

Table SI. Primer list of genes used for reverse transcription-quantitative PCR validation.

Genes	Forward (5'-3')	Reverse (5'-3')	Length
<i>COL1A1</i>	AGTGGTTTGGATGGTGCCAA	GCACCATCATTCCACGAGC	170
<i>COL6A1</i>	CCCCTCCCCACTCATCACTA	CGAATCAGGTTGGTCGGGAA	65
<i>COL2A1</i>	GGTCCTGCAGGTGAACCC	CTCTGTCTCCTTGCTTGCCA	181
<i>DCT</i>	CTACGAAACCAGGATGACCGT	ACCATCATTGGTTTGCCTTTCA	192
<i>PDE4D</i>	ATTGCCACGATAGCTGCTC	GCAGATGTGCCATTGTCCAC	181
<i>RP11-428C19.4</i>	ACGCTAGAAACAGTGGTGCG	AATCCCCGAAAGATCCAGC	179
<i>GPC-AS2</i>	TCTCAACTCCCCTCCTTCGAG	TTACATTTCCCGGCCATCTC	151
<i>XLOC_110310</i>	AGTGGTAGGGCAAGTCCTCT	CGTGGTGGGATTCAAAGGGA	187

*COL1A1*, collagen type I alpha 1; *COL6A1*, collagen type VI, alpha 1; *COL2A1*, collagen type II alpha 1; *DCT*, dopachrome tautomerase; *PDE4D*, phosphodiesterase 4D cAMP-specific.

Table SII. The differentially expressed mRNAs in the ParoAF\_Control group.

Gene ID	logFC	P-Value	Symbol	Description
ENSG00000165480	-6.4838	8.32E-12	SKA3	Spindle and kinetochore associated complex subunit 3
ENSG00000165424	-6.43924	0.002056	ZCCHC24	Zinc finger, CCHC domain containing 24
ENSG00000182836	-6.20215	0.000817	PLCXD3	Phosphatidylinositol-specific phospholipase C, X domain containing 3
ENSG00000174358	-5.79775	0.029093	SLC6A19	Solute carrier family 6 (neutral amino acid transporter), member 19
ENSG00000168916	-5.761	0.004046	ZNF608	Zinc finger protein 608
ENSG00000134343	-5.56371	0.01356	ANO3	Anoctamin 3
ENSG00000110400	-5.48194	0.004123	PVRL1	Poliovirus receptor-related 1 (herpesvirus entry mediator C)
ENSG00000124882	-5.45849	0.022164	EREG	Epiregulin
ENSG00000113448	-5.41752	0.000577	PDE4D	Phosphodiesterase 4D, cAMP-specific
ENSG00000090661	-5.39297	0.01234	CERS4	Ceramide synthase 4
ENSG00000196166	-5.38316	0.0092	C8orf86	Chromosome 8 open reading frame 86
ENSG00000138271	-5.35115	0.003278	GPR87	G protein-coupled receptor 87
ENSG00000080166	-5.32219	0.00362	DCT	Dopachrome tautomerase
ENSG00000139219	-5.25585	0.004954	COL2A1	Collagen, type II, alpha 1
ENSG00000169715	-5.22961	0.023918	MT1E	Metallothionein 1E
ENSG00000153786	-5.12469	0.009349	ZDHHC7	Zinc finger, DHHC-type containing 7
ENSG00000205670	-5.07706	0.038383	SMIM11	Small integral membrane protein 11
ENSG00000197506	-5.0676	0.021558	SLC28A3	Solute carrier family 28 (concentrative nucleoside transporter), member 3
ENSG00000131089	-5.05728	0.014785	ARHGEF9	Cdc42 guanine nucleotide exchange factor (GEF) 9
ENSG00000145819	-5.03217	0.011589	ARHGAP26	Rho GTPase activating protein 26
ENSG00000114126	-5.02934	0.011733	TFDP2	Transcription factor Dp-2 (E2F dimerization partner 2)
ENSG00000170390	-4.90008	0.013293	DCLK2	Doublecortin-like kinase 2
ENSG00000138115	-4.86409	0.044758	CYP2C8	Cytochrome P450, family 2, subfamily C, polypeptide 8
ENSG00000105576	-4.86065	0.030022	TNPO2	Transportin 2
ENSG00000096088	-4.78654	0.022096	PGC	Progastricsin (pepsinogen C)
ENSG00000087157	-4.76813	0.01875	PGS1	Phosphatidylglycerophosphate synthase 1
ENSG00000163191	-4.76387	0.022352	S100A11	S100 calcium binding protein A11
ENSG00000137038	-4.76319	0.022316	TMEM261	Transmembrane protein 261
ENSG00000096654	-4.74384	0.028007	ZNF184	Zinc finger protein 184
ENSG00000099998	-4.74167	0.036864	GGT5	Gamma-glutamyltransferase 5
ENSG00000118515	-4.66654	0.049893	SGK1	Serum/glucocorticoid regulated kinase 1
ENSG00000187492	-4.66046	0.043498	CDHR4	Cadherin-related family member 4
ENSG00000130720	-4.46981	0.017105	FIBCD1	Fibrinogen C domain containing 1
ENSG00000215041	-4.46679	0.042978	NEURL4	Neuralized E3 ubiquitin protein ligase 4
ENSG00000151491	-4.46679	0.042972	EPS8	Epidermal growth factor receptor pathway substrate 8
ENSG00000183624	-4.46679	0.042964	HMCES	5-hydroxymethylcytosine (hmC) binding, ES cell-specific
ENSG00000172878	-4.46679	0.042963	METAP1D	Methionyl aminopeptidase type 1D (mitochondrial)
ENSG00000130762	-4.07042	0.006597	ARHGEF16	Rho guanine nucleotide exchange factor (GEF) 16
ENSG00000127922	-3.93473	0.02185	SHFM1	Split hand/foot malformation (ectrodactyly) type 1
ENSG00000176435	-3.83598	0.003252	CLEC14A	C-type lectin domain family 14, member A
ENSG00000162426	-3.83059	0.014357	SLC45A1	Solute carrier family 45, member 1
ENSG00000011021	-3.78969	0.001393	CLCN6	Chloride channel, voltage-sensitive 6
ENSG00000142494	-3.77144	0.013688	SLC47A1	Solute carrier family 47 (multidrug and toxin extrusion), member 1
ENSG00000183888	-3.75636	0.039354	C1orf64	Chromosome 1 open reading frame 64
ENSG00000104969	-3.65623	0.042593	SGTA	Small glutamine-rich tetratricopeptide repeat (TPR)-containing, alpha
ENSG00000104415	-3.58179	0.009544	WISP1	WNT1 inducible signaling pathway protein 1
ENSG00000171863	-3.5698	0.010783	RPS7	Ribosomal protein S7
ENSG00000181656	-3.56285	0.009484	GPR88	G protein-coupled receptor 88
ENSG00000157150	-3.56113	2.48E-05	TIMP4	TIMP metalloproteinase inhibitor 4
ENSG00000054219	-3.54416	0.016464	LY75	Lymphocyte antigen 75
ENSG00000127527	-3.49912	0.007238	EPS15L1	Epidermal growth factor receptor pathway substrate 15-like 1
ENSG00000221859	-3.4804	0.048753	KRTAP10-10	Keratin associated protein 10-10
ENSG00000204347	-3.46074	0.017814	BTBD17	BTB (POZ) domain containing 17

Table SII. Continued.

Gene ID	logFC	P-Value	Symbol	Description
ENSG00000148688	-3.40075	0.006037	RPP30	Ribonuclease P/MRP 30kDa subunit
ENSG00000159167	-3.38978	0.035551	STC1	Stanniocalcin 1
ENSG00000197093	-3.3431	0.017814	GAL3ST4	Galactose-3-O-sulfotransferase 4
ENSG00000131746	-3.29019	0.009269	TNS4	Tensin 4
ENSG00000127472	-3.28031	0.045005	PLA2G5	Phospholipase A2, group V
ENSG00000196605	-3.27997	0.001213	LOC100505555	Uncharacterized LOC100505555
ENSG00000105509	-3.27965	0.041759	HAS1	Hyaluronan synthase 1
ENSG00000175445	-3.25277	0.033883	LPL	Lipoprotein lipase
ENSG00000178445	-3.24685	0.033945	GLDC	Glycine dehydrogenase (decarboxylating)
ENSG00000112701	-3.2431	0.033716	SENPE6	SUMO1/sentrin specific peptidase 6
ENSG00000145907	-3.23219	0.026854	G3BP1	GTPase activating protein (SH3 domain) binding protein 1
ENSG00000153956	-3.21833	0.044117	CACNA2D1	Calcium channel, voltage-dependent, alpha 2/delta subunit 1
ENSG00000133246	-3.19905	0.036816	PRAM1	PML-RARA regulated adaptor molecule 1
ENSG00000177535	-3.17834	0.006333	OR2B11	Olfactory receptor, family 2, subfamily B, member 11
ENSG00000048540	-3.16386	0.002247	LMO3	LIM domain only 3 (rhombotin-like 2)
ENSG00000101608	-3.16386	0.019629	MYL12A	Myosin, light chain 12A, regulatory, non-sarcomeric
ENSG00000164645	-3.16052	0.006194	C7orf62	Chromosome 7 open reading frame 62
ENSG00000258289	-3.1585	0.049642	CHURC1	Churchill domain containing 1
ENSG00000171132	-3.12096	0.002233	PRKCE	Protein kinase C, epsilon
ENSG00000168264	-3.1208	0.007726	IRF2BP2	Interferon regulatory factor 2 binding protein 2
ENSG00000160271	-3.04206	0.021382	RALGDS	Ral guanine nucleotide dissociation stimulator
ENSG00000187720	-3.03842	0.024138	THSD4	Thrombospondin, type I, domain containing 4
ENSG00000168026	-2.95439	0.000801	TTC21A	Tetratricopeptide repeat domain 21A
ENSG00000187630	-2.94719	0.004209	DHRS4L2	Dehydrogenase/reductase (SDR family) member 4 like 2
ENSG00000136160	-2.89232	0.032554	EDNRB	Endothelin receptor type B
ENSG00000168702	-2.88446	0.034061	LRP1B	Low density lipoprotein receptor-related protein 1B
ENSG00000166268	-2.87666	0.027803	MYRFL	Myelin regulatory factor-like
ENSG00000160741	-2.86774	0.007117	CRTC2	CREB regulated transcription coactivator 2
ENSG00000198216	-2.86178	0.001471	CACNA1E	Calcium channel, voltage-dependent, R type, alpha 1E subunit
ENSG00000162241	-2.85944	0.021293	SLC25A45	Solute carrier family 25, member 45
ENSG00000175170	-2.844	0.039664	FAM182B	Family with sequence similarity 182, member B
ENSG00000160111	-2.8378	0.000759	CPAMD8	C3 and PZP-like, alpha-2-macroglobulin domain containing 8
ENSG00000154655	-2.82001	0.006597	L3MBTL4	l(3)mbt-like 4 (Drosophila)
ENSG00000160131	-2.7956	0.039107	VMA21	VMA21 vacuolar H <sup>+</sup> -ATPase homolog ( <i>S. cerevisiae</i> )
ENSG00000012048	-2.77014	0.003232	BRCA1	Breast cancer 1, early onset
ENSG00000178295	-2.75275	0.000102	GEN1	GEN1 Holliday junction 5' flap endonuclease
ENSG00000213024	-2.73877	0.027281	NUP62	Nucleoporin 62kDa
ENSG00000167646	-2.73152	0.003521	DNAAF3	Dynein, axonemal, assembly factor 3
ENSG00000104812	-2.72002	0.005347	GYS1	Glycogen synthase 1 (muscle)
ENSG00000124564	-2.71265	0.010997	SLC17A3	Solute carrier family 17 (organic anion transporter), member 3
ENSG00000135974	-2.71222	0.00069	C2orf49	Chromosome 2 open reading frame 49
ENSG00000039537	-2.67554	0.003063	C6	Complement component 6
ENSG00000096060	-2.66139	0.019446	FKBP5	FK506 binding protein 5
ENSG00000183629	-2.65802	0.025899	GOLGA8G	Golgin A8 family, member G
ENSG00000213672	-2.64469	0.004832	NCKIPSD	NCK interacting protein with SH3 domain
ENSG00000145358	-2.63923	0.043267	DDIT4L	DNA-damage-inducible transcript 4-like
ENSG00000163029	-2.63807	0.013239	SMC6	Structural maintenance of chromosomes 6
ENSG00000148926	-2.61634	0.009186	ADM	Adrenomedullin
ENSG00000116741	-2.59733	0.031184	RGS2	Regulator of G-protein signaling 2, 24kDa
ENSG00000068745	-2.5787	0.002061	IP6K2	Inositol hexakisphosphate kinase 2
ENSG00000265096	-2.54524	6.42E-06	C1QTNF1-AS1	C1QTNF1 antisense RNA 1
ENSG00000196417	-2.48546	0.027388	ZNF765	Zinc finger protein 765
ENSG00000100678	-2.45548	0.048692	SLC8A3	Solute carrier family 8 (sodium/calcium exchanger), member 3
ENSG00000161647	-2.42086	0.026843	MPP3	Membrane protein, palmitoylated 3 (MAGUK p55 subfamily member 3)

Table SII. Continued.

Gene ID	logFC	P-Value	Symbol	Description
ENSG00000196228	-2.41431	0.025348	SULT1C3	Sulfotransferase family, cytosolic, 1C, member 3
ENSG00000158122	-2.3774	0.048681	AAED1	AhpC/TSA antioxidant enzyme domain containing 1
ENSG00000171495	-2.36724	0.000818	MROH2B	Maestro heat-like repeat family member 2B
ENSG00000116106	-2.34729	1.53E-07	EPHA4	EPH receptor A4
ENSG00000145388	-2.34156	0.049853	METTL14	Methyltransferase like 14
ENSG00000105650	-2.32459	0.0239	LOC729966	Uncharacterized LOC729966
ENSG00000177666	-2.277	0.005941	PNPLA2	Patatin-like phospholipase domain containing 2
ENSG00000165731	-2.27222	0.032089	RET	Ret proto-oncogene
ENSG00000131650	-2.26976	0.017728	KREMEN2	Kringle containing transmembrane protein 2
ENSG00000088367	-2.26946	0.027398	EPB41L1	Erythrocyte membrane protein band 4.1-like 1
ENSG00000188549	-2.24016	0.011696	C15orf52	Chromosome 15 open reading frame 52
ENSG00000137218	-2.22777	0.022844	FRS3	Fibroblast growth factor receptor substrate 3
ENSG00000163535	-2.22705	0.027323	SGOL2	Shugoshin-like 2 ( <i>S. pombe</i> )
ENSG00000157240	-2.22136	0.009615	FZD1	Frizzled class receptor 1
ENSG00000205209	-2.17877	0.010368	SCGB2B2	Secretoglobin, family 2B, member 2
ENSG00000135597	-2.13112	0.010012	REPS1	RALBP1 associated Eps domain containing 1
ENSG00000160679	-2.10915	0.006982	CHTOP	Chromatin target of PRMT1
ENSG00000198203	-2.10515	0.001642	SULT1C2	Sulfotransferase family, cytosolic, 1C, member 2
ENSG00000167468	-2.08137	0.019311	GPX4	Glutathione peroxidase 4
ENSG00000120833	-2.06714	0.005715	SOCS2	Suppressor of cytokine signaling 2
ENSG00000005189	-2.06092	0.008039	-	Null
ENSG00000179902	-2.06087	0.006972	C1orf194	Chromosome 1 open reading frame 194
ENSG00000115687	-2.05008	0.041206	PASK	PAS domain containing serine/threonine kinase
ENSG00000142599	-2.04663	0.010194	RERE	Arginine-glutamic acid dipeptide (RE) repeats
ENSG00000169189	-2.01126	0.015584	NSMCE1	Non-SMC element 1 homolog ( <i>S. cerevisiae</i> )
ENSG00000144837	-1.99978	0.019819	PLA1A	Phospholipase A1 member A
ENSG00000109906	-1.99965	0.024393	ZBTB16	Zinc finger and BTB domain containing 16
ENSG00000164808	-1.99274	0.000231	SPIDR	Scaffolding protein involved in DNA repair
ENSG00000166090	-1.98137	0.041567	IL25	Interleukin 25
ENSG00000121335	-1.96516	0.011206	PRB2	Proline-rich protein BstNI subfamily 2
ENSG00000153233	-1.9543	0.017774	PTPRR	Protein tyrosine phosphatase, receptor type, R
ENSG00000103569	-1.84683	0.026314	AQP9	Aquaporin 9
ENSG00000161509	-1.84137	0.000749	GRIN2C	Glutamate receptor, ionotropic, N-methyl D-aspartate 2C
ENSG00000134769	-1.82422	0.011831	DTNA	Dystrobrevin, alpha
ENSG00000110514	-1.81728	0.000158	MADD	MAP-kinase activating death domain
ENSG00000254656	-1.81507	0.024473	RTL1	Retrotransposon-like 1
ENSG00000212907	-1.79608	0.001299	-	Null
ENSG00000175294	-1.77968	0.002948	CATSPER1	Cation channel, sperm associated 1
ENSG00000182667	-1.76302	0.012348	NTM	Neurotrimin
ENSG00000198753	-1.75241	0.015258	PLXNB3	Plexin B3
ENSG00000161395	-1.73234	0.003697	PGAP3	Post-GPI attachment to proteins 3
ENSG00000163755	-1.7276	0.004732	HPS3	Hermansky-Pudlak syndrome 3
ENSG00000197870	-1.70029	0.019121	PRB3	Proline-rich protein BstNI subfamily 3
ENSG00000159166	-1.68715	0.012229	LAD1	Ladinin 1
ENSG00000169519	-1.68163	0.029093	METTL15	Methyltransferase like 15
ENSG00000079459	-1.67748	0.005849	FDFT1	Farnesyl-diphosphate farnesyltransferase 1
ENSG00000220008	-1.6623	0.046438	LINGO3	Leucine rich repeat and Ig domain containing 3
ENSG00000137413	-1.656	0.04113	TAF8	TAF8 RNA polymerase II, TATA box binding protein (TBP)-associated factor, 43kDa
ENSG00000151062	-1.62501	0.014349	CACNA2D4	Calcium channel, voltage-dependent, alpha 2/delta subunit 4
ENSG00000187783	-1.62344	0.02766	TMEM72	Transmembrane protein 72
ENSG00000267918	-1.6187	0.003427	-	Null
ENSG00000185666	-1.60552	0.018476	SYN3	Synapsin III
ENSG00000145936	-1.60429	0.03862	KCNMB1	Potassium large conductance calcium-activated channel, subfamily M, beta member 1
ENSG00000196419	-1.59718	0.024418	XRCC6	X-ray repair complementing defective repair in Chinese hamster cells 6
ENSG00000179476	-1.57388	0.025959	C14orf28	Chromosome 14 open reading frame 28
ENSG00000158615	-1.55948	0.03332	PPP1R15B	Protein phosphatase 1, regulatory subunit 15B

Table SII. Continued.

