

Ponatinib as targeted therapy for *FGFR1* fusions associated with the 8p11 myeloproliferative syndrome

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Online Supplementary Table S1. Clinical and sample details from 5 cases with *FGFR1* fusion genes.

Sample ID	Sample type	Fusion gene	Translocation	Sex	Age (year)	Diagnosis
F1	PB	<i>BCR-FGFR1</i>	t(8;22)(p11;q11)	F	74	EMS
F2	PB	<i>FGFR1OP-FGFR1</i>	t(6;8)q27;p11)	F	54	EMS
F3	PB	<i>ZMYM2-FGFR1</i>	t(8;13)(p11;q11)	M	61	EMS
F4	PB	<i>BCR-FGFR1</i>	t(8;22)(p11;q11)	F	52	EMS-LBC
F5	PB	<i>ZMYM2-FGFR1</i>	t(8;13)(p11;q12)	M	50	EMS

EMS: 8p11 myeloproliferative syndrome; LBC: lymphoid blast crisis; PB: peripheral blood.

Online Supplementary Table S2. Total colony counts from 5 samples with *FGFR1* translocations and 8 control PB samples from healthy individuals. For cases 1, 4 and 5, after counting, colonies from Day 14 cultures were plucked for FISH analysis; the total number of colonies analyzed by FISH and the number *FGFR1*-fusion positive is given in brackets.

Sample ID	Day 7 colony counts				Day 14 colony counts (<i>FGFR1</i> fusion positive by FISH/total analysed by FISH)			
	0 nM	20 nM	100 nM	500 nM	0 nM	20 nM	100 nM	500 nM
NPB1	39	45	11	4	48	59	3	3
NPB2	10	7	5	3	43	19	11	4
NPB3	22	32	10	5	20	23	14	4
NPB4	22	25	12	5	25	34	19	10
NPB5	72	53	72	50	228	153	201	81
NPB6	64	63	63	24	117	147	153	42
NPB7	28	41	32	12	41	90	57	19
NPB8	52	19	12	4	183	105	58	30
F1	60	82	50	22	132	110	66	53 (32/32)
F2	33	0	0	0	165	1	0	0
F3	146	77	52	4	164	81	60	15
F4	54	55	35	7	68	60	35	19 (30/30)
F5	388	239	73	7	283 (76/103)	154 (24/52)	77 (22/38)	12 (5/8)

Online Supplementary Table S3. The total colony counts at each ponatinib concentration and proportion *ZMYM2-FGFR1* (*Z-F*) positive by FISH for case F5 allowed an estimate of the *Z-F* positive and negative colonies to be made showing that *Z-F* positive colony numbers fell at lower concentrations of ponatinib than *Z-F* negative colonies.

	0 nM	20 nM	100 nM	500 nM
Total colony counts	283	154	77	12
Proportion <i>ZMYM2-FGFR1</i> FISH positive (N)	0.73 (N=103)	0.46 * (N=52)	0.58 (N=38)	0.63 (N=8)
Calculated size of <i>Z-F</i> positive fraction of colony count	207	71	45	9
Calculated size of <i>Z-F</i> negative fraction of colony count	76	83	32	3

* χ^2 ; $P > 0.001$.