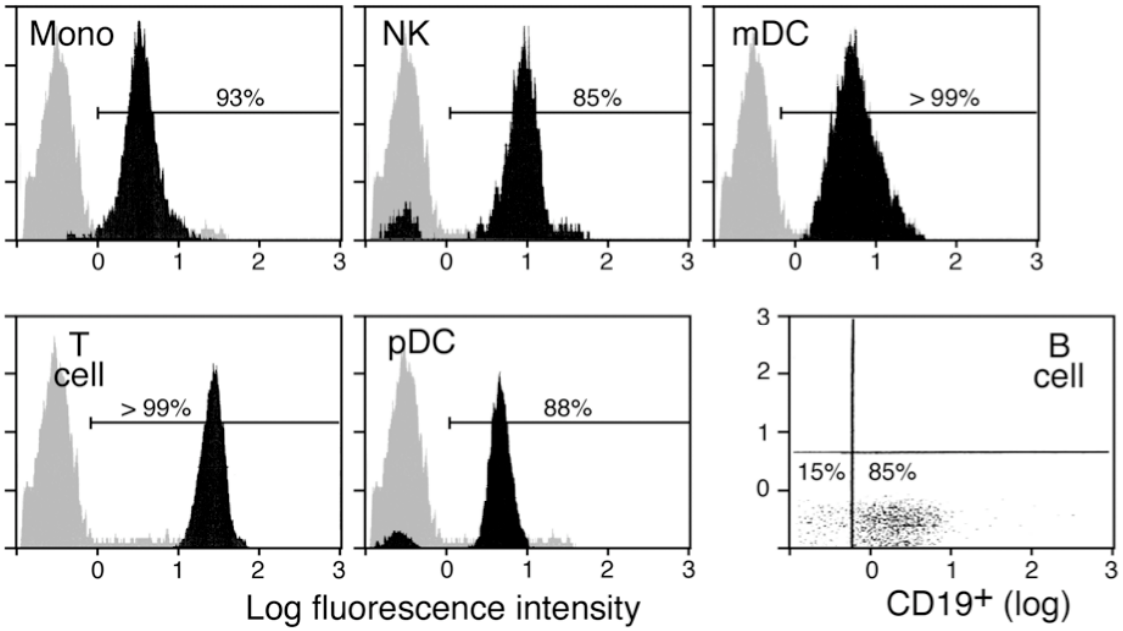
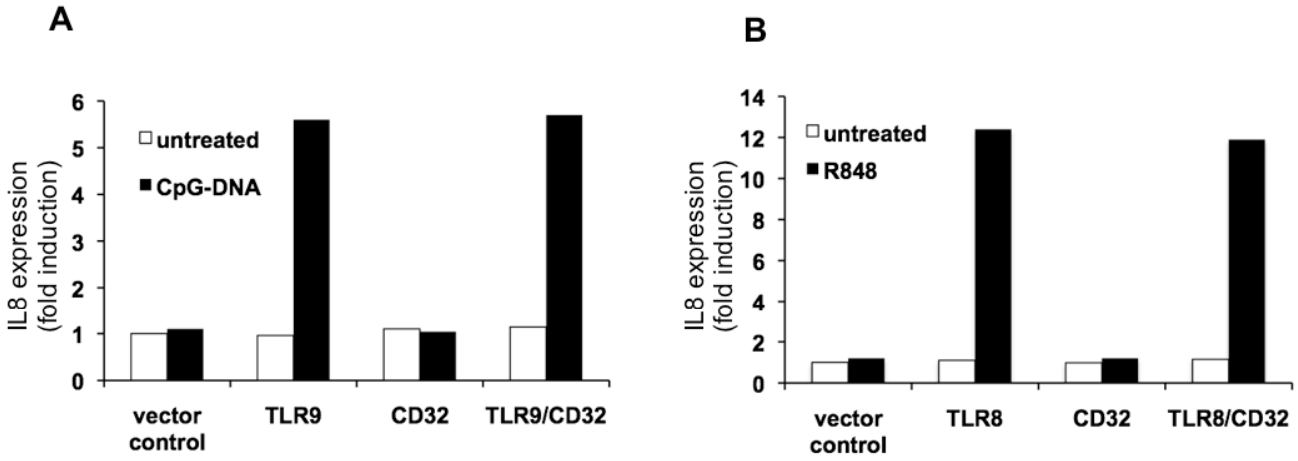
Supplementary Figures and Tables