Gene ID	logFC	P-Value	Symbol	Description
ENSG00000130787	-1.5496	0.031268	HIP1R	Huntingtin interacting protein 1 related
ENSG00000104231	-1.54292	0.039374	ZFAND1	Zinc finger, AN1-type domain 1
ENSG00000100417	-1.54095	0.000506	PMM1	Phosphomannomutase 1
ENSG00000065923	-1.53503	0.002562	SLC9A7	Solute carrier family 9, subfamily A (NHE7, cation proton antiporter 7), member 7
ENSG00000169612	-1.51845	0.020556	FAM103A1	Family with sequence similarity 103, member A1
ENSG00000081026	-1.51719	0.008716	MAGI3	Membrane associated guanylate kinase, WW and PDZ domain containing 3
ENSG00000157456	1.504875	0.003417	CCNB2	Cyclin B2
ENSG00000170448	1.522034	0.010604	NFXL1	Nuclear transcription factor, X-box binding-like 1
ENSG00000108854	1.528899	0.038029	SMURF2	SMAD specific E3 ubiquitin protein ligase 2
ENSG00000154479	1.53903	0.025377	CCDC173	Coiled-coil domain containing 173
ENSG00000140905	1.5583	0.031951	GCSH	Glycine cleavage system protein H (aminomethyl carrier)
ENSG00000088888	1.562913	0.002892	MAVS	Mitochondrial antiviral signaling protein
ENSG00000145242	1.573913	0.013724	EPHA5	EPH receptor A5
ENSG00000163931	1.576654	0.033091	TKT	Transketolase
ENSG00000231924	1.580367	0.020619	PSG1	Pregnancy specific beta-1-glycoprotein 1
ENSG00000160200	1.582662	0.010534	CBS	Cystathionine-beta-synthase
ENSG00000156269	1.584445	0.034535	NAA11	N(alpha)-acetyltransferase 11, NatA catalytic subunit
ENSG00000183723	1.634231	0.003083	CMTM4	CKLF-like MARVEL transmembrane domain containing 4
ENSG00000105996	1.635354	0.023533	HOXA2	Homeobox A2
ENSG00000140577	1.637299	0.040239	CRTC3	CREB regulated transcription coactivator 3
ENSG00000146425	1.645532	0.040929	DYNLT1	Dynein, light chain, Tctex-type 1
ENSG00000160062	1.649429	0.00408	ZBTB8A	Zinc finger and BTB domain containing 8A
ENSG00000075275	1.65507	0.00294	CELSR1	Cadherin, EGF LAG seven-pass G-type receptor 1
ENSG00000085365	1.663324	0.002895	SCAMP1	Secretory carrier membrane protein 1
ENSG00000205021	1.758387	0.022383	CCL3L1	Chemokine (C-C motif) ligand 3-like 1
ENSG00000153904	1.761074	0.009941	DDAH1	Dimethylarginine dimethylaminohydrolase 1
ENSG00000163536	1.769769	0.041498	SERPIN11	Serpin peptidase inhibitor, clade I (neuroserpin), member 1
ENSG00000162819	1.77442	0.006196	BROX	BRO1 domain and CAAX motif containing
ENSG00000157542	1.798353	0.047749	KCNJ6	Potassium inwardly-rectifying channel, subfamily J, member 6
ENSG00000145365	1.806034	0.029363	TIFA	TRAF-interacting protein with forkhead-associated domain
ENSG00000163155	1.852077	0.0332	LYSMD1	LysM, putative peptidoglycan-binding, domain containing 1
ENSG00000197102	1.860187	0.019485	DYNC1H1	Dynein, cytoplasmic 1, heavy chain 1
ENSG00000135775	1.861712	0.048616	COG2	Component of oligomeric golgi complex 2
ENSG00000135919	1.887435	0.04485	SERPINE2	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 2
ENSG00000068724	1.892039	0.009341	TTC7A	Tetratricopeptide repeat domain 7A
ENSG00000087495	1.929815	0.030542	PHACTR3	Phosphatase and actin regulator 3
ENSG00000205327	1.936787	0.018032	OR6C68	Olfactory receptor, family 6, subfamily C, member 68
ENSG00000123360	1.963713	0.029253	PDE1B	Phosphodiesterase 1B, calmodulin-dependent
ENSG00000197013	1.995237	0.040633	ZNF429	Zinc finger protein 429
ENSG00000142867	2.0083	0.003974	BCL10	B-cell CLL/lymphoma 10
ENSG00000182851	2.024708	9.67E-05	GPIHBP1	Glycosylphosphatidylinositol anchored high density lipoprotein binding protein 1
ENSG00000156958	2.04798	0.035131	GALK2	Galactokinase 2
ENSG00000197616	2.092363	0.029962	MYH6	Myosin, heavy chain 6, cardiac muscle, alpha
ENSG00000111554	2.116338	0.017729	MDM1	Mdm1 nuclear protein homolog (mouse)
ENSG00000101311	2.128714	0.028057	FERMT1	Fermitin family member 1
ENSG00000137726	2.130613	0.041672	FXVD6	FXVD domain containing ion transport regulator 6
ENSG00000137804	2.149317	0.012607	NUSAP1	Nucleolar and spindle associated protein 1
ENSG00000133657	2.243355	0.001248	ATP13A3	ATPase type 13A3
ENSG00000122643	2.287714	0.008413	NT5C3A	5'-nucleotidase, cytosolic IIIA
ENSG00000103723	2.300132	0.002476	AP3B2	Adaptor-related protein complex 3, beta 2 subunit
ENSG00000204174	2.31764	0.000116	NPY4R	Neuropeptide Y receptor Y4
ENSG00000137462	2.34443	0.030124	TLR2	Toll-like receptor 2
ENSG00000163406	2.369891	0.044929	SLC15A2	Solute carrier family 15 (oligopeptide transporter), member 2

Table SII. Continued.

Gene ID	logFC	P-Value	Symbol	Description
ENSG00000196800	2.454679	0.019338	SPINK14	Serine peptidase inhibitor, Kazal type 14 (putative)
ENSG00000168542	2.500921	0.028648	COL3A1	Collagen, type III, alpha 1
ENSG00000236939	2.505558	0.022838	-	Null
ENSG00000269267	2.551592	0.013018	-	Null
ENSG00000256073	2.618329	0.002774	C21orf119	Chromosome 21 open reading frame 119
ENSG00000111537	2.661766	0.000901	IFNG	Interferon, gamma
ENSG00000100629	2.676436	0.003014	CEP128	Centrosomal protein 128kDa
ENSG00000105875	2.704261	0.036089	WDR91	WD repeat domain 91
ENSG00000173575	2.711713	0.00292	CHD2	Chromodomain helicase DNA binding protein 2
ENSG00000196735	2.755726	0.006827	HLA-DQA1	Major histocompatibility complex, class II, DQ alpha 1
ENSG00000011465	2.811915	0.01417	DCN	Decorin
ENSG00000248469	2.829874	0.03318	-	Null
ENSG00000256515	2.844783	0.032694	CCL3L3	Chemokine (C-C motif) ligand 3-like 3
ENSG00000170848	2.850222	0.000272	PSG6	Pregnancy specific beta-1-glycoprotein 6
ENSG00000113140	2.860534	0.004631	SPARC	Secreted protein, acidic, cysteine-rich (osteonectin)
ENSG00000111144	2.862599	0.020052	LTA4H	Leukotriene A4 hydrolase
ENSG00000237787	2.878882	0.010027	C3orf79	Chromosome 3 open reading frame 79
ENSG00000258130	2.887136	0.026434	-	Null
ENSG00000172037	2.92392	0.023872	LAMB2	Laminin, beta 2 (laminin S)
ENSG00000204655	2.947794	0.002614	MOG	Myelin oligodendrocyte glycoprotein
ENSG00000107372	2.991608	0.000238	ZFAND5	Zinc finger, AN1-type domain 5
ENSG00000181396	3.033638	0.015025	OGFOD3	2-oxoglutarate and iron-dependent oxygenase domain containing 3
ENSG00000097096	3.040207	5.61E-06	SYDE2	Synapse defective 1, Rho GTPase, homolog 2 ( <i>C. elegans</i> )
ENSG00000134001	3.050745	0.049575	EIF2S1	Eukaryotic translation initiation factor 2, subunit 1 alpha, 35kDa
ENSG00000156414	3.057922	0.013323	TDRD9	Tudor domain containing 9
ENSG00000124172	3.065142	0.031456	ATP5E	ATP synthase, H <sup>+</sup> transporting, mitochondrial F1 complex, epsilon subunit
ENSG00000135862	3.072297	0.009506	LAMC1	Laminin, gamma 1 (formerly LAMB2)
ENSG00000088766	3.168677	0.00082	CRLS1	Cardiolipin synthase 1
ENSG00000177455	3.185681	0.041054	CD19	CD19 molecule
ENSG00000160685	3.188238	0.037841	ZBTB7B	Zinc finger and BTB domain containing 7B
ENSG00000114812	3.195574	0.005343	VIPR1	Vasoactive intestinal peptide receptor 1
ENSG00000124942	3.201414	0.041354	AHNAK	AHNAK nucleoprotein
ENSG00000079432	3.383475	0.036277	CIC	Capicua transcriptional repressor
ENSG00000253159	3.390644	0.023864	PCDHGA12	Protocadherin gamma subfamily A, 12
ENSG00000131697	3.39869	0.019613	NPHP4	Nephronophthisis 4
ENSG00000038427	3.444806	0.03585	VCAN	Versican
ENSG00000166710	3.454691	0.000427	B2M	Beta-2-microglobulin
ENSG00000116039	3.5171	0.012916	ATP6V1B1	ATPase, H <sup>+</sup> transporting, lysosomal 56/58kDa, V1 subunit B1
ENSG00000143315	3.523431	0.027255	PIGM	Phosphatidylinositol glycan anchor biosynthesis, class M
ENSG00000131876	3.530661	0.013533	SNRPA1	Small nuclear ribonucleoprotein polypeptide A'
ENSG00000142156	3.563633	0.001395	COL6A1	Collagen, type VI, alpha 1
ENSG00000047410	3.569523	0.002388	TPR	Translocated promoter region, nuclear basket protein
ENSG00000052749	3.848521	0.017837	RRP12	Ribosomal RNA processing 12 homolog ( <i>S. cerevisiae</i> )
ENSG00000144285	4.001851	0.017711	SCN1A	Sodium channel, voltage-gated, type I, alpha subunit
ENSG00000186474	4.027111	0.002321	KLK12	Kallikrein-related peptidase 12
ENSG00000167107	4.094055	8.12E-06	ACSF2	Acyl-CoA synthetase family member 2
ENSG00000119522	4.141826	0.045123	DENND1A	DENN/MADD domain containing 1A
ENSG00000261740	4.500929	0.041753	-	Null
ENSG00000156096	4.500929	0.041752	UGT2B4	UDP glucuronosyltransferase 2 family, polypeptide B4
ENSG00000162627	4.511915	0.047641	SNX7	Sorting nexin 7
ENSG00000168158	4.514754	0.043942	OR2C1	Olfactory receptor, family 2, subfamily C, member 1
ENSG00000119411	4.514756	0.043955	BSPRY	B-box and SPRY domain containing
ENSG00000184574	4.667307	0.027141	LPAR5	Lysophosphatidic acid receptor 5
ENSG00000168634	4.667307	0.027145	WFDC13	WAP four-disulfide core domain 13
ENSG00000187642	4.677763	0.035653	-	Null

Table SII. Continued.

Gene ID	logFC	P-Value	Symbol	Description
ENSG00000175634	4.692738	0.048293	RPS6KB2	Ribosomal protein S6 kinase, 70kDa, polypeptide 2
ENSG00000041515	4.816636	0.019004	MYO16	Myosin XVI
ENSG00000146216	4.905575	0.045712	TTBK1	Tau tubulin kinase 1
ENSG00000164741	4.91931	0.016904	DLC1	Deleted in liver cancer 1
ENSG00000164692	5.000322	2.32E-10	COL1A2	Collagen, type I, alpha 2
ENSG00000162642	5.023029	6.25E-07	C1orf52	Chromosome 1 open reading frame 52
ENSG00000169169	5.06824	0.008441	CPT1C	Carnitine palmitoyltransferase 1C
ENSG00000169733	5.099526	0.020961	RFNG	RFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase
ENSG00000165264	5.173937	0.030203	NDUFB6	NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 6, 17kDa
ENSG00000174469	5.326546	0.001792	CNTNAP2	Contactin associated protein-like 2
ENSG00000196503	5.654571	0.00683	ARL9	ADP-ribosylation factor-like 9
ENSG00000178163	5.881132	0.001061	ZNF518B	Zinc finger protein 518B
ENSG00000090470	5.999976	0.005454	PDCD7	Programmed cell death 7
ENSG00000108821	6.025365	1.28E-14	COL1A1	Collagen, type I, alpha 1

FC, fold change; ParoAF, paroxysmal atrial fibrillation.

Table SIII. The differentially expressed lncRNAs in the ParoAF\_Control group.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000235899	-7.72164	0.000532	RP11-345L23.1	Antisense	Uncharacterized LOC101927171
XLOC_095062	-7.39989	0.001946	-	lncRNA	-
XLOC_015622	-6.59573	0.000129	-	lncRNA	-
XLOC_104597	-6.27879	0.012736	-	lncRNA	-
XLOC_064956	-5.98629	0.003968	-	lncRNA	-
ENSG00000259045	-5.96958	0.004258	-	Pseudogene	Null
XLOC_101674	-5.95998	0.00378	-	lncRNA	-
ENSG00000223349	-5.92033	0.0256	-	Pseudogene	Null
XLOC_027189	-5.90221	0.007763	-	lncRNA	-
XLOC_054651	-5.88323	0.003497	-	lncRNA	-
XLOC_004747	-5.77235	0.006036	-	lncRNA	-
XLOC_110310	-5.75614	0.013894	-	lncRNA	-
XLOC_082023	-5.70111	0.036435	-	lncRNA	-
XLOC_092650	-5.56371	0.013565	-	lncRNA	-
XLOC_089626	-5.55899	5.04E-08	-	lncRNA	-
XLOC_114156	-5.53767	0.018575	-	lncRNA	-
XLOC_130822	-5.4992	0.043913	-	lncRNA	-
ENSG00000212174	-5.49427	0.008932	-	misc_RNA	Null
XLOC_119057	-5.49153	0.015236	-	lncRNA	-
XLOC_029923	-5.46769	0.004934	-	lncRNA	-
XLOC_002352	-5.46545	0.007734	-	lncRNA	-
XLOC_108610	-5.43295	0.048696	-	lncRNA	-
ENSG00000223768	-5.42341	0.024695	LINC00205	lincRNA	Long intergenic non-protein coding RNA 205
XLOC_096448	-5.3926	0.011189	-	lncRNA	-
XLOC_110307	-5.36836	0.018454	-	lncRNA	-
ENSG00000231013	-5.32459	0.028692	LOC101927734	Antisense	Uncharacterized LOC101927734
XLOC_137634	-5.31636	0.029253	-	lncRNA	-
ENSG00000226051	-5.28585	0.030824	ZNF503-AS1	lincRNA	ZNF503 antisense RNA 1
XLOC_110321	-5.27847	0.023735	-	lncRNA	-
XLOC_107729	-5.27847	0.023723	-	lncRNA	-
XLOC_110333	-5.27847	0.023711	-	lncRNA	-
ENSG00000250145	-5.26627	0.022781	-	Pseudogene	Null
ENSG00000230736	-5.22124	0.006417	RP1-149A16.3	lincRNA	Uncharacterized LOC339666
ENSG00000268751	-5.21593	0.0091	SCGB1B2P	lincRNA	Secretoglobin, family 1B, member 2, pseudogene
XLOC_005679	-5.21412	0.000277	-	lncRNA	-
ENSG00000226222	-5.20995	0.040637	-	Pseudogene	Null
XLOC_062534	-5.19336	0.026381	-	lncRNA	-
XLOC_029452	-5.19093	0.03779	-	lncRNA	-
ENSG00000237179	-5.19003	0.020128	AC007392.4	lincRNA	Uncharacterized LOC101927577
ENSG00000260258	-5.18307	0.028008	-	Pseudogene	Null
XLOC_022899	-5.15779	0.007823	-	lncRNA	-
XLOC_006424	-5.15779	0.007823	-	lncRNA	-
XLOC_047308	-5.11025	0.016408	-	lncRNA	-
ENSG00000229604	-5.09477	0.047225	-	Pseudogene	Null
XLOC_073862	-5.0676	0.021562	-	lncRNA	-
XLOC_098657	-5.06572	0.03743	-	lncRNA	-
ENSG00000263505	-5.05732	0.03439	-	Pseudogene	Null
ENSG00000258723	-5.03942	0.039619	-	Antisense	Null
XLOC_057880	-5.02096	0.0092	-	lncRNA	-
ENSG00000254144	-5.01293	0.011709	-	Antisense	Null
XLOC_028303	-5.00971	0.037184	-	lncRNA	-
ENSG00000217408	-5.00211	0.020289	PRELID1P2	Pseudogene	PRELI domain containing 1 pseudogene 2
ENSG00000253527	-4.97758	0.041825	-	Antisense	Null
XLOC_044464	-4.95623	0.032571	-	lncRNA	-
XLOC_096047	-4.90863	0.045557	-	lncRNA	-
XLOC_006744	-4.89345	0.047062	-	lncRNA	-



Table SIII. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
XLOC_031176	-4.885	0.025722	-	lncRNA	-
ENSG00000179428	-4.88471	0.001033	-	Antisense	Null
XLOC_089956	-4.87006	0.03045	-	lncRNA	-
ENSG00000242071	-4.8433	0.001511	RPL7AP6	Pseudogene	Ribosomal protein L7a pseudogene 6
XLOC_060732	-4.7928	0.030718	-	lncRNA	-
XLOC_065712	-4.77368	0.038326	-	lncRNA	-
XLOC_034920	-4.76855	0.027512	-	lncRNA	-
XLOC_020375	-4.76855	0.027514	-	lncRNA	-
XLOC_057348	-4.75832	0.037625	-	lncRNA	-
XLOC_127473	-4.75431	0.021739	-	lncRNA	-
XLOC_063296	-4.75099	0.000137	-	lncRNA	-
ENSG00000272456	-4.66046	0.043486	-	lincRNA	null
XLOC_089692	-4.63774	0.032228	-	lncRNA	-
XLOC_142033	-4.63774	0.032227	-	lncRNA	-
XLOC_086942	-4.62788	0.028359	-	lncRNA	-
XLOC_145767	-4.62788	0.028358	-	lncRNA	-
XLOC_095113	-4.61245	0.048789	-	lncRNA	-
XLOC_144337	-4.60725	0.035573	-	lncRNA	-
XLOC_086031	-4.59612	0.041216	-	lncRNA	-
ENSG00000252487	-4.54305	0.003007	RNY4P20	misc_RNA	RNA, Ro-associated Y4 pseudogene 20
XLOC_109280	-4.46679	0.042966	-	lncRNA	-
ENSG00000253492	-4.46201	0.046701	CDH12P3	Pseudogene	Cadherin 12 (N-cadherin 2) pseudogene 3
XLOC_077146	-4.45059	0.04488	-	lncRNA	-
ENSG00000212579	-4.30094	6.68E-09	SNORA40	snoRNA	Small nucleolar RNA, H/ACA box 40
ENSG00000223921	-4.19825	0.009512	MTND1P27	Pseudogene	MT-ND1 pseudogene 27
ENSG00000228413	-4.17342	0.018939	-	Pseudogene	Null
ENSG00000235862	-4.16266	0.003754	-	Antisense	Null
XLOC_006297	-4.07387	0.00239	-	lncRNA	-
XLOC_000159	-4.05328	0.016149	-	lncRNA	-
ENSG00000264449	-3.99465	2.72E-07	-	Antisense	Null
ENSG00000218749	-3.9784	1.42E-06	-	Pseudogene	Null
XLOC_015363	-3.95143	0.018755	-	lncRNA	-
ENSG00000267490	-3.90577	0.001274	-	Pseudogene	Null
XLOC_047547	-3.88527	0.0229	-	lncRNA	-
ENSG00000271916	-3.85664	0.002972	-	Antisense	Null
ENSG00000233117	-3.85324	0.028722	LINC00702	lincRNA	long intergenic non-protein coding RNA 702
ENSG00000268038	-3.79396	0.003802	LOC374890	lincRNA	Uncharacterized LOC374890
ENSG00000251987	-3.78023	0.019045	SNORD63	snoRNA	Small nucleolar RNA, C/D box 63
XLOC_142488	-3.73061	0.008953	-	lncRNA	-
XLOC_071741	-3.71247	0.000563	-	lncRNA	-
ENSG00000260823	-3.69909	0.010303	-	lincRNA	Null
ENSG00000253809	-3.66752	0.000575	-	Antisense	Null
XLOC_111912	-3.60482	0.001519	-	lncRNA	-
XLOC_020894	-3.6018	0.035739	-	lncRNA	-
ENSG00000252431	-3.59954	0.007976	-	snRNA	Null
ENSG00000237499	-3.59816	0.003074	RP11-356I2.4	Antisense	Uncharacterized LOC100130476
XLOC_041411	-3.56421	0.04005	-	lncRNA	-
ENSG00000221112	-3.55495	2.52E-10	-	miRNA	Null
XLOC_062805	-3.54942	0.0124	-	lncRNA	-
XLOC_004748	-3.54201	6.28E-05	-	lncRNA	-
XLOC_142109	-3.53738	0.003562	-	lncRNA	-
XLOC_134553	-3.51125	0.025207	-	lncRNA	-
XLOC_076310	-3.49749	0.019549	-	lncRNA	-
ENSG00000238891	-3.47273	0.006107	-	snoRNA	Null

