Supplementary Table 1: Abnormal karyotypes for 90 *MLL*-G patients

Patient No.	Subgroup	Karyotype
Cytogenetic Good Risk Group*		
1	HeH	53~55,inc
2	HeH	54,XX,+X,+4,+6,+10,+14,+17,+18,+21[14]
3	HeH	54,XY,+X,+4,+6,+10,+14,+17,+21[cp2]
4	HeH	54,XY,+X,+4,+6,+14,+17,+18,+21,+21[9]
5	HeH	54-55,XY,+X,+4,+5,+8,+14,+17,+18,+21[cp8]
6	HeH	55,XX,+X,+4,+6,+8,+14,+17,+18,+21,+21[3]
7	HeH	55,XY,+3,+4,+8,-11,+17,+18,+20,+20,+21,+21,+21[12]
8	HeH	55,XY,+X,+4,+6,+10,+14,+17,+18,+21,+21
9	HeH	55,XY,+X,+4,+6,+10,+14,+17,+18,+21,+21[8]
10	HeH	56-60,XY,+X,+4,+6,+7,+10,+11,+12,+12,+14,+17,+?19,+21,+22,+mar[cp4]
11	HeH	57,XY,+X,+Y,+4,+6,+8,+?9,+14,+17,+18,+21,+21
12	HeH	57,XY,+X,+Y,+6,+8,+10,+14,+14,+18,+18,+21,+21[16]
13	HeH	60,XY,+X,+4,+5,+6,+7,+8,+10,+12,+14,+17,+18,+21,+21,+22[7]
14	HeH	64,XX,+2,+4,+4,+5,+6,+8,+8,+10,+10,+11,+12,+14,+14,+17,+18,+21,+21,+22[7] **
15	HeH	hyperdiploid
Cytogenetic Intermediate Risk Group*		
16	Abnormal 15q	46,XX,add(5)(p1?5),t(7;12)(p1?5;q1?5),del(15)(q15q22)
17	Abnormal 15q	46,XX,der(15;20)(p10;q10),+mar[5]
18	Abnormal 15q	46,XX,der(5)inv(5)(p15.1q13)t(5;19;15)(q13;q13.3;q11.2), der(15)t(5;19;15)(q13;q13.3;q11.2),der(19)t(5;19;15)(q13;q13.3;q11.2)[7]
19	Abnormal 15q	46,XX,del(9)(p13),del(15)(q22),t(18;19)(p11;p13)
20	Abnormal 15q	46,XX,ins(15;14)(q1?3;q32q11.2)
21	Abnormal 15q	46,XX,t(5;15)(p15;q13~15),del(6)(p21p23~25),inc[cp7]
22	Abnormal 15q	46,XY,del(9)(p11)[4]/46,idem,t(8;15)(q2?4; q2?5)[4]
23	Abnormal 15q	46,XY,der(14)inv(14)(q1?3q?24)ins(14;15)(q1?3;q?14q?22.1),der(15)ins(14;15)[8]
24	Abnormal 15q	46,XY,t(15;17)(q1?5;q1?)
25	Abnormal 15q	46,XY,t(5;15)(p15;q11)[5]
26	Abnormal 15q	46,XY,t(7;15)(q22;q21)
27	Abnormal 15q	48,XX,-15,+22,+mar1,+mar2
28	*PICALM-MLLT10*	46,XX,t(10;11)(p13;q14)
29	*PICALM-MLLT10*	47XX,+5,t(10;11)(p13;q14)
30	dic(9;20)	45,XX,dic(9;20)(p11~13;q11)
31	dic(9;20)	46,XX,dic(9;20)(p11~13;q11)
32	t(1;19)	46,XX,t(1;19)(q23;p13)

