

Table SI. DEL and DEM co-expression network in MDS.

DEMs	DELs	Strand	Interaction	PCC	P-value
<i>BMX</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.999	0.001
<i>FAR1</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.997	0.003
<i>GCA</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.993	0.007
<i>HERC4</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.993	0.007
<i>KLHL23</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.994	0.006
<i>NCF2</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.995	0.005
<i>OLR1</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.998	0.002
<i>POGK</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.997	0.003
<i>RGS2</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.996	0.004
<i>SI00A11</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.999	0.001
<i>SNX27</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.994	0.006
<i>SPG11</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.994	0.006
<i>SPTLC2</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.994	0.006
<i>TCFL5</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.997	0.003
<i>TM6SF1</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.999	0.000
<i>TMEM154</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.994	0.006
<i>ZNF280D</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.997	0.003
<i>ZNF397</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.993	0.007
<i>ARPC5</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.991	0.009
<i>ATP11A</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.991	0.009
<i>CCNG1</i>	lncRNA-chr6-167382710-167411729	Reverse	Negative	-0.994	0.006
<i>CHRD</i>	lncRNA-chr6-167382710-167411729	Reverse	Negative	-0.995	0.005
<i>COL4A3BP</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.991	0.009
<i>FCRL5</i>	lncRNA-chr6-167382710-167411729	Reverse	Negative	-0.993	0.007
<i>LOC158435</i>	lncRNA-chr6-167382710-167411729	Reverse	Negative	-0.998	0.002
<i>LOC400043</i>	lncRNA-chr6-167382710-167411729	Reverse	Negative	-0.999	0.001
<i>QPR1</i>	lncRNA-chr6-167382710-167411729	Reverse	Negative	-0.997	0.003
<i>SETD1A</i>	lncRNA-chr6-167382710-167411729	Reverse	Negative	-0.997	0.003
<i>SRRT</i>	lncRNA-chr6-167382710-167411729	Reverse	Negative	-0.998	0.002
<i>SVIL</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.990	0.010
<i>TET2</i>	lncRNA-chr6-167382710-167411729	Reverse	Active	0.992	0.008
<i>ABAT</i>	lncRNA-chr5-61931044-61948469	Reverse	Negative	-0.954	0.046
<i>APOA1BP</i>	lncRNA-chr5-61931044-61948469	Reverse	Negative	-0.992	0.008
<i>C19orf59</i>	lncRNA-chr5-61931044-61948469	Reverse	Active	0.992	0.008
<i>C1QTNF4</i>	lncRNA-chr5-61931044-61948469	Reverse	Negative	-0.993	0.007
<i>COX7A1</i>	lncRNA-chr5-61931044-61948469	Reverse	Negative	-0.992	0.008
<i>DOCK9</i>	lncRNA-chr5-61931044-61948469	Reverse	Active	0.996	0.004
<i>FLT3</i>	lncRNA-chr5-61931044-61948469	Reverse	Negative	-0.998	0.002
<i>LAMB2</i>	lncRNA-chr5-61931044-61948469	Reverse	Negative	-0.997	0.003
<i>MAP3K5</i>	lncRNA-chr5-61931044-61948469	Reverse	Active	0.991	0.009
<i>NENF</i>	lncRNA-chr5-61931044-61948469	Reverse	Negative	-0.992	0.008
<i>PARP4</i>	lncRNA-chr5-61931044-61948469	Reverse	Negative	-0.991	0.009
<i>PHGDH</i>	lncRNA-chr5-61931044-61948469	Reverse	Negative	-0.996	0.004
<i>PTPRS</i>	lncRNA-chr5-61931044-61948469	Reverse	Negative	-0.999	0.001
<i>PXDN</i>	lncRNA-chr5-61931044-61948469	Reverse	Negative	-0.993	0.007
<i>SFXN4</i>	lncRNA-chr5-61931044-61948469	Reverse	Negative	-0.993	0.007
<i>STAT1</i>	lncRNA-chr5-61931044-61948469	Reverse	Active	0.990	0.010
<i>SULT1A4</i>	lncRNA-chr5-61931044-61948469	Reverse	Negative	-0.992	0.008
<i>TMED3</i>	lncRNA-chr5-61931044-61948469	Reverse	Negative	-0.999	0.001
<i>ZBTB1</i>	lncRNA-chr5-61931044-61948469	Reverse	Negative	-0.997	0.003
<i>AEN</i>	lncRNA-chr4-13067152-13347902	Forward	Active	0.994	0.006
<i>APOC1</i>	lncRNA-chr4-13067152-13347902	Forward	Active	0.993	0.007
<i>CCDC153</i>	lncRNA-chr4-13067152-13347902	Forward	Negative	-0.991	0.009
<i>CFH</i>	lncRNA-chr4-13067152-13347902	Forward	Active	0.996	0.004
<i>CMTM2</i>	lncRNA-chr4-13067152-13347902	Forward	Negative	-0.990	0.010
<i>DAK</i>	lncRNA-chr4-13067152-13347902	Forward	Negative	-0.994	0.006
<i>DIRC2</i>	lncRNA-chr4-13067152-13347902	Forward	Negative	-0.996	0.004
<i>NCRNA00188</i>	lncRNA-chr4-13067152-13347902	Forward	Negative	-0.994	0.006
<i>NNMT</i>	lncRNA-chr4-13067152-13347902	Forward	Active	0.994	0.006

