Supplemental Table1: Antibodies used in this study. The staining panel (A, B, or both) is indicated for each. The "Analyses" column indicates whether the marker was used for each dimensionality reduction analysis (S, SPADE analysis; V, viSNE analysis; B, multidimensional binning; X, X-shift clustering). Only markers measured in both panels had sufficient normal replicates for calculation of CVs. Calreticulin and cleaved-PARP did not have sufficient signal to calculate CV.

Antigen	Conjugate	Clone	Concentration	Manufacturer	Panel	CV (%)	Analyses
CD3	In-113	UCHT1	2 μg/mL	Biolegend	A & B	13.2	S, V, B, X
CD45	In-115	Hl30	2 μg/mL	Biolegend	A & B	11.0	S, V, B, X
CD45RA	La-139	Hl100	1.5 μg/mL	Biolegend	A & B	18.8	V, B, X
CD133	Pr-141	AC133	3 μg/mL	Militeney	A	N/A	
cleaved-Caspase3	Pr-141	C92-605	3 μg/mL	BD bioscience	B	N/A	Intra-cellular
CD7	Nd-142	M-T701	2 μg/mL	BD Biosciences	A & B	7.1	S, V, B, X
CD71	Nd-143	R17217	2 μg/mL	eBiosciences	A & B	18.2	S, V, B, X
CD235	Nd-144	HIR2	6 μg/mL	Biolegend	A & B	24.4	S, V, B, X
CD47	Nd-145	B6H12	1.5 μg/mL	BD Biosciences	A & B	13.2	V, B, X
CD8	Nd-146	RPA-T8	1 μg/mL	Biolegend	A & B	4.6	S, V, B, X
CD56	Sm-147	NCAM16.2	1.5 μg/mL	BD Biosciences	A & B	4.6	V, B, X
CD34	Nd-148	8G12	3 μg/mL	BD Biosciences	A & B	6.5	S, V, B, X
CD90	Sm-149	5E10	3 μg/mL	Biolegend	A & B	16.7	V, B, X
CD117	Nd-150	104D2	1 μg/mL	Biolegend	A & B	17.5	V, B, X
CD123	Eu-151	6H6	1 μL per 100 μL	DVS	A & B	8.9	S, V, B, X
CD33	Sm-152	P67.6	1.5 μg/mL	BD Biosciences	A & B	6.3	S, V, B, X
HLA-DR	Eu-153	L243	2 μg/mL	Biolegend	A & B	10.5	S, V, B, X
CD64	Sm-154	10.1	2 μg/mL	Biolegend	A & B	4.9	V, B, X
CD44	Gd-156	G44-26	1.5 μg/mL	BD Biosciences	A & B	17.8	V, B, X
Ki-67	Gd-158	SolA15	1 μg/mL	eBiosciences	A & B	13.3	Intra-cellular
CD38	Tb-159	HIT2	1 μg/mL	Biolegend	A & B	9.0	S, V, B, X
CD14	Gd-160	M5E2	2 μg/mL	Biolegend	A & B	16.7	S, V, B, X
CD16	Dy-161	3G8	2 μg/mL	Biolegend	A & B	15.5	S, V, B, X
CD11b	Dy-162	ICRF44	2 μg/mL	Biolegend	A & B	9.7	S, V, B, X
CD15	Dy-164	W6D3	3 μg/mL	Biolegend	A & B	20.6	S, V, B, X
Calreticulin	Ho-165	FMC75	4 μg/mL	Thermo Fisher	A & B	N/A	
CD321	Er-166	WK9	3 μg/mL	eBiosciences	A & B	10.7	S, V, B, X
CD99	Er-167	HCD99	0.5 μg/mL	Biolegend	A & B	10.8	V, B, X
CD13	Er-168	L138	2 μg/mL	BD Biosciences	A & B	6.6	V, B, X
cleaved-PARP(D214)	Yb-171	F21-852	1 μg/mL	BD Biosciences	A & B	N/A	Intra-cellular
CD10	Yb-172	Hl10a	3 μg/mL	Biolegend	A & B	7.8	S, V, B, X
CD19	Yb-173	H1B19	2 μg/mL	BD Biosciences	A & B	7.5	S, V, B, X
CD20	Yb-174	2H7	2 μg/mL	Biolegend	A & B	14.6	S, V, B, X
CXCR4	Yb-175	12G5	1uL per test	DVS	A & B	14.5	V, B, X
CD69	Yb-176	FN50	1 μg/mL	BD Biosciences	A & B	7.6	V, B, X

Supplemental Table 2: Clinical characteristics of MDS patients tested in this study. Survival time is from time of sample collection. "Alive" indicates patients alive at last follow-up (average follow of 53 months). Asterisks indicate serial samples from the same patient. "HSCT" denotes patients who received a hematopoietic stem cell transplant. "N/A" indicates follow not available.

Patient	Sex	Age	Cytogenetics	FAB	WHO	IPSS	Blast %	Survival (mo.)
IPSS High Risk								
MDS4	M	73	del5q, del8q, Trisomy8	RAEB-T	AML	High/3.5	26%	14
MDS15	F	71	Monosomy 7	AML (from CMML-2)	AML (from CMML-2)	High	32%	2.6
MDS17	M	69	Normal	RAEB-T	AML	High	25%	28.5
IPSS Intermediate-2 Risk								
MDS1	M	80	Normal	RAEB	RAEB-2	Int-2/2	16%	12.9
MDS2	M	80	Normal	RAEB	RAEB-2	INT-2/2.0	15%	1.5
MDS3*	M	74	Trisomy 8, Trisomy 9	RAEB	RAEB-1	INT-2/1.5	10-18%	18
MDS13*	M	74	Trisomy 8, Trisomy 9	RAEB	RAEB-2	INT-2/1.5	10.2%	16
MDS16	M	67	Normal	RAEB	RAEB-2	INT-2/2.0	15-20%	5.8, HSCT
MDS21*	M	75	Trisomy 8, Trisomy 9	RAEB	RAEB-2	Int2/1.5	6% (following treatment)	9.2
MDS26	F	65	del5q and del13q	MDS/MPN	MDS NOS	INT-2/1.5	4.70%	Alive
MDS27	M	69	Normal (-Y)	RAEB	RAEB-2	INT-2	2% (following treatment)	10.5
IPSS Intermediate-1 Risk								
MDS5	M	67	Normal	RA	RCMD	INT-1/1.0	<5%	Alive; HSCT
MDS6	M	52	Normal	RAEB	RAEB-1	INT-1/1.0	5-7%	Alive
MDS8	F	56	Normal	RARS	RCMD-RS	INT-1/0.5	<5%	39.5
MDS12	M	65	Normal	RA	RCMD	INT-1/0.5	<5%	Alive
MDS14	F	58	Normal (Trisomy 15 sub-clone)	RA	RCMD	INT-1/1.0	<5%	Alive
MDS23	M	78	Normal (-Y)	RA	RCMD	Int-1/0.5	<5%	Alive
IPSS Low Risk								
MDS9	M	69	Normal (-Y)	RA	RCMD	LOW/0 (post-tx)	4.4%	40.5, HSCT
MDS11	M	29	Normal	RA	RA	Low	0%	Alive
MDS19	M	81	Normal	RARS	RCMD-RS	LOW/0	<5%	Alive
MDS20	F	83	Normal	RA	RCMD	LOW/0	<5%	29.4
MDS25	F	66	Normal	RA	RCMD	LOW	<5%	Alive
MDS28	M	78	Normal	CMML	CMML-1	LOW/0	<5%	Alive
Idiopathic Cytopenia of Undetermined Significance								
ICUS18	M	71	Normal	N/A	N/A	N/A	<5%	N/A
ICUS22	M	59	Normal	N/A	N/A	N/A	0%	N/A
ICUS24	F	26	Normal	N/A	N/A	N/A	<5%	N/A

Supplemental Table 3: Median expression of each surface marker on each cell population.
The expression level of each marker is shown for each gated cell populaiton. Expression level is shown in median ion counts detected. Each cell is colored from green (lowest expression) to red (highest expression).
Samples 3, 5, and 21 were run twice due to lower numbers of cell events in the first run.
MDS samples 3, 13, and 21 come from the same patient tested on three seperate bone marrow aspirations each several months apart.
*Indicates samples from patients with CMML or an MDS/MPN overlap syndrome.

CD45RA Median

Sample	Group	Ungated	CD34+CD38lo	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	Meta-Myelocytes	Mature Granulocytes	ProErythro-blasts	Erythroblasts	Late Erythroblasts	Pre-B cells	Mature B cells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	1.35	0.69	0.5	0.41	1.03	0.53	1.74	1.98	1.61	1.17	3	2.5	2.71	1.27	1.23	1.05	1.2	4.52	2.18	1.34	3.02	1.73	1.3	0.31	1.6	1.03
Run2_MDS15*		1.52	1.33	0.68	0.68	0.97	1.26	1.79	1.72	1.68	1.47	1.63	1.53	1.34	2.27	2.96	2.79	1.66	5.96	3.57	1.39	2.93	1.84	1.03	1.11	2.12	0.86
Run2_MDS4		1.45	1.06	0.64	0.43	0.99	0.95	1.47	1.95	3.11	1.68	1.51	1.52	1.65	2.11	3.81	1.19	1.23	1.81	3.43	1.05	1.63	1.27	1.01	0.34	1.33	0.86
Run1_MDS21	Higher Risk	1.1	0.77	0.66	0.47	0.86	0.78	1.42	1.32	1.55	0.63	0.82	0.93	1.32	1.69	2.4	4.17	1.93	6.23	1.61	1.32	3.42	1.51	0.56	1.85	2.79	0.9
Run1_MDS3		1.19	0.79	0.59	0.39	0.88	0.85	1.8	1.66	2.58	0.88	1.17	1.28	1.77	1.29	1.7	2.09	2.53	6.53	2.72	1.53	4.12	2.56	1.01	0.98	3.09	1.06
Run2_MDS13		1.1	0.77	0.56	0.5	0.88	0.84	1.57	2.49	2.65	0.91	1.36	1.62	1.65	1.45	1.24	0.99	1.24	3.21	2.23	1.24	2.39	1.85	0.93	0.46	2.02	0.9
Run2_MDS16		0.98	0.82	0.58	0.55	0.8	1.55	1.57	1.48	1.47	0.79	0.64	0.69	0.73	1.28	2.12	1.21	1.38	2.53	1.46	1.37	3.88	1.81	0.58	0.87	2.47	1.17
Run2_MDS1		0.89	0.77	0.32	0.51	0.86	0.68	0.99	1.13	1.68	0.67	0.65	0.84	1.02	0.94	1.95	1.54	0.9	2.89	2.11	0.77	2.27	0.93	1.03	0.33	1.01	0.73
Run2_MDS21		0.87	0.65	0.43	0.44	0.75	0.67	0.96	1.09	1.01	0.81	0.96	0.94	0.95	1.01	1.02	0.92	1.31	3.55	0.8	1.03	1.87	0.77	0.58	0.87	1.83	0.77
Run2_MDS26*		0.62	0.71	0.49	0.44	1.07	0.64	0.74	0.95	0.61	0.41	0.41	0.56	0.62	1.19	1.66	1.14	0.62	1.72	1.58	1.12	2.37	0.62	0.68	0.44	1.4	0.98
Run2_MDS27		1.28	0.95	0.66	0.59	0.92	1.14	1.62	1.79	1.68	0.88	0.83	0.84	1.01	1.39	2.53	0.91	1.04	3.17	2.44	0.85	3.23	3.08	1.26	1.44	1	0.67
Run2_MDS2		1.32	0.49	0.36	0.21	0.51	0.56	1.71	2.04	4.98	1.53	0.99	1.89	2.16	2.35	2.95	1.23	0.92	7.45	-0.08	0.73	1.57	2.59	0.75	0.23	1.43	0.69
Run2_MDS3		1.27	0.68	0.56	0.47	0.81	0.8	1.88	2.35	1.92	1.48	2	2.04	2.35	0.97	1.01	0.73	1.58	3.78	1.1	1.14	2.57	1.94	1	0.69	2.11	0.84
Run1_MDS23	Lower Risk	1.39	1.02	0.81	0.53	1.52	1.69	2.54	2.37	2.13	1.83	1.31	1.26	1.26	1.72	2.28	2.44	1.8	4.08	0.79	0.96	4.91	2.4	0.99	0.97	1.29	0.86
Run1_MDS25		0.9	1.82	0.04	0.39	0.6	1.41	1.1	0.83	0.8	0.86	0.7	0.74	0.82	2.39	3.33	2.42	1.51	6.51	2.83	1.45	4.6	2.92	0.74	0.65	1.95	1.03
Run1_MDS5		1.93	1.91	0.08	0.9	1.75	2.52	2.14	3.27	2.22	1.65	1.24	1.64	1.87	4.35	4.23	2.11	2.35	5.38	3.42	1.39	5.99	3.81	1.76	0.55	1.55	1.32
Run1_MDS6		1.87	1.24	0.47	0.75	1.34	1.79	2.06	2.13	2.17	1.76	1.48	1.75	1.72	3.65	4.19	2.81	2.5	5.72	3.64	1.73	5.66	3.08	1.7	2.13	1.96	1.54
Run1_MDS8		1.28	2.53	0.66	0.3	1.15	2.1	2.57	1.85	1.95	0.95	0.85	0.93	0.99	4.4	4.69	3.44	2.34	4.76	2.27	1.4	5.44	2.94	1.53	0.76	2.62	1.05
Run1_MDS9		1.34	1.2	0.77	0.65	1.52	1.64	2.64	1.7	1.02	1.06	0.89	0.98	1.06	3.18	4.34	2.97	1.96	4.24	2.27	1.4	5.44	2.94	1.53	0.76	2.62	1.05
Run2_MDS12		1.07	1.53	0.44	0.93	1.32	1.41	1.38	1.38	1.33	0.86	0.9	1.02	1.06	1.58	1.76	1.33	1.27	3.33	0.68	0.79	2.72	1.69	0.78	0.92	1.09	0.62
Run2_MDS14		1.03	1.94	0.58	2.13	0.19	1.71	1.75	1.73	1.81	0.94	0.85	0.91	0.86	1.89	2.36	1.52	1.21	2.83	1.71	0.89	3.97	1.54	0.79	0.94	1.48	0.69
Run2_MDS19		0.97	0.86	0.34	0.61	0.99	1.61	1.53	1.33	1.3	0.9	0.85	0.9	0.91	1.45	2.37	1.35	1.26	3.7	1.17	0.89	3.09	2.07	0.61	1.18	1.76	0.71
Run2_MDS20		1.71	1.07	1.07	-0.1	0.88	1.56	1.7	1.53	1.71	1.52	1.56	1.56	1.68	1.85	2.16	2.24	1.88	4.65	2.04	1.83	2.63	2.32	1.2	0.69	2.02	1.81
Run2_MDS28*		2.51	1.08	0.82	0.49	1.02	2.67	3.37	3.35	3.77	3.39	2.8	2.72	2.32	1.97	1.57	2.94	2.41	2.83	1.07	0.98	2.99	2.77	1.09	1.98	1.17	0.85
Run2_MDS5		1.75	2.98	-0.2	-0.15	1.15	2.21	1.7	2.98	2.46	1.24	1.27	1.37	1.73	4.13	2.9	2.15	2.62	2.94	3.35	1.12	4.02	1.48	1.36	0.75	1.25	1.04
Run1_ICUS18	ICUS	1.31	1.54	0.87	0.85	1.3	2.18	1.76	1.57	1.44	1.22	0.94	1.02	1.09	2.38	1.94	1.65	2.09	4.59	1.61	1.55	5.1	4.14	0.58	0.97	2.05	1.44
Run1_ICUS22		1.09	1.04	0.73	0.63	1.21	1.7	1.68	1.25	1.21	1.21	0.98	0.96	0.98	2.39	2.71	1.7	1.55	4.17	1.19	1.03	4.2	2.85	1.31	0.6	1.32	0.93
Run1_ICUS24		1.15	1.09	0.88	0.57	1.35	1.6	1.75	1.45	1.44	1.19	0.93	0.95	0.93	2.48	2.35	2.65	1.47	3.63	1.15	1.19	4.49	2.31	0.92	2.37	1.53	0.97
Run1_Nl-1	Normal	1.07	0.94	0.66	0.58	1.16	1.85	1.76	1.59	1.35	1.07	0.81	0.82	0.85	2.2	2.35	1.91	1.45	3.38	1.53	1.98	5.89	3.16	1.8	3.38	2.82	1.65
Run1_Nl-3		1.34	1.2	0.53	0.65	1.07	1.98	4.14	4.79	3.14	1.04	0.91	1.18	1.2	2.6	1.91	1.81	1.78	2.72	1.55	1.48	5.43	2.96	1.01	0.38	2.14	1.14
Run1_Nl-4		1.42	1.65	0.63	0.77	1.2	2.06	4.95	5.27	3.42	1.06	0.97	1.22	1.26	2.71	2.11	1.73	2.22	4.07	2.46	1.8	5.71	2.55	1.01	0.25	2.56	1.3
Run1_Nl-6		1.31	0.98	0.52	0.53	1.13	1.92	4.51	4.78	3.69	1.09	0.96	1.19	1.19	2.43	2.01	1.64	1.52	2.87	1.88	1.15	4.17	2.7	0.88	0.3	1.55	1.04
Run2_Nl-3		1.04	0.77	0.84	0.27	0.77	1.63	2.89	3.04	2.21	0.85	0.8	0.96	0.99	1.48	1.39	1.26	1.26	1.92	1.26	1.08	3.26	1.88	0.7	0.44	1.6	0.81
Run2_Nl-4		1.15	1.11	0.62	0.55	1.04	1.9	3.47	3.44	2.55	0.93	0.83	1.05	1.08	1.65	1.5	1.37	1.63	2.86	1.8	1.33	3.4	1.83	0.67	0.2	1.83	1
Run2_Nl-5		1.15	0.81	0.49	0.54	0.92	1.53	2.89	3.04	2.47	0.75	0.78	0.97	1.05	1.66	1.48	1.26	1.06	2.26	1.22	1.42	4.19	1.85	0.68	0.28	2.06	0.98
Run2_Nl-6		0.94	0.75	0.61	0.52	0.77	1.61	3.08	3.11	2.49	0.76	0.74	0.89	0.92	1.32	1.22	0.99	1.01	1.84	1.63	0.89	2.55	1.73	0.66	0.36	1.16	0.79

Supplemental Table 3: Median expression of each surface marker on each cell population.

CD7 Median

Sample	Group	Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	0.41	0.48	0.55	0.42	1.32	0.48	-0.06	-0.16	-0.14	-0.2	0	-0.02	0.1	2.3	1.47	0.57	0.35	-0.32	0.13	13.15	46.63	4.5	0.37	0.45	12.01	15.9
Run2_MDS15*		-0.11	0.77	0.51	0.5	0.61	0.02	-0.18	-0.22	-0.22	-0.2	-0.24	-0.23	-0.24	1.64	1.42	0.54	-0.17	-0.18	0.03	21.86	137.58	0.44	-0.15	0.6	31.7	13.81
Run2_MDS4		0.08	4.2	1.04	13.09	1.01	-0.11	-0.23	-0.2	-0.15	-0.25	-0.27	-0.27	-0.25	1.02	0.99	0	0.41	0.05	-0.17	19.39	147.26	21.25	-0.1	0.74	22.35	15.81
Run1_MDS21	Higher Risk	0.76	0.58	0.52	0.55	0.9	0.76	0.17	-0.25	-0.28	-0.29	-0.21	-0.19	-0.1	2.2	2.78	2.77	-0.21	-0.21	0.21	22	146.67	7.8	-0.01	1.74	30.45	18.84
Run2_MDS3		0.45	0.33	0.16	0.31	0.57	0.41	0.13	-0.09	-0.28	-0.28	-0.18	-0.15	-0.02	1.19	1.62	1.21	-0.22	-0.2	0	26.05	154.8	4.96	-0.14	0.84	36.59	22.01
Run2_MDS13		0.2	0.28	0.3	0.26	0.37	0.18	-0.16	-0.16	0.09	-0.21	-0.15	-0.18	-0.17	0.93	1.18	0.17	-0.23	-0.31	0.07	23.08	145.75	-0.39	-0.17	0.33	30.48	20.1
Run2_MDS16		0.23	0.4	0.32	0.32	0.27	-0.09	-0.17	-0.26	-0.22	-0.13	-0.29	-0.25	-0.24	1.39	3.44	0.23	17.56	-0.3	0.12	38.03	125.16	-0.02	-0.28	0.79	44.21	36.76
Run2_MDS1		-0.05	-0.12	-0.28	-0.16	-0.12	-0.22	-0.24	-0.28	-0.24	-0.32	-0.37	-0.26	-0.2	0.66	0.78	0.04	0.51	-0.13	-0.1	14.6	70.91	-0.22	-0.31	0.36	12.3	15.21
Run2_MDS21		0.32	0.21	0.39	0.2	0.55	0.31	-0.22	-0.23	-0.16	-0.21	-0.18	-0.22	-0.18	0.71	1.04	0.07	-0.23	-0.21	-0.02	17.25	68.03	6.23	0.23	0.92	25.52	14.63
Run2_MDS26*		-0.24	0.16	0.14	0.1	0.34	-0.15	-0.31	-0.24	0.09	-0.32	-0.33	-0.28	-0.26	1.16	0.62	-0.12	-0.12	-0.33	-0.05	16.6	114.19	1.03	-0.2	-0.09	18.34	15.72
Run2_MDS27		1.14	0.44	0.46	0.34	0.73	0.4	-0.18	-0.24	-0.2	-0.12	-0.23	-0.22	-0.2	1.46	3.8	-0.07	11.55	-0.24	-0.06	25.25	107.87	-0.04	-0.15	1.39	29.61	21.02
Run2_MDS2		-0.01	-0.18	-0.04	0.34	-0.16	-0.2	-0.23	-0.25	-0.09	-0.18	-0.34	-0.22	-0.19	1.54	2.17	0.42	1.08	0.1	-0.02	23.14	69.58	-0.02	-0.28	0.1	36.81	22.41
Run2_MDS3		0.37	0.26	0.4	0.16	0.43	0.12	-0.26	-0.14	-0.15	-0.17	-0.06	-0.03	0.03	1.43	0.74	-0.04	-0.23	-0.25	0.03	22.24	140.38	1.98	-0.19	0.48	32.15	18.43
Run1_MDS23	Lower Risk	-0.02	0.15	0.18	0.06	0.47	-0.05	-0.07	-0.07	-0.09	-0.08	-0.15	-0.12	-0.12	1.55	2.14	0.54	0.26	-0.19	-0.24	12.49	91.5	0.35	-0.26	0.81	15.27	11.42
Run1_MDS25		-0.11	1.66	1.34	1.77	0.89	-0.1	-0.21	-0.22	-0.21	-0.17	-0.23	-0.24	-0.21	2.86	3.28	0.78	0.85	-0.22	-0.13	25.32	74.65	1.76	-0.23	0.67	24.04	26.59
Run1_MDS5		0.37	1.1	0.77	0.23	0.46	0.46	0.11	0.29	0.1	0.26	-0.11	0.02	0	5.12	5.48	1.19	-0.18	0.09	0.28	26.56	88.11	0.42	-0.13	0.59	34.64	30.94
Run1_MDS6		0.01	0.62	0.34	-0.13	0.89	0.25	-0.09	-0.14	-0.11	-0.13	-0.18	-0.15	-0.19	6.15	5.48	0.77	0.49	-0.26	0.28	27.76	170.82	0.59	-0.13	2.48	35.01	22.04
Run1_MDS8		0.03	0.64	0.14	0.45	0.66	0.3	0	-0.05	-0.12	-0.15	-0.26	-0.23	-0.21	4.39	4.45	0.72	0.96	-0.26	1.28	27.76	149	1.41	-0.03	1.15	26.82	28.12
Run1_MDS9		0.5	0.52	0.54	0.3	0.85	0.37	0	-0.11	-0.07	-0.14	-0.18	-0.16	-0.13	4.39	6.12	1.41	15.63	-0.23	0.26	19.84	140.33	0.44	-0.03	0.51	21.56	18.9
Run2_MDS12		-0.12	0.56	1.23	0.28	0.41	-0.08	-0.18	-0.16	-0.16	-0.23	-0.22	-0.17	-0.16	1.79	1.62	-0.06	-0.04	-0.23	-0.2	13.16	108.41	0.02	-0.26	0.35	14.74	12.26
Run2_MDS14		-0.1	-0.11	-0.22	-0.18	0.43	-0.19	-0.18	-0.15	-0.22	-0.15	-0.22	-0.18	-0.2	2.51	4.59	-0.01	-0.27	-0.27	-0.18	13.76	152.83	0	-0.15	1.78	17.88	12.22
Run2_MDS19		-0.13	0.32	-0.05	0.35	0.36	-0.07	-0.22	-0.24	-0.24	-0.19	-0.21	-0.2	-0.21	1.24	0.87	-0.16	1.24	-0.27	-0.05	17.64	73.36	0.1	-0.21	1.19	18.05	17.53
Run2_MDS20		0.48	0.26	0.14	0.06	0.91	-0.03	-0.11	-0.18	-0.16	-0.18	-0.19	-0.14	-0.16	3.07	2.36	0.39	8.22	-0.12	1.29	18.45	79.52	0.08	-0.22	0.65	16.79	18.63
Run2_MDS28*		0.05	0.02	-0.18	-0.04	0.32	0.11	-0.05	-0.09	-0.04	-0.09	-0.11	-0.02	-0.05	2.32	1.02	0.23	0.75	-0.27	-0.29	18.88	112.25	0.17	-0.19	1.01	18.19	19.46
Run2_MDS5		0.12	0.65	-0.05	0.28	0.88	0.11	-0.16	0.12	-0.06	-0.05	-0.18	-0.11	-0.08	0.74	3.03	0.75	1.3	-0.26	0.33	30.62	96.77	0	-0.08	0.74	36.12	28.78
Run1_ICUS18	ICUS	0.14	0.75	0.29	0.41	0.67	-0.06	-0.08	-0.19	-0.23	-0.09	-0.15	-0.13	-0.15	2.21	1.84	0.18	10.59	-0.29	0.09	24.1	129.79	0.54	-0.23	0.99	25.12	23.91
Run1_ICUS22		-0.06	0.46	0.54	0.62	0.45	0.08	-0.06	-0.11	-0.14	-0.12	-0.16	-0.16	-0.19	2.66	3.09	0.35	0.04	-0.24	0.03	14.1	87.72	0.26	-0.19	0.77	13.45	14.36
Run1_ICUS24		0.02	0.37	0.33	0.16	0.58	-0.02	-0.14	-0.22	-0.23	-0.11	-0.16	-0.15	-0.18	3.32	2.89	1.28	-0.14	-0.25	-0.21	10.16	85.87	0.51	-0.26	2.14	14.02	7.17
Run1_Nl-1	Normal	-0.04	0.14	0.11	0.06	0.22	-0.1	-0.14	-0.13	-0.2	-0.07	-0.19	-0.19	-0.19	2.39	2.86	0.59	-0.22	-0.31	-0.08	20.68	154.96	0.63	-0.09	3.14	21.73	20.13
Run1_Nl-3		0.13	0.56	0.46	0.23	0.37	0.06	-0.02	0.11	-0.09	-0.07	-0.14	-0.08	-0.08	3.16	1.86	0.29	0.01	-0.34	-0.16	19.71	125.46	0.17	-0.17	0.08	21.87	18.27
Run1_Nl-4		0.14	0.53	0.78	0.45	0.74	0.15	0.17	0.13	-0.08	-0.04	-0.1	-0.06	-0.07	3.46	2.05	0.26	-0.01	-0.29	0.31	22.33	158.7	0.57	-0.24	0.19	25	20.26
Run1_Nl-6		-0.01	0.35	0.21	0.2	0.42	0.1	0.1	0.15	-0.02	-0.08	-0.14	-0.12	-0.15	2.68	2.14	0.21	-0.21	-0.3	-0.07	18.7	143.11	0.22	-0.21	0	22.27	17.64
Run2_Nl-3		-0.02	0.32	0.35	0.24	0.32	0	-0.07	-0.02	-0.12	-0.12	-0.18	-0.11	-0.1	2.06	1.2	0.03	-0.05	-0.32	-0.13	16.67	110.97	0.04	-0.23	0.13	18.99	15.19
Run2_Nl-4		0.03	0.53	0.48	0.49	0.55	0.08	-0.02	0.05	-0.07	-0.09	-0.15	-0.07	-0.07	1.95	1.34	0.09	-0.09	-0.29	-0.15	19.58	140.9	0.29	-0.25	0.31	22.11	17.24
Run2_Nl-5		0.11	0.39	0.44	0.3	0.57	-0.04	0.02	0.05	-0.07	-0.12	-0.17	-0.11	-0.1	2.52	2.09	0.05	-0.21	-0.33	-0.14	20.48	162.96	0.26	-0.24	0.08	23.19	18.45
Run2_Nl-6		-0.12	0.19	0.15	0.13	0.27	0.04	-0.05	0.01	-0.07	-0.18	-0.2	-0.16	-0.16	1.11	1.07	-0.09	-0.2	-0.3	-0.06	15.46	130.32	-0.07	-0.25	0.59	17.89	14.61

Supplemental Table 3: Median expression of each surface marker on each cell population.

CD71 Median

		Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	3.32	10.51	10.78	10.08	19.57	10.6	3.73	1.4	1.7	4.09	1.88	0.54	0.7	196.03	201.9	44.74	2.76	1.7	9.34	1.21	1.96	4.75	2.7	3.47	1.07	1.44
Run2_MDS15*		0.91	8.34	4.91	4.58	6.29	6.6	2.66	0.16	0.11	3.74	0.9	0.1	-0.11	108.2	221.06	3.03	0.23	1.93	45.19	1.46	3.16	4.08	0.77	3.64	1.7	1.17
Run2_MDS4		0.99	9.36	4.59	8.74	0.87	4.24	1.8	1.24	1.83	2.96	0.52	-0.11	-0.11	207.46	284.51	5	1.48	3.4	2.07	0.93	3.58	7.3	1.24	5.19	1.05	0.79
Run1_MDS21	Higher Risk	3.19	6.8	7.02	6.35	9.25	9.63	6.24	2.73	2.46	2.13	1.08	0.19	0.49	393.38	482.58	15.07	1.99	2.72	7.73	1.5	3.9	4.8	1.42	8.49	1.85	1.33
Run1_MDS3		3.07	6.53	6.02	5.74	8.32	9.39	6.5	2.04	3.41	2.53	0.96	0.25	0.85	226.88	239.18	10.05	2.01	2.45	5.99	1.63	4.05	8.07	1.25	7.86	1.9	1.52
Run2_MDS13		2.37	4.7	4.83	4.39	6.06	6.67	2.29	1.28	1.04	5.19	1.35	-0.04	-0.06	147.99	300.66	25.93	1.4	1.37	46.54	1.11	3.4	11.15	0.75	6.44	1.4	0.98
Run2_MDS16		0.53	23.68	18.51	23.67	22.93	7.76	3.7	2.8	1.79	10.93	0.39	-0.17	-0.19	199.02	772.24	7.76	2.18	0.85	7.58	1.59	2.88	7.52	0.51	8.08	1.81	1.53
Run2_MDS1		0.59	4.92	4.86	4.57	5.64	4.24	1.36	0.54	0.67	0.29	-0.2	-0.14	-0.11	188.05	219.04	14.26	1.22	1.83	2.54	1.04	2.01	4.94	0.93	5.55	0.81	1.12
Run1_MDS21		1.93	4.74	4.84	4.44	6.75	6.53	2.9	1.15	0.78	2.02	0.63	-0.06	-0.1	155.09	268.91	31.65	1.26	1.72	6.51	0.93	2.3	5.22	0.39	5.43	1.14	0.82
Run2_MDS26*		0.51	14.75	14.14	13.94	30.06	11.89	5.9	3.25	2.58	1.36	0.24	-0.08	-0.09	195.68	163.55	31.2	1.35	1.11	6.94	1.09	2.78	7.15	1.78	8.28	1.43	1.13
Run2_MDS27		2.54	9.41	6.59	10.89	21.33	15.9	5.21	1.44	0.76	10.07	1.11	-0.09	-0.14	208.48	835.57	23.68	2.09	1.26	4.18	1.3	2.64	3.49	0.77	8.28	1.43	1.13
Run2_MDS2		0.3	1.71	2.93	1.44	2.27	1.9	0.43	-0.02	0.23	1.89	-0.03	-0.11	-0.07	148.77	257.59	4.24	0.91	1.71	27.82	0.87	1.27	0.26	0	1.59	1.33	0.84
Run2_MDS3		2.68	4.42	4.99	4.15	6.38	7.43	2.41	1.52	1.95	4.06	1.08	0.08	0.11	299.06	190.97	32.14	1.14	1.74	5.82	1.07	2.82	5.88	0.53	6.68	1.34	0.97
Run1_MDS23	Lower Risk	0.79	6.25	5.29	5.22	26.33	11.33	4.89	3.16	1.93	1.42	0.35	0.22	0.27	248.86	304.76	4.26	2.31	1.64	4.36	1.51	3.53	19.67	1.77	4.74	1.82	1.4
Run1_MDS25		0.42	6.33	8.16	5.02	39.09	12.67	10.08	7.48	4.68	6.52	0.68	0.03	0.04	452.03	505.28	2.22	3.6	2.47	19.36	2.49	3.2	22.23	1.58	4.9	2.18	2.85
Run1_MDS5		1.93	5.51	4.27	4.18	10.71	11.79	4.13	3.55	3.75	16.9	2.21	2.15	1.44	123.19	662.25	4.68	2.26	1.06	37.6	2.06	3.11	4.39	1.8	3.67	2.76	1.85
Run1_MDS6		0.56	11.28	7.43	7.63	17.89	11.25	4.93	2.83	1.69	3.89	0.63	0.17	0.01	311.41	905.93	3.73	1.47	1.83	7.18	1.69	4.31	7.24	0.71	8.04	2.23	1.28
Run1_MDS8		0.55	4.03	4.34	2.52	17.08	10.45	5.27	3.51	2.42	4.68	0.61	0.02	0.05	1054.81	811.08	7.17	1.68	1.21	5.16	1.28	4.02	10.34	4.2	6.23	1.59	1.19
Run1_MDS9		1.06	26.5	24.36	27.67	37.3	23.11	6.87	4.22	2.66	2.49	0.59	0.31	0.34	740.39	1033.66	6.27	3.06	2.1	7.1	1.57	4.31	6.33	2.31	4.76	1.65	1.54
Run2_MDS12		0.41	22.63	17.89	20.41	26.06	8.28	4.12	2.66	1.79	2.05	0.47	-0.03	-0.03	353.76	410.44	14.45	1.86	1.13	2.98	0.8	2.96	28.47	1.24	4.97	1.04	0.65
Run2_MDS14		0.09	3.58	0.89	2.4	17.69	5.8	5.17	4.38	2.77	8.22	0.53	-0.08	-0.03	501.01	1059.69	0.77	1.16	0.96	5.63	1.17	3.35	14.18	0.68	9.97	1.32	1.05
Run2_MDS19		0.18	8.01	5.79	7.16	21.81	8.77	3.18	1.74	0.9	2.46	0.16	-0.13	-0.16	224.87	256.37	14.08	1.51	1.48	1.8	1.21	2.27	13.58	0.86	5.1	1.18	1.22
Run2_MDS20		0.35	1.47	4.98	1.48	27.8	4.23	2.7	0.96	0.6	2.64	0.38	-0.08	-0.11	499	413.63	1.36	1	2.47	10.01	0.85	2.59	5.07	0.8	4.85	1.2	0.82
Run2_MDS28*		0.45	8.15	4.7	8.96	15.97	5.44	2.82	1.52	1.67	1.63	0.43	0.22	0.12	307.54	220.85	1.8	1.29	1.47	0.91	0.94	2.67	5.37	1.26	10.5	0.96	0.92
Run2_MDS5		1.11	4.14	2.38	4.52	8.01	10.49	2.35	2.44	2.15	11.13	1	1.15	0.81	135.48	535.92	3.14	2.07	0.56	33.87	1.61	2.7	6.69	1.17	4.1	2.32	1.35
Run1_ICUS18	ICUS	0.54	6.8	5.8	4.71	18.62	8.3	4.82	2.51	1.48	4.27	0.93	0.26	0.14	317.53	302.12	0.76	2.41	1.82	2.67	1.66	3.58	18.57	0.79	4.78	1.74	1.64
Run1_ICUS22		0.61	17.17	12.54	18.98	29.37	13.01	8.21	5.21	2.96	3.35	1	0.25	0.15	405.22	499.64	1.3	2.08	2.04	5.5	1.61	3.57	12.21	1.04	6.16	1.42	1.68
Run1_ICUS24		0.72	14.56	9.45	17.64	29.84	13.34	8.32	5.03	2.79	3.8	0.78	0.18	0.12	544.75	510.06	9.3	1.45	1.64	7.06	1.14	3.15	14.91	1.58	10.5	1.13	1.15
Run1_Nl-1	Normal	0.69	12.21	9.82	11.92	15.1	13.67	12.28	10.39	5.65	8.27	1.21	0.25	0.11	374.34	495.25	2.18	1.61	1.4	5.6	1.82	4.17	23.68	2.22	14.6	1.7	1.88
Run1_Nl-3		0.71	12.62	10.77	10.37	22.1	11.56	5.31	4.12	2.05	7.16	0.7	0.24	0.16	475.28	301.68	0.9	1.32	0.9	3.79	1.26	3.76	10.76	1.51	2.88	1.44	1.15
Run1_Nl-4		0.73	11.82	14.24	10.55	29.93	13.26	4.84	2.81	1.39	7.05	0.87	0.26	0.16	530.22	334.24	0.78	1.34	1.44	5.12	1.33	4.13	13.26	1.05	3.01	1.5	1.19
Run1_Nl-6		0.8	7.09	6.57	7.07	19.67	13.36	6.14	3.64	2.12	6.03	0.83	0.19	0.1	443.19	359	1.95	1.4	1.35	6.08	1.42	3.9	9.43	1.58	3.18	1.53	1.36
Run1_Nl-3		0.19	10.29	9.79	10.29	20.65	8.74	3.26	2.01	1.24	4.69	0.02	-0.13	-0.15	369.95	260.19	0.18	0.83	0.62	2.44	0.83	2.82	8.27	0.88	2.97	0.95	0.76
Run2_Nl-4		0.22	12.2	11.99	10.96	27.66	9.81	2.59	1.27	0.86	5	0.17	-0.1	-0.13	331.43	288.7	0.2	0.82	1.01	4.05	0.88	3.14	10.83	0.67	3.17	1	0.77
Run2_Nl-5		0.5	17.38	15.12	18.43	24.09	13.05	5.71	2.39	1.45	7.81	0.18	-0.12	-0.17	372.8	449.97	0.5	0.73	0.71	4.24	1.06	3.46	10.82	0.97	2.23	1.18	0.96
Run2_Nl-6		0.19	5.13	4.32	4.84	17.14	10.18	3.79	2.17	1.42	3.87	0.29	-0.13	-0.18	203.31	245.29	2.46	0.87	0.93	5.27	0.88	3.05	7.82	0.66	3.85	0.97	0.85

Supplemental Table 3: Median expression of each surface marker on each cell population.

CD235 Median

		Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	2.59	1.67	1.68	1.54	2.73	1.58	2.13	2.52	2.2	1.99	3.2	3.25	3.81	11.23	40.51	26.47	1.93	0.84	1.92	1.24	1.31	1.96	2.89	3.92	1.39	1.04
Run2_MDS15*		1.73	2.51	1.97	1.81	1.89	1.81	1.49	1.46	1.42	1.68	1.76	1.93	1.95	5.46	83.03	27.28	1.51	0.97	3.55	1.38	1.68	2.04	1.44	2.49	1.63	1.16
Run2_MDS4		1.54	1.81	1.55	1.44	0.26	0.99	1.11	1.39	1.7	1.24	1.21	1.44	1.63	10.1	78.12	44.94	0.91	0.91	1.89	0.97	1.3	1.07	1.11	24.82	1.23	0.76
Run1_MDS21		2.05	1.31	1.67	1.15	1.49	1.46	1.47	1.65	1.27	1.31	2.13	2.47	3.33	9.07	26.46	22.12	0.65	0.95	2.65	1.11	2.17	2.03	1.46	6.6	1.38	1
Run1_MDS3		2.23	1.31	1.28	1.09	1.49	1.6	1.44	1.92	2.71	1.66	2.34	2.83	3.83	8.67	26.5	23.74	0.79	1.02	2.49	1.36	2.05	3.76	1.01	5.49	1.69	1.23
Run2_MDS13		1.52	1.09	1.18	0.96	1.22	1.23	1.54	2.38	2.62	1.49	2.03	2.38	2.45	6.32	73.16	28.07	0.52	0.65	2.84	0.94	1.34	0.57	1.07	3.24	1.21	0.82
Run2_MDS16		2.54	2.49	2.35	2.21	1.98	1.85	1.33	1.39	1.56	2.19	1.87	2.71	3.1	5.4	212.13	33.39	1.34	0.46	1.49	1.1	1.41	1.76	0.99	5.54	1.54	1.01
Run2_MDS1	Higher Risk	0.86	0.99	0.96	0.77	1.2	0.78	0.7	0.6	0.97	0.5	0.36	1.13	1.39	5.02	64.29	45.34	0.83	0.9	1.89	0.8	1.02	0.87	1.08	7.09	0.88	0.79
Run1_MDS21		1.57	0.86	1.09	0.78	1.09	1	0.79	1.31	1.56	1.37	1.9	2.1	2.32	9.43	54.3	28.25	0.45	0.59	2.25	0.77	0.88	0.35	1.05	4.97	1	0.67
Run2_MDS26*		1.1	1.63	1.72	1.51	2.12	1.15	1.09	1.25	1.19	0.53	0.54	0.88	1.05	6.41	85.85	43.03	0.92	0.23	0.78	0.76	1.13	1.36	0.89	0.93	1.49	1.02
Run2_MDS27		3.46	2.16	2.12	2.03	2.24	2.06	1.32	1	1.11	2.62	2.61	3.51	4.38	5.31	327.88	58.35	1.46	0.7	2.22	1.27	1.11	1.8	1.15	4.38	1.49	1.02
Run2_MDS2		0.78	0.51	0.83	0.29	0.64	0.41	0.18	0.45	0.78	0.77	0.72	0.98	1.21	8.66	88.58	38.25	0.67	0.76	0.35	0.64	0.59	0.65	0.35	3.53	0.98	0.61
Run2_MDS3		2.16	1.05	1.27	0.96	1.3	1.27	1.36	2.15	2.33	1.99	3.04	3.32	4.14	6.95	74.86	35.21	0.42	0.81	1.26	1	1.25	1.68	1.04	5.47	1.26	0.89
Run1_MDS23		2.29	1.53	1.58	1.06	2.74	2.06	1.94	1.89	1.72	2.26	2.15	2.43	2.65	8.85	26.47	25.45	1.5	0.72	2.04	1.31	1.6	2.09	1.11	9.32	1.73	1.16
Run1_MDS25		2.54	5.51	2.96	3.87	2.95	1.86	1.7	1.39	1.23	2.5	2.06	2.32	2.72	11.89	34.79	22.18	1.62	1.21	2.92	1.65	1.83	2.51	1.33	4.39	1.99	1.29
Run1_MDS5		3.66	4.14	0.42	2.91	1.94	2.52	2.8	3.35	2.74	3.55	2.72	3.36	3.66	7.47	183.02	62.63	3.15	0.99	3.94	1.72	2.2	2.18	2.15	26.26	2.16	1.52
Run1_MDS6		3.63	2.28	1.7	1.31	1.93	2.31	1.94	1.95	1.96	2.66	2.8	3.61	4.02	9.16	133.76	22.16	1.35	0.91	3.24	1.64	2.26	2.35	1.61	11.69	2.15	1.22
Run1_MDS8		2.77	3.83	2.9	3.05	2.51	2	2.08	1.85	1.68	2.34	2.16	2.64	3.01	11.4	52.56	30.16	1.43	0.72	5.78	1.01	1.85	2.96	1.96	7.1	1.32	0.92
Run1_MDS9	Lower Risk	2.83	2.71	2.68	2.4	3.35	2.58	2.1	1.85	2	2.62	2.49	2.84	3.42	10.3	33.5	23.03	1.61	0.83	3.06	1.27	2.04	1.64	1.96	7.02	1.63	1.07
Run2_MDS12		2.08	2.42	2.48	1.66	2.66	1.76	1.63	1.76	1.67	1.06	1.41	2.14	2.31	10.42	75.7	31.15	1.12	0.66	1.22	0.75	1.32	2.18	0.94	5.04	1.02	0.58
Run2_MDS14		3.54	3.32	1.84	5.52	0.79	1.26	1.55	1.58	1.56	2.72	2.56	3.43	3.93	9.51	104.83	21.57	0.73	0.67	1.52	1.08	1.55	1.22	1.36	11.35	1.36	0.92
Run2_MDS19		2.96	2.03	2	1.87	2.48	1.79	1.2	1.08	1.07	2.07	2.65	3.25	3.47	7.65	97.24	32.18	1.1	0.64	1.94	1.14	1.19	1.92	0.83	8.95	1.42	1.06
Run2_MDS20		2.6	3.17	1.51	2.11	2.1	1.54	1.59	1.35	1.44	2.5	2.93	3.38	4.09	7.77	144.42	21.3	1.32	1.14	3.63	0.87	0.98	1.81	1.27	4.41	1.34	0.83
Run2_MDS28*		2.62	1.4	1.17	0.87	1.99	1.83	1.55	1.64	1.64	1.98	2.07	2.96	3.18	6.06	88.52	21.58	1.37	0.55	1.51	0.95	1.27	2.02	1.18	6.37	1.1	0.83
Run2_MDS5		3.39	2.63	0.71	1.77	2.31	2.55	2.58	2.97	2.13	2.7	2.72	3.45	3.67	5.69	249.27	64	2.44	0.61	2.88	1.34	1.66	2.65	1.73	59.58	1.67	1.17
Run1_ICUS18		3.98	2.53	2.05	1.29	2.82	1.94	1.86	1.5	1.45	3.4	3.5	4.19	4.77	11.4	42	19.31	1.86	0.85	2.07	1.46	1.88	2.66	1.02	5.31	1.93	1.35
Run1_ICUS22	ICUS	2.78	2.66	2.44	2.64	2.73	2.16	1.83	1.54	1.41	2.56	2.66	3.02	3.17	9.75	29.29	19.77	1.03	0.79	1.34	1.41	1.83	2.35	1.29	5.66	1.72	1.29
Run1_ICUS24		2.88	2.88	2.29	2.72	2.79	1.97	1.54	1.51	1.45	2.86	2.72	3.12	3.46	10.93	41.1	24.5	0.89	0.8	2.28	1.24	1.63	2.47	1.09	11.59	1.36	1.15
Run1_Nl-1		3.29	2.46	3.46	1.22	2.32	1.87	2.11	1.82	1.74	3.45	2.99	3.53	3.85	10.7	31.76	19.94	0.81	0.71	1.36	1.43	1.91	2.71	1.66	12.37	1.77	1.25
Run1_Nl-3		5.1	3.01	2.88	2.3	2.9	2.56	3.08	3.94	2.75	4.06	4.32	5.83	6.4	9.53	65.41	19.68	1.04	0.8	2.34	1.29	1.86	2.25	1.54	4.35	1.56	1.11
Run1_Nl-4		5.94	3.47	2.97	3.17	2.9	2.76	3.65	4.14	3.1	4.62	5.17	6.55	6.83	9.62	65.54	19.7	1.14	0.8	2.89	1.29	1.89	2.5	1.51	3.08	1.53	1.1
Run1_Nl-6	Normal	4.44	2.17	1.87	1.99	2.72	2.54	3.22	3.7	2.97	3.52	3.83	4.69	4.81	11.13	55.79	20.08	0.94	0.65	2.79	1.22	1.84	2.08	1.43	2.64	1.6	1.12
Run2_Nl-3		4.72	2.17	1.9	2.06	2.28	2.25	2.78	3.49	2.45	3.62	4.01	5.76	6.59	7.96	38.35	20.12	0.86	0.34	1.59	0.89	1.24	1.69	0.96	5.03	1.1	0.75
Run2_Nl-4		5.83	2.62	2.33	2.91	2.57	2.46	3.39	3.78	2.96	4.28	4.94	6.74	7.17	7.81	82.75	20.15	0.76	0.55	2.38	0.94	1.2	1.79	0.77	3.89	1.14	0.81
Run2_Nl-5		4.94	2.95	1.77	2.56	2.33	2.47	3.41	4.15	3.17	3.69	4.32	5.83	6.54	7.52	120.65	20.5	0.7	0.37	2.28	0.95	1.25	1.82	0.97	3.06	1.19	0.75
Run2_Nl-6		3.91	1.8	1.31	1.7	2.13	2.13	2.86	3.12	2.62	2.86	3.34	4.28	4.7	8.23	66.45	21.66	0.69	0.44	2.11	0.86	1.3	1.47	0.89	3.79	1.02	0.81