Table SIII. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
XLOC_089532	-3.45326	0.031764	-	lncRNA	-
XLOC_033107	-3.44794	0.000861	-	lncRNA	-
ENSG00000197558	-3.44769	0.018979	SSPO	Processed_ transcript	SCO-spondin
XLOC_071494	-3.44298	0.016155	-	lncRNA	-
ENSG00000237370	-3.44155	0.021351	-	Antisense	Null
ENSG00000270639	-3.38626	0.014221	-	Pseudogene	Null
ENSG00000259106	-3.38039	0.041266	-	Antisense	Null
XLOC_085057	-3.36521	0.000234	-	lncRNA	-
XLOC_110641	-3.273	0.041849	-	lncRNA	-
XLOC_051294	-3.27068	0.001415	-	lncRNA	-
XLOC_021974	-3.25984	0.046298	-	lncRNA	-
ENSG00000266963	-3.25289	0.027604	-	Antisense	Null
ENSG00000246774	-3.23305	0.048513	-	lincRNA	Null
ENSG00000273038	-3.20599	0.003961	-	lincRNA	Null
ENSG00000238758	-3.16845	0.0375	-	miRNA	Null
XLOC_085544	-3.1506	0.042528	-	lncRNA	-
XLOC_111901	-3.13462	0.042765	-	lncRNA	-
XLOC_108207	-3.12533	0.00384	-	lncRNA	-
ENSG00000206715	-3.11514	0.035757	-	snRNA	Null
XLOC_095435	-3.10831	0.000474	-	lncRNA	-
XLOC_082191	-3.10059	0.012339	-	lncRNA	-
ENSG00000246877	-3.05684	0.040572	DNM1P35	Antisense	DNM1 pseudogene 35
XLOC_054552	-3.02451	0.04957	-	lncRNA	-
XLOC_111899	-3.0187	0.000408	-	lncRNA	-
XLOC_022900	-3.00806	0.001581	-	lncRNA	-
ENSG00000187653	-3.00108	0.011295	TMSB4XP8	Pseudogene	Thymosin beta 4, X-linked pseudogene 8
ENSG00000250243	-2.98889	0.01761	-	Antisense	Null
ENSG00000259650	-2.981	0.000846	-	Antisense	Null
XLOC_106533	-2.96025	0.024826	-	lncRNA	-
XLOC_111894	-2.95657	0.002391	-	lncRNA	-
ENSG00000237750	-2.92961	0.040166	AC007740.1	Antisense	Uncharacterized LOC101929570
ENSG00000261763	-2.91928	0.023428	-	lincRNA	Null
XLOC_052494	-2.91426	0.00396	-	lncRNA	-
XLOC_111891	-2.88569	0.007442	-	lncRNA	-
ENSG00000127589	-2.87962	0.025385	TUBBP1	Pseudogene	Tubulin, beta pseudogene 1
XLOC_015636	-2.83397	0.008939	-	lncRNA	-
ENSG00000229390	-2.82105	0.03682	MICD	Pseudogene	MHC class I polypeptide-related sequence D (pseudogene)
ENSG00000217241	-2.80151	0.044766	CBX3P9	Pseudogene	Chromobox homolog 3 pseudogene 9
ENSG00000210127	-2.80029	0.024475	-	Mt_tRNA	Null
ENSG00000272302	-2.78954	0.031381	-	miRNA	Null
XLOC_140200	-2.78055	0.01583	-	lncRNA	-
XLOC_071028	-2.77428	0.034858	-	lncRNA	-
ENSG00000264260	-2.74837	0.004028	-	lincRNA	Null
ENSG00000210107	-2.74812	0.010266	-	Mt_tRNA	Null
ENSG00000233324	-2.74674	0.031708	EEF1A1P34	Pseudogene	Eukaryotic translation elongation factor 1 alpha 1 pseudogene 34
ENSG00000177822	-2.72863	0.000155	AC108142.1	Antisense	Uncharacterized LOC101928703
XLOC_141372	-2.71633	0.036049	-	lncRNA	-
XLOC_111890	-2.71161	0.045401	-	lncRNA	-
XLOC_041791	-2.70541	0.001472	-	lncRNA	-
XLOC_088706	-2.70426	0.048328	-	lncRNA	-
ENSG00000263839	-2.69231	0.040911	-	miRNA	Null
ENSG00000255397	-2.67997	0.0493	-	Pseudogene	Null
ENSG00000234181	-2.66647	0.026919	-	Antisense	Null
ENSG00000244124	-2.66357	0.007791	ATP1B3-AS1	Antisense	ATP1B3 antisense RNA 1

Table SIII. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000233823	-2.64773	0.029496	-	Antisense	Null
ENSG00000238571	-2.61231	0.03764	-	snoRNA	Null
XLOC_091548	-2.61128	0.00785	-	lincRNA	-
XLOC_020897	-2.60548	0.030981	-	lincRNA	-
ENSG00000265962	-2.58342	0.027329	LOC100287082	Antisense	Uncharacterized LOC100287082
XLOC_047677	-2.57063	0.044848	-	lincRNA	-
XLOC_063584	-2.56449	0.039663	-	lincRNA	-
XLOC_019026	-2.55952	0.033171	-	lincRNA	-
ENSG00000224722	-2.55584	0.001021	-	Pseudogene	Null
XLOC_057782	-2.55016	0.01819	-	lincRNA	-
ENSG00000253068	-2.53512	0.024962	SNORD112	snoRNA	Small nucleolar RNA, C/D box 112
ENSG00000258662	-2.51548	0.045938	-	Antisense	Null
XLOC_132498	-2.51479	0.005846	-	lincRNA	-
ENSG00000217414	-2.51227	0.004594	-	Pseudogene	Null
XLOC_036396	-2.47054	0.046387	-	lincRNA	-
ENSG00000225811	-2.46919	0.000127	-	Antisense	Null
ENSG00000231079	-2.45203	0.013199	LOC101928553	Antisense	Uncharacterized LOC101928553
XLOC_111896	-2.4475	0.017323	-	lincRNA	-
ENSG00000210144	-2.44288	0.001191	-	Mt_tRNA	Null
XLOC_037859	-2.41884	0.031426	-	lincRNA	-
ENSG00000259155	-2.3983	0.049034	-	Pseudogene	Null
ENSG00000255308	-2.38699	0.013497	RP11-428C19.4	Antisense	Null
ENSG00000268560	-2.38586	0.032774	-	lincRNA	Null
ENSG00000238273	-2.36832	0.000085	-	Antisense	Null
XLOC_009565	-2.36784	0.030668	-	lincRNA	-
XLOC_073169	-2.36537	0.005794	-	lincRNA	-
ENSG00000269926	-2.34796	8.98E-06	-	Antisense	Null
XLOC_028617	-2.34085	0.011415	-	lincRNA	-
ENSG00000240935	-2.33884	0.033637	PLGLA	Pseudogene	Plasminogen-like A (pseudogene)
ENSG00000243384	-2.32554	6.71E-05	-	Antisense	Null
ENSG00000249540	-2.31463	0.049196	-	Pseudogene	Null
XLOC_120463	-2.31304	0.020116	-	lincRNA	-
ENSG00000236292	-2.31044	0.027757	-	Antisense	Null
XLOC_080933	-2.30476	0.022183	-	lincRNA	-
ENSG00000247872	-2.30391	0.021061	SPCS2P3	Pseudogene	Signal peptidase complex subunit 2 homolog (S. cerevisiae) pseudogene 3
ENSG00000250564	-2.29745	0.018225	-	lincRNA	Null
XLOC_091550	-2.29733	0.028323	-	lincRNA	-
ENSG00000251661	-2.29663	0.009974	-	Antisense	Null
ENSG00000248120	-2.28772	0.003496	-	Pseudogene	Null
XLOC_111898	-2.27711	0.025532	-	lincRNA	-
ENSG00000259195	-2.27211	0.011523	-	Pseudogene	Null
XLOC_096707	-2.26901	0.030226	-	lincRNA	-
ENSG00000224116	-2.2584	0.030993	INHBA-AS1	Antisense	INHBA antisense RNA 1
ENSG00000266129	-2.21093	0.024423	SRP68P1	Pseudogene	Signal recognition particle 68kDa pseudogene 1
ENSG00000249825	-2.20933	0.034024	CTD-2201I18.1	Antisense	Uncharacterized LOC101929215
ENSG00000253098	-2.19666	0.002236	-	snRNA	Null
ENSG00000134297	-2.1905	0.014101	PLEKHA8P1	Pseudogene	Pleckstrin homology domain containing, family A member 8 pseudogene 1
XLOC_124739	-2.18763	0.041889	-	lincRNA	-
XLOC_057879	-2.18701	0.000868	-	lincRNA	-
ENSG00000264843	-2.17552	0.039838	-	Antisense	Null
ENSG00000234327	-2.15467	0.025705	-	Processed_transcript	Null
ENSG00000228160	-2.13986	0.010168	-	lincRNA	Null
XLOC_012386	-2.11888	0.032824	-	lincRNA	-

Table SIII. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
XLOC_078846	-2.11231	0.043187	-	lncRNA	-
ENSG00000259379	-2.11113	0.012817	-	Pseudogene	Null
ENSG00000229723	-2.10933	0.048791	-	Antisense	Null
XLOC_007309	-2.10896	0.013368	-	lncRNA	-
ENSG00000258962	-2.10876	0.027821	-	Pseudogene	Null
ENSG00000258921	-2.10631	0.008996	-	Antisense	Null
ENSG00000258225	-2.0893	0.02252	-	Antisense	Null
ENSG00000252917	-2.0889	0.043088	-	snoRNA	Null
XLOC_119098	-2.0849	0.025561	-	lncRNA	-
ENSG00000234041	-2.07851	0.033669	-	Pseudogene	Null
XLOC_107862	-2.0684	0.000566	-	lncRNA	-
ENSG00000272631	-2.05861	0.001785	-	Antisense	Null
ENSG00000239068	-2.0562	0.017834	-	snoRNA	Null
XLOC_018297	-2.04476	0.023103	-	lncRNA	-
ENSG00000223042	-2.04004	0.022327	-	misc_RNA	Null
ENSG00000182796	-2.03848	0.011498	TMEM198B	Pseudogene	Transmembrane protein 198B, pseudogene
XLOC_046265	-2.03151	0.032972	-	lncRNA	-
ENSG00000226272	-2.0239	0.002081	ARHGAP26-AS1	Antisense	ARHGAP26 antisense RNA 1
ENSG00000266840	-2.01998	0.028148	-	Antisense	Null
XLOC_066062	-2.01505	0.026827	-	lncRNA	-
ENSG00000260988	-2.00276	0.035268	-	lincRNA	Null
ENSG00000253702	-2.00166	0.046489	-	lincRNA	Null
ENSG00000256947	-1.98532	0.01211	-	Antisense	Null
XLOC_044470	-1.98246	0.019537	-	lncRNA	-
ENSG00000237928	-1.96323	0.008219	RP4-668G5.1	Antisense	Uncharacterized LOC100996570
ENSG00000236754	-1.95702	0.017569	AC004019.13	Antisense	Uncharacterized LOC101929372
ENSG00000258444	-1.94793	0.042362	-	Antisense	Null
ENSG00000244743	-1.94301	0.001261	-	Pseudogene	Null
XLOC_125981	-1.93529	0.012811	-	lncRNA	-
ENSG00000246985	-1.91652	0.002611	SOCS2-AS1	Processed_ transcript	SOCS2 antisense RNA 1
ENSG00000259671	-1.91414	0.03788	-	Pseudogene	Null
ENSG00000264203	-1.89466	0.043417	-	miRNA	Null
XLOC_121401	-1.87561	0.029319	-	lncRNA	-
ENSG00000230035	-1.86977	0.048878	-	Antisense	Null
XLOC_047637	-1.8523	0.045345	-	lncRNA	-
ENSG00000241684	-1.85006	0.035556	ADAMTS9-AS2	Antisense	ADAMTS9 antisense RNA 2
XLOC_052878	-1.84694	0.031314	-	lncRNA	-
ENSG00000243629	-1.84598	0.012238	LINC00880	lincRNA	Long intergenic non-protein coding RNA 880
XLOC_119954	-1.84051	0.019239	-	lncRNA	-
ENSG00000244619	-1.83903	0.001471	-	Antisense	Null
ENSG00000257384	-1.83741	0.015904	-	Pseudogene	Null
ENSG00000239742	-1.83079	0.039444	-	misc_RNA	Null
ENSG00000273211	-1.82655	0.016346	-	lincRNA	Null
ENSG00000234482	-1.8017	0.000327	-	Antisense	Null
ENSG00000174912	-1.7699	0.01289	METTL15P1	Pseudogene	Methyltransferase like 15 pseudogene 1
ENSG00000218410	-1.76247	0.029053	-	Pseudogene	Null
XLOC_111893	-1.75984	0.00607	-	lncRNA	-
ENSG00000256657	-1.75568	0.032197	-	Pseudogene	Null
XLOC_009434	-1.75287	0.044531	-	lncRNA	-
XLOC_121996	-1.74816	0.020789	-	lncRNA	-
ENSG00000225496	-1.72339	0.013735	-	Pseudogene	Null
ENSG00000212332	-1.72337	0.038838	-	snRNA	Null
XLOC_138925	-1.7195	0.044578	-	lncRNA	-
ENSG00000250033	-1.71361	0.036198	SLC7A11-AS1	Processed_ transcript	SLC7A11 antisense RNA 1

Table SIII. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000250413	-1.71215	0.03831	-	Antisense	Null
XLOC_009432	-1.70768	0.027634	-	lncRNA	-
XLOC_118991	-1.69893	0.021068	-	lncRNA	-
XLOC_111904	-1.66532	0.002084	-	lncRNA	-
XLOC_040459	-1.65405	0.032867	-	lncRNA	-
XLOC_142596	-1.64557	0.048318	-	lncRNA	-
ENSG00000221540	-1.63746	0.044334	MIR1180	miRNA	microRNA 1180
XLOC_126995	-1.63105	0.047619	-	lncRNA	-
XLOC_069248	-1.62579	0.036443	-	lncRNA	-
XLOC_084341	-1.61347	0.009639	-	lncRNA	-
ENSG00000226786	-1.61081	0.049107	-	Antisense	Null
ENSG00000254423	-1.60856	0.028635	-	Pseudogene	Null
ENSG00000201778	-1.60337	0.041337	-	misc_RNA	Null
ENSG00000235533	-1.59342	0.0078	-	lincRNA	Null
XLOC_101187	-1.5924	0.040825	-	lncRNA	-
ENSG00000259285	-1.56203	0.005915	-	Antisense	Null
ENSG00000199796	-1.55849	0.010256	-	snRNA	Null
ENSG00000225083	-1.55603	0.031736	GRTP1-AS1	Antisense	GRTP1 antisense RNA 1
XLOC_113999	-1.55503	0.020269	-	lncRNA	-
XLOC_138592	-1.55345	0.024888	-	lncRNA	-
XLOC_137984	-1.54377	0.044266	-	lncRNA	-
XLOC_137980	-1.53741	0.017232	-	lncRNA	-
XLOC_091547	-1.53355	0.027242	-	lncRNA	-
XLOC_112309	-1.53084	0.006417	-	lncRNA	-
ENSG00000227398	-1.52464	0.031001	KIF9-AS1	Antisense	KIF9 antisense RNA 1
XLOC_077085	-1.516	0.030713	-	lncRNA	-
XLOC_051293	-1.50557	0.034806	-	lncRNA	-
ENSG00000231373	-1.50221	0.016527	RP11-466A17.1	Antisense	Uncharacterized LOC101927422
ENSG00000259475	1.501725	0.001364	-	Antisense	Null
XLOC_069782	1.509091	0.005589	-	lncRNA	-
ENSG00000254605	1.51318	0.009654	-	lincRNA	Null
ENSG00000214772	1.522798	0.041808	-	Antisense	Null
ENSG00000248730	1.530557	0.031933	EGFLAM-AS4	Antisense	EGFLAM antisense RNA 4
ENSG00000223056	1.53065	0.048759	-	misc_RNA	Null
XLOC_114667	1.538933	0.036133	-	lncRNA	-
ENSG00000250646	1.54387	0.042359	-	Antisense	Null
ENSG00000180769	1.544379	0.022824	WDFY3-AS2	Processed_ transcript	WDFY3 antisense RNA 2
ENSG00000237070	1.553817	0.003176	-	Antisense	Null
ENSG00000253562	1.557219	0.046449	-	Antisense	Null
XLOC_118989	1.560559	0.044002	-	lncRNA	-
ENSG00000224884	1.562788	0.045086	-	lincRNA	Null
XLOC_091506	1.564048	0.039746	-	lncRNA	-
ENSG00000225937	1.56793	0.004226	PCA3	Antisense	Prostate cancer associated 3 (non-protein coding)
ENSG00000207455	1.570625	0.027192	-	snRNA	Null
ENSG00000242861	1.582138	0.019733	-	Antisense	Null
ENSG00000271843	1.585989	0.004926	-	lincRNA	Null
XLOC_142848	1.593348	0.023285	-	lncRNA	-
XLOC_032089	1.59824	0.03809	-	lncRNA	-
XLOC_001807	1.607147	0.011691	-	lncRNA	-
XLOC_073302	1.608217	0.018395	-	lncRNA	-
ENSG00000224973	1.656324	0.002	LARGE-AS1	Processed_ transcript	LARGE antisense RNA 1
ENSG00000252329	1.661561	0.029943	SCARNA16	snoRNA	Small Cajal body-specific RNA 16
ENSG00000227934	1.677338	0.022901	-	Pseudogene	Null
XLOC_138715	1.680003	0.037064	-	lncRNA	-
ENSG00000204625	1.684076	0.04178	HCG9	lincRNA	HLA complex group 9 (non-protein coding)

