

**Microarray profiling and co-expression network analysis of lncRNAs and mRNAs
associated with acute leukemia in adult**

Suppl. Table S1. Top 20 differentially expressed lncRNAs in AML compared with Controls

Probe Name	lncRNA	Fold change	p value
LNCA_21_P0007321	chr11:15932527-15932586	49.84	5.32E-03
CUST_10327_P0429285431	chr18:11488833-11489682	42.71	7.70E-03
CUST_11856_P0429285431	chr1:185590089-185590305	38.58	9.53E-03
CUST_39270_P0429285431	chr18:5241098-5243584	34.23	7.63E-03
CUST_37550_P0429285431	chr4:770527-773526	32.67	7.61E-03
CUST_29340_P0429285431	chr6:136676990-136857798	32.20	6.58E-03
CUST_36756_P0429285431	chr13:108899100-108899338	28.13	1.09E-02
CUST_23011_P0429285431	chr2:135676133-135676676	26.28	1.10E-02
CUST_30802_P0429285431	chr5:70519357-70519728	21.87	4.56E-04
LNCA_21_P0008515	chr14:66590483-66590542	19.70	1.16E-02
CUST_10477_P0429285431	chr2:130349796-130352795	17.95	1.84E-02
CUST_24378_P0429285431	chr1:246945359-246948062	15.11	2.25E-06
CUST_40164_P0429285431	chr5:68926979-68929027	14.86	2.30E-04
CUST_51711_P0429285431	chr18:11609595-11610611	14.21	2.68E-04
CUST_21083_P0429285431	chr3:71612646-71633140	13.73	3.29E-04
CUST_35974_P0429285431	chr12:114173983-114174521	13.61	2.44E-02
CUST_34403_P0429285431	chr7:92234235-92253238	12.91	5.21E-07
CUST_45464_P0429285431	chr9:139557379-139558923	12.42	4.09E-03
CUST_18611_P0429285431	chr5:68949135-68950156	11.83	2.13E-05

CUST_16978_P1429285431	chr3:197376878-197379877	11.67	9.75E-05
CUST_18773_P1429285431	chr2:232260335-232265875	0.07	5.14E-04
CUST_10623_P1429285431	chr3:196366656-196369460	0.07	2.84E-05
CUST_1809_P1429285431	chr4:80413570-80415649	0.07	6.86E-06
CUST_32038_P1429285431	chr19:40353963-40440533	0.06	7.70E-03
CUST_43881_P1429285431	chr2:87011728-87014348	0.06	1.04E-03
CUST_39763_P1429285431	chr7:74562383-74565623	0.06	1.03E-04
CUST_5821_P1429285431	chr17:33640521-33640987	0.06	3.71E-08
CUST_34172_P1429285431	chr11:44953899-44963972	0.05	5.67E-04
CUST_50330_P1429285431	chr9:132096183-132097041	0.05	1.10E-04
CUST_47165_P1429285431	Unknown	0.05	2.19E-05
CUST_18421_P1429285431	chr19:50827564-50832634	0.05	3.78E-05
CUST_10250_P1429285431	chr14:99753611-99754182	0.05	1.13E-06
CUST_45816_P1429285431	Unknown	0.04	1.31E-04
CUST_6714_P1429285431	chr20:48884036-48884574	0.04	5.37E-04
CUST_7976_P1429285431	chr12:47610052-47620239	0.04	1.33E-03
CUST_46894_P1429285431	chr17:56597611-56599991	0.04	2.44E-06
CUST_30436_P1429285431	chr9:139889060-139891024	0.03	7.12E-06
CUST_35504_P1429285431	chr4:74919754-74921116	0.03	3.05E-05
CUST_46281_P1429285431	chr14:23242431-23244996	0.03	2.34E-03
LNCA_21_P0011482	chr16:53399708-53399767	0.02	1.48E-07

Suppl. Table S2. Top 20 differentially expressed lncRNAs in ALL compared with Controls

