E-02	GPAM	1
Genetic Disorder	sclerosteosis	2.94E-02	LRP4	1
Developmental Disorder	sclerosteosis	2.94E-02	LRP4	1
Skeletal and Muscular Disorders	sclerosteosis	2.94E-02	LRP4	1
Cardiovascular Disease	rupture of aneurysm	2.94E-02	FBN1	1
Organismal Injury and Abnormalities	rupture of aneurysm	2.94E-02	FBN1	1

Skeletal and Muscular System Development and Function	ruffling of smooth muscle cells	2.94E-02	PLAU	1
Cell Morphology	ruffling of smooth muscle cells	2.94E-02	PLAU	1
Inflammatory Response	ruffling of macrophages	2.94E-02	CAPG	1
Hematological System Development and Function	ruffling of macrophages	2.94E-02	CAPG	1
Cell Morphology	ruffling of macrophages	2.94E-02	CAPG	1
Antigen Presentation	ruffling of macrophages	2.94E-02	CAPG	1
Cell Morphology	ruffling of epithelial cell lines	2.94E-02	INSR	1
Hair and Skin Development and Function	ruffling of epithelial cell lines	2.94E-02	INSR	1
Tissue Morphology	relaxation of femoral artery	2.94E-02	F2RL1	1
Cardiovascular System Development and Function	relaxation of femoral artery	2.94E-02	F2RL1	1
Small Molecule Biochemistry	regulation of spermidine	2.94E-02	ODC1	1
Cardiovascular Disease	rarefaction of vasculature	2.94E-02	PLAU	1
Small Molecule Biochemistry	quantity of heparin	2.94E-02	PLAU	1
Molecular Transport	quantity of heparin	2.94E-02	PLAU	1
Carbohydrate Metabolism	quantity of heparin	2.94E-02	PLAU	1
Drug Metabolism	quantity of heparin	2.94E-02	PLAU	1
Nervous System Development and Function	proliferation of motor neurons	2.94E-02	ISL1	1
Cellular Growth and Proliferation	proliferation of motor neurons	2.94E-02	ISL1	1
Tissue Development	proliferation of genital tubercle	2.94E-02	HOXA13	1
Embryonic Development	proliferation of genital tubercle	2.94E-02	HOXA13	1
Tumor Morphology	production of prostatic intraepithelial tumor	2.94E-02	RBL2 (includes EG:100331892)	1

Embryonic Development	polarization of epithelial bud	2.94E-02	FOXF2	1
Embryonic Development	patterning of rhombencephalon	2.94E-02	ALDH1A1	1
Organ Development	patterning of rhombencephalon	2.94E-02	ALDH1A1	1
Nervous System Development and Function	patterning of rhombencephalon	2.94E-02	ALDH1A1	1
Cellular Compromise	oxidative stress response of cardiomyocytes	2.94E-02	INSR	1
Energy Production	oxidation of pyruvic acid	2.94E-02	SLC27A1	1
Small Molecule Biochemistry	oxidation of acetaldehyde	2.94E-02	ALDH1A1	1
Energy Production	oxidation of acetaldehyde	2.94E-02	ALDH1A1	1
Lipid Metabolism	oxidation of 4-androstene-3,17-dione	2.94E-02	HSD17B2	1
Small Molecule Biochemistry	oxidation of 4-androstene-3,17-dione	2.94E-02	HSD17B2	1
Endocrine System Development and Function	oxidation of 4-androstene-3,17-dione	2.94E-02	HSD17B2	1
Energy Production	oxidation of 4-androstene-3,17-dione	2.94E-02	HSD17B2	1
Nervous System Development and Function	outgrowth of motor axons	2.94E-02	PTN	1
Cell Morphology	outgrowth of motor axons	2.94E-02	PTN	1
Cellular Assembly and Organization	outgrowth of motor axons	2.94E-02	PTN	1
Genetic Disorder	oligodactyly	2.94E-02	HOXA13	1
Developmental Disorder	oligodactyly	2.94E-02	HOXA13	1
Skeletal and Muscular Disorders	oligodactyly	2.94E-02	HOXA13	1
Embryonic Development	morphology of rostral migratory stream	2.94E-02	NCAM1	1
Tissue Morphology	morphology of rostral migratory stream	2.94E-02	NCAM1	1
Skeletal and Muscular System Development and Function	morphology of axial skeleton	2.94E-02	HOXC8	1

