

# Supplementary Table 1A. Patient disease and outcome details of IV IL-15 with HaploNK infusion.

No	Age	Gender	Dose level	Prior Disease	Cytogenetics	Molecular	CG/Mole- cular risk	Prior # therapies total	Prior AlloHCT	Bone Marrow Blasts (%)	Disease Status at Treatment	KIR ligand mismatch	NK expansion Day 14	#IL-15 doses	CMV donor	CMV recipient	Donor Chimerism day 7	Donor chimerism day 14	Disease Response	Post-NK AlloHCT	Duration of Remission	Time to death/last follow-up (mo.)	Survival Status
1	54	F	0.25	Primary AML	normal		Int	2	no	9	PIF	no	No	12	Positive	Negative	n/a	0	CR	yes	155	33.3	Dead
2	49	M	0.25	Primary AML	normal		Int	2	no	37	PIF	no	No	12	Positive	Negative	25	0	CR	yes	1353	49.1	Dead
3	39	M	0.25	Primary AML	t(11;19)	FLT3 ITD	Int	2	no	3	PIF	yes	No	12	Positive	Negative	17	0	PD	no		9.0	Dead
4	52	M	0.5	Primary AML	normal		Good	2	no	9	PIF	no	No	12	Negative	Negative	43	2	Cri	yes	739	26.4	Dead
5	23	M	0.5	Primary AML	t(12;13)		Adverse	2	no	65	PIF	no	No	12	Positive	Positive	36	0	PD	no		4.5	Dead
6	26	F	0.5	Primary AML	normal		Int	2	no	12	Relapse	no	No	12	Negative	Negative	41	2	PD	no		3.7	Dead
7	49	F	0.75	Primary AML	inv(3)		Adverse	2	no	11	Relapse	no	No	12	Positive	Positive	11	0	PD	no		9.0	Dead
8	64	M	0.75	Primary AML	normal	FLT3 D835, NPM1	Int	5	no	3	Relapse	no	No	12	Negative	Negative	33	92	CRi	no	71	2.5	Dead
9	27	M	0.75	Primary AML	t(11;19)	MLL	Int	3	no	17	Relapse	no	No	12	Positive	Negative	13	0	PD			0.8	Dead
10	23	F	0.75	Primary AML	t(11;19)	MLL	Int	3	no	21	PIF	yes	No	12	Positive	Positive	18	0	PD	no		3.2	Dead
11	22	M	0.75	Primary AML	t(19;21), +13, +22	FLT3 ITD	Adverse	5	no	62	Relapse	yes	No	12	Negative	Negative	57	0	PD	no		3.6	Dead
12	58	F	0.75	Primary AML	del12, t(8;15)		Int	3	no	54	PIF	no	No	12	Negative	Positive	11	0	PD	no		16.2	Dead
13	25	M	0.75	Primary AML	complex		Adverse	5	no	92	Relapse	no	No	9	Positive	Negative	5	31	PD	no		0.8	Dead
14	63	M	0.75	Primary AML	normal	FLT3 ITD	Adverse	2	no	93	PIF	yes	No	11	Negative	Negative	67	0	PD	no		4.4	Dead
15	59	M	0.75	MPN	complex		Adverse	2	no	7	PIF	no	No	12	Negative	Positive	10	0	CR	yes	95	3.6	Dead
16	38	F	0.75	Primary AML	polysomy 21		Int	5	yes	35	Relapse	no	n/a	12	Positive	Positive	n/a	n/a	PD	no		1.2	Dead
17	49	F	0.75	t-AML	normal		Int	2	no	13	PIF	no	Yes	12	Negative	Negative	85	97	PD	no		0.9	Dead
18	62	M	0.75	Primary AML	t(1;3)		Int	3	no	3	Relapse	no	Yes	12	Negative	Negative	89	90	PD	no		5.1	Dead
19	65	F	0.75	Primary AML	t(3;8)	FLT3 ITD	Int	4	no	61	Relapse	no	Yes	12	Negative	Positive	65	0	PD	no		3.1	Dead
20	56	F	0.75	MDS	complex	TP53 del	Adverse	6	yes	50	Relapse	no	Yes	12	Negative	Positive	15	70	PD	no		1.0	Dead
21	66	M	0.75	Primary AML	complex	MECOM-RPN1	Adverse	2	no	30	PIF	no	Yes	11	Positive	Positive	67	n/a	PD	no		3.6	Dead
22	68	F	0.75	MDS	inv(3)(q21q26.2)	MECOM-RPN1	Adverse	5	yes	60	Relapse	no	Yes	12	Negative	Negative	57	99	CRi	yes	118	4.3	Dead
23	67	M	1	Primary AML	trisomy 11	MLL	Adverse	2	no	55	PIF	yes	No	8	Negative	Negative	37	0	CR	no	43	2.9	Dead
24	52	F	1	Primary AML	normal		Int	2	no	90	Relapse	no	No	11	Negative	Positive	0	0	CRi	no	80	2.9	Dead
25	65	M	1	MPN	del7q, del20q		Int	2	no	24	PIF	no	Yes	9	Negative	Negative	80	96	N/A	no		0.6	Dead
26	36	F	1	Primary AML	trisomy 21		Int	3	no	8	Relapse	yes	Yes	9	Positive	Positive	86	97	PD	no		2.1	Dead