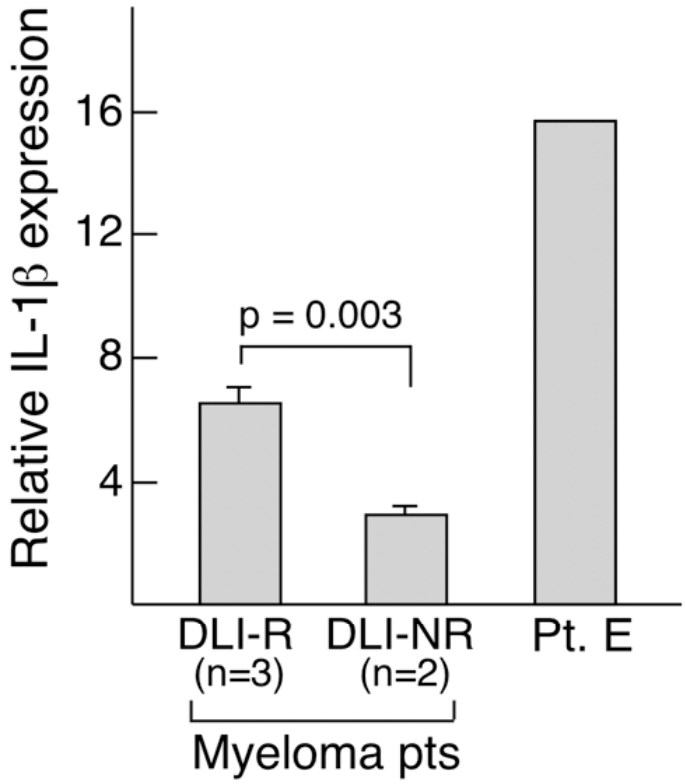
Supplemental Figure 1. Representative flow cytometry histograms of cell subpopulations (monocytes, NK cells, myeloid (mDC) and plasmacytoid (pDC) dendritic cells, B cells and T cells) immunomagnetically purified from mononuclear cells of leukopacks collected from normal adult volunteers. The percent purity of each of the isolated subpopulations is indicated. Unstained control PBMC is outlined in grey.



Supplemental Figure 2. CD32 does not enhance CpG-DNA or R848 induced stimulation of TLR9 or TLR8. HEK cells transfected with control vector, TLR9, CD32, TLR9/CD32, TLR8, or TLR8/CD32 were stimualted with (A) CpG-DNA or (B) R848 for 3 hours. IL8 was measured by QPCR.



Supplemental Figure 3. Mean relative induction of IL-1β transcript expression (relative to GAPDH) of normal donor PBMC following exposure to 20% plasma derived from myeloma patients treated with donor lymphocyte infusion who responded (DLI-R, n=3), or who demonstrated absence of response (DLI-NR, n=2). For comparison, induction of IL-1β transcript expression for CML Patient E is shown. Significance was calculated using a one-tailed Student's t test.



Supplemental Table 1. Percentage of cell subsets in the donor lymphocyte product before and following CD8 monoclonal antibody depletion, for study subjects with CML treated on the CD4+ DLI for relapsed disease following HSCT.

Pt	% CD4		% CD8		% NK cells		% Monos	% B cells
	pre	post	pre	post	pre	post	post	post
A	28	43	37	0	23	16	16.7	3.7
B	45	58.5	20.5	0.5	2	0.5	15.5	5.5
C	41	45	24	0	10	7	35	6
D	66	61	20.5	0	8	7.5	25.5	5.5
E	37	42	22.5	0	12	8	33	2.5
F	46.4	51.2	30.0	1	12	14.2	65.1	4.9
G	44.3	49	17.4	0.6	2.8	2.6	12.5	4.6
H	38.5	50	23	0	10.5	7	31	9
I	44.5	53	10.5	0.5	11.5	7	16	6.5
J	39	46	32	0	5	4	11	10
K	27.7	37.4	7.2	0.7	5,5	4	36.9	9.4
L	31.7	38	17.7	0.33	4.7	7	19.33	8.7
S	47.5	53.5	21	0	115	8	20.5	11
T	26	41	6	1	17	15	15	5
U	44.3	65.4	7.6	0.7	8.3	4.6	9.9	16.1

Supplementary Table 2. mRNA expression data in PBMCs from Patient A pre and post DLI. Raw data from the Nanostring nCounter was normalized as described in methods.