CD47 Median

Sample	Group	Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	51.05	34.69	34.28	32.92	67.75	30.82	43.89	61	56.4	66.53	67.36	91.89	109.16	20.84	21.03	23.19	45.56	31.6	65.03	35.55	35.98	40.68	63.69	77.44	28.48	49.12
Run2_MDS15*	AML/RAEB-T	39.61	51.32	39.88	39.37	45.55	49.19	38.64	32.5	26.59	50.12	40.03	45.37	48.48	90.44	43.02	55.21	30.14	38.79	48.67	60.17	53.36	48.69	68.76	80.62	42.91	78.23
Run2_MDS4	AML/RAEB-T	35.94	32.46	32.69	31.84	69.66	25.65	30.5	35.79	36.82	45.09	42.03	45.87	43.02	16.1	16.56	13.38	35.27	31.7	30.68	37.94	33.08	25.23	73.16	179.71	33.38	43.15
Run1_MDS21	Higher Risk	41.1	27.47	29.05	26.08	34.35	32.93	38.34	52.98	51.26	36.73	58.97	82.99	92.87	17.22	21.04	544.06	32.7	40.67	166.43	49.95	46.82	35.34	54.43	584.93	41.06	55.02
Run2_MDS3	Higher Risk	42.56	26.15	25.02	24.6	33.03	32.51	37.28	53.73	54.75	40.7	56.99	78.54	96.83	22.62	25.67	118.6	32.14	40.26	78.53	59.94	52.19	78.84	65.19	352.73	45.15	67.69
Run2_MDS13	Higher Risk	36.65	18.69	19.35	17.92	25.58	25.58	36.5	44.48	40.53	46.22	61.5	69.67	64.61	16.58	12.05	12.28	23.45	26.96	30.08	42.89	37.99	42.53	52.73	147.74	35.68	47.64
Run2_MDS16	Higher Risk	41.79	29.59	29.66	26.85	36.15	41.68	40.01	36.94	34.4	69.18	43.33	45.11	41.12	20.72	9.14	47.18	39.68	25.18	54.85	48.62	55.67	47.1	66.05	410.73	39.65	50.94
Run2_MDS1	Higher Risk	48.48	40.55	33.7	38.64	51.25	39.98	35.83	46.76	50.89	23.14	23.53	65.55	71.45	23.78	16.9	17.03	45.32	29.89	48.2	52.72	57.83	54.74	66.24	366.05	35.36	56.24
Run2_MDS21	Higher Risk	35.55	20.85	22.74	20.61	27.15	24.63	33.76	47.52	42.85	48.21	59.31	79.41	71.97	10.23	9.8	10.81	25.16	32.23	70.16	43.69	41.34	17.12	49.8	394.03	37.64	46.58
Run2_MDS26*	Higher Risk	40.15	32.25	33.68	30.85	43.3	23.27	37.93	51.5	49.68	32.87	31.2	57.48	50.7	26.07	26.22	15.84	30.62	20.01	35.82	42.76	45.94	50.21	64.75	52.01	35.45	47.49
Run2_MDS27	Higher Risk	39.79	41.78	42.11	38.79	51.33	40.06	34.84	30.69	30.25	86.64	62.05	57.98	50.7	25.66	8.79	52.47	39.58	29.09	82.7	48.53	37.43	69.22	69.88	165.99	40.27	58.3
Run2_MDS2	Higher Risk	53.83	17.17	19.22	15.18	21.89	22.16	31.46	42.4	34.49	36.26	36.9	73.78	73.3	58.02	52.47	79.83	38.05	49.9	24.43	42.76	58.87	50.28	48.13	532.67	34.09	42.27
Run2_MDS3	Higher Risk	41.27	21.46	24.3	19.89	28.8	28.72	37.36	46.81	39.57	51.32	64.49	79.46	79.69	14.51	15.14	10.34	27	35.32	49.83	53.77	43.56	50.77	50.72	278.22	41.48	60.1
Run1_MDS23	Lower Risk	83.78	49.91	48.91	45.76	68.01	48.42	52.53	59.36	57.23	65	69.44	102.02	109.89	40.89	47.35	120.4	55.76	38.04	58.95	67.64	52.2	74.89	92.77	181.77	50.71	74.16
Run1_MDS25	Lower Risk	73.65	67.18	35.49	89.09	29.88	51.31	39.9	39.71	39.58	77.33	73.06	73.87	78.48	31.64	45.51	103.07	45.22	49.19	87.52	57.57	74.84	71.77	99.45	400.58	51.88	64.31
Run1_MDS5	Lower Risk	91.19	86.43	71.5	61.3	84.51	69.51	60.76	78.66	57.45	146.8	78.79	104.83	94.41	116.91	28.72	167.51	78.72	38.64	67.2	59.63	76.71	137.44	117.25	130.57	47.75	64.6
Run1_MDS6	Lower Risk	50.04	38.76	29.25	26.64	40.29	46.25	42.66	44.17	46.37	84.81	62.2	62.64	46.39	39.58	15.46	81.78	41.35	36.7	89.46	59.35	54.67	81.31	94.02	723.54	57.45	60.58
Run1_MDS8	Lower Risk	62.34	48.42	56.22	46.84	50.17	52.44	61.51	53.99	49.58	69.43	60.9	66.85	67.52	23.53	25.38	68.85	41.43	32.81	100.44	38.57	60.59	112.4	110.33	550.51	39.56	
Run1_MDS9	Lower Risk	76.84	50.7	54.05	38.67	59.23	56.18	76.38	78.61	68.85	77.4	70.34	89.61	90.17	19.26	17.38	204.31	60.3	38.96	129.4	59.37	75.98	77.36	127.72	216.58	32.1	62.97
Run2_MDS12	Lower Risk	69.93	44.8	34.59	39.57	42.9	37.4	36.32	45.94	47.3	43.7	57.19	86.38	85.54	11.25	12.59	32.64	35.09	39.27	54.45	36.78	35.37	52.29	56.5	321.37	35.15	37.95
Run2_MDS14	Lower Risk	46.17	40.72	32.18	64.83	47.18	46.68	52.1	35.39	34.48	60.59	46.39	56.92	46.88	8.45	6.18	55.11	36.29	36.07	63.51	59.22	70.97	55.24	105	391.36	45.46	68.51
Run2_MDS19	Lower Risk	55.39	43.42	42.19	39.02	57.56	51.3	40.46	40.85	38.9	56.04	58.56	65.79	54.46	12.04	10.26	10.05	48.2	34.47	109.36	69.81	56.8	68.76	63.45	562.04	42.5	78.95
Run2_MDS20	Lower Risk	54.15	39.64	39.56	32.29	53.56	56.02	52.38	44.67	40.44	65.49	56.74	67.94	57.4	26.63	16.17	76.74	46.68	44.38	72.73	46.91	40.82	77.75	93.25	371.3	42.56	47.63
Run2_MDS28*	Lower Risk	92.3	42.42	36.38	39.84	50.85	44.82	41.66	49.75	47.26	72.11	70.61	108.88	110.56	18.59	15.23	106.06	45.6	32.04	41.67	52.49	55.49	86.05	88.32	603.77	42.99	62.72
Run2_MDS5	Lower Risk	72.69	60.12	43.6	44.13	58.29	62.54	50.19	67.43	45.62	108.48	63.45	85.2	74.51	79.11	21.78	118.14	55.31	29.63	49.77	47.3	66.1	119.81	104.7	170.71	37.18	52.43
Run1_ICUS18	ICUS	71.44	40.7	39.41	27.83	47.12	59.34	46.6	42.35	39.97	84.08	79.49	86.06	73.03	39.73	35.74	99.43	58.75	35.17	102.84	73	71.08	77.54	66.15	414.91	61.02	75.23
Run1_ICUS22	ICUS	74.3	47	48.67	38.97	55.19	65.74	69.3	57.6	52.01	87.67	81.56	90.44	75.01	27.7	36.48	106.36	54.04	42.54	65.8	75.72	77.84	103.11	103.17	347.19	60.06	81.78
Run1_ICUS24	ICUS	68.44	50.05	44.2	45.04	61.36	49.19	40.33	43.39	44.73	87.83	75.56	83.37	72.11	20.4	22.74	183.59	45.52	41.05	44.7	59.22	52.6	68.47	81.35	788.17	44.32	75.28
Run1_Nl-1	Normal	69.07	40.39	38.59	31.6	63.24	48.87	52.57	46.86	43.73	92.44	72.11	78.18	68.88	30.96	33.52	116.59	41.62	38.48	51.43	68.58	74.89	73.3	125.66	1085.1	55.31	76.54
Run1_Nl-3	Normal	54.92	43.03	40.94	38.84	48.97	41.83	33.32	36.97	35.91	77.67	55.08	61.83	54.42	44.6	32.65	76.67	39.57	26.9	57.63	47.9	49.06	56.8	83.49	146.11	35.13	57.55
Run1_Nl-4	Normal	64.25	54.81	46.99	39.82	49.95	41.35	30.11	29.55	28	82.18	68.25	73.56	65.04	49.33	30.94	90.21	36.28	33.19	81.11	44.48	68.81	56.01	83.85	140.06	37.28	52.15
Run1_Nl-6	Normal	58.33	46.04	45.35	40.73	58.98	49.07	36.41	38.71	36.76	76.28	57.67	67.37	61.01	36.37	26.93	74.77	43.56	29.71	73.29	53.94	55.02	67.58	92.3	117.04	38.48	60.05
Run2_Nl-3	Normal	37.64	36.09	36.82	32.48	41.74	35.66	27.97	30.2	30.19	58.47	37.28	40.87	34.44	26.59	22.51	43.23	30.96	22.35	45.33	40.01	39.21	41.6	63.76	180.89	28.8	48.95
Run2_Nl-4	Normal	44.04	41.07	46.35	36.93	44.51	35.41	23.45	22.96	22.13	63.48	45.91	49.19	41	29.5	20.74	55.39	30.59	27.64	74.22	39.12	39.06	43.47	61.49	179.55	32.74	45.64
Run2_Nl-5	Normal	34.79	34.56	35.87	30.6	41.46	30.44	23.15	22.84	22.59	60.31	42.56	41.27	32.19	18.95	10.08	38.23	30.73	22.67	57.92	35.59	36.69	37.75	54.33	193.38	28.82	42.87
Run2_Nl-6	Normal	42.52	40.6	39.61	36.63	49.92	42.3	31.25	33.38	32.04	50.12	41.6	49.79	41.02	19.95	15.86	38.42	34.98	24.41	59.67	46.72	46.76	55.13	73.01	255.89	33.76	52.59

CD8 Median

		Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	3.72	1.87	1.99	1.72	3.03	1.49	3.27	4.39	3.92	3.99	7.95	7.36	8.13	1	1.05	1.85	3.61	1.34	2.31	79.69	10.47	4.79	1.06	3.54	173.28	2.19
Run2_MDS15*		1.97	3.04	2.63	2.27	2.21	2.11	1.96	1.73	1.59	2.09	1.81	1.93	2	2.34	2.06	3.19	1.83	1.42	2.75	10.86	16.57	2.13	2.71	3.81	271.61	2.61
Run2_MDS4		1.73	1.61	1.72	1.22	0.77	0.86	1.16	1.56	2.09	1.65	1.61	1.71	1.8	0.35	0.54	0.78	1.92	1.07	1.06	14.34	10.2	1.03	2.23	4.48	186.36	1.54
Run1_MDS21	Higher Risk	2.42	1.57	1.63	1.35	1.82	1.66	2.38	2.81	3.28	2	3.04	3.42	4.25	0.82	1.52	9.72	1.71	1.84	3.74	4.48	5.35	1.98	2.71	8.93	76.33	2.42
Run1_MDS3		2.72	1.58	1.69	1.37	1.94	1.83	2.6	3.32	3.39	2.61	3.7	4.16	5.31	0.99	1.42	4.75	1.45	1.84	3.3	4.94	6.78	5.19	2.85	7.14	158.47	2.84
Run2_MDS13		2.1	1.06	1.25	0.98	1.36	1.23	2.21	3.03	3.11	2.5	3.46	3.21	3.36	0.72	0.51	1.09	0.92	0.93	1.66	4.44	4.12	2	1.69	4.43	114.99	2.03
Run2_MDS16		1.83	1.64	1.89	1.3	1.16	1.43	1.52	1.59	1.57	2.25	1.57	1.74	1.66	0.88	0.4	2.03	2.33	0.84	2.75	2.46	5.34	2.12	2.41	7.29	208.58	1.74
Run2_MDS1		1.79	1.7	2.55	1.32	1.85	1.22	1.02	1.22	1.8	0.89	0.82	2.26	2.49	0.65	0.74	0.9	2.46	1.45	1.65	2.51	4.41	1.76	3.95	5.01	171.01	1.85
Run2_MDS21		1.89	1.03	1.13	0.93	1.29	1.06	1.34	2.12	2.38	2.75	3.22	2.86	2.98	0.35	0.4	0.85	1.04	1.32	3.19	3.84	3.6	1.06	1.81	6.45	72.66	1.94
Run2_MDS26*		1.42	1.5	1.53	1.44	1.73	0.93	1.58	2.06	2.3	1.24	1.17	2.01	2.35	0.99	0.88	0.7	1.48	0.68	1.03	4.25	2.08	0.97	2.3	2.08	142.22	1.75
Run2_MDS27		1.96	2.12	2.36	1.76	1.99	1.8	1.76	1.51	1.57	2.61	2.31	1.96	1.93	1.05	0.32	0.67	4.52	1.16	2.81	62.15	2.99	2.45	2.08	5.39	201.93	1.96
Run2_MDS2		1.72	0.69	1.14	0.52	0.73	0.59	0.43	1.08	1.26	1.38	1.21	2.35	2.61	2.14	1.96	3.31	1.55	2.58	0.03	1.44	2.8	0.25	1.37	5.18	223.22	1.23
Run2_MDS3		2.56	1.18	1.3	1.06	1.49	1.31	2.01	3.41	4.1	3.35	4.79	4.7	5.65	0.6	0.68	0.63	1.2	1.31	1.84	4.15	3.72	2.32	1.88	5.33	146.49	2.25
Run1_MDS23	Lower Risk	3.89	2.71	2.48	2.39	3.16	2.35	3.33	3.4	3.28	4.69	4.27	4.39	4.38	1.52	1.79	4.73	3.51	1.82	3.12	4.49	2.87	3.05	3.65	6.79	157.56	2.89
Run1_MDS25		3.14	6.22	3.63	4.27	0.79	2.07	1.72	1.7	1.89	3.04	2.87	2.91	3.1	1.14	2.2	5.68	3.18	2.31	2.85	18.77	4.09	2.89	3.92	7.5	268.11	2.73
Run1_MDS5		3.66	3.9	1.99	3.11	2.31	3.31	2.29	3.61	4	4.57	3.01	3.66	3.83	4.42	1.63	5.32	4.1	1.76	3.37	3.91	3.27	5.5	4.16	9.94	246.1	2.57
Run1_MDS6		2.85	2.37	1.47	1.36	2	2.4	2.7	2.9	3.05	3.44	3.04	3.02	2.57	1.69	0.72	4.54	2.63	1.64	4.27	7.99	59.04	3.33	3.66	9.94	206.12	2.72
Run1_MDS8		2.94	3.01	3.72	2.15	2.27	2.18	2.68	2.63	2.56	2.87	2.88	2.84	2.95	0.86	1.09	3.89	2.33	1.37	1.49	2.75	5.87	3.95	4.13	8.97	70.59	1.7
Run1_MDS9		3.64	2.64	2.85	2.06	3.18	2.64	3.24	2.95	3.27	3.35	3.15	3.49	3.55	0.85	0.89	7.34	5.88	1.76	6.18	5.57	19.34	3.3	4.34	6.11	126.53	2.68
Run2_MDS12		2.62	2.01	2.26	1.59	2.07	1.83	2.09	2.41	2.41	1.97	2.45	3.13	3.19	0.44	0.48	1.37	2.28	1.57	1.31	4.15	1.68	1.95	1.9	5.9	118.91	1.49
Run2_MDS14		2.23	2.49	0.86	2.09	2.23	1.83	2.03	2.29	2.42	2.54	2.21	2.71	2.22	0.49	0.2	2.51	1.68	1.26	2.06	4.44	3.52	1.76	3.33	4.41	218.96	2.28
Run2_MDS19		2.18	2.29	2.54	1.98	2.17	2.01	1.76	1.76	1.73	2.29	2.37	2.4	2.13	0.56	0.39	0.59	2.95	1.39	3.55	3.66	2.93	2.5	2.02	8.93	210.2	2.55
Run2_MDS20		2.23	1.92	2.39	2.02	1.96	1.9	1.98	1.74	1.96	2.42	2.24	2.4	2.28	0.66	0.86	2.81	2.37	1.95	4.58	1.97	1.8	2.67	2.97	6.95	181.67	1.66
Run2_MDS28*		3.75	2.32	2.18	2.12	1.95	2.26	2.22	2.57	2.53	3.1	2.99	4.04	4	0.83	0.75	3.33	3.3	1.24	2.25	9.1	4.25	3.12	2.63	8.53	130.65	2.4
Run2_MDS5		2.51	3.66	1.94	1.72	2.68	2.34	1.47	2.9	2.84	3.09	1.89	2.45	2.66	2.89	1.06	3.48	2.7	1.24	1.79	3.48	2.27	1.96	3.4	3.54	212.24	1.91
Run1_ICUS18	ICUS	3.36	2.92	1.47	2.92	3.33	2.47	2.48	2.07	2.42	3.76	3.66	3.52	3.22	1.49	1.67	3.81	3.7	1.48	3.42	3.77	5.93	3.03	2.66	8.95	210.9	2.97
Run1_ICUS22		3.17	2.55	2.49	2.3	3.04	2.63	2.85	2.25	2.36	3.7	3.41	3.51	3.04	1.13	1.5	3.98	2.93	1.82	2.99	4.95	4.64	3.79	3.65	7.71	130.19	3.26
Run1_ICUS24		3.26	2.74	3.14	2.53	3.04	2.4	2.36	2.26	2.25	3.58	3.46	3.42	3.09	0.79	0.95	6.44	2.3	1.83	2.21	8.51	3.34	2.74	3.43	10.74	113.17	3.21
Run1_Nl-1	Normal	3.01	2.08	1.93	1.85	2.54	2.24	2.56	2.35	2.21	3.58	3.09	3.16	2.88	1.01	1.46	4.61	2.02	1.66	2.71	5.24	3.77	2.96	4.51	12.49	178.21	2.94
Run1_Nl-3		3.23	2.96	2.57	2.72	2.54	2.79	4.6	5.92	4.06	3.46	2.99	3.3	2.98	1.95	1.56	3.97	2.69	1.08	3.18	5.52	5.01	2.5	3.44	4.92	189.51	2.39
Run1_Nl-4		3.59	3.19	2.95	2.96	2.86	2.93	5.63	6.42	4.43	3.62	3.41	3.63	3.42	1.71	1.37	4.2	2.52	1.39	3.66	6.72	4.59	2.53	3.01	4.75	141.59	2.35
Run1_Nl-6		3.12	2.78	3.04	2.08	2.98	3.03	4.64	5.81	4.5	3.42	3.17	3.54	3.23	1.28	1.18	3.5	2.18	1.19	3.44	3.94	4.22	2.82	3.63	4.75	170.86	2.47
Run2_Nl-3		2.16	2	1.81	1.76	2.15	2.15	3.21	4.12	3.04	2.32	1.94	2.16	1.99	0.95	0.8	2.24	1.9	0.78	1.75	4.4	3.3	1.42	2.12	4.79	171.13	1.77
Run2_Nl-4		2.53	2.65	3.02	2.09	1.98	2.36	4.08	4.74	3.32	2.5	2.21	2.52	2.4	0.97	0.83	2.63	1.94	1.04	2.63	6.29	3.57	1.57	2.33	4.1	125.13	1.81
Run2_Nl-5		2.38	2.28	2.26	1.9	1.85	2	3.64	4.66	3.67	2.34	2.07	2.45	2.29	0.74	0.4	2.39	1.7	0.84	2.57	7.61	6.82	1.62	1.99	5.37	195.22	1.6
Run2_Nl-6		2.08	2	2.62	1.76	2.19	2.28	3.66	4.15	3.48	2.08	1.97	2.34	2.09	0.81	0.6	1.57	1.51	0.92	2.55	3.12	2.97	1.99	2.5	4.6	152.97	1.84

Supplemental Table 3: Median expression of each surface marker on each cell population.

CD34 Median

		Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	1.31	50.67	61.19	48.38	64.27	13.48	2.03	1.2	0.95	0.95	0.95	0.65	0.9	0.52	-0.07	0.32	2.2	0.1	1.5	0.34	1.08	3.82	1.53	2.2	0.68	-0.1
Run2_MDS15*		1.08	293.81	263.47	237.16	75.4	7.55	1.44	0.6	0.62	1.9	0.72	0.49	0.35	31.31	0.83	1.63	0.91	0.68	3.61	0.41	1.82	31.15	1.76	18.53	0.67	0.14
Run2_MDS4		0.1	109.73	187.52	97.36	23.89	1.21	0.28	0.27	0.28	-0.01	-0.16	-0.08	0.01	-0.01	-0.13	-0.07	0.44	0.35	0.19	-0.04	0.55	0.22	-0.05	0.95	0.3	-0.21
Run1_MDS21	Higher Risk	0.56	49.33	52.65	47.41	63.49	54.87	5.19	1.73	2.34	0.04	0.21	0.21	0.6	-0.07	0.26	1.58	-0.03	-0.02	0.13	-0.03	1.68	14.13	0.17	1.13	0.59	-0.19
Run1_MDS3		0.29	70.65	80.36	65.21	86.03	70.51	6.91	1.34	2.91	-0.08	0	0.14	0.61	-0.04	0.09	0.58	-0.14	0	0.93	-0.03	1.5	1.69	0.11	0.87	0.6	-0.19
Run2_MDS13		0.34	91.9	105.28	83.01	82.81	64.29	0.62	0.62	0.72	-0.01	0.04	0.01	0.16	0.44	-0.16	-0.01	-0.07	-0.11	0.95	-0.03	0.86	3.41	0.39	0.39	0.42	-0.17
Run2_MDS16		-0.05	134.03	145.94	129.64	130.97	0.85	0.19	0.28	0.33	-0.12	-0.2	-0.17	-0.11	36.38	-0.23	-0.02	0.25	-0.16	0.59	-0.1	0.84	0.84	0.01	0.95	0.42	-0.17
Run2_MDS1		0	30.62	52.43	28.37	27.4	1.74	0.24	0.1	0.29	-0.22	-0.21	-0.05	0.15	-0.12	-0.14	-0.19	0.28	-0.09	0.63	-0.18	1.28	0	-0.05	0.25	0.28	-0.24
Run2_MDS21		0.3	54.42	59.94	51.4	70.7	53.08	0.37	0.45	0.67	-0.06	-0.05	-0.01	0.12	0.22	-0.18	-0.07	0.08	-0.04	0.92	-0.02	0.82	12.6	0.07	0.8	0.45	-0.14
Run2_MDS26*		-0.18	38.59	42.95	37.24	35.94	3.92	0.44	0.44	1.14	-0.22	-0.22	-0.18	-0.15	2.54	-0.22	-0.23	0.79	-0.08	0.37	0.62	-0.07	-0.07	-0.18	0.29	-0.21	
Run2_MDS27		0.36	170.12	197.48	146.59	76.36	9.47	0.62	0.48	0.6	0.16	-0.08	0	0.26	14.21	-0.21	-0.15	0.87	0.18	1.93	0.64	0.36	0.49	5.94	0.37	0.45	-0.1
Run2_MDS2		0.03	93.84	104.13	93.19	84.93	34.98	0.33	-0.03	0.59	1.19	-0.22	-0.11	-0.05	0.35	0.41	0.55	0.22	1.18	-0.39	-0.25	0.23	1.71	0.37	0.24	-0.28	
Run2_MDS3		0.24	90.74	109.1	80.17	106.77	71.22	0.39	0.42	1.01	0	0.14	0.14	0.39	0.58	-0.13	-0.15	-0.08	-0.09	0.54	-0.04	0.89	1.71	0.5	0.72	0.49	-0.17
Run1_MDS23	Lower Risk	0.26	65.77	99.92	57.14	47.25	0.55	0.25	0.23	0.27	0.4	0.31	0.28	0.37	-0.1	-0.05	0.37	0.31	-0.24	0.41	-0.06	0.92	0.34	-0.08	0.46	0.55	-0.18
Run1_MDS25		0.36	23.34	154.42	30.95	54.29	0.48	0.39	0.38	0.44	0.34	0.05	0.26	0.39	-0.04	0.09	1.15	0.27	-0.1	0.72	0.13	0.48	0.49	-0.05	0.39	0.58	-0.19
Run1_MDS5		0.49	58.42	136.51	37.32	80.16	3.07	0.74	0.84	0.93	0.87	0.27	0.39	0.5	0.84	0	0.47	0.75	-0.19	0.57	-0.06	3.72	0.77	0.88	0	0.57	-0.19
Run1_MDS6		0.25	91.69	69.78	46.94	61.42	4.75	1.28	1.39	1.08	0.67	0.41	0.3	0.16	1.45	-0.2	0.74	0.26	-0.13	1.01	0.03	1.24	1.02	0.17	2.02	0.59	-0.22
Run1_MDS8		-0.03	132.23	135.77	122.6	98.69	2.12	0.42	0.31	0.38	-0.02	-0.14	-0.11	-0.05	0.07	-0.1	0.38	-0.11	-0.2	0.42	0.47	0.71	1.6	0.59	1.19	0.17	-0.24
Run1_MDS9		0.17	84.33	117.16	49.15	80.26	15.65	0.31	0.22	0.4	-0.02	-0.07	0.09	0.19	0.06	-0.11	0.59	0.41	-0.16	0.72	-0.06	0.83	0.5	0.51	0.27	0.46	-0.24
Run2_MDS12		-0.07	52.28	90.71	64.2	76.07	0.94	0.64	0.56	0.7	-0.14	-0.15	-0.1	-0.07	0.07	-0.22	-0.13	0.39	-0.13	0.32	-0.1	1.14	0.8	0.04	1.1	0.33	-0.22
Run2_MDS14		-0.03	48.79	46.51	57.62	39.22	0.31	0.09	0.26	0.18	-0.08	-0.13	-0.08	-0.02	-0.02	-0.22	0.06	-0.03	-0.17	0.23	-0.08	1.17	0.77	0.14	0.95	0.33	-0.22
Run2_MDS19		-0.05	164.54	178.84	156.45	102.49	1.33	0.25	0.07	0.12	-0.12	-0.14	-0.1	-0.01	0.29	-0.23	-0.2	0.25	-0.16	0.35	-0.11	0.89	0.9	0.52	3.59	0.44	-0.2
Run2_MDS20		-0.07	88.27	161.28	66.97	121.49	0.33	0.12	0.06	0.16	-0.08	-0.12	-0.09	-0.03	0.51	-0.2	0	0.04	-0.05	1.59	-0.19	0.33	0.29	0.19	0.5	0.33	-0.22
Run2_MDS28*		0.07	88.11	127.52	75.24	88.59	1.14	0.51	0.33	0.6	0.05	-0.03	0	0	1.3	-0.22	0.01	0.28	-0.3	-0.09	-0.04	0.67	0.67	0.14	0.67	0.36	-0.2
Run2_MDS5		0.43	88.55	207.49	65.5	61.26	2.28	0.61	0.64	1.05	0.35	0.14	0.32	0.47	0.77	-0.13	0.4	0.67	-0.19	0.33	-0.1	3.11	0.7	0.72	-0.01	0.4	-0.21
Run1_ICUS18	ICUS	0.3	123.49	192.06	85.63	140.05	0.61	0.32	0.39	0.37	0.18	-0.03	0.16	0.35	-0.05	-0.16	0.54	0.14	-0.22	0.46	-0.13	0.61	0.45	-0.07	2.66	0.62	-0.21
Run1_ICUS22		0.03	109.25	131.63	86.13	68.17	0.76	0.34	0.16	0.18	-0.06	-0.13	-0.07	0.06	-0.07	-0.08	0.25	0.12	-0.19	0.02	0.08	0.28	0.39	0.21	1.22	0.42	-0.18
Run1_ICUS24		0.05	131.23	151.83	102.25	59.7	2.25	0.48	0.29	0.3	0.04	-0.08	-0.06	0.09	-0.05	-0.19	0.77	0.01	-0.19	0.39	0.01	0.4	1.64	0.34	1.67	0.42	-0.17
Run1_Nl-1	Normal	-0.02	119.58	140.16	103.09	39.69	0.97	0.3	0.26	0.3	-0.07	-0.14	-0.07	0	-0.04	-0.12	0.48	-0.06	-0.24	0.4	-0.06	0.57	0.87	0.18	1.95	0.53	-0.22
Run1_Nl-3		0.21	182.12	182.03	156.53	95.03	3.14	0.83	0.71	0.51	0.26	-0.03	0.15	0.23	0.77	-0.1	0.47	0.22	-0.24	0.56	0.05	0.91	1.07	0.2	2.1	0.63	-0.2
Run1_Nl-4		0.27	182.95	220.43	162.18	105.12	2.24	0.67	0.54	0.47	0.57	0.1	0.22	0.28	0.67	-0.11	0.48	0.9	-0.06	0.07	0.66	1.29	0.48	1.9		0.55	-0.18
Run1_Nl-6		0.26	142.1	156.47	124.4	67.6	3.48	0.81	0.6	0.57	0.52	0.18	0.22	0.27	0.26	-0.14	0.42	0.25	-0.2	0.78	-0.07	0.65	0.84	0.68	4	0.54	-0.19
Run2_Nl-3		0.07	161.86	194.12	160.74	80.98	2.12	0.53	0.39	0.39	-0.04	-0.09	0.05	0.18	0.61	-0.16	0.25	0.1	-0.24	0.47	-0.05	0.65	0.8	0.02	1.97	0.39	-0.2
Run2_Nl-4		0.17	185.08	278.46	152.75	93.38	1.6	0.52	0.44	0.41	0.02	-0.03	0.17	0.28	0.62	-0.17	0.27	0.1	-0.16	0.78	-0.02	0.5	1.15	0.31	2.57	0.31	-0.17
Run2_Nl-5		0.16	157.97	205.4	123.43	64.56	1.21	0.48	0.44	0.44	-0.05	-0.09	0.12	0.29	0.61	-0.21	0.25	0.05	-0.18	0.68	-0.03	0.61	1.09	0.25	2.04	0.4	-0.23
Run2_Nl-6		0.12	128.71	148.83	116.94	81.68	2.34	0.51	0.5	0.49	-0.06	-0.08	0.02	0.34	0.36	-0.18	0.02	0.13	-0.19	0.6	-0.08	0.48	0.67	0.25	4.47	0.33	-0.17

Supplemental Table 3: Median expression of each surface marker on each cell population.

CD117 Median

	Group	Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	0.33	7.38	7.9	7.01	13.81	4.64	-0.04	-0.01	-0.02	-0.19	-0.03	-0.02	0.22	0.27	-0.17	-0.16	0.78	-0.15	-0.07	-0.3	-0.27	0.6	-0.56	-0.11	-0.29	-0.32
Run2_MDS15*		0.09	13.41	11.24	10.61	21.21	3.17	-0.07	-0.09	-0.04	0.04	-0.17	-0.17	-0.17	12.6	0.31	0.73	-0.04	-0.08	0.14	-0.25	-0.13	6.77	1.03	4.91	-0.26	-0.24
Run2_MDS4		-0.13	8.87	6.72	3.65	-0.32	0.63	-0.1	-0.09	0.02	-0.13	-0.23	-0.22	-0.18	0.24	-0.07	-0.21	-0.06	-0.11	-0.13	-0.28	-0.09	-0.15	-0.14	0.21	-0.29	-0.28
Run1_MDS21	Higher Risk	-0.03	7.33	8.03	7.07	8.69	7.69	0.88	-0.1	0.16	-0.27	-0.23	-0.19	0.06	-0.01	0.13	0.32	-0.28	-0.17	-0.04	-0.3	-0.1	0.68	0.35	0.15	-0.27	-0.31
Run2_MDS3		-0.09	5.46	6.01	5.18	7.06	6.24	1.5	-0.08	1.08	-0.24	-0.2	-0.14	0.28	-0.05	-0.01	0.09	-0.25	-0.13	0.73	-0.31	-0.2	0.83	-0.01	-0.02	-0.3	-0.31
Run2_MDS13		-0.06	3.43	3.78	3.22	6.37	5.09	-0.04	-0.01	0.17	-0.21	-0.17	-0.14	-0.07	0.61	-0.19	-0.21	-0.24	-0.3	-0.03	-0.28	-0.16	0.18	0.24	-0.09	-0.26	-0.29
Run2_MDS16		-0.2	5.17	5.29	4.23	4.36	0.3	-0.17	-0.09	-0.08	-0.21	-0.28	-0.25	-0.22	2.1	-0.19	-0.16	-0.23	-0.25	-0.02	-0.28	-0.19	0.15	-0.17	-0.01	-0.26	-0.28
Run2_MDS1		-0.19	8.76	5.98	9.66	15.14	3.46	-0.1	-0.22	-0.11	-0.21	-0.35	-0.24	-0.2	1.06	-0.1	-0.23	-0.14	-0.24	-0.03	-0.29	-0.22	0.06	0.06	-0.12	-0.3	-0.29
Run2_MDS21		-0.07	7.66	8.2	7.58	9.66	7.45	-0.06	-0.1	-0.02	-0.21	-0.2	-0.17	-0.13	0.76	-0.19	-0.23	-0.26	-0.26	-0.1	-0.29	-0.28	7.24	0.25	-0.01	-0.27	-0.3
Run2_MDS26*		-0.25	9.73	10.01	8.76	19.84	4.22	0.07	-0.16	-0.06	-0.3	-0.32	-0.27	-0.22	2.82	-0.22	-0.27	-0.08	-0.28	-0.07	-0.3	-0.19	0.16	0.37	-0.27	-0.3	-0.3
Run2_MDS27		-0.12	2.42	2.66	1.96	2.06	0.9	0.12	-0.12	-0.12	-0.16	-0.23	-0.21	-0.17	0.4	-0.22	-0.25	-0.02	-0.22	0.12	-0.28	-0.24	-0.08	-0.03	0.43	-0.27	-0.27
Run2_MDS2		-0.1	2.86	4.06	2.27	3.82	2.07	-0.18	-0.22	0	0.46	-0.24	-0.17	-0.12	1.69	0.31	0	-0.13	0.2	-0.66	-0.28	-0.23	0.57	-0.07	-0.1	-0.18	-0.28
Run2_MDS3		-0.07	5.73	6.46	5.5	8.32	6.54	-0.09	-0.14	-0.14	-0.18	-0.09	-0.06	0.09	1.8	-0.19	-0.26	-0.26	-0.13	-0.02	-0.29	-0.14	0.35	0.15	-0.06	-0.28	-0.29
Run1_MDS23	Lower Risk	-0.16	5.41	6.88	5.18	10.03	0.36	-0.05	-0.01	0.09	-0.17	-0.21	-0.18	-0.16	0.33	-0.01	0.06	-0.11	-0.23	-0.09	-0.3	-0.25	-0.05	-0.18	-0.04	-0.29	-0.3
Run1_MDS25		-0.2	3.34	3.31	4.86	4.9	-0.05	-0.17	-0.17	-0.14	-0.28	-0.28	-0.25	-0.2	0	0.18	0.11	-0.17	-0.09	0.33	-0.3	-0.15	0.1	-0.15	-0.12	-0.3	-0.3
Run1_MDS5		-0.05	2.03	1.4	1.92	1.4	0.71	-0.02	0.34	0.4	0.03	-0.17	-0.06	0.02	0.4	-0.02	0.07	0.15	-0.28	0.38	-0.26	-0.09	0.49	-0.13	-0.17	-0.22	-0.27
Run1_MDS6		-0.15	5.5	4.1	1.79	4.67	1.73	0.14	0.12	0.13	-0.14	-0.18	-0.16	-0.16	0.99	-0.11	0.07	-0.2	-0.25	0.58	-0.29	-0.19	0.44	0.35	0.28	-0.27	-0.3
Run1_MDS8		-0.2	5.97	6.73	3.45	5.4	0.96	-0.02	-0.07	-0.09	-0.23	-0.26	-0.24	-0.2	0.83	0.05	0.04	-0.22	-0.28	-0.04	-0.31	-0.15	0.38	-0.07	0.03	-0.31	-0.34
Run1_MDS9		-0.18	4.13	4.79	2.8	4.53	1.85	-0.04	-0.02	-0.06	-0.22	-0.24	-0.21	-0.16	0.32	-0.03	0.02	-0.1	-0.27	-0.15	-0.33	-0.2	0.04	0.09	-0.15	-0.3	-0.34
Run2_MDS12		-0.18	12.03	16.05	11.57	28.74	0.31	-0.12	-0.09	-0.05	-0.2	-0.25	-0.18	-0.15	0.49	-0.19	-0.19	-0.13	-0.19	-0.04	-0.31	-0.18	0.15	-0.09	-0.05	-0.29	-0.32
Run2_MDS14		-0.18	3.19	2.4	0.88	1.36	-0.15	-0.13	-0.07	-0.05	-0.16	-0.23	-0.17	-0.19	0.22	-0.18	-0.09	-0.25	-0.21	0.17	-0.26	-0.15	0.16	-0.19	-0.18	-0.3	-0.26
Run2_MDS19		-0.22	4.49	4.34	4.01	7.5	0.51	-0.14	-0.18	-0.13	-0.23	-0.25	-0.22	-0.21	0.3	-0.19	-0.28	-0.19	-0.24	-0.35	-0.28	-0.18	0.06	-0.23	0	-0.3	-0.27
Run2_MDS20		-0.19	1.96	2.36	1.96	5.11	0.08	-0.03	-0.05	0.01	-0.18	-0.21	-0.2	-0.16	1.83	-0.11	-0.14	-0.17	-0.13	0.43	-0.29	-0.18	-0.12	0	-0.02	-0.29	-0.3
Run2_MDS28*		-0.07	7.63	8.54	7.31	10.38	0.82	0.12	0.06	0.22	-0.11	-0.15	-0.08	-0.05	10.87	-0.23	-0.09	-0.06	-0.19	0.01	-0.29	-0.21	0.24	0.09	0	-0.29	-0.29
Run2_MDS5		-0.1	3.14	0.69	0.9	2.03	0.55	-0.09	0.14	0.24	-0.18	-0.2	-0.09	-0.05	0.48	-0.08	-0.01	-0.06	-0.22	0.43	-0.27	-0.1	-0.1	-0.08	-0.17	-0.27	-0.26
Run1_ICUS18	ICUS	-0.17	3.52	4.09	3.83	3.43	0.15	-0.06	-0.05	-0.06	-0.18	-0.18	-0.16	-0.16	0.23	-0.08	-0.02	-0.16	-0.24	0.02	-0.29	-0.21	-0.02	-0.17	0.19	-0.26	-0.3
Run1_ICUS22		-0.16	2.68	3.16	1.99	3.25	0.38	-0.03	-0.04	0.02	-0.23	-0.21	-0.18	-0.16	0.13	0.03	-0.06	-0.18	-0.19	-0.2	-0.27	-0.16	-0.03	-0.05	-0.15	-0.27	-0.26
Run1_ICUS24		-0.2	4.07	3.93	4.04	4.25	0.56	-0.13	-0.16	-0.13	-0.21	-0.24	-0.21	-0.2	0.29	-0.13	-0.03	-0.21	-0.2	-0.1	-0.3	-0.23	0.14	-0.21	0.12	-0.31	-0.28
Run1_Nl-1	Normal	-0.2	3.3	3.34	2.09	1.22	0.2	-0.07	-0.1	-0.04	-0.23	-0.26	-0.22	-0.19	0.13	-0.02	-0.07	-0.23	-0.25	0	-0.3	-0.19	0.07	0.3	0.19	-0.28	-0.31
Run1_Nl-3		-0.17	3.1	2.95	3.13	3.16	0.76	0.32	0.35	0.08	-0.18	-0.22	-0.17	-0.18	1.09	-0.1	-0.05	-0.16	-0.18	-0.07	-0.31	-0.2	-0.05	-0.16	-0.19	-0.31	-0.32
Run1_Nl-4		-0.15	3.06	2.5	2.89	3.67	0.84	0.37	0.37	0.23	-0.17	-0.21	-0.15	-0.15	1.23	-0.1	-0.06	-0.18	-0.23	-0.07	-0.3	-0.21	-0.03	-0.09	-0.22	-0.3	-0.3
Run1_Nl-6		-0.16	2.52	2.66	1.83	1.95	0.9	0.27	0.49	0.22	-0.17	-0.21	-0.17	-0.17	0.49	-0.13	-0.12	-0.15	-0.25	0.16	-0.3	-0.24	0	-0.07	-0.12	-0.29	-0.3
Run2_Nl-3		-0.19	2.76	2.84	2.32	3.32	0.63	-0.01	0.1	-0.01	-0.22	-0.25	-0.19	-0.17	0.81	-0.17	-0.17	-0.18	-0.3	-0.11	-0.29	-0.25	-0.06	-0.16	-0.13	-0.28	-0.31
Run2_Nl-4		-0.17	3.54	3.63	2.71	4.09	0.69	0.19	0.18	0.03	-0.19	-0.23	-0.17	-0.14	1.13	-0.15	-0.13	-0.2	-0.2	0.09	-0.3	-0.21	-0.03	-0.21	-0.12	-0.29	-0.31
Run2_Nl-5		-0.18	2.73	3.82	1.74	2.05	0.42	0.25	0.27	0.13	-0.2	-0.24	-0.17	-0.16	0.53	-0.2	-0.14	-0.24	-0.29	-0.03	-0.3	-0.24	-0.14	-0.17	-0.11	-0.29	-0.31
Run2_Nl-6		-0.18	2.01	2.79	1.44	2.17	0.83	0.23	0.27	0.15	-0.21	-0.23	-0.19	-0.19	0.42	-0.18	-0.21	-0.16	-0.22	0.13	-0.29	-0.24	-0.07	-0.1	-0.17	-0.27	-0.29

Supplemental Table 3: Median expression of each surface marker on each cell population.