Tissue Development	morphogenesis of somites	2.94E-02	MEOX2	1
Embryonic Development	morphogenesis of somites	2.94E-02	MEOX2	1
Organismal Development	morphogenesis of somites	2.94E-02	MEOX2	1
Tissue Development	morphogenesis of nose	2.94E-02	STRA6	1
Embryonic Development	morphogenesis of nose	2.94E-02	STRA6	1
Organ Development	morphogenesis of nose	2.94E-02	STRA6	1
Organismal Development	morphogenesis of nose	2.94E-02	STRA6	1
Organ Morphology	morphogenesis of nose	2.94E-02	STRA6	1
Respiratory System Development and Function	morphogenesis of nose	2.94E-02	STRA6	1
Embryonic Development	morphogenesis of leg	2.94E-02	TBX4	1
Organismal Development	morphogenesis of leg	2.94E-02	TBX4	1
Skeletal and Muscular System Development and Function	morphogenesis of leg	2.94E-02	TBX4	1
Cellular Movement	mobilization of neural stem cells	2.94E-02	DLL4	1
Cellular Movement	migration of endometrial cancer cell lines	2.94E-02	SATB2	1
Small Molecule Biochemistry	metabolism of ascorbic acid	2.94E-02	SLC23A2	1
Carbohydrate Metabolism	metabolism of ascorbic acid	2.94E-02	SLC23A2	1
Vitamin and Mineral Metabolism	metabolism of ascorbic acid	2.94E-02	SLC23A2	1
Lipid Metabolism	mass of triacylglycerol	2.94E-02	GPAM	1
Small Molecule Biochemistry	mass of triacylglycerol	2.94E-02	GPAM	1
Cellular Function and Maintenance	localization of alpha islet cells	2.94E-02	NCAM1	1
Cellular Movement	localization of alpha islet cells	2.94E-02	NCAM1	1

Endocrine System Development and Function	localization of alpha islet cells	2.94E-02	NCAM1	1
Cellular Development	lifespan of smooth muscle cells	2.94E-02	NAMPT	1
Behavior	lever press response of mice	2.94E-02	HOMER1	1
Embryonic Development	invasion of perioptic mesenchyme	2.94E-02	ALDH1A1	1
Cellular Compromise	injury of neuroblastoma cell lines	2.94E-02	ADM	1
Cell-To-Cell Signaling and Interaction	injury of dopaminergic neurons	2.94E-02	DLL4	1
Cellular Compromise	injury of dopaminergic neurons	2.94E-02	DLL4	1
Cardiovascular Disease	injury of carotid artery	2.94E-02	PLAU	1
Cell Cycle	initiation of cell cycle progression of BMNC cells	2.94E-02	FCGR2B	1
Inflammatory Response	inflammation of knee joint	2.94E-02	F2RL1	1
Lipid Metabolism	incorporation of lignoceric acid	2.94E-02	SLC27A1	1
Small Molecule Biochemistry	incorporation of lignoceric acid	2.94E-02	SLC27A1	1
Small Molecule Biochemistry	incorporation of acetate	2.94E-02	SLC27A1	1
Developmental Disorder	hypoplasia of seminal vesicle	2.94E-02	HOXA13	1
Reproductive System Disease	hypoplasia of seminal vesicle	2.94E-02	HOXA13	1
Developmental Disorder	hypoplasia of prostatic bud	2.94E-02	HOXA13	1
Neurological Disease	hypomyelination of fiber tract	2.94E-02	ARSA	1
Cancer	hyperplasia of cardiomyocytes	2.94E-02	AGTR1	1
Cardiovascular Disease	hyperplasia of cardiomyocytes	2.94E-02	AGTR1	1
Skeletal and Muscular Disorders	hyperplasia of cardiomyocytes	2.94E-02	AGTR1	1
Genetic Disorder	hirsutism	2.94E-02	ODC1	1