Table SIII. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000259914	1.686348	0.021914	-	Antisense	Null
ENSG00000152931	1.688485	0.002406	PART1	lincRNA	Prostate androgen-regulated transcript 1 (non-protein coding)
ENSG00000256987	1.696922	0.038972	-	Pseudogene	Null
ENSG00000207402	1.698909	0.001093	-	snRNA	Null
ENSG00000249337	1.703718	0.03157	SNX18P25	Pseudogene	Sorting nexin 18 pseudogene 25
XLOC_147308	1.703735	0.042709	-	lincRNA	-
ENSG00000237993	1.70584	0.004745	-	Antisense	Null
ENSG00000200091	1.71062	0.009403	-	misc_RNA	Null
ENSG00000227999	1.723051	0.015507	MTND5P1	Pseudogene	MT-ND5 pseudogene 1
ENSG00000200378	1.723503	0.043526	RNU5B-4P	snRNA	RNA, U5B small nuclear 4, pseudogene
XLOC_012742	1.725934	0.005701	-	lincRNA	-
ENSG00000242082	1.732049	0.008454	-	Antisense	Null
ENSG00000259959	1.754508	0.007714	-	lincRNA	Null
XLOC_013969	1.77111	0.023174	-	lincRNA	-
XLOC_062388	1.771296	0.023486	-	lincRNA	-
XLOC_107648	1.77388	0.001994	-	lincRNA	-
ENSG00000249849	1.778567	0.017108	-	Antisense	Null
ENSG00000269614	1.797255	0.04844	-	lincRNA	Null
ENSG00000199536	1.798671	0.036311	-	snRNA	Null
ENSG00000249210	1.800221	0.023426	GAPDHP38	Pseudogene	Glyceraldehyde 3 phosphate dehydroge nase pseudogene 38
ENSG00000259594	1.801302	0.035586	-	lincRNA	Null
XLOC_102085	1.803242	0.013867	-	lincRNA	-
ENSG00000259621	1.803708	0.001234	-	Antisense	Null
XLOC_054398	1.814591	0.049699	-	lincRNA	-
XLOC_019452	1.815436	0.043774	-	lincRNA	-
ENSG00000225124	1.840309	0.014117	-	Pseudogene	Null
XLOC_041989	1.850597	0.019058	-	lincRNA	-
XLOC_139327	1.851799	0.007279	-	lincRNA	-
ENSG00000232852	1.854482	0.048349	CICP4	Pseudogene	Capicua transcriptional repressor pseudogene 4
XLOC_095460	1.871179	0.013572	-	lincRNA	-
ENSG00000233363	1.891014	0.044044	-	Antisense	Null
ENSG00000231052	1.901382	0.044651	-	lincRNA	Null
XLOC_046757	1.915378	0.033439	-	lincRNA	-
ENSG00000250846	1.930365	0.001101	RP11-807H7.1	lincRNA	Uncharacterized LOC100144602
ENSG00000264247	1.93524	0.031347	LINC00909	lincRNA	Long intergenic non-protein coding RNA 909
ENSG00000226781	1.94713	0.041186	TBCAP1	Pseudogene	Tubulin folding cofactor A pseudogene 1
XLOC_028670	1.96997	0.028388	-	lincRNA	-
XLOC_095906	1.980607	0.000618	-	lincRNA	-
ENSG00000206592	1.992821	0.040772	SNORA18	snoRNA	Small nucleolar RNA, H/ACA box 18
XLOC_095670	2.002869	0.04386	-	lincRNA	-
ENSG00000261856	2.005365	0.043195	LOC101927348	lincRNA	Uncharacterized LOC101927348
ENSG00000264446	2.014403	0.034963	-	miRNA	Null
XLOC_000403	2.01616	0.022938	-	lincRNA	-
ENSG00000224611	2.020759	0.018829	-	Pseudogene	Null
XLOC_013623	2.024796	0.012826	-	lincRNA	-
XLOC_103336	2.029985	0.020118	-	lincRNA	-
ENSG00000226342	2.032883	0.040405	NMD3P1	Pseudogene	NMD3 ribosome export adaptor pseudogene 1
ENSG00000248265	2.041777	0.036968	FLJ12825	lincRNA	Uncharacterized LOC440101
ENSG00000270615	2.045668	0.001962	-	Pseudogene	Null
ENSG00000270109	2.057967	0.009046	-	lincRNA	Null
XLOC_102084	2.063242	0.002342	-	lincRNA	-

Table SIII. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000260844	2.066429	0.034217	-	Pseudogene	Null
ENSG00000224050	2.074481	0.001242	-	lincRNA	Null
ENSG00000267240	2.090767	0.01951	-	lincRNA	Null
ENSG00000271511	2.109064	0.014114	-	Pseudogene	Null
ENSG00000240211	2.119752	0.032404	-	Antisense	Null
XLOC_091583	2.123901	0.021862	-	lincRNA	-
XLOC_016378	2.144298	0.031715	-	lincRNA	-
XLOC_103332	2.160623	0.023933	-	lincRNA	-
ENSG00000261048	2.180596	0.014899	-	Pseudogene	Null
XLOC_004532	2.222679	0.031129	-	lincRNA	-
XLOC_142301	2.22362	0.036436	-	lincRNA	-
XLOC_114482	2.226836	0.002586	-	lincRNA	-
ENSG00000248571	2.238614	0.033402	-	Antisense	Null
ENSG00000256835	2.251724	0.021993	-	Pseudogene	Null
ENSG00000234736	2.252279	0.043507	FAM170B-AS1	Antisense	FAM170B antisense RNA 1
ENSG00000266934	2.260536	0.037144	-	Sense intronic	Null
ENSG00000226285	2.261193	0.005042	-	Pseudogene	Null
XLOC_105650	2.281295	0.03019	-	lincRNA	-
ENSG00000228764	2.290036	0.042441	ZNF885P	Pseudogene	Zinc finger protein 885, pseudogene
XLOC_042436	2.291839	0.009953	-	lincRNA	-
XLOC_017036	2.309231	0.024802	-	lincRNA	-
ENSG00000267647	2.33874	0.02721	MAP1LC3P	Pseudogene	Microtubule-associated protein 1 light chain 3 pseudogene
XLOC_025643	2.348664	0.023979	-	lincRNA	-
ENSG00000235378	2.356694	0.00803	MRPS10P1	Pseudogene	Mitochondrial ribosomal protein S10 pseudogene 1
XLOC_062897	2.358161	0.038594	-	lincRNA	-
ENSG00000215039	2.375753	0.043888	CD27-AS1	Antisense	CD27 antisense RNA 1
XLOC_142287	2.386469	0.002179	-	lincRNA	-
XLOC_107637	2.392062	0.040181	-	lincRNA	-
ENSG00000213467	2.398684	0.035464	HMGB1P37	Pseudogene	High mobility group box 1 pseudogene 37
XLOC_075572	2.401232	0.019273	-	lincRNA	-
ENSG00000252502	2.406408	0.020375	SNORD112	snoRNA	Small nucleolar RNA, C/D box 112
XLOC_026110	2.426121	0.037764	-	lincRNA	-
ENSG00000271581	2.438885	0.001053	-	Pseudogene	Null
XLOC_107646	2.439076	0.001841	-	lincRNA	-
ENSG00000224500	2.443286	0.040291	-	Antisense	Null
XLOC_004531	2.451415	8.84E-06	-	lincRNA	-
ENSG00000256563	2.457883	0.014588	-	Pseudogene	Null
XLOC_048969	2.459918	0.005122	-	lincRNA	-
ENSG00000244432	2.46664	0.042091	RPL39P28	Pseudogene	Ribosomal protein L39 pseudogene 28
XLOC_132388	2.466743	0.037662	-	lincRNA	-
XLOC_114644	2.481829	0.030437	-	lincRNA	-
XLOC_136388	2.484652	0.006347	-	lincRNA	-
ENSG00000270670	2.493762	0.019962	-	Pseudogene	Null
ENSG00000273325	2.515353	8.16E-05	-	lincRNA	Null
XLOC_086576	2.524453	0.032436	-	lincRNA	-
XLOC_032382	2.534139	0.006932	-	lincRNA	-
XLOC_102649	2.545231	0.006687	-	lincRNA	-
ENSG00000233718	2.575548	0.016385	MYCNOS	Antisense	MYCN opposite strand
XLOC_042784	2.576659	0.048239	-	lincRNA	-
XLOC_081857	2.583018	0.030013	-	lincRNA	-
ENSG00000268458	2.58386	0.036603	-	lincRNA	Null
XLOC_025893	2.600218	0.00063	-	lincRNA	-
XLOC_010523	2.602492	0.037955	-	lincRNA	-
XLOC_039042	2.60847	0.013497	-	lincRNA	-
XLOC_026665	2.61725	0.006683	-	lincRNA	-

Table SIII. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
XLOC_108990	2.617313	0.035935	-	lncRNA	-
ENSG00000199906	2.626069	0.020519	RNU5B-2P	snRNA	RNA, U5B small nuclear 2, pseudogene
XLOC_065229	2.640516	0.009685	-	lncRNA	-
ENSG00000225497	2.643334	0.044787	RP11-180I22.2	Antisense	Uncharacterized LOC101929310
XLOC_082479	2.679817	0.034166	-	lncRNA	-
ENSG00000261419	2.683188	0.010658	-	Pseudogene	Null
ENSG00000211697	2.709283	0.026846	TRGV5	TR_V_gene	T cell receptor gamma variable 5
ENSG00000258912	2.712476	0.044699	-	lincRNA	Null
ENSG00000231789	2.732229	0.027018	-	Antisense	Null
XLOC_096853	2.745734	0.028365	-	lncRNA	-
XLOC_027006	2.751298	0.047577	-	lncRNA	-
XLOC_122432	2.795913	0.031248	-	lncRNA	-
ENSG00000249584	2.801704	0.02326	RP11-478P10.1	lincRNA	Uncharacterized LOC101928539
XLOC_120490	2.832629	0.038417	-	lncRNA	-
XLOC_106940	2.844438	0.004953	-	lncRNA	-
ENSG00000234842	2.857967	0.010018	-	Pseudogene	Null
ENSG00000252256	2.877494	0.007753	SNORD112	snoRNA	Small nucleolar RNA, C/D box 112
ENSG00000223484	2.927688	0.024715	TRPC6P	Pseudogene	Transient receptor potential cation channel, subfamily C, member 6 pseudogene
ENSG00000259072	2.95057	0.024439	-	lincRNA	Null
XLOC_095353	2.967687	0.029387	-	lncRNA	-
XLOC_033596	3.007338	0.002596	-	lncRNA	-
XLOC_127021	3.049155	0.024262	-	lncRNA	-
XLOC_035273	3.072552	0.013743	-	lncRNA	-
XLOC_065132	3.085713	0.046703	-	lncRNA	-
XLOC_019783	3.093453	0.04639	-	lncRNA	-
XLOC_035393	3.094776	0.012681	-	lncRNA	-
XLOC_050874	3.187517	0.013954	-	lncRNA	-
XLOC_008820	3.198765	0.03775	-	lncRNA	-
ENSG00000251458	3.205146	0.010226	-	lincRNA	Null
ENSG00000270538	3.225926	0.005493	-	Pseudogene	Null
XLOC_119535	3.226766	0.043711	-	lncRNA	-
ENSG00000238888	3.283878	0.00849	-	snoRNA	Null
XLOC_005857	3.29598	0.037331	-	lncRNA	-
XLOC_142554	3.310447	0.042735	-	lncRNA	-
XLOC_039656	3.311715	0.034885	-	lncRNA	-
XLOC_032384	3.321989	0.043594	-	lncRNA	-
XLOC_050406	3.344679	0.035448	-	lncRNA	-
XLOC_115249	3.383407	0.011285	-	lncRNA	-
XLOC_065829	3.399769	0.002073	-	lncRNA	-
XLOC_107638	3.404179	0.023683	-	lncRNA	-
ENSG00000213942	3.406191	0.017632	-	Pseudogene	Null
ENSG00000228868	3.406418	0.026041	MYLKP1	Pseudogene	Myosin light chain kinase pseudogene 1
ENSG00000235285	3.437737	0.02427	SMIM2-IT1	Sense_intronic	SMIM2 intronic transcript 1 (non-protein coding)
XLOC_065253	3.439385	0.021937	-	lncRNA	-
ENSG00000260551	3.439515	0.038494	PWRN2	lincRNA	Prader-Willi region non-protein coding RNA 2
ENSG00000259307	3.461659	0.000562	PLCB2-AS1	Antisense	PLCB2 antisense RNA 1
XLOC_134475	3.480659	0.030219	-	lncRNA	-
XLOC_047157	3.523056	3.21E-05	-	lncRNA	-
ENSG00000270831	3.531477	0.00239	NF1P1	Pseudogene	Neurofibromin 1 pseudogene 1
ENSG00000250347	3.543502	0.025256	-	Pseudogene	Null
ENSG00000200278	3.571172	0.032174	RNA5SP352	rRNA	RNA, 5S ribosomal pseudogene 352
XLOC_021053	3.571958	0.029076	-	lncRNA	-



Table SIII. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000205946	3.597619	0.014407	USP17L6P	Pseudogene	Ubiquitin specific peptidase 17-like family member 6, pseudogene
ENSG00000270114	3.597619	0.01441	-	Antisense	Null
XLOC_032229	3.61303	0.012432	-	lncRNA	-
ENSG00000259462	3.623982	0.013532	RP11-752G15.3	Antisense	Uncharacterized LOC283692
XLOC_123451	3.62402	0.010547	-	lncRNA	-
XLOC_108968	3.670823	0.033392	-	lncRNA	-
XLOC_051936	3.690585	0.007577	-	lncRNA	-
XLOC_026997	3.695323	0.034969	-	lncRNA	-
XLOC_103586	3.732126	0.012684	-	lncRNA	-
XLOC_098738	3.760351	0.00997	-	lncRNA	-
XLOC_009114	3.793232	5.31E-05	-	lncRNA	-
XLOC_108988	3.893119	0.007131	-	lncRNA	-
ENSG00000257259	3.903955	0.011728	RP11-767I20.1	lincRNA	Uncharacterized LOC101927653
XLOC_022613	3.922471	0.026387	-	lncRNA	-
ENSG00000252890	3.961024	0.004918	-	snRNA	Null
XLOC_120687	4.122188	0.001305	-	lncRNA	-
ENSG00000225972	4.154679	0.017753	MTND1P23	Pseudogene	MT-ND1 pseudogene 23
XLOC_108949	4.22879	0.012402	-	lncRNA	-
XLOC_086052	4.355532	0.000305	-	lncRNA	-
ENSG00000230156	4.405984	0.006336	LINC00443	lincRNA	Long intergenic non-protein coding RNA 443
XLOC_120487	4.426457	0.006658	-	lncRNA	-
XLOC_065831	4.498828	0.003372	-	lncRNA	-
ENSG00000232772	4.500929	0.04177	MTND4P22	Pseudogene	MT-ND4 pseudogene 22
XLOC_119095	4.514755	0.043946	-	lncRNA	-
ENSG00000240354	4.518427	0.048288	-	lincRNA	Null
XLOC_095205	4.518427	0.048294	-	lncRNA	-
XLOC_058470	4.644846	1.01E-05	-	lncRNA	-
XLOC_088298	4.648085	0.038769	-	lncRNA	-
XLOC_034774	4.651992	0.029752	-	lncRNA	-
XLOC_043690	4.664569	0.030002	-	lncRNA	-
XLOC_126278	4.667307	0.027143	-	lncRNA	-
ENSG00000235494	4.667307	0.027153	-	lincRNA	Null
ENSG00000251393	4.673996	0.041083	-	Processed_ transcript	Null
ENSG00000253121	4.675474	0.047373	-	Antisense	Null
XLOC_054044	4.677763	0.035658	-	lncRNA	-
ENSG00000199306	4.695053	0.042221	-	snRNA	Null
ENSG00000228818	4.743557	0.046182	-	Pseudogene	Null
XLOC_086045	4.759703	0.035151	-	lncRNA	-
XLOC_069780	4.78688	0.027733	-	lncRNA	-
XLOC_122967	4.78688	0.02773	-	lncRNA	-
XLOC_104716	4.838759	0.049438	-	lncRNA	-
XLOC_084634	4.84073	0.038767	-	lncRNA	-
ENSG00000267736	4.84073	0.038767	HMGB2P1	Pseudogene	High mobility group box 2 pseudogene 1
ENSG00000249928	4.848204	0.031199	UQCRBP3	Pseudogene	Ubiquinol-cytochrome c reductase binding protein pseudogene 3
ENSG00000267611	4.85168	0.033853	-	Pseudogene	Null
XLOC_095119	4.865454	0.046659	-	lncRNA	-
XLOC_098712	4.919558	0.044042	-	lncRNA	-
XLOC_007752	4.946488	0.016104	-	lncRNA	-
ENSG00000269802	4.950081	0.018045	-	Antisense	Null
ENSG00000266999	4.950082	0.018053	-	lincRNA	Null
XLOC_039782	4.952222	0.014535	-	lncRNA	-
XLOC_082561	4.954478	0.013553	-	lncRNA	-
ENSG00000260721	4.963824	0.018338	-	lincRNA	Null
XLOC_081336	4.979625	0.031292	-	lncRNA	-

Table SIII. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
XLOC_066076	4.989764	0.037597	-	lncRNA	-
XLOC_079240	4.989947	0.046968	-	lncRNA	-
XLOC_114661	5.021965	0.019033	-	lncRNA	-
ENSG00000222303	5.032592	0.012648	-	snRNA	Null
XLOC_005772	5.036414	0.033907	-	lncRNA	-
XLOC_053516	5.070073	0.039583	-	lncRNA	-
XLOC_001862	5.072275	0.020057	-	lncRNA	-
XLOC_096906	5.074298	0.013828	-	lncRNA	-
XLOC_066340	5.086394	0.014222	-	lncRNA	-
ENSG00000233262	5.093199	0.042882	-	Antisense	Null
XLOC_040861	5.120239	0.028275	-	lncRNA	-
ENSG00000238145	5.214703	0.016092	-	Pseudogene	Null
XLOC_081338	5.225221	0.03451	-	lncRNA	-
ENSG00000188384	5.239552	0.021979	CSPG4P8	Pseudogene	Chondroitin sulfate proteoglycan 4 pseudogene 8
XLOC_134242	5.250921	0.04246	-	lncRNA	-
XLOC_024568	5.28117	0.024607	-	lncRNA	-
XLOC_065827	5.306631	0.009394	-	lncRNA	-
XLOC_028679	5.307905	0.02579	-	lncRNA	-
XLOC_048564	5.313212	0.04012	-	lncRNA	-
XLOC_098735	5.333556	0.018342	-	lncRNA	-
XLOC_029430	5.333904	0.019449	-	lncRNA	-
XLOC_064335	5.432083	0.00664	-	lncRNA	-
XLOC_001737	5.471293	0.003085	-	lncRNA	-
XLOC_120481	5.477276	0.010822	-	lncRNA	-
ENSG00000259124	5.494492	0.003057	-	lincRNA	Null
XLOC_009120	5.505798	0.005247	-	lncRNA	-
XLOC_119012	5.585086	0.003566	-	lncRNA	-
XLOC_082480	5.595733	0.006948	-	lncRNA	-
ENSG00000271164	5.610237	0.002161	-	Pseudogene	Null
XLOC_030410	5.697196	0.000923	-	lncRNA	-
ENSG00000233078	5.7779	0.009417	-	Antisense	Null
ENSG00000225417	5.877823	0.000497	-	Antisense	Null
ENSG00000264315	6.026554	0.003793	HNRNPA1P11	Pseudogene	Heterogeneous nuclear ribonucleoprotein A1 pseudogene 11
XLOC_096851	6.109146	0.000925	-	lncRNA	-
XLOC_009117	6.276863	2.1E-08	-	lncRNA	-
ENSG00000214695	6.499005	0.008395	NPAP1P2	Pseudogene	Nuclear pore associated protein 1 pseudogene 2
XLOC_021979	9.199655	1.37E-05	-	lncRNA	-

FC, fold change; ParoAF, paroxysmal atrial fibrillation.

