

## Supplementary Table S1: Clinical data and sample description

### a) Healthy volunteers - serum and whole blood samples

ID	multiple samples	gender	age	whole miRNome						custom
				pool HP1	pool HP2	pool HP3	WB healthy pool	single healthy	circadian	
HY-1	x	f	53			x				x
HY-2		m	36							x
HY-3	x	f	54			x				x
HY-4	x	f	24			x				x
HY-5	x	f	32			x				x
HY-6		m	32							x
HY-7		m	34							x
HY-8		f	25							x
HY-9	x	f	54	x			x			x
HY-10	x	m	21	x			x			x
HY-11	x	f	48	x			x			x
HY-12	x	m	36	x			x			x
HY-13	x	f	46	x			x			x
HY-14	x	f	45	x			x			x
HY-15	x	f	60		x		x			x
HY-16	x	f	37		x		x			x
HY-17	x	f	41		x					x
HY-18	x	f	47		x					x
HY-19		f	55							x
HY-20	x	f	49		x					x
HY-21	x	f	46		x					x
HY-22		f	61							x
HY-23	x	f	38			x				x
HY-24		f	31							x
HY-25	x	f	55			x				x
HY-26	x	f	30			x				x
HY-27		f	38							x
HY-28		f	25							x
HY-29		f	29							x
HY-30		f	58							x
HY-31		nd	nd					x		
HY-32		nd	nd					x		
HYcd-1a		m	25						x	
HYcd-1b		m	25						x	
HYcd-1c		m	25						x	
HYcd-2a1		m	25						x	
HYcd-2b1		m	25						x	
HYcd-2c1		m	25						x	

HYcd-2a2		m	25						x	
HYcd-2c2		m	25						x	
HYcd-3a		m	24						x	
HYcd-3b		m	24						x	
HYcd-3c		m	24						x	
HYcd-4b1		m	26						x	
HYcd-4c1		m	26						x	
HYcd-4a2		m	26						x	
HYcd-4b2		m	26						x	
HYcd-4c2		m	26						x	

mean age of healthy

**39.4**

HP1: healthy serum pool 1

HP2: healthy serum pool 2

HP3: healthy serum pool 3

WB: whole blood pool

healthy volunteer samples to establish the healthy miRNome

nd: not determined

cd: circadian

a: morning

b: midday

c: evening

1 or 2 behind a, b or c: week 1 resp. week 2 when samples were taken

HY: healthy

HYcd: healthy circadian

## b) Patients - serum and whole blood samples

ID	multiple samples	blood and tissue	gender	age	stage	TD	localisation	whole miRNome				single patient	custom
								pool PP1	pool PP2	WB pool 1	WB pool 2		
<b>stage 0 (4)</b>													
MP-1	x		m	88	0		upper arm right	x					x
MP-2	x		m	76	0		back	x					x
MP-3			m	83	0		nose left						x
MP-4			m	73	0		forehead left						x
<b>stage I (12)</b>													
MP-5	x		f	77	IB	1.9 mm	back	x					x
MP-6	x		m	92	IA	unknown	head	x					x
MP-7	x		m	87	IA	0.75 mm	infraorbital right	x					x
MP-8	x		m	51	I	0.4 mm	temple left	x					x
MP-9			m	77	I	unknown	occipital						x
MP-10-1			m	73	IA	0.76 mm	back			x			
MP-10-2			m	74	IA	0.76 mm	back						x
MP-11	x		f	33	IA	1. 0.9 mm 2. 0.8 mm	1. breast 2. calf right	x		x			x
MP-12	x		m	72	IA	0.55 mm	shoulder left	x					x
MP-13			m	44	IB	1.2 mm	calf right						x
MP-14	x	x	f	81	IA	0.4 mm	left cheek					x	x
MP-15	x		f	59	IB	1.05 mm	upper arm right						x
<b>stage II (17)</b>													
MP-16	x	x	f	46	IIA	2.4 mm	heel right	x					x
MP-17	x		m	63	IIB/C	> 4 mm	lower arm right	x					x
MP-18			m	62	IIB	3 mm	intraoral						x
MP-19	x		f	66	IIC	2.1 mm	big toe right	x					x
MP-20	x		f	33	IIA	1.8 mm	upper arm right	x					x
MP-22			m	29	IIA	2.3 mm	shoulder back						x
MP-23	x		m	57	IIB/C	29 mm	heel	x		x			x
MP-24	x		f	37	IIA	1. 1.35 mm 2. 0.43 mm	1. left hand 2. calf right	x		x			x
MP-25	x		f	42	IIA/B	2.1 mm	back			x			x
MP-26			f	64	IIC	15 mm	upper arm left						x
MP-27	x		f	48	IIB	6 mm	knee right			x			x
MP-28			f	79	Ila	3.9 mm	thigh left						x
MP-29			m	75	IIC	4.7 mm	nose right wing						x
MP-30			f	79	IIA/B	3 mm	parietal thigh left						x
MP-31	x	x	f	71	IIB	3.2 mm	lower leg right					x	x
MP-32-1	x		f	77	IIC	unknown	vulva		x				x
MP-32-2			f	78	IIC	unknown	vulva						x
<b>stage III (12)</b>													
MP-33	x		f	65	IIIC	unknown	heel left		x				x
MP-34	x		m	76	IIIA	> 3 mm	thoracic spine		x				x
MP-35	x		f	83	IIIC	1.4 mm	calf right		x				x