\* denotes prior allogeneic transplantation

\*\* denotes post-NK infusion allogeneic transplantation

Abbreviations: CG = Cytogenetics, Int = Intermediate, Fav = Fav, PIF = primary induction failure, alloHCT = allogeneic hematopoietic stem cell transplantation, CR = Complete Remission, CRi = Complete Remission with Incomplete Count Recovery, PD = Progressive Disease, MPN = myeloproliferative neoplasm, MDS = myelodysplastic syndrome, t-AML = therapy-related AML

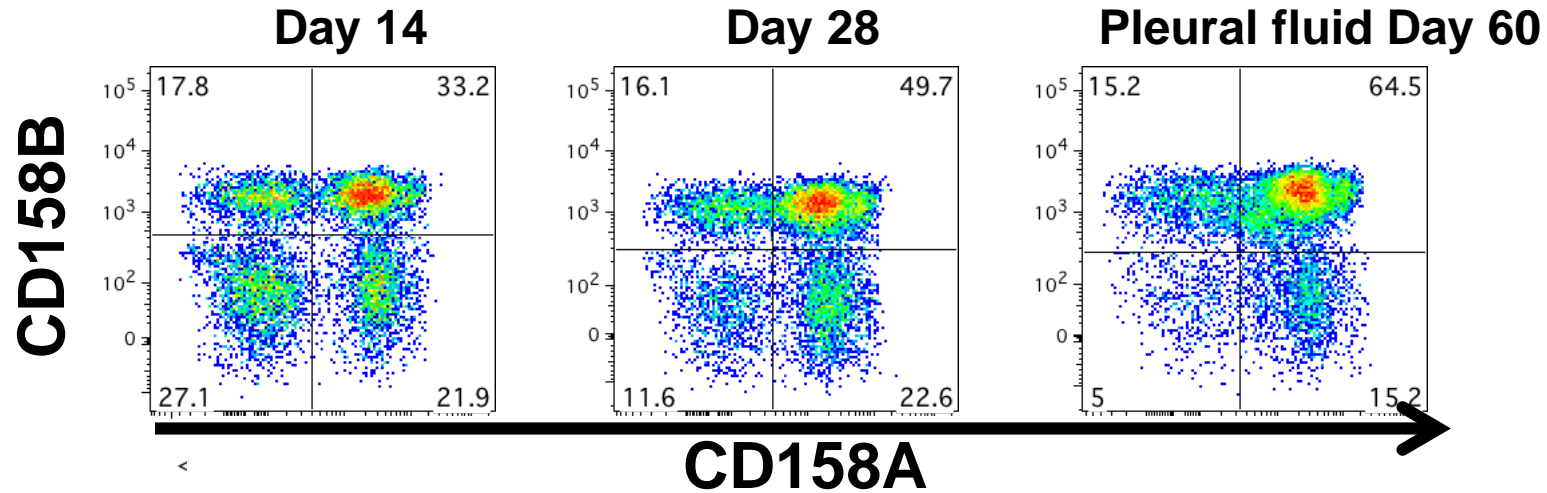
Supplementary Table 1B. Patient disease and outcome details of SC IL-15 with HaploNK infusion.

