Ruxolitinib as potential targeted therapy for patients with *JAK2* rearrangements

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Online Supplementary Table S1. Total numbers of colonies obtained from mononuclear cells grown in methylcellulose at the indicated dose and counted on Days 7 and 14 for 7 controls, 3 CML controls and 3 patient samples (cases 1 -3).

	Day 7				Day 14			
sample	0 nM	20 nM	100 nM	500 nM	0 nM	20 nM	100 nM	500 nM
NPB 1	32	27	19	0	49	45	39	10
NPB 2	30	19	11	9	22	21	13	5
NPB 3	35	14	14	4	50	27	10	6
NPB 4	94	83	53	16	282	285	216	66
NPB 5	312	299	183	74	816	708	492	330
NPB 6	69	41	14	1	96	52	27	19
NPB 7	56	48	33	1	117	78	63	9
CML 1	38	26	22	8	45	34	19	10
CML 2	163	133	42	23	514	496	297	220
CML 3	11	10	10	2	183	178	99	119
Case 1	102	60	17	0	155	132	79	19
Case 2	167	79	21	2	185	89	47	17
Case 3	91	50	22	0	252	120	69	8

Online Supplementary Table S2. The total colony counts at Day 14 and the proportion of colonies positive or negative for a *JAK2* rearrangement at each concentration for cases 1 and 2 allowed the positive and negative fractions at each concentration to be estimated.

Case 1	0 nM	20 nM	100 nM	500 nM
Total Day 14 colony counts	155	132	79	19
Proportion *PCM1-JAK2 (P-J)* FISH positive (N)	0.226 (53)	0.148 (27)	0.044 (23)	0.00 (16)
Calculated size of *P-J* positive fraction of colony count	(0.266x155) 35.1	(0.148x132) 19.6	(0.044x79) 3.4	(0.00x19) 0.0
Calculated size of *P-J* negative fraction of colony count	119.9	112.4	75.6	19.0
Size of *P-J* positive fraction relative to untreated control	1.0	0.56	0.10	0.0
Size of *P-J* negative fraction relative to untreated controls	1.0	0.94	0.63	0.16

Case 2	0 nM	20 nM	100 nM	500 nM
Total colony counts	185	89	47	17
Proportion *JAK2*-rearrangement FISH positive (N)	0.47 (72)	0.29 (41)	0.26 (27)	0.38 (26)
Calculated size of *JAK2*-rearrangement positive fraction of colony count	(0.47x185) 86.9	(0.29x89) 26.0	(0.26x47) 12.2	(0.38x17) 6.5
Calculated size of *JAK2*-rearrangement negative fraction of colony count	98.1	62.9	34.8	10.5
Relative size of *JAK2*-rearrangement positive fraction	1	0.30	0.14	0.07
Relative size of *JAK2*-rearrangement negative fraction	1	0.64	0.36	0.11