Table S1: Patient Characteristics Cohort I

Characteristics Cohort I	
Subjects: Pediatric/Adult (total)	13/35 (48)
Age Range (years)	1-60
Average Age (years)	35.48±17.41
% Male	60%
Primary Disease n (%)	
Aplastic anemia (AA)	2 (4.2%)
Acute lymphoblastic leukemia (ALL)	10 (20.8%)
Acute myeloid leukemia (AML)	15 (31.2%)
Chronic lymphocytic leukemia (CLL)	1 (2.1%)
Chronic myelogenous leukemia (CML)	7 (14.6%)
Hodgkin's	3 (6.2%)
Myelodysplastic syndrome (MDS)	7 (14.6%)
Non-hodgkin lymphoma (NHL)	3 (6.2%)
Conditioning Intensity - n (%)*	
Radiation & Chemotherapy	
TBI 1400 cGy/CY 1800 mg/M^2 x 2 doses	38 (79.2%)
TBI 1375 cGy/CY 60mg/kg x 2 doses/ ATG 2.5 mg/kg x 1 dose/Thiotepa 5mg/kg x 2 doses	1 (2.1%)
Chemotherapy alone	
BU 0.5-1.1 mg/kg x 16 doses/CY 1500 mg/M^2 x 4 doses	2 (4.2%)
BU 0.8 mg/kg x 16 doses/ CY 1800 mg/M^2 x 2 doses	5 (10.4%)
CY 1500 mg/M^2 x doses/ATG 30 mg/kg x 3 doses	1 (2.1%)
CY 1500 mg/M^2 x doses/ATG 1.5 mg/kg x 4 doses	1 (2.1%)
Donor Type - % MRD	77%

CY = cyclophosphamide, ATG = anti-thymocyte globulin, BU = busulfan

Table S2: Patient Characteristics Cohort II

Characteristics Cohort II		Boston	Iowa	Combined
Subjects (n)		63	138	201
Age Range (years)		20-73	18-72	18-73
Age, mean ± SD (years)		52.71±13.68	50.58±13.35	53.71±13.62
% Male		57%	55%	56%
Race/ethnicity				
	African American	0	3	3
	Asian	2	0	2
	Caucasian	58	135	193
	Hispanic	1	0	1
	Unknown	2	0	2
Primary Disease n (%)				
	Acute lymphoblastic leukemia (ALL)	8 (12.7%)	15 (10.9%)	23 (11.4%)
	Acute myeloid leukemia (AML)	26 (41.3%)	29 (21.0%)	55 (27.4%)
	Chronic		1 (0.7%)	1 (0.5%)
	Chronic myelogenous leukemia (CLL)	6 (9.5%)	7 (5.1%)	13 (6.5%)
	Chronic myelogenous leukemia (CML)	1 (1.6%)	5 (3.6%)	6 (3.0%)
	Hodgkin's	5 (7.9%)	11 (8.0%)	16 (8.0%)
	Myelodysplastic syndrome (MDS)/ Myeloproliferative disease (MPD)	4 (6.3%)	9 (6.5%)	13 (6.5%)
	Myeloma	2 (3.2%)	31 (22.5%)	33 (16.4%)
	Non-hodgkin lymphoma (NHL)	11 (17.5%)	29 (21.0%)	40 (19.9%)
	Testicular		1 (0.7%)	1 (0.5%)
Conditioning Intensity - n (%)*				
	Myeloablative	16 (25.4%)	54 (39.1%)	70 (34.8%)
	Non-myeloablative	44 (69.8)%	21 (15.2%)	65 (32.3%)
	Reduced intensity conditioning (RIC)		1 (0.7%)	1 (0.5%)
	N/A	3 (4.8%)	48 (34.8%)	51 (25.4%)
	No Transplant		13 (9.4%)	13 (6.5%)
	Unknown		1 (0.7%)	1 (0.5%)
Donor Type - % MRD**		40%	46.67%	43.70%
Previous HSCT (% Positive)***		22.22%	7.94%	12.70%
Transplant Type*				
	Allo	59 (96.6%)	75 (60.0%)	134 (71.23%)
	Auto	3 (4.8%)	50 (40.1%)	53 (28.2%)
	Syngeneic	1 (1.6%)		1 (0.5%)