Dermatological Diseases and Conditions	hirsutism	2.94E-02	ODC1	1
Genetic Disorder	hereditary sensory neuropathy type 2	2.94E-02	WNK1	1
Neurological Disease	hereditary sensory neuropathy type 2	2.94E-02	WNK1	1
Organ Morphology	healing of heart	2.94E-02	PLAU	1
Cardiovascular System Development and Function	healing of heart	2.94E-02	PLAU	1
Organismal Functions	healing of heart	2.94E-02	PLAU	1
Endocrine System Development and Function	growth of thyroid cells	2.94E-02	C8orf4	1
Cellular Development	growth of thyroid cells	2.94E-02	C8orf4	1
Cellular Growth and Proliferation	growth of thyroid cells	2.94E-02	C8orf4	1
Cellular Development	growth of small cell lung cancer cells	2.94E-02	ODC1	1
Cellular Growth and Proliferation	growth of small cell lung cancer cells	2.94E-02	ODC1	1
Tissue Development	growth of metanephros	2.94E-02	INSR	1
Embryonic Development	growth of metanephros	2.94E-02	INSR	1
Cellular Development	growth of adrenal carcinoma cells	2.94E-02	HSPG2	1
Cellular Growth and Proliferation	growth of adrenal carcinoma cells	2.94E-02	HSPG2	1
Renal and Urological Disease	glomerulosclerosis of glomerular capsule	2.94E-02	ADM	1
Cancer	formation of epidermoid	2.94E-02	ODC1	1
Organismal Injury and Abnormalities	formation of epidermoid	2.94E-02	ODC1	1
Connective Tissue Disorders	fibrosis of pericytes	2.94E-02	AGTR1	1
Organismal Injury and Abnormalities	fibrosis of pericytes	2.94E-02	AGTR1	1
Tissue Development	expansion of neuroepithelium	2.94E-02	HSPG2	1
Tissue Morphology	expansion of neuroepithelium	2.94E-02	HSPG2	1

Tissue Development	expansion of Rathke's pouch	2.94E-02	PITX1	1
Embryonic Development	expansion of Rathke's pouch	2.94E-02	PITX1	1
Tissue Morphology	expansion of Rathke's pouch	2.94E-02	PITX1	1
Lipid Metabolism	esterification of palmitic acid	2.94E-02	SLC27A1	1
Small Molecule Biochemistry	esterification of palmitic acid	2.94E-02	SLC27A1	1
Developmental Disorder	dystrophy of skeletal muscle	2.94E-02	SGCD	1
Skeletal and Muscular Disorders	dystrophy of skeletal muscle	2.94E-02	SGCD	1
Developmental Disorder	dystopia of vagina	2.94E-02	HOXA13	1
Reproductive System Disease	dystopia of vagina	2.94E-02	HOXA13	1
Developmental Disorder	dystopia of urethra	2.94E-02	HOXA13	1
Renal and Urological Disease	dystopia of urethra	2.94E-02	HOXA13	1
Gastrointestinal Disease	dystopia of anus	2.94E-02	HOXA13	1
Developmental Disorder	dystopia of anus	2.94E-02	HOXA13	1
Genetic Disorder	diffuse mesangial sclerosis	2.94E-02	BDKRB2	1
Renal and Urological Disease	diffuse mesangial sclerosis	2.94E-02	BDKRB2	1
Tissue Development	differentiation of somites	2.94E-02	MEOX2	1
Embryonic Development	differentiation of somites	2.94E-02	MEOX2	1
Cellular Development	differentiation of somites	2.94E-02	MEOX2	1
Tissue Development	development of urogenital sinus	2.94E-02	HOXA13	1
Embryonic Development	development of urogenital sinus	2.94E-02	HOXA13	1
Organismal Development	development of urogenital sinus	2.94E-02	HOXA13	1