Table SIV. The differentially expressed mRNAs in the PersAF\_Control group.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000173093	-5.99287	0.011973	CCDC63	Protein coding	Coiled-coil domain containing 63
ENSG00000171443	-5.87528	0.000297	ZNF524	Protein coding	Zinc finger protein 524
ENSG00000174358	-5.74887	0.02903	SLC6A19	Protein coding	Solute carrier family 6 (neutral amino acid transporter), member 19
ENSG00000243489	-5.64747	0.002424	KRTAP10-11	Protein coding	Keratin associated protein 10-11
ENSG00000110400	-5.42173	0.003934	PVRL1	Protein coding	Poliovirus receptor-related 1 (herpesvirus entry mediator C)
ENSG00000134917	-5.39991	0.010571	ADAMTS8	Protein coding	ADAM metalloproteinase with thrombospondin type 1 motif, 8
ENSG00000111641	-5.37811	0.002718	NOP2	Protein coding	NOP2 nucleolar protein
ENSG00000125740	-5.35988	0.002803	FOSB	Protein coding	FBJ murine osteosarcoma viral oncogene homolog B
ENSG00000221859	-5.32283	0.01583	KRTAP10-10	Protein coding	Keratin associated protein 10-10
ENSG00000080166	-5.263	0.004439	DCT	Protein coding	Dopachrome tautomerase
ENSG00000137054	-5.18166	0.006278	POLR1E	Protein coding	Polymerase (RNA) I polypeptide E, 53kDa
ENSG00000151612	-5.18034	0.005325	ZNF827	Protein coding	Zinc finger protein 827
ENSG00000169684	-5.14603	0.024942	CHRNA5	Protein coding	Cholinergic receptor, nicotinic, alpha 5 (neuronal)
ENSG00000126467	-5.09231	0.009003	TSKS	Protein coding	Testis-specific serine kinase substrate
ENSG00000234438	-5.0667	0.032127	KBTBD13	Protein coding	Kelch repeat and BTB (POZ) domain containing 13
ENSG00000168803	-5.04569	0.032524	ADAL	Protein coding	Adenosine deaminase-like
ENSG00000213928	-5.02668	0.026323	IRF9	Protein coding	Interferon regulatory factor 9
ENSG00000181562	-4.9874	0.01174	EDDM3A	Protein coding	Epididymal protein 3A
ENSG00000110955	-4.96971	0.011369	ATP5B	Protein coding	ATP synthase, H <sup>+</sup> transporting, mitochondrial F1 complex, beta polypeptide
ENSG00000184809	-4.9533	0.022101	C21orf88	Protein coding	Chromosome 21 open reading frame 88
ENSG00000183888	-4.90808	0.009608	C1orf64	Protein coding	Chromosome 1 open reading frame 64
ENSG00000146281	-4.88442	0.042349	PM20D2	Protein coding	Peptidase M20 domain containing 2
ENSG00000223802	-4.84731	0.018707	CERS1	Protein coding	Ceramide synthase 1
ENSG00000105576	-4.79959	0.036058	TNPO2	Protein coding	Transportin 2
ENSG00000240720	-4.70742	0.029714	LRRD1	Protein coding	Leucine-rich repeats and death domain containing 1
ENSG00000134200	-4.70159	0.027463	TSHB	Protein coding	Thyroid stimulating hormone, beta
ENSG00000157014	-4.58877	0.042381	TATDN2	Protein coding	TatD DNase domain containing 2
ENSG00000269699	-4.58877	0.042378	ZIM2	Protein coding	Zinc finger, imprinted 2
ENSG00000205147	-4.57646	0.030311	-	Protein coding	Null
ENSG00000185716	-4.57532	0.048433	C16orf52	Protein coding	Chromosome 16 open reading frame 52
ENSG00000113448	-4.52631	0.002131	PDE4D	Protein coding	Phosphodiesterase 4D, cAMP-specific
ENSG00000107223	-4.42514	0.047215	EDF1	Protein coding	Endothelial differentiation-related factor 1
ENSG00000113263	-4.41026	0.000111	ITK	Protein coding	IL2-inducible T-cell kinase
ENSG00000215041	-4.40811	0.040873	NEURL4	Protein coding	Neutralized E3 ubiquitin protein ligase 4
ENSG00000058056	-4.4061	0.045102	USP13	Protein coding	Ubiquitin specific peptidase 13 (isopeptidase T-3)
ENSG00000142227	-3.93709	0.00205	EMP3	Protein coding	Epithelial membrane protein 3
ENSG00000258289	-3.90118	0.023603	CHURC1	Protein coding	Churchill domain containing 1
ENSG00000160888	-3.84417	0.020382	IER2	Protein coding	Immediate early response 2
ENSG00000197299	-3.8149	0.011816	BLM	Protein coding	Bloom syndrome, RecQ helicase-like
ENSG00000176435	-3.7135	0.004096	CLEC14A	Protein coding	C-type lectin domain family 14, member A
ENSG00000168135	-3.67345	0.004645	KCNJ4	Protein coding	Potassium inwardly-rectifying channel, subfamily J, member 4
ENSG00000160741	-3.645	0.001532	CRTC2	Protein coding	CREB regulated transcription coactivator 2
ENSG00000166268	-3.64196	0.005139	MYRFL	Protein coding	Myelin regulatory factor-like
ENSG00000249104	-3.63645	0.00622	USP17L17	Protein coding	Ubiquitin specific peptidase 17-like family member 17
ENSG00000205209	-3.59655	2.12E-05	SCGB2B2	Protein coding	Secretoglobin, family 2B, member 2
ENSG00000164645	-3.59562	0.005845	C7orf62	Protein coding	Chromosome 7 open reading frame 62

Table SIV. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000134343	-3.56951	0.039805	ANO3	Protein coding	Anoctamin 3
ENSG00000123374	-3.50333	0.030517	CDK2	Protein coding	Cyclin-dependent kinase 2
ENSG00000204923	-3.44673	0.020046	FBXO48	Protein coding	F-box protein 48
ENSG00000196166	-3.39037	0.030491	C8orf86	Protein coding	Chromosome 8 open reading frame 86
ENSG00000135750	-3.36289	0.004443	KCNK1	Protein coding	Potassium channel, subfamily K, member 1
ENSG00000145358	-3.33528	0.024385	DDIT4L	Protein coding	DNA-damage-inducible transcript 4-like
ENSG00000137168	-3.30922	0.002595	PPIL1	Protein coding	Peptidylprolyl isomerase (cyclophilin)-like 1
ENSG00000164743	-3.29474	0.021191	C8orf48	Protein coding	Chromosome 8 open reading frame 48
ENSG00000161647	-3.28567	0.004706	MPP3	Protein coding	Membrane protein, palmitoylated 3 (MAGUK p55 subfamily member 3)
ENSG00000219200	-3.25476	0.022851	RNASEK	Protein coding	Ribonuclease, RNase K
ENSG00000154655	-3.20374	0.002917	L3MBTL4	Protein coding	l(3)mbt-like 4 (Drosophila)
ENSG00000183629	-3.17562	0.013666	GOLGA8G	Protein coding	Golgin A8 family, member G
ENSG00000163462	-3.17232	0.000589	TRIM46	Protein coding	Tripartite motif containing 46
ENSG00000267885	-3.1667	0.032162	FKSG48	Protein coding	FKSG48
ENSG00000153786	-3.10133	0.042641	ZDHHC7	Protein coding	Zinc finger, DHHC-type containing 7
ENSG00000122367	-3.03841	0.048648	LDB3	Protein coding	LIM domain binding 3
ENSG00000183943	-3.01071	0.004976	PRKX	Protein coding	Protein kinase, X-linked
ENSG00000104812	-3.00159	0.005598	GYS1	Protein coding	Glycogen synthase 1 (muscle)
ENSG00000175318	-2.98901	0.002231	GRAMD2	Protein coding	GRAM domain containing 2
ENSG00000127922	-2.98624	0.038666	SHFM1	Protein coding	Split hand/foot malformation (ectrodactyly) type 1
ENSG00000068001	-2.95485	0.009512	HYAL2	Protein coding	Hyaluronoglucosaminidase 2
ENSG00000184293	-2.91131	0.002213	CLECL1	Protein coding	C-type lectin-like 1
ENSG00000126012	-2.8574	0.011881	KDM5C	Protein coding	Lysine (K)-specific demethylase 5C
ENSG00000064309	-2.84563	0.037315	CDON	Protein coding	Cell adhesion associated, oncogene regulated
ENSG00000011021	-2.81251	0.016572	CLCN6	Protein coding	Chloride channel, voltage-sensitive 6
ENSG00000167700	-2.73234	0.018025	MFSD3	Protein coding	Major facilitator superfamily domain containing 3
ENSG00000147804	-2.72292	0.012143	SLC39A4	Protein coding	Solute carrier family 39 (zinc transporter), member 4
ENSG00000156671	-2.72126	0.021626	SAMD8	Protein coding	Sterile alpha motif domain containing 8
ENSG00000185633	-2.71841	0.014628	NDUFA4L2	Protein coding	NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 4-like 2
ENSG00000105849	-2.70801	0.006444	TWISTNB	Protein coding	TWIST neighbor
ENSG00000105609	-2.68411	0.024147	LILRB5	Protein coding	Leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 5
ENSG00000163349	-2.6556	0.012824	HIPK1	Protein coding	Homeodomain interacting protein kinase 1
ENSG00000115271	-2.65501	0.014146	GCA	Protein coding	Grancalcin, EF-hand calcium binding protein
ENSG00000181499	-2.65237	0.022386	OR6T1	Protein coding	Olfactory receptor, family 6, subfamily T, member 1
ENSG00000105650	-2.61452	0.009712	LOC729966	Protein coding	Uncharacterized LOC729966
ENSG00000125384	-2.61016	0.030586	PTGER2	Protein coding	Prostaglandin E receptor 2 (subtype EP2), 53kDa
ENSG00000115687	-2.60001	0.013926	PASK	Protein coding	PAS domain containing serine/threonine kinase
ENSG00000171431	-2.58386	0.046232	KRT20	Protein coding	Keratin 20
ENSG00000168237	-2.54955	0.010397	GLYCK	Protein coding	Glycerate kinase
ENSG00000165731	-2.52072	0.017925	RET	Protein coding	Ret proto-oncogene
ENSG00000127824	-2.52039	0.009256	TUBA4A	Protein coding	Tubulin, alpha 4a
ENSG00000100815	-2.47089	0.000899	TRIP11	Protein coding	Thyroid hormone receptor interactor 11
ENSG00000108557	-2.47072	0.034906	RAI1	Protein coding	Retinoic acid induced 1
ENSG00000113742	-2.46116	0.023921	CPEB4	Protein coding	Cytoplasmic polyadenylation element binding protein 4

Table SIV. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000187630	-2.44986	0.021418	DHRS4L2	Protein coding	Dehydrogenase/reductase (SDR family) member 4 like 2
ENSG00000134590	-2.44672	0.039417	FAM127A	Protein coding	Family with sequence similarity 127, member A
ENSG00000166794	-2.39735	0.000214	PPIB	Protein coding	Peptidylprolyl isomerase B (cyclophilin B)
ENSG00000182173	-2.35856	0.046529	TSEN54	Protein coding	TSEN54 tRNA splicing endonuclease subunit
ENSG00000198925	-2.32463	0.036248	ATG9A	Protein coding	Autophagy related 9A
ENSG00000165682	-2.32155	0.044413	CLEC1B	Protein coding	C-type lectin domain family 1, member B
ENSG00000168264	-2.29044	0.036174	IRF2BP2	Protein coding	Interferon regulatory factor 2 binding protein 2
ENSG00000250844	-2.27184	0.046974	USP17L18	Protein coding	Ubiquitin specific peptidase 17-like family member 18
ENSG00000142186	-2.24653	0.002953	SCYL1	Protein coding	SCY1-like 1 ( <i>S. cerevisiae</i> )
ENSG00000179133	-2.21884	0.043475	C10orf67	Protein coding	Chromosome 10 open reading frame 67
ENSG00000183248	-2.18732	0.049111	FLJ22184	Protein coding	Putative uncharacterized protein FLJ22184
ENSG00000124564	-2.18533	0.016379	SLC17A3	Protein coding	Solute carrier family 17 (organic anion transporter), member 3
ENSG00000099364	-2.18502	0.031067	FBXL19	Protein coding	F-box and leucine-rich repeat protein 19
ENSG00000030419	-2.16777	0.017937	IKZF2	Protein coding	IKAROS family zinc finger 2 (Helios)
ENSG00000109016	-2.16542	0.030462	DHRS7B	Protein coding	Dehydrogenase/reductase (SDR family) member 7B
ENSG00000131504	-2.13395	0.010385	DIAPH1	Protein coding	Diaphanous-related formin 1
ENSG00000171858	-2.13383	0.008654	RPS21	Protein coding	Ribosomal protein S21
ENSG00000116478	-2.12525	0.004956	HDAC1	Protein coding	Histone deacetylase 1
ENSG00000160679	-2.12234	0.004343	CHTOP	Protein coding	Chromatin target of PRMT1
ENSG00000137310	-2.11553	0.02783	TCF19	Protein coding	Transcription factor 19
ENSG00000145536	-2.10556	0.011914	ADAMTS16	Protein coding	ADAM metallopeptidase with thrombospondin type 1 motif, 16
ENSG00000167613	-2.09378	0.026576	LAIR1	Protein coding	Leukocyte-associated immunoglobulin-like receptor 1
ENSG00000148143	-2.08914	0.013059	ZNF462	Protein coding	Zinc finger protein 462
ENSG00000224051	-2.06121	0.017969	GLTPD1	Protein coding	Glycolipid transfer protein domain containing 1
ENSG00000146066	-2.05574	0.010369	HIGD2A	Protein coding	HIG1 hypoxia inducible domain family, member 2A
ENSG00000174175	-2.05169	0.043901	SELP	Protein coding	Selectin P (granule membrane protein 140kDa, antigen CD62)
ENSG00000155265	-2.02857	0.006511	GOLGA7B	Protein coding	Golgin A7 family, member B
ENSG00000267796	-2.02808	0.023466	LIN37	Protein coding	Lin-37 homolog ( <i>C. elegans</i> )
ENSG00000140990	-2.0207	0.014924	NDUFB10	Protein coding	NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 10, 22kDa
ENSG00000148175	-2.01357	0.046475	STOM	Protein coding	Stomatin
ENSG00000159166	-2.008	0.007092	LAD1	Protein coding	Ladinin 1
ENSG00000104419	-1.98572	0.009981	NDRG1	Protein coding	N-myc downstream regulated 1
ENSG00000074800	-1.97888	0.047208	ENO1	Protein coding	Enolase 1, (alpha)
ENSG00000145782	-1.95314	0.016395	ATG12	Protein coding	Autophagy related 12
ENSG00000182912	-1.94646	0.029092	C21orf90	Protein coding	Chromosome 21 open reading frame 90
ENSG00000220008	-1.93685	0.032144	LINGO3	Protein coding	Leucine rich repeat and Ig domain containing 3
ENSG00000188158	-1.93658	0.048148	NHS	Protein coding	Nance-Horan syndrome (congenital cataracts and dental anomalies)
ENSG00000184702	-1.9273	0.0418	5-Sep	Protein coding	Septin 5
ENSG00000074803	-1.92604	0.013938	SLC12A1	Protein coding	Solute carrier family 12 (sodium/potassium/chloride transporter), member 1
ENSG00000140848	-1.92096	0.000998	CPNE2	Protein coding	Copine II
ENSG00000034677	-1.90826	0.023799	RNF19A	Protein coding	Ring finger protein 19A, RBR E3 ubiquitin protein ligase

Table SIV. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000110422	-1.90719	0.024698	HIPK3	Protein coding	Homeodomain interacting protein kinase 3
ENSG00000131650	-1.88351	0.040332	KREMEN2	Protein coding	Kringle containing transmembrane protein 2
ENSG00000160326	-1.87873	0.013485	SLC2A6	Protein coding	Solute carrier family 2 (facilitated glucose transporter), member 6
ENSG00000115194	-1.86661	0.004272	SLC30A3	Protein coding	Solute carrier family 30 (zinc transporter), member 3
ENSG00000119862	-1.84449	0.048076	LGALSL	Protein coding	Lectin, galactoside-binding-like
ENSG00000114993	-1.8409	0.04895	RTKN	Protein coding	Rhotekin
ENSG00000198216	-1.83123	0.013336	CACNA1E	Protein coding	Calcium channel, voltage-dependent, R type, alpha 1E subunit
ENSG0000018408	-1.81741	0.01055	WWTR1	Protein coding	WW domain containing transcription regulator 1
ENSG00000107829	-1.76342	0.035773	FBXW4	Protein coding	F-box and WD repeat domain containing 4
ENSG00000054967	-1.70983	0.036076	RELT	Protein coding	RELT tumor necrosis factor receptor
ENSG00000178809	-1.6829	0.043342	TRIM73	Protein coding	Tripartite motif containing 73
ENSG00000198963	-1.66786	0.007784	RORB	Protein coding	RAR-related orphan receptor B
ENSG0000016391	-1.66769	0.000688	CHDH	Protein coding	Choline dehydrogenase
ENSG00000145113	-1.65798	0.002589	MUC4	Protein coding	Mucin 4, cell surface associated
ENSG00000204659	-1.64167	0.010427	CBY3	Protein coding	Chibby homolog 3 (Drosophila)
ENSG00000158234	-1.63537	0.030268	FAIM	Protein coding	Fas apoptotic inhibitory molecule
ENSG00000116106	-1.63307	7.16E-05	EPHA4	Protein coding	EPH receptor A4
ENSG00000163485	-1.62265	0.0009	ADORA1	Protein coding	Adenosine A1 receptor
ENSG00000196557	-1.61758	0.044688	CACNA1H	Protein coding	Calcium channel, voltage-dependent, T type, alpha 1H subunit
ENSG00000111083	-1.61234	7.86E-05	SLC6A7	Protein coding	Solute carrier family 6 (neurotransmitter transporter), member 7
ENSG00000138002	-1.61175	0.024944	IFT172	Protein coding	Intraflagellar transport 172 homolog (Chlamydomonas)
ENSG00000254656	-1.60982	0.005967	RTL1	Protein coding	Retrotransposon-like 1
ENSG00000167765	-1.59152	0.009999	FLJ30403	Protein coding	Uncharacterized LOC729975
ENSG00000128203	-1.58825	0.031074	ASPHD2	Protein coding	Aspartate beta-hydroxylase domain containing 2
ENSG00000196455	-1.58054	0.048891	PIK3R4	Protein coding	Phosphoinositide-3-kinase, regulatory subunit 4
ENSG00000136143	-1.56398	0.034019	SUCLA2	Protein coding	Succinate-CoA ligase, ADP-forming, beta subunit
ENSG00000077157	-1.55152	0.018342	PPP1R12B	Protein coding	Protein phosphatase 1, regulatory subunit 12B
ENSG0000012779	-1.54401	0.007712	ALOX5	Protein coding	Arachidonate 5-lipoxygenase
ENSG00000100664	-1.53565	0.028742	EIF5	Protein coding	Eukaryotic translation initiation factor 5
ENSG00000245888	-1.52517	0.035372	-	Protein coding	Null
ENSG00000125834	-1.523	0.02102	STK35	Protein coding	Serine/threonine kinase 35
ENSG00000167588	-1.52147	0.000684	GPD1	Protein coding	Glycerol-3-phosphate dehydrogenase 1 (soluble)
ENSG00000133055	-1.51308	0.000346	MYBPH	Protein coding	Myosin binding protein H
ENSG00000229387	-1.50298	0.034624	-	Protein coding	Null
ENSG00000153904	1.506945	0.037031	DDAH1	Protein coding	Dimethylarginine dimethylaminohydrolase 1
ENSG00000086015	1.507308	0.004232	MAST2	Protein coding	Microtubule associated serine/threonine kinase 2
ENSG00000118961	1.516945	0.019518	C2orf43	Protein coding	Chromosome 2 open reading frame 43
ENSG00000133710	1.522531	0.001127	SPINK5	Protein coding	Serine peptidase inhibitor, Kazal type 5
ENSG00000154479	1.54915	0.028486	CCDC173	Protein coding	Coiled-coil domain containing 173
ENSG00000155545	1.577667	0.002488	MIER3	Protein coding	Mesoderm induction early response 1, family member 3
ENSG00000186439	1.611725	0.002748	TRDN	Protein coding	Triadin
ENSG00000183273	1.613068	0.00454	CCDC60	Protein coding	Coiled-coil domain containing 60

