Supplementary Material:

Materials and Methods

Autopsy samples
The FFPE sample from 1918 influenza pandemic was derived from lung tissue from a patient who died in Camp Upton, NY in 1918 (previously reported in a published case series as case 19180924d [1]). The FFPE sample from the 2009 influenza pandemic was also derived from lung tissue from a patient who died in New York City, NY in 2009 (previously reported in a published case series as case 1 [2]).

RNA isolation
RNA was extracted from the FFPE autopsy sections as follows: One to three 6-micron sections were used in each case. After deparaffinization, the tissue pellets were digested by proteinase K as previously described [3,4]. RNA was isolated using TRIzol (Invitrogen). After precipitation, RNA was dissolved in 25ul DEPC water. RNA from the A549 cell line was isolated using TRIzol (Invitrogen), precipitated using ethanol, and DNase treated using PureLink® DNase (Life Technology).

Real-time PCR
First–strand cDNA was produced by using random primers on 2μl DNase I (Invitrogen) treated RNA. Real-time PCR was performed on ABI 7500 real-time PCR system (Applied Biosystems). The reaction contained 2μl of cDNA with 1x TaqMan® Universal PCR Master Mix (Applied Biosystems), 0.6-0.8 μM primers, and 0.2 μM probe. Ribosomal primers were Amplifluor® Human/Mouse 18S rRNA Primer Set (FAM labeled) from Millipore. β2 microglobulin (β2M) gene primer sequences were: Forward 5'-TGACTTTGTCACAGCCCAAGATA-3', Reverse 5'-AATCCAAATGCGGCATCTTC-3'; (β2M -probe VIC-TGATGCTGCTTACATGTCTCGATCCCA-TAMRA. Thermocycling conditions were: 50 °C for 2 min and 95 °C for 10 min, followed by 40 cycles of 95 °C for 15 s, and 60 °C for 1 min.

Library preparation and deep sequencing
The construction of total RNA libraries from FFPE samples was performed according to Illumina mRNA-seq sample preparation kit (Illumina, San Diego, CA) specifications but skipping the poly-A selection and RNA fragmentation steps. Briefly, cDNA was synthesized from input total RNA (~300ng) using random primers, modified and enriched. Following that, 2 rounds of Duplex-Specific Nuclease (DSN) (Evrogen, Moscow, Russia) [5] treatments were performed according to the Illumina DSN normalization procedure. The construction of the mRNA-seq library from mock-infected A549 cell was done according to the Illumina mRNA-seq sample preparation kit (Illumina, San Diego, CA). The resulting libraries were hybridized to the Illumina flowcell and amplified using cBot. The selected cDNA fragment sizes of the libraries were ~250bp. The library from the 2009 flu pandemic sample was sequenced in 7 lanes on one flowcell with a 76-cycle single end run, and the library from the 1918 flu pandemic sample was sequenced in 7 lanes on another flowcell with a 36-cycle single end run, both using the Genome Analyzer IIx (Illumina, San Diego, CA). Each flowcell contained a PhiX control in lane 4. The library from the uninfected A549 cells was sequenced in 1 lane on the flowcell with an 80-cycle single end run. From the 2009 pandemic sample, more than 243 million reads (of a total of >22GB of sequence) were

generated. From 1918 pandemic sample, more than 238 million reads (of a total of ~7.8 GB of sequence) were generated. From uninfected A549 cells, more than 42 millions reads (of a total of >3.3 GB of sequences) were generated in one sequencing lane. All sequences from this study have been deposited as a series at NCBI's SRA database (accession number pending).

Sequence analysis

Sequences analysis was performed in the following steps: 1) Reads were mapped to the bowtie-indexed 1918 pandemic influenza genome (A/Brevig_Mission/1/18(H1N1)) or the 2009 pandemic influenza genome (A/California/04/2009(H1N1)), downloaded from GenBank, as well as the pre-built index of the human genome (UCSC hg19), downloaded from the Center for Bioinformatics and Computational Biology, University of Maryland website (ftp://ftp.cbcb.umd.edu/pub/data/bowtie_indexes/hg19.ebwt.zip) using Tophat (release 1.0.14) (http://tophat.cbcb.umd.edu/) [6]. 2) Reads that were mapped to the 1918 or 2009 influenza pandemic genomes and the human genome were screened out. 3) The remaining sequences were assembled *de novo* by ABySS [7] version 1.3.4 (www.bcgsc.ca/platform/bioinfo/software/abyss). Data from the 2009 autopsy sample was assembled with a k-mer size of 36bp and data from the 1918 autopsy sample was assembled with a k-mer size of 28bp. 4) The generated contigs from the 2009 autopsy sample with a length of at least 76bp, and the contigs from 1918 autopsy sample with a length of at least 48bp were retained. 5) These contigs were then searched against the NCBI non-redundant nucleotide (nt) database (as downloaded on August 15, 2010) and the NCBI bacterial genome database by blastn program (blastall 2.2.23) [8]. 6) These blast outputs were subsequently analyzed by the metagenomic analyzer software package, MEGAN [9,10] version 4.67.5 (www-ab.informatik.uni-tuebingen.de/software/megan) and taxonomical names were assigned to each of the contigs. The cutoffs used in MEGAN were: bit score =100, min support =5, and top % = 5 for blast results from the 2009 sample contigs, and bit score =70, min support =5 and top % = 5 for blast results from the 1918 sample contigs. Overall gene expression level (in terms of Fragments Per Kilobase of exon per Million fragments mapped (FPKM) [11] which is similar to Reads Per Kilobase per Million mapped reads (RPKM) [12]) were calculated using the Cufflink package (release 0.8.2) (http://cufflinks.cbcb.umd.edu/) [11]. Differentially expressed genes observed between the 1918 pandemic and the 2009 pandemic samples were identified by the Cuffdiff function from the Cufflink package (release 0.8.2) (http://cufflinks.cbcb.umd.edu/) [11]. SAMtools (release 0.1.8) was used to identify SNPs [13]. Sequences obtained in both runs were mapped to the human genome (UCSC hg19) downloaded from the Center for Bioinformatics and Computational Biology, University of Maryland using Tophat [6]. Default settings supplied with these software packages were used in most of the analyses. Functional analysis was performed using the Genomatix Pathway System (GePS) component of the Genomatix Genome Analyzer [14] (Genomatix Software GmbH, Munich, Germany) and Spotfire Silver (TIBCO, Palo Alto, CA).

After screening out the reads that were mapped to the IAV and human genomes, the remaining reads were assembled by ABySS [7,9,10]. From the 2009 sample, using a k mer size of 36bp, a total of 610,345 contigs were obtained, and among them, 9,948 contigs had a length of at least 76bp. From the 1918 autopsy sample, using a k mer size of 28bp, a total of 1,543,846 contigs were obtained, and among them, 29,147 contigs had a length of at least 48bp. The contigs with at least 76bp from the 2009 sample and those with lengths of

at least 48bp from the 1918 sample were searched against the NCBI non-redundant nucleotide (nt) database and the NCBI bacterial genome database using the blastn program (blastall 2.2.23) [8]. The blast outputs were analyzed by the metagenomic analyzer software package, MEGAN [9,10] and used to assign their taxonomical names.

References

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Supplementary Tables

Supplementary Table 1. Identified SNPs from 2009 autopsy sample

segment	aa pos.	nt pos.	Cov.	Ref.	snp	changes	type	Exist in 09 May-Dec
FJ969512_NP	100	298	25152	G	A(99.6%)	GTA(V)->ATA(I)	nonsyn	Yes
FJ969512_NP	381	1143	22446	G	A(99.9%)	CTG(L)->CTA(L)	syn	Yes
FJ969512_NP	416	1248	20427	G	A(99.9%)	CGG(R)->CGA(R)	syn	Yes
FJ969513_MP	164	492	51510	G	A(99.5%)	CAG(Q)->CAA(Q)	syn	Yes
FJ969513_MP	200	600	54213	G	A(99.3%)	GCG(A)->GCA(A)	syn	Yes
FJ969513_MP	247	741	26846	G	A(99.7%)	CAG(Q)->CAA(Q)	syn	Yes
FJ969514_NS	123	367	9249	A	G(99.7%)	ATC(I)->GTC(V)	nonsyn	Yes
FJ969515_PA	224	670	7021	C	T(97.5%)	CCC(P)->TCC(S)	nonsyn	Yes
FJ969515_PA	307	919	12403	G	A(11.3%)	GCA(A)->ACA(T)	nonsyn	No
FJ969515_PA	557	1671	9361	G	A(23.4%)	GTG(V)->GTA(V)	syn	Yes
FJ969515_PA	662	1986	13664	T	G(99.8%)	TCT(S)->TCG(S)	syn	Yes
FJ969516_PB2	406	1218	6718	G	A(99.7%)	CAG(Q)->CAA(Q)	syn	Yes
FJ969516_PB2	551	1651	11306	C	A(11.2%)	CAA(Q)->AAA(K)	nonsyn	No
FJ969516_PB2	591	1772	3091	G	C(22.6%)	CGG(R)->CCG(P)	nonsyn	No
FJ969516_PB2	624	1872	3996	C	T(97.1%)	GCC(A)->GCT(A)	syn	Yes
FJ969516_PB2	665	1994	13712	T	A(11.9%)	CTT(L)->CAT(H)	nonsyn	No
FJ969516_PB2	721	2163	58880	G	A(99.2%)	AAG(K)->AAA(K)	syn	Yes
FJ969517_NA	106	316	8440	G	A(99.7%)	GTA(V)->ATA(I)	nonsyn	Yes
FJ969517_NA	110	328	8661	T	C(13.4%)	TCC(S)->CCC(P)	nonsyn	No
FJ969517_NA	248	742	8267	A	G(99.9%)	AAT(N)->GAT(D)	nonsyn	Yes
FJ969517_NA	348	1044	20971	G	A(99.4%)	GGG(G)->GGA(G)	syn	Yes
FJ969517_NA	356	1068	20988	T	G(10.5%)	GGT(G)->GGG(G)	syn	Yes
FJ969517_NA	377	1131	18213	G	A(99.8%)	CCG(P)->CCA(P)	syn	Yes
GQ117044_HA	70	209	24223	G	A(99.8%)	GGT(G)->GAT(D)	nonsyn	No
GQ117044_HA	100	298	17367	C	T(99.6%)	CCT(P)->TCT(S)	nonsyn	Yes
GQ117044_HA	214	640	44480	A	G(99.7%)	ACA(T)->GCA(A)	nonsyn	Yes
GQ117044_HA	220	658	50616	T	A(99.9%)	TCA(S)->ACA(T)	nonsyn	Yes
GQ117044_HA	297	891	23905	A	G(99.8%)	CAA(Q)->CAG(Q)	syn	Yes
GQ117044_HA	338	1012	23994	A	G(99.6%)	ATC(I)->GTC(V)	nonsyn	Yes
GQ117044_HA	470	1408	19061	C	T(99.5%)	CTA(L)->TTA(L)	syn	Yes
GQ377049_PB1	363	1089	20684	G	A(99.7%)	AAG(K)->AAA(K)	syn	Yes
GQ377049_PB1	586	1758	17002	A	G(96.5%)	AAA(K)->AAG(K)	syn	Yes

aa pos.: amino acid position; nt pos.: nucleotide position; Cov.: coverage; Ref.: reference nucleotide; syn: synonymous mutation; nonsyn: non-synonymous mutation.

Supplementary Table 2. Identified SNPs from 1918 autopsy sample

segment	aa pos.	nt pos.	coverage	Ref.	snp	changes	type
AF117241_HA	128	384	1266	T	C(98.4)%	TTT(F)->TTC(F)	syn
AF117241_HA	158	472	1984	G	A(70.9%)	GCA(A)->ACA(T)	nonsyn
AF117241_HA	239	715	2487	G	A(92.0%)	GAT(D)->AAT(N)	nonsyn
AF250356_NA	154	462	664	C	T(100%)	CCC(P)->CCT(P)	syn
AF250356_NA	175	523	2091	G	A(13.4%)	GAA(V)->AAA(K)	nonsyn
AF250356_NA	256	768	108	A	C(100%)	TTA(L)->TTC(F)	nonsyn
AF250356_NA	300	900	1086	T	C(100%)	AAT(N)->AAC(N)	syn
AF250356_NA	466	1397	459	G	C(100%)	AGC(S)->ACC(T)	nonsyn
AF333238_NS	75	224	729	A	G(97.4%)	GAG(E)->GGG(G)	nonsyn
AY130766_MP	4	10	422	T	C(90.5%)	TTA(L)->CTA(L)	syn
AY130766_MP	74	220	1279	C	T(21.3%)	CTG(L)->TTG(L)	syn
AY130766_MP	90	269	2020	C	T(11.9%)	CCA(P)->CTA(L)	nonsyn
AY130766_MP	234	700	2502	A	C(96.2%)	ATT(I)->CTT(L)	nonsyn
AY744935_NP	168	504	4870	A	G(91.8%)	CAA(Q)->CAG(Q)	syn
AY744935_NP	329	987	3659	A	G(95.5%)	GTA(V)->GTG(V)	syn
DQ208310_PB1	54	161	6346	G	A(98.9%)	AGA(R)->AAA(K)	nonsyn
DQ208310_PB1	375	1124	219	G	A(38.8%)	AGC(S)->AAC(N)	nonsyn
DQ208311_PA	151	453	593	T	A(100%)	ACT(T)->ACA(T)	syn
DQ208311_PA	152	456	636	G	A(99.5%)	GGG(G)->GGA(G)	syn
DQ208311_PA	158	473	383	A	G(91.1%)	AAG(K)->AGG(R)	nonsyn
DQ208311_PA	174	522	1695	A	G(95.6%)	AAG(R)->AGG(R)	syn
DQ208311_PA	278	834	3308	G	A(11.6%)	CAG(Q)->CAA(Q)	syn
DQ208311_PA	416	1246	2651	G	A(11.3%)	GAA(E)->AAA(K)	nonsyn
DQ208311_PA	516	1548	1518	C	T(98.6%)	GAC(D)->GAT(D)	syn
DQ208311_PA	570	1710	674	A	C(96.1%)	ACA(T)->ACC(T)	syn

aa pos.: amino acid position; nt pos.: nucleotide position; ref.: reference nucleotide; syn: synonymous mutation; nonsyn: non-synonymous mutation.