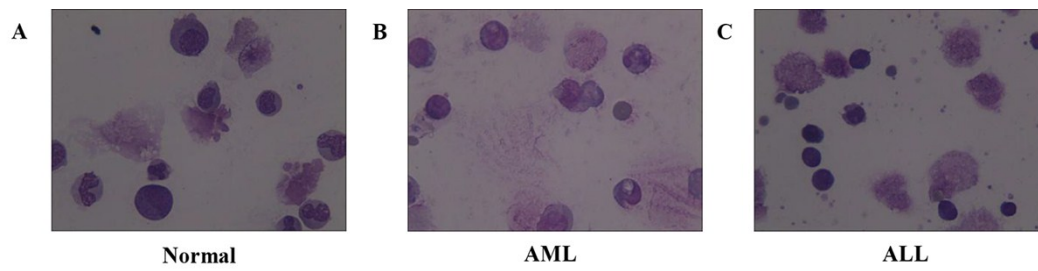
Probe Name	lncRNA	Fold change	p value
CUST_25180_PI429285431	chr3:153480292-153481103	217.21	1.34E-03
CUST_39682_PI429285431	chr6:1062457-1064476	201.62	7.12E-04
LNCA_21_P0004750	chr6:45539858-45539917	181.07	2.35E-04
CUST_12013_PI429285431	chr11:15933334-15933719	175.81	5.45E-04
CUST_34945_PI429285431	chr6:45539448-45541971	174.89	3.00E-04
LNCA_21_P0001708	chr1:185532449-185590104	171.54	1.58E-03
LNCA_21_P0007321	chr11:15932527-15932586	168.50	5.49E-04
CUST_11856_PI429285431	chr1:185590089-185590305	167.64	1.15E-03
LNCA_21_P0001923	chr2:147606877-147607878	157.14	3.66E-04
CUST_1128_PI429285431	chr2:147595317-147596122	155.76	4.04E-04
CUST_10327_PI429285431	chr18:11488833-11489682	149.80	8.33E-04
LNCA_21_P0007854	chr12:121343059-121343118	145.02	1.72E-03
LNCA_21_P0005807	chr8:21223174-21266955	139.77	2.94E-03
CUST_8291_PI429285431	chr10:103597334-103599605	137.49	9.16E-04
CUST_24779_PI429285431	chr2:102788354-102796334	134.55	2.25E-03
CUST_43853_PI429285431	chr2:65128974-65131973	133.30	3.80E-04
CUST_3776_PI429285431	chr10:103454409-103454743	127.68	2.09E-03
CUST_6041_PI429285431	chr18:1368090-1368696	126.16	1.47E-03
CUST_2326_PI429285431	chr5:117618270-117619492	125.03	2.92E-03

CUST_19077_PI429285431	chr6:8342558-8343084	120.37	1.54E-03
CUST_35802_PI429285431	chr9:132094675-132097657	0.03	2.03E-03
CUST_45989_PI429285431	chr12:10706089-10707310	0.03	1.90E-04
CUST_23870_PI429285431	chr7:27145809-27145946	0.03	6.69E-05
CUST_30821_PI429285431	chr7:142021220-142021442	0.03	8.55E-05
CUST_25723_PI429285431	chr7:27145809-27149585	0.03	3.41E-04
CUST_44289_PI429285431	chr3:171064723-171065490	0.02	1.05E-04
CUST_31119_PI429285431	chr1:144521638-144522053	0.02	4.62E-05
CUST_35860_PI429285431	chr13:30221777-30222232	0.02	1.39E-05
CUST_22552_PI429285431	chr12:4019050-4019727	0.02	4.30E-07
CUST_45418_PI429285431	chr9:124217319-124218804	0.02	7.34E-07
CUST_43271_PI429285431	chr9:125133229-125145104	0.02	6.19E-09
CUST_39765_PI429285431	chr9:124217318-124219072	0.02	1.03E-06
CUST_25334_PI429285431	chr12:4019050-4019607	0.02	3.04E-07
LNCA_21_P0001290	chr1:47645923-47645982	0.02	4.36E-06
CUST_35504_PI429285431	chr4:74919754-74921116	0.02	8.30E-09
CUST_43133_PI429285431	chrHG7_PATCH:142445732- 142448496	0.02	4.53E-04
CUST_13501_PI429285431	chr1:47649261-47655771	0.02	2.46E-06
CUST_44061_PI429285431	chr2:218923878-218926030	0.02	1.79E-05
CUST_51485_PI429285431	chr16:53403274-53405041	0.01	8.75E-05
LNCA_19_P00321743	chr18:59273540-59273599	0.01	2.51E-07

