

SUPPLEMENTARY FIGURE 2A

A

FDA/NCCN-APPROVED "RESPONSIVE" ACTIONABLE VARIANTS																	
	ONCOGENIC MUTATIONS										COPY NUMBER ABERRATIONS	GENE FUSIONS					
	<i>BRAF</i> oncogenic mutation	<i>BRCA1</i> oncogenic mutation	<i>BRCA2</i> oncogenic mutation	<i>DNMT3A</i> oncogenic mutation	<i>EGFR</i> oncogenic mutation	<i>KIT</i> oncogenic mutation	<i>NPM1</i> oncogenic mutation	<i>PDGFRA</i> oncogenic mutation	<i>PTCH1</i> oncogenic mutation	<i>TSC1</i> oncogenic mutation	<i>TSC2</i> oncogenic mutation	<i>ERBB2</i> amplification	<i>FGFR2</i> fusion	<i>NTRK1</i> fusion	<i>RET</i> fusion		
Cutaneous Melanoma	28.8	2.4	3.2	0.8	0.0	3.2	0	0.8	1.6	2.4	3.2	Breast Cancer	26.5	Oesophageal Cancer	2.2	2.2	0
Lung Adenocarcinoma	0.0	0.0	0.0	0.0	22.2	0.0	0	0.0	0.0	0.0	0.0	Oesophageal Cancer	17.8	Pancreatic Adenocarcinoma	0	0	0.8
Mucosal Melanoma	4.1	0	0	0	0.0	10.2	0	0	0	0	0	Familial Breast Cancer	13.0	Breast Cancer	0	0	0
Ovarian Cancer	0	7.9	3.9	0	0	0	1.3	0	0	0	0	Lung Adenocarcinoma	11.1	Lung Adenocarcinoma	0	0	0
Breast Cancer	0	2.0	3.1	1.0	0	0	0	0	0	0	0	Pancreatic Neuroendocrine	10.8	Familial Breast Cancer	0	0	0
Oesophageal Cancer	0	0	0	2.2	0	0	0	0	2.2	0	0	Ovarian Cancer	5.3	Pancreatic Neuroendocrine	0	0	0
Pancreatic Neuroendocrine	0	0	0	0	0	0	0	0	0	1.1	2.2	Pancreatic Adenocarcinoma	4.5	Ovarian Cancer	0	0	0
Mesothelioma	0	2.0	0	0	0	0	0	0	0	0	0	Mucosal Melanoma	2.0	Mucosal Melanoma	0	0	0
Pancreatic Adenocarcinoma	0	0	1.5	0	0	0	0	0	0	0	0	Mesothelioma	2.0	Mesothelioma	0	0	0
Familial Breast Cancer	0	1.3	0	0	0	0	0	0	0	0	0	Cutaneous Melanoma	1.6	Cutaneous Melanoma	0	0	0

B

FDA/NCCN-APPROVED "RESISTANT" VARIANTS			
	ONCOGENIC MUTATIONS		
	<i>KIT</i> oncogenic mutation	<i>KRAS</i> oncogenic mutation	<i>NRAS</i> oncogenic mutation
Pancreatic Adenocarcinoma	0	89.5	0.8
Mucosal Melanoma	2.0	2.0	22.4
Cutaneous Melanoma	0	0.8	24.8
Ovarian Cancer	0	1.3	1.3
Familial Breast Cancer	0	0	1.3
Lung Adenocarcinoma	0	11.1	0
Mesothelioma	0	0	0
Pancreatic Neuroendocrine	0	0	0
Breast Cancer	0	0	0
Oesophageal Cancer	0	0	0