Supplementary Table 3:

Common upregulated host genes in 1918 and 2009 autopsy samples vs mock A549 cells

gene_id	2009 RPKM/mock RPKM Log(ratio)	1918 RPKM/Mock RPKM Log(ratio)
41156	1.026685432	1.514482165
A2M	7.061184732	7.087848828
ABCA1	1.063292049	1.245789347
ABL2	5.883097338	6.191847679
ACSL1	0.743984803	1.024326145
ACSL4	0.911867819	0.550314521
ACTA2	1.281056284	1.180036588
ACTG2	6.134489483	6.121060595
ACVRL1	5.814230277	6.477187841
ADAM19	1.087878632	1.371396013
ADAM8	0.377211187	0.79808054
ADAMTS1	1.942829014	2.189136934
ADAMTS4	2.539992299	3.084463716
ADAMTSL4	0.959939203	1.386156064
ADAP2	0.544988362	0.85170704
ADH1B	2.342966726	2.928979321
ADH1C	0.607992444	1.413739438
ADORA2A	0.976056539	1.867470338
AEBP1	2.94990204	3.375475979
AFF1	0.595952072	0.729366909
AGTRAP	6.19629504	6.619073495
AK2	6.568979236	6.519482783
AKAP2	0.772422497	0.944437042
ALDOC	0.508651002	0.96346625
ALOX5	0.924851173	1.240003159
ALOX5AP	2.822579479	2.6069352
ALPL	1.483408392	2.27568999
AMPD3	1.394363537	1.5366759
ANP32A-IT1	1.565120198	1.732733827
ANTXR2	1.779937716	1.916588133
AOC3	1.355111745	2.050976895
AOC4	1.631526025	2.498336903
APBB1IP	0.488751615	1.282211551
APOBEC3A	0.372420018	1.143366661
APOBR	1.670601875	2.70379607
APOL3	6.552241011	6.825650672
APOL6	1.381834019	1.37055413
AQP1	1.638526329	1.759449707
AQP9	6.292878262	6.566812108
ARHGAP31	1.562897753	1.926139998
ARHGAP9	5.701508406	6.442945171
ARHGDIB	0.796885455	1.098330992
ARHGEF15	5.421774979	6.055943769
ARHGEF35	1.28861388	1.227858931

ARHGEF5	0.885340678	1.01273837
ARID5B	1.02404764	1.219024557
ARMCX3	0.470748693	0.391221808
ARMCX6	6.177986432	6.408675738
ARNTL	5.493147032	6.035785834
ARRDC3	0.737934887	0.795986323
ASH1L	0.415142624	0.422409803
ASPH	6.453304577	6.395289691
ATP13A4	2.746405241	2.781370223
ATP2B4	0.475516226	0.6839801
B2M	1.018929835	1.072676248
BACH1	0.500444161	0.6219927
BATF2	0.697542838	1.541462747
BCL2A1	6.908383135	6.549721585
BGN	6.344753708	6.718507502
BIN2	0.924903469	1.768456087
BIRC3	0.528003363	0.646793332
BST2	1.425908118	2.27634949
BTK	5.864701488	6.06409093
BTN3A1	0.940222506	1.291890248
BTN3A2	0.865254122	1.174248765
BTN3A3	6.093204484	6.430499141
BTNL9	0.447536305	1.134632108
C10orf10	0.82746344	1.302855908
C10orf116	0.745918322	1.321438674
C11orf96	1.519334525	2.469799842
C19orf59	6.276275638	6.582687071
C19orf69	2.227497122	2.098209243
C1orf162	2.190299041	2.580715582
C1orf38	1.559348569	1.83017294
C1QA	5.619942298	6.539877423
C1QB	6.119318587	6.654968335
C1QC	6.120567351	6.846552968
C1R	0.423899195	0.76338555
C20orf118	1.444978144	1.832378682
C21orf96	5.68862802	6.111622036
C22orf34	2.280395103	2.990160742
C3AR1	5.835687401	6.176311246
C5AR1	1.154119025	0.865894237
C5orf56	1.385366616	1.629684776
C5orf62	0.548135054	0.845897525
C7	6.259285607	6.286339684
C7orf54	2.071824438	2.469269343
C8orf39	0.71097454	0.988902722
C9orf25	6.086580482	6.539605465
C9orf84	5.430431444	6.081149201
CARD16	6.544138767	6.377441036

CASP1	6.320204465	6.747288261
CASP4	0.894675843	0.787227414
CASP8	0.43219945	0.418011118
CBL	0.786498384	0.802523747
CBLB	1.029420768	0.908307604
CC2D2A	0.404965067	0.788666841
CCDC102B	6.076294472	6.127490307
CCDC69	0.99055313	1.549606162
CCL18	6.3571589	6.33933018
CCL19	5.831360347	6.490500658
CCL2	1.000570254	0.952023755
CCL21	5.880122743	6.534467795
CCL3	6.791871626	6.821243566
CCL3L3	7.472578016	6.859952661
CCL4	6.986368145	7.025637605
CCL4L1	7.76265156	7.200010086
CCL5	6.404205759	6.554117094
CCL7	6.270322405	6.283113446
CCL8	6.491143091	6.33402729
CCND2	5.857337925	6.341515638
CCR1	5.597016894	6.33577473
CCRL2	1.8750664	2.260556261
CD163	6.313369394	6.82482587
CD177	2.980672896	3.39784605
CD248	2.387814347	2.84105212
CD274	2.576707593	2.167710992
CD300A	5.548339044	6.146748014
CD300E	5.761715147	6.446355396
CD300LF	2.088377525	2.849485093
CD34	5.960709027	6.220516029
CD37	0.807660305	1.542174121
CD3E	6.039092741	6.02738223
CD4	6.003744799	6.471809328
CD40	0.600723007	0.750003284
CD46	6.288419153	6.093183458
CD48	6.537514353	6.510822388
CD52	6.700433713	6.461358942
CD74	2.369082338	3.358249741
CD93	6.191677325	6.471816655
CDH5	1.449393866	1.94245196
CDR1	1.720383798	1.164200981
CECR1	5.957142099	6.182859562
CFLAR	0.625511566	0.680828886
CFLAR-AS1	1.684497942	1.976671544
CH25H	5.881230543	6.180490025
CHI3L1	5.753539397	6.558672578
CHI3L2	6.037275066	6.895225245

CHRDL1	5.969060223	6.318976897
CISH	5.675126411	6.369471904
CLEC1A	5.947650815	6.072870925
CLEC4E	2.270823054	2.596641679
CLIC4	0.668956361	0.415382366
CLIC5	5.433043003	6.239186823
CLMP	1.003690589	0.939298653
CMAHP	6.089597819	6.253100436
CMPK2	1.998481032	1.945965961
COL1A1	0.875589045	1.242419638
COL1A2	2.868382299	3.235959368
COL4A1	1.129178848	1.180931374
COL6A2	0.585503705	1.220753236
COL6A3	6.366915812	6.807832573
CR1	5.738920018	6.201812101
CRISPLD2	1.196436051	1.499440571
CRLF3	0.511608401	0.445883048
CRYAB	0.780525651	1.300500648
CRYBA1	5.562421349	6.068282361
CSF2RB	5.937945958	6.401229892
CSF3R	5.799145418	6.767130624
CSGALNACT2	0.60738895	0.571994878
CSRP2	0.406550542	0.44275765
CST7	1.449951555	2.089695747
CSTA	1.468138104	1.426836052
CTSE	5.954940198	6.185658291
CX3CL1	1.507727147	2.010582105
CXCL1	0.931167569	0.761159252
CXCL10	6.82576615	6.773826656
CXCL12	6.387315064	6.748244637
CXCL17	5.341741094	6.217331256
CXCL2	0.69358754	0.898269662
CXCL9	5.882924497	6.074534862
CXCR1	5.619563909	6.058775142
CXCR4	1.841660811	2.23396835
CYBB	2.971352925	2.927586653
CYGB	0.912057938	1.455137379
CYP3A5	0.483597777	0.628001387
CYP7B1	1.796418572	1.850730686
CYTH4	1.465313345	2.233542354
DARC	6.499070937	6.311310867
DCN	6.68661929	6.783573447
DCUN1D3	0.836955735	0.711849036
DDX60	1.571939425	1.571681444
DDX60L	1.279232989	1.110105871
DEFA1	8.091037038	6.518834936
DEFB4A	6.974386406	6.21054591

DEFB4B	7.097902544	6.342343711
DES	2.763104906	2.57763808
DGKH	1.326029384	1.145195952
DHX58	1.820655532	2.224612463
DICER1	0.482416885	0.523548604
DKK3	0.381634857	0.391259787
DLC1	0.80703299	0.835041381
DLL4	1.483061626	1.904823259
DMTF1	6.135533354	6.0477498
DNAJA4	5.926032567	6.550938547
DNHD1	0.56976565	0.982752768
DOCK2	2.205405599	2.326315894
DOCK8	5.797282779	6.096409417
DOK3	0.601745379	0.854650489
DPYD	1.071096109	1.264907675
DRAM1	0.519129581	0.615253653
DTX3L	0.728731689	0.953984206
DTX4	0.49235832	0.890400672
DUOX1	5.826908237	6.481908206
DUSP7	0.514720347	0.427423931
EBI3	0.633748314	1.225744379
ECSCR	2.417798926	2.206837506
ELL2	1.005844276	0.753934163
ELMO1	0.456208148	0.500675384
EMILIN1	0.51758256	1.324073173
EMILIN2	0.762688603	0.881189119
EMR2	5.781196534	6.124005086
ENG	5.919742107	6.631522909
EPG5	0.613400545	0.828411193
EPS15	0.615564089	0.478895656
EPSTI1	6.345556037	6.531347331
ERAP1	0.509178517	0.564986267
ERV3-1	0.896086637	1.650097507
ESAM	1.006187135	1.492832241
ETS1	0.709466049	0.751422723
ETV6	0.437094954	0.60589401
EZH1	0.381849633	0.552931699
F3	0.967150545	0.934712008
FAM105B	0.425795225	0.529529688
FAM107A	5.755235897	6.353854706
FAM129A	1.83411918	1.945590128
FAM196B	2.152943407	2.419454762
FAM20A	5.627150705	6.287282057
FAM65B	5.329971136	6.451441011
FAS	1.259878683	0.764527199
FBLN5	0.728247763	0.732674854
FBN1	0.727162746	0.599608

FCER1G	2.644335791	2.771564545
FCGR1B	5.395445218	6.239029056
FCGR2C	6.599525013	6.300947472
FCGR3B	6.075623595	6.599608005
FCN1	5.718922493	6.479640082
FCN3	6.485329533	6.873942238
FES	5.353350646	6.287107199
FFAR2	2.144164285	2.892469579
FGR	6.424141399	6.753511053
FHL1	0.913385455	0.751146828
FILIP1L	2.25569214	2.388200369
FKBP1AP1	0.630329613	1.085758851
FKBP5	0.555192813	0.831325077
FLI1	5.930219843	6.147852479
FLJ42393	5.893827206	6.273642396
FLJ43663	1.10670107	0.956051312
FLJ45445	0.812636144	1.884696025
FLT1	6.389885177	6.437687158
FMNL3	0.946135113	1.139394279
FMOD	2.130882007	2.439477279
FNDC3A	0.524870644	0.481806561
FOXF1	5.767505388	6.019270033
FOXO3	0.698916613	0.668768125
FOXO3B	0.644305525	0.674974924
FPR1	6.353948912	6.969608786
FPR2	6.169944682	6.592796102
FRAS1	0.481575921	0.733454078
FTH1P3	0.533281891	0.433923824
FXYD6	1.416692835	1.890429855
FYB	6.03210278	6.3005194
FYN	1.71730629	1.717153486
FZD4	0.924236451	1.23893962
G0S2	1.401698203	1.485736763
GAS7	5.922303411	6.409774247
GBP1	3.534883919	3.744959296
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GBP2	1.837448444	1.898237658
GBP3	1.134523745	1.229141705
GBP4	6.34582054	6.396628197
GBP5	6.044363341	6.553340426
GCA	0.808497111	0.75370659
GCH1	0.648776726	0.801592583
GGT5	6.539391036	6.272217677
GIMAP2	2.085683395	2.289454154
GIMAP4	6.239244407	6.153595376
GIMAP5	5.999151429	6.230172929
GJA4	2.559094987	2.79132703

GJA5	6.350939624	6.019954978
GK3P	1.766652807	1.976805786
GKN2	0.8130834	1.290396983
GLDN	2.508629313	2.424365319
GLIPR2	0.765183059	1.100929386
GLUL	0.499028883	1.263215282
GMFG	6.154904566	6.389616099
GNA15	1.836273237	2.723888136
GPBP1	0.450035673	0.424626688
GPR116	6.260202611	6.420480548
GPR133	1.129082705	1.54777398
GPR137B	0.456433553	0.492065043
GPR141	6.203171643	6.208449419
GPR183	5.918486945	6.156821636
GPR4	5.902194962	6.045733604
GPR84	2.33817941	3.036017155
GPR97	1.700896342	2.070978715
GPX3	0.603502176	0.761304367
GUSBP3	0.637381353	1.085256946
GUSBP9	0.36751254	0.927210887
GYPC	6.34443354	6.716805213
HAVCR2	5.752178332	6.04289039
HBA1	2.935884827	2.943549512
HBA2	2.764044538	2.754775969
HBB	2.896192567	1.854755294
HCLS1	1.895209447	2.097572177
HCST	0.861414774	1.815235235
HECA	0.748443812	0.994357095
HEG1	0.894038209	0.911691283
HERC2P3	0.483564069	0.437590433
HERC6	0.782397866	1.064157972
HINT3	0.389490053	0.654706954
HIST1H1B	5.570854539	6.315065147
HIST1H1D	1.623312514	1.636404927
HIST1H1E	1.48946444	1.649672762
HIST1H2AB	0.861187138	1.838342162
HIST1H2AE	5.642046843	6.265857468
HIST1H2AG	0.837548238	1.510192501
HIST1H2AH	1.099694938	1.393796011
HIST1H2AI	1.078810487	1.26114824
HIST1H2AJ	1.338813252	1.416924032
HIST1H2AK	0.77307793	1.440208596
HIST1H2AL	1.124368642	2.067133078
HIST1H2AM	0.902659626	1.586000294
HIST1H2BB	6.372772123	6.337369398
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HIST1H2BD	0.751224507	0.996177442

HIST1H2BE	0.487458941	1.327262677
HIST1H2BG	2.358731615	2.497307876
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HIST1H2BI	5.792791477	6.386990947
HIST1H2BJ	0.641885407	1.09780431
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HIST1H3B	1.087314324	1.741402136
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HIST1H3F	1.338209978	2.315045015
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HIST2H2AA3	0.582399925	0.986609669
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HIST2H3A	0.41927307	1.575098877
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HLA-DRB5	6.455479837	6.795650649
HMBOX1	0.911237968	1.038158495
HNRNPC	7.071940891	6.855362854
HOPX	6.282529218	6.608287427
HP	6.199200989	7.37940524
HPR	2.066084642	3.584090072
HS3ST3B1	0.885851825	0.85518638
HSD11B1	6.139954609	6.266241107
HSP90AB2P	0.656029871	0.474871461

HSPA6	1.406936492	2.724459294
HSPA7	1.803545217	3.462158385
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HYAL1	0.437142587	0.842545234
ICAM1	1.889794852	2.293431994
ICAM2	5.933129278	6.548187888
IDO1	6.191797418	6.376635346
IFI16	1.995693673	1.939392104
IFI44	6.495134825	6.314875888
IFI44L	6.380017576	6.527908173
IFI6	1.048514511	1.676754524
IFIH1	1.819321606	1.839839856
IFIT1	1.582422714	1.807998647
IFIT2	2.158583207	2.351490836
IFIT3	6.470479584	6.603457255
IFITM1	1.415605106	2.198911954
IFITM3	0.805120259	1.8111385
IGF1	6.068018793	6.34230817
IGF2BP2	0.403066539	0.743032447
IGFBP5	0.70100188	0.999648277
IGLL5	7.240721434	7.057525373
IL15RA	1.314209098	1.396370301
IL18BP	0.959585072	1.522485914
IL18R1	1.309494959	1.815896255
IL1B	2.650214345	3.063181609
IL1R1	0.46666683	0.724111055
IL1R2	0.958124595	1.709182361
IL1RL1	3.015715684	2.683411013
IL1RN	6.311049946	6.631452901
IL2RG	2.82013205	2.290145793
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IL3RA	1.145702411	1.619982362
IL6	6.672307562	6.468313354
IL6ST	0.714489899	0.624686475
IL7	5.338749245	6.255848769
IL7R	2.447789304	2.509633174
IL8	1.080442723	0.510156732
IRAK3	6.167426633	6.373296441
ISG15	0.455043729	1.252991299
ITGA2	0.681716294	0.560989547
ITGAL	5.739751088	6.216414
ITGAX	1.224648479	1.57418376
JAK3	0.880780594	1.73808974
KCNJ15	5.477381753	6.176956091
KCTD12	1.256896984	1.570287817
KIAA0040	0.751320921	1.013200616
KIAA0226	0.756062679	0.756158645