CD56 Median

		Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	1.79	2.35	2.43	2.28	3.11	2.33	3.02	3.35	3.9	1.62	1.76	1.45	1.81	1.23	0.68	1.25	2.16	2.02	4.1	2.41	18.78	2.26	1.43	2.77	3.43	1.31
Run2_MDS15*		1.7	5.95	2.51	2.12	1.11	2.64	1.94	0.6	0.77	6.3	3.36	1.17	0.55	2.19	1.39	1.87	1.06	0.71	2.87	1.56	45.82	1.18	0.83	0.9	3.44	0.59
Run2_MDS4		1.02	2.8	2.28	2.08	1.35	1.89	1.28	1.28	1.72	1.14	0.72	0.72	0.89	0.42	0.03	0.57	1.67	1.88	2.09	1.11	13.81	1	0.5	1.4	2.2	0.44
Run1_MDS21	Higher Risk	1.22	2.01	2.24	1.93	2.27	2.3	2.71	2.26	2.49	0.35	0.69	1.01	1.54	0.51	0.75	2.27	1.26	1.44	3.38	1.51	24.86	3.16	0.34	1.67	4.16	0.88
Run1_MDS3		1.25	2.37	2.12	2.29	2.7	2.7	2.85	3.87	4.94	0.53	0.86	1.17	1.91	1.02	1.13	1.11	1.03	1.17	3.15	1.49	21.94	3.04	0.7	0.9	4.47	0.84
Run2_MDS13		1.75	2.8	2.86	2.67	3.2	3.43	3.38	4.55	4.38	1.16	1.43	1.16	1.39	3.22	0.41	0.98	1.19	1.28	4.02	1.62	21.49	1.78	0.51	0.59	3.78	0.92
Run2_MDS16		0.88	1.54	1.52	1.37	1.75	1.94	1.79	1.68	1.81	0.81	0.62	0.7	0.84	1.08	-0.14	1.07	1.23	0.6	3.72	0.78	20.29	2.14	0.32	2.16	2.37	0.55
Run2_MDS1		1.03	1.95	1.68	1.53	1.65	1.47	3.11	4.8	4.38	0.89	0.58	0.66	0.68	0.5	0.08	0.48	2.06	0.95	3.22	0.51	34.94	0.86	0.26	1.14	1.92	0.32
Run2_MDS21		1.09	1.77	1.91	1.69	2.09	2.14	2.27	2.02	2.08	0.37	0.6	0.85	1.14	1.42	0.28	0.73	1	1.14	2.85	1.32	17.23	0.84	0.45	1.15	3.38	0.81
Run2_MDS26*		0.75	2.38	2.55	2.28	3.06	2.59	2.57	2.8	2.22	0.71	0.96	0.74	0.71	1.69	0.25	0.48	1.15	0.83	3.03	1.13	9.85	1.61	0.39	0.03	2.13	0.72
Run2_MDS27*		0.97	2.26	2.31	2.03	2.51	2.23	1.86	1.31	0.96	0.91	0.83	0.8	0.74	1.57	-0.25	-0.08	2.12	0.57	3.88	1.23	12.7	0.88	0.21	2.34	2.14	0.52
Run2_MDS2		0.7	1.09	2.18	0.79	1.18	0.84	0.73	0.66	1.68	2.03	0.82	0.62	0.74	3.44	1.16	0.63	0.82	0.95	0.27	0.4	9.92	0.31	0.14	0.66	2.25	0.34
Run2_MDS3		1.19	2.05	2.08	1.99	2.44	2.54	2.4	3.01	3.75	0.74	1.02	1.1	1.63	1.52	0.56	0.62	0.84	0.91	2.08	1.29	20.19	1.09	0.49	0.61	3.94	0.71
Run1_MDS23	Lower Risk	0.84	1.86	2.14	1.44	2.71	2.19	2.24	1.98	1.94	0.42	0.57	0.62	0.58	0.73	0.64	1.03	2.13	1.38	3.48	1.8	17.84	1.77	0.85	1.27	2.84	1.43
Run1_MDS25		1.18	3.87	3.73	2.71	3.25	2.58	3.04	2.77	2.69	1.1	1.05	0.92	1.03	0.82	0.91	2.03	2.37	1.32	4.22	1.86	9.36	2.63	0.78	1.78	2.8	1.06
Run1_MDS5		2.11	3.66	4.98	3.07	4.56	4.48	4.73	3.38	5.2	4.19	1.94	2.19	2.13	4.27	0.49	1.7	3.15	1.84	4.76	1.38	133.6	1.71	0.61	1.06	2.86	0.95
Run1_MDS6		2.17	5.58	4.18	2.35	4.96	5.75	5.81	14.55	6.34	7.12	6.51	3.89	1.85	2.34	-0.1	1.91	2.11	1.64	4.07	1.63	21.51	2.67	0.67	1.54	3.08	0.82
Run1_MDS8		0.85	2.9	2.6	2.59	3.77	2.52	1.59	1.32	1.37	1.28	0.65	0.65	0.76	0.77	0.44	0.75	1.6	1.75	2.84	0.89	12.37	1.89	0.59	1.44	1.99	0.65
Run1_MDS9		0.92	2.19	2.14	2.07	1.94	1.68	1.41	1.43	1.49	0.86	0.87	0.65	0.72	0.17	-0.02	1.7	2.07	0.84	2.39	1.2	13.69	1.13	0.71	1.25	2.87	0.61
Run2_MDS12		0.84	2.92	2.14	2.36	2.4	7.75	9.48	7.95	7.98	0.43	0.55	0.69	0.77	0.85	0	0.7	3.41	0.91	2.43	1.1	33.16	2.85	0.55	1.37	2.29	0.65
Run2_MDS14		0.87	1.69	1.58	1.8	1.79	2.01	1.54	1.93	1.9	0.8	0.63	0.79	0.82	0.46	-0.21	0.98	1.03	0.9	2.36	1.19	38.76	3.1	0.19	0.75	2.55	0.74
Run2_MDS19		1.01	1.55	1.34	1.37	2.39	2.25	1.53	1.25	1.22	0.64	0.81	0.99	1.05	1.47	-0.02	0.46	1.45	0.63	2.86	1.03	21.91	1.89	0.25	0.74	2.88	0.71
Run2_MDS20		0.91	2.52	2.88	1.47	2.3	1.39	1.32	1.12	1.33	0.86	0.67	0.71	0.91	1.5	0.23	1.06	1.14	1.13	4.1	0.72	3.87	1.31	0.25	1.86	2.13	0.63
Run2_MDS28*		0.93	1.78	2.15	1.63	2.59	3.46	5.41	3.32	4.91	0.87	0.81	0.72	0.66	1.81	0.07	0.68	2.78	0.97	4.1	1.68	17.69	1.82	0.59	1.4	3.12	0.85
Run2_MDS5		1.71	3.02	0.95	3.23	3.39	2.65	2.48	2.59	4.07	3.7	1.44	1.76	1.73	3.18	0.05	1.36	1.93	0.5	3.28	0.85	132.45	2.02	0.34	0.74	2.55	0.53
Run1_ICUS18	ICUS	1.16	1.99	2.04	1.99	3.02	2.1	2.01	1.94	1.75	0.88	0.91	0.9	0.96	0.57	0.59	1.22	2.17	0.88	1.93	1.12	11.81	2.07	0.56	1.96	3.2	0.85
Run1_ICUS22		0.74	1.81	2.13	1.67	1.82	1.82	1.87	1.71	1.75	0.36	0.56	0.64	0.58	0.14	0.21	0.94	1.3	0.88	3.25	1.28	6.18	1.68	0.59	1.15	2.44	0.93
Run1_ICUS24		0.94	2.3	2.3	2	2.76	2.67	2.16	2.04	2.16	0.55	0.73	0.73	0.74	0.29	-0.02	1.08	1.52	1	3.11	1.86	8.32	1.64	0.75	1.47	2.72	1.27
Run1_Nl-1	Normal	0.86	2.18	2.79	2.05	1.88	1.61	1.48	1.4	1.32	0.57	0.71	0.78	0.76	0.34	0.24	1.17	1.16	0.87	3.15	1.19	12.3	1.51	0.42	1.59	2.56	0.71
Run1_Nl-3		2.01	3.72	3.01	3.77	4.84	4.43	3.55	3.27	2.7	1.81	1.46	1.87	1.98	2.21	1.01	2.5	2.58	1.6	5.47	2.24	17.01	4.35	0.85	3.45	3.43	1.6
Run1_Nl-4		2.18	4.54	4.34	4.31	5.26	4.9	3.92	3.45	3.09	2.22	1.71	2.03	2.11	2.23	1.13	2.5	2.86	2.27	6.44	2.4	13.56	4.03	0.72	3.56	3.17	1.85
Run1_Nl-6		1.7	2.8	2.72	2.46	3.68	4.28	3.69	3.74	3.24	2.02	1.39	1.42	1.6	1.54	1.03	1.95	2.46	1.87	6.11	2.08	13.31	3.11	0.77	1.81	3.38	1.68
Run2_Nl-3		1.7	3.42	3.8	2.94	3.78	4.13	3.08	2.93	2.59	1.6	1.19	1.61	1.81	1.92	0.57	1.94	2.04	1	4.59	1.67	14.96	3.82	0.57	2.96	2.64	1.11
Run2_Nl-4		2.01	4.38	4.89	3.72	4.94	5.05	3.7	3.23	3.14	1.86	1.43	1.94	2.04	2.45	0.73	2.39	2.14	1.47	6.35	1.94	12.71	3.78	0.49	3.25	2.61	1.43
Run2_Nl-5		1.73	2.97	2.96	2.7	3.47	4.27	3.33	2.9	2.66	1.4	1.07	1.52	1.73	1.51	0.26	1.98	1.97	1.42	5.82	1.81	14.68	3.44	0.62	3.21	2.74	1.12
Run2_Nl-6		1.5	2.52	2.1	2.39	3.58	4.45	3.39	2.94	2.76	1.47	1.09	1.25	1.5	2.31	0.8	1.72	1.89	1.25	5.94	1.66	11.69	2.69	0.39	1.71	2.7	1.36

CD90 Median

Sample	Group	Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	-0.12	0.55	4.15	0.32	0.72	-0.06	-0.14	-0.02	0.06	-0.3	0.24	0.05	0.16	-0.24	-0.34	-0.22	-0.08	-0.41	0.42	-0.44	-0.27	-0.12	-0.85	-0.11	-0.43	-0.45
Run2_MDS15*		-0.2	2.02	4.58	0.91	0.69	-0.03	-0.25	-0.28	-0.24	-0.26	-0.29	-0.32	-0.34	0.12	-0.21	-0.05	-0.21	-0.4	-0.12	-0.39	-0.11	0.33	-0.27	0.21	-0.39	-0.38
Run2_MDS4		-0.33	1.25	5.12	0.47	1.43	-0.29	-0.29	-0.26	-0.23	-0.38	-0.38	-0.37	-0.33	-0.38	-0.38	-0.28	-0.14	-0.2	0.07	-0.41	-0.26	-0.25	-0.31	-0.29	-0.41	-0.41
Run1_MDS21	Higher Risk	-0.32	0.63	4.41	0.31	0.71	0.46	0.01	-0.23	-0.13	-0.4	-0.37	-0.36	-0.32	-0.34	-0.21	-0.23	-0.44	-0.41	0.41	-0.46	-0.26	-0.68	-0.25	-0.25	-0.41	-0.47
Run2_MDS3		-0.29	0.86	4.39	0.48	0.9	0.67	0.14	-0.13	-0.01	-0.36	-0.29	-0.28	-0.18	-0.22	-0.23	-0.19	-0.38	-0.35	0.34	-0.45	-0.23	-0.04	-0.38	-0.34	-0.39	-0.47
Run2_MDS13		-0.25	0.98	4.21	0.6	0.84	0.48	-0.22	-0.15	-0.19	-0.28	-0.22	-0.27	-0.24	0.25	-0.33	-0.25	-0.36	-0.37	-0.21	-0.4	-0.21	-0.44	-0.4	-0.33	-0.38	-0.41
Run2_MDS16		-0.33	1.58	4.59	0.77	1.48	-0.21	-0.33	-0.32	-0.31	-0.36	-0.38	-0.35	-0.33	0.08	-0.39	-0.33	-0.31	-0.41	-0.19	-0.4	-0.23	-0.29	-0.4	-0.32	-0.39	-0.41
Run2_MDS1		-0.36	0.14	4.98	0.01	0.22	-0.28	-0.26	-0.31	-0.29	-0.41	-0.41	-0.38	-0.36	-0.23	-0.3	-0.4	-0.22	-0.31	0.72	-0.42	-0.15	-0.4	-0.34	-0.36	-0.4	-0.42
Run2_MDS21		-0.28	0.57	4.33	0.33	0.66	0.31	-0.3	-0.25	-0.25	-0.28	-0.23	-0.32	-0.3	-0.31	-0.34	-0.32	-0.32	-0.33	0.8	-0.41	-0.29	-0.1	-0.44	-0.26	-0.39	-0.42
Run2_MDS26*		-0.38	0.45	4.36	0.23	0.23	-0.24	-0.33	-0.25	-0.22	-0.39	-0.39	-0.38	-0.37	-0.27	-0.39	-0.37	-0.35	-0.41	0.28	-0.42	-0.3	-0.28	-0.4	-0.17	-0.41	-0.43
Run2_MDS27		-0.27	2.36	5.69	0.96	0.97	0.18	-0.2	-0.3	-0.25	-0.35	-0.36	-0.35	-0.29	-0.01	-0.4	-0.21	-0.25	-0.37	0.18	-0.4	-0.29	-0.27	-0.32	0.74	-0.39	-0.4
Run2_MDS2		-0.34	0.43	4.38	0.15	0.41	-0.11	-0.32	-0.33	-0.2	-0.15	-0.4	-0.37	-0.35	0.2	-0.41	-0.21	-0.24	-0.37	-0.35	-0.44	-0.36	-0.31	-0.48	-0.35	-0.45	-0.45
Run2_MDS3		-0.22	0.84	4.43	0.51	0.99	0.45	-0.11	-0.16	-0.07	-0.22	-0.04	-0.08	0.17	-0.2	-0.29	-0.28	-0.34	-0.33	0.2	-0.39	-0.26	-0.06	-0.29	-0.3	-0.36	-0.41
Run1_MDS23	Lower Risk	-0.29	1.69	4.66	0.67	0.64	-0.28	-0.21	-0.2	-0.2	-0.04	-0.17	-0.29	-0.32	-0.31	-0.31	-0.21	-0.31	-0.37	0.48	-0.46	-0.26	-0.36	-0.44	-0.17	-0.44	-0.46
Run1_MDS25		-0.39	3.39	5.96	-0.29	0.67	-0.28	-0.38	-0.36	-0.35	-0.39	-0.46	-0.42	-0.39	-0.4	-0.36	-0.02	-0.44	-0.37	0	-0.44	-0.3	-0.32	-0.3	-0.34	-0.42	-0.47
Run1_MDS5		-0.29	1.52	4.5	0.65	0.96	-0.11	-0.22	-0.13	0.07	-0.34	-0.38	-0.33	-0.3	-0.18	-0.32	-0.26	-0.23	-0.4	-0.24	-0.43	0.43	-0.1	-0.38	-0.38	-0.41	-0.43
Run1_MDS6		-0.27	7.33	7.49	1.08	4.77	0.62	-0.03	0.16	0.11	-0.31	-0.28	-0.25	-0.25	0.03	-0.4	0.04	-0.31	-0.43	1.6	-0.44	-0.26	-0.16	-0.34	1.47	-0.42	-0.46
Run1_MDS8		-0.39	2.89	6.39	1.18	1.16	-0.09	-0.21	-0.28	-0.31	-0.44	-0.42	-0.42	-0.38	-0.38	-0.4	-0.26	-0.46	-0.47	-0.53	-0.47	-0.28	0.24	-0.4	-0.44	-0.42	-0.48
Run1_MDS9		-0.39	2.17	5.8	0.67	1.57	0.21	-0.38	-0.41	-0.36	-0.38	-0.39	-0.4	-0.38	-0.37	-0.4	-0.26	-0.43	-0.43	-0.12	-0.47	-0.33	-0.4	-0.4	-0.41	-0.44	-0.49
Run2_MDS12		-0.3	0.65	4.65	0.44	0.53	-0.15	-0.14	-0.13	-0.13	-0.3	-0.32	-0.3	-0.29	-0.33	-0.4	-0.33	-0.3	-0.37	0.5	-0.39	-0.24	-0.2	-0.4	-0.3	-0.37	-0.41
Run2_MDS14		-0.26	5.08	53.7	1.35	0.84	-0.27	-0.35	-0.18	-0.16	-0.29	-0.31	-0.23	-0.24	-0.31	-0.36	-0.19	-0.34	-0.4	1.19	-0.39	-0.17	-0.12	-0.43	-0.42	-0.38	-0.39
Run2_MDS19		-0.34	1.59	4.36	0.86	0.97	-0.2	-0.32	-0.32	-0.32	-0.33	-0.36	-0.34	-0.33	-0.32	-0.39	-0.37	-0.36	-0.4	0.19	-0.4	-0.26	-0.28	-0.34	-0.39	-0.39	-0.41
Run2_MDS20		-0.33	2.1	5.67	0.44	1.25	-0.26	-0.32	-0.26	-0.26	-0.34	-0.34	-0.31	-0.29	-0.23	-0.31	-0.3	-0.34	-0.37	0	-0.41	-0.28	-0.39	-0.4	-0.33	-0.39	-0.41
Run2_MDS28*		-0.24	1.56	5.66	0.92	1.07	-0.05	-0.2	-0.17	-0.12	-0.25	-0.29	-0.22	-0.24	-0.25	-0.38	-0.23	-0.29	-0.35	-0.05	-0.4	-0.26	-0.18	-0.38	-0.11	-0.39	-0.42
Run2_MDS5		-0.28	1.78	4.43	0.47	0.36	-0.12	-0.23	-0.15	0	-0.28	-0.35	-0.31	-0.28	-0.12	-0.38	-0.28	-0.12	-0.39	-0.23	-0.4	0.23	-0.33	-0.39	-0.36	-0.42	-0.4
Run1_ICUS18	ICUS	-0.34	1.44	5.68	0.73	1.43	-0.34	-0.31	-0.26	-0.27	-0.33	-0.34	-0.35	-0.32	-0.38	-0.4	-0.27	-0.35	-0.49	-0.22	-0.46	-0.33	-0.38	-0.46	-0.33	-0.42	-0.47
Run1_ICUS22		-0.37	1.5	5.28	0.6	0.57	-0.28	-0.34	-0.33	-0.3	-0.34	-0.38	-0.38	-0.37	-0.34	-0.34	-0.3	-0.36	-0.44	-0.18	-0.45	-0.39	-0.34	-0.41	-0.44	-0.43	-0.46
Run1_ICUS24		-0.36	2.28	5.48	1.03	0.6	-0.2	-0.29	-0.32	-0.3	-0.37	-0.36	-0.35	-0.35	-0.32	-0.35	-0.31	-0.39	-0.43	1.1	-0.46	-0.35	-0.26	-0.38	-0.35	-0.45	-0.46
Run1_Nl-1	Normal	-0.38	2.04	4.02	1.11	0.33	-0.26	-0.28	-0.27	-0.26	-0.39	-0.39	-0.37	-0.37	-0.28	-0.25	-0.3	-0.38	-0.45	1.92	-0.47	-0.34	-0.35	-0.43	-0.33	-0.45	-0.47
Run1_Nl-3		-0.27	2.18	4.97	0.98	1.23	-0.02	0.22	0.51	0.1	-0.34	-0.32	-0.24	-0.23	-0.28	-0.38	-0.14	-0.36	-0.47	0.19	-0.45	-0.25	-0.31	-0.43	-0.35	-0.43	-0.46
Run1_Nl-4		-0.24	2.1	4.92	1.24	1.16	0.03	0.48	0.73	0.27	-0.3	-0.31	-0.23	-0.2	-0.24	-0.35	-0.14	-0.32	-0.44	0.54	-0.43	-0.29	-0.25	-0.39	-0.33	-0.43	-0.44
Run1_Nl-6		-0.25	1.96	4.89	0.79	0.74	0.1	0.37	0.53	0.24	-0.31	-0.28	-0.23	-0.22	-0.27	-0.37	-0.17	-0.34	-0.45	0.96	-0.44	-0.32	-0.28	-0.39	-0.27	-0.43	-0.45
Run2_Nl-3		-0.24	1.9	4.68	0.95	0.84	-0.06	0.01	0.27	-0.03	-0.31	-0.28	-0.19	-0.16	-0.31	-0.35	-0.16	-0.3	-0.4	-0.27	-0.41	-0.29	-0.31	-0.41	-0.32	-0.4	-0.41
Run2_Nl-4		-0.19	1.96	4.98	0.83	0.99	-0.04	0.35	0.49	0.2	-0.28	-0.27	-0.15	-0.09	-0.23	-0.33	-0.09	-0.29	-0.4	0.37	-0.39	-0.27	-0.23	-0.37	-0.33	-0.39	-0.39
Run2_Nl-5		-0.2	1.85	5.07	0.74	0.8	-0.08	0.19	0.48	0.19	-0.32	-0.28	-0.15	-0.06	-0.26	-0.35	-0.12	-0.3	-0.39	0.44	-0.41	-0.27	-0.29	-0.42	-0.3	-0.4	-0.42
Run2_Nl-6		-0.25	1.65	5.05	0.88	0.8	-0.04	0.17	0.28	0.17	-0.3	-0.29	-0.24	-0.21	-0.25	-0.34	-0.27	-0.34	-0.4	0.73	-0.4	-0.3	-0.32	-0.36	-0.27	-0.38	-0.41

CD33 Median

		Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	0.95	-0.08	-0.06	-0.16	0.32	-0.1	13.79	32.58	40.96	2.92	4.54	6.59	7.59	-0.39	-0.44	-0.23	0.66	-0.31	-0.44	-0.44	-0.37	2.22	12.15	-0.26	-0.44	-0.43
Run2_MDS15*		12.74	9.19	1.67	1.45	1.61	10.57	17.17	38.24	51.85	6.31	7.5	10.82	10.06	6.68	6.51	15.05	24.08	-0.21	0.03	-0.39	-0.3	12.99	13.78	1.32	-0.39	-0.39
Run2_MDS4		3.96	7.75	1.48	1.53	0.06	22.5	55.32	70.77	69.28	5.79	5.56	6.27	7.36	-0.23	-0.35	-0.21	0.47	0.46	-0.29	-0.39	-0.25	2.05	7.88	0.04	-0.39	-0.4
Run1_MDS21	Higher Risk	0.22	0.66	0.56	0.35	0.81	1.24	8.38	51.54	48.47	0.7	2.38	5.51	7.19	-0.35	-0.23	0.48	-0.4	-0.39	-0.26	-0.46	-0.31	3.57	15.04	-0.35	-0.44	-0.46
Run1_MDS3		0.47	1.83	0.64	0.73	1.17	2.36	6.1	40.93	49.38	0.9	2.22	5.44	6.89	-0.29	-0.25	0.28	-0.36	-0.29	0.4	-0.44	-0.27	4.07	19.02	-0.33	-0.43	-0.45
Run2_MDS13		0.98	0.69	0.52	0.36	0.79	1.6	25.61	45.99	50.31	2.35	3.98	6.34	6.53	-0.19	-0.29	-0.21	-0.32	-0.32	-0.25	-0.41	-0.38	8.99	11.97	-0.21	-0.39	-0.41
Run2_MDS16		1.98	2.72	1	1.07	1.15	11.78	29.49	53.1	55.89	2.01	3.23	3.65	4.46	1.22	-0.37	0.9	-0.18	-0.34	-0.3	-0.41	-0.35	2.96	7.17	-0.29	-0.41	-0.41
Run1_MDS1		-0.15	-0.01	-0.07	-0.2	-0.1	0.28	2.95	7.87	11.67	-0.2	-0.28	-0.06	0.17	-0.39	-0.4	-0.32	-0.07	-0.28	-0.24	-0.41	-0.29	0.86	0.94	-0.33	-0.4	-0.41
Run1_MDS21		0.14	0.42	0.38	0.19	0.73	1.04	17.36	49.95	51.68	0.97	2.35	5.47	6.26	-0.32	-0.35	-0.32	-0.3	-0.34	-0.21	-0.41	-0.4	6.64	14.1	-0.3	-0.41	-0.41
Run2_MDS26*		0.37	0.7	0.57	0.42	0.96	0.55	4.31	25.26	33.01	0	0.36	1.19	1.55	-0.12	-0.4	-0.38	-0.09	-0.37	-0.63	-0.4	-0.39	1.85	4.19	0.4	-0.4	-0.41
Run2_MDS27		-0.16	0.51	0.31	0.3	0.97	1.14	4.65	4.09	5.12	0.14	0.54	0.49	0.51	0.44	-0.41	-0.35	-0.28	-0.27	-0.19	-0.4	-0.37	1.98	2.96	-0.21	-0.4	-0.39
Run2_MDS2		1.22	0.25	0.56	0	0.42	0.7	26.73	27.26	37.46	0.84	0.88	2.48	3.43	1.41	1.45	-0.05	-0.06	0.31	-0.15	-0.41	-0.37	3.79	4.6	-0.36	-0.4	-0.41
Run2_MDS3		0.72	0.75	0.54	0.5	1.08	2.36	16.33	34.73	37.35	2.07	3.76	6.36	7.04	-0.21	-0.31	-0.3	-0.33	-0.3	-0.23	-0.4	-0.27	4.3	15.7	-0.24	-0.4	-0.4
Run1_MDS23	Lower Risk	0.48	-0.16	-0.23	-0.28	0.62	2.55	14.96	24.39	31.25	-0.18	0.12	0.58	0.75	-0.29	-0.24	1.02	0.68	-0.31	-0.17	-0.47	-0.39	1.02	4	-0.25	-0.46	-0.47
Run1_MDS25		2.82	2.75	-0.07	2.16	0.52	9.47	20.25	24.09	23.2	0.96	1.75	2.4	3.09	-0.21	0.27	2.72	1.2	-0.29	-0.14	-0.44	-0.35	3.43	8.66	-0.44	-0.46	-0.43
Run1_MDS5		2.23	3.98	1.6	1.43	2.28	5.29	30.42	25.1	41.38	2.01	2.02	2.62	3.16	0.73	-0.22	0.67	1.21	-0.35	-0.15	-0.42	-0.15	10.22	16.04	-0.29	-0.41	-0.43
Run1_MDS6		5.3	7.1	1.79	1.33	2.68	11.54	31.58	47.76	52.26	3.36	5.52	7.23	6.28	2.68	-0.39	3.47	-0.22	-0.32	-0.05	-0.45	-0.34	8.06	9.22	-0.11	-0.44	-0.46
Run1_MDS8		0.36	0.46	0.04	0.56	0.02	0.81	1.5	5.23	8.61	0.02	0.54	0.49	0.66	-0.38	-0.34	-0.02	-0.45	-0.4	-0.15	-0.48	-0.36	4.22	2.88	-0.36	-0.46	-0.49
Run1_MDS9		-0.15	0.45	0.37	0.11	0.51	0.81	2.5	5.15	5.51	-0.14	0.11	-0.03	0.08	-0.34	-0.4	-0.02	-0.29	-0.31	-0.42	-0.47	-0.4	1.74	2.47	-0.35	-0.46	-0.47
Run2_MDS12		1.95	2.16	0.65	0.65	1.01	14.71	22.49	28.47	34.06	0.29	1.55	2.22	2.11	-0.33	-0.4	0	11.03	-0.25	-0.38	-0.41	-0.37	2.33	6.61	-0.01	-0.41	-0.41
Run2_MDS14		1.97	1.28	0.42	1.28	0.78	6.72	14.57	20.87	27.09	0.89	1.68	2.42	2.26	-0.27	-0.36	2.17	-0.2	-0.32	-0.28	-0.4	-0.27	2.52	4.04	-0.41	-0.41	-0.4
Run2_MDS19		1.79	0.79	0.18	0.35	1.39	14.59	28.38	32.84	37.73	0.97	1.93	2.27	2.24	-0.33	-0.36	-0.22	0.25	-0.34	-0.37	-0.41	-0.33	2.43	5.62	-0.39	-0.39	-0.41
Run2_MDS20		1.33	0.65	0.65	0.41	1.63	10.04	21.19	33.91	33.52	0.65	1.69	2.32	2.7	0.27	-0.25	1.81	-0.15	-0.18	0.09	-0.41	-0.28	4.04	4.31	-0.32	-0.4	-0.41
Run2_MDS28*		2.7	0.8	0.24	0.56	0.9	11.27	21	28.03	40.2	0.61	1.34	2.57	3.32	0.08	-0.32	2.12	6.28	-0.31	-0.2	-0.4	-0.36	15.82	8.16	-0.24	-0.41	-0.4
Run2_MDS5		1.82	5.4	0.26	0.95	1.69	4.73	22.83	22.27	42.33	1.6	1.43	1.99	2.54	0.12	-0.19	1.05	0.33	-0.35	-0.22	-0.38	-0.17	11.61	13.98	-0.26	-0.37	-0.38
Run1_ICUS18	ICUS	4.43	1.64	1.38	0.81	1.29	15.18	36.2	68.97	67.55	2.28	4.52	5.46	5.43	-0.21	-0.24	6.42	-0.15	-0.37	-0.06	-0.46	-0.39	3.61	7.24	-0.37	-0.46	-0.46
Run1_ICUS22		2.39	1.09	0.75	0.59	1.18	8.06	17.19	29.93	33.1	0.48	1.51	2.37	2.75	-0.31	-0.25	2.85	-0.1	-0.31	-0.34	-0.45	-0.37	5.12	5.67	-0.41	-0.45	-0.45
Run1_ICUS24		1.29	0.06	-0.08	-0.01	0.53	4.3	15.01	19.68	24.77	0.33	1.14	1.93	2.25	-0.38	-0.42	0.19	-0.26	-0.27	-0.34	-0.46	-0.44	2.32	4.23	-0.35	-0.46	-0.46
Run1_Nl-1	Normal	5.66	1.68	0.95	1.12	0.76	12.87	40.24	66.9	90.29	2.09	4.3	6.52	7.56	-0.26	-0.26	6.39	-0.26	-0.34	-0.09	-0.45	-0.39	3.41	9.19	-0.34	-0.45	-0.46
Run1_Nl-3		1.33	1.46	1.19	0.72	1.4	9.78	19.63	26.26	32.35	0.91	1.76	1.78	1.57	-0.15	-0.27	2.03	-0.13	-0.37	-0.15	-0.46	-0.34	2.43	4.58	-0.38	-0.46	-0.47
Run1_Nl-4		1.44	1.33	0.5	0.73	1.54	8.82	21.22	27.35	32.85	0.89	1.76	1.79	1.62	-0.04	-0.14	2.15	-0.16	-0.32	0.47	-0.46	-0.36	2.81	5.52	-0.31	-0.46	-0.45
Run1_Nl-6		2.43	1.38	0.79	0.84	1.04	11.38	37.04	51.06	59.73	1.28	2.8	3.35	3.01	-0.2	-0.31	3	-0.22	-0.18	-0.04	-0.46	-0.38	4.09	10.91	-0.46	-0.47	-0.45
Run2_Nl-3		1.15	1.09	0.72	0.67	1.36	8.63	18.2	23.78	29.25	0.93	1.41	1.47	1.41	-0.25	-0.3	1.41	-0.14	-0.35	-0.3	-0.41	-0.35	1.81	3.54	-0.32	-0.41	-0.41
Run2_Nl-4		1.36	0.98	0.24	0.65	1.1	9.38	20.04	24.9	28.35	0.93	1.52	1.64	1.54	-0.19	-0.21	1.75	-0.13	-0.29	0.18	-0.4	-0.35	2.21	3.91	-0.32	-0.41	-0.4
Run2_Nl-5		1.23	1.02	0.7	0.7	0.83	9.78	20.99	30.26	33.04	0.83	1.82	2	1.84	-0.1	-0.31	1.76	-0.2	-0.34	-0.07	-0.41	-0.35	1.87	5.6	-0.36	-0.42	-0.41
Run2_Nl-6		2.4	0.94	0.61	0.46	0.96	11.49	35.76	47.23	52.68	1.27	2.51	3.08	2.78	-0.18	-0.33	1.42	-0.21	-0.21	-0.15	-0.39	-0.34	3.08	7.8	-0.34	-0.41	-0.39

Supplemental Table 3: Median expression of each surface marker on each cell population.

CD64 Medians

	Group	Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	1.53	0.37	0.46	0.28	0.59	0.34	26.2	60.94	82.28	1.79	9.88	12.86	13.37	-0.16	-0.29	-0.07	1.37	2.86	0.84	-0.24	-0.22	2.65	1.75	-0.06	-0.26	-0.19
Run2_MDS15*		3.6	2.16	1.32	0.93	0.73	2.8	11.82	6.91	18.89	3.66	3.34	2.45	1.59	2.04	1.93	3.65	5.72	3.02	2.1	-0.19	-0.09	3.33	0.28	0.54	-0.17	-0.2
Run2_MDS4		10.55	3.11	2.41	1.79	1.97	13.5	99.7	152.64	152.41	29.96	26.6	30.03	55.57	0	-0.17	0.25	2.85	3.07		-0.14	-0.13	0.02	1.92	-0.19	-0.12	-0.14
Run1_MDS21	Higher Risk	0.7	1.63	1.63	1.49	1.76	1.58	8.11	139.72	97.78	1.36	7.1	4.02	4.11	-0.21	-0.11	1.02	1.21	2.97	0.23	-0.3	0.11	2.47	-0.05	-0.21	-0.28	-0.31
Run2_MDS3		0.8	1.12	0.91	1.14	1.38	1.23	5.97	160.45	165.91	1.59	6.53	3.95	5.05	-0.16	-0.02	1.14	1.47	3.24	0.67	-0.28	-0.04	3.13	0	-0.22	-0.28	-0.27
Run2_MDS13		1.12	2.26	2.39	2.07	2.36	2.32	61.09	170.55	167.68	1.74	9.44	3.85	3.28	0.23	-0.21	-0.11	0.95	2.39	1.35	-0.27	-0.24	3.85	0.22	-0.13	-0.22	-0.29
Run2_MDS16		1.1	1.61	1.69	1.3	1.51	5.34	45.53	124.06	97.85	39	35.25	6.29	1.81	1.08	-0.28	0.69	-0.07	2.2	0.29	-0.28	-0.23	2.81	-0.26	-0.15	-0.3	-0.28
Run2_MDS1		1.05	2.74	2.25	2.03	2.5	3.3	48.6	176.54	168.85	4.27	2.29	2.35	2.19	0.37	-0.12	-0.11	0.89	1.95	0.35	-0.25	-0.21	1.45	-0.04	0.06	-0.22	-0.26
Run2_MDS21		0.67	1.93	2.06	1.78	2.19	1.98	44.7	127.47	98.74	1.42	8.28	4.63	3.7	-0.11	-0.27	-0.24	1.02	2.52	0.26	-0.28	-0.25	3.23	-0.18	-0.19	-0.25	-0.3
Run2_MDS26*		0.72	1.52	1.62	1.34	1.83	0.83	2.95	25.92	58.39	2.48	2.83	1.36	1.26	-0.07	-0.3	-0.31	0.37	1.91	-0.51	-0.29	-0.25	2.26	-0.31	2.06	-0.29	-0.29
Run2_MDS27		1.16	2.67	2.87	2.28	3.01	3.17	69.32	120.54	99.76	29.17	44.93	16.03	6.04	1.89	-0.25	-0.21	0.15	2.91	0.39	-0.21	-0.21	3.45	-0.28	-0.09	-0.22	-0.19
Run2_MDS2		10.02	2.66	4.74	2.09	2.76	2.75	294.6	352.81	415.89	9.22	12.21	27.16	30.06	3.67	6.46	1.08	1.62	4.82	2.76	-0.21	-0.24	6.57	-0.16	-0.22	-0.16	-0.22
Run2_MDS3		0.95	1.97	1.78	1.82	2.24	2.19	44.69	131.15	127.95	2	9.09	5.54	4.5	0.21	-0.17	-0.19	1.14	2.58	0.38	-0.26	-0.21	7.37	0.01	-0.13	-0.25	-0.27
Run1_MDS23	Lower Risk	13.41	2.63	1.88	2.78	3.62	8.59	83.09	154.04	183.27	17.97	20	14.22	13.82	0.5	0.74	14.56	5.33	3.14	0.57	-0.25	-0.16	3.65	-0.22	0.96	-0.15	-0.27
Run1_MDS25		2.93	2.29	1.2	1.57	2.76	12.09	76.53	94.62	87.47	14.67	15.66	2.35	2.96	0.92	1.87	3.93	4.2	3.72	1.77	-0.11	-0.08	3.73	-0.18	-0.18	-0.09	-0.14
Run1_MDS5		284.42	6.43	0.95	6.34	2.33	3.98	354.97	365.99	540.94	254.2	259.34	333.53	350.11	14.78	0.84	5.85	6.89	2.57	1.4	-0.1	0.54	4.84	0.79	0.83	0.3	-0.17
Run1_MDS6		10.26	3.18	3.03	2.79	3.11	6.89	62.27	127.31	129.62	38.82	43.26	27.23	10.27	2.31	-0.09	5.47	1.41	2.98	1.31	-0.23	-0.16	3.16	-0.07	0.13	-0.19	-0.26
Run1_MDS8		3.58	2.1	1.45	1.71	1.89	4.26	33.45	119.89	118.41	13.98	19.96	5.35	4.43	-0.1	0.12	0.82	0.22	2.42	0.99	-0.31	-0.16	2.79	-0.3	-0.08	-0.31	-0.34
Run1_MDS9		4.46	2.75	3.01	2.33	2.94	3.28	11.01	59.82	72.19	20.24	23.76	9.75	7.01	-0.02	-0.06	2.86	-0.06	2.86	0.82	-0.32	-0.28	3.73	-0.25	-0.02	-0.3	-0.34
Run2_MDS12		16.66	4.26	3.16	3.59	3	34.89	137.78	169.06	175.79	17.38	38.43	22.84	7.44	-0.15	-0.3	1.24	34.86	2.99	-0.04	-0.27	-0.12	2.3	-0.16	3.82	-0.24	-0.29
Run1_MDS14		1.96	1.6	0.4	3.18	0.76	6.41	23	150.6	140.63	26.21	29.89	18.68	1.72	-0.17	-0.3	2.16	1.96	2.57	-0.1	-0.23	-0.2	1.8	-0.22	-0.32	-0.25	-0.22
Run2_MDS19		1.74	1.76	2.21	1.15	2.65	7.24	32.41	44.69	38.35	11.2	11.08	3.32	0.9	-0.01	-0.23	-0.11	0.86	2.44	0.17	-0.25	-0.15	2.62	-0.29	-0.24	-0.26	-0.25
Run2_MDS20		3.13	1.92	1.78	1.49	2.82	10.43	55.12	201.84	194.69	23.24	33.36	14.13	5.23	2.67	1.16	3.92	0.35	3.2	1.82	-0.26	-0.04	3.9	-0.23	-0.17	-0.2	-0.27
Run2_MDS28*		14.68	2.47	2.24	1.73	2.31	22.63	81.45	117.31	163.87	26.61	31.45	21.94	8.81	0.7	-0.13	9.24	11.3	2.65	-0.01	-0.26	-0.21	11.76	-0.23	0.62	-0.24	-0.28
Run2_MDS5		298.94	5.49	0.59	3.01	2.26	4.67	307.22	382.89	562.18	290.28	257.41	341.85	354.91	3.61	0.98	176.3	3.04	1.82	1.38	-0.15	0.36	3.15	0.55	0.79	0.01	-0.21
Run1_ICUS18	ICUS	2.83	2.16	2.84	1.5	1.86	5.47	18.67	63	57.85	25.46	34.11	12.72	3.24	0.35	0.11	4.25	0.72	2.98	0.62	-0.26	-0.23	3.16	-0.26	-0.24	-0.27	-0.26
Run1_ICUS22		6.57	2.22	2.24	2.07	2.62	8.84	45.67	139.7	134.27	30.12	37.27	19.61	5.48	0.73	0.91	7.32	3.58	3.43	0.67	-0.24	-0.27	6.31	-0.27	-0.08	-0.2	-0.25
Run1_ICUS24		9.52	1.69	1.16	1.74	2.42	6.49	99.29	136.16	119.49	36.01	51	29.52	8.18	-0.1	-0.24	1.93	2.94	3.53	-0.03	-0.27	-0.28	3.12	-0.2	-0.15	-0.27	-0.26
Run1_Nl-1	Normal	4.53	1.06	0.49	1.1	1.68	5.17	51.45	97.03	88.65	30.81	37.1	18.74	3.36	-0.12	-0.19	4.17	2.19	2.59	0.23	-0.33	-0.26	2.21	-0.15	-0.15	-0.34	-0.33
Run1_Nl-3		2.51	1.42	1.13	1.41	1.86	9.2	62.9	69.06	52.57	16.27	17.5	4.99	1.02	0.62	0.6	2.73	2.4	2.36	0.66	-0.3	-0.22	2.5	-0.3	-0.18	-0.3	-0.27
Run1_Nl-4		4.98	3.08	1.59	3.04	2.71	9.09	79.55	75.28	53.74	19.55	22.29	8.93	1.97	0.77	0.28	6.43	2.61	3.29	1.13	-0.29	-0.23	2.89	-0.18	-0.08	-0.3	-0.27
Run1_Nl-6		10.22	1.34	1.21	0.86	1.71	8.3	140.23	163.41	143.18	50.24	58.52	31.31	6.16	0.29	-0.09	10.27	3.21	3.32	0.64	-0.26	-0.24	3.67	-0.2	-0.03	-0.21	-0.27
Run2_Nl-3		1.96	1.29	1.08	1.02	1.87	8.68	60.7	62.65	50.77	14.6	12.21	2.3	0.71	0.14	0.06	1.17	2.01	2.04	0.3	-0.29	-0.25	2.05	-0.21	-0.16	-0.29	-0.29
Run2_Nl-4		4.25	2.39	2.14	1.89	2.18	11.72	71.99	65.56	49	18.81	17.4	6.02	1.39	0.41	0.09	3.7	2.29	2.91	0.99	-0.27	-0.27	2.85	-0.19	-0.07	-0.29	-0.27
Run2_Nl-5		2.09	1.08	1.19	0.87	1.98	11.91	91.31	78.89	62.34	14.74	19.59	5.69	1.28	0.31	-0.23	1.85	2	1.68	0.21	-0.3	-0.26	1.34	-0.15	-0.23	-0.31	-0.3
Run2_Nl-6		9.92	1.22	0.99	0.96	1.59	9.48	143.8	178.25	158.49	49.81	58.59	27.91	4.88	0.27	-0.19	3.26	2.56	2.89	0.58	-0.25	-0.26	2.95	-0.24	-0.08	-0.25	-0.26

Supplemental Table 3: Median expression of each surface marker on each cell population.

CD16 Median

	Group	Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	1	0.11	0.14	0.03	0.55	0.04	0.41	1.07	1.63	1.05	1.52	3.08	12.61	0.08	0.2	0.6	0.87	-0.06	0.1	0.17	4.55	0.07	0.5	1.63	0.04	0.35
Run2_MDS15*		0.92	-0.22	-0.21	-0.25	-0.09	-0.04	0.12	4.98	2.01	0.36	0.74	2.06	24.68	-0.14	1.04	1.49	4.69	-0.15	-0.15	0.31	2.78	0.2	0.49	1.08	0.13	0.46
Run2_MDS4		0.84	-0.19	-0.18	-0.15	-0.38	-0.26	-0.21	-0.03	0.46	0.52	1.18	4.8	19.88	-0.13	0.07	0.32	0.08	-0.12	-0.26	-0.04	0.14	-0.13	1.21	3.09	-0.1	0.05
Run1_MDS21	Higher Risk	0.85	0.16	0.16	0.09	0.17	0.18	0.33	0.7	2.04	0.82	1.62	4.27	14.48	0.28	0.75	8.31	0.07	-0.02	-0.45	0.53	2.06	0.91	0.99	6.63	0.37	0.6
Run1_MDS3		0.83	0.07	-0.07	-0.01	0.1	0.17	0.2	0.61	1.56	0.9	1.86	3.38	13.97	0.27	0.66	3.4	0.14	-0.01	0.08	0.55	3.47	1.13	1.22	4.63	0.29	0.67
Run2_MDS13		0.46	-0.22	-0.22	-0.17	-0.04	-0.15	0.11	0.33	1	0.75	1.47	2.91	13.65	-0.11	0.07	0.3	-0.1	-0.21	-0.21	0.19	1.82	1	0.64	2.31	0.04	0.27
Run2_MDS16		6.44	-0.1	-0.12	-0.16	-0.03	0.65	2.68	0.42	0.5	1.29	2.46	5.58	25.06	-0.1	0.12	5.92	0.49	-0.16	-0.17	0.25	84.39	0.66	0.61	5.36	0.11	0.28
Run2_MDS1		0.81	-0.02	-0.09	-0.08	-0.03	-0.12	-0.07	0.22	0.7	0.27	0.91	3.89	16.07	-0.01	0.31	0.22	0.76	0.14	-0.13	0.25	2.65	0.2		3.84	-0.01	0.3
Run2_MDS21		0.5	-0.16	-0.09	-0.17	-0.14	-0.13	0.15	0.4	1.29	0.87	1.59	3.44	14.97	-0.08	-0.08	0.09	-0.11	-0.15	-0.08	0.24	0.7	1.77	0.51	4.6	0.12	0.31
Run2_MDS26*		1.77	0	-0.02	-0.04	0.03	0.02	0.74	0.64	1.4	0.39	0.79	3.61	13.46	0.24	0.33	-0.03	0.59	-0.16	-0.13	0.24	2.12	-0.08	0.91	3.34	0.05	0.34
Run2_MDS27		0.96	-0.14	-0.14	-0.18	0.15	-0.02	0.88	0.37	0.72	1.22	1.78	5.15	26.92	-0.03	-0.03	-0.02	0.47	-0.17	-0.21	0.11	36.73	25.67	0.3	3.92	0	0.24
Run2_MDS2		2.14	-0.29	-0.29	-0.32	-0.25	-0.17	-0.06	0.34	0.31	0.61	0.97	4.4	16.36	0.35	1.96	2.51	0.99	-0.22	0.17	0.13	9.68	1.71	0.45	4.28	0.01	0.13
Run2_MDS3		0.51	-0.15	-0.2	-0.13	-0.18	-0.15	0.16	0.29	1.36	0.92	1.78	2.71	13.34	-0.13	-0.04	-0.09	-0.1	-0.17	-0.31	0.25	2.15	0.44	0.89	3.47	0.1	0.32
Run1_MDS23	Lower Risk	3.37	0.09	0.06	0.17	0.01	-0.1	0.18	0.44	0.91	1.17	1.76	4.64	16.71	0.51	0.75	2.84	0.87	-0.15	0.03	0.62	1.28	0.09	1.05	4.2	0.36	0.72
Run1_MDS25		21.72	6.18	-0.08	8.92	0.11	0.72	0.51	0.63	1.42	1.37	2.68	6.65	30.26	1.05	3.02	19.02	0.8	-0.06	-0.17	0.52	22.21	0.24	0.94	5.44	0.41	0.66
Run1_MDS5		19.56	3.69	-0.9	1.41	-0.03	-0.09	0.65	1.47	1.55	1.3	7.26	6.19	36.25	1.42	1.42	6.64	5.83	0.35	-0.14	0.56	9.43	1.33	3.1	8	0.34	0.64
Run1_MDS6		16.49	-0.07	-0.17	-0.2	-0.15	-0.08	0.26	0.43	1.07	1.71	2.37	4.99	32.47	0.13	0.36	15.15	0.45	-0.06	-0.08	0.54	3.82	1.05	1.51	8	0.47	0.6
Run1_MDS8		14.19	1.53	1.53	0.84	-0.03	0.88	2.1	0.61	1.16	1.63	2.67	6.74	23.27	0.46	0.79	5.29	1.13	0.15	-0.19	0.4	12.88	1.76	1.32	6.71	0.31	0.43
Run1_MDS9		5.98	0.16	0.06	0.13	0.17	0.69	10.53	1.13	1.52	1.68	2.41	5.97	20.87	0.37	0.7	11.19	1.33	0.09	0.05	0.66	20.94	16.43	1.33	4	0.55	0.72
Run2_MDS12		3.21	-0.32	-0.27	-0.3	-0.13	-0.29	-0.04	0.28	0.72	0.62	1.29	4.12	15.31	-0.16	-0.03	0.61	0.23	-0.1	-0.16	0.05	0.56	-0.16	0.29	4.5	-0.02	0.12
Run2_MDS14		30.99	2.85	0.62	2.79	0.2	0.26	0.62	0.2	0.64	1.52	2.48	4.64	50.15	-0.14	-0.08	37.39	0.28	-0.1	-0.14	0.26	2.12	-0.08	0.91	3.34	0.06	0.38
Run2_MDS19		6.5	0.08	0.38	0	-0.16	-0.13	0.18	0.3	0.67	1.08	2.21	4.89	24.2	-0.14	-0.06	0.14	0.73	-0.13	0.07	0.4	7.73	0.01	0.5	7.24	0.09	0.51
Run2_MDS20		11.2	-0.12	-0.32	-0.3	0.03	1.31	3.46	0.22	0.58	1.12	1.9	5.29	44.31	-0.04	0.61	24.94	0.68	-0.14	-0.14	0.38	1.76	36.05	0.64	5.11	0.15	0.4
Run2_MDS28*		6.6	-0.01	-0.07	-0.03	-0.07	-0.25	-0.15	0.23	0.5	1.34	1.93	4.97	23.89	0.12	0.19	5.91	0.64	-0.14	-0.15	0.24	1.88	1.15	0.8	4.61	0.11	0.37
Run2_MDS5		16.72	2.74	-0.04	0.31	-0.09	-0.04	0.5	0.88	0.87	0.88	6.58	5.72	32.49	-0.23	0.83	7.54	4.57	-0.15	-0.18	0.22	8.12	0.54	0.64	2.92	-0.02	0.3
Run1_ICUS18	ICUS	27.18	0.82	-0.31	0.25	0.32	1.95	1.62	0.47	0.98	1.59	2.56	6.05	36.28	0.56	0.84	42.41	1.33	-0.03	-0.18	0.77	29.78	0.4	0.99	6.07	0.59	0.81
Run1_ICUS22		18.61	0.35	0.7	-0.06	0.3	0.01	0.57	0.46	1.1	1.93	2.56	5.5	40.84	0.36	0.9	27.38	0.74	-0.08	0.05	0.72	3.63	1.94	1.18	5.66	0.48	0.81
Run1_ICUS24		5.96	0.42	0.47	0.36	0.17	-0.04	0.21	0.53	1.13	1.84	2.14	4.97	23.51	0.17	0.46	9.98	0.35	-0.1	-0.11	0.56	4.38	0.07	1.2	8.84	0.33	0.77
Run1_Nl-1	Normal	10.18	0.36	0.45	0.2	0.16	0.33	0.89	0.52	1.1	1.82	2.05	4.91	35.21	0.39	0.73	18.78	0.5	0.09	-0.08	0.72	5.88	0.52	1.56	11.18	0.5	0.84
Run1_Nl-3		5.15	0.46	0.41	0.23	-0.02	-0.03	0.25	0.64	1.18	1.4	2.25	4.94	19.01	0.67	0.53	11.87	0.39	-0.08	-0.16	0.38	1.77	0.3	1.05	2.73	0.14	0.54
Run1_Nl-4		5.35	0.17	0.36	0.14	-0.05	0.21	0.52		1	1.42	2.1	4.85	18.37	0.7	0.71	10.09	0.4	-0.11	-0.07	0.4	6.07	-0.03	1.38	2.51	0.19	0.55
Run1_Nl-6		5.24	0.39	0.38	0.24	0.24	-0.01	0.24	0.43	0.82	1.21	1.86	4.77	24.18	0.27	0.41	6.91	0.33	-0.11	-0.15	0.48	2.65	0.41	0.87	2.19	0.15	0.57
Run2_Nl-3		3.59	-0.04	0.16	-0.04	-0.06	-0.17	0.03	0.23	0.57	0.89	1.94	4.56	16.32	-0.01	0.18	7.94	0.1	-0.17	-0.23	0.05	1.29	-0.06	0.59	2.87	-0.1	0.19
Run2_Nl-4		3.8	0.06	0.38	-0.07	-0.13	-0.21	-0.02	0.1	0.47	0.91	1.78	4.26	16.34	0.1	0.32	6.75	0.01	-0.18	-0.23	0.06	5.4	-0.17	0.47	3.23	-0.05	0.18
Run2_Nl-5		3.61	-0.08	-0.09	-0.1	-0.02	-0.13	-0.01	0.15	0.52	0.9	1.95	4.86	19.83	-0.06	-0.04	8.79	0.11	-0.14	-0.23	0.01	1.6	-0.02	0.67	2.97	-0.08	0.14
Run2_Nl-6		4.61	0.05	0.22	0.01	-0.07	-0.19	-0.13	0.01	0.45	0.64	1.37	4.34	20.23	-0.13	-0.01	2.91	-0.04	-0.2	-0.24	0.13	2.52	0.09	0.52	3.03	-0.04	0.2