MP-36	x		f	74	IIIB	unknown	thigh right		x					x
MP-37	x		m	87	IIIC	unknown	ear		x		x			x
MP-38	x		m	42	IIIC	unknown	pharynx		x		x			x
MP-39	x	x	m	75	IIIC	23 mm	back				x			x
MP-40			f	85	IIIC	16 mm	foot left				x			
MP-41	x		f	64	IIIA	5.2 mm	shoulder right				x			x
MP-42			f	68	IIIB	unknown	lower leg right							x
MP-43		x	m	73	IIIC	13 mm	right foot							x
MP-44			m	68	IIIB	0.7 mm	malleolus right							x

**stage IV (10)**

3x male 7x female

MP-45			f	43	IV	unknown	unknown							x
MP-46	x		f	84	IV	2.5 mm	thigh right		x					x
MP-47	x		f	73	IV	0.5 mm	calf right		x					x
MP-48	x		m	80	IV	5 mm	retroauricular		x					x
MP-49	x		f	76	IV	5.8 mm	calf left		x					x
MP-50			m	74	IV	> 1mm	back							x
MP-51	x	x	f	79	IV	unknown	upper arm				x			x
MP-52			f	88	IV	unknown	calf				x			
MP-53			m	50	IV	unknown	unknown				x			
MP-54			f	64	IV	unknown	unknown							x

**stage III - IV (2)**

1x male 1x female

MP-55	x	x	f	84	III or IV	10 mm	right lower arm						x	
MP-56	x		m	53	III or IV	12 mm	left shoulder						x	x

mean age of patients

**67.6**

pools to get custom arrays:  
 PP1: patient pool 1: stages I+II  
 PP2: patient pool 2: stages III+IV

WB pool 1: whole blood pool 1: stages I+II  
 WB pool 2: whole blood pool 2:stages III+IV

MP: melanoma patient  
 TD: tumor depth

**c) Patients - tissue samples**

	ID	blood and tissue	gender	age	stage	TD	localisation	primary tumor	Metastasis	normal skin	normal skin pool
<b>stage I</b>	MP-14	x	f	81	IA	0.4 mm	left cheek	x			x
	MP-57		m	56	IA	0.75 mm	back				x
<b>stage II</b>	MP-16	x	f	46	IIA	2.4 mm	heel right	x		x	
	MP-31	x	f	71	IIB	3.2 mm	right lower leg				x
	MP-58		f	87	IIB	2.4 mm	right cheek				x
<b>stage III</b>	MP-39	x	m	75	IIIC	23 mm	back	x	x		
	MP-43	x	m	73	IIIC	13 mm	right foot	x		x	
<b>stage IV</b>	MP-51	x	f	79	IV	unknown	upper arm		x	x	
<b>stage III-IV</b>	MP-55	x	f	84	III or IV	10 mm	right lower arm	x		x	
	MP-59		m	30	III or IV	10 mm	head	x			x

TD: tumor depth