Table SIV. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000147601	1.614571	0.000575	TERF1	Protein coding	Telomeric repeat binding factor (NIMA-interacting) 1
ENSG00000197912	1.620344	0.023092	SPG7	Protein coding	Spastic paraplegia 7 (pure and complicated autosomal recessive)
ENSG00000205678	1.679216	0.048768	TECRL	Protein coding	Trans-2,3-enoyl-CoA reductase-like
ENSG00000123728	1.682592	0.04695	RAP2C	Protein coding	RAP2C, member of RAS oncogene family
ENSG00000136045	1.692455	0.009244	PWP1	Protein coding	PWP1 homolog ( <i>S. cerevisiae</i> )
ENSG00000108578	1.698238	0.03336	BLMH	Protein coding	Bleomycin hydrolase
ENSG00000067596	1.703043	0.012637	DHX8	Protein coding	DEAH (Asp-Glu-Ala-His) box 8 polypeptide
ENSG00000139618	1.705672	0.002271	BRCA2	Protein coding	Breast cancer 2, early onset
ENSG00000215114	1.718761	0.005104	UBXN2B	Protein coding	UBX domain protein 2B
ENSG00000198380	1.783762	0.023154	GFPT1	Protein coding	Glutamine--fructose-6-phosphate transaminase 1
ENSG00000065675	1.802399	0.019023	PRKCQ	Protein coding	Protein kinase C, theta
ENSG00000170848	1.849011	0.048212	PSG6	Protein coding	Pregnancy specific beta-1-glycoprotein 6
ENSG00000143033	1.860023	0.003422	MTF2	Protein coding	Metal response element binding transcription factor 2
ENSG00000170222	1.8604	0.005558	ADPRM	Protein coding	ADP-ribose/CDP-alcohol diphosphatase, manganese-dependent
ENSG00000019991	1.891935	0.023723	HGF	Protein coding	Hepatocyte growth factor (hepapoietin A; scatter factor)
ENSG00000136828	1.92061	0.001034	RALGPS1	Protein coding	Ral GEF with PH domain and SH3 binding motif 1
ENSG00000166503	1.921843	9.52E-05	HDGFRP3	Protein coding	Hepatoma-derived growth factor, related protein 3
ENSG00000156650	1.927768	0.00576	KAT6B	Protein coding	K(lysine) acetyltransferase 6B
ENSG00000160799	1.98136	0.048468	CCDC12	Protein coding	Coiled-coil domain containing 12
ENSG00000147883	1.994183	0.033617	CDKN2B	Protein coding	Cyclin-dependent kinase inhibitor 2B (p15, inhibits CDK4)
ENSG00000162601	2.005839	0.01495	MYSM1	Protein coding	Myb-like, SWIRM and MPN domains 1
ENSG00000133657	2.007922	0.01178	ATP13A3	Protein coding	ATPase type 13A3
ENSG00000185821	2.022076	0.044994	OR6C76	Protein coding	Olfactory receptor, family 6, subfamily C, member 76
ENSG00000140905	2.033729	0.003515	GCSH	Protein coding	Glycine cleavage system protein H (aminomethyl carrier)
ENSG00000150076	2.046316	0.00628	-	Protein coding	Null
ENSG00000099139	2.05725	0.018962	PCSK5	Protein coding	Proprotein convertase subtilisin/kexin type 5
ENSG00000144182	2.065578	0.008231	LIPT1	Protein coding	Lipoyltransferase 1
ENSG00000157227	2.067911	0.048543	MMP14	Protein coding	Matrix metalloproteinase 14 (membrane-inserted)
ENSG00000179295	2.118927	0.003887	PTPN11	Protein coding	Protein tyrosine phosphatase, non-receptor type 11
ENSG00000267802	2.129145	2.26E-05	-	Protein coding	Null
ENSG00000169299	2.206975	0.039721	PGM2	Protein coding	Phosphoglucomutase 2
ENSG00000072657	2.209455	0.002932	TRHDE	Protein coding	thyrotropin-releasing hormone degrading enzyme
ENSG00000269267	2.232577	0.046155	-	Protein coding	Null
ENSG00000205327	2.246937	0.002765	OR6C68	Protein coding	Olfactory receptor, family 6, subfamily C, member 68
ENSG00000162755	2.262897	0.038875	KLHDC9	Protein coding	Kelch domain containing 9
ENSG00000078747	2.280902	0.032275	ITCH	Protein coding	Itchy E3 ubiquitin protein ligase
ENSG00000175216	2.331112	0.049003	CKAP5	Protein coding	Cytoskeleton associated protein 5
ENSG00000107372	2.387727	0.0162	ZFAND5	Protein coding	Zinc finger, AN1-type domain 5
ENSG00000011465	2.461945	0.040803	DCN	Protein coding	Decorin
ENSG00000187231	2.470553	0.019915	SESTD1	Protein coding	SEC14 and spectrin domains 1
ENSG00000093009	2.473095	0.018666	CDC45	Protein coding	Cell division cycle 45

Table SIV. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000203832	2.523908	0.034527	NBPF20	Protein coding	Neuroblastoma breakpoint family, member 20
ENSG00000156269	2.598706	0.000117	NAA11	Protein coding	N(alpha)-acetyltransferase 11, NatA catalytic subunit
ENSG00000134001	2.650138	0.041266	EIF2S1	Protein coding	Eukaryotic translation initiation factor 2, subunit 1 alpha, 35kDa
ENSG00000135919	2.69833	0.000635	SERPINE2	Protein coding	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 2
ENSG00000214517	2.754456	0.001982	PPME1	Protein coding	Protein phosphatase methylesterase 1
ENSG00000086300	2.79978	0.032998	SNX10	Protein coding	Sorting nexin 10
ENSG00000128683	2.809	0.030805	GAD1	Protein coding	Glutamate decarboxylase 1 (brain, 67kDa)
ENSG00000183831	2.821031	0.005086	ANKRD45	Protein coding	Ankyrin repeat domain 45
ENSG00000138380	2.822429	0.014054	CARF	Protein coding	Calcium responsive transcription factor
ENSG00000168542	2.852177	0.007952	COL3A1	Protein coding	Collagen, type III, alpha 1
ENSG00000116039	2.897843	0.034338	ATP6V1B1	Protein coding	ATPase, H+ transporting, lysosomal 56/58kDa, V1 subunit B1
ENSG00000196735	2.923213	0.049429	HLA-DQA1	Protein coding	Major histocompatibility complex, class II, DQ alpha 1
ENSG00000168229	2.983116	0.028145	PTGDR	Protein coding	Prostaglandin D2 receptor (DP)
ENSG00000108018	2.987748	0.030688	SORCS1	Protein coding	Sortilin-related VPS10 domain containing receptor 1
ENSG00000142156	3.046798	0.022614	COL6A1	Protein coding	Collagen, type VI, alpha 1
ENSG00000166710	3.149236	0.002356	B2M	Protein coding	Beta-2-microglobulin
ENSG00000124762	3.186122	0.048196	CDKN1A	Protein coding	Cyclin-dependent kinase inhibitor 1A (p21, Cip1)
ENSG00000133116	3.20026	0.034157	KL	Protein coding	Klotho
ENSG00000268553	3.212643	0.041021	-	Protein coding	Null
ENSG00000197932	3.221971	0.010501	F8A1	Protein coding	Coagulation factor VIII-associated 1
ENSG00000204525	3.251626	0.046843	HLA-C	Protein coding	Major histocompatibility complex, class I, C
ENSG00000164244	3.257877	0.047393	PRRC1	Protein coding	Proline-rich coiled-coil 1
ENSG00000104613	3.30163	0.004143	INTS10	Protein coding	Integrator complex subunit 10
ENSG00000126709	3.311149	0.030778	IFI6	Protein coding	Interferon, alpha-inducible protein 6
ENSG00000267060	3.361531	0.044854	PTGES3L	Protein coding	Prostaglandin E synthase 3 (cytosolic)-like
ENSG00000179603	3.412143	2.51E-05	GRM8	Protein coding	Glutamate receptor, metabotropic 8
ENSG00000145723	3.430688	0.01305	GIN1	Protein coding	Gypsy retrotransposon integrase 1
ENSG0000010810	3.474595	0.032491	FYN	Protein coding	FYN oncogene related to SRC, FGR, YES
ENSG00000165192	3.503932	0.021694	ASB11	Protein coding	Ankyrin repeat and SOCS box containing 11, E3 ubiquitin protein ligase
ENSG00000196954	3.541102	0.020934	CASP4	Protein coding	Caspase 4, apoptosis-related cysteine peptidase
ENSG00000111536	3.60488	2.04E-08	IL26	Protein coding	Interleukin 26
ENSG00000113140	3.610761	2.6E-05	SPARC	Protein coding	Secreted protein, acidic, cysteine-rich (osteonectin)
ENSG00000258130	3.737918	0.003764	-	Protein coding	Null
ENSG00000124942	3.959286	0.003141	AHNAK	Protein coding	AHNAK nucleoprotein
ENSG00000197616	4.154645	6.31E-05	MYH6	Protein coding	Myosin, heavy chain 6, cardiac muscle, alpha
ENSG00000111537	4.473434	1.12E-15	IFNG	Protein coding	Interferon, gamma
ENSG00000139438	4.529372	0.047274	FAM222A	Protein coding	Family with sequence similarity 222, member A
ENSG00000166825	4.529374	0.047266	ANPEP	Protein coding	Alanyl (membrane) aminopeptidase
ENSG00000127318	4.535947	1.02E-07	IL22	Protein coding	Interleukin 22
ENSG00000107984	4.61119	0.041224	DKK1	Protein coding	Dickkopf WNT signaling pathway inhibitor 1
ENSG00000111554	4.692236	4.37E-13	MDM1	Protein coding	Mdm1 nuclear protein homolog (mouse)
ENSG00000184571	4.703529	0.030705	PIWIL3	Protein coding	Piwi-like RNA-mediated gene silencing 3
ENSG00000137251	4.711277	0.026468	TINAG	Protein coding	Tubulointerstitial nephritis antigen



Table SIV. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000171345	4.724617	0.032197	KRT19	Protein coding	Keratin 19
ENSG00000182326	4.741114	0.021054	C1S	Protein coding	Complement component 1, s subcomponent
ENSG00000213085	4.845404	0.027876	CCDC19	Protein coding	Coiled-coil domain containing 19
ENSG00000130830	4.856855	0.018379	MPP1	Protein coding	Membrane protein, palmitoylated 1, 55kDa
ENSG00000180346	4.886916	0.014983	TIGD2	Protein coding	Tigger transposable element derived 2
ENSG00000164692	4.977304	1.61E-10	COL1A2	Protein coding	Collagen, type I, alpha 2
ENSG00000164045	5.011099	0.010755	CDC25A	Protein coding	Cell division cycle 25A
ENSG00000100299	5.030148	0.03836	ARSA	Protein coding	Arylsulfatase A
ENSG00000135870	5.141407	0.033114	RC3H1	Protein coding	Ring finger and CCCH-type domains 1
ENSG00000149090	5.22403	0.005803	PAMR1	Protein coding	Peptidase domain containing associated with muscle regeneration 1
ENSG00000100330	5.238925	0.005687	MTMR3	Protein coding	Myotubularin related protein 3
ENSG00000091482	5.315066	0.021678	SMPX	Protein coding	Small muscle protein, X-linked
ENSG00000165264	5.570557	0.004099	NDUFB6	Protein coding	NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 6, 17kDa
ENSG00000177398	5.666238	0.034017	UMODL1	Protein coding	Uromodulin-like 1
ENSG00000108821	5.904376	3.95E-14	COL1A1	Protein coding	Collagen, type I, alpha 1
ENSG00000111863	6.729062	6.68E-06	ADTRP	Protein coding	Androgen-dependent TFPI-regulating protein
ENSG00000177673	6.87703	0.00169	C2orf57	Protein coding	Chromosome 2 open reading frame 57
ENSG00000134982	10.97795	2.4E-05	APC	Protein coding	Adenomatous polyposis coli

FC, fold change; PersAF, persistent atrial fibrillation.

Table SV. The differentially expressed lncRNAs in the PersAF\_Control group.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000235899	-9.56334	0.000192	RP11-345L23.1	Antisense	Uncharacterized LOC101927171
XLOC_046265	-6.90625	5.71E-05	-	lncRNA	-
ENSG00000270639	-6.48834	0.001134	-	Pseudogene	Null
XLOC_089531	-6.12001	0.015083	-	lncRNA	-
ENSG00000259045	-5.91526	0.004866	-	Pseudogene	Null
ENSG00000223349	-5.85748	0.026798	-	Pseudogene	Null
ENSG00000232626	-5.73381	0.000842	-	Pseudogene	Null
XLOC_110310	-5.69328	0.015603	-	lncRNA	-
XLOC_082023	-5.63844	0.03849	-	lncRNA	-
ENSG00000236382	-5.62504	0.009524	KRTAP10-13P	Pseudogene	Keratin associated protein 10-13, pseudogene
XLOC_112929	-5.59918	0.010182	-	lncRNA	-
XLOC_114156	-5.47206	0.020862	-	lncRNA	-
XLOC_130822	-5.45042	0.048247	-	lncRNA	-
XLOC_002352	-5.40311	0.009115	-	lncRNA	-
XLOC_095446	-5.38078	0.031325	-	lncRNA	-
ENSG00000233384	-5.36505	0.002884	-	Antisense	Null
XLOC_055328	-5.3218	0.021228	-	lncRNA	-
XLOC_110307	-5.3049	0.020696	-	lncRNA	-
XLOC_007814	-5.27712	0.003814	-	lncRNA	-
XLOC_001490	-5.26868	0.004146	-	lncRNA	-
XLOC_101687	-5.22222	0.009792	-	lncRNA	-
ENSG00000226051	-5.22087	0.029413	ZNF503-AS1	lincRNA	ZNF503 antisense RNA 1
XLOC_110321	-5.21528	0.02293	-	lncRNA	-
XLOC_110333	-5.21528	0.022927	-	lncRNA	-
XLOC_003104	-5.13418	0.01534	-	lncRNA	-
XLOC_029452	-5.12626	0.035252	-	lncRNA	-
XLOC_029448	-5.10635	0.027802	-	lncRNA	-
XLOC_020890	-5.05054	0.015015	-	lncRNA	-
XLOC_135557	-5.03436	0.031071	-	lncRNA	-
XLOC_125774	-5.01777	0.021737	-	lncRNA	-
XLOC_146743	-5.00633	0.021434	-	lncRNA	-
XLOC_073862	-5.00633	0.021432	-	lncRNA	-
XLOC_098657	-5.00297	0.036776	-	lncRNA	-
ENSG00000249729	-4.9793	0.021613	-	Pseudogene	Null
XLOC_111901	-4.97154	0.014904	-	lncRNA	-
ENSG00000251874	-4.9533	0.022108	-	snRNA	Null
ENSG00000197617	-4.93774	0.043361	VN1R5	Pseudogene	Vomer nasal 1 receptor 5 (gene/pseudogene)
XLOC_108673	-4.93774	0.043365	-	lncRNA	-
ENSG00000220685	-4.9247	0.023826	-	Pseudogene	Null
XLOC_009884	-4.91294	0.04225	-	lncRNA	-
ENSG00000271676	-4.90606	0.046069	-	Pseudogene	Null
ENSG00000264590	-4.87608	0.045724	-	misc_RNA	Null
XLOC_109952	-4.85647	0.015923	-	lncRNA	-
ENSG0000018607	-4.83448	0.020035	ZNF806	Pseudogene	Zinc finger protein 806
ENSG00000250954	-4.8231	0.031266	RP11-79E3.3	lincRNA	Uncharacterized LOC101928622
ENSG00000226770	-4.75797	0.039709	AC000124.1	lincRNA	Uncharacterized LOC100506682
ENSG00000251453	-4.74146	0.033187	HAUS1P1	Pseudogene	HAUS augmin-like complex, subunit 1 pseudogene 1
XLOC_012112	-4.73757	0.023593	-	lncRNA	-
XLOC_038069	-4.71107	0.038072	-	lncRNA	-
XLOC_091074	-4.70159	0.02745	-	lncRNA	-
ENSG00000249328	-4.68593	0.036363	RP11-26J3.1	lincRNA	Uncharacterized LOC101927040
XLOC_120463	-4.6463	0.000254	-	lncRNA	-
ENSG00000237370	-4.64564	0.007073	-	Antisense	Null
XLOC_101145	-4.59484	0.036826	-	lncRNA	-
XLOC_035974	-4.59337	0.040735	-	lncRNA	-
XLOC_098771	-4.58504	0.030981	-	lncRNA	-

Table SV. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
XLOC_057359	-4.57532	0.04843	-	lncRNA	-
XLOC_070891	-4.56981	0.026847	-	lncRNA	-
XLOC_114257	-4.56981	0.026845	-	lncRNA	-
XLOC_049584	-4.56148	0.04064	-	lncRNA	-
XLOC_144337	-4.54779	0.045662	-	lncRNA	-
XLOC_013667	-4.33257	0.001687	-	lncRNA	-
XLOC_111888	-4.13189	0.00389	-	lncRNA	-
ENSG00000272440	-4.12519	0.011547	-	lincRNA	Null
XLOC_052494	-4.11827	0.000811	-	lncRNA	-
XLOC_075041	-4.03012	0.014811	-	lncRNA	-
ENSG00000261193	-3.91266	0.00467	-	lincRNA	Null
XLOC_054651	-3.84707	0.014511	-	lncRNA	-
ENSG00000237750	-3.77159	0.008736	AC007740.1	Antisense	Uncharacterized LOC101929570
XLOC_019026	-3.75815	0.007833	-	lncRNA	-
ENSG00000213579	-3.7569	0.003486	-	Pseudogene	Null
ENSG00000259448	-3.74782	0.004201	-	lincRNA	Null
XLOC_037860	-3.73224	0.009267	-	lncRNA	-
XLOC_060744	-3.70644	0.027583	-	lncRNA	-
XLOC_037867	-3.69665	0.002922	-	lncRNA	-
XLOC_063750	-3.65079	0.001827	-	lncRNA	-
ENSG00000251987	-3.64853	0.022361	SNORD63	snoRNA	Small nucleolar RNA, C/D box 63
ENSG00000238272	-3.63138	0.015316	-	Antisense	Null
ENSG00000224116	-3.62635	0.002828	INHBA-AS1	Antisense	INHBA antisense RNA 1
ENSG00000210127	-3.61722	0.01319	-	Mt_tRNA	Null
ENSG00000232885	-3.61272	0.001035	GPC5-AS2	Antisense	GPC5 antisense RNA 2
ENSG00000267606	-3.60627	0.013798	-	lincRNA	Null
ENSG00000229921	-3.59927	0.030118	KIF25-AS1	lincRNA	KIF25 antisense RNA 1
XLOC_013665	-3.59747	0.034847	-	lncRNA	-
XLOC_020892	-3.52675	0.003844	-	lncRNA	-
ENSG00000272302	-3.42134	0.013214	-	miRNA	Null
ENSG00000199865	-3.40131	0.034678	-	snRNA	Null
ENSG00000210107	-3.37436	0.002393	-	Mt_tRNA	Null
ENSG00000250564	-3.32687	0.002069	-	lincRNA	Null
XLOC_089532	-3.31743	0.047173	-	lncRNA	-
XLOC_125827	-3.28856	0.031974	-	lncRNA	-
ENSG00000210194	-3.27904	0.010174	-	Mt_tRNA	Null
XLOC_001030	-3.26546	0.0315	-	lncRNA	-
ENSG00000259389	-3.25102	0.005634	H3F3AP1	Pseudogene	H3 histone, family 3A pseudogene 1
XLOC_005679	-3.2478	0.018304	-	lncRNA	-
ENSG00000268751	-3.23841	0.037019	SCGB1B2P	lincRNA	Secretoglobin, family 1B, member 2, pseudogene
XLOC_028813	-3.2043	0.046049	-	lncRNA	-
XLOC_040850	-3.2017	0.00513	-	lncRNA	-
XLOC_006247	-3.16839	0.001633	-	lncRNA	-
XLOC_028831	-3.16572	0.028187	-	lncRNA	-
XLOC_065804	-3.13289	0.036002	-	lncRNA	-
XLOC_140200	-3.13093	0.011276	-	lncRNA	-
XLOC_028024	-3.12718	0.037873	-	lncRNA	-
XLOC_108953	-3.12377	0.042795	-	lncRNA	-
XLOC_111890	-3.08969	0.023455	-	lncRNA	-
XLOC_103349	-3.07879	0.012549	-	lncRNA	-
XLOC_027189	-3.07269	0.048081	-	lncRNA	-
ENSG00000253669	-3.06383	0.022587	-	lincRNA	Null
ENSG00000186466	-3.04679	0.037475	AQP7P1	Pseudogene	Aquaporin 7 pseudogene 1
ENSG00000260318	-3.04491	0.045282	COX6CP1	Pseudogene	Cytochrome c oxidase subunit VIc pseudogene 1
XLOC_051182	-3.01965	0.048686	-	lncRNA	-
XLOC_020897	-3.01174	0.013532	-	lncRNA	-
ENSG00000271259	-2.99665	0.045206	-	lincRNA	Null