CD11b Median

Group	Sample	Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
AML/RAEB-T	Run1_MDS17	3.02	-0.48	-0.53	-0.51	-0.39	-0.45	11.69	105.53	114.71	0.79	22.36	251.8	386.32	-0.48	-0.45	0.3	2.2	-0.5	-1.19	1.7	18.97	-0.02	67.04	0.76	3.53	-0.22
	Run2_MDS15*	64.26	-0.38	-0.4	-0.37	-0.32	-0.15	12.52	230.23	209.51	0.92	26.88	166.97	332.63	-0.3	7.65	117.2	182.92	-0.25	-0.53	0.57	11.69	0.35	10.37	-0.1	2.32	-0.23
	Run2_MDS4	8.97	-0.34	-0.35	-0.35	-0.29	-0.03	14.62	74.43	86.67	0.97	24.61	206.87	325.35	-0.31	-0.25	0.72	0.03	-0.28	-0.35	0.39	8.56	-0.23	50.56	1.53	1.89	-0.29
Higher Risk	Run1_MDS21	0.93	-0.48	-0.58	-0.55	-0.58	-0.55	9.22	123.08	149.93	0.9	16.93	255.86	429.5	-0.46	-0.23	2.98	-0.41	-0.57	-0.61	0.14	15.52	-0.1	54.82	0.41	2.22	-0.39
	Run1_MDS3	1.06	-0.48	-0.66	-0.53	-0.59	-0.57	8.24	69.25	122.84	1.1	16.95	189.8	321.13	-0.48	-0.23	2.03	-0.43	-0.62	-0.99	0.16	18.22	6.46	31.7	0.19	2.57	-0.43
	Run2_MDS13	0.62	-0.35	-0.3	-0.36	-0.35	-0.34	13.07	94.99	104.66	0.57	18.58	246.85	357.39	-0.32	-0.3	-0.08	-0.27	-0.27	-0.49	0.16	10.01	1.26	30.63	0.1	2.3	-0.23
	Run2_MDS16	87	-0.28	-0.29	-0.3	-0.28	0.32	12.52	79.9	113.3	1.27	30.96	146.2	212.8	-0.29	-0.3	32.39	0.17	-0.34	-0.56	-0.15	30.55	0.06	14.1	0.34	2.06	-0.3
	Run2_MDS1	14.17	-0.27	-0.59	-0.25	-0.36	-0.27	11.71	153.04	222.77	1.47	30.19	193.83	298.99	-0.31	-0.21	-0.06	2.85	0.02	-0.42	-0.12	46.36	-0.21	13.19	0.35	2.03	-0.24
	Run2_MDS21	0.5	-0.34	-0.32	-0.34	-0.34	-0.33	14.16	151.92	180.75	0.9	18.5	298.8	457.66	-0.28	-0.33	-0.15	-0.31	-0.25	-0.7	0	3.41	-0.11	46.27	0.48	1.87	-0.24
	Run2_MDS26*	85.45	-0.24	-0.19	-0.27	-0.31	-0.25	8.96	151.44	209.18	1.75	25.47	253.11	413.86	-0.22	-0.29	-0.26	1	-0.31	-0.49	0.15	34.55	0.36	32.12	2.24	1.8	-0.24
	Run2_MDS27	1.29	-0.31	-0.31	-0.34	-0.41	-0.22	13.23	110.75	193.36	0.76	25.32	184.36	318.13	-0.33	-0.33	-0.15	0.81	-0.34	-0.43	0.61	17.81	1.52	6.51	0.41	1.96	-0.26
	Run2_MDS2	109.5	-0.41	-0.37	-0.44	-0.41	-0.3	13.55	130.71	142.76	0.84	30.03	319.84	369.39	0.13	5.85	1.67	0.53	0.35	-0.38	-0.23	19.57	3.82	6.38	-0.05	1.91	-0.27
	Run2_MDS3	0.6	-0.3	-0.26	-0.3	-0.35	-0.33	13.46	103.15	87.99	0.87	18.85	191.22	316.29	-0.29	-0.33	-0.23	-0.3	-0.25	-0.4	0	13.99	0.2	39.66	0.21	2.18	-0.26
Lower Risk	Run1_MDS23	127.3	-0.61	-0.46	-0.59	-0.82	-0.41	13.7	102.1	171.14	1.93	26.93	206.29	348.67	-0.47	-0.37	47.23	6.55	-0.46	-1.23	-0.08	23.35	-0.76	25.72	2.23	1.95	-0.44
	Run1_MDS25	215.56	119.05	-0.92	125.57	-0.8	0.09	14.71	105.72	165.25	1.25	30.1	167.24	255.55	-0.34	0.51	244.3	6.98	-0.81	-0.93	0.95	13.34	-0.59	16.87	-0.06	2.71	-0.33
	Run1_MDS5	96.51	2.65	-1.76	1.11	-0.77	-0.38	16.39	145.9	161.17	1.54	37.35	111.6	131.84	0.57	0.25	15.55	0.42	-0.55	-1.28	0.47	9.05	1.6	49.18	0.8	2.14	-0.37
	Run1_MDS6	166.45	-0.6	-0.58	-0.63	-0.87	-0.45	13.2	100.94	180.1	1.25	28.26	141.82	248.89	-0.33	-0.52	106.13	0.42	-0.55	-1.21	0.47	26.58	1.6	49.18	0.8	2.14	-0.43
	Run1_MDS8	182.92	0.68	-0.46	0.53	-0.63	-0.1	14.38	119	181.85	1.37	28.91	169.23	251.69	-0.46	-0.36	2.42	2.09	-0.58	-0.24	-0.12	20.63	9.21	20.47	0.6	1.18	-0.39
	Run1_MDS9	82.73	-0.56	-0.67	-0.62	-0.65	-0.29	12.29	84.65	135.33	1.72	24.22	160.99	274.6	-0.46	-0.48	13.91	2.78	-0.51	-1.4	0.28	23.08	2.01	15.01	1.08	2.29	-0.39
	Run2_MDS12	198.4	-0.35	-0.29	-0.36	-0.35	-0.17	14.12	91.94	126.55	1.85	29.21	287.08	467.96	-0.34	-0.31	1.52	7.59	-0.3	-0.43	-0.01	10.31	-0.27	16.96	1.13	1.22	-0.28
	Run2_MDS14	233.89	0.31	-0.43	-0.18	-0.58	0.26	13.23	103.53	189.69	2.21	29.28	152.68	307.61	-0.34	-0.31	248.44	-0.16	-0.33	-0.41	0.15	25.66	-0.12	9.05	0.21	2.03	-0.23
	Run2_MDS19	122.31	-0.25	-0.2	-0.27	-0.39	-0.12	13.72	89.34	130.82	1.56	25.65	143.02	238.19	-0.33	-0.29	-0.04	4.29	-0.34	-0.43	-0.08	15.01	-0.32	23.76	0.67	2.29	-0.26
	Run2_MDS20	173.59	-0.09	-0.39	0.28	-0.31	0.6	13.54	114.38	170.29	1.37	25.86	185.43	360.41	-0.22	-0.2	259.81	1.08	-0.31	-0.28	-0.08	7.83	1.69	12.23	0.29	2.19	-0.15
	Run2_MDS28*	262.32	-0.29	-0.28	-0.26	-0.33	-0.07	13.98	176.22	215.3	1.67	24.84	240.5	479.16	-0.22	-0.22	238.77	36.01	-0.27	-0.35	0.4	38.26	13.64	21.46	0.41	2	-0.24
	Run2_MDS5	101	6.71	0.05	0.35	-0.12	0.04	15.85	152.69	166.3	1.47	35.65	120.85	141.81	-0.34	0.03	82.63	22.61	-0.19	-0.55	0.07	6.25	24.6	22.67	1.2	1.27	-0.17
ICUS	Run1_ICUS18	256.33	-0.27	-0.76	-0.77	-0.72	0.09	13.3	93.9	176.28	1.5	28.26	180.25	320.6	-0.4	-0.3	353.01	3.42	-0.49	-1.35	-0.17	44.39	-0.58	21.17	0.42	2.71	-0.44
	Run1_ICUS22	337.3	-0.58	-0.72	-0.7	-0.76	-0.19	13.61	123.05	224.3	1.91	23.61	220.46	460.41	-0.47	-0.16	393.24	0.09	-0.75	-0.8	0.01	18.86	0.61	22.2	0.34	1.98	-0.39
	Run1_ICUS24	191.74	-0.32	-0.22	-0.52	-0.71	-0.41	14.04	101.56	194.34	1.72	24.55	207.08	395.68	-0.52	-0.4	4.54	-0.44	-0.67	-1	0.55	20.54	-0.67	19.43	0.74	1.75	-0.2
Normal	Run1_Nl-1	228.64	0.1	0.2	-0.13	-0.43	-0.28	14	71.39	173.28	1.34	26.03	184.55	370.35	-0.45	-0.4	267.85	-0.54	-0.62	-1.4	0.24	39.4	-0.38	16.97	0.66	2.03	-0.36
	Run1_Nl-3	92.37	-0.36	-0.56	-0.7	-0.51	-0.4	14.15	75.3	160.54	1.27	32.13	115.85	171.35	-0.39	-0.4	170.51	-0.05	-0.57	-0.98	0.35	21.92	-0.44	12.93	0.48	2.26	-0.44
	Run1_Nl-4	117.91	-0.31	-0.72	-0.73	-0.75	-0.39	14.5	95.19	158.61	1.2	29.2	139.46	204.71	-0.3	-0.37	205.55	-0.15	-0.63	-1.17	0.55	25.65	-0.76	12.89	0.09	1.94	-0.47
	Run1_Nl-6	114.93	-0.42	-0.48	-0.46	-0.73	-0.43	13.9	71.24	126.28	1.25	27.38	140.17	232.36	-0.51	-0.45	172	-0.59	-0.7	-1.18	-0.08	33.72	-0.31	12.34	0.6	1.89	-0.47
	Run2_Nl-3	73.26	-0.31	-0.32	-0.4	-0.32	-0.17	13.42	92.88	148.9	1.33	31.75	112.19	151.2	-0.33	-0.26	133.45	-0.07	-0.35	-0.43	0.13	17.55	-0.28	8.4	0.29	1.85	-0.29
	Run2_Nl-4	95.21	-0.31	-0.23	-0.3	-0.3	-0.14	14.33	99.55	127.53	1.26	30.63	132.54	170.99	-0.27	-0.26	161.76	-0.11	-0.35	-0.42	0.42	20.67	-0.3	8	0.14	1.55	-0.18
	Run2_Nl-5	84.02	-0.22	-0.28	-0.25	-0.32	-0.13	13.67	107.55	157.07	0.85	28.43	144.69	186.26	-0.27	-0.31	163.52	-0.23	-0.32	-0.44	0.36	13.86	-0.34	12.81	0.13	1.99	-0.28
	Run2_Nl-6	125.12	-0.29	-0.34	-0.26	-0.31	-0.22	13.94	81.14	124.72	1.25	27.64	163.64	231.23	-0.31	-0.27	101.18	-0.27	-0.37	-0.44	-0.09	35.51	-0.19	8.08	0.16	1.55	-0.29

Supplemental Table 3: Median expression of each surface marker on each cell population.

CD15 Median

Group	Sample	Ungated	CD34+CD3Blow	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
AML/RAEB-T	Run1_MDS17	2.09	0.78	0.9	0.69	0.92	0.45	0.65	0.87	0.81	23.61	20.9	15.77	18.54	-0.1	-0.18	0.5	1.19	-0.3	-0.52	-0.22	0.09	0.65	2.15	1.53	-0.21	-0.24
	Run2_MDS15*	1.48	1.04	1.17	0.84	0.34	0.57	0.55	0.18	-0.03	11.7	12.53	16.96	23.39	-0.3	0.82	1.85	0.9	-0.33	-0.33	-0.26	-0.15	0.41	0.89	0.89	-0.25	-0.26
	Run2_MDS4	1.48	0.61	0.93	0.55	-0.62	-0.19	-0.23	-0.14	0.4	23.18	46.34	156.69	194.36	-0.22	-0.12	1.01	-0.17	-0.26	-0.43	-0.3	-0.23	-0.28	0.16	2.87	-0.3	-0.3
Higher Risk	Run1_MDS21	1.35	0.8	0.67	0.72	0.63	0.57	1.27	0.51	0.91	41.07	78.24	107.87	155.14	-0.16	0.02	3.93	-0.2	-0.31	-0.7	-0.23	0.14	1.08	0.6	1.15	-0.2	-0.24
	Run1_MDS3	2.21	0.99	0.96	0.87	0.87	0.69	1.03	0.12	0.67	50.46	102.68	118.15	184.26	-0.2	0.03	3.33	-0.17	-0.3	-0.67	-0.27	0.08	2.8	0.68	0.72	-0.27	-0.27
	Run1_MDS13	1.69	0.52	0.68	0.45	0.3	0.28	0.17	0.1	0.49	41.68	71.16	76.66	83.1	-0.25	-0.24	0.23	-0.23	-0.29	-0.39	-0.26	-0.21	0.78	0.15	0.91	-0.25	-0.27
	Run2_MDS16	169.58	1.28	1.51	1	0.94	-0.18	-0.14	-0.11	-0.05	130.42	150.41	347.39	372.46	0.4	-0.26	6.2	-0.09	-0.31	-0.48	-0.26	0	-0.09	-0.13	0.71	-0.24	-0.26
	Run2_MDS1	0.58	0.12	0.42	-0.08	-0.12	-0.25	-0.18	-0.18	0.04	12.54	16.81	37.34	67.79	-0.17	-0.13	-0.06	-0.05	-0.2	-0.43	-0.29	-0.07	-0.26	0.03	0.8	-0.32	-0.29
	Run2_MDS21	0.83	0.39	0.47	0.37	0.36	0.28	0.62	0.27	0.66	74.86	105.68	149.68	188.04	-0.23	-0.24	-0.07	-0.26	-0.31	-0.29	-0.26	-0.23	0.04	-0.15	0.98	-0.25	-0.26
	Run2_MDS26*	24.66	0.44	0.55	0.31	0.29	0.13	0.66	0.43	0.15	17.46	24.03	79.29	102.73	0	-0.19	-0.16	0.19	-0.26	-0.41	-0.25	-0.05	-0.12	-0.05	5.88	-0.25	-0.25
	Run2_MDS27	0.79	0.94	1.3	0.65	0.25	-0.06	-0.09	-0.02	-0.15	72.82	124.46	376.59	476.38	-0.08	-0.3	-0.13	-0.07	-0.28	-0.42	-0.26	-0.05	-0.27	-0.2	1.8	-0.25	-0.27
	Run2_MDS2	3.08	0.01	0.57	-0.05	-0.1	-0.22	-0.26	0.04	-0.15	16.95	19.34	33.76	70.12	-0.13	2.01	1.09	0.05	0.21	-0.13	-0.29	-0.13	-0.16	-0.34	-0.15	-0.28	-0.29
	Run2_MDS3	1.55	0.62	1.02	0.53	0.46	0.41	0.68	0.45	1.39	69.86	144.56	173.91	240.35	-0.21	-0.25	-0.13	-0.26	-0.24	-0.4	-0.29	-0.13	1.26	0.44	0.89	-0.26	-0.3
Lower Risk	Run1_MDS23	37.92	0.47	0.92	0.5	-0.13	-0.27	-0.14	-0.08	0.07	17.92	32.75	96.84	107.17	-0.2	-0.07	3.7	0.07	-0.27	-0.62	-0.25	-0.14	-0.24	-0.01	2.15	-0.26	-0.25
	Run1_MDS25	201.19	22.96	1.73	164.3	-0.63	-0.44	-0.29	0.01	0.48	60.28	91.98	223.39	250.57	-0.15	0.31	185.5	-0.02	-0.43	-0.7	-0.24	0.05	-0.33	-0.16	0.53	-0.23	-0.25
	Run1_MDS5	12.9	4.42	-0.24	0.72	-0.21	-0.27	-0.11	0.63	0.43	28.38	20.61	26.54	24.4	2.62	0.33	4.8	1.05	-0.25	-0.57	-0.23	-0.05	0.02	-0.04	2.23	-0.3	-0.21
	Run1_MDS6	162.34	0.65	0.58	0.56	0.01	-0.1	-0.11	0.01	0.19	126.02	179.51	312.58	208.68	-0.09	-0.22	103.39	-0.15	-0.3	-0.59	-0.23	0.03	0.01	0.19	1.77	-0.22	-0.24
	Run1_MDS8	247.68	1.95	1.19	3.01	0.52	-0.1	-0.17	-0.13	0.2	86.43	168.41	310.93	361.7	-0.21	-0.13	2.48	-0.04	-0.28	-0.68	-0.22	0.13	-0.01	-0.1	1.64	-0.18	-0.23
	Run1_MDS9	133.35	0.86	1.1	0.6	0.53	0.05	-0.18	-0.02	0.39	71.02	118.64	295.63	369.15	-0.08	-0.13	11.09	-0.06	-0.3	-0.62	-0.22	0.13	-0.01	-0.1	1.64	-0.21	-0.23
	Run2_MDS12	64.74	-0.15	0.13	0.02	-0.01	-0.3	-0.11	0.09	0.19	24.47	29.64	122.12	164.81	-0.24	-0.26	0.73	0.01	-0.28	-0.57	-0.27	-0.18	-0.26	-0.19	1.24	-0.26	-0.28
	Run2_MDS14	223.59	4.73	0.89	0.19	0.3	-0.27	-0.25	-0.12	-0.04	349.72	235.12	382.84	274	-0.16	-0.21	242.32	-0.27	-0.31	-0.43	-0.28	-0.22	-0.09	-0.06	0.66	-0.28	-0.28
	Run2_MDS19	383.05	1.38	2.25	1.11	0.45	-0.19	-0.14	-0.04	0	141.12	262.89	549.41	572.28	-0.18	-0.18	0.34	0	-0.29	-0.53	-0.25	-0.16	-0.31	-0.1	0.89	-0.23	-0.26
	Run2_MDS20	128.3	1.53	1.69	0.99	0.45	-0.28	-0.27	-0.23	-0.06	81.38	115.6	301.14	335.36	-0.23	-0.13	227.26	-0.18	-0.35	-0.51	-0.25	-0.17	-0.17	-0.12	0.59	-0.24	-0.25
	Run2_MDS28*	286.11	0.86	1.19	1.04	0.32	-0.15	-0.1	-0.04	-0.09	78.33	134.66	412.76	468.07	-0.08	-0.09	274.52	0.16	-0.3	-0.54	-0.26	-0.1	-0.23	-0.09	1.01	-0.23	-0.28
	Run2_MDS5	16.55	2.64	0.47	0.82	-0.28	-0.22	-0.2	0.22	0.28	28.26	21.33	34.9	30.81	-0.14	-0.03	6.14	0.71	-0.26	-0.58	-0.25	-0.22	-0.07	-0.02	1.74	-0.31	-0.22
ICUS	Run1_ICUS18	338.68	2.48	3.66	1.58	1.35	-0.3	-0.24	-0.14	0.14	91.34	166.49	434.51	430.85	0	0.08	481.86	-0.02	-0.27	-0.46	-0.24	0.28	-0.26	0.14	0.83	-0.23	-0.24
	Run1_ICUS22	425.18	1.51	2.05	1.22	0.39	-0.34	-0.2	-0.1	0.15	146.67	227.73	540.41	559.38	0.05	0.44	499.71	-0.2	-0.34	-0.63	-0.2	-0.12	-0.24	0.27	1.11	-0.2	-0.19
	Run1_ICUS24	115.05	1.49	2.01	1.04	0.25	-0.17	-0.08	0.04	0.21	107.05	106.57	198.34	185.68	-0.09	-0.06	4.36	-0.29	-0.37	-0.64	-0.21	-0.08	-0.26	0.09	1.56	-0.21	-0.21
Normal	Run1_Nl-1	175.19	1.66	1.45	1.28	0.13	-0.28	-0.07	-0.09	0.14	46.38	80.9	275.05	264.87	-0.13	-0.08	212.44	-0.37	-0.35	-0.71	-0.24	0.05	-0.17	0.16	1.22	-0.23	-0.26
	Run1_Nl-3	153.56	2.28	2.31	1.79	0.75	-0.01	0.15	0.25	0.31	34.68	87.95	279.46	253.98	0.29	-0.11	287.64	-0.15	-0.29	-0.56	-0.23	0.09	-0.17	-0.09	1.1	-0.23	-0.23
	Run1_Nl-4	116.38	2.63	2.14	2.52	0.64	-0.09	0.21	0.32	0.35	35.9	57.69	222.75	174.2	0.17	-0.06	230.38	-0.22	-0.33	-0.68	-0.22	0.02	-0.24	0.04	1.09	-0.2	-0.24
	Run1_Nl-6	111.01	1.94	2.44	1.43	0.37	-0.11	-0.04	0.03	0.15	28.48	77.1	255.23	180.52	-0.12	-0.17	174.58	-0.33	-0.35	-0.55	-0.22	0.14	-0.17	-0.18	0.53	-0.2	-0.23
	Run2_Nl-3	199.67	1.73	2.28	1.6	0.31	-0.13	0.01	0.02	0.1	41.85	124.95	359.35	368.06	-0.12	-0.18	322.06	-0.2	-0.31	-0.44	-0.27	-0.12	-0.18	-0.2	0.79	-0.26	-0.28
	Run2_Nl-4	167.6	1.6	1.7	1.06	0.2	-0.14	0.01	0.02	0.13	46.42	82.86	295.65	269.18	-0.14	-0.14	289.69	-0.27	-0.32	-0.43	-0.26	-0.13	-0.29	-0.15	0.92	-0.25	-0.27
	Run2_Nl-5	156.93	1.27	1.26	1.17	0.17	-0.1	-0.03	0	0.18	46.99	138.53	426.41	325.58	-0.04	-0.21	288.97	-0.31	-0.27	-0.41	-0.27	-0.11	-0.19	-0.14	0.58	-0.26	-0.27
	Run2_Nl-6	190.45	1.31	1.71	1.15	0.28	-0.17	-0.18	-0.13	0.02	33.67	93.6	319.58	314.48	-0.17	-0.22	146.68	-0.29	-0.34	-0.44	-0.28	-0.06	-0.27	-0.19	0.8	-0.28	-0.28

Supplemental Table 3: Median expression of each surface marker on each cell population.

CD123 Median

		Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	-0.18	0.94	1.05	0.89	1.06	0.48	0.52	-0.11	-0.26	-0.42	-0.23	-0.13	-0.05	-0.39	-0.46	-0.41	-0.05	-0.09	0.22	-0.46	-0.46	37.73	20.83	-0.41	-0.46	-0.45
Run2_MDS15*		0.85	2.31	1.62	1.53	4.28	1.64	0.6	-0.11	-0.01	0.75	2.28	1.75	-0.14	1.56	0.14	1.5	0.19	0.1	0.85	-0.4	-0.35	31.95	38.23	1.09	-0.4	-0.4
Run2_MDS4		-0.26	1.88	1.28	1.29	0.35	0.91	1.06	0.38	0.23	-0.38	-0.39	-0.37	-0.36	-0.32	-0.4	-0.35	0.56	0.91	0.23	-0.42	-0.29	130.56	43.29	-0.13	-0.41	-0.43
Run1_MDS21	Higher Risk	-0.33	1.08	1	1.02	1.36	1.14	0.66	-0.3	-0.25	-0.42	-0.37	-0.38	-0.29	-0.46	-0.41	-0.28	-0.31	-0.14	0.15	-0.48	-0.42	65.34	46.06	-0.41	-0.45	-0.49
Run1_MDS3		-0.33	1.24	1.19	1.07	1.45	1.27	0.92	-0.06	0.56	-0.39	-0.33	-0.32	-0.2	-0.45	-0.44	-0.29	-0.34	-0.08	0.51	-0.49	-0.34	46.13	41.98	-0.36	-0.49	-0.49
Run2_MDS13		-0.21	1.56	1.77	1.3	1.39	1.15	0.14	-0.08	-0.1	-0.2	-0.04	-0.28	-0.31	-0.17	-0.42	-0.34	-0.28	-0.21	0.85	-0.42	-0.42	43.78	31.57	-0.34	-0.41	-0.42
Run2_MDS16		-0.33	1.53	1.42	1.25	1.85	2.88	2.37	0.65	0.45	-0.26	-0.32	-0.34	-0.34	0.75	-0.42	-0.33	-0.2	-0.21	-0.04	-0.42	-0.37	111.7	59.77	-0.36	-0.42	-0.42
Run2_MDS1		-0.24	2.49	3.05	2.37	2.51	2.72	1.36	0.74	0.74	-0.3	-0.3	-0.33	-0.36	-0.16	-0.41	-0.39	-0.11	-0.2	0.13	-0.43	-0.39	83.2	41.21	-0.29	-0.44	-0.43
Run2_MDS21		-0.3	0.81	1.11	0.74	1.08	0.76	0.49	-0.18	-0.12	-0.35	-0.3	-0.34	-0.32	-0.34	-0.43	-0.39	-0.33	-0.21	0.18	-0.42	-0.41	66.49	50.84	-0.36	-0.41	-0.43
Run2_MDS26*		-0.37	0.62	0.7	0.56	0.77	-0.12	-0.2	-0.15	0.06	-0.39	-0.36	-0.36	-0.36	-0.21	-0.42	-0.4	-0.28	-0.14	-0.25	-0.42	-0.41	38.92	48.44	-0.4	-0.43	-0.42
Run2_MDS27		-0.26	0.71	0.68	0.61	0.9	0.96	1.96	0.71	0.49	-0.27	-0.08	-0.12	-0.24	0.65	-0.42	-0.32	-0.22	0.2	0.3	-0.38	-0.4	84.07	249.82	-0.2	-0.36	-0.39
Run2_MDS2		-0.23	1.19	1.89	0.91	1.34	1.54	1.45	0.2	0.42	0.12	-0.36	-0.33	-0.32	0.87	-0.28	-0.32	-0.17	0.8	1.52	-0.43	-0.41	44.36	54.88	-0.34	-0.43	-0.43
Run2_MDS3		-0.26	1.02	1.31	0.83	1.17	0.95	0.33	-0.02	0.33	-0.26	-0.18	-0.23	-0.21	-0.29	-0.4	-0.4	-0.3	-0.16	0.53	-0.42	-0.37	91.6	31.36	-0.33	-0.43	-0.42
Run1_MDS23	Lower Risk	-0.32	0.83	0.79	0.7	2.95	2.67	2.71	1.49	1.11	-0.36	-0.35	-0.39	-0.4	-0.41	-0.4	-0.16	-0.06	-0.08	0.18	-0.48	-0.43	74.98	38.4	-0.38	-0.46	-0.49
Run1_MDS25		-0.36	2.05	3.35	0.32	4.24	3.63	2.31	0.72	0.35	-0.36	-0.38	-0.42	-0.4	-0.38	-0.38	-0.14	-0.01	0.52	0.27	-0.44	-0.39	241.64	34.53	-0.45	-0.44	-0.44
Run1_MDS5		-0.2	2.13	1.59	0.46	2.41	1.67	1.14	1.04	0.27	0.31	-0.09	-0.01	-0.18	-0.06	-0.38	-0.26	-0.01	-0.23	0.45	-0.44	-0.42	70.62	54.51	-0.43	-0.44	-0.44
Run1_MDS6		-0.33	2.28	1.66	1.72	2.29	3.46	4.05	1.24	0.68	-0.34	-0.3	-0.32	-0.36	-0.06	-0.48	-0.31	-0.15	-0.06	0.75	-0.46	-0.47	88.49	82.5	-0.38	-0.46	-0.47
Run1_MDS8		-0.37	0.74	0.51	0.27	0.91	1.06	1.29	0.46	0.01	-0.4	-0.41	-0.38	-0.37	-0.4	-0.42	-0.36	-0.33	-0.31	0.26	-0.5	-0.44	68.34	144.27	-0.41	-0.49	-0.5
Run1_MDS9		-0.34	1.39	1.53	0.94	1.92	1.89	4.5	0.76	0.43	-0.38	-0.37	-0.36	-0.33	-0.35	-0.45	-0.24	-0.29	0.23	-0.02	-0.48	-0.43	48.15	116.85	-0.41	-0.46	-0.49
Run2_MDS12		-0.26	6.14	3.24	5	4.69	3.79	1.73	0.87	0.81	-0.35	-0.28	-0.29	-0.3	-0.33	-0.42	-0.34	0.32	-0.01	-0.18	-0.39	-0.39	160.43	55.23	-0.26	-0.38	-0.4
Run2_MDS14		-0.3	0.71	0.61	-0.29	0.6	2.66	3.11	1.02	0.67	-0.26	-0.26	-0.28	-0.34	-0.35	-0.41	-0.26	0.14	0.08	-0.15	-0.42	-0.38	129.2	50.41	-0.29	-0.41	-0.43
Run2_MDS19		-0.31	0.92	1.02	0.8	1.27	3.69	2.69	0.9	0.54	-0.33	-0.31	-0.33	-0.33	-0.34	-0.43	-0.39	-0.13	-0.19	0.2	-0.41	-0.38	182.18	57.36	-0.41	-0.4	-0.42
Run2_MDS20		-0.31	0.78	0.27	1.09	1.62	4.98	4.32	1.32	0.91	-0.32	-0.31	-0.33	-0.32	-0.13	-0.36	-0.29	-0.25	0.07	1.13	-0.42	-0.38	59.07	153.65	-0.37	-0.43	-0.42
Run2_MDS28*		-0.16	1.39	0.81	1.3	1.42	3.54	3.68	1.83	2.12	-0.27	-0.22	-0.17	-0.22	-0.04	-0.39	-0.25	0.35	0.29	0.06	-0.42	-0.35	60.26	60.57	-0.34	-0.43	-0.42
Run2_MDS5		-0.22	2.02	0.76	1.39	1.88	1.34	0.16	0.84	0.25	-0.05	-0.18	-0.14	-0.22	0.06	-0.37	-0.25	-0.06	-0.24	0.65	-0.39	-0.4	62.38	50.96	-0.4	-0.38	-0.39
Run1_ICUS18	ICUS	-0.33	1.23	1.67	1.39	1.84	5.24	4.08	1.13	0.46	-0.28	-0.26	-0.31	-0.34	-0.39	-0.43	-0.28	-0.26	0	-0.08	-0.47	-0.44	214.64	51.07	-0.41	-0.46	-0.47
Run1_ICUS22		-0.25	1.59	1.56	1.26	2	4.81	5.27	1.58	0.99	-0.32	-0.25	-0.23	-0.31	-0.38	-0.39	-0.23	0.13	0.2	-0.14	-0.45	-0.4	72.46	268.83	-0.29	-0.43	-0.46
Run1_ICUS24		-0.33	1.32	1.1	1.36	2.09	3.52	3.54	1.25	0.64	-0.32	-0.29	-0.36	-0.38	-0.39	-0.46	-0.34	0.83	0.89	-0.09	-0.47	-0.45	135.65	33.64	-0.39	-0.48	-0.46
Run1_NI-1	Normal	-0.33	0.75	1.03	0.53	1.03	3.49	4.57	2.31	0.92	-0.37	-0.35	-0.34	-0.37	-0.38	-0.4	-0.31	0.3	0.37	0.52	-0.48	-0.43	143.79	59.29	-0.37	-0.47	-0.48
Run1_NI-3		-0.28	0.71	0.56	0.62	1.35	4.17	3.08	1.09	0.55	-0.28	-0.26	-0.27	-0.32	-0.34	-0.43	-0.24	0.25	0.3	0.2	-0.48	-0.43	117.66	90.76	-0.41	-0.49	-0.49
Run1_NI-4		-0.31	1.39	1.88	1.22	1.89	4.58	4.39	1.69	0.7	-0.33	-0.31	-0.32	-0.33	-0.27	-0.43	-0.25	0.25	0.23	0.69	-0.48	-0.42	140.95	58.02	-0.46	-0.49	-0.47
Run1_NI-6		-0.22	0.87	0.86	0.76	1.2	2.15	2.24	1.18	1.09	-0.34	-0.22	-0.21	-0.22	-0.36	-0.45	-0.24	0.79	3.92	0.36	-0.47	-0.44	112.56	103.66	-0.41	-0.49	-0.46
Run2_NI-3		-0.26	0.88	0.77	0.78	1.15	3.06	1.75	0.5	0.29	-0.27	-0.27	-0.27	-0.29	-0.31	-0.41	-0.26	0.07	0.17	0.26	-0.43	-0.39	99.95	77.94	-0.36	-0.43	-0.43
Run2_NI-4		-0.27	1.1	0.65	0.9	1.45	3.53	2.53	0.64	0.44	-0.29	-0.31	-0.29	-0.28	-0.3	-0.39	-0.26	0.11	0.07	0.76	-0.43	-0.41	125.34	52.12	-0.38	-0.42	-0.43
Run2_NI-5		-0.27	0.72	0.83	0.76	0.82	1.83	1.12	0.19	0.03	-0.28	-0.25	-0.25	-0.27	-0.31	-0.4	-0.29	-0.03	-0.08	0.04	-0.42	-0.41	98.78	76.69	-0.39	-0.42	-0.43
Run2_NI-6		-0.21	0.69	0.71	0.57	0.99	1.74	1.39	0.68	0.77	-0.3	-0.23	-0.22	-0.22	-0.31	-0.41	-0.31	0.44	2.96	-0.02	-0.4	-0.42	102.72	125.15	-0.25	-0.42	-0.39

CD3 Median

		Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	-0.41	-0.49	-0.5	-0.49	-0.48	-0.51	-0.45	-0.46	-0.4	-0.47	-0.47	-0.44	-0.41	-0.5	-0.5	-0.47	-0.39	-0.48	-0.46	35.58	-0.41	-0.42	-0.45	-0.47	34.44	37.48
Run2_MDS15*		-0.4	-0.43	-0.45	-0.42	-0.46	-0.44	-0.43	-0.41	-0.4	-0.42	-0.43	-0.41	-0.39	-0.41	-0.34	-0.34	-0.4	-0.39	-0.56	33.57	-0.4	-0.39	-0.45	-0.44	34.15	32.61
Run2_MDS4		-0.3	-0.43	-0.43	-0.41	-0.42	-0.44	-0.45	-0.43	-0.47	-0.45	-0.46	-0.44	-0.42	-0.48	-0.44	-0.45	-0.31	-0.43	-0.4	14.81	-0.13	-0.45	-0.45	-0.38	14.24	15.48
Run1_MDS21	Higher Risk	-0.28	-0.49	-0.52	-0.49	-0.5	-0.5	-0.49	-0.43	-0.38	-0.46	-0.43	-0.45	-0.43	-0.49	-0.44	-0.37	-0.38	-0.41	-0.45	23.25	-0.37	-0.47	-0.52	-0.46	24.78	22.51
Run1_MDS3		-0.31	-0.51	-0.52	-0.54	-0.51	-0.52	-0.47	-0.45	-0.52	-0.47	-0.48	-0.45	-0.44	-0.51	-0.45	-0.4	-0.43	-0.45	-0.32	31.68	-0.49	0.34	-0.57	-0.49	30.79	32.23
Run2_MDS13		-0.29	-0.46	-0.45	-0.45	-0.44	-0.44	-0.45	-0.41	-0.37	-0.42	-0.41	-0.42	-0.42	-0.41	-0.44	-0.4	-0.43	-0.43	-0.4	20.04	-0.4	-0.32	-0.41	-0.43	20.37	19.86
Run2_MDS16		-0.28	-0.44	-0.45	-0.45	-0.36	-0.41	-0.52	-0.46	-0.42	-0.43	-0.45	-0.43	-0.43	-0.44	-0.44	-0.39	18.59	-0.43	-0.35	25.96	-0.39	-0.4	-0.42	-0.44	22.78	26.85
Run2_MDS1		-0.29	-0.38	-0.41	-0.45	-0.43	-0.46	-0.41	-0.44	-0.44	-0.45	-0.46	-0.43	-0.44	-0.45	-0.45	-0.43	-0.09	-0.43	-0.39	17.77	-0.43	-0.48	-0.38	-0.38	15.93	18.17
Run2_MDS21		-0.28	-0.45	-0.44	-0.45	-0.43	-0.43	-0.49	-0.43	-0.46	-0.41	-0.42	-0.42	-0.42	-0.41	-0.43	-0.43	-0.35	-0.43	-0.44	14.85	-0.07	-0.56	-0.46	-0.43	15.95	14.24
Run2_MDS26*		-0.41	-0.44	-0.41	-0.42	-0.43	-0.43	-0.38	-0.41	-0.31	-0.43	-0.43	-0.42	-0.41	-0.44	-0.44	-0.43	-0.21	-0.4	-0.4	20.13	-0.36	-0.54	-0.43	-0.42	17.17	22.33
Run2_MDS27		-0.28	-0.44	-0.45	-0.43	-0.46	-0.43	-0.43	-0.4	-0.4	-0.42	-0.42	-0.44	-0.42	-0.44	-0.44	-0.44	8.73	-0.42	-0.45	17.31	-0.38	-0.42	-0.4	-0.43	15.66	19.75
Run2_MDS2		-0.3	-0.47	-0.51	-0.48	-0.48	-0.43	-0.43	-0.42	-0.44	-0.34	-0.42	-0.44	-0.42	-0.22	-0.28	-0.44	-0.03	-0.25	-0.39	11.84	-0.3	-0.46	-0.46	-0.46	11.06	11.87
Run2_MDS3		-0.28	-0.44	-0.45	-0.45	-0.45	-0.44	-0.5	-0.42	-0.41	-0.42	-0.4	-0.41	-0.35	-0.45	-0.45	-0.43	-0.33	-0.42	-0.48	20.41	-0.38	-0.58	-0.39	-0.47	19.86	20.71
Run1_MDS23	Lower Risk	-0.39	-0.48	-0.4	-0.46	-0.46	-0.47	-0.45	-0.42	-0.4	-0.42	-0.45	-0.44	-0.43	-0.49	-0.48	-0.41	-0.24	-0.43	-0.44	46.71	-0.39	-0.48	-0.46	-0.44	40.62	49.42
Run1_MDS25		-0.41	-0.21	-0.73	-0.65	-0.29	-0.48	-0.46	-0.47	-0.44	-0.48	-0.48	-0.49	-0.47	-0.5	-0.49	-0.33	-0.06	-0.47	-0.46	30.43	-0.46	-0.51	-0.51	-0.48	28.32	32.87
Run1_MDS5		-0.38	-0.56	-0.75	-0.47	-0.71	-0.57	-0.55	-0.43	-0.4	-0.53	-0.45	-0.43	-0.32	-0.44	-0.38	-0.49	-0.22	-0.44	-0.49	36.12	-0.43	-0.43	-0.47	-0.46	34.78	36.57
Run1_MDS6		-0.36	-0.47	-0.46	-0.46	-0.51	-0.44	-0.4	-0.44	-0.42	-0.48	-0.5	-0.44	-0.43	-0.41	-0.47	-0.43	-0.11	-0.41	-0.44	40.31	-0.43	-0.42	-0.47	-0.46	39.03	41.52
Run1_MDS8		-0.34	-0.28	-0.11	-0.36	-0.36	-0.45	-0.45	-0.41	-0.38	-0.47	-0.45	-0.46	-0.43	-0.43	-0.45	-0.43	-0.38	-0.41	-0.38	24.66	-0.42	-0.32	-0.45	-0.47	26.41	24.25
Run1_MDS9		-0.27	-0.46	-0.46	-0.46	-0.47	-0.48	-0.44	-0.4	-0.33	-0.46	-0.48	-0.45	-0.43	-0.45	-0.45	-0.39	16.52	-0.4	-0.39	28.28	-0.41	-0.37	-0.45	-0.47	29.68	29.68
Run2_MDS12		-0.4	-0.39	-0.47	-0.35	-0.45	-0.41	-0.41	-0.41	-0.37	-0.41	-0.43	-0.42	-0.4	-0.44	-0.45	-0.43	-0.3	-0.41	-0.6	20.23	-0.35	-0.41	-0.44	-0.42	20.83	19.91
Run2_MDS14		-0.39	-0.29	-0.2	-0.19	-0.46	-0.42	-0.41	-0.44	-0.41	-0.42	-0.45	-0.42	-0.43	-0.47	-0.45	-0.43	-0.32	-0.43	-0.55	20.33	-0.4	-0.36	-0.46	-0.46	18.76	21.08
Run2_MDS19		-0.37	-0.46	-0.51	-0.45	-0.45	-0.43	-0.42	-0.42	-0.41	-0.43	-0.43	-0.42	-0.41	-0.45	-0.44	-0.42	0.63	-0.39	-0.41	23.58	-0.38	-0.44	-0.41	-0.4	22.59	23.97
Run2_MDS20		-0.2	-0.33	-0.43	-0.32	-0.61	-0.43	-0.44	-0.43	-0.41	-0.44	-0.45	-0.44	-0.42	-0.41	-0.4	-0.43	24.8	-0.43	-0.53	34.54	-0.42	-0.47	-0.43	-0.45	28.42	35.29
Run2_MDS28*		-0.35	-0.41	-0.4	-0.38	-0.42	-0.42	-0.4	-0.4	-0.38	-0.42	-0.43	-0.4	-0.38	-0.4	-0.43	-0.4	-0.11	-0.41	-0.42	29.69	-0.38	-0.39	-0.39	-0.39	26.6	33.15
Run2_MDS5		-0.36	-0.5	-0.87	-0.55	-0.75	-0.4	-0.39	-0.4	-0.38	-0.41	-0.42	-0.41	-0.39	-0.33	-0.4	-0.35	-0.14	-0.38	-0.48	28.46	-0.37	-0.43	-0.33	-0.42	28.01	28.81
Run1_ICUS18	ICUS	-0.34	-0.37	-0.3	-0.37	-0.46	-0.5	-0.45	-0.45	-0.43	-0.46	-0.47	-0.46	-0.44	-0.48	-0.45	-0.39	0.97	-0.49	-0.42	39.16	-0.44	-0.42	-0.45	-0.45	31.46	40.97
Run1_ICUS22		-0.36	-0.4	-0.3	-0.45	-0.51	-0.48	-0.4	-0.44	-0.4	-0.45	-0.47	-0.45	-0.42	-0.46	-0.46	-0.35	-0.31	-0.45	-0.34	34.68	-0.42	-0.41	-0.48	-0.4	32.61	35.4
Run1_ICUS24		-0.34	-0.5	-0.49	-0.56	-0.48	-0.47	-0.41	-0.43	-0.39	-0.45	-0.47	-0.45	-0.43	-0.48	-0.47	-0.41	-0.39	-0.45	-0.44	36.41	-0.42	-0.43	-0.43	-0.45	35.33	37.31
Run1_Nl-1	Normal	-0.39	-0.44	-0.42	-0.37	-0.4	-0.48	-0.42	-0.45	-0.43	-0.48	-0.5	-0.47	-0.44	-0.5	-0.48	-0.36	-0.43	-0.46	-0.51	46.33	-0.41	-0.43	-0.45	-0.44	43.35	48.14
Run1_Nl-3		-0.36	-0.51	-0.66	-0.43	-0.49	-0.48	-0.43	-0.38	-0.37	-0.47	-0.46	-0.44	-0.42	-0.45	-0.49	-0.39	-0.27	-0.46	-0.33	38.82	-0.42	-0.49	-0.5	-0.47	33.67	42.8
Run1_Nl-4		-0.39	-0.45	-0.35	-0.59	-0.46	-0.46	-0.44	-0.41	-0.41	-0.49	-0.48	-0.45	-0.44	-0.51	-0.51	-0.41	-0.33	-0.46	-0.54	35.34	-0.44	-0.44	-0.51	-0.43	33.54	36.94
Run1_Nl-6		-0.4	-0.46	-0.49	-0.46	-0.51	-0.46	-0.39	-0.39	-0.41	-0.45	-0.46	-0.43	-0.41	-0.46	-0.48	-0.4	-0.41	-0.44	-0.48	34.97	-0.41	-0.43	-0.49	-0.35	31.02	36.74
Run2_Nl-3		-0.36	-0.41	-0.46	-0.41	-0.44	-0.43	-0.41	-0.37	-0.38	-0.43	-0.43	-0.41	-0.39	-0.45	-0.45	-0.4	-0.27	-0.42	-0.46	31.31	-0.41	-0.45	-0.43	-0.44	26.76	34.69
Run2_Nl-4		-0.35	-0.41	-0.46	-0.3	-0.41	-0.42	-0.39	-0.38	-0.37	-0.42	-0.43	-0.4	-0.39	-0.42	-0.43	-0.4	-0.31	-0.43	-0.44	28.14	-0.38	-0.41	-0.44	-0.4	26.68	29.57
Run2_Nl-5		-0.35	-0.43	-0.47	-0.35	-0.44	-0.42	-0.39	-0.39	-0.37	-0.43	-0.42	-0.41	-0.4	-0.42	-0.44	-0.4	-0.39	-0.42	-0.41	28.76	-0.38	-0.45	-0.47	-0.43	25.75	31.82
Run2_Nl-6		-0.38	-0.4	-0.34	-0.43	-0.42	-0.42	-0.41	-0.4	-0.38	-0.41	-0.42	-0.4	-0.39	-0.41	-0.42	-0.41	-0.39	-0.42	-0.5	25.88	-0.38	-0.39	-0.45	-0.47	23.07	27.02

Supplemental Table 3: Median expression of each surface marker on each cell population.