KIAA0247	0.439554957	0.940437399
KIAA1462	0.410203578	0.794273967
KLF9	0.94619569	0.906230717
KLHL6	6.053746666	6.050329479
KREMEN1	0.500297267	0.818214721
LAIR1	5.832685149	6.296932703
LAMP3	2.880207752	2.707422345
LAPTM5	2.877682182	2.986026619
LCP1	2.359196875	2.610103137
LCP2	6.387224265	6.375599608
LGALS9	1.687471671	1.897179115
LHFP	1.579709437	1.96878613
LILRA5	6.205347842	6.450412323
LILRA6	2.534717301	2.58059041
LIMK2	0.810337636	1.173711571
LIMS2	5.863147322	6.394052226
LINC00085	0.47471956	0.904693947
LINC00472	1.010482494	1.42086901
LIPG	2.077955588	2.262774106
LMO2	5.830162505	6.391913814
LMO3	5.828993544	6.139765777
LOC100129216	6.08009592	6.114180479
LOC100129518	1.83788225	2.056807911
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LOC100129917	1.245036207	0.950674067
LOC100132077	1.113659906	1.31557677
LOC100132247	0.683847059	0.431547979
LOC100133161	0.645103603	1.70587293
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LOC100190986	1.454292835	1.935228112
LOC100270710	0.391134224	0.65367743
LOC100271836	1.476982875	1.247322851
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LOC100288432	0.373001144	1.529458731
LOC100506321	1.184883333	1.884406125
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LOC148696	2.625238083	3.035468254
LOC154761	1.423473679	1.594830877
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LOC441454	0.637115943	1.309961533
LOC541473	0.62005192	0.77396511
LOC595101	0.407264518	1.009653536
LOC613037	0.511769971	0.47263668
LOC641298	1.47121816	1.241847862
LOC643733	6.121175604	6.098491437

LOC653513	2.334807565	2.822701817
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LOC678655	1.318139034	1.739730015
LOC729513	1.623207561	1.375663978
LOC729603	1.087895345	1.418163115
LOC729737	1.184199074	1.64132977
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LOC731424	5.662589746	6.132298121
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LPAR2	0.673507694	0.77067261
LPHN2	0.745607584	0.434219311
LPL	5.888865508	6.023235993
LRG1	0.553141456	1.519798536
LRRC25	5.463388258	6.158769452
LRRC32	6.143907467	6.457457988
LRRC37A3	0.621722887	1.08772162
LRRK2	0.531250451	0.983551554
LSP1	5.692534961	6.565488905
LTBP2	0.545410036	0.833165407
LTF	6.026247181	6.321208903
LUM	2.773411101	2.532100301
LYZ	2.26601958	1.678563193
MACF1	0.502627599	0.449656194
MAF	2.111516753	2.705115552
MAFB	1.571406817	2.518517464
MAOA	0.780746606	0.790483258
MAPK13	1.783918056	2.167185812
MARCO	2.454893013	3.012571369
MAST4	0.774594424	1.27966946
MATL2963	0.420399395	0.658590383
MCAM	0.917034049	0.904303504
MCTP2	5.931712575	6.240157208
MEF2A	0.417125069	0.536029034
MEFV	5.648578567	6.265855114
MEIS1	1.362218154	1.175201206
METTL7A	1.784585035	2.242715632
MFSD7	1.181555474	1.929882211
MGC12916	0.510939876	1.170457666
MGP	6.197688465	6.25823009
MILR1	0.812218629	1.177137635
MIR1248	8.731137316	9.277625257
MIR3939	7.69457449	7.333288038
MIR4435-1	8.335237187	8.121851902
MIR612	7.829795695	8.45890816
MIR650	7.924331502	8.199058212
MLL3	0.541886059	0.588871081
MMP14	1.068904839	1.709306205

MMP19	5.699508196	6.089735598
MMP2	1.291989777	1.594022189
MMP8	6.199848387	6.23055365
MMP9	1.141080423	2.116068983
MNDA	6.250846767	6.119193183
MPHOSPH8	0.418720379	0.420460332
MPP1	0.582850915	0.502563481
MS4A6A	5.597020189	6.229474498
MT1A	0.705308994	1.121558935
MT1E	5.961335651	6.472242889
MT1F	0.641900975	0.637674036
MT1G	5.55522629	6.827978925
MT1L	5.602713113	6.661993367
MTF1	0.519050191	1.047860485
MTRNR2L1	2.670763911	2.69490396
MTRNR2L10	1.412464567	3.160802449
MTRNR2L2	1.295798106	2.232745821
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MX1	2.01639582	2.365668269
MX2	3.064091568	3.132656108
MYCBP2	0.591985454	0.506034515
MYL9	0.816650545	1.576914305
MYO1F	1.381632351	1.745647328
MYO1G	1.716047633	2.066196384
MZB1	1.263300757	1.630711357
N4BP2L2	0.723622123	0.71047196
NAIP	1.488698233	1.744400141
NAMPT	1.044150204	0.600910304
NAPSA	1.913195408	2.505455443
NBPF14	0.570950465	0.588141689
NBPF15	0.664646976	0.487379734
NCF1	2.345251345	3.286127211
NCF1B	2.286058536	3.285421609
NCF1C	2.285890969	3.345579895
NCF2	1.182665469	1.514131914
NCF4	1.572517369	2.305495737
NCKAP1L	2.608681113	2.766042427
NDNF	2.338902943	2.390216552
NEAT1	0.838949829	1.492273098
NES	0.521366899	0.940804242
NFE2	5.506610549	6.085882557
NFIL3	0.562310378	0.587181562
NFKBIZ	0.745449324	0.774643799
NID1	0.91108832	0.9805775
NKG7	1.926930527	3.200392561
NLRC5	0.757669605	1.315917264

NOD2	1.856511446	2.542559123
NOTCH2NL	0.879334238	1.02094144
NPIPL3	0.557278622	0.408692574
NPNT	1.176638452	1.173847292
NUMB	6.299642382	6.450329184
OAS2	2.543294967	2.774111349
OASL	1.457584185	1.744777404
OLFML2B	1.415990433	1.4425329
OLFML3	0.731818414	0.980917194
OR2A20P	5.714123463	6.475698785
OS9	6.108548112	6.574770676
OSCAR	1.232734534	1.614893828
P2RX7	5.725784264	6.204049404
PAG1	2.430366808	2.404343546
PARP10	0.806400969	1.504233524
PARP14	0.772906085	0.918152995
PARP9	1.052286194	0.987012386
PARVG	5.767008107	6.647955783
PCNX	0.616423474	0.582420424
PDE4DIP	0.650901795	1.227388603
PDGFB	0.605512446	1.401888947
PDGFRA	2.810664742	2.781896964
PDGFRB	5.806743512	6.324477947
PEAK1	0.442197445	0.543022915
PECAM1	6.246742249	6.094977452
PGC	5.933053789	6.472956734
PHC3	0.545406614	0.662113242
PHF11	0.870811126	0.885748809
PI3	1.386934345	1.84324188
PIGR	5.679694933	6.420516831
PIK3AP1	1.968271979	2.228402447
PIK3R3	1.223320801	1.211196881
PIK3R5	5.602504915	6.122897104
PIKFYVE	0.456874302	0.685264857
PILRA	5.428100762	6.640469511
PIM2	0.554332109	0.697404073
PLAC4	2.481797168	2.892511208
PLAC8	0.92783956	1.329045837
PLEK	6.118016581	6.424483078
PLEKHA2	0.885215298	1.108563146
PLEKHA4	2.130345519	2.004281432
PLTP	1.24150566	1.76774672
PLVAP	6.242591116	6.581242886
PLXDC2	5.678633993	6.104415406
PML	6.084107774	6.761715147
PNRC1	0.39191321	0.52461663
POU2AF1	2.47463278	2.45528603

PPP1R12B	0.763956569	0.865595339
PPP4R2	0.616925248	0.444716801
PRDM2	0.439111205	0.489215476
PRDX2	0.850108774	1.58563505
PRF1	5.414896504	6.258062312
PRICKLE2	0.652755625	0.873118544
PRKCH	1.062849867	1.248337806
PRRT2	0.96345331	1.566837207
PRRX1	6.30832319	6.087650116
PSTPIP2	2.544998646	2.726822106
PTGER4	0.497377002	1.063535692
PTGIR	1.67827179	2.335414845
PTPRC	6.621093155	6.346452733
PTPRG	0.736393748	1.017734884
PTX3	6.618335787	6.603709346
PXDN	1.422472555	1.433653825
PZP	5.716316424	6.475422741
RAB13	0.814704951	0.861565665
RABGAP1L	0.922531386	0.583483703
RAC2	2.630874512	3.018181346
RALGAPA2	0.5924079	0.905794576
RAMP2	1.18231773	1.717000044
RAMP3	2.328308014	2.811612498
RAP1A	0.548437933	0.542672354
RAPGEF5	2.238659624	2.175854015
RAPH1	0.720783077	0.444913874
RARRES2	5.536454907	6.416901671
RARRES3	0.47688012	0.880545983
RBPJ	0.688806875	0.477145338
RC3H2	0.578581033	0.447612531
RCAN1	0.45433381	0.599949725
RETN	6.35220182	6.67775747
RFTN1	1.080602546	1.449328435
RGL4	0.985558977	1.393528738
RGS16	2.244363439	2.367799924
RHOU	0.450701121	0.84030046
RMRP	1.57984692	2.578229377
RNF122	0.484651635	0.756602225
RNF144B	1.255022857	1.328064128
RNF168	0.585779409	0.454067796
RNF169	0.676273572	0.761128093
RNF185	0.418863031	0.504700878
RNU11	1.119625412	3.314694781
RNU12	6.718129514	9.852764144
RPGR	0.948511668	1.055245992
RPL10	6.680230327	7.094254451
RPL13AP3	0.524439501	1.637991046

RPL23AP64	0.78792205	1.0777563
RPPH1	1.576882716	3.010999322
RPS6KA2	5.950612604	6.216007468
RSAD2	6.700513347	6.447274345
RUFY3	1.25714601	1.119244789
RUNX1	0.459877705	0.608417655
S100A12	6.879179059	6.986207681
S100A8	7.625113783	7.336095334
S100A9	2.772251345	3.203165771
S1PR1	2.952681797	3.22373641
SAA1	7.002645466	7.552741201
SAA2	3.026515988	3.558160854
SAMD9L	2.054833327	2.122106078
SAMHD1	0.654962818	0.810448965
SAMSN1	5.985290371	6.09417754
SASH1	0.685151394	0.759679405
SASH3	2.467082475	2.74836212
SCARNA1	6.792640987	7.233280467
SCARNA10	2.398898661	2.986970267
SCARNA11	6.084240151	8.220393164
SCARNA12	0.378181649	0.989452063
SCARNA13	2.815843652	3.588094205
SCARNA18	7.1154574	7.620172505
SCARNA2	1.235391573	2.919997031
SCARNA21	0.535229046	1.757012538
SCARNA3	7.392895593	7.711529698
SCARNA4	7.603093467	7.966471202
SCARNA5	7.292741058	7.893755106
SCARNA6	1.14127724	1.479901138
SCARNA7	2.063592853	2.631341769
SCARNA8	6.846995478	8.43205005
SCARNA9	0.708277628	1.161010238
SCNN1A	0.391075013	0.504731324
SECTM1	0.653728601	1.69305421
SELL	2.393821141	2.398519752
SERPINA1	6.03301742	6.742381015
SERPINA3	0.451866482	1.14123402
SERPINF1	0.771540886	1.310899836
SERPING1	6.450803173	6.904775574
SETX	0.533562746	0.404387136
SFTPA2	6.632894404	7.572247582
SFTPC	5.550137815	6.167332106
SFTPD	1.031412882	2.039757099
SGCA	1.011376522	1.972634055
SH2B3	0.430428339	0.798013837
SH3PXD2A	0.394771723	0.799428101
SIGLEC1	2.7333832	3.462057884

SIGLEC14	6.085682943	6.470407551
SIGLEC5	5.62951765	6.229115893
SIGLEC9	5.540169244	6.451668255
SIPA1L2	0.613950263	0.642630212
SIRPB1	0.531788488	1.003131474
SIRPB2	5.376449205	6.480222599
SLA	5.847279535	6.538640331
SLAMF7	1.92864025	2.044861438
SLAMF8	6.114100338	6.558524976
SLC11A1	1.38569099	2.091157323
SLC1A3	6.475009802	6.312627925
SLC2A14	1.231861202	1.96731593
SLC2A3	0.683301701	1.050787854
SLC31A2	0.616922201	0.83064444
SLC38A5	2.077079258	2.511151912
SLC43A3	6.427784625	6.591455296
SLC44A2	0.503469568	0.497774547
SLC5A3	0.77090395	0.703128569
SLC6A14	2.681654291	2.545631441
SLC7A8	1.814013979	2.602329424
SLCO2A1	2.912011401	2.853322658
SLCO2B1	0.530484336	0.807134341
SLED1	6.437189104	6.372790531
SLFN5	0.99365993	1.183117932
SMA5	0.504024156	1.209192324
SMAP2	0.463060474	0.956396735
SMG1	0.428093946	0.470244992
SMTNL1	5.749202006	6.235790964
SNAI2	2.594460433	2.913336703
SNORA11	7.36362514	8.859025955
SNORA12	7.929626826	7.987092188
SNORA13	0.47054833	1.666733465
SNORA14A	0.740823747	1.665351148
SNORA17	0.492625301	4.06584467
SNORA18	0.561821247	1.297745015
SNORA20	0.828086601	2.060655317
SNORA23	1.31863244	1.628504626
SNORA24	6.65511057	8.46218679
SNORA26	6.760420975	8.18159494
SNORA28	7.165383824	8.07820661
SNORA31	7.194370016	8.649786446
SNORA33	2.57140929	2.086168931
SNORA38B	7.147110291	8.023198941
SNORA4	7.53653698	7.982706666
SNORA42	6.352028075	8.831979773
SNORA43	1.870107053	4.269169046
SNORA46	7.260793816	8.383829723

SNORA49	6.885870991	8.072106457
SNORA51	0.469064418	2.192009039
SNORA53	2.373247054	1.880882452
SNORA54	0.452945828	2.757611483
SNORA58	1.408000621	2.367284189
SNORA5A	1.074037737	2.308205698
SNORA60	0.670991193	2.329864034
SNORA63	0.893080199	1.777144555
SNORA65	0.629598517	2.118888997
SNORA66	0.96787155	2.242057674
SNORA68	1.005658348	2.783656324
SNORA70	7.488803042	9.429574651
SNORA71A	1.317881313	1.664258683
SNORA71D	6.069316524	8.469411082
SNORA72	7.006932177	7.904693911
SNORA74A	1.672997896	2.301827412
SNORA74B	6.935054598	8.286036344
SNORA77	6.70588423	8.544975392
SNORA7A	1.33488386	4.062278145
SNORA8	0.950366471	2.561761246
SNORA80B	6.099352552	8.349341647
SNORA81	0.641508425	1.836676523
SNORA9	7.281562838	8.518465244
SNORD116-15	7.88417207	7.717538198
SNORD116-16	7.039072895	8.034339633
SNORD116-17	7.164013617	8.026439287
SNORD12	0.973860032	1.13926754
SNORD15A	1.398555997	2.531494672
SNORD15B	0.525429177	2.552262228
SNORD17	0.54000487	1.902168595
SNORD21	7.225851811	8.669235036
SNORD67	6.560291696	8.495832846
SNORD8	7.032715439	8.308171557
SNORD89	1.41697146	2.242996563
SNORD94	0.811098394	1.569136225
SNORD97	1.238811579	1.630110398
SNTB2	0.415977903	0.45835767
SNX10	0.934453715	0.928768027
SOD2	1.32222828	1.208645837
SOD3	6.248493127	6.348326285
SORL1	0.432620028	0.631916974
SOX7	1.682804055	1.974659448
SP100	0.849839913	0.673226377
SP110	1.009977721	1.019162998
SPARC	1.949685081	1.864346035
SPARCL1	6.368523032	6.561067975
SPDYE2	0.633752895	1.543006171