Table SV. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000200560	-2.98804	0.049414	-	snRNA	Null
XLOC_111892	-2.98496	0.004988	-	lncRNA	-
ENSG00000205644	-2.9771	0.006406	-	Pseudogene	Null
ENSG00000232358	-2.97704	0.002608	-	Antisense	Null
XLOC_047677	-2.97419	0.033772	-	lncRNA	-
XLOC_003993	-2.94811	0.004383	-	lncRNA	-
ENSG00000262079	-2.90914	0.000754	-	lincRNA	Null
ENSG00000268038	-2.90274	0.016351	LOC374890	lincRNA	Uncharacterized LOC374890
ENSG00000250243	-2.88714	0.015643	-	Antisense	Null
ENSG00000235032	-2.88383	0.002179	-	Antisense	Null
XLOC_078543	-2.83585	0.006497	-	lncRNA	-
ENSG00000228100	-2.81159	0.038764	-	lincRNA	Null
ENSG00000253702	-2.78909	0.008724	-	lincRNA	Null
ENSG00000235192	-2.76845	0.048241	-	lincRNA	Null
ENSG00000264207	-2.75891	0.024282	-	Antisense	Null
XLOC_111138	-2.75825	0.045928	-	lncRNA	-
XLOC_108429	-2.75228	0.032619	-	lncRNA	-
XLOC_146895	-2.73207	0.000295	-	lncRNA	-
XLOC_020899	-2.7223	0.000232	-	lncRNA	-
XLOC_052674	-2.72227	0.035401	-	lncRNA	-
XLOC_111884	-2.71648	0.002474	-	lncRNA	-
ENSG00000224122	-2.68929	0.028278	POU6F2-AS1	Antisense	POU6F2 antisense RNA 1
ENSG00000170217	-2.68872	0.044389	-	Pseudogene	Null
XLOC_111899	-2.67839	0.001565	-	lncRNA	-
XLOC_012386	-2.67536	0.016952	-	lncRNA	-
XLOC_063482	-2.66838	0.026259	-	lncRNA	-
XLOC_088577	-2.6532	0.009839	-	lncRNA	-
XLOC_107767	-2.55865	0.038621	-	lncRNA	-
ENSG00000232628	-2.53666	0.036688	LOC101927143	Sense_intronic	Uncharacterized LOC101927143
XLOC_080371	-2.53632	0.000654	-	lncRNA	-
XLOC_111886	-2.52643	0.01633	-	lncRNA	-
ENSG00000266824	-2.51641	0.015877	-	lincRNA	Null
XLOC_118047	-2.51521	0.002996	-	lncRNA	-
ENSG00000270177	-2.50892	0.019305	-	lincRNA	Null
ENSG00000226747	-2.50817	0.043385	AC007966.1	Antisense	Uncharacterized LOC101927196
ENSG00000255308	-2.50796	0.006935	RP11-428C19.4	Antisense	Null
XLOC_045025	-2.49354	0.034852	-	lncRNA	-
ENSG00000199883	-2.45667	0.03333	-	misc_RNA	Null
XLOC_033666	-2.45578	0.019422	-	lncRNA	-
XLOC_108207	-2.45494	0.023581	-	lncRNA	-
ENSG00000253809	-2.43091	0.017748	-	Antisense	Null
ENSG00000255459	-2.42134	0.015696	-	Pseudogene	Null
ENSG00000264203	-2.41657	0.019861	-	miRNA	Null
XLOC_111894	-2.41378	0.018415	-	lncRNA	-
ENSG00000267355	-2.40785	0.038201	RPL9P29	Pseudogene	Ribosomal protein L9 pseudogene 29
ENSG00000235890	-2.4044	0.002702	TSPEAR-AS1	Antisense	TSPEAR antisense RNA 1
XLOC_088578	-2.39324	0.007109	-	lncRNA	-
ENSG00000205275	-2.37258	0.038204	CSPG4P9	Pseudogene	Chondroitin sulfate proteoglycan 4 pseudogene 9
XLOC_058977	-2.36452	0.037473	-	lncRNA	-
ENSG00000250072	-2.3643	0.025195	-	lincRNA	Null
ENSG00000237207	-2.31459	0.007282	-	Pseudogene	Null
ENSG00000234593	-2.31141	0.02597	-	lincRNA	Null
XLOC_114122	-2.3104	0.044172	-	lncRNA	-
ENSG00000250768	-2.30381	0.000358	-	Pseudogene	Null
ENSG00000215319	-2.29201	0.046092	-	Pseudogene	Null
ENSG00000255306	-2.28229	0.042878	-	Antisense	Null
XLOC_052876	-2.26198	0.039686	-	lncRNA	-
XLOC_123370	-2.2562	0.045404	-	lncRNA	-

Table SV. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
XLOC_037861	-2.25264	0.04516	-	lncRNA	-
ENSG00000238194	-2.2277	0.023641	LOC100506384	Antisense	Uncharacterized LOC100506384
XLOC_013762	-2.21839	0.028739	-	lncRNA	-
XLOC_140135	-2.20321	0.006749	-	lncRNA	-
ENSG00000271912	-2.15569	0.021692	-	lincRNA	Null
XLOC_069248	-2.15089	0.011583	-	lncRNA	-
ENSG00000257277	-2.1458	0.005943	-	Antisense	Null
ENSG00000248493	-2.13733	0.031638	-	Pseudogene	Null
XLOC_108211	-2.11944	0.049457	-	lncRNA	-
ENSG00000210144	-2.11722	0.009421	-	Mt_tRNA	Null
XLOC_091008	-2.11558	0.017237	-	lncRNA	-
XLOC_003670	-2.0918	0.039381	-	lncRNA	-
XLOC_057782	-2.08747	0.045215	-	lncRNA	-
XLOC_096424	-2.08182	0.049342	-	lncRNA	-
ENSG00000251271	-2.07861	0.045736	ALG1L7P	Pseudogene	Asparagine-linked glycosylation 1-like 7, pseudogene
XLOC_001004	-2.06514	0.009304	-	lncRNA	-
XLOC_037871	-2.05504	0.010777	-	lncRNA	-
ENSG00000267543	-2.05469	0.022519	-	sense_intronic	Null
ENSG00000253772	-2.05082	0.04508	-	Pseudogene	Null
XLOC_113999	-2.04598	0.002541	-	lncRNA	-
XLOC_012385	-2.04424	0.000552	-	lncRNA	-
ENSG00000227841	-1.99721	0.042602	MTND5P31	Pseudogene	MT-ND5 pseudogene 31
ENSG00000229287	-1.98828	0.012359	FABP5P4	Pseudogene	fatty acid binding protein 5 pseudogene 4
ENSG00000228323	-1.98388	0.048047	-	Antisense	Null
ENSG00000259650	-1.97282	0.021593	-	Antisense	Null
ENSG00000260500	-1.96151	0.000756	-	Antisense	Null
ENSG00000200924	-1.9584	0.035716	-	snRNA	Null
XLOC_069276	-1.95577	0.013145	-	lncRNA	-
XLOC_126995	-1.94984	0.045731	-	lncRNA	-
XLOC_022900	-1.9261	0.019996	-	lncRNA	-
XLOC_006398	-1.92495	0.036834	-	lncRNA	-
ENSG00000239552	-1.9073	0.02566	HOXB-AS2	Antisense	HOXB cluster antisense RNA 2
XLOC_111896	-1.90567	0.048096	-	lncRNA	-
XLOC_122319	-1.90102	0.043297	-	lncRNA	-
ENSG00000226063	-1.89506	0.00662	-	lincRNA	Null
ENSG00000273038	-1.89283	0.035135	-	lincRNA	Null
XLOC_037869	-1.88989	0.040149	-	lncRNA	-
ENSG00000250624	-1.88645	0.007594	-	Pseudogene	Null
ENSG00000261102	-1.87619	0.01983	ATP5J2P6	Pseudogene	ATP synthase, H <sup>+</sup> transporting, mitochondrial Fo complex, subunit F2 pseudogene 6
XLOC_138696	-1.86963	0.015162	-	lncRNA	-
XLOC_025922	-1.83461	0.049184	-	lncRNA	-
XLOC_018297	-1.82565	0.040817	-	lncRNA	-
ENSG00000270480	-1.82175	0.011939	-	Pseudogene	Null
ENSG00000225098	-1.82141	0.043217	BCRP1	Pseudogene	Breakpoint cluster region pseudogene 1
ENSG00000272154	-1.81241	0.005921	-	Antisense	Null
XLOC_138695	-1.80589	0.001465	-	lncRNA	-
ENSG00000255650	-1.79728	0.02316	FAM222A-AS1	Antisense	FAM222A antisense RNA 1
ENSG00000241568	-1.79699	0.035358	-	misc_RNA	Null
ENSG00000223720	-1.79547	0.022104	-	lincRNA	Null
ENSG00000246339	-1.7501	0.008235	EXTL3-AS1	Antisense	EXTL3 antisense RNA 1
XLOC_085053	-1.74313	0.043489	-	lncRNA	-
ENSG00000252984	-1.74207	0.026335	-	snRNA	Null
ENSG00000237479	-1.74125	0.041644	-	Antisense	Null
XLOC_109187	-1.73254	0.012019	-	lncRNA	-

Table SV. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000244425	-1.72649	0.010141	-	misc_RNA	Null
ENSG00000249669	-1.72631	0.049805	MIR143HG	lincRNA	MIR143 host gene (non-protein coding)
ENSG00000235189	-1.71993	0.047578	-	Antisense	Null
ENSG00000228782	-1.71855	0.023311	MRPL45P2	Pseudogene	Mitochondrial ribosomal protein L45 pseudogene 2
ENSG00000239799	-1.70992	0.005737	ITIH4-AS1	Antisense	ITIH4 antisense RNA 1
ENSG00000259326	-1.6868	0.001405	-	Antisense	Null
XLOC_056735	-1.68654	0.044466	-	lincRNA	-
ENSG00000237928	-1.67462	0.012083	RP4-668G5.1	Antisense	Uncharacterized LOC100996570
ENSG00000242262	-1.67451	0.009594	-	Pseudogene	Null
XLOC_057028	-1.66412	0.020757	-	lincRNA	-
ENSG00000255219	-1.64535	0.008291	-	Antisense	Null
ENSG00000240005	-1.64421	0.023903	-	Antisense	Null
XLOC_071620	-1.64211	0.028424	-	lincRNA	-
ENSG00000244468	-1.61992	0.025317	-	Antisense	Null
ENSG00000248120	-1.61884	0.031955	-	Pseudogene	Null
XLOC_056239	-1.60819	0.032359	-	lincRNA	-
ENSG00000257384	-1.60464	0.046652	-	Pseudogene	Null
ENSG00000212204	-1.59172	0.041814	RNA5SP91	rRNA	RNA, 5S ribosomal pseudogene 91
ENSG00000253298	-1.57899	0.014695	AC008703.1	lincRNA	Uncharacterized LOC285627
ENSG00000226807	-1.57132	0.011116	MROH5	polymorphic_ Pseudogene	Maestro heat-like repeat family member 5
ENSG00000246465	-1.5711	0.002035	-	lincRNA	Null
ENSG00000272372	-1.55147	0.001718	-	Antisense	Null
XLOC_033794	-1.55144	0.024733	-	lincRNA	-
ENSG00000258759	-1.54841	0.031378	-	Pseudogene	Null
XLOC_010493	-1.54482	0.045611	-	lincRNA	-
XLOC_043886	-1.52786	0.003069	-	lincRNA	-
ENSG00000238715	-1.51707	0.019254	-	snoRNA	Null
ENSG00000225083	-1.50459	0.034838	GRTP1-AS1	Antisense	GRTP1 antisense RNA 1
XLOC_035909	1.502205	0.043135	-	lincRNA	-
XLOC_041892	1.516455	0.029659	-	lincRNA	-
XLOC_121541	1.518854	0.004467	-	lincRNA	-
XLOC_130338	1.521274	0.000743	-	lincRNA	-
ENSG00000249849	1.525512	0.046212	-	Antisense	Null
ENSG00000253059	1.52851	0.027059	SNORA31	snoRNA	small nucleolar RNA, H/ACA box 31
ENSG00000224354	1.53692	0.026146	MTND2P5	Pseudogene	MT-ND2 pseudogene 5
XLOC_073302	1.536954	0.034261	-	lincRNA	-
XLOC_125991	1.54373	0.004193	-	lincRNA	-
ENSG00000232646	1.548284	0.01501	-	Pseudogene	Null
ENSG00000200091	1.549297	0.032096	-	misc_RNA	Null
ENSG00000271228	1.556967	0.013768	-	Antisense	Null
XLOC_125992	1.558979	0.008142	-	lincRNA	-
XLOC_031197	1.561509	0.004116	-	lincRNA	-
ENSG00000240666	1.565479	0.012424	MME-AS1	Antisense	MME antisense RNA 1
XLOC_147308	1.56667	0.04404	-	lincRNA	-
XLOC_096022	1.569132	0.006161	-	lincRNA	-
ENSG00000229048	1.578268	0.021148	DUTP1	Pseudogene	Deoxyuridine triphosphatase pseudogene 1
ENSG00000226582	1.58429	0.042498	UBE2V1P5	Pseudogene	Ubiquitin-conjugating enzyme E2 variant 1 pseudogene 5
ENSG00000249364	1.587788	0.046376	RP11-434D9.1	lincRNA	Uncharacterized LOC101928858
XLOC_121542	1.592443	0.010387	-	lincRNA	-
XLOC_132814	1.602185	0.003027	-	lincRNA	-
XLOC_126556	1.613735	0.043914	-	lincRNA	-
XLOC_034875	1.620733	0.048553	-	lincRNA	-
XLOC_133259	1.620901	0.00601	-	lincRNA	-
XLOC_053997	1.627098	0.021927	-	lincRNA	-

Table SV. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000227474	1.628726	0.023999	-	Pseudogene	Null
ENSG00000217227	1.63041	0.037017	-	Pseudogene	Null
XLOC_121540	1.634972	0.00284	-	lncRNA	-
XLOC_121547	1.635348	0.002023	-	lncRNA	-
XLOC_130342	1.635599	0.000948	-	lncRNA	-
ENSG00000228337	1.637452	0.013916	-	Pseudogene	Null
XLOC_125234	1.641838	0.003075	-	lncRNA	-
ENSG00000156755	1.648662	0.043608	IGKV1OR-2	IG_V_ Pseudogene	Immunoglobulin kappa variable 1/OR-2 (pseudogene)
XLOC_065710	1.66077	0.039284	-	lncRNA	-
XLOC_032089	1.664428	0.020018	-	lncRNA	-
XLOC_041989	1.679196	0.045399	-	lncRNA	-
XLOC_074919	1.683561	0.002964	-	lncRNA	-
ENSG00000225124	1.688636	0.031959	-	Pseudogene	Null
ENSG00000230399	1.690011	0.014782	RBBP8P1	Pseudogene	Retinoblastoma binding protein 8 pseudogene 1
XLOC_132813	1.691406	0.000357	-	lncRNA	-
XLOC_059152	1.700928	0.030737	-	lncRNA	-
XLOC_022619	1.703877	0.022514	-	lncRNA	-
ENSG00000265778	1.706003	0.029109	-	Antisense	Null
ENSG00000261971	1.707254	0.015794	RP11-473M20.7	Antisense	Uncharacterized LOC100507419
ENSG00000231130	1.731972	0.040147	HLA-T	Pseudogene	Major histocompatibility complex, class I, T (pseudogene)
XLOC_091055	1.737998	0.048865	-	lncRNA	-
ENSG00000226342	1.743789	0.042414	NMD3P1	Pseudogene	NMD3 ribosome export adaptor pseudogene 1
XLOC_011543	1.747662	0.036197	-	lncRNA	-
XLOC_098190	1.753276	0.04239	-	lncRNA	-
XLOC_094930	1.760913	0.014836	-	lncRNA	-
XLOC_130331	1.762207	0.002094	-	lncRNA	-
ENSG00000249713	1.768232	0.01193	LOC101929109	Antisense	Uncharacterized LOC101929109
XLOC_008951	1.787663	0.000294	-	lncRNA	-
XLOC_022617	1.78913	0.020338	-	lncRNA	-
ENSG00000214820	1.790814	0.048357	MPRIIP1	Pseudogene	Myosin phosphatase Rho interacting protein pseudogene 1
ENSG00000253712	1.798739	0.038833	-	lincRNA	Null
XLOC_042436	1.802346	0.023858	-	lncRNA	-
ENSG00000267515	1.8064	0.016979	-	Pseudogene	Null
ENSG00000207199	1.809074	0.026715	-	snoRNA	Null
XLOC_024386	1.810203	0.003823	-	lncRNA	-
XLOC_099693	1.818424	0.009089	-	lncRNA	-
ENSG00000251347	1.825172	0.000881	IRF5P1	Pseudogene	Interferon regulatory factor 5 pseudogene 1
ENSG00000222164	1.826968	0.021159	-	misc_RNA	Null
ENSG00000238755	1.831508	0.045562	-	Processed_ transcript	Null
ENSG00000233774	1.832072	0.022472	MED14P1	Pseudogene	Mediator complex subunit 14 pseudogene 1
ENSG00000244706	1.838591	0.002556	-	lincRNA	Null
ENSG00000248187	1.839155	0.015168	-	lincRNA	Null
XLOC_089957	1.842848	0.027364	-	lncRNA	-
ENSG00000230370	1.852955	0.03578	-	Pseudogene	Null
ENSG00000273325	1.85936	0.005133	-	lincRNA	Null
ENSG00000271843	1.860252	0.00051	-	lincRNA	Null
ENSG00000241359	1.860473	0.007245	SYNPR-AS1	Antisense	SYNPR antisense RNA 1
XLOC_126550	1.861662	0.027279	-	lncRNA	-
XLOC_121548	1.862449	0.000677	-	lncRNA	-
ENSG00000224251	1.863813	0.005208	-	Antisense	Null
ENSG00000221021	1.864082	0.040456	-	miRNA	Null