Table SI. Continued.

DEMs	DELs	Strand	Interaction	PCC	P-value
<i>PSMD3</i>	lncRNA-chr4-13067152-13347902	Forward	Active	0.994	0.006
<i>TRAP1</i>	lncRNA-chr4-13067152-13347902	Forward	Active	0.994	0.006
<i>VSIG4</i>	lncRNA-chr4-13067152-13347902	Forward	Active	0.993	0.007
<i>ANXA11</i>	lncRNA-chr4-13067152-13347902	Forward	Negative	-0.997	0.003
<i>EGLN1</i>	lncRNA-chr4-13067152-13347902	Forward	Negative	-0.999	0.001
<i>GHRL</i>	lncRNA-chr4-13067152-13347902	Forward	Negative	-0.996	0.004
<i>WIPF1</i>	lncRNA-chr4-13067152-13347902	Forward	Negative	-0.996	0.004
<i>APOE</i>	lncRNA-chr1-93796837-93806487	Reverse	Negative	-0.994	0.006
<i>APOOL</i>	lncRNA-chr1-93796837-93806487	Reverse	Active	0.998	0.002
<i>HIST1H2AE</i>	lncRNA-chr1-93796837-93806487	Reverse	Negative	-0.990	0.010
<i>IGF1R</i>	lncRNA-chr1-93796837-93806487	Reverse	Active	0.994	0.006
<i>LEPR</i>	lncRNA-chr1-93796837-93806487	Reverse	Negative	-0.993	0.007
<i>LMNA</i>	lncRNA-chr1-93796837-93806487	Reverse	Negative	-0.995	0.005
<i>LOC100131096</i>	lncRNA-chr1-93796837-93806487	Reverse	Active	0.997	0.003
<i>NUAK2</i>	lncRNA-chr1-93796837-93806487	Reverse	Negative	-0.991	0.009
<i>PHF20L1</i>	lncRNA-chr1-93796837-93806487	Reverse	Negative	-0.991	0.009
<i>TBXA2R</i>	lncRNA-chr1-93796837-93806487	Reverse	Negative	-0.991	0.009
<i>ACACA</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.999	0.000
<i>ACSM3</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.993	0.007
<i>AKAP12</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.991	0.009
<i>ARID1B</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.997	0.003
<i>ARRDC3</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.990	0.010
<i>C19orf59</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.991	0.009
<i>C1QTNF4</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.998	0.002
<i>CABLES1</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.994	0.006
<i>CCDC41</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.993	0.007
<i>CD2</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.997	0.003
<i>CDK5R1</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.996	0.004
<i>CLIC4</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.997	0.003
<i>CTH</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.990	0.010
<i>CYTL1</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.999	0.001
<i>F2RL1</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.998	0.002
<i>FCGR2C</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.999	0.001
<i>HAAO</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.992	0.008
<i>HIST1H2AC</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.995	0.005
<i>HSPA5</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.992	0.008
<i>ITM2B</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.995	0.005
<i>KLRF1</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.995	0.005
<i>LAMB2</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.990	0.010
<i>LOC388692</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.991	0.009
<i>MAP3K5</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.993	0.007
<i>MMP9</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.997	0.003
<i>MXD3</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.993	0.007
<i>NOD2</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.993	0.007
<i>POMGNT1</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.991	0.009
<i>PPIAL4G</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.996	0.004
<i>PPP1R3B</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.992	0.008
<i>PSMD10</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.993	0.007
<i>PTPLAD1</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.994	0.006
<i>RAF1</i>	lncRNA-chr17-49425-59050	Reverse	Negative	0.999	0.000
<i>RASSF2</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.998	0.002
<i>SI00A4</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.993	0.007
<i>SAMD3</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.992	0.008
<i>SCMH1</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.999	0.001
<i>SFXN4</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.996	0.004
<i>SLC25A10</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.995	0.005
<i>SLC44A2</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.993	0.007