No.	Age	Gender	Prior disease	CG	Molecular	CG/Mol. risk	# Prior therapies	Prior alloHCT	Bone Marrow Blasts (%)	Disease Status at treatment	KIR ligand mismatch	NK expansion (D14)	#IL-15 doses	Donor CMV	Recipient CMV	Donor chimerism (D7)	Donor chimerism (D14)	Disease Response (D28)	Duration of Remission (days)	Time to death/last follow-up (mo.)	Survival Status
1	71	M	MDS	del21q22	Loss of RUNX1	Int	2*	No	26	Relapse	Yes	No	6	Neg	Pos	60	0	PD		3.3	Dead
2	70	M	MDS/CM ML	normal		Int	2	Yes	70	Relapse	Yes	n/a	5	Neg	Neg	n/a	n/a	Not Assessed		0.4	Dead
3	40	M	MDS	t(3;10), t(1,11)	MECOM	Adverse	3	Yes	60	Relapse	No	Yes	10	Neg	Pos	n/a	50	PD		12.3	Dead
4	32	F	Primary AML	t(8;21)	c-kit	Fav	4	Yes	0	Relapse	Yes	No	6	Pos	Pos	50	100	PD		1.0	Dead
5	66	M	Primary AML	monosomy 7	n/a	Adverse	2	No	3.8	PIF	Yes	No	6	Pos	Neg	32	0	CRi	65**	7.2	Dead
6	64	M	Primary AML	complex	n/a	Adverse	2	No	12	PIF	Yes	No	8	Neg	Pos	73	0	PD		2.0	Dead
7	62	M	Primary AML	normal	kitD816v	Int	2	No	7	PIF	No	No	9	Pos	Pos	18	0	CRi	189**	10.3	Dead
8	48	F	MDS	normal	n/a	Int	2	No	10	PIF	Yes	No	5	Neg	Pos	24	0	CRi	426**	16.7	Alive
9	63	M	CMML	t(x;12), t(5;13)	FLT3 ITD	Adverse	3*	No	2	Relapse	No	No	8	Neg	Pos	37	0	CRi	354**	13.1	Alive
10	65	M	MDS	complex	TP53, CEBPA	Adverse	2*	No	8	PIF	No	Yes	1	Neg	Pos	37	82	PD		1.3	Dead
11	68	M	CMML	-7	ETV6	Adverse	2	No	40	PIF	unknown	No	9	Neg	Neg	47	0	PD		5.3	Dead
12	62	M	MDS	del5q, del17	TP53	Adverse	2	No	10	PIF	No	Yes	10	Neg	Neg	43	100	CRi	386**	20.1	Alive
13	20	F	Primary AML	t(6;9), del7	DEK-NUP214 fusion, FLT3 ITD, KRAS, WT1	Adverse	3*	No	56	PIF	No	No	10	Neg	Neg	27	0	PD		1.6	Dead
14	67	M	Primary AML	normal	NPM1	Fav	2	No	64	Relapse	No	No	10	Neg	Neg	23	0	CR	201**	11.5	Dead
15	67	F	MDS	der(3;5), del12, del15q, trisomy 8		Adverse	2	No	4	PIF	No	Yes	9	Pos	Pos	59	76	PD		2.0	Unknown
16	58	M	Primary AML	MECOM-t(3;3)	RPN1 fusion	Adverse	2	No	28	PIF	No	No	5	Neg	Neg	n/a	0	PD		5.0	Dead

\*denotes prior allogeneic transplantation

\*\* denotes post-NK infusion allogeneic transplantation

Abbreviations: CG = Cytogenetics, Int = Intermediate, Fav = Fav, PIF = primary induction failure, alloHCT = allogeneic hematopoietic stem cell transplantation, CR = Complete Remission, CRi = Complete Remission with Incomplete Count Recovery, PD = Progressive Disease



Supplemental Figure 1. Mononuclear cells were taken from a subject on the 1 mcg/kg cohort at 14 and 28 days after adoptive transfer. After developing pneumonia and a pleural effusion, a thoracentesis at day 60 was evaluated along with the samples from peripheral blood. Shown are CD56<sup>+</sup>/CD3<sup>-</sup> gated NK cells from each sample for the expression of CD158A (KIR2DL1/S1) and CD158B (KIR2DL2/L3/S2). This data shows the polyclonal nature of this population which by chimerism studies is >90% donor in origin.