

Supplementary Table S1. Clinical data for tissue donor subjects.

Study site	Pt #	Bx samples	Age & sex	Stage	Date started on inhibitor(s)	Dose (mg)	BOR	PFS (days)	Bx site
	1	Baseline	51M	M1c	June 24, 2011	960 bid vemu	−21%	108	SC Scalp
		Day 7							SC Scalp
	2	Baseline	72F	M1c	October 29, 2009	960 bid vemu	−11%	80	Axillary node
		Day 15							Axillary node
	3	Baseline	66F	M1b	October 26, 2009	960 bid vemu	−53%	137	Cutaneous, shoulder/neck
		Day 15							Cutaneous, shoulder/neck
	4	Baseline	44M	M1c	November 28, 2011	960 bid vemu & 60 qd (MEKi GDC0973)	−30.5%	Current response	SC, abdomen
		Day 15							SC, abdomen
	5	Baseline	77M	M1b	June 06, 2010	960 bid vemu	+47%	39	Cutaneous, shoulder/neck
		Day 25							Cutaneous, shoulder/neck
MIA	6	Baseline	69M	M1c	May 28, 2010	960 bid vemu	−46%	397	SC, arm
		Day 4							SC, back
	7	Baseline	31M	M1c	October 08, 2009	100 tid dabra	−26%	91	SC, back
		Day 5							SC, back
	8	Baseline	63M	M1c	March 23, 2011	150 bid dabra	−26%	112	Brain
		Day 14							SC, arm
	9	Baseline	28M	M1c	July 07, 2010	300 bid dabra	−36%	114	SC, chest
		Day 25							SC, chest

Abbreviations: Bx, biopsy; BOR, best overall response; PFS, progression free survival; UCLA, University of California, Los Angeles; MIA, Melanoma Institute of Australia; M, male; F, female; bid, twice a day; tid, three times a day; qd, daily; vemu, vemurafenib; dabra, dabrafenib; SC, subcutaneous.