* Iowa - 13 patients did not have transplant, no conditioning info in clinical outcomes

** Boston - 3 patients had auto transplant, Iowa 50 had auto transplant and 13 did not have transplant

*** 12 Iowa patients did not have prior transplant data in clinical outcomes

Table S3: Cohort II VOD and DAH/IP Data

Patients with VOD or IP/DAH	(n/total)	(%)
VOD	4/182	2%
Boston	2/60	3%
Iowa	2/122	2%
IP/DAH	7/182	4%
Boston	0/60	0%
Iowa	7/122	6%
Total VOD/IP/DAH	**11/182**	**6%**

VOD = veno-occlusive disease, DAH/IP = diffuse alveolar hemorrhage/interstitial pneumonia

Table S4: mRNA data Day 0 versus Baseline

Gene	≥4 fold change (up)	P value	Gene	<4 fold change	P value	Gene	≥4 fold change (down)	P value
NFKBIA	27.04	0.088	ACTB	3.90	0.139	LTF	-164.24	0.007
NFKB2	25.52	0.038	IL1F7	3.63	0.303			
TNFRSF1A	23.61	0.024	TLR8	3.56	0.115			
SERPINA1	23.56	0.061	CASP4	3.42	0.303			
NFKB1	19.58	0.032	NOS2A	3.35	0.317			
TOLLIP	19.57	0.198	C5	3.21	0.193			
CCR3	18.52	0.018	PPBP	2.94	0.202			
MAPK14	16.24	0.003	LY96	2.88	0.231			
TLR10	15.54	0.010	CAMP	2.79	0.250			
IL1RAPL2	14.43	0.034	HMOX1	2.74	0.221			
DMBT1	14.20	0.034	IL12RB2	2.64	0.422			
TLR6	13.13	0.005	CD1D	2.59	0.305			
IRAK1	12.65	0.051	CD55	2.48	0.379			
FN1	12.08	0.033	S100A12	2.44	0.388			
TLR2	12.05	0.012	TGFB1	2.43	0.433			
IRAK2	11.97	0.067	TRAF6	2.42	0.534			
TNF	11.72	0.012	TREM1	2.33	0.111			
PROC	11.56	0.051	TLR1	1.71	0.399			
IL1A	11.32	0.037	MIF	1.63	0.608			
CXCR4	11.22	0.028	IKBKB	1.57	0.632			
PTAFR	10.89	0.016	IL1R1	1.40	0.791			
DEFB4	10.76	0.034	HPRT1	1.18	0.837			
PGLYRP2	10.61	0.039	GAPDH	1.17	0.844			
CRP	10.59	0.040	CYBB	1.10	0.910			
IFNB1	10.32	0.103	IFNGR2	-1.12	0.840			
IL1F6	10.18	0.043	NLRC4	-1.16	0.715			
PGLYRP3	10.14	0.040	IFNGR1	-1.21	0.644			
ADORA2A	9.90	0.143	BPI	-1.95	0.745			
LBP	9.90	0.045	LYZ	-2.20	0.166			
IL1RAP	8.78	0.006	CHUK	-2.36	0.338			
COLEC12	8.48	0.055						
IL1F9	8.16	0.057						
TLR4	7.95	0.001						
IFNA1	7.93	0.129						
IL1R2	7.47	0.083						
NCF4	7.45	0.255						
IL1F10	7.33	0.086						
IL6	7.27	0.089						
C8A	7.22	0.069						
SFTPD	7.10	0.152						
PGLYRP1	7.05	0.131						
IL1RL2	6.87	0.090						
IL1F5	6.81	0.091						
IL1F8	6.78	0.076						
LALBA	6.73	0.166						
MYD88	6.47	0.055						
CCL2	6.47	0.140						
IL1B	6.33	0.008						
TLR3	6.30	0.112						
MAPK8	6.12	0.054						
SERPINE1	6.02	0.299						
IL1RN	5.70	0.014						
IRF1	5.66	0.169						
IL10	5.47	0.146						
RPL13A	4.37	0.274						
CD14	4.14	0.142						
TLR9	4.12	0.117						
CASP1	4.02	0.076						