SPDYE2L	0.677896294	1.577578831
SPDYE6	0.776357192	1.648250139
SPDYE7P	1.301199123	1.987635558
SPOCK2	0.806810203	1.627776944
SPON1	2.069564252	2.433207755
SPON2	5.669879146	6.158516277
SPRY1	1.620696068	1.013313036
SPRY4	0.376216368	0.54747277
SRGN	1.032940813	0.652467991
SSH2	0.590767156	0.931156825
ST5	0.756168073	0.848295594
ST6GAL1	0.601284721	0.694931808
STAB1	2.355329488	3.24233443
STAU2	0.495783462	0.476077619
STEAP4	5.945101101	6.059631567
STON1	5.756779075	6.056085014
STX12	0.720721452	0.520883139
STX7	0.588380553	0.687053401
SVEP1	1.273386238	1.307665478
TACSTD2	5.932861717	6.044833633
TAGLN	0.477208358	0.971447077
TBXAS1	0.414410849	0.514593853
TCF21	1.078904711	1.804539535
TEAD3	0.4874542	0.446732098
TEK	6.027296592	6.18772372
THBS1	0.660122634	0.456660535
THNSL2	5.96266855	6.043016277
TIE1	5.357700493	6.110872415
TIMP1	0.453180257	0.439567554
TIMP3	2.293482824	2.381893778
TJP2	0.806160391	0.8008014
TLR2	2.794221394	2.932149115
TLR4	5.838592844	6.081854768
TMEM100	5.891485049	6.266997976
TMEM106A	0.669510415	1.261350892
TMEM125	5.40424514	6.257424162
TMEM173	0.662137916	1.287556535
TMEM204	1.42952598	1.984250666
TMEM63A	0.445074611	0.760420946
TMPPE	0.489692199	0.796215661
TNC	1.635347186	1.788023073
TNFAIP3	1.200465193	1.521006224
TNFRSF14	2.25965651	2.960316948
TNFRSF1B	1.742155188	2.144205336
TNFRSF6B	0.494921617	1.767775185
TNFSF10	6.604609403	6.4366587
TNS1	0.952173299	1.321016847

TRAF1	0.84159761	1.354386815
TRANK1	1.012792012	1.33422052
TREM1	5.95695128	6.102080226
TRIB2	1.750060289	2.167475924
TRIM38	0.428601165	0.834828948
TRPV2	1.148784204	1.562334985
TSSK4	5.593169723	6.558733764
TSTD1	2.445130821	2.252907512
TULP2	5.987294811	6.034796848
TXNIP	2.393476153	2.582999382
TYROBP	7.142821043	7.319464179
UBA7	1.882282782	2.290376761
UBE2L6	0.567834654	1.01894821
UBR2	0.62118347	0.580059244
UHMK1	0.532536338	0.405554612
USP18	0.652031187	0.495855461
UTRN	0.728595491	0.511482608
VAMP5	1.420030619	2.344719311
VCAN	0.478562562	0.523880989
VNN2	6.45753826	6.303660353
VPS13D	0.466923728	0.727053473
VTRNA1-1	7.030356805	9.515546676
VTRNA2-1	6.367396925	9.96052738
VWF	3.40739732	3.810644421
WASH5P	0.50526923	1.242537853
WDFY3	0.695815893	0.753021331
WFDC10B	5.483588723	6.319636886
WISP1	6.219880416	6.248184228
WLS	1.130011629	0.809005017
XAF1	6.465772352	6.308918534
ZBTB16	5.395268716	6.522163743
ZEB2	1.638647345	1.756531352
ZFP106	0.45181762	0.584450056
ZKSCAN1	0.525751101	0.472837106
ZNF397	0.975677992	1.181320235

Supplementary Table 4: Differentially expressed host genes in 1918 autopsy vs. 2009 autopsy samples

gene_id	1918 (RPKM)	2009 (RPKM)	Fold Change (1918/2009)	Log10 (Fold-change)	p_value
ABCA3	27.1325	3.11425	8.712370555	0.940136339	0.000483919
ABCG2	0.0738977	2.99729	0.024654838	-1.608097843	0.000497477
ABHD14B	13.1758	0.811552	16.23531209	1.210460642	0.000763471
ACTA1	30.5245	0.0162347	1880.201051	3.274204291	3.49E-11
ADCK4	12.4568	0.536011	23.23982157	1.366232789	0.000901994
ADCY6	12.3579	1.83541	6.733046022	0.828211583	0.00274154
AGPAT3	12.4816	1.41994	8.790230573	0.944000267	0.00208505
AGRN	14.651	1.40335	10.44001853	1.018701269	0.000616993
AHI1	0	16.5886	0	#NUM!	0.00070616
AKAP17A	0	32.1597	0	#NUM!	0.000336417
AKAP5	0.0656316	2.2863	0.028706469	-1.542020225	0.000805263
AKNA	18.7317	2.35425	7.956546671	0.900724615	0.00113032
AKT2	14.8776	1.48081	10.04693377	1.002033539	0.00157653
ALCAM	0	12.5784	0	#NUM!	0.000943819
ALDOA	140.987	22.4255	6.286905532	0.798436935	0.000255182
ALG13	0	16.2152	0	#NUM!	0.00101439
ALPL	66.8172	10.7797	6.198428528	0.792281598	0.0011753
AMDHD2	17.2487	0.4693	36.75410185	1.565305815	0.000414644
AMZ2P1	0.0321529	4.26189	0.007544282	-2.122382087	1.08E-05
ANGPTL4	49.1863	4.62023	10.64585529	1.027180559	0.00071757
ANKRD19P	16.3991	0.163895	100.0585741	2.00025431	6.20E-06
ANO6	0	19.5443	0	#NUM!	0.000364387
APOBR	24.179	2.23997	10.794341	1.033196133	0.000836795
APP	0	39.4695	0	#NUM!	0.00237222
AQP7P1	10.7745	0.322732	33.38528562	1.523555096	0.000243371
AREG	0.50297	30.6165	0.01642807	-1.78441346	9.04E-08
ARGFXP2	25.6457	0.857963	29.89138226	1.475545999	0.000517402
ARHGDIA	55.9901	6.53184	8.57187255	0.933075705	0.00182929
ARHGEF17	15.0547	2.16082	6.967123592	0.843053515	0.00259793
ARL16	14.3381	0.542442	26.43250338	1.422138296	0.00181409
ASAH2B	11.4	0.147338	77.37311488	1.888590081	0.000350994
ASGR2	15.2964	0.146776	104.2159481	2.017934184	0.000146282
ATAD5	0.379416	10.7413	0.035323099	-1.451941205	0.000318675
ATP2C1	0	18.1792	0	#NUM!	9.03E-05
ATP6V0C	78.6176	5.66888	13.86827733	1.142022518	0.000414725
B3GAT3	35.7709	0.712822	50.18209315	1.700548772	2.14E-05
BCAM	39.2631	2.0794	18.8819371	1.276046547	0.000113239
BCL2L11	0	5.484	0	#NUM!	0.00164186
BIN1	12.9928	0.971996	13.3671332	1.126038276	0.00223262
BLVRB	30.1272	1.47902	20.36970426	1.308984724	0.0023048
BOD1	16.3627	0.0954408	171.4434498	2.234120897	3.95E-06
BRI3	146.659	11.5955	12.64792376	1.102019239	0.000712293
BTBD19	29.0546	0.687732	42.24697993	1.625795668	7.35E-05

C10orf128	28.8346	0.237199	121.5629071	2.084801077	0.000135566
C10orf54	23.906	2.69969	8.85509077	0.947193017	0.00106423
C11orf84	10.8397	0.273535	39.62820114	1.598004359	0.000386283
C14orf1	13.3173	0.500797	26.59221201	1.424754465	0.00131694
C15orf39	23.1519	2.57013	9.00806574	0.954631547	0.00125187
C15orf58	18.1392	0.0182362	994.6809094	2.997683783	3.99E-09
C16orf5	13.6366	0.372321	36.62592226	1.563788569	7.29E-05
C16orf53	21.367	1.96588	10.86892384	1.036186546	0.00106033
C19orf23	13.0036	0.0363137	358.0907481	2.5539931	8.33E-07
C19orf24	10.5297	0.212304	49.5972756	1.695457821	0.00077806
C19orf25	11.8749	0.0712273	166.718379	2.221983479	2.26E-06
C19orf71	15.5651	0.359854	43.25393076	1.636025581	0.00116509
C19orf79	84.0378	0.156994	535.2930685	2.72859162	2.08E-07
C1orf54	3.21057	70.0084	0.045859783	-1.338568009	0.00183188
C22orf45	20.5368	0.115576	177.6908701	2.249665114	9.27E-07
C2orf3	0.216448	10.2967	0.021021104	-1.677344482	0.000360383
C9orf23	14.2682	0.357263	39.93752502	1.601381148	0.000347116
CADM4	11.1893	0.15891	70.41281228	1.84765169	5.20E-05
CCDC124	10.4696	0.272779	38.38125369	1.584119156	0.00125995
CCNT2	0	14.9475	0	#NUM!	0.000548025
CD74	439.013	45.0418	9.746790759	0.988861643	3.42E-06
CD97	39.6837	7.7882	5.095362215	0.707175062	0.000786628
CDCA8	0.843006	18.1325	0.046491438	-1.33262702	0.00122603
CDH19	0.523854	17.6014	0.029762064	-1.526336948	0.0002288
CDH23	24.817	3.45569	7.18148908	0.856214504	0.000562466
CDK10	42.7284	2.12407	20.11628619	1.303547806	7.60E-05
CEBPB	45.7667	5.01672	9.122833246	0.960129737	0.00210817
CEBPD	38.0663	1.55872	24.42151252	1.387772558	0.000387815
CELF2	0	7.54195	0	#NUM!	0.00119001
CENPE	0.322029	7.57345	0.04252078	-1.371398779	0.000579382
CFL1	140.204	18.2434	7.685190261	0.885654624	0.0011428
CHCHD10	22.3774	0.395453	56.58674988	1.75271475	0.000334974
CHID1	15.6558	1.10361	14.18598962	1.151859638	0.000725575
CIITA	21.7714	1.27575	17.06556927	1.23212078	0.000115731
CLCN7	16.9916	1.37563	12.35186787	1.091732637	0.000651241
CLDN4	21.5973	1.2005	17.99025406	1.255037297	0.00124349
CLDN5	35.9607	1.651	21.78116293	1.338081064	0.000315606
CLDND2	26.1939	1.14256	22.92562316	1.360321149	0.00161957
CLEC2D	1.97189	22.2185	0.088749916	-1.051832051	0.000282245
CLINT1	0	10.9794	0	#NUM!	0.0015507
COASY	30.5687	4.12009	7.419425304	0.870370267	0.00124929
COBRA1	14.2788	0.990337	14.41812232	1.158908706	0.00246905
COMMD5	23.6903	1.80413	13.13114909	1.118302732	0.00142568
CSDE1	0	21.2175	0	#NUM!	0.000999296
CSF1	54.8893	7.97278	6.884587308	0.837877912	0.000144649
CSF3	0	26.8262	0	#NUM!	0.000522447
CSF3R	58.4966	6.29714	9.289391692	0.967987276	8.39E-05

CSK	18.7579	0.780142	24.04421246	1.381010557	0.000205949
CTSC	0	40.0751	0	#NUM!	0.000770717
CTSD	128.757	12.9339	9.955001972	0.99804135	0.000144793
CTSG	0.433133	44.0601	0.009830504	-2.007424205	8.05E-06
CTU2	11.6172	0.257718	45.07717738	1.653956714	0.000323209
CYBA	53.8574	3.03735	17.73170692	1.248750544	0.00215593
CYP26B1	0.0722405	2.38455	0.030295234	-1.51862569	0.00112598
DAB2IP	13.922	1.31508	10.5864282	1.024749456	0.00152104
DCTN1	0	8.79851	0	#NUM!	0.00254311
DDHD2	2.54243	18.9694	0.134027961	-0.87280459	0.00222999
DDIT4	73.0716	9.11385	8.017643477	0.90404674	0.00148769
DDTL	46.3199	1.70226	27.21082561	1.434741719	7.33E-05
DEDD2	21.8279	0.670507	32.55432083	1.512608639	0.000195867
DEFA1	33.0244	1233.21	0.026779218	-1.572202102	1.48E-05
DEFA1B	64.2417	1233.21	0.052093074	-1.283220013	1.19E-05
DENND2D	25.1414	2.18261	11.51896124	1.061413317	0.00258049
DEXI	44.8019	1.24943	35.85787119	1.554584503	4.45E-05
DGKZ	16.7888	1.06953	15.69736239	1.195826685	0.000142033
DHRS4L2	15.5115	0.262192	59.16084396	1.772034361	0.000108927
DKFZp761E198	20.0829	1.57634	12.74020833	1.10517653	0.000478989
DNAJB1	274.522	11.6961	23.47124255	1.370536081	2.19E-07
DNAJB5	11.425	0.794988	14.37128611	1.157495636	0.00135059
DPM2	13.1028	0.389494	33.64056956	1.52686334	0.000704884
DPP7	15.1697	0.739753	20.50643931	1.311890257	0.00198435
DTHD1	0	7.81702	0	#NUM!	0.0021458
DTNA	0	10.7231	0	#NUM!	0.000774751
DTX2	18.2745	1.23043	14.85212487	1.171788592	0.00124838
EAF2	0.254843	18.0161	0.014145292	-1.849388075	0.000121791
ECI1	20.9742	0.79107	26.51370928	1.42347049	0.00175281
EIF2C2	13.6604	0.928192	14.71721368	1.167825595	0.000693955
EIF4G1	0	10.2336	0	#NUM!	0.000560895
EPN1	25.0794	0.886278	28.29744166	1.451747173	5.21E-07
ERBB2	10.7657	0.774425	13.90153985	1.143062909	0.00138397
ERCC4	0.513498	7.82535	0.065619813	-1.182965015	0.0025499
ERVFRD-1	11.1833	0.538798	20.75601617	1.317144	0.000836283
ESRRA	28.0721	1.34644	20.84912807	1.319087897	0.000264386
ETHE1	18.4914	0.303598	60.90751586	1.784670887	0.000179042
ETV7	21.305	1.91702	11.11360341	1.045854895	0.00201307
EXOC6B	2.87459	35.5659	0.080824329	-1.092457893	0.00289636
EXOSC4	11.7331	0.242633	48.35739574	1.684462904	0.000770196
EXOSC6	17.0522	0.852314	20.0069458	1.301180796	0.00160279
F2RL1	0.37833	11.1464	0.033941901	-1.469263844	0.00061827
FAM100B	35.7602	1.11702	32.01392992	1.50533899	9.93E-05
FAM109B	11.1522	0.530072	21.03902866	1.323025685	0.00157224
FAM157A	45.1138	0.781374	57.73650006	1.761450454	1.61E-05
FAM157B	93.2796	1.92848	48.36949307	1.684571536	2.85E-06
FAM165B	0.47293	18.2167	0.025961343	-1.585672842	0.000626112