CD45 Median

Sample	Group	Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	10.44	2.62	2.79	2.45	3.21	2.44	28.28	92.13	108.63	6.59	10.7	40.57	56.4	-0.19	-0.46	-0.07	24.94	81.86	8.33	138.42	139.49	3.05	27.17	3.3	154.11	119.71
Run2_MDS15*		26.54	6.27	3.34	3.28	5.2	6.16	12.87	64.92	82.56	5.5	10.92	31.54	54.08	11.36	12.44	46.32	55.12	86.8	29.93	137.12	132.2	13.16	19.14	4.18	165.64	114.11
Run2_MDS4		31.47	5.98	8.54	4.77	1.86	6.56	28.59	47.59	54.98	4.63	8.87	32.31	47.21	-0.23	-0.42	-0.13	11.38	10.25	1.59	85.19	75.24	10.73	19.69	3.44	104.97	71.23
Run1_MDS21	Higher Risk	9.27	2.21	2.19	2.03	2.25	2.26	11.33	91.7	101.34	3.13	10.27	53.48	78.91	-0.24	-0.04	10.33	58.87	79.07	1.14	90.08	106.15	11.79	27.6	3.29	122.4	81.73
Run2_MDS3		9.57	3.15	2.97	2.77	3.44	3.64	11.91	83.57	112.65	4.16	10.64	47.46	68.93	-0.12	0	6.78	68.56	92.05	3.24	117.48	137.09	89.34	27.26	2.53	143.57	108.69
Run2_MDS13		10.34	1.74	1.73	1.53	1.94	2.23	32.45	67.05	69.25	5.28	9.51	31.05	39.44	0.69	-0.23	-0.06	41.66	54.28	20.36	87.1	87.81	24.73	15.98	2.05	111.42	78.01
Run2_MDS16		29.58	12.52	12.72	11.24	8.03	32.74	78.09	70.7	85.64	4.13	7.96	19.67	29.62	6.55	-0.28	17.04	69.82	56.22	4.27	77.37	122.85	18.03	20.4	0.7	83.5	76.08
Run2_MDS1		32.84	4.52	6.56	2.69	3.55	5.86	22.83	51.94	72.13	2.51	7.09	28.8	37.99	0.53	-0.26	-0.19	55.39	48.1	3.22	66.03	91.44	15.09	11.89	1.16	86.79	62.79
Run2_MDS21		6.28	0.83	1.06	0.78	0.94	0.88	14.62	55.58	59.19	3.48	5.9	24.08	33.1	-0.28	-0.39	-0.25	39.19	54.48	1.07	68.51	70.07	2.28	14.78	1.42	94	61.62
Run2_MDS26*		11.88	5.98	6.35	5.7	4.12	1.68	12.22	74.42	85.35	2.01	4.84	21.93	33.18	1.24	-0.4	-0.39	12.22	36.93	0.23	79.7	87.14	19.54	19.33	2.18	99.23	70.9
Run2_MDS27		23.81	11.09	13.2	9.17	7.68	8.44	37.88	57.5	85.41	3.79	6.02	20.51	36.6	6.25	-0.28	-0.26	74.84	54.51	3.59	98.6	106.87	129.4	22.43	2.25	106.97	89.87
Run2_MDS2		30.33	0.45	0.73	0.27	0.44	1.1	26.64	40.96	61.16	2.38	6.65	29.31	34.94	32.39	23.4	3.17	34.48	86.21	3.64	48.96	63.79	24.8	7.23	-0.22	71.67	47.92
Run2_MDS3		9.23	1.51	1.54	1.35	1.61	1.94	21.96	57.46	62.47	6.01	9.16	24.66	34.56	0.18	-0.29	-0.27	49.57	66.62	2.89	90.64	99.58	11.81	15.95	1.87	114.14	82.91
Run1_MDS23	Lower Risk	41.94	11.02	12.6	9.61	7.89	13.58	62.89	130.62	169.73	4.54	8.79	36.71	64.14	0.38	0.32	43.35	87.52	67.09	1.28	122.84	176.88	27.65	37.12	2.58	177.91	109.02
Run1_MDS25		69.42	51.49	4.68	56.9	6.25	63.98	74.3	101.83	118.93	6.46	14.63	52.19	68.31	1.08	2.16	79.63	104.49	92.13	10.14	128.59	141.6	34.11	35.58	1.52	148.31	113.19
Run1_MDS5		110.26	42.09	24.82	44.67	21.25	26.67	101.66	132.04	156.91	16.51	54.08	96.65	117.62	52.7	0.92	17.87	126.03	84.03	23.07	148.58	193.7	62.19	36.26	1.53	203.43	133.87
Run1_MDS6		49.93	14.27	12.05	11.49	11.78	16.47	78.86	105.28	136.31	7.08	13.57	34.56	53.45	6.1	-0.16	35.51	93.96	112.73	10.91	137.21	175.5	49	43.79	3.96	158.89	123.54
Run1_MDS8		61.94	20.38	16.81	19.58	10.56	22.68	200.77	170.22	174.34	7.02	15.5	50.07	63.75	1.2	0.39	4.25	83.17	82.7	7.89	82.2	124.46	36.81	38.92	1.54	92.56	79.52
Run1_MDS9		57.61	11.81	14.71	9.25	12.19	14.69	172.61	150.44	139.07	5.94	12.55	42.02	67.27	1.3	0.53	23.76	95.23	79.27	5.28	97.31	152.59	134.29	34.88	1.88	132.31	86
Run2_MDS12		36	9.61	9.67	8.88	9	24.72	42.32	69.42	95.43	3.52	7.99	36.51	57.81	-0.15	-0.44	2.3	48.47	80.16	1.21	82.87	121.28	23.84	29.21	2.42	120.53	67.83
Run2_MDS14		28.14	12.1	0.17	35.33	4.69	48.4	74.39	103.8		3.46	5.83	14.57	28.46	0.5	-0.32	27.1	17.62	59.05	1.08	94.55	126.74	16.3	15.06	2.62	107.05	89.37
Run2_MDS19		25.82	12.47	14.9	11.86	6.64	21.52	48.21	62.31	87.09	3.58	7.7	21.8	32.45	-0.05	-0.39	-0.18	76.14	69.99	0.49	97.77	101.95	18.54	19.34	1.28	122.92	91.74
Run2_MDS20		51.48	15.59	17.71	17.68	8.16	81.17	133.51	115.52	110.88	4.47	7.78	24.3	38.98	3.41	0.34	36.22	104.98	84.51	8.16	112.37	108.33	101.12	23.51	1.61	130.84	110.49
Run2_MDS28*		46.51	6.51	11.8	5.55	6.06	13.19	35.94	84.53	128.95	4.17	6.73	30.3	59.55	1.69	-0.27	38.36	92.15	59.16	-0.24	102.29	127.16	82.24	24.22	2.15	123.55	87.64
Run2_MDS5		78.43	47.41	23.74	22.7	15.21	27.62	90.43	112.04	109.46	13.66	41.21	67.46	80.43	22.54	0.1	66.79	97.93	68.16	19.8	124.31	158.91	44.96	29.34	1.37	171.38	112.38
Run1_ICUS18	ICUS	63.94	20.66	23.19	15.04	11.56	79.14	118.26	129.29	142.58	5.1	9.73	34.04	59.71	0.94	0.29	70.8	108.42	78.52	0.94	107.91	161.31	44.33	32.15	2.6	133.91	103.77
Run1_ICUS22		74.42	17.04	21.54	15.78	10.34	45.14	143.7	150.25	178.21	5.76	10.13	38.9	77.62	0.97	0.8	81.31	39.43	77.52	1.06	121.8	137.77	172.65	29.25	2.6	155.35	112.02
Run1_ICUS24		55.1	15.99	21.05	14.07	10.12	21.51	56.81	102.93	153.42	6.26	10.72	35.17	65.25	0.56	-0.2	16.29	22.22	77.22	0.43	114.2	136.91	23.66	24.98	6.4	123.65	108.2
Run1_Nl-1	Normal	66.44	18.95	19.41	17.18	10.86	26.62	109.28	116.03	181.78	8.05	13.02	38.76	77.91	0.78	0.28	67.9	21.09	69.05	2.58	111.92	173.51	39.93	31.23	6.81	118.64	108.56
Run1_Nl-3		42.6	18.36	19.19	19.03	11.15	22.74	57.11	94.87	153.67	7.61	13.82	34.72	53.65	2.88	0.39	51.84	42.9	71.94	2.4	115.15	158.93	33.36	36.36	1.67	130.29	106.91
Run1_Nl-4		45.32	16.67	16.32	16.24	10.98	20.87	50.53	93.45	144.99	7.74	14.49	39.52	56.62	4.4	0.65	54.26	47.21	84.37	6.68	125.76	154.39	30.08	30.78	2.37	132.42	121.5
Run1_Nl-6		40.01	17.31	19.48	15.19	8.8	15.61	51.54	94.2	137.68	6.12	11.95	34.44	61.29	1.2	-0.13	46.78	21.16	59.58	3.37	113.24	159.99	32.54	26.8	1.97	123.38	110.06
Run2_Nl-3		27.69	13.82	16.04	12.28	7.94	17.99	46.37	80.62	115.98	5.89	10.61	25.91	35.85	1.01	0.1	32.03	30.6	68.05	1.6	97.11	130.8	25.64	25.33	1.24	110.15	90.6
Run2_Nl-4		27.24	13.67	16.16	14.51	7.72	16.46	39.89	72.38	94.69	6.04	10.48	25.92	33.91	2.11	0.16	30.97	32.1	68.05	6.04	108.47	122.84	21.35	21.41	1.78	113.92	104.66
Run2_Nl-5		32.14	12.45	13.17	11.13	6.93	17.36	44.18	88.47	110.09	4.87	9.42	27.83	39.93	2.55	-0.11	35.05	16.28	58.7	1.78	103.59	149.72	23.64	23.4	1.34	106.18	100.81
Run2_Nl-6		24.49	11.57	13.55	11.45	6.1	11.22	39.22	71.58	92.94	4.12	7.89	22.91	34.18	0.33	-0.29	17.99	14.57	45.61	2.89	94.18	129.14	22.21	18.19	2.05	104.52	90.85

Supplemental Table 3: Median expression of each surface marker on each cell population.

CD133 Median

		Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	-0.36	-0.22	-0.2	-0.24	-0.07	-0.35	-0.41	-0.43	-0.42	-0.43	-0.37	-0.37	-0.33	-0.3	-0.33	-0.37	-0.32	-0.34	-0.37	-0.45	-0.41	1.12	-0.6	-0.42	-0.45	-0.44
Run2_MDS15*		-0.23	1.47	0.93	0.8	-0.07	-0.26	-0.33	-0.32	-0.33	-0.33	-0.33	-0.24	-0.15	0.13	-0.06	-0.06	-0.28	-0.29	0.01	-0.36	-0.26	-0.2	-0.38	-0.05	-0.35	-0.37
Run2_MDS4		-0.33	0.13	0.3	-0.08	-0.47	-0.33	-0.32	-0.32	-0.33	-0.38	-0.36	-0.34	-0.32	-0.27	-0.27	-0.33	-0.33	-0.29	-0.41	-0.39	-0.25	-0.27	-0.35	-0.33	-0.39	-0.4
Run1_MDS21	Higher Risk	-0.37	-0.24	-0.21	-0.27	-0.21	-0.25	-0.33	-0.39	-0.39	-0.44	-0.41	-0.4	-0.35	-0.27	-0.13	-0.05	-0.42	-0.36	-0.24	-0.43	-0.33	-0.02	-0.39	-0.23	-0.39	-0.45
Run1_MDS3		-0.39	-0.24	-0.3	-0.24	-0.15	-0.22	-0.32	-0.45	-0.38	-0.45	-0.39	-0.39	-0.31	-0.35	-0.28	-0.24	-0.43	-0.37	-0.27	-0.44	-0.28	0.08	-0.44	-0.35	-0.42	-0.45
Run2_MDS13		-0.34	-0.19	-0.2	-0.21	-0.18	-0.24	-0.34	-0.34	-0.31	-0.37	-0.36	-0.33	-0.33	-0.26	-0.27	-0.3	-0.4	-0.36	-0.32	-0.38	-0.33	-0.28	-0.37	-0.34	-0.37	-0.39
Run2_MDS16		-0.3	0.91	1.06	0.78	0.59	-0.29	-0.3	-0.37	-0.37	-0.35	-0.36	-0.33	-0.31	0.19	-0.05	-0.27	-0.34	-0.38	-0.31	-0.37	-0.29	-0.29	-0.37	-0.29	-0.36	-0.37
Run2_MDS1		-0.38	-0.2	-0.07	-0.23	-0.21	-0.36	-0.38	-0.36	-0.37	-0.36	-0.42	-0.35	-0.34	-0.36	-0.24	-0.32	-0.35	-0.35	-0.26	-0.4	-0.35	-0.36	-0.31	-0.31	-0.39	-0.4
Run2_MDS21		-0.34	-0.24	-0.24	-0.24	-0.2	-0.25	-0.35	-0.32	-0.35	-0.37	-0.34	-0.35	-0.32	-0.31	-0.3	-0.32	-0.37	-0.31	-0.14	-0.39	-0.35	0.77	-0.45	-0.26	-0.38	-0.39
Run2_MDS26*		-0.4	-0.19	-0.18	-0.2	-0.28	-0.36	-0.22	-0.38	-0.48	-0.41	-0.41	-0.4	-0.39	-0.29	-0.31	-0.37	-0.38	-0.36	-0.51	-0.39	-0.34	-0.24	-0.42	-0.48	-0.1	-0.37
Run2_MDS27		-0.21	1.14	1.33	0.92	0.43	-0.16	-0.3	-0.37	-0.36	-0.36	-0.32	-0.31	-0.25	-0.14	-0.01	-0.14	-0.34	-0.32	-0.37	-0.29	-0.38	-0.37	-0.37	-0.39	-0.41	-0.38
Run2_MDS2		-0.36	-0.28	-0.28	-0.32	-0.24	-0.31	-0.28	-0.37	-0.3	-0.3	-0.36	-0.36	-0.34	-0.24	-0.12	-0.35	-0.48	-0.46	-0.34	-0.4	-0.37	-0.47	-0.43	-0.39	-0.41	-0.4
Run2_MDS3		-0.34	-0.21	-0.24	-0.21	-0.16	-0.22	-0.29	-0.36	-0.65	-0.36	-0.29	-0.29	-0.31	-0.27	-0.32	-0.36	-0.36	-0.37	-0.28	-0.39	-0.26	0.14	-0.42	-0.31	-0.37	-0.4
Run1_MDS23	Lower Risk	-0.38	0.31	0.55	0.24	0.38	-0.24	-0.3	-0.31	-0.32	-0.38	-0.41	-0.39	-0.38	-0.27	-0.17	-0.24	-0.37	-0.38	-0.46	-0.46	-0.36	-0.24	-0.5	-0.32	-0.43	-0.47
Run1_MDS25		-0.36	0.56	3.03	-0.68	-0.21	-0.24	-0.42	-0.41	-0.43	-0.44	-0.44	-0.38	-0.35	-0.08	-0.07	-0.05	-0.37	-0.23	-0.4	-0.42	-0.35	-0.32	-0.39	-0.37	-0.42	-0.42
Run1_MDS5		-0.31	1.93	2.44	0.62	0.43	0	-0.29	-0.25	-0.2	-0.35	-0.36	-0.33	-0.3	-0.12	0.3	-0.21	-0.29	-0.35	-0.26	-0.38	-0.32	-0.07	-0.36	-0.38	-0.39	-0.39
Run1_MDS6		-0.3	1.63	1.07	0.17	0.7	-0.06	-0.33	-0.34	-0.34	-0.37	-0.38	-0.32	-0.29	0.27	0.23	-0.12	-0.42	-0.34	-0.21	-0.42	-0.26	-0.02	-0.4	-0.26	-0.39	-0.44
Run1_MDS8		-0.25	1.16	1.28	1.07	0.52	-0.07	-0.25	-0.38	-0.38	-0.4	-0.36	-0.22	-0.19	0.21	0.14	-0.16	-0.38	-0.41	-0.3	-0.44	-0.28	-0.02	-0.44	-0.26	-0.44	-0.45
Run1_MDS9		-0.18	1.97	3.19	1.04	1.9	0.4	-0.26	-0.37	-0.34	-0.38	-0.31	-0.08	0.06	0.19	0.28	0.23	-0.35	-0.38	-0.4	-0.44	-0.28	-0.29	-0.41	-0.33	-0.43	-0.45
Run2_MDS12		-0.34	0.2	0.19	0	0.16	-0.25	-0.34	-0.35	-0.35	-0.39	-0.37	-0.34	-0.31	-0.19	-0.24	-0.32	-0.35	-0.34	-0.27	-0.41	-0.29	-0.25	-0.38	-0.24	-0.38	-0.42
Run2_MDS14		-0.3	-0.16	-0.36	-0.4	-0.45	-0.36	-0.36	-0.34	-0.32	-0.33	-0.35	-0.32	-0.3	-0.17	0.03	-0.21	-0.39	-0.35	-0.25	-0.4	-0.25	-0.37	-0.39	-0.16	-0.39	-0.4
Run2_MDS19		-0.31	0.41	0.48	0.48	0.44	-0.18	-0.31	-0.37	-0.36	-0.37	-0.34	-0.3	-0.27	-0.18	-0.26	-0.35	-0.37	-0.37	-0.34	-0.38	-0.32	-0.2	-0.41	-0.13	-0.37	-0.38
Run2_MDS20		-0.29	0.49	0.49	0.97	0.59	-0.26	-0.32	-0.31	-0.31	-0.33	-0.29	-0.25	-0.23	-0.11	-0.11	-0.16	-0.37	-0.29	-0.34	-0.38	-0.35	-0.34	-0.38	-0.3	-0.38	-0.39
Run2_MDS28*		-0.25	0.45	0.75	0.57	0.46	-0.06	-0.23	-0.27	-0.24	-0.27	-0.28	-0.23	-0.23	-0.22	-0.25	-0.2	-0.29	-0.28	-0.29	-0.39	-0.31	-0.28	-0.39	-0.14	-0.38	-0.4
Run2_MDS5		-0.29	1.5	1.5	1.81	1.69	-0.03	-0.41	-0.3	-0.24	-0.33	-0.33	-0.31	-0.29	-0.09	-0.02	-0.17	-0.27	-0.35	-0.21	-0.35	-0.29	-0.07	-0.38	-0.23	-0.35	-0.35
Run1_ICUS18	ICUS	-0.3	1.2	2.78	0.67	1	-0.27	-0.24	-0.35	-0.37	-0.37	-0.36	-0.31	-0.27	-0.2	-0.29	-0.16	-0.38	-0.39	-0.29	-0.43	-0.32	-0.37	-0.46	-0.39	-0.41	-0.44
Run1_ICUS22		-0.34	0.77	0.98	0.44	0.34	-0.19	-0.26	-0.32	-0.35	-0.4	-0.39	-0.35	-0.32	-0.08	-0.11	-0.22	-0.36	-0.34	-0.49	-0.43	-0.37	-0.28	-0.43	-0.37	-0.43	-0.43
Run1_ICUS24		-0.32	0.78	1.16	0.7	0.19	-0.23	-0.36	-0.41	-0.4	-0.38	-0.38	-0.3	-0.26	-0.06	-0.14	-0.03	-0.38	-0.33	-0.49	-0.46	-0.35	-0.29	-0.45	-0.13	-0.46	-0.45
Run1_Nl-1	Normal	-0.31	0.9	1.14	0.56	0	-0.28	-0.36	-0.38	-0.39	-0.4	-0.38	-0.31	-0.25	-0.15	-0.17	-0.06	-0.44	-0.39	-0.55	-0.44	-0.31	-0.32	-0.39	-0.02	-0.44	-0.43
Run1_Nl-3		-0.28	0.4	0.41	0.14	-0.04	-0.25	-0.34	-0.34	-0.36	-0.35	-0.34	-0.26	-0.23	-0.06	-0.2	-0.12	-0.37	-0.4	-0.33	-0.44	-0.33	-0.34	-0.42	-0.4	-0.44	-0.44
Run1_Nl-4		-0.28	0.52	1.22	0.09	-0.01	-0.22	-0.31	-0.29	-0.34	-0.35	-0.34	-0.26	-0.23	0.03	-0.2	-0.12	-0.37	-0.36	-0.33	-0.44	-0.3	-0.3	-0.47	-0.4	-0.44	-0.45
Run1_Nl-6		-0.31	0.65	0.92	0.31	-0.01	-0.21	-0.31	-0.26	-0.34	-0.37	-0.37	-0.3	-0.28	-0.11	-0.22	-0.22	-0.39	-0.36	-0.34	-0.43	-0.33	-0.29	-0.41	-0.46	-0.44	-0.43
Run2_Nl-3		-0.26	0.23	0.31	0.3	-0.11	-0.25	-0.31	-0.3	-0.32	-0.32	-0.3	-0.22	-0.18	-0.21	-0.25	-0.17	-0.38	-0.38	-0.49	-0.4	-0.33	-0.3	-0.41	-0.34	-0.4	-0.4
Run2_Nl-4		-0.25	0.45	1.06	0.07	-0.01	-0.19	-0.3	-0.29	-0.32	-0.3	-0.29	-0.21	-0.19	-0.14	-0.24	-0.17	-0.34	-0.34	-0.25	-0.4	-0.29	-0.35	-0.44	-0.37	-0.39	-0.4
Run2_Nl-5		-0.26	0.5	0.63	0.47	-0.01	-0.25	-0.28	-0.27	-0.3	-0.32	-0.29	-0.23	-0.18	-0.11	-0.19	-0.21	-0.38	-0.39	-0.33	-0.4	-0.29	-0.36	-0.39	-0.36	-0.4	-0.4
Run2_Nl-6		-0.29	0.44	0.58	0.24	0.09	-0.2	-0.28	-0.28	-0.31	-0.34	-0.33	-0.27	-0.25	-0.22	-0.29	-0.28	-0.36	-0.36	-0.3	-0.4	-0.31	-0.34	-0.4	-0.34	-0.39	-0.4

Supplemental Table 3: Median expression of each surface marker on each cell population.

HLADR Median

Sample	Group	Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	0.81	20.39	23.83	18.93	36.12	18.89	20.15	19.04	25.01	-0.23	-0.14	-0.11	0.03	4.71	1.8	0.5	2.68	354	8.84	0.5	-0.11	54.37	0.58	0.62	0.89	-0.03
Run2_MDS15*		5.54	650.24	163.92	156.34	91.62	82.86	67.15	62.2	161.9	2.91	0.68	0.56	0.51	889.03	5.29	9.51	23.36	565.57	257.71	0.4	0.88	126.79	1.08	17.77	1.32	-0.09
Run2_MDS4		1.54	752.93	632.84	442.64	510.02	491.92	560.78	341.38	208.91	0.78	0.62	0.43	0.42	2.78	0.8	2.48	261.69	494.8	3.21	1.05	1.82	271.97	0.98	5.97	1.93	0.49
Run1_MDS21	Higher Risk	0.72	118.14	124.88	115.8	168.56	136	40.91	15	16.51	-0.23	-0.18	-0.13	0.08	2.67	3.82	1.02	89.91	333.43	3.81	-0.23	0.83	124.92	1.22	0.15	0.36	-0.35
Run2_MDS3		0.57	62.64	82.62	72.96	114.26	82.18	37.18	13.1	25.78	-0.21	-0.17	-0.09	0.39	4.86	4.76	0.53	108.03	378.47	11.26	-0.23	1.04	216.16	1.44	0.16	0.33	-0.33
Run2_MDS13		0.82	346.51	341.79	319.39	386.9	336.54	67.76	43.91	64.28	0.23	-0.01	-0.02	0.09	9.36	3.29	0.69	74.21	295.2	79.8	-0.15	0.7	266.05	0.58	0.09	0.79	-0.28
Run2_MDS16		-0.01	190.04	172.89	177.8	164.21	221.76	112.46	39.92	48.51	0.06	-0.1	-0.03	0.01	138.11	0.7	0.13	0.03	216.37	3.84	-0.33	-0.16	167.35	0.34	-0.12	-0.27	-0.35
Run2_MDS1		0.41	467.1	323.71	496.71	435.7	337.03	165.52	168.66	192.18	-0.03	-0.29	-0.24	-0.21	22.54	2.18	-0.04	4.73	266.15	13.1	-0.12	0.11	119.55	1.89	0.41	0.86	-0.18
Run2_MDS21		0.83	231.74	244.26	218.77	343.36	286.14	204.65	86.55	82.39	0.04	-0.02	-0.06	0.03	3.8	2.34	0.46	91.52	307.58	16.33	-0.2	-0.04	301.7	1.21	0.47	0.42	-0.3
Run2_MDS26*		-0.24	170.17	176.81	159.57	254.34	54.87	38.03	41.23	39.88	-0.29	-0.31	-0.27	-0.23	6.1	0	-0.23	0.37	240.16	0.5	-0.22	-0.34	111.01	0.47	-0.26	0.1	-0.33
Run2_MDS27		0.84	613.58	611.39	577.95	631.44	523.32	389.89	165.1	163.66	0.22	0	0.01	0.08	414.09	2.27	-0.25	2.94	433.27	12.78	0.1	-0.1	308.58	1.36	19.87	0.53	-0.12
Run2_MDS2		0.93	798.8	726.34	799.34	871.35	703.58	636.6	256.89	315.74	47.14	0.57	0.27	1.01	65.3	3.99	1.62	3.12	564.94	187.7	-0.14	-0.3	171.15	0.84	1.95	-0.03	-0.14
Run2_MDS3		0.99	274.99	303.18	236.7	414.98	347.71	80.93	53.78	67.92	0.49	0.35	0.21	0.38	15.07	5.4	1.11	108.04	352.75	10.69	-0.2	0.69	412.26	1.43	0.67	0.33	-0.28
Run1_MDS23	Lower Risk	0.16	323.95	317.36	282.43	964.25	552.1	383.72	335.47	418.48	-0.12	-0.2	-0.21	-0.07	34.66	33.25	7.51	96.69	465.9	16.42	-0.11	0.79	689.89	0.45	7	2.6	-0.25
Run1_MDS25		-0.04	24.6	522.17	15.42	753.97	664.23	201.74	64.3	58.47	-0.16	-0.2	-0.22	-0.17	27.41	26.1	1.45	39.59	842.55	39.48	1.23	-0.09	832.6	1.27	0.02	4.54	0.09
Run1_MDS5		0.48	141.49	466.65	141.93	355.22	442.05	118.47	37.48	54.36	-0.22	-0.12	0.11	0.22	11.79	2.41	1.1	4.67	224.19	25.53	0.19	12.2	132.8	4.67	0.68	11.43	-0.13
Run1_MDS6		0.45	629.95	417.67	347.76	759.88	786.81	453.9	163.24	146.89	0.19	0.08	0.23	0.28	149.04	3.25	1.2	82.48	345.45	19.83	-0.16	0.71	190.18	1.94	4.81	0.03	-0.27
Run1_MDS8		-0.1	160.25	157.96	143.64	229.53	273.58	388.64	157.65	79	-0.19	-0.26	-0.22	-0.18	5.36	8.56	0.11	1.73	202.89	11.3	-0.34	-0.02	77.59	1.07	0.44	-0.18	-0.38
Run1_MDS9		-0.1	366.92	410.66	277.14	488.79	410.18	440.85	225.16	92.6	-0.2	-0.24	-0.23	-0.17	7.01	8.52	0.87	0.64	341.92	22.2	-0.33	-0.27	233.93	1.06	0.44	-0.25	-0.38
Run2_MDS12		0.21	1813.28	617.91	1094.3	1198.7	969.08	183.39	80.74	85.32	-0.14	-0.16	-0.04	0.15	1.8	0.43	-0.03	75.18	560.34	9.2	-0.07	0.13	653.95	1.02	4.06	0.89	-0.23
Run2_MDS14		0.24	36.64	10.72	120.08	65.96	390.22	335.1	68.14	96.89	-0.01	-0.05	0.01	0.05	1.73	0.5	0.42	147.01	353.15	4.47	-0.01	0.81	311.58	0.41	-0.11	0.66	-0.09
Run2_MDS19		0.02	195.21	195.37	172.02	518.43	879.93	355.86	133.67	147.24	-0.02	-0.07	-0.05	-0.04	6.23	0.8	-0.17	6.63	357.73	11.49	-0.2	0.44	769.79	0.48	0.08	0.38	-0.28
Run2_MDS20		0.42	242.54	280.51	120.01	644.87	749.45	730.6	462.9	395.45	0.53	0.18	0.18	0.29	130.3	10.56	0.64	1.47	608.86	43.24	-0.11	2.78	296.23	2.05	0.22	0.58	-0.13
Run2_MDS28*		0.21	276.31	231.42	272.09	356.91	1424.88	907.2	466.69	582.28	0.09	-0.08	-0.04	-0.01	62.33	3.32	0.37	88.5	441.74	6.35	-0.06	0.17	227.27	0.93	2.96	0.78	-0.24
Run2_MDS5		0.5	250.53	530.07	251.24	457	529.95	145.59	61.8	107.67	0	-0.02	0.2	0.33	113.16	1.37	1.01	2.27	186.32	38.54	0.31	10.07	161.71	4.61	0.83	10.63	-0.11
Run1_ICUS18	ICUS	0.2	139.56	133.33	133.29	199.48	470.17	440.84	225.11	160.19	-0.06	-0.05	0	0.11	11.6	12.72	0.61	3.61	321.28	30.08	-0.21	-0.17	606.15	0.47	-0.03	0.42	-0.27
Run1_ICUS22		0.26	226.79	244.37	219.13	363.82	788.44	592.45	369.14	363.13	-0.06	-0.12	-0.1	-0.02	37.17	35.7	0.64	313.3	506.86	21.21	-0.06	-0.03	442.86	1.73	0.52	1.9	-0.2
Run1_ICUS24		0.21	149.91	101.91	165.37	444.27	523.61	123.96	52.32	86.56	-0.15	-0.18	-0.14	-0.08	7.5	5.82	0.6	362.34	611.04	4.89	-0.05	-0.26	571.25	0.69	0.44	0.48	-0.16
Run1_Nl-1	Normal	0.09	89.24	86.41	85.02	205.75	317.74	192.05	50.42	53.52	-0.14	-0.14	-0.04	0.03	3.79	3.73	0.47	197.64	267.07	7.32	-0.35	-0.39	194.08	1.09	0.09	-0.31	-0.36
Run1_Nl-3		0.34	99.23	89.09	78.19	201.63	350.51	62.9	31.57	49.78	-0.05	-0.04	0.16	0.25	17.42	16.34	0.64	119.84	225.87	16.69	-0.24	-0.27	307.67	0.91	-0.01	-0.06	-0.34
Run1_Nl-4		0.33	244.68	328.05	160.43	386.65	440.9	82.31	37.88	80.42	-0.06	-0.03	0.11	0.19	31.6	19.95	0.55	170.7	437.44	28.73	-0.19	-0.14	503.53	1.7	0.74	-0.14	-0.23
Run1_Nl-6		0.32	107.74	105.15	101.18	217.76	307.47	77.12	44.11	67.16	-0.07	-0.03	0.04	0.03	14.42	6.65	0.57	314.07	449.18	14.02	-0.24	-0.26	394.48	2.11	0.19	0	-0.3
Run2_Nl-3		0.43	105.14	102.53	89.93	279.5	548.48	105.39	47.14	73.77	0.16	0.09	0.32	0.46	14.19	12.34	0.75	144.94	223.18	12.43	-0.24	-0.3	282.02	0.62	0.11	-0.11	-0.31
Run2_Nl-4		0.49	246.02	241.3	247.12	494.48	731.66	136.07	70.47	122.92	0.27	0.14	0.36	0.44	21.16	13.32	0.71	178.27	454.08	37.54	-0.18	-0.18	476.36	1.35	0.64	-0.15	-0.2
Run2_Nl-5		0.51	103.49	99.43	75.96	241.61	372.91	81.88	43.41	55.06	0.27	0.16	0.36	0.47	5.65	2.39	0.69	172.52	153.32	6.71	-0.28	-0.32	110.96	1.24	-0.19	-0.26	-0.31
Run2_Nl-6		0.39	117.24	115.63	106.58	233.41	596.59	154.36	83.18	99.1	0.34	0.19	0.22	0.26	7.91	3.38	0.55	326.24	487.28	14.3	-0.22	-0.25	455.06	1.33	-0.17	0.06	-0.29

CD44 Median

Sample	Group	Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	134.56	225.04	235.05	217.9	245.11	142.17	140.02	378.72	445.03	53.84	48.68	175.8	231.8	28.04	22.22	19.88	219.99	142.29	380.55	221.73	67.79	129.31	129.24	8.48	219.85	224.42
Run2_MDS15*		356.33	324.31	383.49	362.69	250.22	180.62	190.75	571.76	685.87	144.14	146.12	314.31	395.69	245.51	282.56	411.68	561.81	225.46	327.12	328.67	234.65	506.91	156.44	160.56	324.61	331.76
Run2_MDS4		208.86	77.07	75.99	50.3	8.73	110.53	441.83	668.42	698.72	31.51	42.51	184.23	310.31	13.93	15.76	8.51	68.72	36.03	129.13	360.54	477.48	86.95	74.9	12.46	401.19	324.74
Run1_MDS21	Higher Risk	62.48	80.67	76.75	76.93	104.15	96.48	77.43	302.55	338.56	12.32	16.31	93.45	141.43	38.95	43.25	16.83	95.72	165.85	243.03	129.46	173.93	238.69	40.69	2.21	154.21	119.13
Run2_MDS3		70.38	97.65	95.33	87	129.12	117.41	97.31	319	441.59	16.61	23.78	126.57	163.39	49.13	53.18	45.88	120.17	206.29	190.64	223.89	219.75	238.69	34.31	4.73	217.17	227.07
Run2_MDS13		108.85	176.38	189.02	158.6	135.88	117.38	163.86	474.37	540.64	19.87	30.17	240.99	272.55	112.76	37.21	17.95	124.38	179.54	337.74	230.9	277.08	296.3	57.97	4.11	246.54	220.84
Run2_MDS16		145.73	145.77	151.2	138.88	197.03	408.81	590.73	596.54	750.36	5.85	8.26	80.95	157.52	101.51	17.71	73.36	261.73	127.12	394.23	285.24	92.49	308.64	163.65	4.86	272	288.4
Run2_MDS1		172.22	199.44	121.24	203.39	224.81	178.65	313.48	646.81	763.42	8.74	21.5	120.33	186.83	36.79	20.86	13.61	244.09	250.14	235.83	259.68	224.38	200.22	17.55	5.49	274.6	257.38
Run2_MDS21		75.73	88.18	92.16	84.24	117.98	97.88	79.83	406.83	423.58	15.18	18.73	192.45	247.58	42.75	26.66	13.58	107.24	179.59	310.39	174.26	204.19	148.72	45.52	2.88	214.76	160.59
Run2_MDS26*		38.36	65.76	69.33	65.31	67.25	23.76	54.33	419.19	484.12	5.6	9.18	75.02	129.37	19.87	37.56	15.4	21.58	73.46	233.97	185.93	43.72	341.31	24.44	6.32	212.54	171.1
Run2_MDS27		126.51	94.18	99.32	88.18	88.46	71.26	280.47	423.31	650.09	6.34	7.15	81.19	232.67	39.22	24.08	9.33	239.81	108.72	287.41	382.92	104.73	698.59	144.03	12.13	385.63	379.42
Run2_MDS2		237.96	552.55	558.7	547.18	435.17	382.41	590.03	616.5	805.84	35.24	30.89	193.49	207.52	354.33	211.1	95.95	309.42	563.88	456.33	281.8	72.19	430.36	109.08	1.98	288.03	281.34
Run2_MDS3		101.28	114.15	128.31	103.58	159.69	128.37	135.24	436.22	456.36	30.21	45.03	244.12	280.93	136.26	47.75	21.12	145.5	241.25	375.61	302.41	292.57	84.16	55.65	6.06	299.89	303.38
Run1_MDS23	Lower Risk	29.22	33.72	31.07	35.28	58.07	48.57	129.68	236.65	342.3	3.08	3.58	18.44	44.1	49.39	59.8	46.35	146.85	86.63	52.59	186.45	192.26	106.02	27.6	15.34	210.48	178.24
Run1_MDS25		93.07	59.82	28.49	97.75	71.21	257.59	306	333.62	355.18	5.87	9.86	62.8	90.23	40.52	56.82	83.85	229.03	100.48	159.25	203.5	61.94	92.67	97.61	3.18	193.97	216.1
Run1_MDS5		298.19	211.15	193.25	202.84	124.34	165.91	286.13	292.7	545	10.13	111.96	245.02	357.52	177.83	36.38	71.27	307.32	116.69	271.48	212.52	302.4	165.5	98.82	16.09	253.45	192.82
Run1_MDS6		144.69	46.48	41.61	38.3	45.02	83.68	274.06	402.34	475.44	19.65	20.43	90.48	167.73	38.69	15.17	101.48	157.68	123.91	365.26	216.06	141.08	215.05	113.27	4.2	235.37	201.07
Run1_MDS8		87.99	96.55	73.59	121.85	83.19	163.1	425.4	485.37	518.21	5.83	10.56	74.34	99.73	89.58	40.07	21.71	90.84	104.05	230.25	64.2	65.46	81.86	113.6	4.74	73.89	61.7
Run1_MDS9		53.75	77.56	82.98	63.65	81.93	94.02	362.97	405.29	386.4	3.95	6.01	32.2	58.3	33.3	29.63	31.23	138.34	74.68	246.77	133.03	73.48	322.27	142.72	6.49	176.22	111.47
Run2_MDS12		64.85	100.79	90.57	81.48	163.23	180.99	283.31	433.92	631.11	3.14	4.89	58.59	118.27	40.87	33.32	22.58	236.02	27.61	209.34	183.78	219.45	189.48	61.91	15.71	239.52	152.53
Run2_MDS14		159.28	135.12	-0.35	229.73	84.29	410.44	521.45	528.55	660.49	4.57	7.28	46.54	169.29	33.49	17.03	160.59	8	124.21	496.68	324.57	91.32	170.72	110.09	8.13	297.3	342.49
Run2_MDS19		90.57	94.64	103.8	94.11	107.42	148.56	248.66	364.12	508.16	3.94	6.61	57.34	130.92	30.32	18.39	9.22	323.32	148.47	37.23	303.49	77.55	60.6	116.67	3.54	264.68	319.43
Run2_MDS20		177.99	94.3	93.02	90.38	136.46	327.31	503.84	581.95	638.44	6.98	8.37	62.71	171.35	75.69	38.54	160.68	281.84	95.84	381.63	207.51	57.82	359.9	150.14	4.34	247.56	204.03
Run2_MDS28*		94.98	75.8	88.43	57.13	95.86	72.07	149.33	361.02	581.54	3.59	4.32	42.78	127.52	45.65	25.5	70.15	322.56	101.93	76.51	250.24	197.34	418.16	142.85	5.06	252.02	248.49
Run2_MDS5		441.85	261.38	283.46	141.82	195.97	211.68	323.75	394.87	797.72	13.13	190.4	383.65	533.12	140.77	35.1	253.63	325.13	144.92	268.07	299.52	422.76	203.23	156.76	11.22	351.64	277.82
Run1_ICUS18	ICUS	109.75	82.99	76.21	69.16	76.9	319.72	427.78	482.68	513.47	6.14	6.48	43.92	105.61	57.55	43.59	134.86	214.23	143.23	56.44	214.12	77.76	226.38	120.3	2.74	223.2	212.02
Run1_ICUS22		65.5	65.74	80.78	60.24	74.07	108.86	309.85	330.61	388.06	5.13	5.12	23.65	66.77	33.52	39.36	71.94	28.77	55.04	111.6	215.53	21.83	347.8	76.71	2.82	217.99	214.51
Run1_ICUS24		65.75	82.41	80.27	78.25	96.12	117.37	222.55	318.35	477.82	6.43	6.01	27.9	85.09	30.24	27.03	16.86	3.41	63.64	123.4	185.19	50.88	75.32	57.98	3.37	167.1	202.88
Run1_Nl-1	Normal	77.28	77.77	97.44	57	77.4	135.03	300.39	327.82	503.64	5.04	4.84	27.3	99.24	38.95	43.53	82.38	5.48	64.27	169.2	178.26	36.33	228.13	108.61	2.8	178.2	178.29
Run1_Nl-3		77.7	87.31	93.56	85.09	95.19	132.23	172.22	270.84	433.98	8.6	8.66	54.7	105.56	89.8	44.57	108.41	52.32	65.55	118.05	182.93	74.17	134.91	124.31	6.61	173.48	189.84
Run1_Nl-4		87.88	84.41	89.37	77.46	96.11	130.91	196.23	317.03	467.22	7.32	9.91	64.7	122.37	104.23	45.61	119.87	63.83	118.3	347.82	198.17	67.14	298.37	113.19	3.93	194.88	200.21
Run1_Nl-6		53.7	106.61	122.93	96.62	93.17	140.86	204.07	328.02	480.9	6.73	7.27	32.44	89.19	58.79	36.46	55.8	8.1	62.28	278.49	209.65	51.12	170.24	62.23	2.77	203.66	212.4
Run2_Nl-3		118.88	117.96	130.42	109.55	135.71	177.96	262.37	444.22	643.67	7.38	14	110	170.73	91.21	49.55	163.64	43.93	85.21	142.74	266.01	103.16	176.49	167.83	5.14	248.12	280.46
Run2_Nl-4		152.56	141.68	137.36	123.07	145.75	175.76	295.09	532.67	698.28	9.01	16.9	138.54	215.6	96.44	49.64	203.66	54.7	164.47	549.08	296.88	97.02	372.66	167.12	3.9	289.76	303.9
Run2_Nl-5		122.17	89.04	112.92	69.57	111.02	193.21	297.44	554.65	714.07	5.71	9.25	88.23	184.27	77.19	32.09	160.95	4.44	93.01	247.09	234.02	72.8	278.34	171.11	4.49	224.77	244.17
Run2_Nl-6		89.89	141.13	156.33	129.91	143.25	183.82	292.28	492.2	685.57	7.34	10.15	61.81	157.34	44.58	32.67	50.72	7.68	76.42	363.5	297.57	69.89	208.24	91.31	4.66	293.21	299.02

Supplemental Table 3: Median expression of each surface marker on each cell population.

CD38 Median

		Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	4.03	5.78	6.07	5.33	50.56	8.2	3.09	2.41	2.43	1.47	3.3	4.08	5.49	7.04	5.7	3.19	4.38	1.67	1903.67	2.17	78.56	3.74	108.61	1.77	2.13	2.28
Run2_MDS15*		10.75	1.89	4.48	4.55	87.15	57.8	29.66	24.8	27.93	27.03	12.32	5.88	5.16	28.62	15.27	13.75	16.43	0.05	1747.52	1.45	78.84	26.78	124.17	15.81	1.94	0.98
Run2_MDS4		2.44	1.5	0.44	1.12	67.38	9.62	6.35	3.98	7.19	7.14	4.56	2.21	1.81	6.32	5.54	1.76	11.72	27.54	1836.2	0.41	9.94	10.6	52.32	4.01	0.2	0.62
Run1_MDS21	Higher Risk	6.1	25.32	25.17	24.9	72.15	69.92	46.25	34.3	36.36	1.36	2.95	4.46	7.33	12.86	17.26	30.87	0.05	0.65	1835.26	0.89	27.04	23.29	257.65	21.49	0.78	0.94
Run1_MDS3		3.84	26.85	25.59	26.1	76.41	73.19	39.62	13.88	31.21	1.1	1.85	3.57	6.61	12.92	12.99	8.02	0.12	0.58	1761.88	0.98	41.18	36.74	286.35	13.14	0.81	1.08
Run2_MDS13		19.17	21.61	20.43	21.51	100.28	105.34	78.3	98.36	103.76	25.19	30.26	32.93	30.52	39.63	9.76	5.25	-0.02	-0.02	2005.81	0.98	21.61	158.5	228.79	9.67	1.12	0.92
Run2_MDS16		5.94	7.24	6.53	6.05	93.8	32.44	7.74	39.1	24.22	31.92	9.47	6.41	5.38	16.69	10.21	6.29	4.45	5.02	2276.59	2.38	140.06	31.2	254.71	19.69	1.4	2.7
Run2_MDS1		5.88	25.5	17.45	27.58	94.35	57.89	21.6	8.77	8.39	4.89	2.34	3.94	3.47	38.71	6.93	2.21	12.13	2.25	1837.55	2.95	139.86	17.57	231.16	5.44	3.7	2.84
Run2_MDS21		14.02	24.21	24.67	23.67	79.48	73.52	76.2	126.4	109.07	16.86	36.43	59.66	51.85	11.66	8.36	5.33	-0.12	0.08	2086.94	0.65	2.33	10.64	286.74	17.6	0.52	0.73
Run2_MDS26*		4.75	7.72	4.77	7.09	68.39	30.26	33.95	27.79	44.68	5.73	5.73	5.29	4.91	21.88	4.63	2.03	4.47	4.89	1362.25	2.8	166.2	24.97	192.12	11.65	1.36	4.11
Run2_MDS27		6.1	5.34	4.39	5.36	56.98	47.46	26.44	45.97	28.08	47.68	17.77	9.63	6.23	23.31	8.43	1.71	1.41	1.24	2876.1	0.19	72.71	-0.04	259.29	11.19	0.05	0.37
Run2_MDS2		16.83	17.07	19.51	16.02	74.41	67.8	58.57	81.3	109.89	41.75	6.75	16.89	15.27	105.31	19.85	12.77	12.43	14.6	2010.74	2.4	237.45	114.78	125.77	15.19	1.01	2.62
Run2_MDS3		13.14	25.85	26.69	25.23	106.26	106.41	71.74	63.84	77.6	16.16	29.07	43.09	36.23	31.46	9.64	4.73	-0.09	0.24	2078.01	0.74	35.7	38.13	278.23	13.53	0.57	0.82
Run1_MDS23	Lower Risk	5.02	15.72	13.32	15.87	112.86	30.27	30.25	28.69	25.23	5.31	3.9	3.91	4.21	22.48	21.71	9.67	21.94	1.47	1793.97	2.55	119.03	32.43	318.62	30.24	2.39	2.63
Run1_MDS25		2.79	15.72	14.49	6.68	223.42	10.63	46.03	49.19	31.06	5.75	3.1	2.06	2.34	29.31	27.18	5.97	17.25	2.6	2636.81	4.26	249.64	58.32	376.99	4	3.51	5.17
Run1_MDS5		3.54	10.8	1.35	6.43	248.59	144.43	31.7	26.72	52.21	10.94	3.2	2.57	3.03	49.81	11.93	5.75	8.55	5.51	2047.87	2.58	46.47	174.32	305.27	4.92	39.78	1.62
Run2_MDS6		4.15	20.25	19.13	15.96	68.02	46.46	25.45	31.15	27.65	6.67	4.76	4.09	3.31	42.49	13.53	5.9	9.69	4.34	2334.2	2.54	89.97	46.65	164.75	16.7	1.31	4.37
Run1_MDS8		3.31	21.03	23.96	21.36	164.63	61.84	12.04	35.31	32.92	9.72	5.05	2.35	2.4	38.94	20.85	5.93	10.87	5.77	1729.74	4.28	164.76	201.63	323.2	16.36	2.42	5.01
Run1_MDS9		2.4	16.15	17.1	15.45	76.18	48.92	2.52	19.63	29.73	3.66	3.03	1.92	1.92	22.66	22.64	10.07	2.31	0.72	2208.21	0.71	72.55	1.82	246.9	8.72	-0.07	1.63
Run2_MDS12		9.82	15.13	13.89	17.82	70.97	27.86	32.05	26.62	20.18	12.85	11.91	10.11	8.43	9.72	6.5	4.64	18.42	-0.09	1723.11	1.42	56.76	30.5	321.25	15.93	1.23	1.61
Run2_MDS14		4.88	5.74	0.26	3.09	295.46	20.16	5.54	37.63	31.55	20.04	7.16	5.97	3.84	20.55	12.15	4.52	393.28	19.52	1883.21	1.8	461.74	82.49	249.47	10.88	2.94	1.43
Run2_MDS19		3.74	10.68	7.69	10.76	113.59	48.4	34.07	42.86	28.64	11.65	5.66	3.98	2.73	11	5.48	1.94	6.47	0.8	2320.43	0.47	120.84	29.94	212.17	5.71	0.27	0.55
Run2_MDS20		7.05	12.11	16.14	12.56	145.01	7.8	8.45	48.27	54.34	26.19	12.7	8.62	5.6	43.55	11.38	7.14	16.63	0.2	1903.71	7.28	63.79	1.76	232.17	9	3.73	7.57
Run2_MDS28*		12.58	23.2	22.71	22.49	103.98	47.57	43.77	57.24	44.87	23.76	14.75	13.64	9.65	93.17	6.77	9.51	29.6	1.61	1213.47	0.98	127.25	57.24	141.28	25.71	0.57	1.82
Run2_MDS5		3.21	8.25	7.8	23.71	198.37	143.82	15.89	21.7	44.11	26.33	2.73	2.39	2.9	377.8	9.29	4.4	5.05	3.85	2074.06	2.07	86.03	162.83	319.1	5.06	48.27	1.06
Run1_ICUS18	ICUS	3.82	13.36	24.12	10.25	83.25	3.85	5.73	18.26	19.99	7.27	5.74	4.6	3.25	17.37	14.68	4.16	12.3	4.19	1954.54	2.69	86.05	22.38	188.86	20.8	0.62	3.61
Run1_ICUS22		4.1	19.54	17.63	19.39	111.74	32.11	20.17	65.3	58.7	8.07	6.25	4.72	3.06	29.19	29.04	4.81	151.34	15.95	1694.7	1.9	436.74	3.47	164.13	8.49	1.6	2.04
Run1_ICUS24		4.26	18.67	13.87	20.26	129.79	79.75	50.55	42.09	33.94	5.15	3.94	3.9	3.27	19.88	14.29	10.67	277.35	6	1758.26	1.46	241.37	41.86	141.46	19.41	2.02	1.07
Run1_Nl-1	Normal	3.45	18.48	14.38	19.03	189.21	83.32	32.48	39.86	29.34	5.91	3.63	3.23	2.49	20.41	18.06	5.14	372.2	17.29	1875.65	4.8	214.48	90.87	132.64	30.1	2.46	7.35
Run1_Nl-3		7.41	20.73	17.28	18.59	114.55	65.85	48.57	47.34	30.44	15.5	9.29	7.27	5.31	35.32	14.71	8.36	58.2	7.48	2137.68	2.29	61.25	40.65	184.47	8.86	1.26	3.86
Run1_Nl-4		6.69	19.08	19.41	18	138.33	72.98	55.64	47.41	32.67	11.96	7.77	6.26	5.15	38.05	15.77	7.31	53.76	5.23	2501.99	1.71	147.81	57.2	191.67	9.38	1.29	2.28
Run1_Nl-6		6.87	11.7	8.35	10.75	144.68	84.87	53.38	39.61	27.07	10.78	7.52	6.58	5.19	27.17	10.66	6.88	285.35	7.29	2299.34	2.77	142.56	18.86	282.38	8.9	1.97	3.24
Run1_Nl-3		7.26	19.77	17.54	19.67	124.23	82.58	59.72	45.04	27.31	30.12	9.46	6.53	5.26	26.18	10.76	6.11	72.03	5.74	2017.48	1.41	58.79	32.82	171.88	9.01	0.77	2.3
Run2_Nl-4		7.97	18.83	14.45	21.35	132.45	92.79	69.01	49.14	32.47	28.99	11.15	7.35	5.63	25.99	10.79	7.32	108.12	3.61	2619.1	1.06	140.2	48.13	177.96	10.42	0.8	1.47
Run2_Nl-5		7.81	18.05	14.12	21.46	164.01	142.23	84.02	52.17	36.62	30.1	10.32	6.63	4.91	60.22	11.3	5.86	376.94	7.1	2463.39	3.85	113.88	40.55	132.37	6.66	2.76	6.03
Run2_Nl-6		9.47	9.28	6.37	9.02	117.53	94.76	59.32	45.42	28.21	26.04	14.14	9.83	6.89	16.05	6.97	6.09	278.77	5.38	2390.24	1.71	135.45	13.93	246.82	13.9	1.09	2.16