Reproductive System Development and Function	development of urogenital sinus	2.94E-02	HOXA13	1
Tissue Development	development of subcommissural organ	2.94E-02	EN1	1
Embryonic Development	development of subcommissural organ	2.94E-02	EN1	1
Organ Development	development of subcommissural organ	2.94E-02	EN1	1
Organismal Development	development of subcommissural organ	2.94E-02	EN1	1
Nervous System Development and Function	development of subcommissural organ	2.94E-02	EN1	1
Tissue Development	development of posterior cerebral commissure	2.94E-02	EN1	1
Embryonic Development	development of posterior cerebral commissure	2.94E-02	EN1	1
Organ Development	development of posterior cerebral commissure	2.94E-02	EN1	1
Organismal Development	development of posterior cerebral commissure	2.94E-02	EN1	1
Nervous System Development and Function	development of posterior cerebral commissure	2.94E-02	EN1	1
Tissue Development	development of extensor muscle	2.94E-02	PLAU	1
Skeletal and Muscular System Development and Function	development of extensor muscle	2.94E-02	PLAU	1
Tissue Development	development of cranial neural crest	2.94E-02	MSX1	1
Embryonic Development	development of cranial neural crest	2.94E-02	MSX1	1
Organismal Development	development of cranial neural crest	2.94E-02	MSX1	1
Tissue Development	development of choroid plexus	2.94E-02	EN1	1
Embryonic Development	development of choroid plexus	2.94E-02	EN1	1
Organ Development	development of choroid plexus	2.94E-02	EN1	1

Organismal Development	development of choroid plexus	2.94E-02	EN1	1
Nervous System Development and Function	development of choroid plexus	2.94E-02	EN1	1
Tissue Morphology	destruction of endothelial tissue	2.94E-02	FCGR2B	1
Small Molecule Biochemistry	depletion of spermidine	2.94E-02	ODC1	1
Molecular Transport	depletion of spermidine	2.94E-02	ODC1	1
Tissue Development	delay in modification of organ	2.94E-02	HSD17B2	1
Organ Morphology	delay in modification of organ	2.94E-02	HSD17B2	1
Tissue Morphology	degeneration of heart tissue	2.94E-02	SGCD	1
Tissue Morphology	degeneration of cardiac muscle	2.94E-02	SGCD	1
Skeletal and Muscular Disorders	degeneration of cardiac muscle	2.94E-02	SGCD	1
Organismal Injury and Abnormalities	degeneration of cardiac muscle	2.94E-02	SGCD	1
Developmental Disorder	dedifferentiation of mononuclear cells	2.94E-02	MSX1	1
Hematological Disease	dedifferentiation of mononuclear cells	2.94E-02	MSX1	1
Immunological Disease	dedifferentiation of mononuclear cells	2.94E-02	MSX1	1
Tissue Morphology	damage of skeletal muscle	2.94E-02	SGCD	1
Skeletal and Muscular Disorders	damage of skeletal muscle	2.94E-02	SGCD	1
Organismal Injury and Abnormalities	damage of skeletal muscle	2.94E-02	SGCD	1
Gastrointestinal Disease	damage of salivary gland	2.94E-02	CBLB	1
Organismal Injury and Abnormalities	damage of salivary gland	2.94E-02	CBLB	1
Lipid Metabolism	conversion of phosphatidylinositol 3,4-diphosphate	2.94E-02	FCGR2B	1