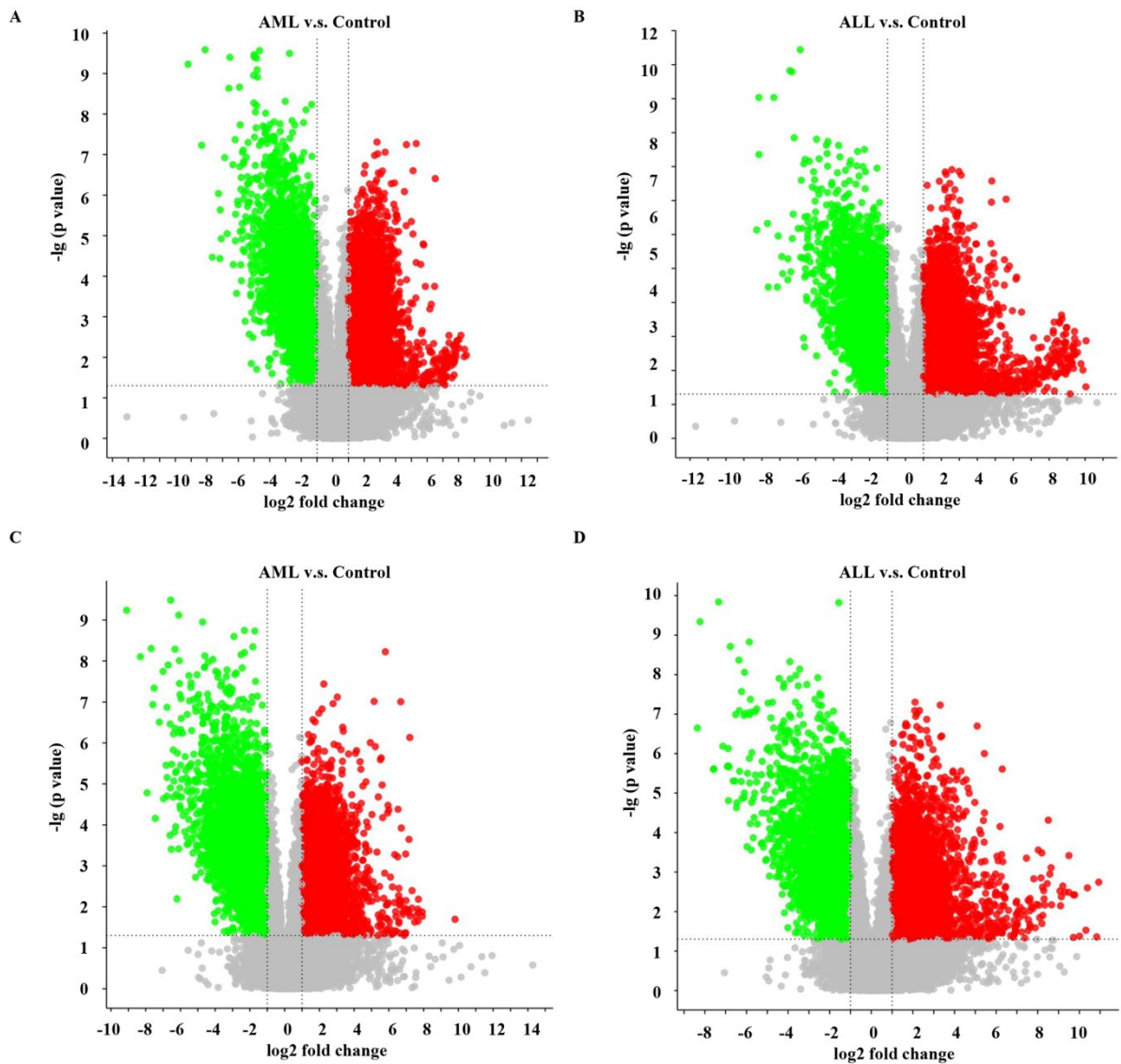
Suppl. Table S3. Top 20 differentially expressed lncRNAs in AML compared with ALL