FAM167B	12.8568	0.0557158	230.7568051	2.363154517	8.37E-06
FAM195B	22.6277	1.62185	13.95178346	1.144629727	0.00252596
FAM208A	0	10.1156	0	#NUM!	0.00138009
FAM20C	16.8798	0.721529	23.39448588	1.369113505	0.00037137
FAM22A	12.4707	0.0389273	320.35872	2.50563655	6.97E-08
FAM22D	15.4305	1.5469	9.975111513	0.998917759	0.00124888
FAM22G	10.5184	0.255032	41.2434518	1.615355006	4.98E-05
FAM65B	28.2775	2.13781	13.22732142	1.121471907	3.88E-05
FAM82A2	16.6271	1.10216	15.08592219	1.178571863	0.00214354
FASN	19.8714	1.98431	10.01426188	1.000618945	0.000273234
FBXO34	27.1368	2.93325	9.251444643	0.966209555	0.00225997
FBXW4	20.2413	1.46693	13.79840892	1.139829011	0.00196561
FCGR1C	19.3559	0.276688	69.95569016	1.844823046	5.37E-05
FDPSL2A	15.441	1.45792	10.59111611	1.024941729	0.0012904
FEM1A	13.1575	0.854502	15.39785747	1.187460295	0.00100516
FES	19.369	2.25605	8.585359367	0.933758479	0.00226588
FLJ39051	22.7492	0.382921	59.40964324	1.773856944	0.00023397
FLJ45445	39.0099	3.30455	11.80490536	1.07206251	9.99E-05
FLNA	0	10.4944	0	#NUM!	0.000477574
FN3K	16.761	0.561533	29.84864647	1.474924642	0.000759498
FOXF2	10.9919	0.136957	80.25803719	1.904488534	3.44E-05
FOXI2	17.3862	0.00702064	2476.440894	3.393827967	3.57E-12
FOXK1	12.6255	1.78742	7.063532913	0.849021973	0.0018412
FSTL3	87.5787	7.63202	11.47516647	1.059758995	9.25E-05
FTL	3259.8	178.562	18.25584391	1.261401914	3.50E-06
GADD45G	17.5121	0.0729522	240.0489636	2.380299835	1.71E-06
GALNT10	14.0326	1.72358	8.141542603	0.9107067	0.00268431
GAPDH	465.564	65.103	7.151191189	0.854378389	0.000803241
GIGYF1	16.1002	1.41046	11.41485756	1.057470497	0.000502565
GIGYF2	0	9.66288	0	#NUM!	0.00296802
GLUL	125.094	21.5303	5.810137341	0.764186398	6.73E-05
GNLY	27.5642	2.01391	13.68690756	1.136305334	0.0027843
GNPDA2	0.060718	3.4137	0.017786566	-1.749907894	0.000479633
GNPTG	14.3883	0.604337	23.80840491	1.3767303	0.00225282
GPC1	12.9769	0.569562	22.78399893	1.357629952	0.000357787
GPN2	12.5872	0.304196	41.37858486	1.616775634	0.00043382
GPR124	10.6632	0.748094	14.25382372	1.153931383	0.000691226
GPR22	0.376913	7.66602	0.049166712	-1.308328831	0.00235791
GPSM1	15.1949	0.661717	22.96283759	1.361025554	7.70E-05
GPX4	50.3562	3.703	13.59875776	1.133499238	0.00157044
GRAMD1A	32.6191	3.40062	9.592103793	0.981913869	0.000612565
GRAP2	0.308746	26.7242	0.011553049	-1.937303374	1.40E-05
GRINA	82.8669	9.03229	9.174517204	0.962583219	0.000418561
GSK3A	24.6635	1.51264	16.30493706	1.212319127	0.00081492
GUK1	63.7703	4.23751	15.04900283	1.177507724	0.00021028
H2AFX	14.5476	0.481642	30.20417655	1.480067	0.00076007
H3F3C	62.3131	5.74385	10.84866422	1.035376268	0.00235196

HAGH	14.9705	0.510762	29.31012879	1.467017727	0.000780883
HBB	29.3958	323.485	0.09087222	-1.041568863	0.00257017
HBS1L	0	7.86702	0	#NUM!	0.000957596
HECTD2	0.203457	5.7708	0.03525629	-1.452763387	0.000569453
HEMK1	13.2533	1.13619	11.66468636	1.066873066	0.000886308
HIST1H3I	42.7315	0.696092	61.38771886	1.788081496	0.000234205
HIST2H2BC	116.274	3.84104	30.27148897	1.481033783	0.000161356
HIST4H4	20.3889	0.101893	200.1010864	2.301249447	2.97E-05
HIVEP3	0	22.5369	0	#NUM!	0.000857881
HMGB1	11.4699	129.933	0.088275496	-1.054159834	0.000732256
HMHA1	15.7719	1.311	12.03043478	1.080281323	0.00113094
HP	239.555	15.8197	15.14282825	1.180206996	2.28E-07
HPCAL1	31.369	2.92497	10.72455444	1.030379258	0.00138786
HPR	159.128	4.82769	32.9615199	1.518007229	1.69E-06
HSP90AB3P	89.6652	13.9355	6.434300886	0.808501366	0.00272835
HSPA2	13.2272	0.398937	33.15611237	1.520563603	0.000220968
HSPA6	111.566	5.37041	20.77420532	1.31752442	2.14E-06
HSPA7	108.719	2.38611	45.56328082	1.658614988	9.56E-08
HSPB1	290.083	7.49981	38.67871319	1.587472017	4.32E-07
IDS	0	8.39519	0	#NUM!	0.00201975
IFITM1	397.559	65.6822	6.052766198	0.781953899	0.00259651
IFITM2	614.011	69.5153	8.832746172	0.94609575	0.000228425
IFITM3	1270.17	124.726	10.18368263	1.007904856	8.28E-05
IFT27	11.0737	0.147222	75.21769844	1.87632004	0.000135985
IKBKB	0	8.7638	0	#NUM!	0.00162339
IL17RA	24.8198	2.72685	9.102004144	0.959137029	0.000296954
IL1RAP	0	10.7622	0	#NUM!	0.00275265
IL27RA	11.829	0.0683653	173.0263745	2.238112308	7.58E-07
IL32	578.914	66.3268	8.728206396	0.940925007	1.27E-07
ILF3	0	17.6605	0	#NUM!	0.000831219
IMPA1	0	7.71312	0	#NUM!	0.00305686
IMPDH1	24.0425	1.92792	12.4706938	1.095890616	0.00101041
INO80E	28.5203	0.988968	28.83844573	1.45997185	0.00048929
INTS3	22.83	1.87352	12.18561851	1.085847578	0.000403119
IQSEC2	17.0263	0.557353	30.54850337	1.484989938	0.00013662
IRAK1	30.2154	4.21145	7.174583576	0.855796699	0.00144238
IRF7	34.5693	4.59704	7.519904112	0.876212303	0.00150607
JAK3	30.055	4.17451	7.199647384	0.857311227	0.00142485
JOSD2	11.2171	0.334198	33.56423438	1.525876745	0.00243546
JUNB	42.9947	3.81166	11.27978361	1.052300768	0.00118722
KCNE1	19.1968	0.59614	32.20183178	1.507880577	2.82E-05
KDM6B	21.9986	3.30656	6.653017033	0.823018635	0.00232887
KIAA0895L	15.7501	1.24117	12.68972018	1.103452046	0.00161537
KIF14	0.220845	4.88825	0.045178745	-1.345065838	0.00122852
KIF20B	0.272866	7.34765	0.037136499	-1.430199036	0.000535433
KIF27	1.06535	14.6364	0.072787707	-1.13794196	0.00275601
KRT6A	19.4476	0.502181	38.72627598	1.588005736	7.57E-05

LAP3	68.0136	10.5015	6.476560491	0.811344426	0.00300008
LENG1	16.4118	0.245128	66.95195979	1.825763294	0.000203951
LGALS9C	25.6428	0.984168	26.05530763	1.415896205	0.000337566
LINC00273	89.0191	0.0251346	3541.695511	3.549211221	4.66E-15
LINC00324	124.289	0.342688	362.6885097	2.559533797	7.93E-11
LMF2	14.0387	0.959231	14.63536937	1.165403688	0.0023822
LOC100127888	24.4423	0.820946	29.77333467	1.473827479	0.00039568
LOC100130357	11.1468	0.228677	48.74473603	1.687927723	0.000144366
LOC100130522	20.8988	0.140078	149.1940205	2.173751417	5.50E-05
LOC100133161	42.7423	3.71609	11.50195501	1.060771665	0.000105336
LOC100133331	101.827	14.8336	6.864618164	0.836616385	1.83E-07
LOC100505761	21.7105	0.0379318	572.3561761	2.757666373	6.70E-08
LOC149837	11.2351	0.154093	72.91116404	1.862794032	1.42E-05
LOC162632	12.8304	0.0696391	184.2413242	2.265387046	2.96E-07
LOC284454	17.4749	1.07963	16.18600817	1.209139755	0.0025374
LOC285758	0.163549	6.00417	0.027239235	-1.564805087	0.000590072
LOC388692	11.6712	1.35757	8.597125747	0.934353279	0.000737703
LOC643837	1.08787	24.2029	0.044947919	-1.347290406	0.00127577
LOC644936	142.533	0.10662	1336.831739	3.126076748	8.92E-13
LOC644961	14.9885	0.870185	17.22449824	1.236146579	0.00128105
LOC648740	18.67	1.12169	16.64452745	1.22127147	0.00170405
LOC731275	60.4705	8.02991	7.530657255	0.876832882	0.000775785
LPCAT1	29.8551	3.77103	7.916961679	0.898558543	0.00160073
LRRC19	0.0219561	3.54482	0.006193855	-2.208038987	0.000586807
LRRC40	0.0759598	3.18439	0.023853799	-1.622442439	0.000973897
LSM7	31.8293	0.133413	238.5772001	2.377628938	7.04E-06
LSP1	36.7696	4.92644	7.463726342	0.872955708	0.00109877
LY6E	133.757	13.1262	10.19007786	1.008177502	0.000330465
LYG1	12.0371	0.186534	64.53032691	1.809763865	0.000273321
LZTS2	22.5031	2.10513	10.68964862	1.02896343	0.00196015
MAFB	22.4318	2.53368	8.85344637	0.947112361	0.00260713
MAP3K11	15.7606	0.929503	16.95594312	1.229321951	0.000588591
MARCH1	1.54636	26.9672	0.057342253	-1.241525249	0.000631839
MAST3	14.0208	0.580181	24.16625157	1.383209292	6.08E-05
MAZ	32.1257	3.42169	9.388840018	0.972611939	0.000993618
MBOAT7	40.6357	4.37558	9.286928819	0.967872117	7.11E-05
MBTPS2	0.0722906	2.84509	0.025408897	-1.59501418	0.000562329
MED11	17.9289	0.301457	59.47415386	1.774328272	0.00027118
MED9	14.0291	0.351972	39.8585683	1.600521695	0.000185085
METTL23	27.939	0.200068	139.6475198	2.145033227	2.24E-08
METTL5	4.29676	89.0293	0.048262314	-1.316391862	0.000830225
MGAT1	59.8923	5.63813	10.6227242	1.026235906	1.82E-06
MICAL1	18.9604	2.285	8.297768053	0.918961291	0.00252759
MICALL2	15.6428	1.1612	13.47123665	1.129407466	0.00168921
MIF	105.042	5.867	17.9038691	1.252946894	0.00110475
MIR100HG	2.17037	29.6298	0.073249566	-1.135194942	0.00217718
MIR3648	18523.8	13.6032	1361.723712	3.134089	9.59E-14

MIR663	204016	317.216	643.1453647	2.808309144	6.93E-11
MMP25	25.3516	0.399197	63.50648928	1.802818105	1.99E-06
MNT	13.1099	0.818998	16.007243	1.204316538	0.000502107
MPND	24.2754	1.28378	18.90931468	1.276675789	0.00152121
MPO	1.55591	34.2068	0.045485401	-1.342127976	0.000434309
MPST	13.1945	0.349853	37.71441148	1.576507335	0.000463461
MRC1	7.81949	44.5887	0.17536932	-0.756046382	0.00101374
MRC2	11.6422	1.3363	8.71226521	0.940131087	0.00304443
MRPL36	12.4051	0.256434	48.37541044	1.684624663	0.00115704
MRPL53	20.4898	0.232947	87.95906365	1.944280598	0.000108722
MS4A3	0	31.4027	0	#NUM!	0.00237693
MTHFR	16.0249	2.29507	6.982314265	0.843999392	0.00269366
MTRNR2L10	374.036	6.67688	56.01957801	1.748339833	1.11E-08
MTRNR2L2	1305.46	150.944	8.648637905	0.936947715	0.000391868
MTRNR2L4	26.2734	0.040748	644.7776578	2.80940998	2.32E-08
MTRNR2L6	215.309	9.21931	23.35413388	1.368363765	1.51E-06
MYD88	0	23.5347	0	#NUM!	0.00116004
MYL5	27.4372	0.878241	31.24108303	1.494726081	0.00140367
MYO15B	11.0907	1.21993	9.091259335	0.958624046	0.0011041
N4BP3	25.8753	0.140732	183.8622346	2.264492534	5.87E-09
NACC1	19.8432	1.34863	14.71359824	1.167718893	0.000282895
NAGK	31.7341	2.83985	11.17456908	1.048230785	0.0023563
NAPSB	26.2374	1.72769	15.18640497	1.181454977	0.00268364
NBEAL2	26.0983	3.17206	8.227555595	0.915270826	0.000467726
NCF1	58.0141	6.64746	8.727258231	0.940877827	0.00286226
NCF1B	63.2302	6.33227	9.985392284	0.999365131	0.00122753
NCF1C	63.4316	5.5286	11.47335673	1.059690497	0.000826114
NDUFA12	23.647	0.106502	222.033389	2.346418288	1.00E-05
NDUFB5	25.8633	1.34436	19.23837365	1.284168355	0.00189941
NFAM1	23.6541	1.35261	17.48774591	1.242733835	4.87E-05
NFKB2	28.1443	2.30825	12.19291671	1.086107607	3.43E-05
NFYB	0.190565	6.18419	0.030814868	-1.511239685	0.000633755
NKG7	110.102	5.86585	18.76999923	1.273464255	0.000220143
NKX2-1	16.6775	0.813209	20.50825802	1.311928773	0.00200224
NME3	12.1946	0.284403	42.87788807	1.632233386	0.000801358
NOTCH3	14.0183	1.73984	8.057235148	0.906186039	0.00152577
NR1H2	21.3965	0.684111	31.2763572	1.495216164	0.000183385
NR2F6	11.5772	0.561677	20.61184631	1.314116896	0.00243156
OLFM2	1.06768	27.3176	0.039083961	-1.408001434	0.000620035
OPA3	15.3893	1.92526	7.993361936	0.902729478	0.00101786
OR7E12P	1.23329	24.7637	0.049802332	-1.302750324	0.0021281
ORAI1	14.1877	0.724917	19.57148198	1.291623712	0.00281137
ORM1	142.63	1.45279	98.1766119	1.99200804	3.56E-07
PATZ1	0	9.65063	0	#NUM!	0.00181171
PCIF1	13.4037	0.938227	14.28620153	1.154916772	0.00257418
PCOLCE	33.2935	2.89367	11.50563126	1.060910451	0.00249057
PDCD6IP	0	64.6853	0	#NUM!	0.00119069

PDE4A	14.9493	1.3983	10.69105342	1.0290205	0.00123885
PDLIM2	15.5269	0.766483	20.25733121	1.306582229	0.00133621
PDZK1IP1	44.4395	1.45792	30.48143931	1.48403547	0.000349531
PEX6	16.0561	0.0126758	1266.673504	3.102664686	1.98E-10
PGAM2	24.3514	0.449444	54.18116606	1.733848347	0.000209954
PGLS	15.0331	0.0252293	595.8587832	2.775143345	1.14E-07
PHC2	51.7772	6.09889	8.489610405	0.928887761	0.00226828
PIEZO1	19.7223	2.456	8.030252443	0.904729198	0.000902122
PILRA	43.6988	2.67978	16.30686101	1.21237037	0.0013699
PIM3	31.0113	2.94833	10.51825949	1.021943881	0.00160111
PIN1	15.6212	0.137112	113.9302176	2.056638927	9.43E-06
PINK1	14.8346	1.06293	13.95632826	1.144771176	0.00234892
PIP5K1C	11.6338	1.21723	9.557602097	0.980348946	0.00140702
PISD	23.1327	2.20233	10.50373922	1.021343931	0.00224367
PKD1P1	48.9593	7.69819	6.359845626	0.803446574	0.00161435
PKM2	195.879	29.2977	6.685814927	0.825154351	7.54E-06
PLAU	1.38913	20.9635	0.066264221	-1.178720902	0.00291575
PLD6	10.4402	0.184826	56.48664149	1.751945754	8.29E-05
PLEC	22.3012	2.40509	9.272501237	0.9671969	9.29E-06
PLEKHM2	29.9875	4.5285	6.621949873	0.820985889	0.00309618
PLEKHO2	30.6294	4.34705	7.046019715	0.847943854	0.00238805
PLOD1	29.7915	3.67091	8.115562626	0.909318633	0.00249771
PML	57.7717	12.1369	4.760004614	0.677607374	0.000304512
PMVK	16.1495	0.229259	70.44216367	1.847832687	7.98E-05
POMGNT1	14.6377	0.833031	17.57161498	1.244811679	0.000621433
POTEF	14.6335	1.02554	14.269068	1.154395608	0.000736276
PPDPF	79.602	1.31802	60.39513816	1.781001979	1.65E-05
PPIEL	0.25671	20.9876	0.012231508	-1.912519992	1.13E-05
PRADC1	11.5938	0.261993	44.25232735	1.645936116	0.000706893
PRIC285	21.9297	2.76585	7.928738001	0.899204067	9.04E-05
PRKY	15.5878	0.00743828	2095.61888	3.321312302	1.23E-12
PRMT3	0.123486	4.00243	0.030852757	-1.510706022	0.00126089
PRR24	27.4773	1.39861	19.64614868	1.293277426	0.00297135
PRR5	203.406	0.455893	446.170483	2.649500836	7.39E-12
PRRG2	11.0245	0.228673	48.21076384	1.683144012	0.000395187
PSMG4	30.9262	1.0538	29.34731448	1.467568366	0.000277422
PTCH2	19.3403	0.331398	58.35973663	1.766113323	3.21E-06
PTMS	71.5693	4.24794	16.84800162	1.226548396	0.00032271
PTOV1	20.597	1.41805	14.52487571	1.162112425	0.00231164
PTPRCAP	18.7785	0.447134	41.99747727	1.623223204	0.000584654
PTRH1	18.7082	0.205932	90.84649302	1.958308167	7.62E-05
PVRIG	12.7298	0.551398	23.08640945	1.363356394	0.00198867
QSOX1	44.8392	6.98405	6.42022895	0.807550516	0.00219925
RAB25	16.4069	0.427739	38.35726927	1.583847681	0.000656901
RAB5C	52.8522	4.8255	10.95268884	1.03952075	0.000429682
RAI14	0	35.2078	0	#NUM!	4.44E-05
RALY	13.0341	1.11459	11.69407585	1.067965906	0.00115761