Gene	Pre	1 mo	2 mo	3 mo	8 mo
CCL7	1.00	165.13	596.41	342.43	1.00
HBEGF	1.00	57.25	56.35	37.45	37.83
CSF1	1.00	43.96	40.81	14.87	9.99
IL10 [I]	9.46	33.63	63.47	62.16	12.45
CXCL9 [V]	1.00	4.10	8.26	10.39	1.00
IL1RN	321.01	810.71	2939.11	1549.48	253.41
CXCL1 [I]	1143.10	2453.96	5546.51	5886.72	1226.61
IL6 [I]	44.72	78.69	791.64	328.09	79.31
CXCL3 [I]	183.52	833.31	3148.58	3572.03	292.19
NFKB2 [I]	150.69	263.24	434.55	332.79	108.19
MTHFD2	45.82	60.30	107.52	101.21	80.38
CEBPD	1084.99	2320.08	1463.98	1932.79	1330.21
EIF5A	790.84	1235.53	1309.71	1276.72	1096.47
REL	104.87	225.55	274.12	216.08	142.14
IFNGR2	424.37	876.12	955.27	846.84	377.96
EGR2	34.22	114.82	91.57	64.29	40.62
DDIT3	172.98	507.05	432.78	293.67	280.87
SOCS1	61.49	161.54	152.92	113.76	110.15
ZC3H12A [I]	77.58	345.78	289.41	193.05	377.32
NLRP3	26.17	115.77	63.87	51.40	117.15
IL12A	9.20	44.93	24.03	18.33	30.57
LTA [I]	13.09	46.27	49.15	22.94	25.04
KLF10	328.06	973.25	701.71	720.21	908.56
NFKBIA [I]	3152.20	9369.72	8946.66	8236.07	8016.73
PLAUR	480.55	1208.65	1783.28	1289.14	1484.95
RGS1	861.49	3575.65	3101.40	2174.52	2183.45
CD83	520.05	2000.21	2181.98	1730.70	1501.14
EDN1	3.46	19.69	12.64	14.70	8.41
IFIT2 [V]	29.76	123.79	160.06	90.62	51.50
PELI1	216.96	903.97	1663.83	973.60	685.68
IL1B [I]	196.75	463.37	1217.09	774.27	546.86
IL1A [I]	21.38	60.20	155.69	60.76	57.25
TNIP3	1.00	1.00	15.79	1.00	2.50
CD70	1.00	1.00	2.43	1.00	1.00
TLR2	160.81	161.43	258.42	205.32	127.43
STAT5A	189.04	288.54	304.54	253.66	141.72
IFNAR2	529.63	313.44	388.24	682.27	407.50
TLR4	126.10	113.46	59.44	98.86	113.64
MYD88	426.98	245.25	266.70	210.41	389.06
CLEC2B	1146.68	1069.42	681.41	583.04	985.11
HHEX	252.29	257.30	131.27	116.98	222.71
CEP350	46.76	32.89	38.65	42.85	31.05
CD40	111.10	84.55	106.61	81.68	70.94
IFIH1 [V]	125.49	86.13	144.43	125.31	102.05
FUS	107.89	91.93	148.47	111.09	72.69
IFIT1 [V]	21.38	15.90	26.56	27.81	15.24