Table SI. Continued.

DEMs	DELs	Strand	Interaction	PCC	P-value
<i>STAT1</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.999	0.001
<i>SULT1A4</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.992	0.008
<i>SYNGR1</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.996	0.004
<i>TNNT3</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.998	0.002
<i>TUSC1</i>	lncRNA-chr17-49425-59050	Reverse	Active	0.990	0.010
<i>UBASH3A</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.991	0.009
<i>UBFD1</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.996	0.004
<i>ZNF683</i>	lncRNA-chr17-49425-59050	Reverse	Negative	-0.993	0.007
<i>BCDIN3D</i>	lncRNA-chr10-46972944-46982894	Forward	Active	0.998	0.002
<i>BICD2</i>	lncRNA-chr10-46972944-46982894	Forward	Active	0.997	0.003
<i>C1QB</i>	lncRNA-chr10-46972944-46982894	Forward	Negative	-0.996	0.004
<i>C1R</i>	lncRNA-chr10-46972944-46982894	Forward	Negative	-0.994	0.006
<i>C1S</i>	lncRNA-chr10-46972944-46982894	Forward	Negative	-0.997	0.003
<i>CAMK2G</i>	lncRNA-chr10-46972944-46982894	Forward	Active	0.995	0.005
<i>CCDC106</i>	lncRNA-chr10-46972944-46982894	Forward	Active	0.996	0.004
<i>FBXL17</i>	lncRNA-chr10-46972944-46982894	Forward	Active	0.999	0.000
<i>LEPR</i>	lncRNA-chr10-46972944-46982894	Forward	Negative	-0.991	0.009
<i>MTHFD1L</i>	lncRNA-chr10-46972944-46982894	Forward	Negative	-0.997	0.003
<i>NT5C2</i>	lncRNA-chr10-46972944-46982894	Forward	Active	0.991	0.009
<i>RANBP17</i>	lncRNA-chr10-46972944-46982894	Forward	Active	0.996	0.004
<i>RGAG4</i>	lncRNA-chr10-46972944-46982894	Forward	Negative	-0.996	0.004
<i>RPA4</i>	lncRNA-chr10-46972944-46982894	Forward	Active	0.991	0.009
<i>SCRN1</i>	lncRNA-chr10-46972944-46982894	Forward	Active	0.993	0.007
<i>SLC44A2</i>	lncRNA-chr10-46972944-46982894	Forward	Negative	-0.999	0.001
<i>SYNGR1</i>	lncRNA-chr10-46972944-46982894	Forward	Active	0.992	0.008
<i>TBXA2R</i>	lncRNA-chr10-46972944-46982894	Forward	Negative	-0.992	0.008
<i>TMCC3</i>	lncRNA-chr10-46972944-46982894	Forward	Negative	-0.998	0.002
<i>TMEM161A</i>	lncRNA-chr10-46972944-46982894	Forward	Active	0.991	0.009
<i>TRAF3IP3</i>	lncRNA-chr10-46972944-46982894	Forward	Active	0.993	0.007
<i>TRIM38</i>	lncRNA-chr10-46972944-46982894	Forward	Active	0.991	0.009
<i>WIPF1</i>	lncRNA-chr10-46972944-46982894	Forward	Active	0.995	0.005

MDS, myelodysplastic syndrome; DEMs, differentially expressed mRNAs; DELs, differentially expressed lncRNAs; PCC, Pearson correlation coefficient. Student's t-test was used to identify DELs and DEMs between MDS and non-MDS by calculation of $P < 0.05$ and fold change (FC) > 2 for each DEM and DEL. PCC threshold > 0.99 and $P < 0.01$ were selected as the meaningful values with which to construct the DEL and DEM co-expression network.