CD14 Median

		Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	0.1	-0.02	0.04	-0.06	0.54	0	0.23	0.98	11.2	-0.15	0.2	0.14	0.46	0.89	1.44	0.82	0.05	-0.27	7.45	-0.16	0.97	-0.2	2.09	0.1	-0.19	-0.13
Run2_MDS15*		1.41	-0.21	-0.16	-0.2	0.46	0.64	1.16	2.48	35.2	0.78	0.78	1.41	1.06	0.43	3.57	3.37	7.23	-0.29	4.42	-0.13	0.72	0.71	1.18	0.57	-0.12	-0.13
Run2_MDS4		0.06	-0.22	-0.25	-0.25	-0.53	-0.12	0.35	1.01	11.42	0.05	-0.02	-0.07	0.06	0.58	2	1.85	0.52	0.13	6.89	-0.18	-0.08	-0.06	0.89	1.36	-0.2	-0.16
Run1_MDS21	Higher Risk	0.07	0.33	0.14	0.25	0.65	0.63	0.72	2.13	11.43	-0.23	-0.08	0.08	0.54	0.76	1.51	1.38	-0.28	-0.32	9.27	-0.25	0.99	-0.09	2.05	0.69	-0.24	-0.25
Run1_MDS3		0.02	0.47	0.41	0.37	0.71	0.75	0.68	1.28	11.26	-0.22	-0.1	0.08	0.61	0.83	1.22	1.04	-0.24	-0.3	6	-0.18	0.87	0.39	2.21	0.35	-0.2	-0.17
Run2_MDS13		0.28	0.02	0.12	-0.01	0.52	0.58	0.72	1.19	9.82	0.36	0.61	0.46	0.64	1.27	1.79	1.12	-0.2	-0.28	4.13	-0.17	0.35	1.96	1.35	0.25	-0.15	-0.19
Run2_MDS16		0.3	-0.03	-0.05	-0.12	0.4	0.26	1.25	3.47	20.01	0.54	0.2	0.19	0.35	0.42	3.02	1.45	0.03	-0.21	6.45	-0.16	1.37	0.41	1.87	0.71	-0.2	-0.14
Run2_MDS1		0.19	-0.07	-0.27	-0.09	0.55	0.22	0.35	1.79	16.49	-0.11	-0.21	-0.02	0.18	0.88	2.05	1.21	0.66	-0.21	4.66	-0.1	0.85	-0.03	1.09	0.3	-0.1	-0.1
Run2_MDS21		0.28	0.11	0.36	0.04	0.46	0.45	0.52	1.18	10.66	0.22	0.55	0.66	0.85	0.84	1.6	1.1	-0.25	-0.26	5.11	-0.23	-0.14	0.34	2.28	0.5	-0.22	-0.23
Run2_MDS26*		0.18	0.13	0.21	0.01	0.77	0.44	0.8	0.96	11.88	0.11	0.06	-0.02	0.11	0.86	1.89	1.2	0.26	-0.2	5.48	-0.18	1.41	0.4	1.6	-0.22	-0.22	-0.15
Run2_MDS27		0.5	-0.12	-0.16	-0.15	0.43	0.22	1.26	3.01	21.24	0.88	0.53	0.34	0.42	0.46	3.43	1.8	-0.02	-0.26	21.23	-0.12	0.87	-0.04	1.66	1.18	-0.22	-0.18
Run2_MDS2		0.18	-0.2	0.12	-0.23	0	0.01	0.88	1.78	17.06	0.46	0.12	0.21	0.48	1.44	1.93	1.39	0.48	-0.19	89.89	-0.12	1.17	0.31	0.76	0.32	-0.12	-0.12
Run2_MDS3		0.34	0.16	0.19	0.16	0.51	0.54	0.72	0.7	9.8	0.25	0.68	0.62	0.97	0.96	1.79	1.14	-0.23	-0.25	6.16	-0.19	0.59	0.76	2.01	0.5	-0.19	-0.19
Run1_MDS23	Lower Risk	0.19	-0.08	0.1	0.06	0.45	0.14	1.1	2.9	21.15	-0.1	-0.07	-0.01	0.11	0.85	1.31	1.4	1.13	-0.29	5.5	-0.14	0.92	-0.04	2.36	0.89	-0.11	-0.15
Run1_MDS25		0.35	1.03	0.56	0.81	1.27	0.02	1.4	2.81	14.35	0.21	0.14	0.07	0.26	1.06	1.94	1.42	1.24	-0.3	25.18	-0.06	1.94	0.21	2.44	0.11	-0.1	0.01
Run1_MDS5		0.41	0.26	0.3	-0.05	1.06	0.7	1.04	0.96	12.11	0.72	0.12	-0.01	0.37	1.44	3.28	2.13	0.81	-0.09	7.44	-0.02	0.6	1.23	2.35	1.46	0.52	-0.09
Run1_MDS6		0.36	-0.02	-0.06	-0.09	0.43	0.07	0.84	2.89	18.88	0.24	0.25	0.22	0.31	0.84	2.73	0.95	0.58	-0.14	11	-0.11	1.01	0.6	1.59	0.76	-0.13	-0.09
Run1_MDS8		0.4	0.85	1.21	0.4	1.25	0.57	1.33	4.04	23.24	0.27	0.09	0.16	0.33	1.12	2.11	1.53	0.59	-0.31	15.24	-0.23	1.58	2.15	1.68	0.65	-0.2	-0.21
Run1_MDS9		0.15	0.08	0.12	0.04	0.58	0.16	0.38	2.57	13.93	-0.02	-0.01	0.07	0.29	0.77	1.75	1.1	0.05	-0.31	6.42	-0.23	1.03	0.15	1.68	0.41	-0.26	-0.21
Run2_MDS12		0.3	-0.21	0.17	-0.12	0	-0.1	0.94	1.87	13.91	0.07	0.12	0.2	0.33	0.88	1.86	1.18	0.77	-0.33	6.8	-0.21	0.51	-0.03	2.22	0.56	-0.2	-0.21
Run2_MDS14		0.49	0.18	-0.08	-0.61	1.37	0.17	2	3.65	32.73	0.57	0.22	0.29	0.33	0.99	2.19	0.83	2.87	-0.02	5.42	-0.1	2.34	0.22	1.59	2.49	-0.09	-0.1
Run2_MDS19		0.37	0.05	0.04	0.06	0.48	0.09	1.5	3	20.95	0.41	0.41	0.31	0.31	1.13	2.19	0.93	0.66	-0.2	7.79	-0.19	1.1	-0.11	1.55	0.33	-0.23	-0.18
Run2_MDS20		0.38	-0.11	0.05	-0.25	1.14	-0.05	1.08	3.59	18.14	0.61	0.38	0.32	0.4	0.71	2.93	0.9	0.66	-0.27	16.38	-0.06	0.65	-0.09	1.29	0.37	-0.1	-0.15
Run2_MDS28*		0.48	-0.01	0.08	-0.01	0.31	-0.15	0.42	1.78	25.54	0.32	0.24	0.4	0.48	1.11	2.18	0.81	1.27	-0.24	6.74	-0.18	0.9	1.14	1.09	0.74	-0.21	-0.15
Run2_MDS5		0.12	0.5	-0.49	0.63	0.05	0.21	0.46	0.84	10.53	0.52	0.03	-0.12	0.09	1.56	2.76	1.52	0.27	-0.26	6.45	-0.05	0.36	0.9	1.77	1.98	0.46	-0.13
Run1_ICUS18	ICUS	0.49	0.27	-0.06	0.01	0.76	-0.1	1.25	3.85	22.95	0.26	0.23	0.36	0.49	1.12	1.77	0.72	0.9	-0.22	6.38	-0.13	1.18	0.05	1.79	0.76	-0.23	-0.1
Run1_ICUS22		0.57	0.11	0.02	0.23	0.47	0.01	1.09	3.32	22.07	0.01	0.21	0.38	0.54	0.83	1.73	0.83	1.8	-0.06	6.14	-0.13	2.77	0.02	1.25	0.3	-0.16	-0.12
Run1_ICUS24		0.33	0.1	0.2	0.02	0.77	0.5	1.18	3.47	27.08	-0.03	0.09	0.2	0.32	0.85	1.55	1.07	1.66	-0.21	6.01	-0.19	2	0.04	1.36	0.87	-0.19	-0.2
Run1_Nl-1	Normal	0.37	0.32	-0.17	0.33	1.19	0.52	1.46	3.17	36.79	-0.03	-0.01	0.2	0.38	0.81	1.62	0.74	2.22	0.2	6.5	-0.09	1.9	0.81	1.47	0.87	-0.17	-0.05
Run1_Nl-3		0.5	0.34	0.35	0.02	0.99	0.62	1.75	3.31	24.02	0.64	0.42	0.44	0.47	1.51	2.17	0.74	1.43	-0.17	7.9	-0.14	1.51	0.85	1.59	0.25	-0.23	-0.12
Run1_Nl-4		0.5	0.48	0.63	0.36	1.09	0.64	1.5	3.39	19.08	0.69	0.41	0.37	0.42	1.43	2.15	0.65	1.28	-0.2	11.64	-0.14	1.51	0.38	1.59	0.45	-0.17	-0.12
Run1_Nl-6		0.51	0.1	-0.03	0.08	0.98	0.69	1.58	3.23	19.97	0.45	0.31	0.35	0.44	1.35	1.88	0.77	1.78	-0.14	8.59	-0.13	1.45	0.11	1.95	0.23	-0.19	-0.11
Run2_Nl-3		0.42	0.09	0.11	0.07	0.68	0.35	1.46	3.15	18.43	0.8	0.4	0.37	0.44	1.01	1.97	0.53	1.08	-0.16	7.43	-0.18	0.65	0.15	1.19	0.33	-0.23	-0.14
Run2_Nl-4		0.46	0.44	0.46	0.32	0.66	0.38	1.48	3.04	15.28	0.9	0.45	0.36	0.41	1.16	1.98	0.52	1.35	-0.21	11.67	-0.18	1.2	0.16	1.2	0.36	-0.2	-0.16
Run2_Nl-5		0.57	0.27	-0.2	0.47	0.91	0.62	1.43	3.14	15.03	0.92	0.5	0.42	0.41	1.23	2.39	0.67	2.11	0.02	9.94	-0.1	1.09	0.32	1.13	0.17	-0.15	-0.06
Run2_Nl-6		0.47	-0.02	-0.05	-0.02	0.8	0.37	1.38	2.95	17.14	0.66	0.49	0.39	0.42	1.09	1.8	0.72	1.45	-0.15	10.82	-0.15	1.28	-0.02	1.5	0.14	-0.19	-0.13

Supplemental Table 3: Median expression of each surface marker on each cell population.

Calreticulin Median

Sample	Group	Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	-0.1	-0.21	-0.22	-0.24	-0.17	-0.21	0.36	-0.01	0.14	1.31	1.74	0.41	0.64	-0.35	-0.38	-0.2	-0.18	-0.47	-0.43	-0.4	-0.32	10.19	0.21	0.19	-0.4	-0.4
Run2_MDS15*		-0.27	-0.34	-0.34	-0.36	-0.35	-0.3	-0.3	-0.37	-0.37	0.1	0.12	-0.02	0	-0.41	-0.26	-0.18	-0.32	-0.42	-0.3	-0.37	-0.34	-0.23	-0.28	-0.19	-0.36	-0.38
Run2_MDS4		-0.12	-0.23	-0.19	-0.21	-0.6	-0.32	-0.34	-0.36	-0.28	0.58	0.76	0.72	0.87	-0.38	-0.36	-0.07	-0.36	-0.28	-0.27	-0.37	-0.33	-0.28	-0.15	0.04	-0.37	-0.38
Run1_MDS21	Higher Risk	-0.04	-0.1	-0.23	-0.13	-0.14	-0.12	0.4	0.04	0.28	1.33	2.02	1.11	1.37	-0.38	-0.3	1.19	-0.4	-0.45	-0.55	-0.41	-0.42	7.12	-0.21	0.49	-0.38	-0.42
Run1_MDS3		0.38	0.6	0.19	0.32	0.39	0.61	1.4	0.89	0.55	1.94	2.63	1.38	2.08	-0.34	-0.39	0.71	-0.36	-0.43	-0.35	-0.39	-0.35	4.27	-0.04	0.25	-0.38	-0.4
Run2_MDS13		-0.12	-0.23	-0.26	-0.23	-0.25	-0.24	-0.26	-0.3	-0.23	0.95	1.35	0.57	0.66	-0.36	-0.37	-0.17	-0.35	-0.36	-0.27	-0.38	-0.4	0.07	-0.21	0.14	-0.37	-0.38
Run2_MDS16		0.53	-0.26	-0.23	-0.28	-0.39	-0.35	-0.4	-0.4	-0.36	1.45	1.78	1.92	1.86	-0.3	-0.39	0.55	-0.29	-0.42	-0.44	-0.38	-0.37	-0.18	-0.34	0.49	-0.38	-0.38
Run2_MDS1		-0.27	-0.36	-0.4	-0.44	-0.37	-0.36	-0.37	-0.38	-0.36	0.07	0.05	0.26	0.57	-0.33	-0.41	-0.32	-0.26	-0.42	-0.33	-0.39	-0.39	-0.36	-0.47	0.23	-0.39	-0.39
Run2_MDS21		-0.19	-0.34	-0.3	-0.34	-0.31	-0.32	-0.33	-0.34	-0.28	1.19	1.46	0.7	0.93	-0.39	-0.41	-0.25	-0.36	-0.41	-0.25	-0.4	-0.37	3.73	-0.42	0.21	-0.38	-0.4
Run2_MDS26*		-0.05	-0.31	-0.22	-0.35	-0.31	-0.31	-0.24	-0.38	-0.34	0.12	0.22	0.57	0.61	-0.32	-0.4	-0.37	-0.3	-0.38	-0.54	-0.4	-0.34	-0.12	-0.38	-0.05	-0.36	-0.4
Run2_MDS27		-0.15	-0.31	-0.29	-0.33	-0.3	-0.33	-0.42	-0.39	-0.35	1.06	1.64	1.79	1.82	-0.35	-0.4	0.12	-0.35	-0.42	-0.42	-0.37	-0.37	-0.46	-0.38	1.04	-0.35	-0.4
Run2_MDS2		-0.23	-0.37	-0.26	-0.4	-0.35	-0.35	-0.43	-0.39	-0.43	-0.03	0.12	0.03	0.46	-0.26	-0.15	0.12	-0.34	-0.28	-0.37	-0.39	-0.37	-0.05	-0.14	-0.32	-0.35	-0.4
Run2_MDS3		-0.08	-0.25	-0.28	-0.26	-0.3	-0.29	-0.2	-0.27	-0.05	1.55	2.1	1.04	1.79	-0.35	-0.38	-0.31	-0.38	-0.42	-0.47	-0.39	-0.35	-0.05	-0.2	0.22	-0.37	-0.39
Run1_MDS23	Lower Risk	0.59	-0.32	-0.24	-0.33	-0.4	-0.27	-0.18	-0.31	-0.33	1.73	1.76	1.24	0.99	-0.4	-0.35	0.06	-0.25	-0.44	-0.47	-0.42	-0.37	-0.41	-0.45	0.36	-0.43	-0.42
Run1_MDS25		1.22	1.15	-0.62	1.18	-0.39	-0.46	-0.31	-0.28	-0.18	1.62	1.83	1.77	1.67	-0.44	-0.22	2.12	-0.39	-0.48	-0.43	-0.43	-0.35	-0.41	-0.36	-0.04	-0.42	-0.43
Run1_MDS5		0.1	0.19	-0.52	0.35	-0.16	-0.31	-0.39	-0.06	-0.07	1.75	0.63	0.24	0.36	-0.08	-0.19	0.63	0.24	-0.37	-0.45	-0.37	-0.34	-0.2	-0.26	0.4	-0.39	-0.36
Run1_MDS6		1.06	-0.26	-0.25	-0.3	-0.28	-0.28	-0.28	-0.36	-0.29	2.59	2.89	2.16	1.51	-0.35	-0.41	0.95	-0.35	-0.42	-0.52	-0.39	-0.33	-0.33	-0.21	0.63	-0.39	-0.39
Run1_MDS8		1.33	0.09	-0.35	-0.19	-0.36	-0.34	-0.25	-0.36	-0.26	2.19	2.67	2.14	2.16	-0.29	-0.29	0.81	-0.35	-0.44	-0.51	-0.42	-0.33	-0.3	-0.4	0.27	-0.42	-0.41
Run1_MDS9		0.82	-0.27	-0.24	-0.28	-0.31	-0.33	-0.42	-0.39	-0.24	1.94	2.3	2.2	2.17	-0.38	-0.39	1.35	-0.35	-0.44	-0.51	-0.42	-0.33	-0.3	-0.4	0.27	-0.42	-0.41
Run2_MDS12		0.3	-0.41	-0.38	-0.41	-0.38	-0.41	-0.37	-0.36	-0.35	0.53	0.6	0.78	0.84	-0.37	-0.4	-0.22	-0.36	-0.39	-0.38	-0.38	-0.34	-0.38	-0.33	0.14	-0.37	-0.38
Run2_MDS14		0.87	-0.11	-0.08	-0.31	-0.44	-0.36	-0.41	-0.37		2.96	2.33	2.11	1.34	-0.32	-0.37	1.14	-0.38	-0.4	-0.47	-0.38	-0.35	-0.39	-0.27	0.25	-0.39	-0.37
Run2_MDS19		1.6	-0.34	-0.36	-0.32	-0.3	-0.4	-0.38	-0.37	-0.35	1.76	2.48	2.63	2.38	-0.35	-0.38	-0.19	-0.39	-0.41	-0.52	-0.39	-0.36	-0.37	-0.34	0.52	-0.38	-0.39
Run2_MDS20		0.22	-0.41	-0.38	-0.61	-0.45	-0.41	-0.42	-0.41	-0.38	1.32	1.49	1.61	1.39	-0.34	-0.34	0.81	-0.38	-0.38	-0.4	-0.38	-0.39	-0.31	-0.36	0.24	-0.39	-0.4
Run2_MDS28*		1.06	-0.25	-0.19	-0.29	-0.37	-0.38	-0.38	-0.38	-0.38	1.42	1.78	1.93	1.6	-0.26	-0.32	0.92	-0.38	-0.41	-0.4	-0.4	-0.36	-0.37	-0.31	0.74	-0.4	-0.4
Run2_MDS5		-0.1	-0.08	-0.67	-0.46	-0.38	-0.45	-0.38	-0.27	-0.31	0.22	0.04	-0.05	0.08	-0.33	-0.3	0.3	-0.23	-0.32	-0.37	-0.37	-0.37	-0.29	-0.38	0.47	-0.39	-0.36
Run1_ICUS18	ICUS	1.32	-0.2	-0.59	-0.29	-0.46	-0.43	-0.34	-0.38	-0.31	2.31	2.76	2.58	2.11	-0.36	-0.32	1.88	-0.3	-0.43	-0.38	-0.42	-0.34	-0.28	-0.32	0.33	-0.41	-0.42
Run1_ICUS22		1.41	-0.38	-0.34	-0.4	-0.33	-0.43	-0.41	-0.42	-0.41	2.31	2.92	2.78	2.11	-0.39	-0.34	1.78	-0.42	-0.47	-0.55	-0.44	-0.41	-0.42	-0.39	0.33	-0.42	-0.44
Run1_ICUS24		0.7	-0.25	-0.18	-0.35	-0.32	-0.38	-0.32	-0.35	-0.4	2.41	2.54	1.76	1.22	-0.41	-0.44	0.71	-0.46	-0.46	-0.53	-0.43	-0.41	-0.41	-0.39	0.6	-0.44	-0.43
Run1_Nl-1	Normal	1.04	-0.45	-0.63	-0.45	-0.39	-0.33	-0.29	-0.28	-0.36	1.89	2.15	2.13	1.52	-0.41	-0.4	1.29	-0.44	-0.44	-0.33	-0.42	-0.38	-0.37	-0.38	0.71	-0.42	-0.43
Run1_Nl-3		1.46	-0.15	-0.13	-0.22	-0.34	-0.23	-0.1	-0.23	-0.29	1.68	2.26	2.39	2.16	-0.26	-0.4	2.14	-0.43	-0.43	-0.5	-0.41	-0.32	-0.3	-0.28	0.18	-0.42	-0.42
Run1_Nl-4		1.35	-0.1	-0.21	-0.2	-0.29	-0.23	-0.09	-0.18	-0.27	1.76	2.1	2.15	1.76	-0.24	-0.39	1.91	-0.43	-0.45	-0.55	-0.4	-0.34	-0.38	-0.3	-0.02	-0.41	-0.4
Run1_Nl-6		1.13	-0.28	-0.14	-0.35	-0.33	-0.25	-0.14	-0.3	-0.31	1.7	2.28	2.2	1.57	-0.38	-0.44	1.06	-0.43	-0.45	-0.46	-0.42	-0.32	-0.38	-0.37	-0.07	-0.42	-0.42
Run2_Nl-3		1.32	-0.19	-0.09	-0.23	-0.32	-0.36	-0.3	-0.33	-0.34	1.1	2	2.21	2.29	-0.32	-0.36	1.73	-0.37	-0.39	-0.3	-0.38	-0.36	-0.34	-0.29	0.24	-0.39	-0.38
Run2_Nl-4		1.18	-0.22	-0.24	-0.28	-0.33	-0.36	-0.28	-0.33	-0.32	1.12	1.64	1.93	1.84	-0.32	-0.36	1.65	-0.36	-0.39	-0.47	-0.38	-0.34	-0.39	-0.29	0.34	-0.38	-0.39
Run2_Nl-5		0.86	-0.18	-0.18	-0.24	-0.31	-0.35	-0.32	-0.33	-0.32	1.1	2.1	2.37	2.02	-0.3	-0.4	1.24	-0.4	-0.39	-0.4	-0.38	-0.32	-0.33	-0.29	0.22	-0.38	-0.38
Run2_Nl-6		1.07	-0.3	-0.3	-0.28	-0.33	-0.37	-0.32	-0.38	-0.35	0.87	1.52	1.88	1.73	-0.38	-0.39	0.36	-0.4	-0.41	-0.4	-0.4	-0.35	-0.37	-0.34	-0.09	-0.39	-0.4

Supplemental Table 3: Median expression of each surface marker on each cell population.

CD321 Median

		Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
AML/RAEB-T	Run1_MDS17	14.31	78.2	80.63	75.27	144.25	57.47	32.46	28.55	31.71	35.39	16.36	4.07	4.5	14.9	13.97	10.3	16.39	2.08	1.17	6.66	9.12	23.3	43.69	500.51	6.3	7.28
	Run2_MDS15*	28.17	52.28	67.44	71.18	80.76	38.43	30.95	19.67	32.98	41.82	28.88	17.49	13.25	12.5	25.93	38.77	28.19	2.76	0.53	7.49	9.34	71.01	66.76	342.98	6.31	8.86
	Run2_MDS4	8.36	33.16	38.99	25.16	13.5	9.64	10.98	14.72	24.38	36.43	18.21	5.58	6.28	4.59	9.28	7.58	6.4	5.44	0.7	5.98	4.75	7.01	25.26	304.1	5.9	6.05
Higher Risk	Run1_MDS21	15.19	78.81	77.95	78.71	112.32	97.99	43.66	31.55	35.88	21.2	15.26	3.26	3.71	15.14	17.68	1106.2	9.77	3.04	1.98	9.42	11.73	35.9	33.44	1402.16	10.52	8.92
	Run1_MDS3	16.22	71.08	76.96	66.13	108.42	95.52	48.77	41.88	49.49	23.63	14.39	4.37	6.52	16.12	18.28	37.24	11.11	3.15	1.62	11.18	13.19	20.48	49.89	928.19	11.99	10.88
	Run2_MDS13	16.06	59.31	61.78	56.64	88.14	75.31	30.47	38.47	46.44	34.74	22.67	5.78	5.35	7.18	10.18	6.35	9.36	1.87	0.22	8.17	8.54	7.44	43.76	519.95	8.67	7.92
	Run2_MDS16	6.04	54.42	53.04	50	54.64	6.6	6.58	13.04	13.71	34.58	12.03	4.15	4.01	29.44	6.89	6.87	9.83	0.91	1.14	7.89	9.73	8.52	13.98	1310.27	6.63	8.23
	Run2_MDS1	7.55	38.58	46.65	33.24	64.23	29.61	14.8	21.33	24.07	14.02	4.55	5.71	5.41	5.7	6.69	5.5	13.59	4.03	0.43	6.52	5.32	11.05	39.06	1056.48	6.76	6.48
	Run2_MDS21	11.58	73.58	77.36	73.18	109.85	83.47	17.48	25.65	28.53	30.74	18.1	3.27	3.01	8.92	8.35	6.33	9.31	3.43	1.67	8.41	10.31	32.26	24.75	1163.03	9.45	7.98
	Run2_MDS26*	4.94	35.32	39.94	33.91	30.33	10.01	11.53	22	12.88	13.08	10.38	4.22	4.2	9.02	8.68	4.14	4.98	1.34	3.64	6.52	6.87	10.87	16.82	48.36	6.29	6.69
	Run2_MDS27	9.02	39.46	43.41	35.21	34.81	17.38	7.03	11.6	11.91	35.13	14.61	3.64	3.42	21.42	7.64	3.3	13.52	4.41	0.53	12.22	11.7	3.94	17.15	855.87	11.25	13.68
	Run2_MDS2	5.05	31.84	40.51	30.04	40.5	30.75	10.54	10.25	24.72	37.78	6.1	1.92	2.9	13.71	13.2	23.09	12.03	17.57	3.01	6.72	10.16	22.3	76.55	844.7	5.8	6.8
	Run2_MDS3	16.93	63.43	67.65	59.95	103.66	82.32	29.97	41.09	49.17	42.65	23.82	5.75	5.74	13.93	11.48	5.65	11.61	3.66	0.76	10.44	12.28	27.5	49.95	816.79	11.58	9.92
Lower Risk	Run1_MDS23	7.73	20.82	28.06	18.51	21.75	4.69	7.2	10.31	13.6	30.58	17.32	6.17	5.43	10.98	14.97	13.49	10	3.77	0.57	7.85	8.68	5.82	26.42	414.43	7.58	7.96
	Run1_MDS25	4.31	21.37	43.99	9.43	11.01	4.62	7.85	15.08	17.43	29.82	14.27	3.83	3.55	12.64	18.56	11.2	9.2	1.23	0.97	5.45	12.24	13	17.5	785.4	4.9	6.15
	Run1_MDS5	9.33	47.2	49.09	44.1	22.39	5.95	7.08	17.92	15.53	55.13	10.43	8.47	7.88	6.07	15.56	186.94	9.33	4.07	-0.08	6.88	12.44	16.26	22.99	398.66	4.12	8.19
	Run1_MDS6	9.25	27.32	25.82	21.52	22.88	19.63	23.44	37.64	45.11	39.07	19.18	7.56	7.53	6.8	15.04	13.66	7.01	2.17	0.78	8.25	11.08	21.31	28	1330.74	6.76	9.72
	Run1_MDS8	11.11	34.22	29.44	31.31	17.03	12.32	16.48	23.74	29.85	27.58	17.19	9.01	10.6	13.21	13.76	13.95	8.9	1.82	0.82	7.67	10.01	17.9	29.53	1405.68	8	7.58
	Run1_MDS9	8.57	28.09	30.01	24.68	28.7	20.48	22.04	37.82	40.62	26.43	15.62	6.12	6.17	12.15	14.32	76.03	10.03	2.56	0.87	7.51	10.78	14.85	18.8	604.34	7.34	7.61
	Run2_MDS12	6.15	7.71	37.24	18.34	42.05	3.32	7.05	12.12	16.33	22.16	21.64	6.24	4.07	3.45	4.11	3.24	8.22	2.4	1.43	5.18	6.73	4.91	21.27	700.45	5.21	5.16
	Run2_MDS14	4.96	30.52	41.64	21.28	8.41	4.26	6.09	10.55	13.24	14.12	8.99	4.42	4.34	3.47	5.21	5.66	3.71	1.71	0.07	9.31	4.79	19.24	19.57	1288.45	9.38	10.61
	Run2_MDS19	5.67	47.35	55.26	47.32	23.76	9.65	20.91	33.87	33.82	20.36	10.71	3.72	4.25	3.86	5.32	2.69	17.24	3.23	1.52	13.42	9.92	9.91	20.71	1353.16	9.38	15.22
	Run2_MDS20	6.27	28.05	28.86	35.02	20.04	4.22	3.84	8.03	12.29	31	19.71	5.37	4.73	3.04	8.28	6.62	9.89	5.8	0.59	7.79	3.83	10.04	13.98	1064.43	7.84	7.79
	Run2_MDS28*	7.65	26.12	42.27	25.84	33.17	4.73	7.31	9.81	8.95	36.23	19.54	6.37	6.13	12.33	10.07	5.94	11.44	3.01	1.75	8.05	7.26	11.09	34.37	1404.74	7.27	8.77
	Run2_MDS5	6.27	37.84	94.19	38.83	37.65	3.86	4.44	15.24	12.81	44.66	5.26	5.29	5.79	2.09	11.29	30.74	8.09	3.03	0.33	5.97	10.64	16.94	23.93	564.48	3.61	6.94
ICUS	Run1_ICUS18	5.07	42.12	37.87	41.11	35.87	8.94	8.92	14.07	19.64	29.78	17.74	4.37	3.83	12.31	14.61	4.33	11	2.95	2.14	9.17	10.31	13.29	16.75	1054.15	8.14	9.39
	Run1_ICUS22	4.22	39.41	42.26	36.84	29.48	3.69	5.17	7.57	9.57	26.03	16.19	3.4	3.11	12.66	17.78	4.74	4.97	1.03	0.22	7.94	8.4	5.25	13.29	806.37	7.31	8.21
	Run1_ICUS24	5.14	31.07	32.76	30	13.68	6.71	8.93	11.81	12.2	23.41	14.98	4.74	3.79	8.55	10.86	38.64	3.17	0.71	0.43	3.3	3.87	5.97	16.52	1522.99	2.79	3.74
Normal	Run1_Nl-1	5.72	30.45	48.48	26.57	12.11	6.66	9.7	15.01	15.84	29.77	16.08	5.35	4.2	11.28	15.77	8.09	2.41	1.35	0.78	6.81	8.33	12.98	25.03	1793.27	5.93	7.37
	Run1_Nl-3	8.94	46.29	43.36	48.24	26.63	10.34	19.56	20.14	29.17		13.99	6.61	7.61	14.77	11.66	8.67	5.65	1.78	0.41	8.15	9.16	9.05	15.95	599.99	7.05	9
	Run1_Nl-4	9.77	32.54	41.2	27.96	14.95	7.88	13.17	19.89	20.37	34.99	20.03	7.62	8.55	15.41	14.25	9.26	3.9	1.03	0.43	5.72	5.48	5.79	17.17	510.7	4.91	6.51
	Run1_Nl-6	8.71	40.66	43.99	35.49	20.92	11.84	14.67	17.83	17.56	32.48	16.46	6.7	6.98	11.69	12.22	7.46	3.34	1.09	0.6	8.49	8.94	9.8	18.02	443.56	7.32	8.98
	Run2_Nl-3	7.17	42.82	47.5	38.9	20.38	7.45	12.52	18.09	18.07	26.03	10.37	5.04	6.28	9.97	7.92	5.5	4.48	1.3	1.03	6.91	7.92	7.63	15.17	838.68	6.76	7.6
	Run2_Nl-4	8.1	29.27	36.57	27.27	13.3	5.66	10.92	18.78	18.82	34.21	15.59	6.18	7.65	9.41	9.44	6.34	3.69	0.76	0.44	4.76	4.82	5.12	16.79	746.82	4.05	5.41
	Run2_Nl-5	8.25	31.61	35.91	25.44	14.61	7.01	11.11	18.14	20.1	27.5	12.15	5.09	7.72	10.61	5.71	5.8	2.63	1.62	0.81	9.09	11.28	8.28	20	842.28	8.34	9.97
	Run2_Nl-6	6.68	38.27	39.07	35.69	23.56	8.4	10.95	15.21	14.99	28.33	14.84	5.33	5.62	5.34	7.05	4.4	2.6	0.85	0.49	7.41	8.36	8.83	17.1	802.84	6.33	7.83

Supplemental Table 3: Median expression of each surface marker on each cell population.

CD99 Median

Sample	Group	Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	8.2	135.34	147.58	129.14	237.58	67.44	28.09	25.11	37.29	3.79	3.52	2.23	2.61	10.47	5.92	5.12	51.24	22.17	7.91	126.84	113.41	23.23	37.03	57.14	130.83	120.19
Run2_MDS15*		13.05	156.02	228.89	220.04	190.6	31.49	13.56	22.52	71.06	8.67	5.64	3.55	2.46	71	13.35	16.79	21.91	30.93	76.67	182.69	147.09	103.57	37.16	229.61	178.73	185.37
Run2_MDS4		5.36	312.15	257.3	356.98	86.89	36.8	59.96	32.33	34.72	3.18	2.2	0.48	0.47	2.59	1.39	2.63	45.93	75.88	7.4	179.08	165.56	130.48	26.97	84.77	218.74	138.05
Run1_MDS21	Higher Risk	12.44	115.12	133.08	109.18	163.17	131.68	43.08	30.02	31.44	1.73	1.64	0.66	0.92	7.95	9.24	21.61	19.41	14.49	9.02	45.19	45.7	47.62	26.63	20.44	61.38	39.18
Run2_MDS3		9.22	156.72	166.3	147.35	227.34	174.64	52.29	30.07	44.34	1.79	1.39	0.79	1.44	11.44	11.25	11.88	25.75	21.43	5.61	81.32	56.17	67.22	15.7	25.45	95.88	74.51
Run1_MDS13		11.55	213.96	243.33	192.49	232.95	168.55	24.06	36.23	50.08	4.14	3.64	2.06	2.25	24.18	5.6	4.15	33.22	21.14	23.24	81.08	67.03	150.11	13.2	21.08	102.17	71.12
Run2_MDS16		2.15	195.77	181.43	172.41	284.64	51.38	21.82	47.57	59.76	1.5	1	0.24	0.33	101.62	30.69	6.82	90.8	20.76	18.46	87.95	178.15	174.56	12.63	239.68	89.36	87.63
Run2_MDS1		15.96	59.98	51.63	55.75	77.54	49.62	56.06	82.27	69.44	1.14	0.39	0.23	0.28	12.33	3.75	2.8	55.2	28.22	3.19	58.64	93.99	56.18	9.35	282.65	94.83	51.66
Run2_MDS21		8.3	120.87	135.68	117.86	168.77	113.51	7.71	12.17	16.66	1.65	1.51	0.52	0.66	10.79	4.52	4.68	21.03	15.27	3.54	45.49	45.01	71.46	18.95	25.12	63.82	38.95
Run2_MDS26*		0.45	48.59	54.4	45.85	67.79	11.88	6.68	5.78	7.84	0.72	0.69	0	-0.03	11.49	2.56	2.48	3.41	5	2.48	24.34	35.35	15.06	5.88	2.09	39.71	17.63
Run2_MDS27		33.67	98.94	94.53	93.45	96.24	59.65	40.05	15.78	21.8	1.75	1.31	0.21	0.15	33.47	33.41	10.92	144.56	37.95	10.54	214.05	204.11	6.03	19.85	321.73	232.22	190.22
Run2_MDS2		5.24	457.97	526.81	471.86	437.83	224.49	80.18	11.33	24	12.1	0.74	0.46	0.7	44.39	11.64	52.09	127.15	75.35	3.59	109.91	153.66	42.32	60.84	126.84	162.62	106.5
Run2_MDS3		7.48	173.37	209.44	153.96	237.67	141.17	13.52	13.05	30.51	2.53	2.01	1.05	1.46	37.7	7.56	3.29	31.98	21.02	8.28	87.54	73.54	53.98	13.39	28.99	109.76	78.52
Run1_MDS23	Lower Risk	0.67	5.3	7.15	4.95	6.18	1.61	2.23	1.44	2.05	1.3	0.87	0.1	-0.05	2.43	2.92	2.34	3.7	5.27	1.31	22.18	6.31	6.55	1.85	22.23	29.38	19.17
Run1_MDS25		0.55	27.29	82.76	14.89	61.44	12.65	40.79	28.64	15.25	1.71	1.07	0.08	0.09	6.83	10.19	2.89	38.22	9.42	3.77	99.52	58.9	79.1	7.31	44.66	106.39	92.27
Run1_MDS5		2.4	140.81	196.6	148.48	127.67	58.12	24.81	12	26.28	2.66	1.75	1.11	1.36	5.58	15.37	32.3	11.6	21.99	6.54	123.5	240.12	23.02	19.99	50.77	178.09	97.62
Run1_MDS6		1.49	103.99	82.8	55.53	94.81	35.14	25.58	27.17	24.84	2.34	1.75	0.7	0.62	24.5	18.99	4.75	24.37	17.96	5.35	84.8	108.58	67.98	11.74	180.97	100.53	73.54
Run1_MDS8		1.66	83.3	98.54	69.5	136.09	32.67	14.38	51.24	49.59	2.18	1.71	0.64	0.65	43.1	36.36	18.57	41.77	22.71	4.04	41.77	107.22	43.5	16.47	167.16	51.57	39.69
Run1_MDS9		1.88	115.13	133.13	84.43	134.85	48.82	7.57	19.4	24.64	1.52	1.21	0.23	0.16	9.41	8.2	25.33	52.91	13.58	7.7	53	80.54	9.82	10.43	49.95	82.75	39.26
Run2_MDS12		0.84	15.76	58.17	22.26	56.3	15.36	28.65	28.93	40.16	0.98	1.37	0.33	0.1	9.49	9.76	3.66	22.94	14.21	5.57	37.31	60.57	43.97	10.39	65.02	58.63	27.91
Run2_MDS14		0.54	30.89	22.8	53.25	56.16	5.88	6.46	9.74	12.87	0.52	0.49	0.11	0.08	4.21	3.58	0.86	5.23	11.15	1.64	75.21	30.33	119.43	5.79	73.19	70.46	77.56
Run2_MDS19		0.57	62.84	64.46	60.61	69.38	12.99	17.77	13.35	17.51	0.98	0.71	0	-0.01	8.66	9.26	3.17	44.11	16.96	5.34	80.88	62.17	115.64	9.49	83.94	96.83	74.89
Run2_MDS20		1.96	63.88	70.14	55.43	102.35	6.18	7.59	12.99	19.78	1.51	1.17	0.13	0.05	18.87	8.53	1.04	59	32.03	12.73	72.98	41.24	7.68	6.63	109.27	138.95	67.92
Run2_MDS28*		0.42	23.2	31.19	18.02	38.55	1.79	3.07	2.06	4.81	1.08	0.82	-0.01	-0.07	24.35	7.9	0.81	10.59	7.48	5.13	38.87	24.18	7.14	5.96	90.77	48.37	31.81
Run2_MDS5		1.81	124.29	284.12	161.92	147.83	58.81	19.51	11.88	26.62	2.05	1.28	0.87	1.18	11.57	14.09	9.02	12.63	23.15	8.71	144.14	300.41	52.38	22.27	77.18	202.42	115.17
Run1_ICUS18	ICUS	0.58	55.6	44.61	46.06	72.86	7.66	10.99	23.16	18.25	1.47	1.14	0.04	-0.07	19.09	18.1	0.13	49.14	15.4	2.78	58.77	73.97	110.68	6.31	54.83	88.46	54
Run1_ICUS22		0.27	13.8	14.09	12.23	17.37	2.06	2.77	2.93	3.84	0.98	0.84	-0.06	-0.19	3.09	3.99	0.44	4.16	3.13	1.5	22.21	12.6	2.5	2.76	25.34	25.5	20.92
Run1_ICUS24		0.85	22.59	18.67	22.44	27.05	6.38	7.67	4.83	5.47	1.05	0.9	0.16	-0.05	4.16	3.88	9.38	2.66	3.84	1.04	27.65	14.58	22.96	4.83	34.7	26.25	29.06
Run1_Nl-1	Normal	0.69	37.03	36.1	32.3	63.29	8.86	10.91	12.68	16.66	1.45	1.03	0.2	-0.05	7.59	8.82	1.15	3.71	5.12	3.13	22.98	34.74	62.13	4.88	75.5	22.38	23.31
Run1_Nl-3		1.76	105.16	92.6	89.13	116.12	30.65	34.11	31.18	30.59	2.42	1.79	0.72	0.74	33.62	9.82	1.14	14.35	11.58	4.84	56.11	93.3	86.88	7.71	58.85	46.07	54.53
Run1_Nl-4		2.11	90.51	148.13	81.81	134.54	34.86	41.54	35.74	38.38	3.55	2.66	1.02	1.03	42.84	10.48	1.37	14.55	18.9	6.44	75.06	78.1	94.94	16.74	67.49	63.81	84.07
Run1_Nl-6		1.11	39.04	39.5	34.5	64.42	21.23	26.71	21.58	26.97	2.18	1.44	0.41	0.35	10.26	6.26	1.1	6.01	8.04	1.86	42.44	57.78	40.95	5.71	32.81	53.55	38.41
Run2_Nl-3		1.31	99.34	110.88	91.62	104.28	25.93	31.14	24.25	31.46	1.97	1.18	0.46	0.54	27.38	7.94	0.69	12.62	12.05	6.02	61.3	107.4	105.7	8.08	65.02	64.49	59.6
Run2_Nl-4		1.75	115.66	153.56	92.23	132.79	25.76	36.3	28.62	40.21	3.05	1.99	0.77	0.93	33.8	7.72	0.94	13.5	19.42	6.32	83.72	88.69	113.58	18.13	91.83	72.78	91.98
Run2_Nl-5		1.75	138.47	160.69	113.96	184.9	37.09	55.61	49.36	51.38	2.08	1.15	0.4	0.63	18.31	5.96	0.85	9.51	21.21	7.48	71.82	169.34	140.03	10.78	56.81	63.67	78.41
Run2_Nl-6		0.69	31.86	34.3	29.5	55.19	10.8	16.9	13.23	20.35	1.65	1.1	0.21	0.18	5.56	3.54	0.77	4.79	7.2	1.58	38.02	58.01	39.82	4.43	50.77	54.05	33.61

CD13 Median

		Ungated	CD34+CD3Blow	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	1.53	3.82	4.57	3.6	4.77	2.72	3.22	2.8	7.17	0.55	0.43	1.16	2.39	0.26	-0.1	0.01	2.97	0.83	-0.19	3.02	2.54	1.87	9.53	1.75	2.93	3.14
Run2_MDS15*		3.03	4.99	5.73	4.44	3.59	3.51	2.43	4.13	7.04	3.48	1.32	1.56	2.57	0.88	1.65	3.86	6.77	0.62	-0.12	2.6	2.1	4.58	5.6	3.88	2.49	2.74
Run2_MDS4		0.87	4.3	3.99	3.26	1.25	1.19	1.34	1.22	2.4	0.22	-0.06	0.14	0.57	-0.22	-0.24	-0.08	1.37	1.55	-0.21	2.68	1.78	2.13	10.12	1.76	2.96	2.36
Run1_MDS21		1.4	7.82	8.79	7.43	7.71	6.77	5.57	4.4	6.65	-0.09	0.09	0.93	1.79	0.04	0.33	1.16	1.77	1.01	-0.07	2.66	2.1	3.24	10.86	0.99	2.8	2.61
Run1_MDS3		1.07	7.11	7.84	6.55	6.23	5.73	4.86	4.47	9.39	-0.02	-0.02	0.75	1.73	0.22	0.4	0.76	1.84	1	-0.02	2.8	1.81	2.51	14.81	1.01	2.93	2.73
Run2_MDS13		1.2	5.41	6.56	5.02	5.26	4.15	2.05	2.49	4.55	0.35	0.31	0.84	1.65	0.35	-0.11	-0.04	1.69	0.86	-0.01	2.15	1.48	3.32	10.12	0.81	2.3	2.09
Run2_MDS16		0.64	5.14	5.51	4.14	5.12	3.99	6.07	7.54	13.34	-0.1	-0.17	-0.14	0.31	1.79	0.47	0.56	3.48	0.33	-0.17	1.99	2.08	2.87	6.13	1.76	1.94	2
Run2_MDS1		1.78	8	6.49	7.83	9.35	4.41	4.72	13.5	23.97	-0.03	0.27	1.86	2.62	0.29	-0.09	-0.25	3.45	1	-0.25	1.56	1.39	1.38	8.64	1.85	1.87	1.49
Run2_MDS21	Higher Risk	0.81	6.74	8.17	6.34	6.77	5.07	1.44	1.77	3.95	-0.09	-0.08	0.32	0.92	0	-0.19	-0.14	1.29	0.62	-0.23	1.93	1.25	-0.08	10.24	0.72	2.07	1.89
Run2_MDS26*		0.1	4.75	5.1	4.41	5.18	3.12	2.19	5.73	6.08	-0.09	-0.05	0.29	0.73	1.01	-0.22	-0.27	1.3	0.07	0.27	1.39	0.95	2.32	2.78	0.24	1.66	1.22
Run2_MDS27		0.9	3	3.75	2.27	2.36	1.54	2	2.7	6.11	0.06	-0.17	-0.22	0.08	0.7	0.4	0.15	3.58	0.85	-0.27	3.04	2.58	2.41	4.48	1.25	3.17	2.89
Run2_MDS2		1.62	3.61	5.46	2.85	3.95	2.28	1.18	1.41	3.98	2.04	0.47	1.13	1.61	2.01	1.6	1.61	2.69	1.26	-0.63	2.2	1.82	1.57	3.97	1.77	2.51	2.18
Run2_MDS3		0.73	5.22	5.62	4.94	5.21	3.79	1.47	1.53	5.71	0.13	0.06	0.25	0.97	0.62	-0.06	-0.19	1.33	0.82	-0.3	2.1	1.15	4.47	12.03	0.8	2.28	2.03
Run1_MDS23		0.37	2.09	3.45	1.83	1.82	1.91	5.73	5.58	9.14	-0.14	-0.23	-0.06	0.61	-0.21	-0.13	0.88	2.51	1.12	0.34	1.72	0.5	2.31	10.71	0.98	1.93	1.67
Run1_MDS25		2.06	4.36	3.38	2.97	2.14	4.53	6.98	7.08	12.63	0.21	0.3	1.46	1.92	0.04	0.51	2.03	5.78	-0.03	-0.29	2.57	1.56	2.66	4.04	1.9	2.63	2.51
Run1_MDS5		1.94	4.88	3.97	6.59	2.7	0.71	1.91	4.44	6.06	0.47	1.14	1.13	2.18	0.26	0.73	1.93	3.14	0.82	-0.17	2.16	3.54	3.45	3.26	1.71	2.24	2.15
Run1_MDS6		0.96	3.41	3.47	2.75	2.69	1.96	2.42	2.5	5.05	0.06	-0.13	-0.07	1.1	0.45	0.37	0.99	1.52	0.38	-0.33	2.15	2.2	3.51	7.75	1.94	2.28	2.07
Run1_MDS8		0.93	4.23	5.2	2.66	2.78	2.48	3.14	3.99	6.98	-0.06	-0.12	0.4	0.77	0.64	0.93	1.06	2.35	0.36	-0.39	1.54	2.01	1.74	3.78	1.9	1.82	1.41
Run1_MDS9		0.91	4.37	5.69	3.71	4.43	4.16	9.15	10.67	16.3	-0.09	-0.17	0.23	0.87	0.26	0.09	1.14	2.98	0.61	-0.38	2.11	1.9	5.51	4.7	1.45	2.43	1.93
Run2_MDS12	Lower Risk	0.42	0.98	3.11	1.25	2.56	1.54	3.37	4.26	9.26	-0.11	-0.08	0.19	0.88	-0.04	-0.05	0.13	2.77	0.79	0.38	1.57	1.21	1.14	3.28	1.13	1.8	1.4
Run2_MDS14		1.12	6.32	4.72	5.7	1.32	4.72	14.08	7.65	17.23	0.59	-0.09	-0.09	1.31	-0.08	-0.2	1	0.59	0.1	-0.4	1.79	0.55	1.43	4.56	0.71	1.74	1.81
Run2_MDS19		0.18	3.68	4.65	3.38	4.06	1.88	2.61	2.96	5.36	-0.17	-0.22	-0.19	0.37	0.02	-0.03	-0.14	3.31	0.74	-0.01	1.97	1.32	2.12	3.99	1.26	2.21	1.9
Run2_MDS20		0.8	2.16	1.02	2.81	3.35	0.48	0.85	1.41	3.34	-0.08	-0.18	-0.16	0.4	-0.06	0.08	0.46	2.39	0.95	-0.51	1.98	0.83	1.57	3.85	1.48	2.41	1.79
Run2_MDS28*		0.29	3.82	5.43	3.26	4.23	0.65	1.46	4.37	9.69	-0.1	-0.18	-0.13	0.41	0.6	-0.04	-0.02	3.43	-0.04	-0.38	1.05	0.4	3.37	6.82	0.71	1.21	0.93
Run2_MDS5		1.41	7.01	2.26	6.28	2.38	0.89	1.12	3.61	4.75	0.32	0.6	0.67	1.65	-0.11	0.62	1.56	2.39	0.23	-0.34	2.04	3.19	2.79	3.07	1.36	2.2	1.97
Run1_ICUS18		0.87	4.86	5.83	3.69	2.61	3.26	4.45	3.9	7.23	-0.12	-0.16	-0.13	0.67	0.56	0.62	0.51	3.4	0.57	-0.02	2.02	1.72	3.37	4.94	1.77	2.41	1.94
Run1_ICUS22	ICUS	0.48	3.55	3.84	2.92	3.37	3.55	10.5	7.06	13.86	-0.16	-0.24	-0.27	0.43	-0.12	0.01	0.31	1.4	-0.14	-0.17	1.18	0.29	19.74	7.34	1.52	1.23	1.17
Run1_ICUS24		0.47	5.76	7.01	5.03	4.24	3.59	5.8	7.97	16.97	-0.1	-0.19	-0.14	0.63	-0.1	-0.17	0.67	0.37	-0.12	-0.13	1.22	0.19	2.02	5.83	1.14	1.18	1.24
Run1_Nl-1		0.53	4.19	4.86	3.37	2.65	2.72	5.07	4.16	8.69	-0.01	-0.18	-0.19	0.78	0.05	0.2	0.56	0.25	-0.08	0.01	1.29	0.85	3.01	6.53	1.48	1.38	1.25
Run1_Nl-3		1.15	6.1	6.38	5.46	4.72	4.61	5.01	6.23	13.46	0.3	0.1	0.46	2.14	1.06	0.3	1.09	1.21	0.08	-0.23	1.79	2.19	2.61	7.56	1.69	1.74	1.83
Run1_Nl-4		1.14	4.64	5.84	3.18	3.5	2.94	3.49	4.18	7.37	0.45	0.31	0.61	1.96	1.08	0.35	0.97	0.91	0.37	-0.17	2.18	1.64	1.91	4.57	1.97	1.97	2.36
Run1_Nl-6		1.15	3.63	4.49	2.72	3.37	4.06	5.69	7.41	17.09	0.42	0.43	0.61	2.28	0.13	-0.06	0.79	0.51	-0.02	-0.34	1.96	1.37	3.3	5.48	1.17	2.15	1.88
Run2_Nl-3	Normal	0.69	4.95	6.5	4.12	3.65	2.43	3.52	6.27	13.83	0.07	-0.01	0.3	1.48	0.6	0.11	0.6	0.99	0.08	-0.24	1.51	1.84	2.26	5.19	1.3	1.52	1.51
Run2_Nl-4		0.58	4.29	5.38	3.57	3.06	1.31	1.91	3.19	6.57	0.21	0.02	0.17	1.17	0.65	0.09	0.38	0.72	0.26	-0.29	1.81	1.47	1.83	3.07	1.94	1.72	1.89
Run2_Nl-5		0.61	3.97	4.29	3.29	3.02	1.43	2.22	3.51	7.36	-0.07	-0.11	-0.05	1.1	0.54	-0.1	0.37	0.35	0.5	-0.14	1.76	2.48	2.16	3.42	1.33	1.7	1.83
Run2_Nl-6		0.59	2.89	3.56	2.46	3.46	2.28	3.85	8.11	18.65	0.08	0	0.2	1.3	-0.05	-0.18	0	0.65	0.03	-0.21	1.85	1.2	2.92	4.25	1.09	2.11	1.76

Supplemental Table 3: Median expression of each surface marker on each cell population.