IL15RA	69.50	46.71	61.94	50.09	71.53
BCL7A	37.43	23.29	38.14	30.16	41.49
IL15	19.78	13.58	21.37	16.55	26.37
DDX47	75.66	109.66	59.14	68.73	94.94
GAPDH	4611.90	4702.99	4731.01	4721.65	4854.52
PLAT [I]	1.00	1.00	1.00	1.00	1.00
IL12B [I]	1.00	1.00	1.00	1.00	1.00
RGS2	3856.65	4402.83	3215.16	2857.94	4298.51
CIAPIN1	45.47	41.63	32.05	41.26	43.00
CITED2	686.07	737.67	487.60	461.93	646.52
TLR3 [V]	8.53	11.47	3.41	6.63	12.61
CCND2	356.34	438.66	305.88	235.12	631.49
YWHAZ	1938.22	3440.45	2396.71	2442.10	3979.00
TNF [I]	606.70	1081.17	645.60	524.59	905.48
CXCL11 [V]	5.13	1.00	13.11	14.60	1.00
IFIT3 [V]	44.84	16.40	93.94	50.38	16.24
CXCL10 [V]	60.78	4.87	67.66	29.21	11.92
IRF7 [V]	320.70	105.46	235.97	176.00	193.35
DNMT1	364.94	138.25	279.22	260.72	196.68
KTN1	515.87	251.93	345.12	347.79	388.34
NMI	54.41	21.82	36.76	19.80	29.95
JAK1	669.75	484.67	360.13	331.13	408.25
TICAM1	14.91	11.27	8.51	6.55	6.76
SHFM1	300.57	170.18	144.01	155.81	159.34
MINK1	220.48	139.92	75.54	106.65	99.26
IRF1	1223.98	526.21	613.32	492.66	604.63
IL7R	551.05	246.95	226.83	232.29	301.99
TCF4	58.32	18.01	24.93	34.20	46.50
SYK	297.24	87.51	108.11	116.98	206.96
TREX1	44.78	46.91	25.18	28.04	18.58
IL17RA	250.73	94.99	55.38	72.36	190.45
HDAC1	564.76	225.05	183.43	176.00	429.65
CD14	988.84	478.79	217.26	356.33	712.07
FAM127A	166.87	37.07	66.34	46.85	85.38
TNFRSF8	50.09	10.73	11.33	18.13	23.68
IFI16	631.48	73.28	197.29	194.82	221.18
STAT1	1319.67	170.93	443.72	365.75	459.67
CUGBP1	469.71	172.51	185.00	160.05	181.03
PML [V]	32.36	7.88	11.75	9.99	4.91
IRF2	134.70	17.39	37.65	70.40	98.22
TLR7	12.73	1.00	6.67	9.20	10.11
IFNB1 [V]	5.13	1.87	1.00	1.00	1.00
SAMHD1	1306.76	142.17	179.86	172.77	823.22
FCGR3A	1547.61	179.08	292.07	230.42	1582.88
DDX58 [V]	55.10	1.77	8.90	13.02	25.50
IER2	42.26	1.00	3.56	2.43	13.25
OAS1 [V]	70.22	1.00	6.22	4.21	22.69
VISA	99.12	2.11	8.90	1.00	35.82
AIM2 [V]	58.05	7.88	1.00	1.00	11.04

Supplementary Table 3. Relative mRNA expression data in PBMCs from Patient A. log(2) fold was calculated relative to pre-DLI values (based on data in supplementary Table2).

Gene	1 mo	2 mo	3 mo	8 mo
CCL7	7.367	9.220	8.420	0.000
HBEGF	5.839	5.816	5.227	5.242
CSF1	5.458	5.351	3.894	3.320
IL10 [I]	1.830	2.747	2.717	0.397
CXCL9 [V]	2.035	3.046	3.377	0.000
IL1RN	1.337	3.195	2.271	-0.341
CXCL1 [I]	1.102	2.279	2.365	0.102
IL6 [I]	0.815	4.146	2.875	0.827
CXCL3 [I]	2.183	4.101	4.283	0.671
NFKB2 [I]	0.805	1.528	1.143	-0.478
MTHFD2	0.396	1.231	1.143	0.811
CEBPD	1.096	0.432	0.833	0.294
EIF5A	0.644	0.728	0.691	0.471
REL	1.105	1.386	1.043	0.439
IFNGR2	1.046	1.171	0.997	-0.167
EGR2	1.746	1.420	0.910	0.247
DDIT3	1.552	1.323	0.764	0.699
SOCS1	1.393	1.314	0.888	0.841
ZC3H12A [I]	2.156	1.899	1.315	2.282
NLRP3	2.145	1.288	0.974	2.163
IL12A	2.287	1.385	0.994	1.732
LTA [I]	1.821	1.908	0.809	0.935
KLF10	1.569	1.097	1.134	1.470
NFKBIA [I]	1.572	1.505	1.386	1.347
PLAUR	1.331	1.892	1.424	1.628
RGS1	2.053	1.848	1.336	1.342
CD83	1.943	2.069	1.735	1.529
EDN1	2.509	1.869	2.087	1.281
IFIT2 [V]	2.056	2.427	1.606	0.791
PELI1	2.059	2.939	2.166	1.660
IL1B [I]	1.236	2.629	1.976	1.475
IL1A [I]	1.494	2.864	1.507	1.421
TNIP3	0.000	3.981	0.000	1.324
CD70	0.000	1.280	0.000	0.000
TLR2	0.005	0.684	0.352	-0.336
STAT5A	0.610	0.688	0.424	-0.416
IFNAR2	-0.757	-0.448	0.365	-0.378
TLR4	-0.152	-1.085	-0.351	-0.150
MYD88	-0.800	-0.679	-1.021	-0.134
CLEC2B	-0.101	-0.751	-0.976	-0.219
HHEX	0.028	-0.943	-1.109	-0.180
CEP350	-0.508	-0.275	-0.126	-0.591
CD40	-0.394	-0.060	-0.444	-0.647
IFIH1 [V]	-0.543	0.203	-0.002	-0.298
FUS	-0.231	0.461	0.042	-0.570
IFIT1 [V]	-0.427	0.313	0.379	-0.489