RANBP3	11.3784	0.50942	22.33598995	1.349005206	0.000333632
RASGRP4	15.6043	1.62131	9.624501175	0.98337823	0.000519902
RBBP6	0	12.591	0	#NUM!	0.0018636
RBCK1	25.3729	2.18792	11.59681341	1.06433867	0.001335
RBM12	0	10.188	0	#NUM!	0.000254875
RBP5	30.7914	0.626258	49.16727611	1.691676149	0.000150328
RHBDF2	35.4022	5.37869	6.581937238	0.818353737	0.00208053
RMRP	9047.36	906.607	9.979362612	0.999102804	0.000100622
RNU11	21085.1	134.556	156.7012991	2.195072597	3.06E-08
RNU12	71246.6	52.255	1363.440819	3.134636292	2.04E-14
RNU6ATAC	23663.2	57.1524	414.0368558	2.617039002	1.19E-09
RPL10L	16.5889	0.0346643	478.5586324	2.679935155	4.14E-07
RPL11	311.148	24.8943	12.49876478	1.096867095	0.000195079
RPL13	34.0299	4.61666	7.371108117	0.867532781	0.00167371
RPL13AP3	34.6009	2.664	12.98832583	1.113553175	0.00200602
RPL13AP6	123.153	4.06367	30.30585653	1.481526563	8.83E-05
RPL19	185.557	19.2598	9.63441988	0.983825569	0.000971822
RPL36	259.064	12.8118	20.22073401	1.305796916	0.000615242
RPL37A	177.917	10.4938	16.95448741	1.229284664	0.00125787
RPLP1	798.743	98.2727	8.127821867	0.909974177	0.000107002
RPPH1	6589.27	244.98	26.89717528	1.429706673	6.11E-08
RPS3	223.608	32.9192	6.792631656	0.832038065	0.00213179
RPS5	105.333	9.77035	10.78088298	1.032654332	0.00212037
RPS9	255.077	30.8723	8.262325774	0.917102315	0.00102363
RRNAD1	16.6839	0.475457	35.0902395	1.545186332	0.000786451
RSPO2	0.106051	3.96323	0.02675873	-1.572534509	0.000692651
S100A14	33.6262	0.824588	40.77939529	1.610440781	0.000173777
SCAF1	11.2798	0.980401	11.50529222	1.060897654	0.00257303
SCAP	15.4364	1.70551	9.050899731	0.956691754	0.00308975
SCARNA11	1661.09	12.1405	136.8222067	2.13615659	2.15E-05
SCARNA13	4213.58	711.867	5.919055104	0.772252383	0.00236387
SCARNA17	320.915	12.5917	25.48623299	1.406305649	7.93E-05
SCARNA2	1518.05	31.3819	48.37342545	1.684606842	2.63E-08
SCARNA8	2704.27	70.3062	38.46417528	1.585056425	0.000654387
SCARNA9L	28.8415	0.44211	65.23602723	1.814487505	0.000649134
SCP2	0	36.4004	0	#NUM!	0.000115036
SDF4	29.2771	2.9797	9.825519348	0.992355515	0.00178894
SECTM1	23.4418	2.14123	10.94781971	1.039327637	0.00271277
SELENBP1	26.3439	2.08886	12.61161591	1.100770736	0.00268026
SEMA3F	25.9023	1.6578	15.62450235	1.193806194	0.000222328
SEPT9	31.1649	6.52694	4.774810248	0.678956117	0.00297581
SEPX1	26.0298	0.719384	36.18345696	1.558510057	0.000215466
SERPINH1	92.8401	10.9439	8.483273787	0.928563484	0.000174857
SFTPA2	373.463	41.5098	8.996983845	0.954096941	0.000218996
SFTPB	195.455	25.833	7.566097627	0.878871941	0.00261787
SH2D3C	18.7232	2.04037	9.176374873	0.962671147	0.000448318
SH3D19	0	12.8065	0	#NUM!	0.0023641

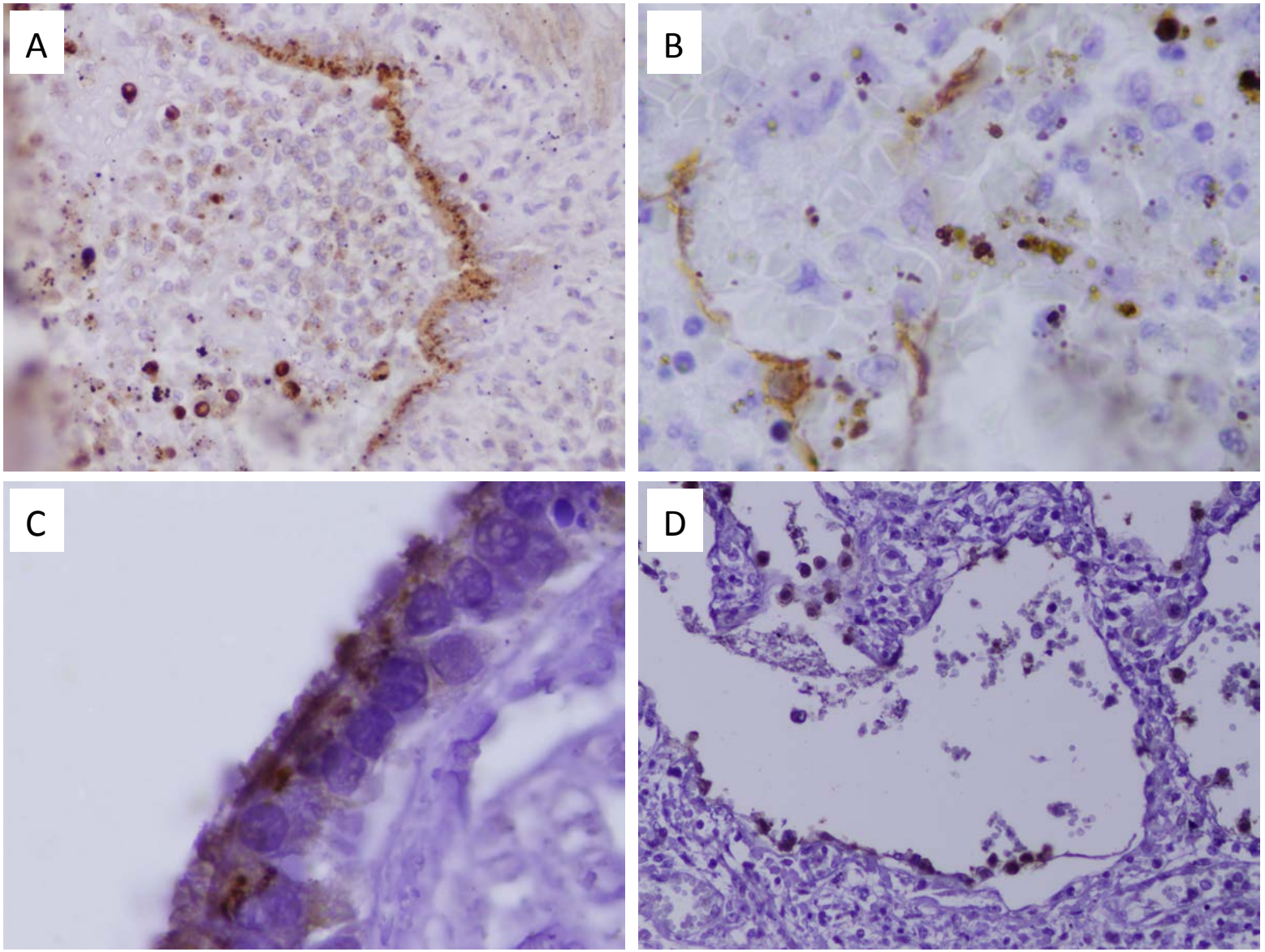
SH3GLB2	12.3368	0.704332	17.51560344	1.243425104	0.00289917
SHANK3	22.8795	3.64049	6.284730902	0.798286687	0.00269694
SHMT2	0	14.8758	0	#NUM!	0.00236699
SIRPB2	30.215	2.37929	12.69916656	1.103775219	0.000834878
SLAMF1	11.1777	0.406966	27.46593081	1.438794322	0.000999274
SLC16A10	0.193714	5.10585	0.037939618	-1.420907043	0.0015956
SLC16A3	54.2524	0	#DIV/0!	#DIV/0!	0.00119746
SLC19A1	11.2384	0.31885	35.24666771	1.547118064	3.47E-05
SLC19A2	1.33479	18.6864	0.071431094	-1.146112697	0.00265514
SLC1A5	34.6018	3.09435	11.18225152	1.048529257	0.00064501
SLC22A18	19.811	0.203283	97.45527171	1.988805337	1.91E-05
SLC22A31	18.0987	0.630982	28.68338558	1.457630411	0.00043578
SLC25A6	148.828	24.0308	6.193218703	0.791916417	8.69E-05
SLC2A4RG	14.9511	0.634238	23.57332736	1.372420887	0.00071804
SLC38A10	24.1665	1.8602	12.99134502	1.113654117	4.01E-05
SLC3A2	57.5616	7.58573	7.588142473	0.880135476	0.00146555
SLC4A2	14.4506	1.73075	8.349328326	0.921651539	0.00141826
SLC4A7	1.18573	16.8291	0.070457125	-1.152075083	0.00130913
SLC7A11	0.134599	7.14661	0.018833965	-1.725058249	3.77E-05
SLC7A5P1	33	0.281385	117.2770404	2.069212997	2.91E-05
SLC9A3R2	24.2554	1.86858	12.98065911	1.113296745	0.000672309
SLX1A-SULT1A3	13.1026	0.83938	15.60985489	1.193398866	0.00297623
SMAD5	0	12.4211	0	#NUM!	0.00267331
SMAD6	19.0828	2.15169	8.86874968	0.947862397	0.0018862
SNORA10	44051.2	69.963	629.6356646	2.79908932	1.36E-11
SNORA11	7228.13	231.006	31.28979334	1.495402695	0.000221816
SNORA14B	1883.9	8.68105	217.0129189	2.336485588	7.35E-06
SNORA16A	4013.96	17.9935	223.0783338	2.348457392	8.95E-07
SNORA21	5098.73	51.3062	99.37843769	1.997292165	9.56E-06
SNORA24	2898.59	45.1969	64.13249581	1.807078141	0.000129486
SNORA31	4464.64	156.447	28.53771565	1.455419206	0.000757913
SNORA34	4413.59	20.2342	218.1252533	2.338705949	5.42E-07
SNORA42	6791.72	22.4919	301.9629289	2.479953629	6.20E-08
SNORA51	1789.6	33.8696	52.83794317	1.722945903	0.000447316
SNORA52	1727.72	40.4854	42.67513721	1.630174926	0.000778739
SNORA54	9741.53	48.3014	201.6821459	2.304667454	3.46E-07
SNORA57	6625.71	38.5037	172.0798261	2.235729958	1.97E-07
SNORA6	2252.34	41.2539	54.59701992	1.737168938	0.000135447
SNORA60	2101.35	46.0918	45.59053888	1.658874726	0.000456941
SNORA61	9895.51	130.373	75.90152869	1.880250523	6.43E-06
SNORA62	2495.79	2.37651	1050.191247	3.021268394	1.67E-09
SNORA64	6061.91	49.4822	122.5068813	2.088160484	2.85E-06
SNORA65	7756.66	251.41	30.85263116	1.489292207	0.000136022
SNORA68	6714.09	111.941	59.97882813	1.777997976	2.88E-05
SNORA70	26889	308.177	87.25180659	1.940774428	1.10E-07
SNORA71B	4111.03	25.141	163.5189531	2.213568098	2.22E-06
SNORA71D	2947.21	11.7304	251.2454818	2.400098261	7.79E-07

SNORA74B	1932.13	86.1098	22.43798035	1.350983763	0.00021926
SNORA77	3507.32	50.8022	69.03874242	1.839092872	0.000112109
SNORA7A	34300.4	64.2545	533.8209775	2.727395636	3.14E-11
SNORA8	12821.2	313.713	40.86920211	1.611396159	1.08E-05
SNORA80B	2235.33	12.5705	177.8234756	2.249989094	5.46E-06
SNORD15B	7373.9	69.3206	106.3738629	2.026834931	1.10E-06
SNORD16	5933.38	93.2086	63.65700161	1.803846178	0.000288778
SNORD17	4289.41	184.521	23.24618878	1.36635176	3.44E-06
SNORD22	11019	79.2711	139.0040002	2.143027298	7.68E-07
SNORD67	3132.08	36.3321	86.20696299	1.935542345	0.000135206
SNUPN	11.2225	0.643873	17.42967946	1.2412894	0.00237973
SNX20	15.2284	0.32499	46.85805717	1.670784278	9.65E-05
SNX4	0.314074	15.0884	0.020815593	-1.681611203	0.000104864
SOCS1	28.7778	1.81957	15.8157147	1.199088822	0.0024592
SOCS3	73.2804	10.5491	6.94660208	0.841772422	0.00140261
SPAG1	0.166899	5.46476	0.030540957	-1.515117359	0.000624287
SPC25	0.182185	6.57816	0.027695435	-1.557591816	0.00166792
SPDYE5	11.6116	0.538052	21.58081375	1.334067817	0.00106823
SPR	12.9324	0.0333254	388.0643593	2.588903758	5.27E-07
SQSTM1	72.0748	9.48635	7.597737802	0.880684302	0.000310648
ST14	12.2402	0.674369	18.15059708	1.258890916	0.00103293
STAB1	20.0283	2.59798	7.709181749	0.887008285	0.00104956
STAG3L3	36.8541	3.77604	9.759986653	0.989449224	0.00220221
STAT6	0	18.3767	0	#NUM!	0.0001698
STX16	0	13.675	0	#NUM!	0.000840268
SULT1C4	0.071271	2.94944	0.024164248	-1.616826713	0.0014793
SYNGR2	39.3883	4.1946	9.390239832	0.972676685	0.00308981
SYNRG	0	8.96484	0	#NUM!	0.000923933
SYTL2	0	7.19164	0	#NUM!	0.00107766
TAMM41	26.0784	1.11694	23.34807599	1.368251098	0.00092866
TBCE	0.366015	14.0365	0.026075945	-1.583759946	0.000361805
TCERG1	0	7.73723	0	#NUM!	0.00239552
TCF7	16.2728	0.72457	22.45856163	1.351381938	0.000875883
TCTEX1D4	19.5219	1.08557	17.98308723	1.254864251	0.00295829
TEKT4P2	17.7342	0.275898	64.27810278	1.80806305	1.19E-05
TERC	63.7305	0.513581	124.0904551	2.093738377	1.61E-05
TFEC	0	5.38518	0	#NUM!	0.00190032
TGFBR3	0	8.15226	0	#NUM!	0.00136128
THAP1	0.588983	11.6717	0.050462486	-1.297031356	0.00259228
TICAM1	11.4553	0.676908	16.92297919	1.22847682	0.00209614
TMEM11	14.0174	0.824654	16.9979167	1.230395697	0.00295748
TMEM115	16.2365	1.14905	14.13036857	1.15015349	0.00306405
TMEM154	2.07386	29.6203	0.070014821	-1.154810018	0.00182784
TMEM40	0.704781	19.1258	0.036849753	-1.433565422	0.000780303
TMEM54	12.7821	0.106184	120.3768929	2.08054313	4.00E-05
TMEM8A	14.3564	1.17927	12.17397203	1.0854323	0.00189461
TMEM91	34.6658	0.409661	84.62069858	1.927476606	1.09E-05