<u>CXCR4 Median</u>

		Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	0.67	0.22	0.34	0.14	0.41	0.14	3.02	1.44	0.48	0.69	2.17	1.99	2.22	-0.31	-0.42	-0.19	0.9	3.99	1.37	1.01	0.04	9.46	7.65	16.62	0.94	1.11
Run2_MDS15*		1.21	-0.11	-0.22	-0.21	0.02	1.57	4.79	0.85	0.31	4	5.12	3.66	0.79	-0.02	0.56	1.31	1.06	2.92	0.48	0.02	-0.04	0.8	7.23	3.03	-0.1	0.33
Run2_MDS4		0.35	-0.2	-0.22	-0.28	-0.23	0.6	0.08	-0.07	0.11	1.83	1.95	0.91	0.54	-0.29	-0.35	0.18	0.98	2.15	0.91	0	-0.13	0.68	8.42	19.46	-0.04	0.1
Run1_MDS21	Higher Risk	-0.08	-0.08	-0.1	-0.09	0.06	0.14	1.06	0.64	0.25	-0.37	-0.18	-0.21	-0.16	-0.39	-0.28	49.01	2.31	1.85	1.24	0.53	-0.03	13.25	7.03	66.87	0.04	0.75
Run1_MDS3		-0.16	-0.13	-0.13	-0.17	-0.03	0.03	1.03	-0.14	0.5	-0.37	-0.32	-0.3	-0.12	-0.35	-0.29	1.41	2.22	2.54	1.55	0.91	0.11	6.06	10.58	48.51	0.42	1.06
Run2_MDS13		0.2	-0.14	-0.13	-0.15	0	0.13	1.03	0.5	1.31	0.1	0.74	0.25	0.26	-0.05	-0.34	-0.17	4.12	2.68	1.09	0.88	-0.05	1.13	3.07	32.84	0.86	1.14
Run2_MDS16		0.06	0.35	0.51	0.22	0.25	-0.03	-0.12	0.06	0.05	2.3	0.99	0.1	-0.19	0.42	-0.36	-0.01	0.73	2.67	0.86	0.96	-0.08	0.89	9.64	5.79	0.86	0.98
Run2_MDS1		0.47	0.78	1.01	0.63	0.87	0.99	0.74	-0.1	-0.07	0.44	0.28	0.63	0.5	-0.08	-0.31	-0.24	1.15	2.06	1.37	1.4	0.06	1.37	11.97	9.51	0.37	1.69
Run2_MDS21		0.21	-0.12	-0.1	-0.14	0.09	0.12	1.97	0.75	0.96	0.21	0.96	0.61	0.37	-0.23	-0.36	-0.19	2.26	2.93	1.73	0.54	-0.14	14.4	6.83	78.82	0.13	0.73
Run2_MDS26*		0.98	0.97	0.87	0.85	1.7	0.83	1.64	1.15	0.99	2	1.83	1.79	1.84	-0.08	-0.37	-0.36	1.02	6.46	0.68	1.48	-0.05	1.17	28.34	3.99	0.28	3.17
Run2_MDS27		-0.13	-0.12	-0.11	-0.16	0.18	0.13	1.23	0.35	0	2.63	2.1	0.44	-0.19	0.12	-0.39	-0.36	0.05	2.21	0.83	-0.06	-0.12	-0.23	10.63	3.82	-0.14	0.06
Run2_MDS2		-0.18	-0.33	-0.29	-0.35	-0.28	-0.26	-0.18	-0.2	0	0.39	-0.16	-0.25	-0.2	0.02	-0.05	0.79	0.33	4.62	-0.1	0.33	-0.02	1.2	0.52	5.32	-0.01	0.36
Run2_MDS3		0.22	-0.05	-0.06	-0.06	0.06	0.22	1.07	0.82	1.06	-0.08	0.5	0.43	0.53	-0.09	-0.32	-0.3	3.66	3.87	1.17	1.32	0.28	4.16	10.93	64.64	0.95	1.5
Run1_MDS23	Lower Risk	0.55	0.68	0.72	0.63	0.9	1.07	1.92	0.6	0.04	0.79	1.06	0.75	0.48	-0.34	-0.34	0.76	0.73	1.72	1.95	0.22	-0.05	0.3	1.67	17.63	-0.14	0.46
Run1_MDS25		-0.24	1.09	0.66	0.21	0.73	-0.1	0.66	0.34	0.1	0.52	0.66	-0.24	-0.31	-0.29	-0.29	0.8	0.63	2.19	0.99	-0.02	0.2	0.67	16.31	8.16	-0.13	0.21
Run1_MDS5		0.07	0.59	-0.54	0.08	-0.05	0.09	0.07	0.19	0.69	2.62	0.52	-0.03	-0.08	0.39	-0.24	3.06	0.49	2.79	1.09	0.6	-0.07	4.29	8.47	4.88	0.24	0.72
Run1_MDS6		-0.03	-0.14	-0.26	-0.23	0.24	0.1	0.52	0.34	0.1	0.41	1.12	0.74	-0.17	-0.12	-0.42	0.46	0.4	1.27	1.03	-0.03	-0.07	1.52	3.54	5.59	-0.09	0.04
Run1_MDS8		-0.21	0.49	-0.42	0.6	0.61	0.11	-0.18	-0.1	0.01	0.1	0.59	-0.21	-0.33	-0.26	-0.32	0.27	0.47	1.66	0.43	0.08	-0.06	7.53	5.78	10.82	0.1	0.07
Run1_MDS9		-0.02	-0.11	0.03	-0.21	-0.05	-0.12	0.26	0.54	0.98	0.53	1.08	0	-0.24	-0.33	-0.34	5.95	0.49	2.12	1.18	0.26	-0.02	0.45	36.3	16.17	-0.09	0.54
Run2_MDS12		1.45	0.87	1.38	0.64	0.77	3.26	6.77	3.54	2.39	1.7	2.23	1.77	1.11	-0.28	-0.39	-0.08	2.72	2.06	1.32	0.33	-0.01	1.5	21.61	47.36	0	0.54
Run2_MDS14		-0.03	0.09	-0.2	1.08	0.92	-0.06	-0.14	0.09	-0.08	1.2	1.19	0.74	-0.1	-0.19	-0.39	-0.03	2.06	3.54	0.65	0.25	0.35	0.68	11.85	17.8	0.14	0.29
Run2_MDS19		0.38	0.7	1.5	0.55	0.79	1.15	1.34	0.83	0.34	1.89	1.85	0.76	-0.04	-0.21	-0.37	-0.31	0.51	2.39	0.83	0.26	-0.08	0.54	8.44	22.19	-0.1	0.41
Run2_MDS20		-0.03	0.58	0	0.26	0.8	-0.16	-0.18	-0.13	0.11	2.23	1.99	0.64	-0.17	0.07	-0.28	0.01	0.58	2.06	0.99	0.22	-0.18	-0.14	6.95	24.11	0.04	0.25
Run2_MDS28*		1.3	0.77	1.7	0.65	0.88	3.52	5.38	1.21	0.34	1.83	2.31	1.86	1.04	0.08	-0.34	0.49	1.27	2.63	1.36	0.41	0.25	2.75	23.99	24.11	0.01	0.83
Run2_MDS5		-0.02	0.1	-0.66	-0.26	0.28	0.16	-0.1	0.13	0.26	3.41	0.07	-0.04	-0.06	0.78	-0.34	1.49	0.33	2.89	0.56	0.41	-0.12	3.08	8.6	6.01	0.1	0.62
Run1_ICUS18	ICUS	-0.19	0.42	0.56	0.01	0.88	-0.19	-0.1	-0.04	-0.06	1.34	1.75	0.35	-0.32	-0.33	-0.39	-0.23	0.53	2.42	2.19	0.84	0	0.23	4.26	21.97	0.17	0.98
Run1_ICUS22		-0.19	0.47	1.15	0.34	0.68	0.05	0.3	0.45	0.24	0.89	1.26	0.19	-0.36	-0.3	-0.32	-0.1	1.42	2.46	1.57	0.4	0.56	-0.13	29.86	12.56	-0.07	0.59
Run1_ICUS24		0.36	0.52	0.33	0.57	1.04	1.44	2.96	0.97	-0.01	0.98	1.61	0.86	-0.08	-0.33	-0.43	3.82	2.26	2.51	1.39	0.18	0.22	1.35	29.64	14.05	0.12	0.22
Run1_Nl-1	Normal	0.32	0.58	-0.43	-0.07	1.43	1.73	1.56	1.19	0.16	1.2	1.81	0.72	-0.18	-0.32	-0.38	0.57	3.98	4.02	1.8	1.65	0.33	1.41	169.21	12.59	2.06	1.44
Run1_Nl-3		0.47	0.7	0.65	0.64	0.92	2.15	3.19	1.72	0.47	1.24	1.33	0.61	-0.07	0.08	-0.33	0.38	1.43	2.17	1.11	0.23	-0.06	0.79	13.42	8.63	0.13	0.28
Run1_Nl-4		0.33	0.7	0.41	0.78	0.93	1.92	3.94	1.41	0.52	1.19	1.2	0.39	-0.13	0.32	-0.36	0.22	1.59	1.75	1.41	0.35	0.44	1.04	20.29	13.32	0.43	0.29
Run1_Nl-6		0.5	0.6	0.65	0.47	0.75	1.96	3.04	1.12	0.1	1.63	1.16	0.42	-0.03	-0.19	-0.32	0.07	1.46	2.33	0.91	0.26	-0.1	0.52	13.44	11.46	0.2	0.3
Run2_Nl-3		0.33	0.75	0.93	0.65	0.87	2.11	3.34	0.89	0.1	1.18	1.15	0.56	-0.05	-0.19	-0.41	0.08	2.08	2.3	1.25	0.5	0.1	0.61	14.62	8.59	0.13	0.6
Run2_Nl-4		0.43	0.81	1.56	0.56	0.75	1.87	3.25	0.93	0.61	1.77	1.17	0.35	-0.06	0.32	-0.28	0.05	1.64	2.01	0.93	0.36	0.33	0.89	23.5	19.59	0.54	0.23
Run2_Nl-5		0.38	0.47	0.74	0.46	1.23	2.47	3.11	0.77	0.53	1.94	1.28	0.37	-0.06	0.33	-0.33	-0.06	2.05	2.21	1.06	0.36	-0.03	0.88	10.62	14.85	0.36	0.35
Run2_Nl-6		0.4	0.54	0.91	0.47	0.82	1.82	2.57	0.55	0.23	1.71	1.21	0.51	-0.04	-0.12	-0.36	-0.15	1.95	2.52	1.11	0.47	0	0.45	10.95	14.72	0.1	0.61

Supplemental Table 3: Median expression of each surface marker on each cell population.

CD10 Median

	Group	Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	-0.07	-0.06	0	-0.09	-0.15	-0.16	-0.03	0.34	1.03	-0.21	-0.15	0.47	1.18	-0.37	-0.38	-0.32	0.33	0.42	-0.4	-0.07	-0.3	-0.32	0.72	-0.41	-0.07	-0.06
Run2_MDS15*		0.39	-0.09	-0.13	-0.16	-0.2	-0.18	-0.14	1.59	1.08	-0.16	-0.09	0.59	3.34	-0.27	0.04	0.6	3.57	0.62	-0.1	-0.05	-0.09	0.2	-0.11	-0.24	-0.06	-0.04
Run2_MDS4		0.06	-0.29	-0.33	-0.32	0.77	-0.24	0.03	0.37	0.8	-0.33	-0.28	0.36	2.22	-0.41	-0.35	-0.3	0.71	0.21	-0.43	0	0.09	0.3	-0.26	-0.15	0	0
Run1_MDS21	Higher Risk	-0.24	-0.22	-0.27	-0.25	-0.29	-0.28	0.03	0.57	0.59	-0.37	-0.29	-0.17	0.22	-0.33	-0.27	-0.2	0.28	0.58	-0.28	-0.13	-0.04	-0.42	-0.29	-0.42	-0.09	-0.15
Run1_MDS3		-0.23	-0.23	-0.27	-0.25	-0.26	-0.27	-0.05	0.28	1.11	-0.4	-0.34	-0.14	0.4	-0.31	-0.29	-0.15	0.27	0.69	-0.51	0.02	0.15	0.18	-0.28	-0.41	-0.01	0.03
Run2_MDS13		-0.23	-0.22	-0.23	-0.24	-0.26	-0.27	0.04	0.02	0.71	-0.35	-0.29	-0.15	-0.02	-0.3	-0.33	-0.32	0.11	0.3	-0.28	-0.07	-0.03	-0.16	-0.33	-0.44	-0.07	-0.07
Run2_MDS16		0.01	-0.2	-0.17	-0.26	-0.12	0.01	0.33	0.04	0.41	-0.39	-0.31	-0.18	0.68	-0.28	-0.35	-0.16	0.14	0.37	-0.26	-0.01	-0.3	0.09	-0.19	-0.42	-0.04	0
Run2_MDS1		-0.07	-0.07	-0.04	-0.12	-0.13	-0.21	-0.12	-0.08	0.3	-0.35	-0.28	0.49	1.26	-0.33	-0.27	-0.27	0.21	0.3	-0.34	-0.01	-0.08	-0.02	-0.37	-0.29	0	-0.01
Run2_MDS21		-0.25	-0.25	-0.19	-0.26	-0.27	-0.28	-0.2	-0.03	0.35	-0.35	-0.32	-0.2	0.48	-0.31	-0.33	-0.35	0.11	0.6	-0.27	-0.1	-0.16	-0.05	-0.18	-0.39	-0.07	-0.12
Run2_MDS26*		-0.25	-0.2	-0.15	-0.22	-0.35	-0.35	-0.23	0.08	-0.13	-0.39	-0.37	-0.16	0.48	-0.35	-0.32	-0.35	-0.02	0.22	-0.3	-0.09	-0.33	-0.09	-0.35	-0.37	-0.07	-0.11
Run2_MDS27		-0.2	-0.23	-0.19	-0.26	-0.2	-0.21	-0.05	-0.09	0.23	-0.38	-0.35	-0.3	0.02	-0.34	-0.38	-0.34	0.23	0.38	-0.4	0.03	-0.27	0.4	-0.18	0.53	-0.01	0.07
Run2_MDS2		-0.13	-0.19	-0.02	-0.19	-0.19	-0.22	-0.09	-0.09	0.35	-0.37	-0.25	-0.14	-0.03	-0.15	-0.13	-0.14	0	0.96	-0.03	-0.03	-0.29	-0.28	-0.33	-0.41	0.07	0.07
Run2_MDS3		-0.22	-0.23	-0.26	-0.22	-0.27	-0.27	-0.26	0.1	0.48	-0.33	-0.27	-0.15	0.17	-0.24	-0.31	-0.36	0.21	0.56	-0.34	0.07	-0.03	-0.37	-0.34	-0.37	0.07	0.07
Run1_MDS23	Lower Risk	-0.05	-0.32	-0.3	-0.29	-0.27	-0.28	-0.04	0.01	0.38	-0.38	-0.37	-0.14	1.79	-0.32	-0.24	-0.08	0.31	0.41	-0.49	-0.01	-0.06	-0.15	-0.32	-0.34	0.01	-0.02
Run1_MDS25		3.57	1.18	0.95	5.06	-0.59	-0.15	0.18	0.22	0.53	-0.34	-0.2	2.7	4.95	-0.25	-0.09	2.02	0.15	0.42	-0.57	-0.1	-0.3	-0.05	-0.2	-0.5	-0.14	-0.08
Run1_MDS5		0.18	0.38	0.51	0.19	-0.47	-0.28	-0.03	-0.06	0.97	-0.17	0.04	0.02	0.54	-0.2	-0.25	-0.14	0.27	0.32	-0.52	-0.1	0.03	0.04	-0.35	-0.36	-0.06	-0.08
Run1_MDS6		1.15	-0.27	-0.27	-0.37	-0.35	-0.22	0.08	0.18	0.54	-0.33	-0.31	-0.11	3	-0.33	-0.39	0.17	0.5	0.42	-0.56	-0.19	-0.04	-0.45	-0.06	-0.15	-0.06	-0.08
Run1_MDS8		1.43	0.04	-0.58	0.05	-0.18	-0.09	0.29	-0.04	0.32	-0.36	-0.26	1.37	2.98	-0.29	-0.31	-0.15	0.08	0.42	-0.47	-0.26	-0.29	0.08	-0.28	-0.47	-0.22	-0.27
Run1_MDS9		0.17	-0.23	-0.26	-0.26	-0.2	-0.15	0.39	0.21	0.49	-0.35	-0.33	0.1	1.25	-0.33	-0.34	-0.14	0.28	0.23	-0.41	-0.12	-0.27	0.18	-0.2	-0.43	-0.08	-0.15
Run2_MDS12		-0.12	-0.28	-0.04	-0.32	-0.22	-0.17	0.01	0.08	0.42	-0.38	-0.38	-0.17	1.07	-0.35	-0.34	-0.28	0.09	0.05	-0.39	-0.06	-0.12	-0.17	-0.3	-0.37	-0.02	-0.09
Run2_MDS14		0.68	0.17	-0.07	2.09	0.14	0.17	0.29	0	0.24	-0.4	-0.34	-0.27	1.31	-0.31	-0.35	0.69	1.39	0.55	-0.33	0.1	-0.24	0.05	-0.24	-0.37	-0.01	0.17
Run2_MDS19		-0.12	-0.22	-0.11	-0.22	-0.19	-0.21	-0.06	-0.06	0.31	-0.39	-0.36	-0.28	0.47	-0.36	-0.37	-0.34	0.36	0.58	-0.54	0.04	-0.25	-0.28	-0.3	-0.39	-0.1	0.05
Run2_MDS20		0.37	-0.28	-0.14	0.87	-0.16	-0.13	0.08	-0.04	0.33	-0.37	-0.32	-0.22	1.12	-0.28	-0.26	0.31	0.28	0.44	-0.39	-0.08	-0.26	0.18	-0.17	-0.41	-0.11	-0.08
Run2_MDS28*		-0.16	-0.28	-0.18	-0.26	-0.21	-0.3	-0.14	-0.1	0.15	-0.38	-0.38	-0.33	0.17	-0.27	-0.34	-0.21	0.22	0.26	-0.43	-0.01	-0.11	-0.06	-0.1	-0.28	-0.02	0.02
Run2_MDS5		0.08	0.13	-0.37	-0.28	-0.37	-0.33	-0.14	-0.1	0.37	-0.34	-0.11	-0.06	0.37	-0.36	-0.27	-0.11	0.28	0.37	-0.46	-0.07	-0.05	-0.25	-0.19	-0.36	-0.07	-0.07
Run1_ICUS18	ICUS	1.35	-0.03	-0.24	-0.06	-0.26	0.11	0.32	0.01	0.46	-0.34	-0.3	-0.05	2.32	-0.28	-0.25	1.7	0.38	0.56	-0.32	-0.02	-0.27	0.08	-0.18	-0.46	-0.02	-0.02
Run1_ICUS22		0.4	-0.31	-0.4	-0.31	-0.14	-0.13	0.23	-0.05	0.25	-0.41	-0.39	-0.35	1.03	-0.36	-0.29	0.31	1.34	0.45	-0.52	0.06	-0.38	0.32	-0.26	-0.45	0.04	0.06
Run1_ICUS24		0.15	-0.19	-0.08	-0.28	0.24	-0.02	0.12	0.07	0.44	-0.38	-0.35	-0.24	1.05	-0.35	-0.37	-0.25	0.22	0.43	-0.34	-0.01	-0.3	-0.23	-0.32	-0.47	-0.06	0.06
Run1_Nl-1	Normal	0.37	-0.05	-0.26	-0.05	0.65	0.2	0.34	0.03	0.43	-0.37	-0.38	-0.33	1.64	-0.35	-0.29	0.18	1.8	0.73	-0.48	-0.02	-0.32	0.33	-0.23	-0.42	-0.02	-0.02
Run1_Nl-3		0.57	-0.17	-0.04	-0.16	-0.16	-0.11	-0.03	-0.02	0.35	-0.24	-0.24	0.03	3.63	-0.23	-0.27	1.17	0.89	0.39	-0.45	-0.06	-0.25	-0.05	-0.2	-0.48	-0.09	-0.05
Run1_Nl-4		0.72	-0.09	-0.19	-0.39	-0.24	-0.15	0.11	0.04	0.51	-0.19	-0.19	0.31	3.88	-0.21	-0.26	1.15	0.84	0.43	-0.45	-0.04	-0.27	0.24	-0.19	-0.46	-0.03	-0.04
Run1_Nl-6		0.44	-0.14	-0.02	-0.22	-0.03	-0.09	0.15	0.06	0.51	-0.18	-0.13	-0.07	2.35	-0.3	-0.33	0.33	2.22	0.4	-0.41	0.01	-0.28	0.11	-0.33	-0.43	-0.01	0.01
Run2_Nl-3		0.25	-0.27	-0.12	-0.3	-0.09	-0.13	-0.01	0.1	0.44	-0.32	-0.21	0.12	2.53	-0.29	-0.27	0.81	0.84	0.37	-0.42	-0.01	-0.24	-0.1	-0.14	-0.42	-0.02	-0.01
Run2_Nl-4		0.31	-0.29	-0.36	-0.28	-0.19	-0.16	0.02	0.18	0.6	-0.33	-0.22	0.14	2.56	-0.28	-0.26	0.6	1.05	0.45	-0.35	0.02	-0.25	-0.3	-0.19	-0.39	-0.01	0.06
Run2_Nl-5		0	-0.18	-0.33	-0.41	0.21	-0.09	0.06	0.1	0.52	-0.35	-0.28	-0.15	1.42	-0.27	-0.33	0.16	2.15	0.63	-0.35	-0.07	-0.3	0.06	-0.1	-0.41	-0.08	-0.06
Run2_Nl-6		-0.08	-0.09	0.02	-0.13	-0.03	-0.14	0.02	0.09	0.46	-0.34	-0.32	-0.24	0.82	-0.34	-0.36	-0.19	2.12	0.37	-0.35	0.1	-0.25	-0.01	-0.29	-0.44	0.06	0.12

CD19 Median

Sample	Group	Ungated	CD34+CD3Blow	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	-0.46	-0.46	-0.46	-0.47	-0.47	-0.48	-0.53	-0.46	-0.46	-0.49	-0.48	-0.46	-0.42	-0.5	-0.5	-0.48	2.7	13.83	-0.33	-0.46	-0.48	-0.17	-0.56	-0.44	-0.45	-0.47
Run2_MDS15*		-0.38	-0.41	-0.41	-0.42	-0.43	-0.42	-0.42	-0.37	-0.36	-0.43	-0.43	-0.38	-0.3	-0.38	-0.33	-0.32	2.79	24.69	-0.12	-0.42	-0.39	-0.41	-0.41	-0.49	-0.42	-0.42
Run2_MDS4		-0.39	-0.43	-0.45	-0.44	-0.07	-0.42	-0.4	-0.4	-0.36	-0.43	-0.41	-0.42	-0.35	-0.45	-0.43	-0.43	3.55	5.41	-0.28	-0.41	-0.4	-0.32	-0.45	-0.22	-0.41	-0.42
Run1_MDS21	Higher Risk	-0.46	-0.47	-0.42	-0.49	-0.47	-0.47	-0.45	-0.44	-0.45	-0.49	-0.51	-0.49	-0.47	-0.51	-0.49	-0.45	10.65	16.46	-0.66	-0.47	-0.44	-0.54	-0.51	-0.48	-0.47	-0.47
Run1_MDS3		-0.46	-0.46	-0.48	-0.5	-0.49	-0.48	-0.46	-0.53	-0.34	-0.5	-0.48	-0.5	-0.46	-0.5	-0.47	-0.51	9.42	16.11	-0.1	-0.47	-0.46	-0.35	-0.37	-0.47	-0.45	-0.48
Run2_MDS13		-0.41	-0.42	-0.43	-0.42	-0.43	-0.43	-0.36	-0.4	-0.33	-0.44	-0.43	-0.42	-0.41	-0.36	-0.44	-0.37	8.09	12.74	-0.09	-0.42	-0.41	-0.06	-0.4	-0.41	-0.41	-0.43
Run2_MDS16		-0.4	-0.41	-0.43	-0.42	-0.4	-0.47	-0.46	-0.44	-0.41	-0.44	-0.44	-0.44	-0.4	-0.43	-0.44	-0.42	2.85	17.3	0.01	-0.41	-0.43	-0.41	-0.43	-0.43	-0.42	-0.41
Run2_MDS1		-0.41	-0.42	-0.35	-0.47	-0.4	-0.42	-0.45	-0.43	-0.43	-0.43	-0.47	-0.41	-0.36	-0.45	-0.42	-0.41	2.84	8.94	-0.3	-0.41	-0.43	-0.43	-0.36	-0.51	-0.4	-0.41
Run2_MDS21		-0.41	-0.41	-0.44	-0.41	-0.42	-0.43	-0.41	-0.42	-0.45	-0.43	-0.42	-0.44	-0.43	-0.47	-0.45	-0.46	2.78	17.11	-0.15	-0.43	-0.39	-0.47	-0.53	-0.41	-0.43	-0.44
Run2_MDS26*		-0.43	-0.44	-0.42	-0.46	-0.4	-0.41	-0.41	-0.34	-0.27	-0.45	-0.45	-0.44	-0.41	-0.43	-0.44	-0.42	2.78	10.52	-0.31	-0.41	-0.43	-0.39	-0.47	-0.43	-0.41	-0.41
Run2_MDS27		-0.42	-0.42	-0.42	-0.42	-0.45	-0.4	-0.42	-0.38	-0.4	-0.45	-0.44	-0.43	-0.43	-0.44	-0.34	-0.46	2.97	17.63	-0.22	-0.4	-0.42	-0.39	-0.47	-0.43	-0.41	-0.41
Run2_MDS2		-0.42	-0.4	-0.36	-0.41	-0.45	-0.44	-0.46	-0.42	-0.39	-0.42	-0.5	-0.43	-0.43	-0.4	-0.34	-0.41	2.82	6.32	-0.38	-0.4	-0.42	-0.59	-0.48	-0.43	-0.38	-0.4
Run2_MDS3		-0.41	-0.44	-0.36	-0.49	-0.41	-0.42	-0.42	-0.44	-0.37	-0.44	-0.42	-0.42	-0.42	-0.43	-0.45	-0.42	11.02	17.18	-0.14	-0.41	-0.5	-0.51	-0.48	-0.4	-0.42	-0.41
Run1_MDS23	Lower Risk	-0.46	-0.55	-0.72	-0.47	-0.48	-0.48	-0.48	-0.48	-0.46	-0.49	-0.5	-0.48	-0.42	-0.5	-0.49	-0.46	2.78	14.03	-0.32	-0.48	-0.48	-0.52	-0.44	-0.45	-0.45	-0.48
Run1_MDS25		-0.32	-0.42	-0.77	-0.71	-0.33	-0.45	-0.51	-0.47	-0.47	-0.51	-0.52	-0.39	-0.32	-0.45	-0.46	-0.22	2.94	18.1	-0.25	-0.47	-0.5	-0.48	-0.48	-0.55	-0.47	-0.47
Run1_MDS5		-0.45	-0.32	-0.12	-0.48	-0.52	-0.53	-0.43	-0.46	-0.44	-0.51	-0.5	-0.47	-0.46	-0.37	-0.5	-0.42	2.74	13.39	-0.12	-0.49	-0.45	-0.42	-0.45	-0.44	-0.5	-0.48
Run1_MDS6		-0.39	-0.5	-0.54	-0.47	-0.46	-0.46	-0.46	-0.49	-0.45	-0.49	-0.5	-0.48	-0.37	-0.46	-0.5	-0.42	2.74	12.21	-0.01	-0.47	-0.48	-0.43	-0.44	-0.46	-0.48	-0.49
Run1_MDS8		-0.4	-0.5	-0.61	-0.69	-0.4	-0.44	-0.53	-0.49	-0.45	-0.49	-0.51	-0.44	-0.44	-0.48	-0.47	-0.43	2.74	15.88	-0.49	-0.49	-0.5	-0.48	-0.51	-0.48	-0.49	-0.49
Run1_MDS9		-0.45	-0.49	-0.49	-0.49	-0.46	-0.47	-0.48	-0.46	-0.48	-0.5	-0.5	-0.49	-0.44	-0.5	-0.49	-0.44	2.65	10.44	-0.57	-0.48	-0.46	-0.55	-0.47	-0.47	-0.48	-0.49
Run2_MDS12		-0.45	-0.45	-0.37	-0.43	-0.39	-0.43	-0.42	-0.41	-0.4	-0.44	-0.44	-0.43	-0.38	-0.44	-0.45	-0.42	2.96	11.53	-0.18	-0.4	-0.43	-0.42	-0.38	-0.4	-0.41	-0.39
Run2_MDS14		-0.37	-0.15	-0.36	-0.15	-0.18	-0.37	-0.42	-0.42	-0.42	-0.45	-0.45	-0.45	-0.37	-0.38	-0.46	-0.34	4.68	14.9	0.08	-0.42	-0.46	-0.41	-0.42	-0.41	-0.42	-0.41
Run2_MDS19		-0.42	-0.44	-0.42	-0.44	-0.44	-0.42	-0.42	-0.41	-0.39	-0.44	-0.45	-0.44	-0.41	-0.38	-0.46	-0.43	2.73	24.34	-0.31	-0.41	-0.43	-0.46	-0.45	-0.43	-0.42	-0.4
Run2_MDS20		-0.39	-0.49	-0.04	-0.77	-0.36	-0.41	-0.44	-0.43	-0.4	-0.43	-0.45	-0.45	-0.38	-0.4	-0.43	-0.36	2.76	26.27	-0.04	-0.42	-0.44	-0.39	-0.4	-0.45	-0.4	-0.42
Run2_MDS28*		-0.42	-0.36	-0.31	-0.46	-0.43	-0.43	-0.42	-0.43	-0.4	-0.43	-0.45	-0.44	-0.42	-0.41	-0.44	-0.41	2.82	13.8	-0.31	-0.42	-0.43	-0.44	-0.39	-0.47	-0.42	-0.42
Run2_MDS5		-0.4	-0.33	0.45	-0.64	-0.23	-0.41	-0.47	-0.41	-0.4	-0.44	-0.44	-0.43	-0.4	-0.36	-0.42	-0.37	2.77	14.41	-0.13	-0.4	-0.4	-0.52	-0.35	-0.4	-0.4	-0.4
Run1_ICUS18	ICUS	-0.41	-0.43	-0.35	-0.31	-0.62	-0.45	-0.48	-0.49	-0.47	-0.48	-0.48	-0.48	-0.41	-0.47	-0.48	-0.39	2.72	12.53	-0.17	-0.47	-0.48	-0.42	-0.51	-0.45	-0.46	-0.47
Run1_ICUS22		-0.45	-0.5	-0.54	-0.54	-0.45	-0.48	-0.46	-0.48	-0.47	-0.5	-0.5	-0.51	-0.46	-0.51	-0.46	-0.44	3.72	11.8	-0.31	-0.48	-0.51	-0.47	-0.5	-0.44	-0.44	-0.48
Run1_ICUS24		-0.43	-0.42	-0.43	-0.46	-0.43	-0.46	-0.47	-0.46	-0.48	-0.5	-0.49	-0.45	-0.5	-0.5	-0.45	6.01	13.67	-0.26	-0.47	-0.5	-0.47	-0.46	-0.49	-0.46	-0.48
Run1_Nl-1	Normal	-0.42	-0.54	-0.77	-0.56	-0.28	-0.38	-0.46	-0.5	-0.45	-0.49	-0.5	-0.5	-0.42	-0.5	-0.48	-0.42	5.5	12.2	-0.08	-0.48	-0.5	-0.46	-0.47	-0.45	-0.48	-0.48
Run1_Nl-3		-0.39	-0.48	-0.58	-0.49	-0.39	-0.45	-0.47	-0.47	-0.46	-0.48	-0.47	-0.45	-0.35	-0.48	-0.48	-0.36	3.76	14.21	-0.11	-0.47	-0.48	-0.46	-0.5	-0.48	-0.48	-0.46
Run1_Nl-4		-0.39	-0.47	-0.74	-0.47	-0.48	-0.44	-0.45	-0.46	-0.44	-0.47	-0.47	-0.45	-0.33	-0.41	-0.49	-0.38	4.5	12.55	-0.35	-0.47	-0.49	-0.46	-0.47	-0.45	-0.45	-0.47
Run1_Nl-6		-0.42	-0.44	-0.41	-0.44	-0.41	-0.44	-0.46	-0.46	-0.44	-0.47	-0.47	-0.48	-0.39	-0.51	-0.49	-0.43	6.15	10.49	-0.07	-0.47	-0.48	-0.41	-0.46	-0.48	-0.45	-0.48
Run2_Nl-3		-0.36	-0.44	-0.5	-0.39	-0.35	-0.41	-0.41	-0.4	-0.41	-0.42	-0.42	-0.39	-0.32	-0.42	-0.44	-0.36	4.22	14.78	-0.18	-0.42	-0.43	-0.38	-0.43	-0.44	-0.42	-0.42
Run2_Nl-4		-0.36	-0.36	-0.26	-0.48	-0.4	-0.39	-0.41	-0.42	-0.38	-0.42	-0.41	-0.39	-0.31	-0.42	-0.44	-0.37	4.57	13.53	-0.15	-0.42	-0.43	-0.44	-0.42	-0.41	-0.41	-0.4
Run2_Nl-5		-0.38	-0.42	-0.47	-0.37	-0.33	-0.38	-0.39	-0.41	-0.38	-0.43	-0.42	-0.42	-0.35	-0.41	-0.43	-0.4	5.53	12.67	-0.19	-0.42	-0.42	-0.39	-0.42	-0.43	-0.42	-0.42
Run2_Nl-6		-0.39	-0.4	-0.41	-0.38	-0.4	-0.41	-0.41	-0.41	-0.37	-0.43	-0.44	-0.43	-0.38	-0.43	-0.44	-0.42	6.27	10.97	-0.06	-0.41	-0.44	-0.4	-0.4	-0.44	-0.4	-0.41

CD20 Median

	Group	Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	-0.41	-0.45	-0.44	-0.45	-0.43	-0.43	-0.33	-0.38	-0.55	-0.42	-0.34	-0.41	-0.39	-0.29	-0.34	-0.39	-0.39	50.07	-0.43	-0.4	-0.46	-0.38	-0.25	-0.28	-0.37	-0.45
Run2_MDS15*		-0.33	-0.37	-0.39	-0.42	-0.4	-0.28	-0.22	-0.36	-0.38	-0.21	-0.25	-0.34	-0.33	-0.3	-0.14	-0.25	-0.29	137.6	-0.23	-0.34	-0.36	-0.39	-0.36	-0.35	-0.28	-0.39
Run2_MDS4		-0.34	-0.35	-0.34	-0.34	-0.52	-0.33	-0.39	-0.41	-0.4	-0.34	-0.36	-0.4	-0.38	-0.18	-0.15	-0.16	0.42	38.63	-0.43	-0.3	-0.31	0.08	-0.42	-0.15	-0.26	-0.34
Run1_MDS21	Higher Risk	-0.41	-0.45	-0.39	-0.46	-0.46	-0.44	-0.3	-0.45	-0.41	-0.45	-0.42	-0.45	-0.43	-0.35	-0.33	-0.18	1.78	32.69	-0.62	-0.47	-0.45	-0.56	-0.57	-0.24	-0.45	-0.48
Run1_MDS3		-0.4	-0.45	-0.46	-0.44	-0.45	-0.44	-0.31	-0.43	-0.34	-0.46	-0.41	-0.45	-0.38	-0.28	-0.27	-0.33	1.27	35.94	-0.51	-0.46	-0.39	-0.47	-0.58	-0.2	-0.42	-0.48
Run2_MDS13		-0.36	-0.4	-0.42	-0.4	-0.41	-0.39	-0.36	-0.38	-0.33	-0.39	-0.37	-0.39	-0.38	-0.17	-0.21	-0.24	1.92	63	-0.3	-0.38	-0.3	-0.17	-0.42	-0.24	-0.36	-0.4
Run2_MDS16		-0.36	-0.36	-0.39	-0.43	-0.4	-0.4	-0.41	-0.42	-0.41	-0.35	-0.37	-0.38	-0.37	-0.25	-0.22	-0.31	-0.31	69.92	-0.26	-0.4	-0.43	-0.36	-0.42	-0.26	-0.37	-0.41
Run2_MDS1		-0.38	-0.41	-0.49	-0.47	-0.4	-0.38	-0.33	-0.41	-0.4	-0.32	-0.39	-0.41	-0.4	-0.24	-0.24	-0.33	-0.28	84.39	-0.17	-0.38	-0.25	-0.43	-0.46	-0.28	-0.28	-0.4
Run2_MDS21		-0.35	-0.41	-0.36	-0.43	-0.41	-0.39	-0.28	-0.42	-0.29	-0.4	-0.37	-0.41	-0.39	-0.16	-0.24	-0.29	-0.31	74.97	-0.48	-0.37	-0.26	-0.18	-0.41	-0.19	-0.3	-0.4
Run2_MDS26*		-0.38	-0.33	-0.29	-0.34	-0.32	-0.34	-0.37	-0.37	-0.36	-0.37	-0.35	-0.42	-0.41	-0.25	-0.29	-0.31	-0.29	53.1	-0.36	-0.33	-0.4	-0.44	-0.41	-0.29	-0.23	-0.38
Run2_MDS27		-0.31	-0.31	-0.32	-0.31	-0.27	-0.28	-0.27	-0.41	-0.4	-0.29	-0.28	-0.36	-0.36	-0.12	-0.2	-0.37	-0.2	88.44	-0.43	-0.33	-0.4	-0.44	-0.38	-0.18	-0.28	-0.38
Run2_MDS2		-0.41	-0.4	-0.51	-0.39	-0.45	-0.44	-0.41	-0.4	-0.39	-0.2	-0.33	-0.41	-0.4	-0.42	-0.26	-0.26	-0.39	34.67	-0.43	-0.41	-0.43	-0.41	-0.43	-0.22	-0.43	-0.41
Run2_MDS3		-0.34	-0.4	-0.43	-0.38	-0.41	-0.39	-0.34	-0.34	-0.28	-0.38	-0.35	-0.37	-0.36	-0.11	-0.18	-0.28	2.75	82.2	-0.35	-0.37	-0.22	-0.4	-0.43	-0.19	-0.3	-0.39
Run1_MDS23	Lower Risk	-0.43	-0.44	-0.44	-0.47	-0.46	-0.43	-0.4	-0.46	-0.48	-0.43	-0.4	-0.44	-0.44	-0.37	-0.36	-0.37	-0.29	73.76	-0.44	-0.41	-0.42	-0.47	-0.53	-0.19	-0.27	-0.45
Run1_MDS25		-0.39	-0.21	-0.38	-0.42	-0.32	-0.41	-0.42	-0.43	-0.43	-0.35	-0.38	-0.4	-0.39	-0.34	-0.22	-0.2	-0.36	50.96	-0.59	-0.45	-0.38	-0.41	-0.48	-0.36	-0.29	-0.46
Run1_MDS5		-0.38	-0.15	-0.6	-0.13	-0.17	-0.28	-0.36	-0.38	-0.35	-0.21	-0.34	-0.4	-0.39	-0.35	-0.22	-0.22	-0.33	76.15	-0.43	-0.38	-0.39	-0.35	-0.45	-0.21	-0.29	-0.4
Run1_MDS6		-0.36	-0.45	-0.44	-0.42	-0.45	-0.4	-0.4	-0.46	-0.46	-0.37	-0.41	-0.43	-0.41	-0.28	-0.22	-0.32	-0.33	58.68	-0.49	-0.41	-0.46	-0.42	-0.47	-0.32	-0.36	-0.48
Run1_MDS8		-0.4	-0.41	-0.5	-0.42	-0.4	-0.4	-0.39	-0.46	-0.44	-0.37	-0.41	-0.43	-0.41	-0.28	-0.22	-0.32	-0.31	60.93	-0.39	-0.46	-0.45	-0.27	-0.48	-0.32	-0.41	-0.48
Run1_MDS9		-0.41	-0.39	-0.36	-0.42	-0.38	-0.39	-0.44	-0.42	-0.37	-0.36	-0.38	-0.45	-0.43	-0.36	-0.31	-0.33	-0.3	86.86	-0.43	-0.42	-0.45	-0.6	-0.45	-0.3	-0.33	-0.47
Run2_MDS12		-0.37	-0.44	-0.2	-0.4	-0.35	-0.35	-0.34	-0.37	-0.38	-0.39	-0.38	-0.4	-0.39	-0.1	-0.26	-0.32	-0.26	152.79	-0.43	-0.22	-0.28	-0.41	-0.41	-0.32	-0.06	-0.3
Run2_MDS14		-0.33	-0.18	-0.49	0.86	-0.05	-0.37	-0.46	-0.4	-0.4	-0.34	-0.35	-0.36	-0.34	-0.2	-0.29	-0.25	0.83	109.08	-0.35	-0.35	-0.4	-0.29	-0.4	-0.34	-0.3	-0.36
Run2_MDS19		-0.36	-0.32	-0.25	-0.32	-0.33	-0.33	-0.33	-0.36	-0.41	-0.31	-0.31	-0.38	-0.38	0	-0.23	-0.32	-0.26	126.91	-0.49	-0.36	-0.4	-0.44	-0.46	-0.31	-0.25	-0.38
Run2_MDS20		-0.37	-0.54	-0.61	-0.41	-0.4	-0.4	-0.38	-0.44	-0.42	-0.27	-0.29	-0.37	-0.36	0.04	-0.02	-0.31	-0.31	188.42	-0.39	-0.39	-0.38	-0.37	-0.41	-0.27	-0.35	-0.4
Run2_MDS28*		-0.4	-0.42	-0.32	-0.44	-0.42	-0.41	-0.41	-0.42	-0.41	-0.39	-0.39	-0.41	-0.41	-0.3	-0.29	-0.4	-0.32	72.19	-0.32	-0.43	-0.41	-0.4	-0.4	-0.24	-0.26	-0.37
Run2_MDS5		-0.34	-0.15	-0.23	-0.28	-0.31	-0.4	-0.5	-0.38	-0.11	-0.15	-0.33	-0.38	-0.34	-0.06	-0.13	-0.24	-0.29	115.83	-0.29	-0.35	-0.34	-0.35	-0.4	-0.18	-0.26	-0.39
Run1_ICUS18	ICUS	-0.4	-0.32	-0.36	-0.32	-0.38	-0.43	-0.44	-0.48	-0.46	-0.31	-0.31	-0.41	-0.4	-0.19	-0.23	-0.36	-0.31	78.81	-0.56	-0.45	-0.47	-0.49	-0.48	-0.3	-0.28	-0.46
Run1_ICUS22		-0.44	-0.32	-0.3	-0.32	-0.3	-0.43	-0.46	-0.46	-0.48	-0.41	-0.4	-0.46	-0.46	-0.36	-0.35	-0.41	0.06	87.69	-0.36	-0.41	-0.43	-0.45	-0.5	-0.33	-0.28	-0.45
Run1_ICUS24		-0.38	-0.38	-0.37	-0.45	-0.29	-0.31	-0.39	-0.44	-0.48	-0.4	-0.36	-0.42	-0.42	-0.38	-0.39	-0.35	1.3	66.04	-0.39	-0.44	-0.47	-0.49	-0.45	-0.33	-0.41	-0.45
Run1_Nl-1	Normal	-0.39	-0.39	-0.31	-0.53	-0.28	-0.34	-0.39	-0.47	-0.46	-0.36	-0.35	-0.42	-0.42	-0.32	-0.35	-0.35	1.63	74.29	-0.47	-0.46	-0.47	-0.39	-0.33	-0.3	-0.43	-0.47
Run1_Nl-3		-0.27	-0.38	-0.37	-0.44	-0.28	-0.33	-0.34	-0.39	-0.45	-0.19	-0.22	-0.3	-0.25	-0.1	-0.21	-0.24	0.41	48.86	-0.5	-0.46	-0.47	-0.43	-0.46	-0.44	-0.44	-0.47
Run1_Nl-4		-0.24	-0.42	-0.49	-0.39	-0.38	-0.31	-0.27	-0.37	-0.42	-0.13	-0.16	-0.26	-0.21	-0.11	-0.18	-0.18	1.07	37.98	-0.46	-0.44	-0.45	-0.34	-0.45	-0.45	-0.43	-0.45
Run1_Nl-6		-0.31	-0.45	-0.49	-0.46	-0.3	-0.28	-0.35	-0.36	-0.43	-0.24	-0.26	-0.36	-0.34	-0.15	-0.28	-0.32	1.75	39.6	-0.42	-0.44	-0.44	-0.39	-0.44	-0.45	-0.38	-0.46
Run2_Nl-3		-0.25	-0.36	-0.37	-0.38	-0.32	-0.32	-0.27	-0.35	-0.38	-0.18	-0.22	-0.27	-0.22	-0.09	-0.09	-0.23	0.47	58.55	-0.41	-0.4	-0.41	-0.37	-0.39	-0.38	-0.38	-0.41
Run2_Nl-4		-0.21	-0.34	-0.36	-0.32	-0.23	-0.29	-0.27	-0.35	-0.37	-0.13	-0.16	-0.23	-0.18	-0.01	-0.05	-0.19	0.7	46.52	-0.35	-0.39	-0.43	-0.31	-0.42	-0.38	-0.39	-0.4
Run2_Nl-5		-0.25	-0.27	-0.32	-0.22	-0.3	-0.25	-0.29	-0.35	-0.36	-0.13	-0.2	-0.29	-0.23	-0.08	-0.14	-0.23	1.8	65.94	-0.36	-0.41	-0.42	-0.3	-0.4	-0.36	-0.4	-0.41
Run2_Nl-6		-0.29	-0.38	-0.42	-0.37	-0.31	-0.3	-0.28	-0.38	-0.37	-0.21	-0.23	-0.33	-0.31	0.04	-0.17	-0.26	1.76	48.04	-0.39	-0.37	-0.4	-0.36	-0.43	-0.29	-0.29	-0.4

Supplemental Table 3: Median expression of each surface marker on each cell population.

