

Table SI. Medication given to specific oncological disease and genetic mutation

Medication	Oncological diagnosis (cases)	Genetic mutation	
Trametinib	Plexiform neurofibroma (2)	NF-1	
	Juvenile pilocystic astrocytoma (4)	BRAFV600, BRAF KIAA	
	Chiasmatic glioma (2)	NF-1, BRAF KIAA	
	Optic glioma (4)	NF-1, unknown	
	Tectal glioma	BRAF KIAA	
	Brainstem glioma	unknown	
	Sarcoma	BRAF	
	Fibrosarcoma low grade	PIBF1 BRAF	
	Ganglioglioma (3)	BRAF V600, P53	
	Glioblastoma	BRAF V600	
Dabrafenib	Ameloblastoma (3)	BRAFV600	
	Hemangiopericytoma	BRAF V600	
	Optic nerve glioma (2)	<i>BRAFV600</i>	
	Pleomorphic xanthoastrocytoma	BRAF V600	
	Solid ameloblastoma and ameloblastic fibroma	<i>BRAFV600</i>	
	Erdheim-Chester disease	<i>BRAFV600</i>	
	Primitive myxoid mesenchymal tumour	unknown	
	Langerhans cell histiocytosis (2)	BRAF	
	Langerhans cell histiocytosis	BRAFV600	
	Primitive myxoid mesenchymal tumour	unknown	
Trametinib+dabrafenib	Pleomorphic xanthoastrocytoma	BRAFV600 P53	
	Ganglioglioma (2)	BRAF V600	
Everolimus	Juvenile pilocytic astrocytoma (2)	BRAFV600, P53	
	Subependymal giant cell astrocytoma (6)	TSC2, unknown	
	Hamartoma eyes	unknown	
	Angiomyolipomas (4)	unknown	
Temsirolimus	Tuberous sclerosis (3)	PKD1, TSC2	
	Astrocytoma (2)	TSC2, unknown	
Sorafenib	Rhabdomyosarcoma	HRAS	
	Acute myeloid leukaemia	FLT3	
Pazopanib	Desmoid tumour	unknown	
	Diffuse intrinsic pontine gliomas (2)	KIT, NOTCH1 C456R	
Cabozantinib	Desmoid tumour	CTNNB1 S45F	
	Clear cell sarcoma	EWSR1-ATF1 fusion	
Larotrectinib	Haemangioblastoma pheochromocytoma, Renal cell carcinoma	unknown	
	Glioblastoma	NTRK2 fusion	
Asciminib	Acute lymphoblastic lymphoma	<i>JAK2:PAX5 trans</i>	
	Regorafenib	BCR-ABL	
Pemrolizumab	Biphasic synovial sarcoma	11.2012 dx	
	Hodgkin's lymphoma (2)	unknown	
	Thymic carcinoma (lymphoepithelioma-like)	PICK3CA	
	Yolk sac tumour	PFAPA	
	Neuroblastoma	unknown	
	Glioma	unknown	
	Glioblastoma multiforme	unknown	
	Neuroblastoma (5)	unknown	
	Malignant peripheral nerve sheath tumour	unknown	
	Rhabdomyosarcoma	unknown	
	Mesothelioma	unknown	
	Desmoplastic small round cell tumour	unknown	
	Osteosarcoma	unknown	
	Diffuse pontine glioma	unknown	
	Atypical teratoid rhabdoid tumour	unknown	
	Desmoplastic small round cell tumour	unknown	
	Medulloblastoma (2)	unknown	
	Osteosarcoma (2)	unknown	
	Leukaemia	unknown	
	Adenocarcinoma of colon, glioblastoma multiforme, astrocytoma	MSH6	
	Anaplastic astrocytoma	MSH2NF1 PIK3A	
	Glioblastoma multiforme, acute lymphoblastic lymphoma	mismatch repair	
	Inflammatory myofibroblastic	ALK PDL1+	
	Nasopharynx carcinoma	unknown	
	Thymic lymphoepithelioma	unknown	
	Thymic carcinoma	CKIT ALK	
	Liposarcoma	unknown	
	Primary mediastinal large B cell lymphoma	multiple	
	Nivolumab	Hodgkin lymphoma (2)	MSH, unknown
		Anaplastic astrocytoma	BLM
Nivolumab+ipilimumab	Clear cell sarcoma	EWSR1	