Table SV. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000258615	1.872771	0.049599	-	Pseudogene	Null
ENSG00000252502	1.887304	0.022964	SNORD112	snoRNA	Small nucleolar RNA, C/D box 112
XLOC_089939	1.90057	0.005658	-	lncRNA	-
ENSG00000173295	1.900795	0.022756	FAM86B3P	Pseudogene	Family with sequence similarity 86, member a pseudogene
ENSG00000245059	1.903888	0.046931	-	lincRNA	Null
XLOC_121549	1.905237	0.001642	-	lncRNA	-
ENSG00000238502	1.907553	0.016847	-	snoRNA	Null
XLOC_003111	1.908294	0.022955	-	lncRNA	-
ENSG00000213716	1.911148	0.025578	FABP5P5	Pseudogene	Fatty acid binding protein 5 pseudogene 5
ENSG00000204625	1.911831	0.010625	HCG9	lincRNA	HLA complex group 9 (non-protein coding)
ENSG00000223739	1.913859	0.047413	-	Pseudogene	Null
ENSG00000252966	1.932514	0.047516	-	snRNA	Null
ENSG00000215933	1.936532	0.010908	-	miRNA	Null
XLOC_102684	1.942768	0.008141	-	lncRNA	-
ENSG00000249649	1.954495	0.049949	MRPS33P2	Pseudogene	Mitochondrial ribosomal protein S33 pseudogene 2
ENSG00000199536	1.955643	0.033222	-	snRNA	Null
ENSG00000270100	1.960968	0.005069	-	lincRNA	Null
ENSG00000222732	1.99555	0.014191	-	miRNA	Null
XLOC_142167	1.99699	0.004484	-	lncRNA	-
XLOC_142287	1.997852	0.017174	-	lncRNA	-
ENSG00000221844	2.007158	0.022304	-	Pseudogene	Null
XLOC_031196	2.00913	0.010417	-	lncRNA	-
XLOC_075884	2.014168	0.040923	-	lncRNA	-
ENSG00000221519	2.022357	0.011547	-	miRNA	Null
ENSG00000223658	2.024342	0.03323	-	Pseudogene	Null
ENSG00000233979	2.024929	0.003934	-	Pseudogene	Null
XLOC_144073	2.02516	0.033169	-	lncRNA	-
ENSG00000248335	2.025161	0.001303	-	Antisense	Null
XLOC_102696	2.031494	0.027963	-	lncRNA	-
ENSG00000227265	2.042867	0.015232	-	Pseudogene	Null
XLOC_088465	2.05082	0.009794	-	lncRNA	-
ENSG00000206613	2.052156	0.019273	-	snRNA	Null
XLOC_119002	2.060163	0.030062	-	lncRNA	-
XLOC_009088	2.071502	0.038769	-	lncRNA	-
XLOC_121545	2.090955	0.000142	-	lncRNA	-
ENSG00000249309	2.09569	0.041582	-	Antisense	Null
XLOC_130344	2.106749	0.013521	-	lncRNA	-
XLOC_140013	2.116508	0.033992	-	lncRNA	-
ENSG00000258690	2.117915	0.044229	-	Antisense	Null
ENSG00000222465	2.126116	0.040557	RNU2-5P	snRNA	RNA, U2 small nuclear 5, pseudogene
XLOC_125989	2.126387	0.000137	-	lncRNA	-
XLOC_121550	2.131929	0.000498	-	lncRNA	-
XLOC_061198	2.137016	0.003937	-	lncRNA	-
ENSG00000201114	2.153412	0.011774	-	misc_RNA	Null
XLOC_042227	2.155373	0.012189	-	lncRNA	-
ENSG00000271129	2.158671	0.009593	-	Pseudogene	Null
XLOC_059910	2.170575	0.001879	-	lncRNA	-
ENSG00000212378	2.180615	0.014394	SNORD78	snoRNA	Small nucleolar RNA, C/D box 78
ENSG00000234484	2.186309	0.005404	-	Antisense	Null
XLOC_054363	2.200777	0.006836	-	lncRNA	-
XLOC_014980	2.201208	0.036617	-	lncRNA	-
ENSG00000226381	2.202206	0.002247	RP11-119F19.2	Antisense	Uncharacterized LOC101929525
XLOC_136388	2.208422	0.025896	-	lncRNA	-
ENSG00000254635	2.212329	0.047249	WAC-AS1	Antisense	WAC antisense RNA 1 (head to head)
ENSG00000228294	2.217725	0.018476	BMS1P17	lincRNA	BMS1 pseudogene 17



Table SV. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000233681	2.217733	0.013117	CEACAMP1	Pseudogene	Carcinoembryonic antigen-related cell adhesion molecule pseudogene 1
ENSG00000235378	2.22184	0.019537	MRPS10P1	Pseudogene	Mitochondrial ribosomal protein S10 pseudogene 1
XLOC_039042	2.232816	0.048475	-	lncRNA	-
ENSG00000266333	2.234056	0.026342	-	miRNA	Null
XLOC_108716	2.245018	0.005721	-	lncRNA	-
XLOC_058471	2.262425	3.68E-06	-	lncRNA	-
XLOC_146525	2.265107	0.020777	-	lncRNA	-
ENSG00000221878	2.266987	0.041121	PSG7	polymorphic_Pseudogene	Pregnancy specific beta-1-glycoprotein 7 (gene/pseudogene)
XLOC_010746	2.281971	0.02457	-	lncRNA	-
XLOC_032389	2.290681	0.028975	-	lncRNA	-
ENSG00000236700	2.295631	0.003281	LINC01010	lincRNA	Long intergenic non-protein coding RNA 1010
XLOC_121546	2.30795	0.000542	-	lncRNA	-
XLOC_070247	2.310902	0.031605	-	lncRNA	-
XLOC_121538	2.320593	1.5E-05	-	lncRNA	-
ENSG00000225649	2.326676	0.008427	LOC100506474	Processed_transcript	Uncharacterized LOC100506474
XLOC_015548	2.332196	0.00449	-	lncRNA	-
ENSG00000224050	2.35	0.000303	-	lincRNA	Null
XLOC_057344	2.352441	0.017364	-	lncRNA	-
ENSG00000217684	2.367218	0.035032	RPS3AP24	Pseudogene	Ribosomal protein S3a pseudogene 24
ENSG00000220773	2.375359	0.000134	-	Pseudogene	Null
XLOC_132820	2.378499	0.009596	-	lncRNA	-
XLOC_102689	2.387686	0.022635	-	lncRNA	-
ENSG00000272568	2.394399	0.000356	LOC100506497	Antisense	Uncharacterized LOC100506497
XLOC_032380	2.409995	0.04464	-	lncRNA	-
ENSG00000241511	2.419734	0.014578	RPS15AP24	Pseudogene	Ribosomal protein S15a pseudogene 24
ENSG00000252420	2.422072	0.009908	-	misc_RNA	Null
XLOC_117297	2.429347	0.002842	-	lncRNA	-
ENSG00000221299	2.43504	0.008561	-	miRNA	Null
XLOC_124023	2.43545	0.040697	-	lncRNA	-
XLOC_147745	2.444831	0.019698	-	lncRNA	-
ENSG00000225002	2.44668	0.023842	-	lincRNA	Null
XLOC_121544	2.456944	2.98E-05	-	lncRNA	-
XLOC_089953	2.460328	0.020239	-	lncRNA	-
ENSG00000226482	2.466778	9.32E-05	ADIPOQ-AS1	Antisense	ADIPOQ antisense RNA 1
ENSG00000199676	2.471543	0.008321	-	misc_RNA	Null
ENSG00000261856	2.471849	0.008815	LOC101927348	lincRNA	Uncharacterized LOC101927348
XLOC_117299	2.486086	0.002558	-	lncRNA	-
XLOC_022621	2.50878	0.000999	-	lncRNA	-
XLOC_104796	2.54083	0.024745	-	lncRNA	-
ENSG00000249863	2.566387	0.012915	-	Pseudogene	Null
XLOC_138715	2.566387	0.00097	-	lncRNA	-
XLOC_032382	2.588574	0.001227	-	lncRNA	-
ENSG00000250043	2.603567	0.042188	-	lincRNA	Null
XLOC_095906	2.612771	2.83E-05	-	lncRNA	-
ENSG00000206819	2.620012	0.041488	-	snRNA	Null
ENSG00000264446	2.631454	0.002459	-	miRNA	Null
ENSG00000233330	2.646404	0.00036	-	Antisense	Null
ENSG00000220635	2.647481	0.00031	KRASPI	Pseudogene	Kirsten rat sarcoma viral oncogene homolog pseudogene 1 (functional)
ENSG00000227352	2.652485	0.01094	ARHGEF7-AS1	Antisense	ARHGEF7 antisense RNA 1
ENSG00000212303	2.659397	0.009599	-	snRNA	Null
XLOC_111863	2.701891	0.03669	-	lncRNA	-
ENSG00000228764	2.707066	0.001785	ZNF885P	Pseudogene	Zinc finger protein 885, pseudogene

Table SV. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
XLOC_100581	2.733449	0.039454	-	lncRNA	-
XLOC_103328	2.737223	0.035601	-	lncRNA	-
XLOC_046713	2.772988	0.030481	-	lncRNA	-
XLOC_102681	2.791854	1.18E-05	-	lncRNA	-
XLOC_127373	2.880567	0.040432	-	lncRNA	-
ENSG00000238744	2.899406	0.032185	-	snoRNA	Null
ENSG00000252256	2.922926	0.00232	SNORD112	snoRNA	Small nucleolar RNA, C/D box 112
ENSG00000269614	2.937783	2.48E-05	-	lincRNA	Null
XLOC_108718	2.940785	0.012573	-	lncRNA	-
XLOC_098708	2.990457	0.018764	-	lncRNA	-
ENSG00000212382	2.991558	0.038067	-	snRNA	Null
XLOC_098711	3.040569	0.026248	-	lncRNA	-
XLOC_105447	3.045999	0.047181	-	lncRNA	-
XLOC_108990	3.081545	0.024319	-	lncRNA	-
ENSG00000256249	3.098582	0.002897	-	lincRNA	Null
XLOC_120683	3.108199	0.017614	-	lncRNA	-
XLOC_086026	3.13493	0.016072	-	lncRNA	-
ENSG00000235782	3.172438	0.021697	-	Antisense	Null
ENSG00000267647	3.180599	0.001003	MAP1LC3P	Pseudogene	Microtubule-associated protein 1 Light chain 3 pseudogene
XLOC_098701	3.189339	0.01339	-	lncRNA	-
XLOC_103595	3.192523	0.03559	-	lncRNA	-
ENSG00000256288	3.192623	0.000779	-	lincRNA	Null
ENSG00000270114	3.233631	0.038249	-	Antisense	Null
ENSG00000202379	3.272477	0.042398	SNORA70	snoRNA	Small nucleolar RNA, H/ACA box 70
ENSG00000219784	3.281195	0.043063	-	Pseudogene	Null
XLOC_044155	3.296546	0.028043	-	lncRNA	-
XLOC_004531	3.336505	2.32E-06	-	lncRNA	-
XLOC_008954	3.345396	0.005134	-	lncRNA	-
ENSG00000261245	3.370286	0.046734	-	Pseudogene	Null
XLOC_098717	3.373577	0.012633	-	lncRNA	-
XLOC_047157	3.388108	0.000936	-	lncRNA	-
ENSG00000230538	3.40039	0.027304	-	Pseudogene	Null
ENSG00000223598	3.402501	0.026997	-	Antisense	Null
ENSG00000250362	3.413879	0.038154	-	Processed_ transcript	Null
XLOC_142148	3.441339	0.025025	-	lncRNA	-
XLOC_097779	3.454332	0.021145	-	lncRNA	-
XLOC_108989	3.467281	0.004687	-	lncRNA	-
XLOC_121543	3.480679	3.04E-07	-	lncRNA	-
ENSG00000227289	3.50585	0.015184	HSFY3P	Pseudogene	Heat shock transcription factor, Y-linked 3, pseudogene
ENSG00000244432	3.513623	7.22E-07	RPL39P28	Pseudogene	Ribosomal protein L39 pseudogene 28
ENSG00000184084	3.515885	0.003926	-	Pseudogene	Null
XLOC_005977	3.529491	0.018477	-	lncRNA	-
ENSG00000256835	3.541835	5.54E-06	-	Pseudogene	Null
XLOC_108724	3.587028	0.016116	-	lncRNA	-
XLOC_021056	3.66635	0.015679	-	lncRNA	-
ENSG00000200492	3.678683	0.045968	-	snoRNA	Null
XLOC_080657	3.682771	0.012316	-	lncRNA	-
ENSG00000231877	3.690442	0.014514	-	lincRNA	Null
XLOC_090824	3.726158	0.014409	-	lncRNA	-
XLOC_089044	3.790551	0.004654	-	lncRNA	-
XLOC_102708	3.864869	0.017288	-	lncRNA	-
ENSG00000199790	3.906964	0.000616	-	snRNA	Null
XLOC_103586	3.981117	0.009299	-	lncRNA	-
ENSG00000251946	4.015103	0.000229	-	snRNA	Null
XLOC_019977	4.111754	0.001972	-	lncRNA	-
XLOC_019783	4.312034	0.010272	-	lncRNA	-

Table SV. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000256422	4.345283	0.010539	RP11-886D15.1	lincRNA	Uncharacterized LOC102723895
ENSG00000251301	4.390793	0.00058	RP11-81H14.2	lincRNA	Uncharacterized LOC101927981
XLOC_086052	4.423848	0.002712	-	lincRNA	-
ENSG00000234715	4.454172	0.000703	LOC101927870	Antisense	Uncharacterized LOC101927870
XLOC_032530	4.497954	0.000839	-	lincRNA	-
XLOC_042374	4.537141	0.047997	-	lincRNA	-
XLOC_034774	4.548817	0.04191	-	lincRNA	-
ENSG00000231957	4.548818	0.041901	GNAI2P2	Pseudogene	Guanine nucleotide binding protein (G protein), alpha inhibiting activity polypeptide 2 pseudogene 2
XLOC_004174	4.556594	0.038656	-	lincRNA	-
ENSG00000259124	4.556595	0.038655	-	lincRNA	Null
XLOC_112101	4.563957	0.043215	-	lincRNA	-
XLOC_007165	4.574162	0.040289	-	lincRNA	-
XLOC_104259	4.574163	0.040295	-	lincRNA	-
XLOC_028009	4.601143	0.034342	-	lincRNA	-
XLOC_018896	4.601656	0.024202	-	lincRNA	-
ENSG00000273257	4.61119	0.041225	-	lincRNA	Null
ENSG00000271164	4.675762	0.041101	-	Pseudogene	Null
ENSG00000249411	4.694021	0.041976	-	Pseudogene	Null
XLOC_054645	4.694023	0.041961	-	lincRNA	-
XLOC_079310	4.717977	0.026968	-	lincRNA	-
ENSG00000250222	4.720152	0.037342	-	Antisense	Null
XLOC_054774	4.724617	0.032206	-	lincRNA	-
XLOC_026039	4.724617	0.032196	-	lincRNA	-
XLOC_033031	4.732009	0.044247	-	lincRNA	-
ENSG00000237860	4.73391	0.025344	-	Pseudogene	Null
XLOC_130343	4.750831	0.021718	-	lincRNA	-
ENSG00000220553	4.793502	0.003778	RPL5P19	Pseudogene	Ribosomal protein L5 pseudogene 19
XLOC_030369	4.80817	0.049345	-	lincRNA	-
XLOC_071914	4.832732	0.02476	-	lincRNA	-
XLOC_031203	4.832733	0.024756	-	lincRNA	-
XLOC_019013	4.833214	0.033065	-	lincRNA	-
XLOC_010032	4.851357	0.033643	-	lincRNA	-
ENSG00000258478	4.875164	0.043952	-	Antisense	Null
XLOC_002626	4.875164	0.043962	-	lincRNA	-
XLOC_069780	4.87563	0.02772	-	lincRNA	-
XLOC_021053	4.891805	0.003535	-	lincRNA	-
ENSG00000222303	4.916124	0.017434	-	snRNA	Null
ENSG00000245849	4.920086	0.045069	RAD51-AS1	Processed_ transcript	RAD51 antisense RNA 1 (head to head)
ENSG00000265978	4.920087	0.045077	-	miRNA	Null
XLOC_108985	4.921126	0.042869	-	lincRNA	-
XLOC_028006	4.927286	0.046203	-	lincRNA	-
XLOC_098706	4.927288	0.046216	-	lincRNA	-
ENSG00000251798	4.934479	0.021991	-	snRNA	Null
ENSG00000224852	4.943216	0.026004	MTND5P24	Pseudogene	MT-ND5 pseudogene 24
XLOC_080563	4.950444	0.039785	-	lincRNA	-
XLOC_040861	4.952481	0.020808	-	lincRNA	-
ENSG00000236804	4.99435	0.015293	RPS3AP12	Pseudogene	Ribosomal protein S3a pseudogene 12
XLOC_102711	5.00531	0.016088	-	lincRNA	-
ENSG00000243674	5.030148	0.038366	OR7E66P	Pseudogene	Olfactory receptor, family 7, subfamily E, member 66 pseudogene
XLOC_018614	5.031501	0.011517	-	lincRNA	-
XLOC_096851	5.049018	0.017688	-	lincRNA	-
XLOC_098735	5.065129	0.040861	-	lincRNA	-
ENSG00000259737	5.067587	0.030055	-	lincRNA	Null
ENSG00000266999	5.070707	0.037303	-	lincRNA	Null
ENSG00000226031	5.084809	0.014482	FGF13-AS1	Antisense	FGF13 antisense RNA 1

Table SV. Continued.

Gene ID	logFC	P-Value	Symbol	Gene biotype	Description
ENSG00000240354	5.085013	0.020857	-	lincRNA	Null
ENSG00000236385	5.141404	0.033126	-	lincRNA	Null
XLOC_111144	5.148884	0.006744	-	lincRNA	-
XLOC_108962	5.149229	0.028419	-	lincRNA	-
XLOC_029315	5.14923	0.028415	-	lincRNA	-
ENSG00000248396	5.15484	0.013624	TOMM22P4	Pseudogene	Translocase of outer mitochondrial Membrane 22 homolog (yeast) Pseudogene 4
XLOC_108965	5.183458	0.017169	-	lincRNA	-
XLOC_088298	5.1835	0.013461	-	lincRNA	-
XLOC_101426	5.205413	0.00755	-	lincRNA	-
XLOC_128517	5.22534	0.017188	-	lincRNA	-
XLOC_101822	5.329524	0.019616	-	lincRNA	-
XLOC_064335	5.359337	0.002913	-	lincRNA	-
XLOC_108971	5.496223	0.042572	-	lincRNA	-
ENSG00000231001	5.530664	0.001511	CCNB1IP1P3	Pseudogene	Cyclin B1 interacting protein 1 pseudogene 3
ENSG00000225911	5.592006	0.001814	-	Pseudogene	Null
XLOC_107229	5.724607	0.028615	-	lincRNA	-
XLOC_058470	5.731468	1.58E-12	-	lincRNA	-
ENSG00000235505	5.744622	0.002926	LOC643733	Pseudogene	Caspase 4, apoptosis-related Cysteine peptidase pseudogene
XLOC_121750	5.779936	0.006883	-	lincRNA	-
XLOC_098712	5.844746	0.001139	-	lincRNA	-
XLOC_032531	5.961428	0.001707	-	lincRNA	-
XLOC_096906	5.974505	0.000465	-	lincRNA	-
XLOC_021031	6.199638	0.012	-	lincRNA	-
XLOC_058626	6.26078	7.37E-05	-	lincRNA	-
XLOC_107231	6.297352	0.01001	-	lincRNA	-
ENSG00000245573	6.309626	0.002127	BDNF-AS	Antisense	BDNF antisense RNA
XLOC_107237	6.432497	0.007784	-	lincRNA	-
ENSG00000250358	6.556026	0.006184	RP11-159K7.2	lincRNA	Uncharacterized LOC102467214
XLOC_107233	6.556026	0.006183	-	lincRNA	-
XLOC_021055	6.627305	0.000351	-	lincRNA	-
XLOC_107236	6.935363	0.003219	-	lincRNA	-
XLOC_107234	7.023561	0.002723	-	lincRNA	-
XLOC_107239	7.051791	0.002596	-	lincRNA	-
XLOC_107235	7.079484	0.002469	-	lincRNA	-
XLOC_107240	7.926019	0.000639	-	lincRNA	-

FC, fold change; PersAF, persistent atrial fibrillation.