

Supporting Information

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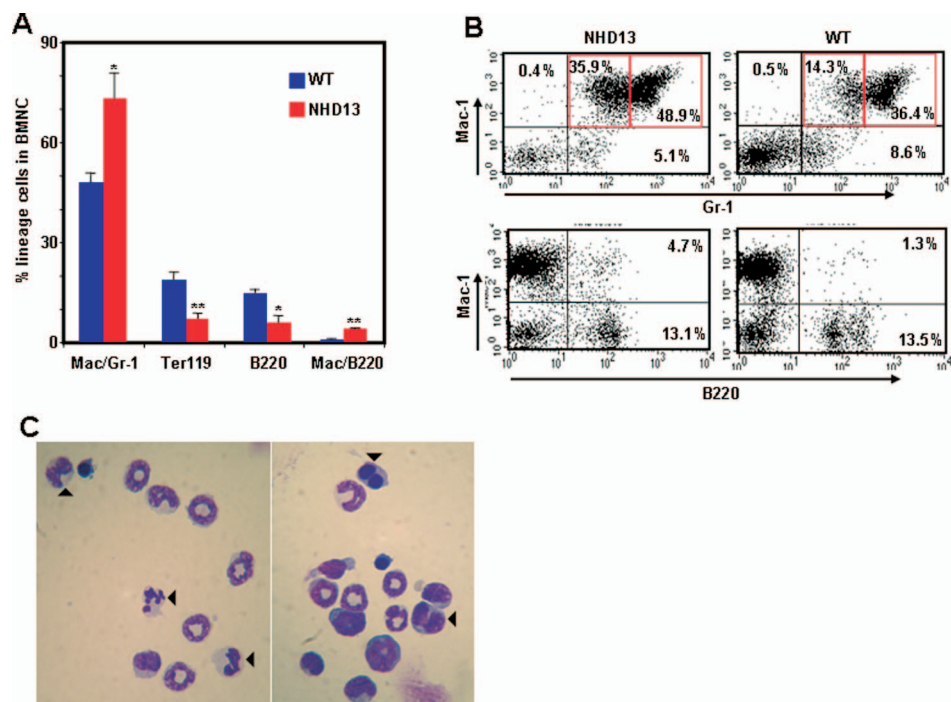


Fig. S1. Immunophenotype and morphology of BMNC. (A) Lineage distribution of WT and NHD13 donor BMNC (six of each genotype). Mean \pm SEM is displayed. (B) Representative FACS profiles for Mac-1/Gr-1 staining of BMNC. Note the increase in Mac1+Gr1dim cells in the NHD13 BM. (C) MGG staining of BM from NHD13 donors. Arrowheads indicate dysplastic cells. *, $P < 0.05$; **, $P < 0.01$.