Small Molecule Biochemistry	conversion of phosphatidylinositol 3,4-diphosphate	2.94E-02	FCGR2B	1
Carbohydrate Metabolism	conversion of phosphatidylinositol 3,4-diphosphate	2.94E-02	FCGR2B	1
Skeletal and Muscular System Development and Function	contraction of myoid cells	2.94E-02	ADM	1
Reproductive System Development and Function	contraction of myoid cells	2.94E-02	ADM	1
Cell Morphology	contraction of myoid cells	2.94E-02	ADM	1
Skeletal and Muscular System Development and Function	contraction of detrusor muscle	2.94E-02	CHRM2	1
Tissue Morphology	contraction of detrusor muscle	2.94E-02	CHRM2	1
Organ Morphology	contraction of detrusor muscle	2.94E-02	CHRM2	1
Renal and Urological System Development and Function	contraction of detrusor muscle	2.94E-02	CHRM2	1
Lipid Metabolism	consumption of fat	2.94E-02	GAL	1
Small Molecule Biochemistry	consumption of fat	2.94E-02	GAL	1
Lipid Metabolism	concentration of retinaldehyde	2.94E-02	ALDH1A1	1
Small Molecule Biochemistry	concentration of retinaldehyde	2.94E-02	ALDH1A1	1
Molecular Transport	concentration of retinaldehyde	2.94E-02	ALDH1A1	1
Vitamin and Mineral Metabolism	concentration of retinaldehyde	2.94E-02	ALDH1A1	1
Lipid Metabolism	cleavage of acetyl-coenzyme A	2.94E-02	ACAA2	1
Small Molecule Biochemistry	cleavage of acetyl-coenzyme A	2.94E-02	ACAA2	1
Nucleic Acid Metabolism	cleavage of acetyl-coenzyme A	2.94E-02	ACAA2	1
Cell Morphology	cell spreading of muscle precursor cells	2.94E-02	PLAU	1

Cellular Assembly and Organization	binding of membrane rafts	2.94E-02	NCAM1	1
Post-Translational Modification	binding of lipoprotein	2.94E-02	HSPG2	1
Skeletal and Muscular System Development and Function	beat of cardiomyocytes	2.94E-02	CHRM2	1
Cardiovascular System Development and Function	beat of cardiomyocytes	2.94E-02	CHRM2	1
Cellular Movement	beat of cardiomyocytes	2.94E-02	CHRM2	1
Tissue Development	attachment of radial glial cells	2.94E-02	HSPG2	1
Cell-To-Cell Signaling and Interaction	attachment of radial glial cells	2.94E-02	HSPG2	1
Reproductive System Disease	atrophy of seminiferous tubules	2.94E-02	HSD17B2	1
Organismal Injury and Abnormalities	atrophy of seminiferous tubules	2.94E-02	HSD17B2	1
Organ Morphology	atrophy of renal medulla	2.94E-02	AGTR1	1
Organismal Injury and Abnormalities	atrophy of renal medulla	2.94E-02	AGTR1	1
Tissue Development	arrest in growth of trophoblast	2.94E-02	F2RL1	1
Embryonic Development	arrest in growth of trophoblast	2.94E-02	F2RL1	1
Organismal Development	angiogenesis of microvessel	2.94E-02	RBL2 (includes EG:100331892)	1
Cardiovascular System Development and Function	angiogenesis of microvessel	2.94E-02	RBL2 (includes EG:100331892)	1
Cardiovascular System Development and Function	angiogenesis of melanoma cell lines	2.94E-02	AGTR1	1
Cellular Development	angiogenesis of melanoma cell lines	2.94E-02	AGTR1	1
Developmental Disorder	agenesis of preputial gland	2.94E-02	HOXA13	1
Developmental Disorder	agenesis of coagulating gland	2.94E-02	HOXA13	1
Reproductive System Disease	agenesis of coagulating gland	2.94E-02	HOXA13	1