TMUB1	15.2417	0.832273	18.3133419	1.262767603	0.00301604
TNFRSF6B	54.8639	2.92706	18.74368821	1.272855051	0.000453875
TNRC18	15.1055	1.11409	13.5585994	1.132214829	7.71E-05
TOM1	0	15.0224	0	#NUM!	0.00151481
TOX	0.159082	9.58903	0.016589999	-1.780153635	4.58E-05
TPI1	233.252	34.3609	6.788297163	0.831760846	0.000593659
TPI1P3	25.4878	0.901236	28.28093862	1.451493819	0.000601419
TPM1	0	35.6631	0	#NUM!	6.30E-05
TPM3	69.8261	0	#DIV/0!	#DIV/0!	0.000176607
TRAF3	12.8088	0	#DIV/0!	#DIV/0!	0.00183931
TSPAN18	19.0672	0.352203	54.13696079	1.733493871	4.77E-06
TSTA3	16.1362	0.670635	24.06107644	1.381315053	0.00160498
TTYH3	14.453	1.51403	9.546045983	0.979823522	0.00227434
TUBB2C	45.7159	4.94397	9.246799637	0.965991447	0.00280471
TXNRD1	0	17.8744	0	#NUM!	0.000228365
UBE2M	31.3081	0.601923	52.01346352	1.716115774	3.45E-05
UBE2S	20.5486	0.625474	32.8528444	1.516572977	0.000595858
UCHL1	0.11304	9.53318	0.011857533	-1.926005644	9.02E-05
UNC45A	15.5124	1.4346	10.81304893	1.033948168	0.00291688
URM1	30.0267	0.950724	31.58298307	1.499453148	0.000296244
USF2	28.6152	2.58692	11.06149398	1.043813787	0.00138646
VAMP7	0	15.1808	0	#NUM!	0.00108998
VDR	22.8246	3.17483	7.189235329	0.8566827	0.00276331
VILL	13.7429	0.0323391	424.9623521	2.628350457	2.63E-08
VPS13A	0	6.82611	0	#NUM!	0.00100619
VPS13C	0	18.4423	0	#NUM!	0.00138235
VPS16	17.3359	1.33317	13.00351793	1.114060861	0.0020148
VRK2	0	22.2284	0	#NUM!	0.00240637
VTRNA1-1	32775.3	107.24	305.6256994	2.48518987	5.35E-08
VTRNA2-1	91311.9	23.3021	3918.612486	3.593132318	2.31E-14
WARS	181.509	37.3504	4.859626671	0.686602907	0.000911338
WAS	28.0325	1.07965	25.96443292	1.414378842	0.000235269
WBP4	0.244451	43.0824	0.005674034	-2.24610807	2.74E-07
WFDC2	47.2895	1.57007	30.11935774	1.478845707	0.000997577
XIST	0.00546227	31.0022	0.00017619	-3.75401935	6.44E-15
ZBTB16	33.2785	2.48466	13.39358303	1.126896774	0.000521743
ZBTB7B	19.9561	1.4868	13.42218187	1.127823119	0.000678437
ZC3H7B	20.7563	1.62112	12.80367894	1.107334775	0.000208544
ZC3HC1	11.3808	0.598797	19.00610725	1.278893176	0.00279867
ZDHHC18	19.5089	1.47261	13.24783887	1.122145037	0.00106227
ZDHHC19	17.1694	0.0923111	185.994967	2.269501192	2.35E-06
ZDHHC3	0	5.46559	0	#NUM!	0.00171625
ZFHX3	15.8479	3.17219	4.995886123	0.69861253	0.00256203
ZFP36L1	93.1294	14.2218	6.548355342	0.816132238	0.00139248
ZNF215	0.180858	5.0226	0.03600884	-1.443590868	0.00116473
ZNF25	1.38545	18.7893	0.073736116	-1.132319744	0.0028126
ZNF341	12.378	0.831914	14.87894181	1.172572045	0.00176271

ZNF415	0.142922	4.07481	0.035074519	-1.455008278	0.00195211
ZNF593	12.3658	0.141667	87.28779462	1.940953521	0.000219668
ZNF598	10.5394	0.760387	13.86057363	1.141781204	0.00308546
ZNF703	12.2045	0.318143	38.36168012	1.58389762	0.000283338
ZNF738	0.241061	4.85457	0.049656509	-1.304023814	0.00104979
ZNF740	11.0322	0.597553	18.46229539	1.266285695	0.000686864

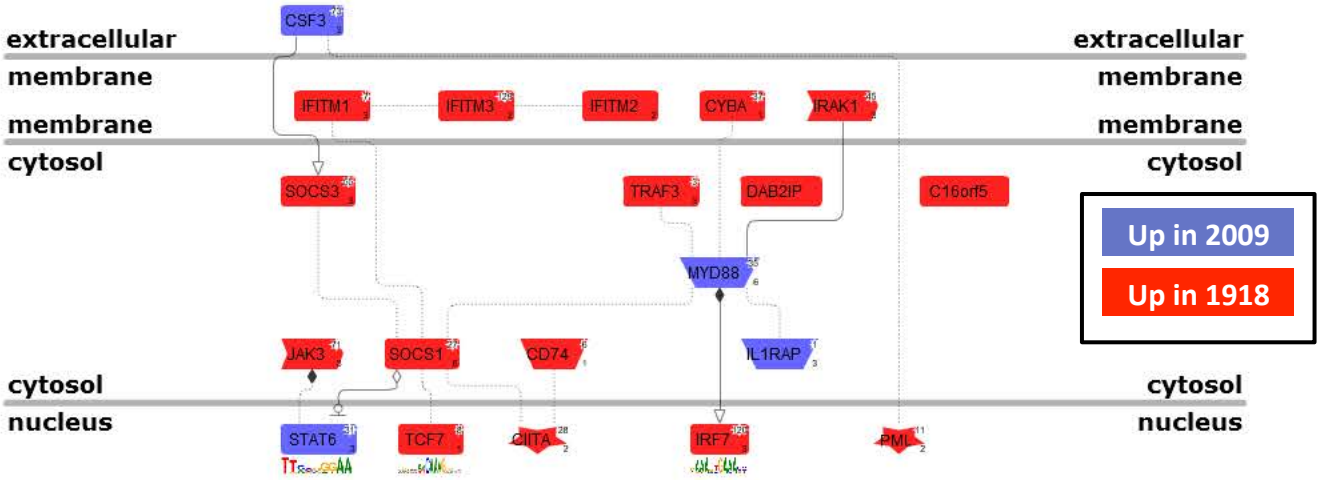
Suppl. Fig. 1



Genomatix Gene Ontology Analysis
1918 vs. 2009 autopsy
Cufflink called differentially expressed genes

Suppl. Fig. 2

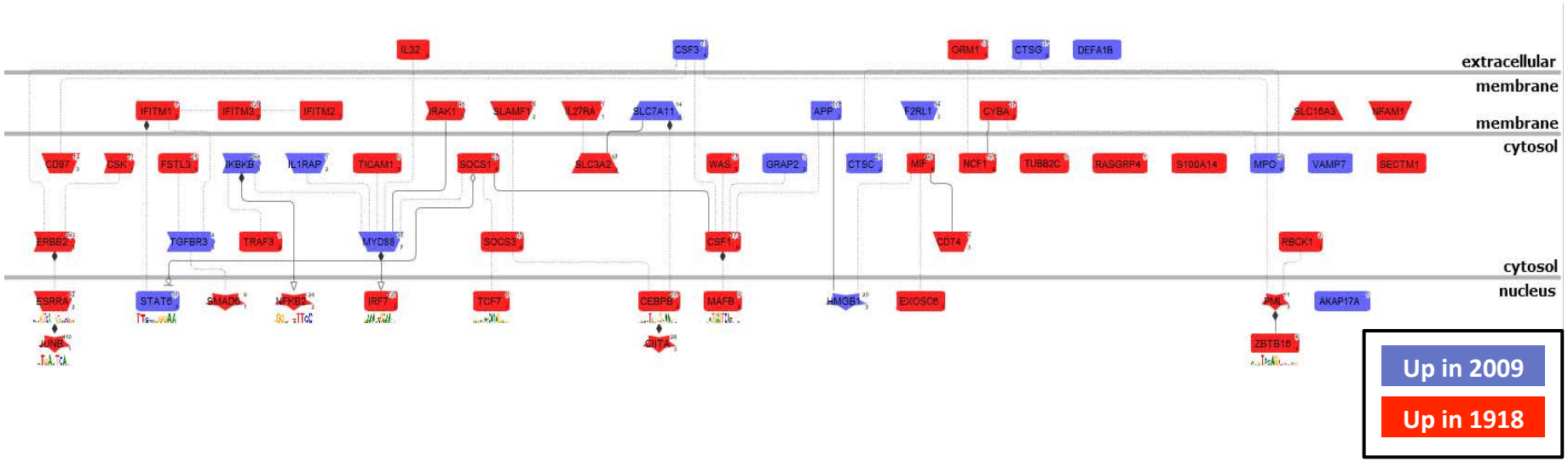
GO: Cellular response to cytokine stimulus
p-value = 2.31e-06



Genomatix Gene Ontology Analysis
1918 vs. 2009 autopsy
Cufflink called differentially expressed genes

