Supplementary Table S1. Clinical characteristics of patients and their responses to BRAF inhibitors.

Patient ID	Study site	Biopsy timing	Sex	Age	Stage	Dose of BRAF inhibitor (mg)	Best overall response	Progression free survival (days)	Biopsy sites
1	VICC	В	М	62	M1a	Vemu160	-57%	466	SC, thigh
		DP				escalated to 720 bid			Large bowel (cecum)
2	UCLA	В	М	52	M1c	Vemu 720	-83%	161	Pelvic bone
		DP				bid			Bowel
3	UCLA	В	М	30	M1b	Vemu 240	-14%	113	SC, shoulder
		DP				bid x 4 mo, 760 bid			Heart
4	UCLA	В	F	65	M1c	Vemu 1100	-37%	270	Lymph node, femoral
		DP1				bid			Lymph node, inguinal
		DP2							Small bowel
		DP3							Lymph node
5	VICC	В	F	45	M1c	Vemu 720	-53%	106	Inguinal node
		DP				bid			Soft tissue, pelvis
6	PM	В	M	44	M1a	Vemu 960	-73%	141	SC
		DP				bid			Small bowel
7	PM	В	М	60	M1c	Vemu 960	-84%	113	Cutaneous
		DP				bid			Cutaneous
8	UCLA	В	М	46	M1c	Vemu 960	-32%	149	Axillary node
		DP				bid			Abdominal
9	UCLA	В	F	66	M1c	Vemu 960	-53%	137	Cutaneous, clavicular
		DP1				bid			Cutaneous, lateral neck
		DP2							Cutaneous, clavicular
		DP3							Cutaneous, shoulder
10	UCLA	DP	М	72	M1c	Vemu 960 bid	-42%	126	Adrenal gland
11	UCLA	В	М	48	M1c	Vemu 960	-24%	126	Lymph node

		DP1				bid			Cutaneous , thigh, superior
		DP2							Cutaneous , thigh, inferior
12	UCLA	DP	М	54	M1c	Vemu 960 bid	-75%	84	Pelvic mass
13	UCLA	DP	М	62	M1c	Vemu 960 bid	-55%	325	Lung mass
14	UCLA	В	F	65	M1c	Vemu 960	-72%	373	SC
		DP1	ı			bid			SC, flank
		DP2							SC, breast
15	UCLA	В	М	51	M1c	Vemu 960	-60%	212	SC
		DP1				bid			SC, flank
		DP2							SC, breast
16	MIA	В	М	59	M1c	Dabra 100	-14%	224	SC, chest
		DP				bid to 100 tid			SC, abdomen
17	MIA	В	М	71	M1c	Vemu 960	-53%	239	SC, chest
		DP				bid			SC, abdomen
18	MIA	В	F	38	M1a	Dabra 35	-100%	119	Lymph node, inguinal
		DP1				bid, to 100			SC, thigh
		DP2				tid			Brain
19	MIA	В	М	39	M1c	Dabra 150	-56%	118	Lymph node, neck
		DP				bid			SC, neck
20	MIA	B F	58	M1c	Dabra 70	-63%	209	SC, groin	
		DP				bid, to 100 tid			SC, flank
21	UCLA	DP	М	29	M1c	Dabra 150 bid	-100%	86	SC
22	UCLA	В	M	74	IIIc	Vemu 960 bid	-32%	258	Cutaneous, thigh
		DP1							Cutaneous , thigh
		DP2							Cutaneous, thigh
		DP3							Cutaneous, thigh
23	UCLA	В	F	47	M1b	Vemu 960	-72%	97	SC, abdomen
		DP1				bid			SC, chest

		DP2							Cutaneous, shoulder
24	UCLA	В	F	47	IIIc	Vemu 960 bid	-31%	238	Cutaneous, leg
		DP1							Cutaneous, foot
		DP2							Cutaneous, leg
		DP3							Cutaneous, leg
25	UCLA	В	М	52	M1c	Vemu 960	-70%	104	SC, axillary
		DP1				bid			SC, back
		DP2							SC, flank
26	UCLA	В	М	65	M1c	Vemu 960	-22%	161	SC, abdomen
		DP1				bid			SC, flank
		DP2							SC
27	UCLA	В	F	60	M1a	Vemu 960	-42%	133	Soft tissue, pelvis
		DP				bid			Soft tissue, pelvis
28	VICC	В	F	70	M1a	Vemu 960 bid	-70%	183	SC, neck
		DP							SC, leg
29	VICC	DP	М	64	M1c	Vemu 960 bid	-24%	291	Lymph node, axillary
30	VICC	DP	М	45	M1c	Vemu 960 bid	-100%	489	Mediastinum
31	VICC	DP	М	78	M1c	Vemu 960 bid	-18%	100	SC, back
32	VICC	DP	М	63	M1c	Vemu 720 bid, to 960 bid	-47%	144	Lung
33	VICC	DP	М	68	M1a	Vemu 906 bid to 720 bid	-43%	346	Lymph node, inguinal
34	UCLA	DP	F	46	M1b	Vemu 960 bid	-31%	159	SC, breast
35	UCLA	В	М	61	M1c	Vemu 960	-57%	196	SC, scalp
		DP				bid			SC
36	UCLA	В	F	53	M1a	Vemu 960	-100%	342	SC, leg
		DP	1			bid			SC, leg
37	UCLA	B1	М	65	M1a	Dabra 150	-8% by	383	Cutaneous

		B2				bid	RECIST		Cutaneous
		DP1	1			Did	and > -		Cutaneous
		DP2	1				80% by		Cutaneous
		DP3	1				histology		Cutaneous
		DP4	1				motology		Cutaneous
		DP5							Cutaneous
		DP6	1						Cutaneous
		DP7	1						
			4						Cutaneous
		DP8	1						SC, chest
-00	1101.4	DP9			144	\/	040/	100	SC, chest
38	UCLA	В	М	51	M1c	Vemu 960	-21%	108	SC, scalp
		DP				bid			SC, scalp
39	UCLA	В	М	59	M1a	Vemu 960	-64%	153	SC, abdomen
		DP				bid			SC, abdomen
40	UCLA	В	M	47	M1c	Vemu 960	-50%	90	Cutaneous
		DP1				bid			Cutaneous
		DP2							Cutaneous
41		В	М	39	M1a	Vemu 960	-35%	120	SC
		DP				bid			SC
42	UCLA	DP1a	М	84	M1c	Dabra 150	-42%	240	SC, shoulder
		DP1b				bid			SC, shoulder
43	LICR	В	F	41	M1c	Vemu 960	-91%	327	Breast
		DP1				bid			Lymph node, axillary
		DP2							Intramuscular, shoulder
44	UCLA	В	М	83	M1c	Vemu 960	5%	132	Cutaneous, leg
		DP1				bid			Cutaneous, leg
		DP2	1						Cutaneous, flank