Tissue Development	adhesion of fibroblast-like synoviocytes	2.94E-02	ADM	1
Cell-To-Cell Signaling and Interaction	adhesion of fibroblast-like synoviocytes	2.94E-02	ADM	1
Small Molecule Biochemistry	activation of glycosaminoglycan	2.94E-02	HTATIP2	1
Carbohydrate Metabolism	activation of glycosaminoglycan	2.94E-02	HTATIP2	1
Tissue Development	accumulation of skin cancer cell lines	2.94E-02	ZEB2	1
Small Molecule Biochemistry	accumulation of putrescine	2.94E-02	ODC1	1
Lipid Metabolism	accumulation of galactosylceramide	2.94E-02	ARSA	1
Small Molecule Biochemistry	accumulation of galactosylceramide	2.94E-02	ARSA	1
Molecular Transport	accumulation of galactosylceramide	2.94E-02	ARSA	1
Lipid Metabolism	accumulation of acyl-coenzyme A	2.94E-02	SLC27A1	1
Small Molecule Biochemistry	accumulation of acyl-coenzyme A	2.94E-02	SLC27A1	1
Molecular Transport	accumulation of acyl-coenzyme A	2.94E-02	SLC27A1	1
Nucleic Acid Metabolism	accumulation of acyl-coenzyme A	2.94E-02	SLC27A1	1
Genetic Disorder	Weill-Marchesani syndrome	2.94E-02	FBN1	1
Developmental Disorder	Weill-Marchesani syndrome	2.94E-02	FBN1	1
Skeletal and Muscular Disorders	Weill-Marchesani syndrome	2.94E-02	FBN1	1
Connective Tissue Disorders	Weill-Marchesani syndrome	2.94E-02	FBN1	1
Ophthalmic Disease	Weill-Marchesani syndrome	2.94E-02	FBN1	1
Tissue Development	morphogenesis of heart	2.98E-02	INSR, ISL1, MSX1, XIRP1	4
Embryonic Development	morphogenesis of heart	2.98E-02	INSR, ISL1, MSX1, XIRP1	4
Organ Development	morphogenesis of heart	2.98E-02	INSR, ISL1, MSX1, XIRP1	4
Organismal Development	morphogenesis of heart	2.98E-02	INSR, ISL1, MSX1, XIRP1	4

Organ Morphology	morphogenesis of heart	2.98E-02	INSR, ISL1, MSX1, XIRP1	4
Cardiovascular System Development and Function	morphogenesis of heart	2.98E-02	INSR, ISL1, MSX1, XIRP1	4
Reproductive System Development and Function	proliferation of gonadal cell lines	3.06E-02	AGTR1, KCNK2, PLAU	3
Cellular Growth and Proliferation	proliferation of gonadal cell lines	3.06E-02	AGTR1, KCNK2, PLAU	3
Tissue Development	morphogenesis of connective tissue	3.06E-02	EYA1, INSIG2, MSX1	3
Cellular Movement	invasion of fibroblast cell lines	3.06E-02	FAM105A, ODC1, PLAU	3
Lipid Metabolism	uptake of long chain fatty acid	3.17E-02	SLC27A1, SLC27A6	2
Small Molecule Biochemistry	uptake of long chain fatty acid	3.17E-02	SLC27A1, SLC27A6	2
Molecular Transport	uptake of long chain fatty acid	3.17E-02	SLC27A1, SLC27A6	2
Tissue Development	thyroid gland development	3.17E-02	EYA1, HOXB3	2
Embryonic Development	thyroid gland development	3.17E-02	EYA1, HOXB3	2
Organ Development	thyroid gland development	3.17E-02	EYA1, HOXB3	2
Organismal Development	thyroid gland development	3.17E-02	EYA1, HOXB3	2
Endocrine System Development and Function	thyroid gland development	3.17E-02	EYA1, HOXB3	2
Behavior	short-term memory	3.17E-02	CHRM2, HOMER1	2
Nervous System Development and Function	short-term memory	3.17E-02	CHRM2, HOMER1	2
Organismal Development	morphogenesis of artery	3.17E-02	HOXA13, STRA6	2
Cardiovascular System Development and Function	morphogenesis of artery	3.17E-02	HOXA13, STRA6	2
Cardiovascular Disease	fibrosis of myocardium	3.17E-02	PLAU, SGCD	2
Skeletal and Muscular Disorders	fibrosis of myocardium	3.17E-02	PLAU, SGCD	2