Probe Name	lncRNA	Fold change	p value
CUST_44443_PI429285431	chr4:157682763-157685762	23.95	1.45E-02
CUST_37675_PI429285431	chr10:77191404-77191615	22.95	2.65E-03
CUST_23551_PI429285431	chr10:20007334-20023407	22.37	3.55E-02
CUST_32073_PI429285431	chr13:32622894-32643647	19.37	6.58E-03
CUST_33396_PI429285431	chr4:75134013-75168816	19.30	1.34E-02
CUST_3417_PI429285431	chr9:45487056-45487990	19.04	2.16E-03
CUST_29617_PI429285431	chr16:1311004-1317077	18.57	3.42E-02
CUST_1887_PI429285431	chr4:132851186-132851639	18.25	1.10E-03
CUST_46001_PI429285431	chr12:16500712-16501613	17.29	3.67E-02
CUST_40074_PI429285431	chr14:106392837-106393449	16.88	1.27E-02
CUST_30421_PI429285431	chr12:16500076-16517344	15.39	3.06E-02
CUST_39024_PI429285431	chr8:25262425-25270619	11.78	3.68E-02
CUST_43133_PI429285431	chrHG7_PATCH:142445732- 142448496	11.14	1.17E-01
CUST_33229_PI429285431	chr18:74069637-74207146	10.56	1.34E-02
LNCA_21_P0007688	chr12:10089216-10089275	10.31	6.41E-02
CUST_24396_PI429285431	chr6:82455447-82456070	8.36	1.04E-02
CUST_40824_PI429285431	chr6:2833733-2842081	8.28	2.84E-03
CUST_6932_PI429285431	chr22:21301380-21308037	8.24	1.21E-02

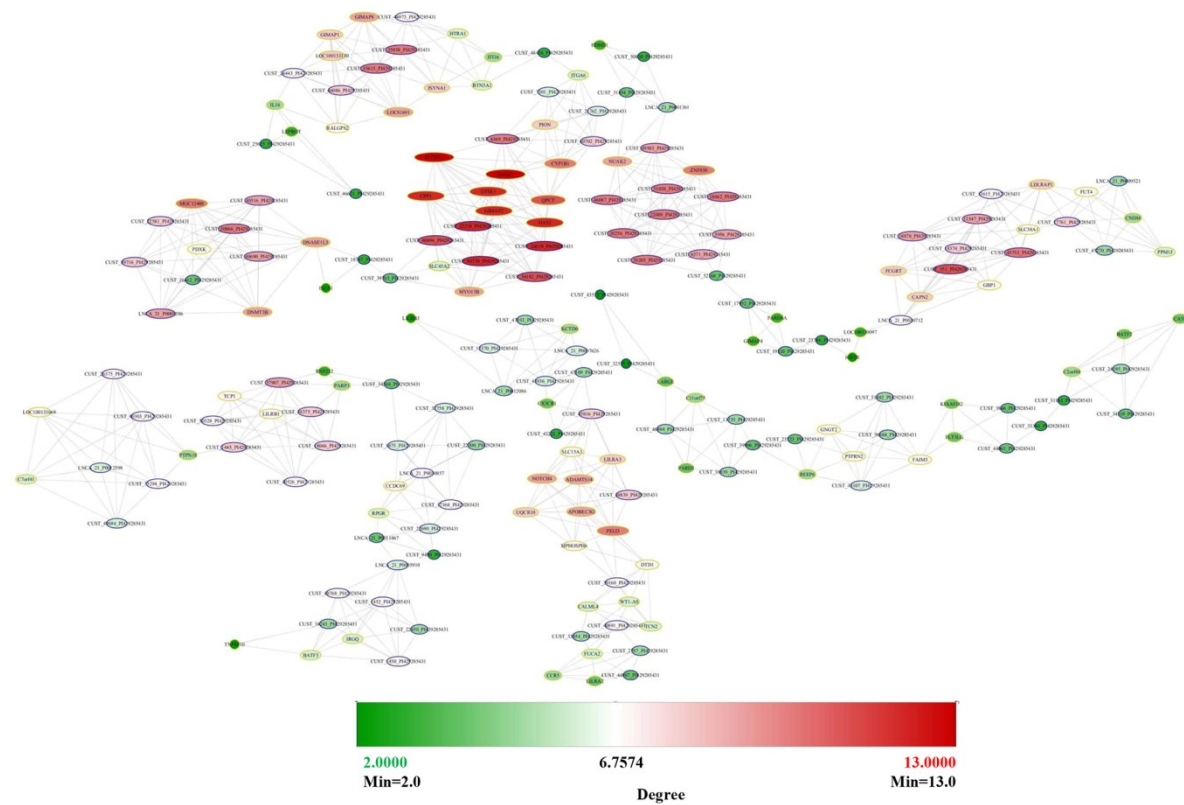
CUST_22527_PI429285431	chr10:20007334-20023407	8.06	3.06E-02
CUST_47759_PI429285431	chrY:15360259-15363258	7.63	9.11E-02
CUST_39895_PI429285431	chr7:150312463-150329680	0.09	1.89E-03
CUST_11345_PI429285431	chr6:132490141-132490364	0.09	7.39E-02
CUST_10858_PI429285431	chr10:130118187-130118272	0.08	4.95E-03
CUST_44943_PI429285431	chr7:55748767-55751223	0.08	1.25E-02
CUST_22519_PI429285431	chr2:946554-955960	0.08	3.56E-02
CUST_48367_PI429285431	chr1:89885750-89888749	0.08	6.32E-03
CUST_48363_PI429285431	chr1:89876151-89876499	0.08	3.43E-03
CUST_45916_PI429285431	chr11:123301014-123302107	0.08	1.75E-04
LNCA_33_P3330079	chr11:123306328-123306387	0.08	9.69E-05
CUST_44944_PI429285431	chr7:55748767-55751327	0.08	1.43E-02
CUST_44945_PI429285431	chr7:55748767-55751237	0.07	1.06E-02
CUST_38257_PI429285431	chr11:123486110-123493518	0.07	9.32E-04
CUST_33521_PI429285431	chr4:153021969-153023608	0.07	3.54E-03
CUST_45665_PI429285431	NW_003871070.1:8097-9570	0.06	1.44E-02
CUST_39984_PI429285431	chr10:82173590-82175221	0.06	4.47E-03
CUST_24273_PI429285431	chr6:150920999-150936986	0.06	1.89E-03
LNCA_21_P0013517	chr8:74189464-74189523	0.05	6.41E-03
CUST_10256_PI429285431	chr6:132490141-132490514	0.05	6.37E-02
CUST_49010_PI429285431	chr3:197369474-197370281	0.05	3.49E-02
CUST_33914_PI429285431	chr5:158122909-158124258	0.03	2.99E-02



