

Supplementary Table 1. Multivariable Cox model for D30 total cell chimerism

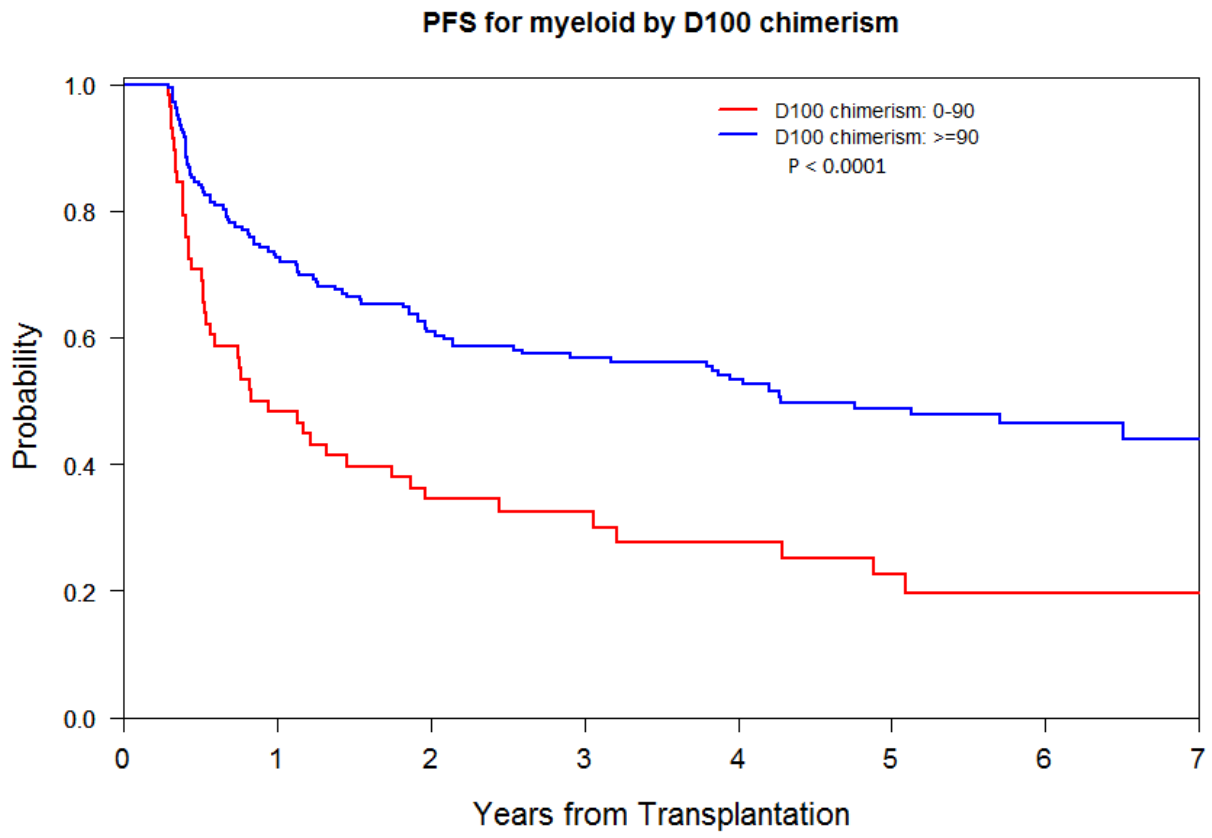
	OS				PFS				NRM				Relapse			
	HR	95% CI	p-value		HR	95% CI	p-value		HR	95% CI	p-value		HR	95% CI	p-value	
Age ≥65 vs <65 years	1.36	1.03	1.80	0.03	1.17	0.90	1.53	0.24	1.19	0.67	2.10	0.55	1.06	0.77	1.45	0.74
Patient-Donor Sex Match F->M vs. Other	1.04	0.82	1.32	0.76	0.91	0.73	1.14	0.43	1.10	0.68	1.77	0.7	0.94	0.73	1.23	0.67
Disease Risk Index																
Intermediate vs. Low	1.76	1.30	2.39	0.0003	2.11	1.59	2.78	<.0001	0.76	0.46	1.24	0.27	2.63	1.88	3.68	<.0001
High/Very high vs. Low	2.98	2.11	4.21	<.0001	3.39	2.46	4.68	<.0001	0.75	0.40	1.40	0.36	3.90	2.66	5.72	<.0001
HLA type																
MUD vs. MRD	1.11	0.88	1.40	0.40	0.89	0.72	1.10	0.29	1.36	0.85	2.18	0.2	0.84	0.66	1.06	0.14
Mismatched vs. MRD	1.03	0.64	1.65	0.90	0.77	0.50	1.19	0.23	1.63	0.69	3.90	0.27	0.59	0.34	1.02	0.06
Diagnosis:																
Myeloid vs. Lymphoid	1.18	0.94	1.49	0.16	0.96	0.77	1.19	0.71	1.16	0.74	1.81	0.52	0.92	0.72	1.18	0.51
ABO type: match vs. mismatch	1.16	0.95	1.43	0.15	1.10	0.91	1.33	0.33	1.29	0.85	1.95	0.23	1.02	0.82	1.27	0.84
Prior allo HSCT: Yes vs. No	0.94	0.70	1.28	0.71	1.07	0.82	1.39	0.64	0.92	0.49	1.70	0.78	1.08	0.81	1.45	0.59
Busulfan dose: Bu2 vs. Bu1	0.92	0.68	1.24	0.56	0.88	0.67	1.17	0.38	0.97	0.53	1.76	0.91	0.83	0.60	1.16	0.27
WBC risk score*																
1 vs. 0	1.95	1.47	2.59	<.0001	1.64	1.26	2.14	0.0002	1.71	1.00	2.95	0.05	1.21	0.88	1.67	0.23
2 vs. 0	3.56	2.68	4.73	<.0001	2.86	2.18	3.76	<.0001	1.34	0.70	2.56	0.37	2.30	1.64	3.22	<.0001
ALC at 1 month (x10 <sup>9</sup> cells/L) <0.2 vs. ≥0.2	1.15	0.80	1.63	0.46	1.36	0.98	1.88	0.07	0.80	0.38	1.68	0.55	1.49	1.02	2.18	0.04
Patient Donor CMV serostatus any positive vs. negative	1.02	0.82	1.27	0.85	0.98	0.80	1.20	0.86	1.14	0.74	1.77	0.55	0.95	0.75	1.19	0.63
GVHD prophylaxis Sirolimus-use vs. not	1.00	0.79	1.25	0.97	0.96	0.77	1.19	0.70	0.78	0.49	1.24	0.3	1.05	0.81	1.36	0.69
Year of HSCT: <2004 vs. ≥2004	1.19	0.90	1.58	0.23	1.10	0.85	1.44	0.47	0.57	0.33	0.99	0.047	1.08	0.79	1.47	0.64
D30 Total Donor Cell Chimerism <90 vs. ≥90	1.08	0.86	1.36	0.50	1.41	1.14	1.74	0.0013	0.58	0.35	0.95	0.032	1.66	1.30	2.11	<.0001