Organismal Injury and Abnormalities	fibrosis of myocardium	3.17E-02	PLAU, SGCD	2
Genetic Disorder	ectodermal dysplasia	3.17E-02	LAMA3, MSX1	2
Developmental Disorder	ectodermal dysplasia	3.17E-02	LAMA3, MSX1	2
Dermatological Diseases and Conditions	ectodermal dysplasia	3.17E-02	LAMA3, MSX1	2
Cell-To-Cell Signaling and Interaction	desensitization of cells	3.17E-02	ADM, PRSS1/PRSS3	2
Organismal Development	density of capillary vessel	3.17E-02	HOXB3, MEOX2	2
Tissue Morphology	density of capillary vessel	3.17E-02	HOXB3, MEOX2	2
Cardiovascular System Development and Function	density of capillary vessel	3.17E-02	HOXB3, MEOX2	2
Small Molecule Biochemistry	clearance of D-glucose	3.17E-02	CPE (includes EG:12876), GNAZ	2
Molecular Transport	clearance of D-glucose	3.17E-02	CPE (includes EG:12876), GNAZ	2
Carbohydrate Metabolism	clearance of D-glucose	3.17E-02	CPE (includes EG:12876), GNAZ	2
Behavior	cognition	3.19E-02	ARSA, GAL, PLAU, PRKAR2B, PTN, SHROOM4, STRA6	7
Lipid Metabolism	hydrolysis of phosphatidylinositol	3.22E-02	BDKRB2, CHRM2, F2RL1, HTR2A	4
Small Molecule Biochemistry	hydrolysis of phosphatidylinositol	3.22E-02	BDKRB2, CHRM2, F2RL1, HTR2A	4
Carbohydrate Metabolism	hydrolysis of phosphatidylinositol	3.22E-02	BDKRB2, CHRM2, F2RL1, HTR2A	4
Organismal Development	dilation of artery	3.23E-02	ADM, KCNK2, PLAU	3
Tissue Morphology	dilation of artery	3.23E-02	ADM, KCNK2, PLAU	3
Cardiovascular System Development and Function	dilation of artery	3.23E-02	ADM, KCNK2, PLAU	3
Tissue Development	development of genital organ	3.23E-02	FOXF2, HOXA13, STRA6	3
Embryonic Development	development of genital organ	3.23E-02	FOXF2, HOXA13, STRA6	3
Organ Development	development of genital organ	3.23E-02	FOXF2, HOXA13, STRA6	3
Organismal Development	development of genital organ	3.23E-02	FOXF2, HOXA13, STRA6	3