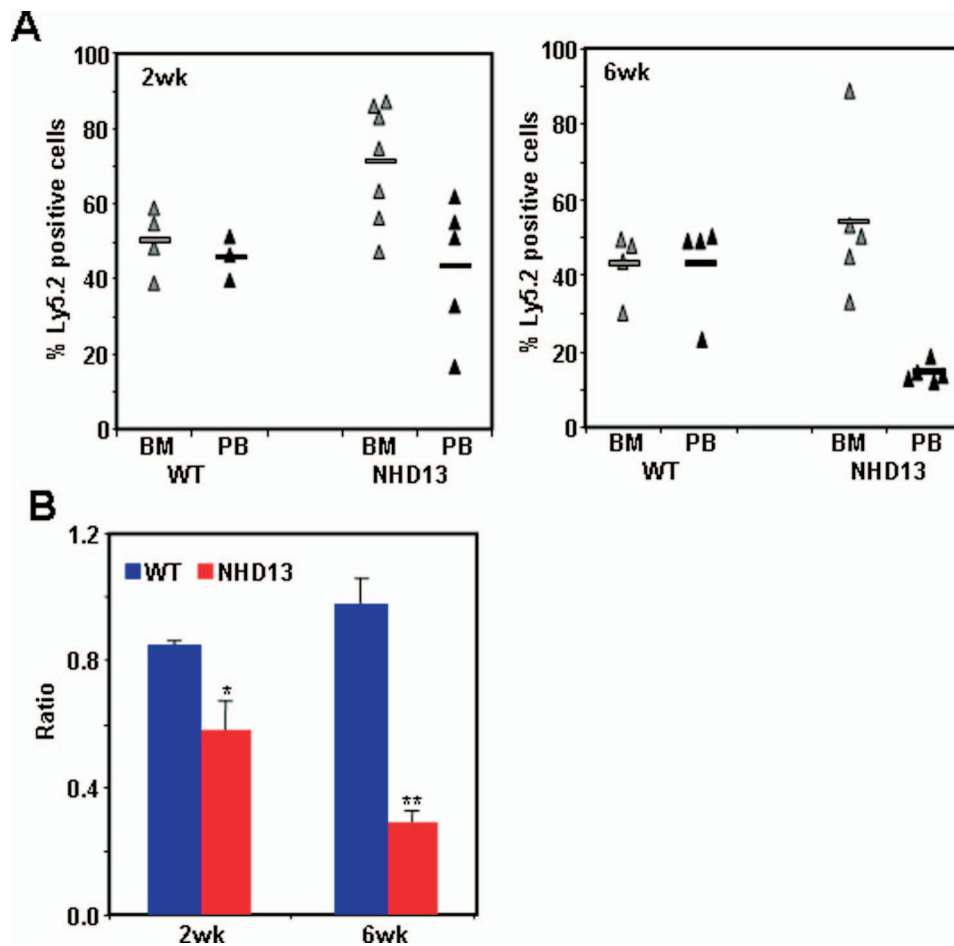


Fig. S3. Competitive repopulation assay. Lethally irradiated recipient mice (Ly5.1+) received 1×10^5 donor BMNC cells (Ly5.2+) together with 1×10^5 competitor BMNC cells (Ly5.1+). Recipient mice were sacrificed at 2 and 6 weeks after transplantation for analysis of engraftment in the PB and BM. (A) Percent engraftment of donor origin in PB and BM of recipients. (B) The engraftment ratio of PB versus BM. Error bars, SEM; *, $P < 0.05$; **, $P < 0.01$.

Table S1. Hematologic features of BMT donors

Donor	Peripheral CBC							Bone Marrow	
	RBC (millions per microliter)	HGB, g/dl	MCV, fl	PLT (thousands per microliter)	WBC (thousands per microliter)	Polys (thousands per microliter)	Lym, (thousands per microliter)	No. of cells ($\times 10^6$ per 2f2t)	Blast, %
NHD13 ($n = 6$)	7.56*	11.57*	56.15**	720.0	3.48**	1.08*	1.77**	66.8	11.9
SD	± 2.27	± 2.74	± 7.12	± 460.3	± 1.50	± 0.74	± 0.66	± 7.12	± 2.9
WT ($n = 6$)	10.62	14.93	44.38	1254.2	10.87	2.44	7.13	72.6	9.9
SD	± 2.50	± 2.06	± 1.87	± 578.5	± 1.88	± 1.00	± 2.77	± 1.06	± 3.4

2f2t, two femora and two tibiae.

*, $P < 0.05$; **, $P < 0.01$.

Table S2. Nonirradiated recipient mice transplanted with BMNC from *NHD13* or WT mice

Mouse ID	HGB, g/dl	MCV, fl	PLT (thousands per microliter)	WBC (thousands per microliter)	Polys (thousands per microliter)	Lym (thousands per microliter)	Ly5.2 positive cells, %		
							PB	Spleen [†]	BM [†]
16 weeks after transplantation									
NHD13 #1	14.90	44.20	823.00	10.80	2.86	7.73	0.46	0.55	1.44
NHD13 #2	15.30	43.50	882.00	11.24	2.81	8.01	0.58		
NHD13 #3	16.40	44.00	801.00	10.52	2.54	7.70	0.56		
Mean	15.53	43.90	835.33	10.85	2.74	7.81	0.53		
SD	±0.78	±0.36	±41.88	±0.36	±0.17	±0.17	±0.06		
WT#1	14.60	43.60	721.00	10.68	2.77	7.72	0.26	0.30	0.57
WT#2	16.40	43.00	783.00	12.90	3.93	8.37	0.24		
WT#3	16.00	42.00	815.00	11.30	3.32	7.65	1.19		
Mean	15.67	42.87	773.00	11.63	3.34	7.91	0.56		
SD	±0.95	±0.81	±47.79	±1.15	±0.58	±0.40	±0.54		
58 weeks after transplantation									
NHD13 #1	15.30	46.90	748.00	14.58	4.51	9.58	0.47		
NHD13 #2	15.90	47.00	946.00	9.72	2.41	6.98	0.56		
Mean	15.60	46.95	847.00	12.15	3.46	8.28	0.52		

The recipient received 1×10^6 of BMNC. CBCs were acquired from the recipient mice at 16 and 58 weeks after transplantation.

[†]The recipients were killed at 17 weeks after transplantation.

Table S3. Clinical outcome of secondary transplant recipient mice

ID	Health status	Weeks (post-Tx)	Blasts*, %	WBC (thousands per microliter)	HGB, g/dl	MCV, fl	PLT (thousands per microliter)	Diagnosis
P#1	Morbid	17	26.1	20.3	11.3	59.9	97	AML
P#2	Morbid	17	47.4	6.42	11.9	61.3	406	AML
P#3	f.d.	32	ND	ND	ND	ND	ND	Unknown
P#4	Morbid	16	21.3	40.4	9.5	59.5	411	AML
P#5	f.d.	23	ND	ND	ND	ND	ND	Unknown
2P#1	f.d.	24	ND	ND	ND	ND	ND	Unknown
2P#2	Morbid	17	38.5	22.8	12.3	60.1	649	AML
2P#3	Morbid	32	23.6	47.22	7.5	70.6	525	AML
2P#4	Morbid	22	23.75	ND	ND	ND	ND	AML
2P#5	f.d.	14	ND	ND	ND	ND	ND	Unknown

f.d., found dead; ND, not done; post-Tx, after transplantation.

*Percentage of blasts in bone marrow.