Supplementary Table 2: Multivariable Cox model for D100 total cell chimerism

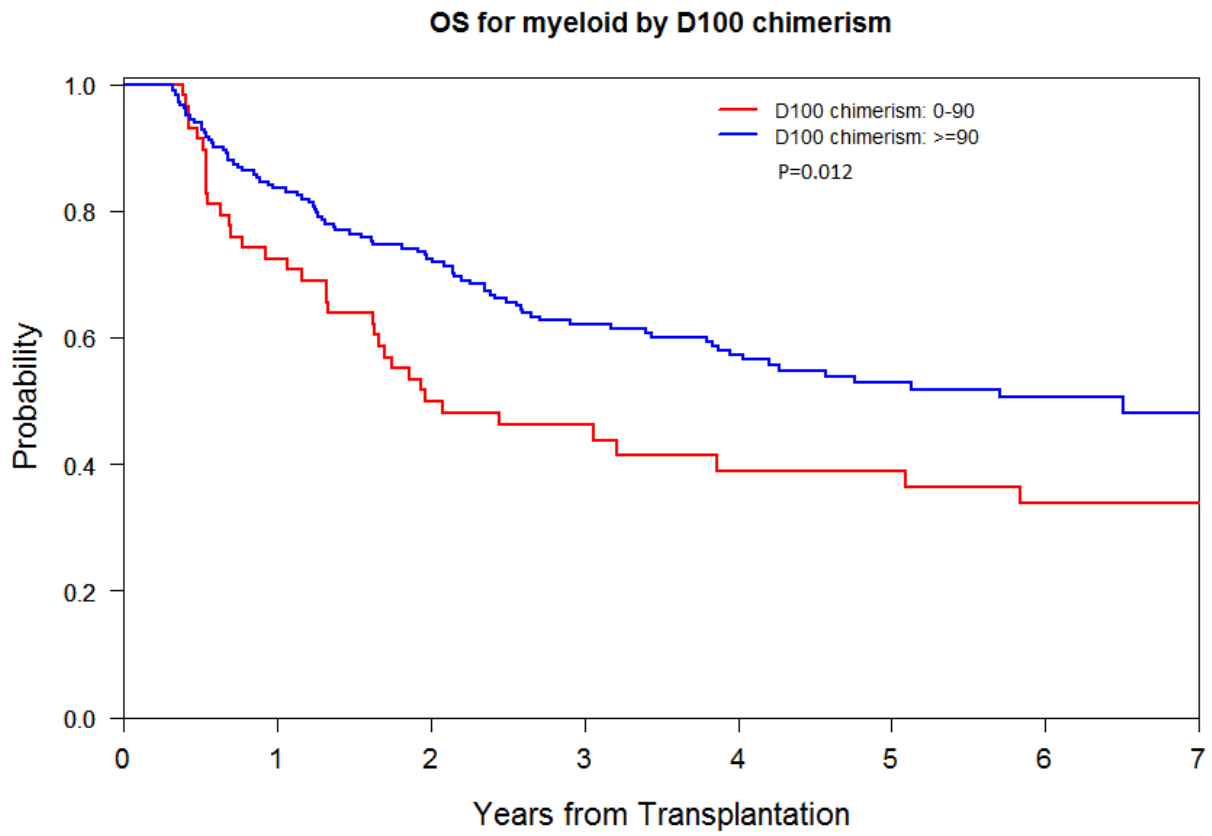
	OS				PFS				NRM				Relapse			
	HR	95% CI	p-value		HR	95% CI	p-value		HR	95% CI	p-value		HR	95% CI	p-value	
Age ≥65 vs. <65 years	1.50	1.05	2.14	0.03	1.22	0.87	1.70	0.24	1.29	0.70	2.38	0.41	1.06	0.69	1.62	0.79
Patient-Donor Sex Match F->M vs. Other	1.08	0.80	1.46	0.62	0.93	0.70	1.23	0.60	1.05	0.63	1.75	0.85	0.94	0.68	1.31	0.72
Disease Risk Index																
Intermediate vs. Low	1.70	1.18	2.43	0.004	1.92	1.39	2.65	<.0001	0.89	0.53	1.52	0.68	2.52	1.69	3.78	<.0001
High/Very high vs. Low	2.71	1.77	4.15	<.0001	3.14	2.12	4.67	<.0001	1.22	0.63	2.35	0.56	3.66	2.25	5.96	<.0001
HLA type																
MUD vs. MRD	1.25	0.93	1.69	0.14	1.11	0.85	1.45	0.44	1.27	0.76	2.12	0.35	1.04	0.75	1.43	0.82
Mismatched vs. MRD	1.04	0.58	1.88	0.90	0.85	0.49	1.46	0.55	1.38	0.54	3.47	0.5	0.62	0.30	1.27	0.19
Diagnosis:																
Myeloid vs. Lymphoid	0.99	0.74	1.31	0.93	0.83	0.64	1.08	0.16	1.10	0.68	1.78	0.71	0.76	0.55	1.05	0.10
ABO type: match vs. mismatch	1.20	0.92	1.55	0.18	1.06	0.84	1.34	0.65	1.27	0.83	1.94	0.27	0.95	0.71	1.27	0.74