Reproductive System Development and Function	development of genital organ	3.23E-02	FOXF2, HOXA13, STRA6	3
Tissue Development	adhesion of connective tissue cells	3.31E-02	ADM, LAMA3, LTBP2, PLAU, POSTN	5
Cell-To-Cell Signaling and Interaction	adhesion of connective tissue cells	3.31E-02	ADM, LAMA3, LTBP2, PLAU, POSTN	5
Small Molecule Biochemistry	uptake of 2-deoxyglucose	3.48E-02	CXCL14, GPAM, INSR, SLC27A1	4
Molecular Transport	uptake of 2-deoxyglucose	3.48E-02	CXCL14, GPAM, INSR, SLC27A1	4
Carbohydrate Metabolism	uptake of 2-deoxyglucose	3.48E-02	CXCL14, GPAM, INSR, SLC27A1	4
Genetic Disorder	mental retardation	3.48E-02	AUTS2, MBD5, OPHN1, SHROOM4	4
Neurological Disease	mental retardation	3.48E-02	AUTS2, MBD5, OPHN1, SHROOM4	4
Developmental Disorder	mental retardation	3.48E-02	AUTS2, MBD5, OPHN1, SHROOM4	4
Cardiovascular Disease	fibrosis of heart	3.48E-02	AGTR1, PLAU, POSTN, SGCD	4
Organismal Injury and Abnormalities	fibrosis of heart	3.48E-02	AGTR1, PLAU, POSTN, SGCD	4
Gastrointestinal Disease	gastrointestinal tract cancer	3.48E-02	B3GNT6, CAPG, CLDN7, EMP1, EN1, FOXF1, FOXF2, H2AFY, HMGA2, HSD17B2, KCNK2, KDM5A, LAMA3, MLH3 (includes EG:217716), MSX1, MXI1, NAMPT, NBR2, NLRP1, NRN1, ODC1, PAPP, PEAK1, PLAU, TBX4	25
Cancer	gastrointestinal tract cancer	3.48E-02	B3GNT6, CAPG, CLDN7, EMP1, EN1, FOXF1, FOXF2, H2AFY, HMGA2, HSD17B2, KCNK2, KDM5A, LAMA3, MLH3 (includes EG:217716), MSX1, MXI1, NAMPT, NBR2, NLRP1, NRN1, ODC1, PAPP, PEAK1, PLAU, TBX4	25
Genetic Disorder	familial Alzheimer's disease	3.49E-02	PLAU, SORL1	2
Neurological Disease	familial Alzheimer's disease	3.49E-02	PLAU, SORL1	2
Cellular Movement	chemotaxis of epithelial cell lines	3.49E-02	AGTR1, PLAU	2
Hair and Skin Development and Function	chemotaxis of epithelial cell lines	3.49E-02	AGTR1, PLAU	2
Embryonic Development	chemotaxis of embryonic cell lines	3.49E-02	AGTR1, PLAU	2
Cellular Movement	chemotaxis of embryonic cell lines	3.49E-02	AGTR1, PLAU	2
Cancer	uterine cancer	3.51E-02	ADAMTS5, ADARB1, ALDH1A1, ARSE, ASB5, CXCL14, DYRK2, FBN1, H2AFY, MFAP3L, NLRP1, ODC1, PDK4, SATB2, SMG1, SNCAIP	16
Reproductive System Disease	uterine cancer	3.51E-02	ADAMTS5, ADARB1, ALDH1A1, ARSE, ASB5, CXCL14, DYRK2, FBN1, H2AFY, MFAP3L, NLRP1, ODC1, PDK4, SATB2, SMG1, SNCAIP	16

Carbohydrate Metabolism	metabolism of carbohydrate	3.55E-02	AGTR1, ALDOC, CHRM2, CPS1, DYRK2, FCGR2B, FIG4, GAL, GK, GPAM, HS3ST3B1, HTR2A, INSR, PLAU, SLC23A2, SLC27A1	16
Cardiovascular Disease	vascular lesion	3.56E-02	ADM, AGTR1, FBN1, HSPG2, PAPP, PLAU	6
Neurological Disease	sedation	3.59E-02	CHRM2, HTR2A, RBL2 (includes EG:100331892)	3
Organismal Development	morphogenesis of blood vessel	3.59E-02	HOXA13, HOXB3, STRA6	3
Cardiovascular System Development and Function	morphogenesis of blood vessel	3.59E-02	HOXA13, HOXB3, STRA6	3
Tissue Development	formation of muscle cells	3.59E-02	PAPP, PLAU, TRPC6	3
Skeletal and Muscular System Development and Function	formation of muscle cells	3.59E-02	PAPP, PLAU, TRPC6	3
Cellular Development	formation of muscle cells	3.59E-02	PAPP, PLAU, TRPC6	3
Cellular Growth and Proliferation	formation of muscle cells	3.59E-02	PAPP, PLAU, TRPC6	3
Molecular Transport	localization of protein	3.65E-02	ADM, AKAP7, HSPG2, KIFAP3, LRP4, MLH3 (includes EG:217716), MYCBP2	7
Protein Synthesis	localization of protein	3.65E-02	ADM, AKAP7, HSPG2, KIFAP3, LRP4, MLH3 (includes EG:217716), MYCBP2	7
Protein Trafficking	localization of protein	3.65E-02	ADM, AKAP7, HSPG2, KIFAP3, LRP4, MLH3 (includes EG:217716), MYCBP2	7