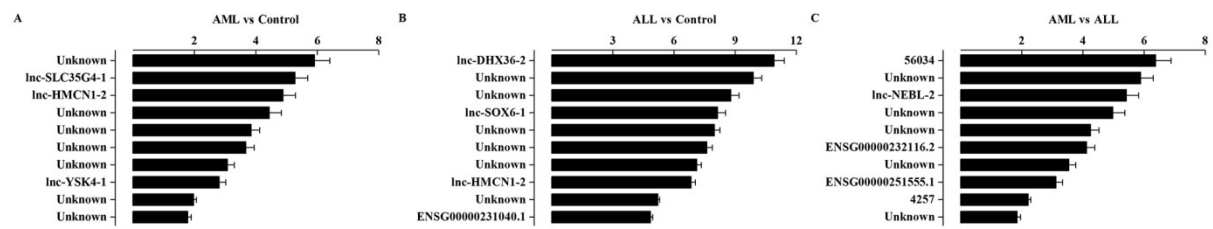
Suppl. Fig. S1. Identification of bone marrow-derived mononuclear cells (BM-MNCs) by microscope. BM-MNCs isolated from normal controls (A), AML (B) and ALL (C) patients were identified by microscope ($\times 1000$).



Suppl. Fig. S2. lncRNAs and mRNA profile comparisons between AML or ALL patients and healthy controls. Volcano plots were used to distinguish the differentially expressed lncRNAs (A, B) and mRNAs (C, D). The vertical lines correspond to 2-fold upregulation or downregulation, and the horizontal lines represent $P = 0.05$. The red points highlight the upregulated genes, and the green points reflect the downregulated genes.



Suppl. Fig. S3. lncRNA-mRNA co-expression network. Genes denoted a yellow ring encode mRNAs, genes denoted a blue ring encode lncRNAs and color change represents the node degrees.



Suppl. Fig. S4. lncRNAs profile comparisons between AML or ALL patients and healthy controls. Top 10 differentially expressed lncRNAs in AML patients compared with healthy controls (A), in ALL patients compared with healthy controls (B) and in AML patients compared with ALL patients (C).