Prior allo HSCT: Yes vs. No	0.88	0.60	1.29	0.50	1.14	0.83	1.58	0.42	0.86	0.45	1.64	0.64	1.21	0.81	1.79	0.35
Busulfan dose: Bu2 vs. Bu1	0.85	0.58	1.24	0.40	0.83	0.59	1.17	0.29	0.75	0.39	1.46	0.4	0.88	0.58	1.35	0.57
WBC risk score*																
1 vs. 0	1.89	1.32	2.71	0.0005	1.48	1.07	2.06	0.019	2.16	1.20	3.88	0.009	0.91	0.58	1.40	0.66
2 vs. 0	2.88	1.56	5.31	0.0007	2.39	1.34	4.24	0.003	1.07	0.28	4.07	0.92	2.68	1.42	5.04	0.002
ALC at 3 month (x10 <sup>9</sup> cells/L)																
<0.2 vs. ≥0.2	1.89	1.13	3.18	0.02	1.51	0.92	2.48	0.10	2.19	1.01	4.76	0.05	0.94	0.48	1.84	0.87
Unknown vs. ≥0.2	0.62	0.29	1.33	0.22	0.64	0.31	1.33	0.23	1.49	0.33	6.80	0.61	0.42	0.18	0.99	0.05
Patient Donor CMV serostatus																
any positive vs. negative	1.01	0.77	1.32	0.95	0.98	0.76	1.26	0.87	1.15	0.72	1.82	0.56	0.94	0.69	1.28	0.70
GVHD prophylaxis																
Sirolimus-use vs. not	0.88	0.66	1.18	0.39	0.86	0.66	1.12	0.27	0.77	0.48	1.23	0.28	0.97	0.69	1.36	0.86
Year of RIC HSCT:																
<2004 vs. ≥2004	1.15	0.80	1.64	0.45	1.16	0.83	1.60	0.39	0.63	0.35	1.14	0.13	1.03	0.69	1.53	0.90
D100 Total Donor Cell Chimerism																
<90 vs. ≥90	1.50	1.11	2.04	0.009	2.01	1.53	2.65	<.0001	0.76	0.44	2.27	0.33	2.54	1.83	3.51	<.0001