IL15RA	-0.573	-0.166	-0.473	0.041
BCL7A	-0.685	0.027	-0.312	0.148
IL15	-0.542	0.111	-0.257	0.415
DDX47	0.535	-0.356	-0.139	0.327
GAPDH	0.028	0.037	0.034	0.074
PLAT [I]	0.000	0.000	0.000	0.000
IL12B [I]	0.000	0.000	0.000	0.000
RGS2	0.191	-0.262	-0.432	0.156
CIAPIN1	-0.127	-0.505	-0.140	-0.081
CITED2	0.105	-0.493	-0.571	-0.086
TLR3 [V]	0.427	-1.323	-0.364	0.564
CCND2	0.300	-0.220	-0.600	0.826
YWHAZ	0.828	0.306	0.333	1.038
TNF [I]	0.834	0.090	-0.210	0.578
CXCL11 [V]	-1.451	1.067	0.168	-1.466
IFIT3 [V]	-2.359	1.353	1.509	-2.359
CXCL10 [V]	-3.643	0.155	-1.057	-2.350
IRF7 [V]	-1.604	-0.443	-0.866	-0.730
DNMT1	-1.400	-0.386	-0.485	-0.892
KTN1	-1.034	-0.580	-0.569	-0.410
NMI	-1.319	-0.566	-1.458	-0.861
JAK1	-0.467	-0.895	-1.016	-0.714
TICAM1	-0.404	-0.810	-1.186	-1.141
SHFM1	-0.821	-1.061	-0.948	-0.916
MINK1	-0.656	-1.545	-1.048	-1.151
IRF1	-1.218	-0.997	-1.313	-1.017
IL7R	-1.158	-1.281	-1.246	-0.868
TCF4	-1.695	-1.226	-0.770	-0.327
SYK	-1.764	-1.459	-1.345	-0.522
TREX1	0.067	-0.831	-0.676	-1.269
IL17RA	-1.400	-2.179	-1.793	-0.397
HDAC1	-1.327	-1.622	-1.682	-0.394
CD14	-1.046	-2.186	-1.473	-0.474
FAM127A	-2.170	-1.331	-1.832	-0.967
TNFRSF8	-2.223	-2.145	-1.466	-1.081
IFI16	-3.107	-1.678	-1.697	-1.514
STAT1	-2.949	-1.572	-1.851	-1.522
CUGBP1	-1.445	-1.344	-1.553	-1.376
PML [V]	-2.038	-1.462	-1.695	-2.721
IRF2	-2.954	-1.839	-0.936	-0.456
TLR7	-3.670	-0.932	-0.468	-0.332
IFNB1 [V]	-1.456	-2.359	-2.359	-2.359
SAMHD1	-3.200	-2.861	-2.919	-0.667
FCGR3A	-3.111	-2.406	-2.748	0.033
DDX58 [V]	-4.960	-2.631	-2.081	-1.112
IER2	-5.401	-3.571	-4.120	-1.674
OAS1 [V]	-6.134	-3.496	-4.061	-1.630
VISA	-5.552	-3.478	-6.631	-1.468
AIM2 [V]	-2.881	-5.859	-5.859	-2.395