CD69 Median

Sample	Group	Ungated	CD34+CD38low	HSCs	MPP	CMP/GMP	Myelo/Mono-Blasts	ProMonocytes	CD14neg Monocytes	Mature Monocytes	ProMyelocytes	Myelocytes	MetaMyelocytes	MatureGrans	ProErythroblasts	Erythroblasts	LateErythroblasts	PreBcells	Mature Bcells	Plasma Cells	T cells	NK cells	pDCs	Basophils	Platelets	CD8+ T cells	CD8neg T cells
Run1_MDS17	AML/RAEB-T	-0.27	-0.13	-0.05	-0.15	0.06	-0.25	-0.24	-0.25	-0.28	-0.4	-0.34	-0.31	-0.25	-0.37	-0.44	-0.31	-0.18	-0.02	-0.53	-0.15	-0.06	-0.3	-0.21	13.4	-0.06	-0.24
Run2_MDS15*		-0.25	-0.02	-0.15	-0.21	-0.14	-0.16	-0.24	-0.35	-0.28	-0.25	-0.26	-0.29	-0.36	-0.26	-0.27	-0.13	-0.23	-0.04	-0.52	-0.11	0.34	-0.08	-0.08	1.41	0.21	-0.23
Run2_MDS4		-0.23	1.44	1.03	1.53	4.27	-0.06	-0.22	-0.31	-0.17	-0.35	-0.36	-0.38	-0.39	-0.36	-0.34	0.05	0.83	1.38	-0.39	0.14	0.68	2.64	0.17	22.34	0.32	0.01
Run1_MDS21	Higher Risk	-0.3	-0.14	-0.06	-0.17	-0.13	-0.16	-0.22	-0.26	-0.33	-0.43	-0.4	-0.44	-0.41	-0.43	-0.36	25.33	0.38	-0.11	-0.5	-0.26	1.42	-0.32	0.22	37.56	-0.15	-0.3
Run1_MDS3		-0.32	0.04	-0.01	0.02	0.12	0.03	-0.13	-0.26	-0.1	-0.44	-0.42	-0.45	-0.34	-0.43	-0.37	0.79	0.45	0.07	-0.42	-0.21	0.97	-0.34	0.56	31.93	-0.11	-0.25
Run2_MDS13		-0.31	-0.1	-0.04	-0.12	-0.1	-0.15	-0.3	-0.33	-0.02	-0.4	-0.37	-0.39	-0.36	-0.34	-0.4	-0.3	0.34	-0.03	-0.36	-0.2	0.94	-0.39	-0.15	28.9	-0.15	-0.22
Run2_MDS16		-0.33	1.19	0.85	0.62	-0.21	-0.36	-0.35	-0.29	-0.33	-0.39	-0.41	-0.41	0.36	-0.41	-0.22	-0.15	-0.08	-0.43	-0.42	-0.11	-0.23	-0.13		28.5	-0.12	-0.24
Run2_MDS1		-0.23	0.58	1.64	0.48	0.38	-0.03	0.11	-0.25	-0.23	-0.38	-0.4	-0.39	-0.38	-0.31	-0.37	-0.24	0.31	0.49	-0.36	0.01	0.51	0.02	0.17	19.83	1.89	-0.08
Run2_MDS21		-0.27	-0.14	-0.17	-0.14	-0.09	-0.16	-0.43	-0.26	-0.21	-0.38	-0.36	-0.39	-0.39	-0.38	-0.41	-0.29	0.46	0.19	-0.27	-0.21	0.93	1.14	-0.15	-0.23	0.87	-0.25
Run2_MDS26*		-0.37	1.64	2.6	1.58	0.89	-0.09	-0.32	-0.34	-0.35	-0.36	-0.37	-0.38	-0.36	-0.26	-0.42	-0.39	-0.1	0.03	-0.41	0	0.43	-0.32	0.26	-0.23	0.23	-0.07
Run2_MDS27		-0.23	1.72	2.01	1.39	1.25	0.55	-0.16	-0.43	-0.35	-0.32	-0.34	-0.41	-0.42	1.04	-0.41	-0.39	0.43	0.01	-0.4	0.01	-0.02	-0.46	0.35	13.43	0.23	-0.07
Run2_MDS2		-0.33	-0.3	-0.12	-0.32	-0.32	-0.33	-0.35	-0.38	-0.22	-0.3	-0.36	-0.39	-0.39	-0.22	-0.24	0.44	-0.24	0.24	-0.29	-0.23	-0.14	-0.37	-0.44	41.68	-0.12	-0.23
Run2_MDS3		-0.29	0.31	0.45	0.24	0.36	0.01	-0.22	-0.29	-0.1	-0.4	-0.39	-0.38	-0.39	-0.31	-0.41	-0.4	0.63	0.38	-0.32	-0.19	0.66	0.44	0.81	34.67	-0.11	-0.22
Run1_MDS23	Lower Risk	-0.38	0.71	1.4	0.73	0.36	-0.33	-0.32	-0.37	-0.3	-0.38	-0.41	-0.43	-0.44	-0.42	-0.38	-0.01	-0.14	0.14	-0.36	0.02	1.52	-0.34	-0.19	17.95	1.02	-0.1
Run1_MDS25		-0.41	0.59	1.18	-0.27	1.01	-0.43	-0.38	-0.39	-0.34	-0.42	-0.4	-0.46	-0.45	-0.43	-0.39	-0.04	-0.18	-0.13	-0.35	-0.07	2.91	-0.32	-0.08	16.07	-0.04	-0.1
Run1_MDS5		-0.18	1.14	-0.19	1.05	0.75	0.12	0.04	-0.09	0.28	-0.25	-0.31	-0.34	-0.31	-0.28	-0.41	7.34	0.14	0.16	-0.45	0.16	3.72	1.78	1.13	13.77	0.53	0.04
Run1_MDS6		-0.39	0.51	0.65	-0.02	0.43	-0.2	-0.26	-0.31	-0.14	-0.42	-0.43	-0.43	-0.44	-0.35	-0.41	-0.09	-0.16	-0.06	-0.42	-0.2		-0.13	0.3	19.92	-0.08	-0.29
Run1_MDS8		-0.38	1.5	1.69	0.7	0.52	-0.16	-0.24	-0.11	0.13	-0.43	-0.41	-0.46	-0.44	-0.41	-0.4	0.01	-0.18	-0.01	-0.32	-0.27	1.01	0.3	0.51	25.13	-0.08	-0.32
Run1_MDS9		-0.34	1.11	1.91	0.72	1.01	0.15	0.1	0.37	0.64	-0.4	-0.41	-0.45	-0.46	-0.34	-0.37	4.59	-0.05	0.11	-0.3	-0.22	1.01	-0.12	1.02	19.1	0.03	-0.31
Run2_MDS12		-0.35	0.07	1.73	0.36	0.87	-0.26	-0.18	-0.22	-0.12	-0.35	-0.36	-0.37	-0.38	-0.37	-0.41	-0.35	0.07	0.01	-0.25	2.23	9.14	-0.26	0.39	10.66	12.56	0.79
Run2_MDS14		-0.38	0.02	-0.64	0.43	0.51	-0.33	-0.39	-0.4	-0.3	-0.36	-0.39	-0.4	-0.41	-0.34	-0.41	-0.32	-0.1	0	-0.61	-0.11	-0.05	-0.43	-0.04	9.69	0.19	-0.18
Run2_MDS19		-0.38	1.04	1.76	0.98	0.41	-0.29	-0.34	-0.35	-0.34	-0.36	-0.37	-0.4	-0.41	-0.35	-0.39	-0.4	-0.09	-0.15	-0.48	0	0.22	-0.31	-0.17	26.22	0.72	-0.17
Run2_MDS20		-0.29	1.07	2.02	0.73	0.43	-0.35	-0.38	-0.36	-0.31	-0.34	-0.34	-0.41	-0.41	-0.35	-0.37	-0.23	0.08	0.28	-0.3	0.14	0.27	-0.37	0.15	25.1	-0.01	0.16
Run2_MDS28*		-0.35	0.48	1.37	0.44	0.54	-0.28	-0.31	-0.36	-0.28	-0.37	-0.35	-0.38	-0.39	-0.44	-0.39	-0.38	-0.12	-0.01	-0.28	-0.02	-0.06		0.29	55.48	0.33	-0.13
Run2_MDS5		-0.23	0.48	0.02	0.66	0.45	-0.02	-0.25	-0.12	-0.07	-0.26	-0.35	-0.32	-0.29	-0.43	-0.36	1.08	-0.07	-0.03	-0.4	0	3.38	0.37	0.86	15.12	0.16	-0.04
Run1_ICUS18	ICUS	-0.41	0.12	0.32	-0.13	0.56	-0.42	-0.38	-0.39	-0.35	-0.38	-0.41	-0.44	-0.47	-0.41	-0.4	-0.39	-0.12	0.03	-0.32	-0.22	0.18	-0.45	-0.29	14.8	-0.04	-0.25
Run1_ICUS22		-0.42	1.24	2.15	0.94	0.75	-0.37	-0.41	-0.41	-0.33	-0.4	-0.41	-0.46	-0.48	-0.44	-0.42	-0.34	0.04	0.08	-0.38	0.14	2.04	-0.44	0.41	14.67	0.6	-0.02
Run1_ICUS24		-0.37	1.4	1.87	1.27	0.5	-0.22	-0.3	-0.41	-0.33	-0.4	-0.4	-0.43	-0.45	-0.39	-0.43	2.35	-0.01	-0.02	-0.45	-0.14	0.19	-0.29	0.41	20.49	-0.02	-0.22
Run1_Nl-1	Normal	-0.38	1.44	0.75	1.33	1	-0.19	-0.26	-0.3	-0.26	-0.38	-0.39	-0.43	-0.45	-0.38	-0.43	-0.15	0.4	0.18	-0.44	-0.16	0.35	-0.31	2.76	29.87	-0.04	-0.21
Run1_Nl-3		-0.37	0.72	0.86	0.68	0.23	-0.28	-0.32	-0.35	-0.31	-0.38	-0.39	-0.41	-0.42	-0.35	-0.42	-0.33	-0.16	-0.06	-0.49	-0.25	-0.04	-0.39	0.14	4.89	-0.1	-0.33
Run1_Nl-4		-0.38	0.4	1.4	0.8	0.17	-0.26	-0.33	-0.38	-0.33	-0.37	-0.38	-0.41	-0.42	-0.34	-0.42	-0.36	-0.13	-0.12	-0.43	-0.22	-0.12	-0.37	0.36	5.29	-0.18	-0.25
Run1_Nl-6		-0.39	1	1.38	0.88	0.28	-0.25	-0.3	-0.37	-0.3	-0.37	-0.39	-0.43	-0.43	-0.35	-0.44	-0.36	-0.06	-0.06	-0.46	-0.15	-0.05	-0.35	-0.07	6.45	0.5	-0.23
Run2_Nl-3		-0.36	0.33	0.83	0.08	-0.01	-0.29	-0.29	-0.33	-0.3	-0.35	-0.37	-0.39	-0.38	-0.36	-0.41	-0.36	-0.19	-0.13	-0.4	-0.26	-0.08	-0.39	-0.01	5.66	-0.16	-0.32
Run2_Nl-4		-0.36	0.41	0.91	0.15	-0.05	-0.28	-0.28	-0.35	-0.33	-0.33	-0.36	-0.39	-0.38	-0.32	-0.39	-0.38	-0.08	-0.15	-0.42	-0.22	-0.15	-0.3	0.29	6.07	-0.21	-0.23
Run2_Nl-5		-0.34	0.37	0.31	0.29	0.26	-0.26	-0.27	-0.35	-0.32	-0.33	-0.37	-0.4	-0.39	-0.3	-0.4	-0.38	-0.02	-0.07	-0.42	-0.24	-0.09	-0.35	-0.08	8.48	-0.21	-0.27
Run2_Nl-6		-0.38	0.68	1	0.64	0.26	-0.24	-0.31	-0.37	-0.31	-0.35	-0.38	-0.4	-0.4	-0.33	-0.4	-0.39	-0.09	-0.1	-0.43	-0.16	-0.04	-0.33	-0.07	8.06	0.51	-0.24

Supplemental Table 4: Most common surface marker aberrancies by cell type.
Number indicates the number of samples (of 23 in total; from MDS and sAML) which demonstrated
aberrant expression within the indicated group of cell populations (columns) for each marker (rows).
HSPC = HSC, MPP and CD33+MPP (all CD34+CD38low).
Boxes are colored from green (no aberrancy) to red (maximum for each cell type).
The final column on the right is a sum of the first four groups with a possible score of up to 92 (23x4).
Note that the analysis includes samples MDS3, MDS13, and MDS21 which
came from serial biopsies of the same patient (each several months apart) and demonstrate
consistent properties.

	HSPC	Blasts	Monocyte Lineage	Granulocyte Lineage	Other	Total: Progenitor, Monocyte, and Granulocyte
CD45RA	2	0	0	0	1	2
CD7	3	0	0	0	14	3
CD71	1	2	0	1	19	4
CD235	4	0	0	0	16	4
CD47	8	1	2	6	10	17
CD8	4	0	0	1	9	5
CD34	16	8	1	0	6	25
CD117	11	5	0	0	3	16
CD56	0	0	2	2	8	4
CD90	3	0	0	0	0	3
CD33	3	13	1	2	7	19
CD64	5	2	2	5	5	14
CD16	5	0	3	3	11	11
CD11b	6	0	8	8	19	22
CD15	5	0	0	18	18	23
CD123	2	0	0	1	10	3
CD3	0	0	0	0	6	0
CD45	11	4	3	2	19	20
CD133	1	0	0	0	0	1
HLADR	13	1	12	2	14	28
CD44	11	10	6	9	20	36
CD38	3	0	15	3	13	21
CD14	1	0	0	0	4	1
Calreticulin	1	0	0	0	3	1
CD321	7	10	11	5	20	33
CD99	4	5	1	2	18	12
CD13	0	0	2	1	4	3
CXCR4	1	0	0	2	8	3
CD10	3	0	0	1	0	4
CD19	0	0	0	0	4	0
CD20	0	0	0	0	5	0
CD69	0	0	0	0	7	0

Supplemental Table 5: Fequency of surface marker aberrancies by sample. Number of marker abberrancies is shown for each marker and population (HSPC, Blasts, Monocytes, Granulocytes, and Other), in each sample.
Samples MDS3, 13 & 21 are serial samples from the same patient each several months apart.

		AML/RAEB-T				Higher Risk MDS							
		MDS17	MDS15	MDS4		MDS13	MDS16	MDS1	MDS21	MDS26	MDS27	MDS2	MDS3
CD45RA	HSPC	0	0	0		0	0	0	0	0	0	0	0
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	0	0	0		0	0	0	0	0	0	0	0
	Other	0	0	0		0	0	0	0	0	0	0	0
CD7	HSPC	0	0	3		0	0	0	0	0	0	0	0
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	0	0	0		0	0	0	0	0	0	0	0
	Other	2	0	1		0	4	1	2	0	1	2	1
CD71	HSPC	0	0	0		0	0	0	0	0	0	0	0
Median	Blasts	0	0	0		0	0	0	0	0	0	1	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	0	0	0		0	0	0	0	0	0	0	0
	Other	2	1	0		3	2	1	1	1	2	1	1
CD235	HSPC	0	0	0		0	0	0	0	0	0	0	0
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	0	0	0		0	0	0	0	0	0	0	0
	Other	1	1	2		1	2	1	1	1	2	1	1
CD47	HSPC	0	0	0		2	0	1	2	0	0	2	1
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	1	0	0		0	0	1	0	0	0	0	0
	Other	0	2	1		1	0	0	1	1	0	1	1
CD8	HSPC	0	0	0		0	0	0	0	0	0	0	0
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	3	0	0		0	0	0	0	0	0	0	0
	Other	1	2	1		0	0	0	1	0	1	0	0
CD34	HSPC	1	3	0		0	0	2	1	2	0	0	0
Median	Blasts	1	1	0		1	0	0	1	0	1	1	1
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	0	0	0		0	0	0	0	0	0	0	0
	Other	1	4	0		0	1	0	1	0	1	0	0

Supplemental Table 5: Fequency of surface marker aberrancies by sample. Number of marker abberrancies is shown for each marker and population (HSPC, Blasts, Monocytes, Granulocytes, and Other), in each sample.
Samples MDS3, 13 & 21 are serial samples from the same patient each several months apart.

		AML/RAEB-T				Higher Risk MDS							
		MDS17	MDS15	MDS4		MDS13	MDS16	MDS1	MDS21	MDS26	MDS27	MDS2	MDS3
CD117	**HSPC**	4	4	3		0	0	3	3	4	0	0	0
Median	**Blasts**	1	0	0		1	0	0	1	1	0	0	1
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	0	0	0		0	0	0	0	0	0	0	0
	Other	0	3	0		0	0	0	1	0	0	0	0
CD56	**HSPC**	0	0	0		0	0	0	0	0	0	0	0
Median	**Blasts**	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	0	1	0		0	0	0	0	0	0	0	0
	Other	0	1	0		0	0	1	0	0	0	0	0
CD90	**HSPC**	0	0	0		0	0	0	0	0	0	0	0
Median	**Blasts**	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	0	0	0		0	0	0	0	0	0	0	0
	Other	0	0	0		0	0	0	0	0	0	0	0
CD33	**HSPC**	0	2	2		0	0	0	0	0	0	0	0
Median	**Blasts**	1	0	1		1	0	1	1	1	1	1	1
	Mono	0	0	1		0	0	0	0	0	0	0	0
	Gran	0	3	1		0	0	0	0	0	0	0	0
	Other	0	6	0		1	0	0	0	0	0	0	0
CD64	**HSPC**	0	0	0		0	0	1	0	0	0	0	0
Medians	**Blasts**	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	3	0
	Gran	1	0	1		0	0	0	0	0	0	1	0
	Other	0	1	0		0	0	0	0	0	0	2	1
CD16	**HSPC**	0	0	0		0	0	0	0	0	0	0	0
Median	**Blasts**	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	1	0		0	0	0	0	0	0	0	0
	Gran	0	0	0		0	0	0	0	0	0	0	0
	Other	0	1	0		0	1	0	0	2	2	1	0
CD11b	**HSPC**	0	0	0		0	0	0	0	0	0	0	0
Median	**Blasts**	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	1	0		0	0	2	1	2	0	1	0
	Gran	1	0	0		2	0	0	3	1	0	1	1
	Other	1	3	1		1	0	1	1	1	0	2	1

Supplemental Table 5: Fequency of surface marker aberrancies by sample. Number of marker abberrancies is shown for each marker and population (HSPC, Blasts, Monocytes, Granulocytes, and Other), in each sample.
Samples MDS3, 13 & 21 are serial samples from the same patient each several months apart.

		AML/RAEB-T				Higher Risk MDS							
		MDS17	MDS15	MDS4		MDS13	MDS16	MDS1	MDS21	MDS26	MDS27	MDS2	MDS3
CD15	HSPC	0	0	0		0	0	0	0	0	0	0	0
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	1	2	0		1	1	2	1	1	1	1	1
	Other	1	1	1		1	1	1	1	2	1	1	1
CD123	HSPC	0	0	0		0	0	0	0	0	0	0	0
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	0	1	0		0	0	0	0	0	0	0	0
	Other	1	1	0		1	0	0	0	1	1	1	0
CD3	HSPC	0	0	0		0	0	0	0	0	0	0	0
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	0	0	0		0	0	0	0	0	0	0	0
	Other	0	0	0		0	1	0	0	0	1	0	0
CD45	HSPC	1	1	0		2	0	0	3	0	0	2	2
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	0	0	0		0	0	0	0	0	0	0	0
	Other	1	5	2		2	0	2	4	0	2	7	0
CD133	HSPC	0	0	0		0	0	0	0	0	0	0	0
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	0	0	0		0	0	0	0	0	0	0	0
	Other	0	0	0		0	0	0	0	0	0	0	0
HLADR	HSPC	0	2	4		1	0	3	0	0	4	4	0
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	3		0	0	2	0	0	2	3	0
	Gran	0	1	0		0	0	0	0	0	0	1	0
	Other	0	5	1		1	1	0	0	0	2	2	0
CD44	HSPC	4	4	0		1	0	3	0	0	0	4	0
Median	Blasts	0	0	0		0	1	0	0	1	1	1	0
	Mono	0	0	1		0	1	0	0	1	0	1	0
	Gran	2	4	3		3	0	0	1	0	0	2	3
	Other	1	7	4		2	1	3	2	0	3	4	3

Supplemental Table 5: Fequency of surface marker aberrancies by sample. Number of marker abberrancies is shown for each marker and population (HSPC, Blasts, Monocytes, Granulocytes, and Other), in each sample. Samples MDS3, 13 & 21 are serial samples from the same patient each several months apart.

		AML/RAEB-T				Higher Risk MDS							
		MDS17	MDS15	MDS4		MDS13	MDS16	MDS1	MDS21	MDS26	MDS27	MDS2	MDS3
CD38	HSPC	0	1	1		0	0	0	0	0	0	0	0
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	3	1	2		2	0	2	2	2	0	2	2
	Gran	0	0	0		3	0	0	3	0	0	2	3
	Other	0	2	2		2	0	0	1	1	0	3	1
CD14	HSPC	0	0	0		0	0	0	0	0	0	0	0
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	0	0	0		0	0	0	0	0	0	0	0
	Other	0	2	0		0	0	0	0	0	1	1	0
CD321	HSPC	4	2	0		2	0	0	4	0	0	0	3
Median	Blasts	1	1	0		1	0	1	1	0	1	1	1
	Mono	3	2	0		3	0	0	1	0	0	0	3
	Gran	0	2	0		0	0	1	0	1	0	0	0
	Other	3	6	1		1	2	2	1	1	2	6	3
CD99	HSPC	0	1	3		3	0	0	0	0	0	4	0
Median	Blasts	1	0	0		1	0	0	1	0	0	1	1
	Mono	0	0	0		0	0	1	0	0	0	0	0
	Gran	0	3	0		0	0	0	0	0	0	1	0
	Other	4	9	4		3	6	2	1	0	8	7	1
CD13	HSPC	0	0	0		0	0	0	0	0	0	0	0
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	1	0	0	0	0	0
	Gran	0	1	0		0	0	0	0	0	0	0	0
	Other	0	2	0		0	0	0	0	0	0	0	0
CXCR4	HSPC	0	0	0		0	0	0	0	0	0	0	0
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	1	2	0		0	0	0	0	0	0	0	0
	Other	1	0	0		1	0	0	2	0	0	0	2
CD10	HSPC	0	0	0		0	0	0	0	0	0	0	0
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	0	0	0		0	0	0	0	0	0	0	0
	Other	0	0	0		0	0	0	0	0	0	0	0

Supplemental Table 5: Fequency of surface marker aberrancies by sample. Number of marker abberrancies is shown for each marker and population (HSPC, Blasts, Monocytes, Granulocytes, and Other), in each sample.
Samples MDS3, 13 & 21 are serial samples from the same patient each several months apart.

		AML/RAEB-T				Higher Risk MDS							
		MDS17	MDS15	MDS4		MDS13	MDS16	MDS1	MDS21	MDS26	MDS27	MDS2	MDS3
CD19	HSPC	0	0	0		0	0	0	0	0	0	0	0
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	0	0	0		0	0	0	0	0	0	0	0
	Other	0	1	0		0	0	0	1	0	0	0	1
CD20	HSPC	0	0	0		0	0	0	0	0	0	0	0
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	0	0	0		0	0	0	0	0	0	0	0
	Other	0	1	0		0	0	0	0	0	0	0	0
CD69	HSPC	0	0	0		0	0	0	0	0	0	0	0
Median	Blasts	0	0	0		0	0	0	0	0	0	0	0
	Mono	0	0	0		0	0	0	0	0	0	0	0
	Gran	0	0	0		0	0	0	0	0	0	0	0
	Other	0	0	1		0	0	0	1	0	0	0	0

Supplemental Table 5: Fequency of surface marker aberrancies by sample. Number of marker abberrancies is shown for each marker and population (HSPC, Blasts, Monocytes, Granulocytes, and Other), in each sample.
Samples MDS3, 13 & 21 are serial samples from the same patient each several months apart.

		Lower Risk MDS													ICUS		
		MDS23	MDS25	MDS5	MDS6	MDS8	MDS9	MDS12	MDS14	MDS19	MDS20	MDS28	MDS11		ICUS18	ICUS22	ICUS24
CD45RA	HSPC	0	1	0	0	1	0	0	0	0	0	0	0		0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Other	0	0	0	0	1	0	0	0	0	0	0	0		0	0	0
CD7	HSPC	0	1	0	0	0	0	0	1	0	0	0	0		0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Other	0	0	3	1	2	2	0	0	0	2	0	3		1	0	1
CD71	HSPC	0	0	0	0	0	1	0	0	0	0	0	0		0	0	0
Median	Blasts	0	0	0	0	0	1	0	0	0	0	0	0		0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Gran	0	0	1	0	0	0	0	0	0	0	0	0		0	0	0
	Other	0	2	3	1	3	3	1	1	1	0	0	2		0	0	1
CD235	HSPC	0	1	0	0	1	0	0	2	0	0	0	2		0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Other	1	0	3	0	1	0	1	0	1	0	0	2		0	0	1
CD47	HSPC	0	2	4	0	0	0	0	1	0	0	0	2		0	0	0
Median	Blasts	0	0	1	0	0	0	0	0	0	0	0	0		0	1	0
	Mono	0	0	1	0	0	3	0	0	0	0	0	0		0	1	0
	Gran	1	0	1	0	0	0	0	0	0	0	2	0		0	0	0
	Other	0	0	4	0	1	4	0	0	1	0	0	0		2	1	1
CD8	HSPC	0	1	1	0	1	0	0	0	0	0	0	1		0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Other	0	2	0	1	1	2	0	0	0	0	0	0		0	0	0
CD34	HSPC	1	3	2	1	0	1	1	1	0	2	1	3		0	0	0
Median	Blasts	0	0	0	0	0	1	0	0	0	0	0	0		0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Other	0	0	1	0	0	0	0	0	0	0	0	0		0	0	0

Supplemental Table 5: Fequency of surface marker aberrancies by sample. Number of marker abberrancies is shown for each marker and population (HSPC, Blasts, Monocytes, Granulocytes, and Other), in each sample.
Samples MDS3, 13 & 21 are serial samples from the same patient each several months apart.

		Lower Risk MDS													ICUS		
		MDS23	MDS25	MDS5	MDS6	MDS8	MDS9	MDS12	MDS14	MDS19	MDS20	MDS28	MDS11		ICUS18	ICUS22	ICUS24
CD117	HSPC	1	0	0	0	2	0	4	0	0	0	3	1		0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Other	0	0	0	0	0	0	0	0	0	0	1	0		0	0	0
CD56	HSPC	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Mono	0	0	0	1	0	0	3	0	0	0	0	0		0	0	0
	Gran	0	0	0	2	0	0	0	0	0	0	0	0		0	0	0
	Other	0	0	1	0	0	0	1	1	1	1	0	0		0	0	0
CD90	HSPC	0	1	0	2	0	0	0	1	0	0	0	0		0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Other	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
CD33	HSPC	0	0	0	2	0	0	0	0	0	0	0	0		0	0	0
Median	Blasts	1	0	0	0	1	1	0	0	0	0	0	1		0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Other	0	0	1	2	0	0	1	0	0	0	3	0		0	0	0
CD64	HSPC	0	1	2	0	1	0	0	0	0	0	0	1		0	0	0
Medians	Blasts	0	0	0	0	0	0	1	0	0	0	1	0		0	0	0
	Mono	0	0	3	0	0	0	0	0	0	0	0	0		0	0	0
	Gran	1	0	4	0	0	0	0	0	0	0	0	0		0	0	0
	Other	0	0	2	0	0	0	2	0	0	0	3	0		0	0	0
CD16	HSPC	0	3	2	0	1	0	0	2	0	1	0	0		0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Mono	0	0	0	0	0	1	0	0	0	1	0	0		0	0	0
	Gran	0	0	1	0	0	0	0	1	0	1	0	0		0	0	0
	Other	0	1	1	0	1	2	0	1	0	1	0	0		2	0	0
CD11b	HSPC	0	3	2	0	1	0	0	2	0	1	0	2		0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Mono	0	0	1	0	0	0	0	0	0	0	2	0		0	1	0
	Gran	0	0	0	0	0	0	2	0	0	0	2	0		0	1	0
	Other	2	1	3	1	1	1	1	0	2	0	3	1		1	1	0

Supplemental Table 5: Fequency of surface marker aberrancies by sample. Number of marker abberrancies is shown for each marker and population (HSPC, Blasts, Monocytes, Granulocytes, and Other), in each sample. Samples MDS3, 13 & 21 are serial samples from the same patient each several months apart.

		Lower Risk MDS													ICUS		
		MDS23	MDS25	MDS5	MDS6	MDS8	MDS9	MDS12	MDS14	MDS19	MDS20	MDS28	MDS11		ICUS18	ICUS22	ICUS24
CD15	HSPC	0	3	1	0	1	0	0	1	0	1	0	0		0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Gran	0	0	1	1	1	1	0	2	4	1	1	1		1	4	1
	Other	1	0	2	0	1	1	1	0	1	0	0	2		1	1	1
CD123	HSPC	1	0	0	0	0	0	3	0	0	0	0	0		0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Other	0	1	0	0	0	1	0	0	0	0	1	0		1	1	0
CD3	HSPC	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Other	0	0	0	0	1	1	0	0	0	1	0	1		0	0	0
CD45	HSPC	0	4	3	0	1	0	0	3	0	0	0	2		0	0	0
Median	Blasts	0	1	0	0	0	0	0	1	0	1	0	1		1	1	0
	Mono	0	0	0	0	2	2	0	1	0	0	0	0		0	2	0
	Gran	0	1	4	0	0	0	0	0	0	0	0	0		0	0	0
	Other	2	1	7	3	1	2	0	0	1	3	3	1		1	1	0
CD133	HSPC	0	0	0	0	1	0	0	0	0	0	0	0		0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Other	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
HLADR	HSPC	2	1	1	3	0	1	4	0	0	0	1	0		0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	1	0		0	0	0
	Mono	3	0	0	2	2	2	0	1	2	3	3	0		2	3	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Other	4	3	2	2	0	0	1	0	0	2	2	1		0	1	0
CD44	HSPC	1	1	3	0	0	0	0	3	0	1	0	1		0	0	0
Median	Blasts	1	1	0	1	0	0	0	1	0	1	1	0		1	0	0
	Mono	0	0	0	0	0	0	0	1	0	1	0	0		0	0	0
	Gran	0	0	3	1	0	0	0	0	0	0	0	0		0	0	0
	Other	3	1	4	2	0	1	3	0	1	1	2	1		1	0	0

Supplemental Table 5: Fequency of surface marker aberrancies by sample. Number of marker abberrancies is shown for each marker and population (HSPC, Blasts, Monocytes, Granulocytes, and Other), in each sample.
Samples MDS3, 13 & 21 are serial samples from the same patient each several months apart.

		Lower Risk MDS												ICUS		
		MDS23	MDS25	MDS5	MDS6	MDS8	MDS9	MDS12	MDS14	MDS19	MDS20	MDS28	MDS11	ICUS18	ICUS22	ICUS24
CD38	HSPC	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	Mono	0	0	2	0	0	2	1	0	0	1	1	1	1	2	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Other	0	1	2	0	1	0	0	2	1	0	3	1	0	3	0
CD14	HSPC	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Other	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
CD321	HSPC	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0
Median	Blasts	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
	Mono	0	0	0	3	1	3	0	0	3	2	1	0	0	1	0
	Gran	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0
	Other	1	0	1	1	0	2	0	1	1	2	2	1	1	0	1
CD99	HSPC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Other	0	1	3	3	4	2	0	0	1	3	0	3	2	0	1
CD13	HSPC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mono	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Other	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0
CXCR4	HSPC	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Other	0	0	2	0	1	1	1	0	0	0	0	0	0	0	1
CD10	HSPC	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Gran	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Supplemental Table 5: Fequency of surface marker aberrancies by sample. Number of marker abberrancies is shown for each marker and population (HSPC, Blasts, Monocytes, Granulocytes, and Other), in each sample.
Samples MDS3, 13 & 21 are serial samples from the same patient each several months apart.

		Lower Risk MDS													ICUS		
		MDS23	MDS25	MDS5	MDS6	MDS8	MDS9	MDS12	MDS14	MDS19	MDS20	MDS28	MDS11		ICUS18	ICUS22	ICUS24
CD19	HSPC	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Other	0	0	0	0	0	0	0	0	1	1	0	0		0	0	0
CD20	HSPC	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Other	0	0	0	0	0	0	1	1	1	1	0	0		0	0	0
CD69	HSPC	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
Median	Blasts	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Mono	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Gran	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Other	0	1	3	0	0	1	3	0	0	0	1	0		0	0	1

Supplemental Table 6: Frequency of MDS sample surface marker aberrances in gated cell populations and by using an appoximation of the LeukemiaNet criteria.
"Yes" indicates the presence of observed aberrancy or aberrancies in the indicated population

		Gated aberrancy analysis			Modified European LeukemiaNet MDS criteria				
		At least 1 HSPC abberancy	At least 2 HSPC abberancies		Immature B cell Frequency <normal	Abnormal Lymphocyte : Myeloblast CD45 ratio	Abnormal Myeloblast Frequency	Immuno-phenotypically abnormal Granulocytes	2 or more abnormalities
MDS17	AML / RAEB-T	Yes	Yes		Yes	Yes	Yes	Yes	Yes
MDS15		Yes	Yes		Yes	Yes	Yes	Yes	Yes
MDS4		Yes	Yes		No	Yes	Yes	Yes	Yes
MDS13		Yes	Yes		No	Yes	Yes	Yes	Yes
MDS16		Yes	Yes		Yes	No	Yes	No	Yes
MDS1		Yes	Yes		Yes	Yes	Yes	No	Yes
MDS21	Higher Risk MDS	Yes	Yes		No	Yes	Yes	Yes	Yes
MDS26		Yes	Yes		Yes	Yes	No	Yes	Yes
MDS27		Yes	Yes		Yes	Yes	Yes	No	Yes
MDS2		Yes	Yes		Yes	Yes	Yes	Yes	Yes
MDS3		Yes	Yes		No	Yes	Yes	Yes	Yes
MDS23		Yes	Yes		Yes	Yes	Yes	Yes	Yes
MDS25		Yes	Yes		Yes	No	No	Yes	Yes
MDS5		Yes	Yes		Yes	No	No	Yes	Yes
MDS6		Yes	Yes		Yes	Yes	No	No	Yes
MDS8		Yes	Yes		Yes	No	No	No	No
MDS9	Lower Risk MDS	Yes	Yes		Yes	Yes	Yes	No	Yes
MDS12		Yes	Yes		Yes	No	Yes	Yes	Yes
MDS14		Yes	Yes		No	No	No	No	No
MDS19		Yes	No		Yes	No	No	Yes	Yes
MDS20		Yes	Yes		Yes	No	No	No	No
MDS28		Yes	Yes		Yes	Yes	No	Yes	Yes
MDS11		Yes	Yes		Yes	No	No	No	No
ICUS18		Yes	No		Yes	No	No	No	No
ICUS22	ICUS	No	No		No	No	No	Yes	No
ICUS24		No	No		No	No	No	No	No
NI-1		No	No		No	No	No	No	No
NI-3		No	No		No	No	No	No	No
NI-4		No	No		No	No	No	No	No
NI-6	Healthy Controls	No	No		No	No	No	No	No
NI-3		No	No		No	No	No	No	No
NI-4		No	No		No	No	No	No	No
NI-5		No	No		No	No	No	No	No
NI-6		No	No		No	No	No	No	No

Supplemental Table 7: Immunophenotype of Aberrant Myeloid Cells.
The normalized expression level of each marker on the gated IAMC population (See Supplemental Figure 1 for gating) is shown.
The expression level of each marker is expressed as a percentage of the average median expression level of that marker in the normal cell population with the highest expression level of the marker.
Percent values of <0 were set to 0 to facilitate heat plot of data.
Note that samples MDS3, MDS13, and MDS21 come from serial biopsies of the same patient (each several months apart) and demonstrate consistent properties.

		CD19	CD3	CD69	CD20	CD133	CD117	CD7	CD123	CD10	CD90	CD34	CD16	CXCR4	CD14	CD15	CD71	CD56	CD13	CD45RA	CD235	HLA-DR	CD8	CD99	CD33	CD321	CD38	CD47	CD45	CD64	CD11b	CD44
MDS17	AML/RAE B-T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.2	12.6	4.2	0.0	1.3	0.1	8.8	10.1	41.2	3.8	0.0	3.5	1.8	13.6	0.4	0.2	31.7	31.4	12.4	126.8	37.6
MDS15*		0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	14.9	0.0	0.3	5.8	9.2	1.0	1.0	0.1	12.0	13.3	31.7	2.2	0.1	1.0	3.8	23.2	2.7	0.3	13.7	14.4	2.7	41.8	48.8
MDS4		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0	0.0	13.9	3.0	0.1	0.8	0.0	5.4	8.3	36.0	1.8	0.1	1.1	1.5	14.2	1.2	0.1	13.8	19.6	43.7	64.1	29.2
MDS13	Higher Risk MDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.2	0.4	1.4	0.0	9.8	10.3	27.6	2.7	0.0	1.5	2.7	15.7	0.8	1.6	20.2	24.4	4.3	88.1	42.6
MDS16		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	3.4	1.0	2.3	0.1	0.3	13.6	37.1	26.0	1.6	1.1	1.2	19.7	57.4	1.3	1.5	11.9	34.4	69.5	28.7	54.3
MDS1		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	9.3	0.7	0.1	0.7	0.0	12.0	8.7	20.4	0.9	0.0	1.2	1.3	0.0	0.5	0.3	18.8	19.8	0.9	36.4	19.5
MDS21		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.5	0.1	1.3	0.0	5.8	5.3	16.1	1.5	0.1	0.9	0.9	11.9	0.5	1.8	18.4	17.5	4.8	86.2	23.0
MDS26*		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	3.5	0.0	1.8	0.0	4.8	2.9	9.3	0.6	0.0	0.7	0.4	1.2	0.8	0.2	11.4	6.3	1.2	25.6	2.9
MDS27		0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.7	0.0	0.2	14.9	0.0	1.0	0.2	0.1	8.3	19.1	28.4	1.4	0.1	1.2	7.4	0.0	0.8	1.0	8.5	21.5	1.7	16.6	18.3
MDS2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.9	0.0	0.0	1.5	0.0	3.7	7.7	31.0	0.9	0.0	1.1	0.3	5.1	0.1	0.8	25.3	17.3	28.3	147.9	35.0
MDS3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	1.3	0.2	1.2	0.1	7.6	7.8	39.1	3.0	0.1	1.9	2.9	17.2	2.1	1.5	17.7	20.8	6.8	47.1	30.6
MDS23	Lower Risk MDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	2.3	0.0	2.0	0.1	3.1	0.0	21.3	2.2	0.0	1.9	0.6	0.1	1.5	0.1	24.9	8.2	15.7	17.2	1.2
MDS25		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.3	4.4	0.8	2.3	0.3	1.1	13.2	49.4	16.9	1.6	1.7	1.0	4.5	33.5	2.3	0.9	12.8	57.7	59.1	56.5	37.2
MDS5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.2	125.2	0.0	0.0	1.7	0.3	11.5	11.9	39.1	4.5	0.0	1.9	0.9	5.9	0.8	0.1	31.8	78.3	354.8	54.9	58.0
MDS6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.6	0.0	0.4	8.4	1.9	1.0	0.4	0.2	32.1	22.6	45.6	2.5	0.8	2.1	3.0	38.6	2.2	0.4	16.1	47.9	58.4	89.1	36.0
MDS8		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	9.3	1.9	1.7	0.2	0.5	10.0	26.5	42.3	2.3	0.4	1.8	10.0	3.0	2.5	1.3	15.1	33.8	1.3	20.6	16.5
MDS9		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	11.5	1.7	0.5	1.2	0.3	9.1	21.5	29.5	2.3	0.2	1.6	2.4	0.1	1.7	0.2	18.9	23.0	5.5	19.7	4.7
MDS12		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	5.4	0.1	1.9	0.1	4.4	1.1	16.9	1.8	0.0	1.2	0.9	4.1	1.6	0.4	20.5	8.2	34.1	24.1	1.5
MDS14		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.1	5.0	0.7	2.1	0.2	0.4	11.8	22.6	36.0	2.2	0.8	1.9	3.1	14.8	1.1	1.3	11.4	34.2	57.8	39.2	50.8
MDS19		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	5.5	2.3	1.7	0.2	0.1	10.7	18.8	30.4	1.0	0.7	1.3	3.8	13.3	1.9	1.4	11.2	23.9	8.2	34.6	28.4
MDS20		0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	18.3	0.0	0.1	7.4	0.0	0.4	0.4	0.0	13.4	7.7	37.8	1.8	0.2	1.1	3.6	0.3	0.6	0.5	12.2	20.3	0.7	10.6	24.0
MDS28*		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	7.9	3.0	0.5	0.4	0.0	13.4	5.7	48.8	1.4	0.1	1.8	2.9	2.2	1.3	1.3	19.3	26.9	3.1	25.4	19.3
MDS11		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.3	5.8	1.5	1.6	0.5	0.4	10.3	59.9	48.0	3.4	1.0	2.6	8.3	6.4	3.0	1.6	16.6	48.7	65.0	56.7	37.8
ICUS18	ICUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	8.8	1.6	1.4	0.2	0.4	14.6	21.2	30.8	1.6	0.3	1.9	7.4	8.3	1.5	0.9	12.9	28.8	4.0	16.9	13.8
ICUS22		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.9	1.3	0.7	0.1	4.9	18.1	14.1	0.8	0.9	1.2	0.8	9.7	1.0	0.6	14.4	39.1	26.3	80.7	10.9
ICUS24		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	2.9	1.7	0.3	0.4	6.9	34.3	18.9	1.6	1.1	1.3	1.9	14.4	1.6	0.7	13.9	38.4	76.5	40.9	17.6
Nl-1	Normal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.1	4.3	3.9	1.4	0.2	1.3	6.8	19.4	21.3	2.1	1.1	1.3	3.3	58.1	1.9	0.8	13.3	36.2	71.5	30.4	18.3
Nl-3		0.0	0.0	0.0	0.0	0.0	5.4	0.1	0.2	0.0	11.6	0.3	4.8	4.9	2.0	0.5	0.6	19.0	40.9	108.9	6.6	1.3	4.4	6.7	27.5	2.4	1.2	13.0	37.3	45.0	28.2	22.1
Nl-4		0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.1	0.0	11.4	0.2	4.9	4.2	1.4	0.8	0.4	17.6	23.7	92.0	6.7	0.6	4.0	6.9	21.3	2.8	0.9	13.1	31.5	46.4	29.4	20.4
Nl-6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	3.9	0.2	5.4	3.6	1.1	0.8	0.5	15.8	27.8	74.6	5.7	0.6	3.2	3.3	24.3	2.4	0.7	13.9	29.1	86.9	21.2	16.1
Nl-3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	7.1	0.1	2.8	3.7	1.8	0.3	0.2	16.3	32.6	64.0	5.6	1.5	3.0	4.0	21.4	2.1	1.4	9.7	28.9	36.0	33.5	42.7
Nl-4		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	4.8	0.1	3.1	3.6	1.3	0.7	0.1	16.7	12.8	53.4	6.2	0.6	2.6	4.4	16.5	2.5	1.1	9.0	19.7	33.6	25.2	36.7
Nl-5		0.0	0.0	0.0	0.0	0.0	3.8	0.1	0.0	8.9	16.4	0.2	2.1	3.5	2.2	0.2	0.3	18.9	23.9	73.8	6.9	1.5	4.0	7.9	34.3	2.3	2.0	7.2	34.5	52.0	50.0	60.6
Nl-6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	3.8	2.4	1.1	0.7	0.2	13.3	23.4	43.4	4.7	0.5	1.8	1.9	17.8	2.2	1.0	11.2	18.8	78.8	22.8	23.5

*CMML