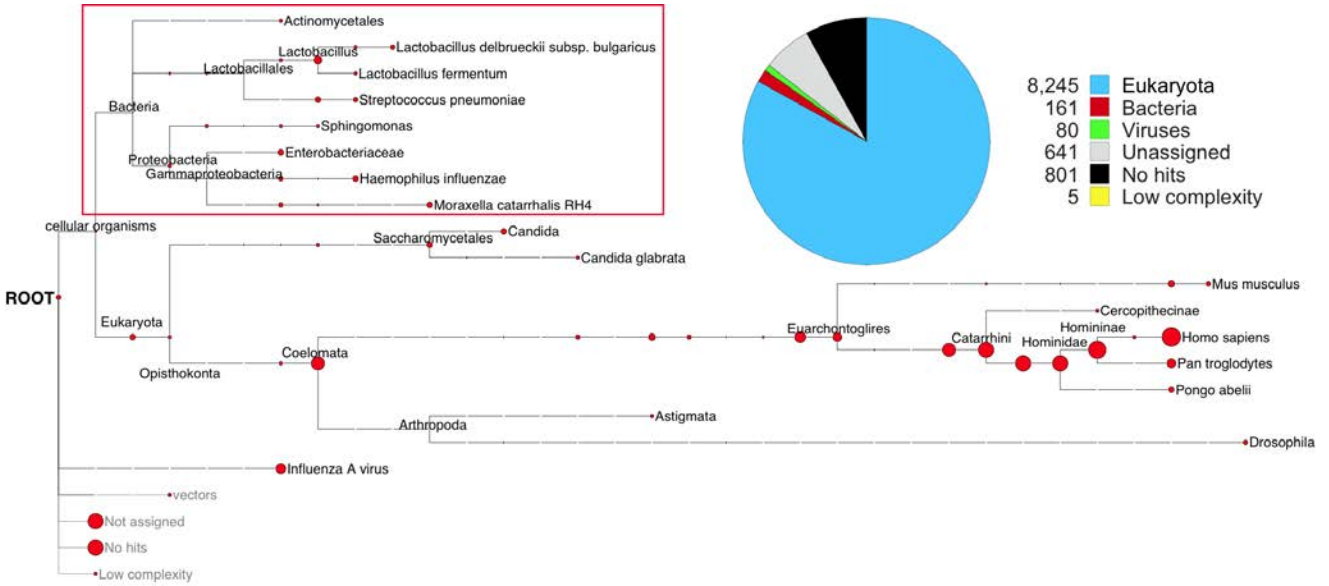
Suppl. Fig. 3

GO: Immune system process
p-value = 4.89e-05

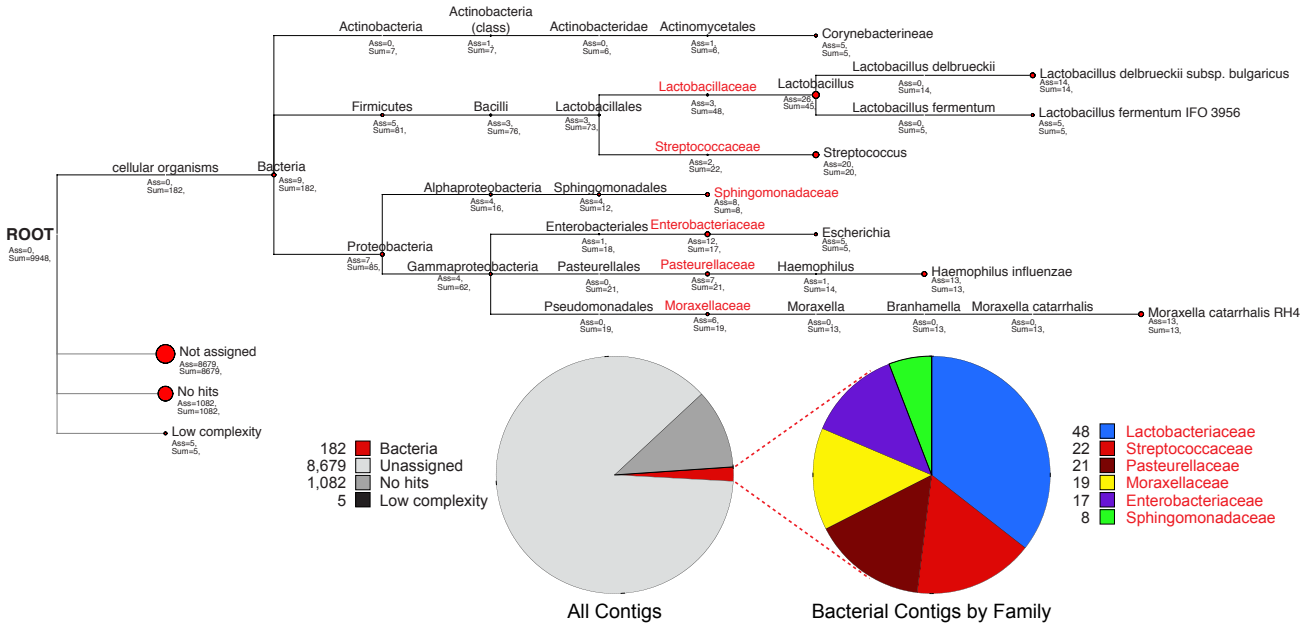


Suppl. Fig. 4

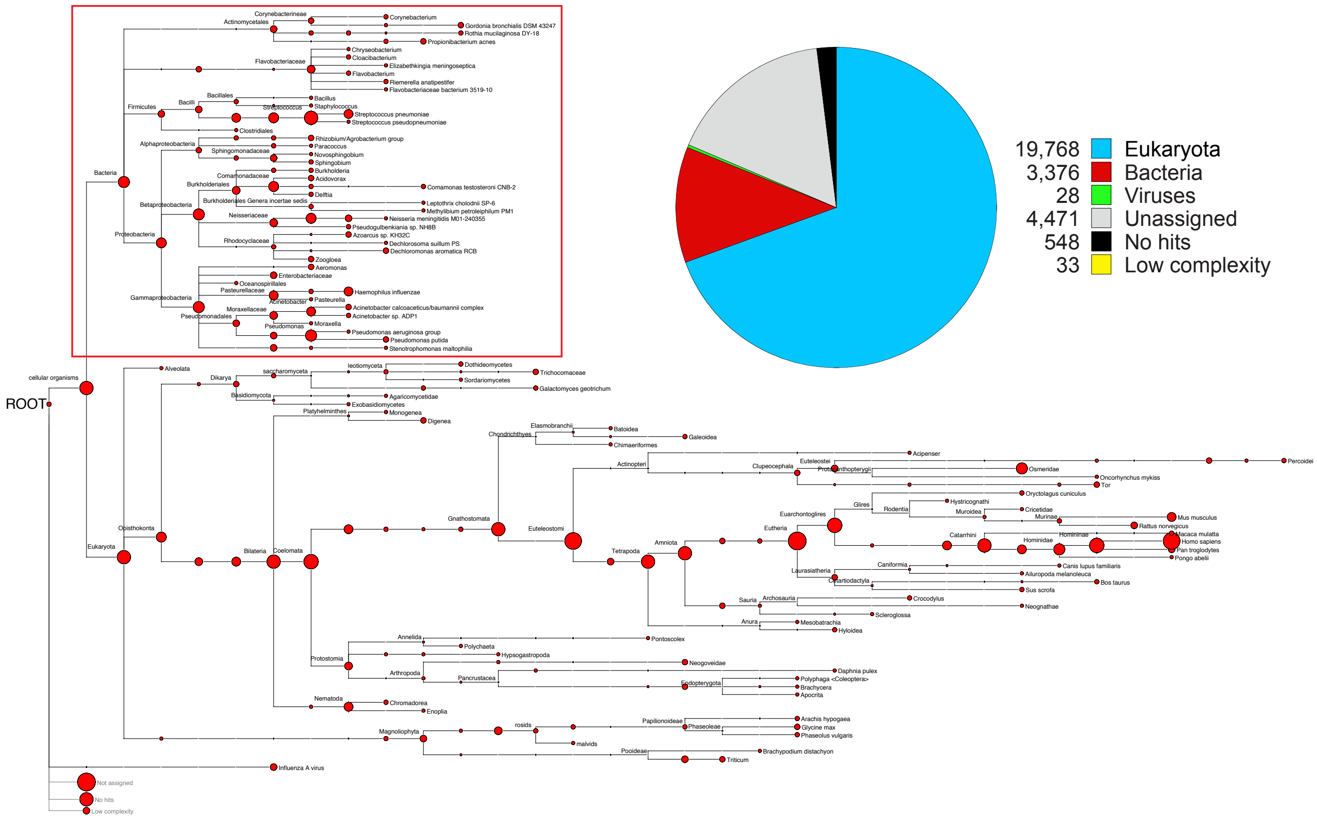
A



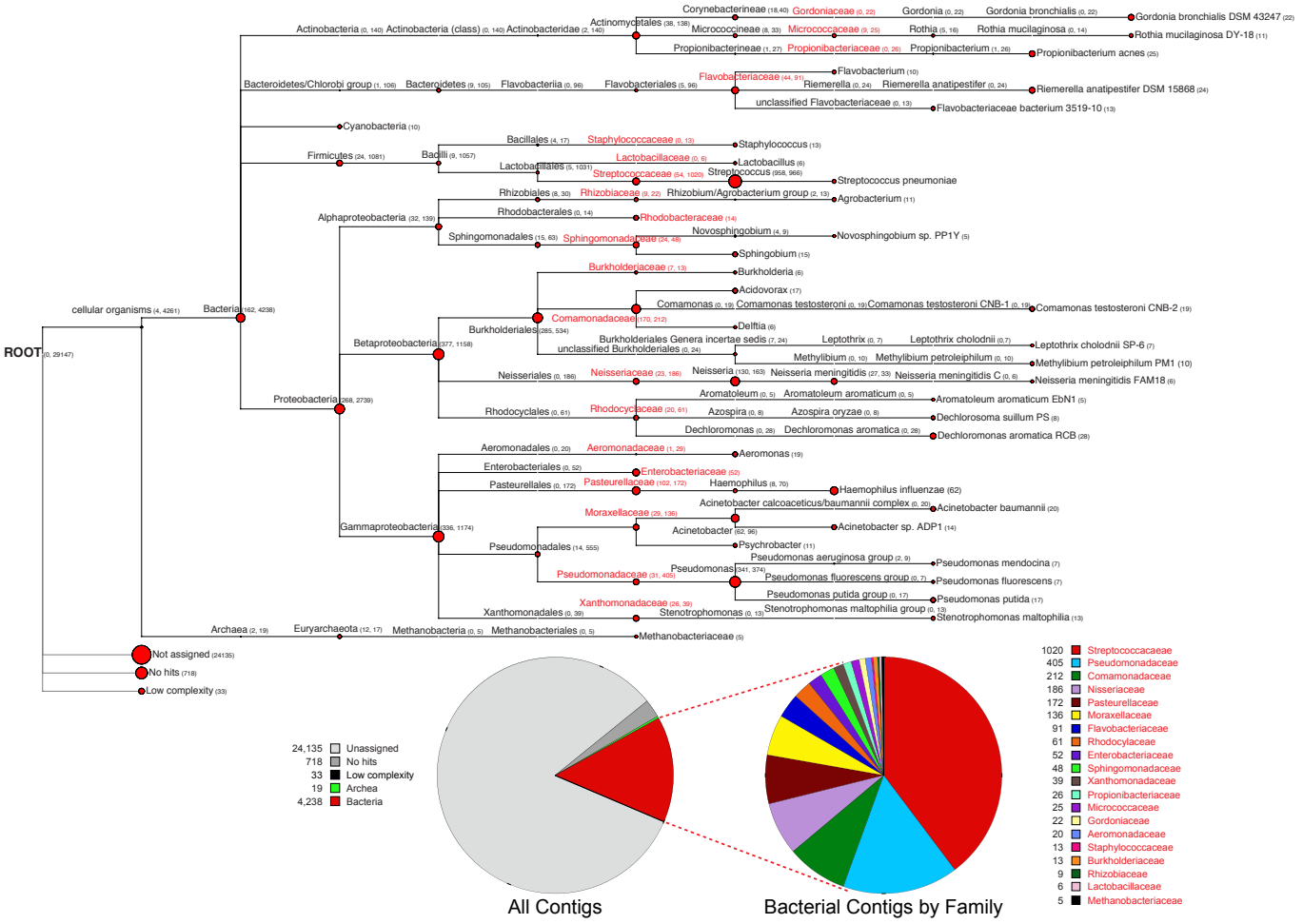
B



Suppl. Fig. 5A


19,768 Eukaryota
3,376 Bacteria
28 Viruses
4,471 Unassigned
548 No hits
33 Low complexity
ROOT
cellular organisms
Bacteria
Eukaryota
Corynebacterineae
Actinomycetales
Corynebacterium
Gordonia bronchialis DSM 43247
Rothia mucilaginosa DY-18
Propionibacterium acnes
Flavobacteriaceae
Chryseobacterium
Cloacibacterium
Elizabethkingia meningoseptica
Flavobacterium
Riemerella anatipestifer
Flavobacteriaceae bacterium 3519-10
Firmicutes
Bacilli
Bacillales
Bacillus
Staphylococcus
Streptococcus
Streptococcus pneumoniae
Streptococcus pseudopneumoniae
Clostridiales
Alphaproteobacteria
Rhizobium/Agrobacterium group
Paracoccus
Sphingomonadaceae
Novosphingobium
Sphingobium
Burkholderia
Comamonadaceae
Acidovorax
Burkholderiales
Comamonas testosteroni CNB-2
Delftia
Betaproteobacteria
Burkholderiales Genera incertae sedis
Leptothrix cholodnii SP-6
Methylibium petroleiphilum PM1
Neisseriaceae
Neisseria meningitidis M01-240355
Pseudogulbenkiania sp. NH8B
Proteobacteria
Azoarcus sp. KH32C
Rhodocyclaceae
Dechlorosoma suillum PS
Dechloromonas aromatica RCB
Zoogloea
Aeromonas
Enterobacteriaceae
Oceanospirillales
Gammaproteobacteria
Pasteurellaceae
Haemophilus influenzae
Acinetobacter
Pasteurella
Moraxellaceae
Acinetobacter calcoaceticus/baumannii complex
Pseudomonadales
Acinetobacter sp. ADP1
Moraxella
Pseudomonas
Pseudomonas aeruginosa group
Pseudomonas putida
Stenotrophomonas maltophilia
Alveolata
saccharomyceta
leotiomyceta
Dothideomycetes
Trichocomaceae
Dikarya
Sordariomycetes
Galactomyces geotrichum
Basidiomycota
Agaricomycetidae
Exobasidiomycetes
Platyhelminthes
Monogenea
Digenea
Elasmobranchii
Batoidea
Chondrichthyes
Galeoidea
Chimaeriformes
Acipenser
Actinopteri
Euteleostei
Clupeocephala
Protacanthopterygii
Osmeridae
Percoidei
Oncorhynchus mykiss
Tor
Oryctolagus cuniculus
Glires
Hystricognathi
Rodentia
Muroidea
Cricetidae
Euarchontoglires
Murinae
Mus musculus
Rattus norvegicus
Gnathostomata
Euteleostomi
Eutheria
Catarrhini
Homininae
Macaca mulatta
Homo sapiens
Hominidae
Pan troglodytes
Pongo abelii
Opisthokonta
Amniota
Tetrapoda
Laurasiatheria
Caniformia
Canis lupus familiaris
Ailuropoda melanoleuca
Cetartiodactyla
Bos taurus
Sus scrofa
Bilateria
Coelomata
Sauria
Archosauria
Crocodylus
Neognathae
Scleroglossa
Anura
Mesobatrachia
Hyloidea
Annelida
Pontoscolex
Polychaeta
Protostomia
Hypsogastropoda
Neogoveidae
Arthropoda
Daphnia pulex
Pancrustacea
Endopterygota
Polyphaga <Coleoptera>
Brachycera
Apocrita
Nematoda
Chromadorea
Enoplia
Magnoliophyta
rosids
Papilionoideae
Phaseoleae
Arachis hypogaea
Glycine max
Phaseolus vulgaris
malvids
Pooideae
Brachypodium distachyon
Triticum
Influenza A virus
Not assigned
No hits
Low complexity

Suppl. Fig. 5B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cellular organisms (4, 4261)
Bacteria (162, 4238)
Archaea (2, 19)
Not assigned (24135)
No hits (718)
Low complexity (33)
Actinobacteria (0, 140)
Actinobacteria (class) (0, 140)
Actinobacteridae (2, 140)
Actinomycetales (38, 138)
Corynebacterineae (18,40)
Gordoniaceae (0, 22)
Gordonia (0, 22)
Gordonia bronchialis (0, 22)
Gordonia bronchialis DSM 43247 (22)
Micrococcineae (8, 33)
Micrococcaceae (9, 25)
Rothia (5, 16)
Rothia mucilaginosa (0, 14)
Rothia mucilaginosa DY-18 (11)
Propionibacterineae (1, 27)
Propionibacteriaceae (0, 26)
Propionibacterium (1, 26)
Propionibacterium acnes (25)
Bacteroidetes/Chlorobi group (1, 106)
Bacteroidetes (9, 105)
Flavobacteriia (0, 96)
Flavobacteriales (5, 96)
Flavobacteriaceae (44, 91)
Flavobacterium (10)
Riemerella (0, 24)
Riemerella anatipestifer (0, 24)
Riemerella anatipestifer DSM 15868 (24)
unclassified Flavobacteriaceae (0, 13)
Flavobacteriaceae bacterium 3519-10 (13)
Cyanobacteria (10)
Firmicutes (24, 1081)
Bacilli (9, 1057)
Bacillales (4, 17)
Staphylococcaceae (0, 13)
Staphylococcus (13)
Lactobacillales (5, 1031)
Lactobacillaceae (0, 6)
Lactobacillus (6)
Streptococcaceae (54, 1020)
Streptococcus (858, 966)
Streptococcus pneumoniae
Alphaproteobacteria (32, 139)
Rhizobiales (8, 30)
Rhizobiaceae (9, 22)
Rhizobium/Agrobacterium group (2, 13)
Agrobacterium (11)
Rhodobacterales (0, 14)
Rhodobacteraceae (14)
Sphingomonadales (15, 63)
Sphingomonadaceae (24, 48)
Novosphingobium (4, 9)
Novosphingobium sp. PP1Y (5)
Sphingobium (15)
Betaproteobacteria (377, 1158)
Burkholderiales (285, 534)
Burkholderiaceae (7, 13)
Burkholderia (6)
Acidovorax (17)
Comamonadaceae (170, 212)
Comamonas (0, 19)
Comamonas testosteroni (0, 19)
Comamonas testosteroni CNB-1 (0, 19)
Comamonas testosteroni CNB-2 (19)
Delftia (6)
Burkholderiales Genera incertae sedis (7, 24)
unclassified Burkholderiales (0, 24)
Leptothrix (0, 7)
Leptothrix cholodnii (0,7)
Leptothrix cholodnii SP-6 (7)
Methylibium (0, 10)
Methylibium petroleiphilum (0, 10)
Methylibium petroleiphilum PM1 (10)
Neisseriales (0, 186)
Neisseriaceae (23, 186)
Neisseria (130, 163)
Neisseria meningitidis (27, 33)
Neisseria meningitidis C (0, 6)
Neisseria meningitidis FAM18 (6)
Proteobacteria (268, 2739)
Rhodocyclales (0, 61)
Rhodocyclaceae (20, 61)
Azospira (0, 8)
Azospira oryzae (0, 8)
Aromatoleum (0, 5)
Aromatoleum aromaticum (0, 5)
Aromatoleum aromaticum EbN1 (5)
Dechlorosoma suillum PS (8)
Dechloromonas (0, 28)
Dechloromonas aromatica (0, 28)
Dechloromonas aromatica RCB (28)
Gammaproteobacteria (336, 1174)
Aeromonadales (0, 20)
Aeromonadaceae (1, 29)
Aeromonas (19)
Enterobacteriales (0, 52)
Enterobacteriaceae (52)
Pasteurellales (0, 172)
Pasteurellaceae (102, 172)
Haemophilus (8, 70)
Haemophilus influenzae (62)
Moraxellaceae (29, 136)
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Acinetobacter baumannii (20)
Acinetobacter (62, 96)
Acinetobacter sp. ADP1 (14)
Pseudomonadales (14, 555)
Psychrobacter (11)
Pseudomonadaceae (31, 405)
Pseudomonas (341, 374)
Pseudomonas aeruginosa group (2, 9)
Pseudomonas mendocina (7)
Pseudomonas fluorescens group (0, 7)
Pseudomonas fluorescens (7)
Pseudomonas putida group (0, 17)
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Xanthomonadaceae (26, 39)
Stenotrophomonas (0, 13)
Stenotrophomonas maltophilia group (0, 13)
Stenotrophomonas maltophilia (13)
Euryarchaeota (12, 17)
Methanobacteria (0, 5)
Methanobacteriales (0, 5)
Methanobacteriaceae (5)
24,135 Unassigned
718 No hits
33 Low complexity
19 Archea
4,238 Bacteria
All Contigs
Bacterial Contigs by Family
1020 Streptococcaceae
405 Pseudomonadaceae
212 Comamonadaceae
186 Nisseriaceae
172 Pasteurellaceae
136 Moraxellaceae
91 Flavobacteriaceae
61 Rhodocylaceae
52 Enterobacteriaceae
48 Sphingomonadaceae
39 Xanthomonadaceae
26 Propionibacteriaceae
25 Micrococcaceae
22 Gordoniaceae
20 Aeromonadaceae
13 Staphylococcaceae
13 Burkholderiaceae
9 Rhizobiaceae
6 Lactobacillaceae
5 Methanobacteriaceae