\*: ref. 15, 0 if WBC at 1 and 3 months of HSCT were both 2-10x10<sup>9</sup> cells/L or >10x10<sup>9</sup> cells/L at 1month but 2-10x10<sup>9</sup> cells/L at 3 months of HSCT; 1 if WBC <2x10<sup>9</sup> cells/L at 1 or 3 months of HSCT; 2 if WBC >10x10<sup>9</sup> cells/L at 1 or 3 months of HSCT.

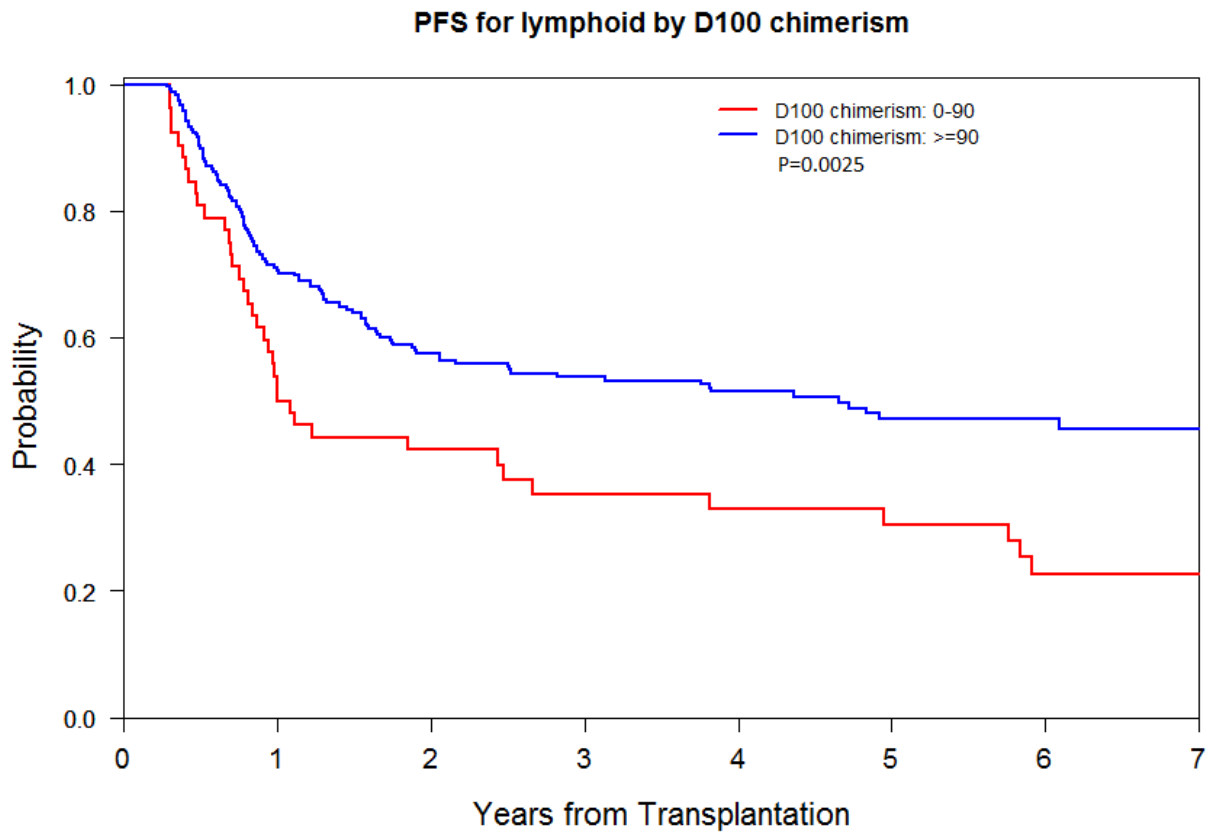
Supplementary Figure 1A



Supplementary Figure 1B



Supplementary Figure 1C



Supplementary Figure 1D