33	t(1;19)	46,XY,der(19)t(1;19)(q23;p13)[3]
34	t(7;12)	46,XX,del(7)(q31),del(12)(p13) ***
35	t(7;12)	46,XX,del(7)(q32q36)[13]/47,idem,+19[17] ***
36	t(7;12)	51,XY,+8,+13,+14,+19,+22,t(7;12)(q36;p13)
37	*TRA/D-MYC*	46 XX,t(8;14)(q24;q11)[6]
38	Other	43~45,XX,inc[3]
39	Other	44~45,XY,inc[cp]
40	Other	44~46,XX,-X,+2,-9,-9,add(12)(p1?3),del(12)(p11.2),+2mar[cp7]
41	Other	45,XX,-7[20]
42	Other	45,XX,t(6;14)(p2?2;q?13),-11,der(19)t(?11;19)(q?21;p13)[5]
43	Other	45,XY,dic(7;9)(q11.1;p21)[9]
44	Other	45,XY,t(1;5)(q21;q33),-9,inc[4]/45,idem,add(7)(p22)[6]
45	Other	45~46,XX,add(12)(p13),inc[cp4]
46	Other	46 XX,add(9)(p13)
47	Other	46,XX,add(16)(q?23),inc[3]
48	Other	46,XX,add(19)(p13)[16]
49	Other	46,X,add(X)(q28),t(1;9;12)(q21;q13;q24),inc[3]
50	Other	46,XX,del(11)(q13)
51	Other	46,XX,del(12)(p11.2p13)[6]
52	Other	46,XX,del(2)(q3?5)
53	Other	46,XX,del(6)(q21)[5]
54	Other	46,XX,del(9)(p13)
55	Other	46,XX,der(9)t(9;14)(p24;q11.2),-14,-15,+2mar[4]
56	Other	46,XY,+1,der(1;14)(q10;q10),del(9)(p13)[5]
57	Other	46,XY,-11,+21c[3]
58	Other	46,XY,add(11)(q23)[19]
59	Other	46,XY,add(4)(q21),add(8)(q24),der(11)add(11)(p12)del(11)(q13)[20]
60	Other	46,XY,add(5)(q)x2
61	Other	46,XY,del(11)(q23)[6]
62	Other	46,XY,del(9)(p13)
63	Other	46,XY,der(4)t(1;4)(q12;q35)[8]/47,XY,+8[4]
64	Other	46,XY,der(9)del(9)(p21p21)ins(9;21)(p13~21;q22q22),der(9)t(9;21)p13;q22), der(21)t(9;21)(p21;q22)[8]
65	Other	46,XY,dic(7;9)(p11;p11),+mar
66	Other	46,XY,ins(13;11)(q12;q13q23)[6]
67	Other	46,XY,inv(11)(q13q23)
68	Other	46,XY,t(10;18)(q11;q23)
69	Other	46,XY,t(14;18)(q13;q22.2)[7]

70	Other	46,XY,t(7;11)(p22;p13)[9]
71	Other	46,XY,t(7;9;16)(q11;p13;?p11)
72	Other	46,Y,add(X)(q24)[8]/46,idem,del(6)(q13q25)[2]
73	Other	46,Y,t(X;10)(p11.2;p11.2)[7]
74	Other	47,XX,+8[20]
75	Other	47,XX,-4,add(11)(q2?3),+2mar[2]
76	Other	47,XY,+8[15]
77	Other	47,Y,t(X;11)(q28;p15),+inv dup(7)(q31qter)[20]
78	Other	48,XY,+der(8;21)(q10;q10)x2[14]
79	Other	48,XY,+X,dic(1;19)(q25;p13.3),+6,+22[5]
80	Other	48~49,XX,+5,+10,+21[cp3]
Cytogenetic Poor Risk Group*		
81	del(13q)	45,XX,del(6)(q15q23),dic(7;9)(p11.2;p11),-13,del(20)(q11.2q13.1),+mar[15]
82	del(13q)	46,XX,del(3)(q?),del(11)(q?),add(13)(q34),t(14;18)(q11;q21),inc[cp8]
83	del(13q)	46,XX,der(9)t(9;13)(p1?2;q22)del(9)(p1?2p2?4),del(13)(q1?2;q22)
84	del(13q)	46,XY,del(13)(q21q32)[6]
85	del(13q)/t(1;19)	46,XY,t(1;19)(q23;p13.3),-13,+mar[13]
86	del(17p)	43~46,XY,r(1),-17,-19,+13,+mar[cp19]
87	del(17p)	46,XY,-6,-10,-17,+3mar[14]
88	del(17p)	46,XY,del(7)(p13p15),add(17)(p1?3),add(21)(q22)[10]
89	*BCR-ABL1*	46,XY,t(9;22)(q34;q11.2)[9]
90	*BCR-ABL1*	48,XY,t(9;22)(q34;q11.2),+2mar[4]

Key:

The 90 patients listed here have abnormal karyotypes. Patients 91-124 had a normal karyotype based on the analysis of at least 10 (usually 20) normal metaphases. Patients 125-162 had no or failed cytogenetic result.

Among the 90 patients with an abnormal karyotype, normal clone is omitted from the karyotype string. Abnormal cell numbers are given in square brackets where available, where not available the chromosomal abnormalities were known to be clonal: present in two or more cells for chromosomal gains or structural rearrangements, in three or more cells for chromosome loss.

* Definition of cytogenetic risk group as per Moorman et al (2010) Lancet Oncology 11:429-438

** Karyotype suggests doubling of a low hypodiploid clone

*** Possible t(7;12)(q36;p13)

HeH, high hyperdiploidy

Abnormal 15q, abnormality involving the long arm of chromosome 15

Other, all listed abnormalities excluded