ALK I1171T	Crizotinib		NSCLC
	Crizotinib	2	NSCLC
MET AMP	Crizotinib	397	NSCLC
ALK G1269A	Crizotinib/Alectinib	1	NSCLC
ALK I1171N	Crizotinib/Alectinib	1	NSCLC
ALK F1174C	Crizotinib/Ceritinib/Alectinib	3	NSCLC
ALK L1196M	Erlotinib	3	NSCLC
EGFR C797S	Erlotinib/Gefitinib	40	NSCLC
EGFR KEL745KIP	Erlotinib/Gefitinib	1	NSCLC
EGFR L747P	Erlotinib/Gefitinib	5	NSCLC
EGFR p.Val774_Cys775insHisVal	Erlotinib/Gefitinib	1	NSCLC
EGFR T790M	Erlotinib/Gefitinib	705	NSCLC
EGFR T854A	Erlotinib/Gefitinib	1	NSCLC
EGFR T854S	Erlotinib/Gefitinib	1	NSCLC
EGFR V769M	Erlotinib/Gefitinib	6	NSCLC
MET Y1248H	Erlotinib/Gefitinib	3	NSCLC
EGFR A722V	Osimertinib	1	NSCLC
EGFR S492R	Panitumumab/Cetuximab	16	CRC
EGFR G465R	Panitumumab/Cetuximab	14	CRC
EGFR S464L	Panitumumab/Cetuximab	15	CRC
KRAS AMP	Panitumumab/Cetuximab	132	CRC
KRAS A146P	Panitumumab/Cetuximab	3	CRC
KRAS A146S	Panitumumab/Cetuximab	1	CRC
KRAS A146T	Panitumumab/Cetuximab	36	CRC
KRAS A146V	Panitumumab/Cetuximab	14	CRC
KRAS A18D	Panitumumab/Cetuximab	1	CRC
KRAS A59T	Panitumumab/Cetuximab	3	CRC
KRAS D33E	Panitumumab/Cetuximab	4	CRC
KRAS F156V	Panitumumab/Cetuximab	1	CRC
KRAS G12A	Panitumumab/Cetuximab	43	CRC
KRAS G12A KRAS G12C	Panitumumab/Cetuximab Panitumumab/Cetuximab	43	CRC
KRAS G12D	Panitumumah/Cetuximah	192	CRC
KRAS G12R	Panitumumah/Cetuximah	8	CRC
KRAS G12S	Panitumumab/Cetuximab	46	CRC
KRAS G12V	Panitumumab/Cetuximab	157	CRC
KRAS G13C	Panitumumab/Cetuximab	6	CRC
KRAS G13D	Panitumumab/Cetuximab	132	CRC
KRAS K117N	Panitumumab/Cetuximab	10	CRC
KRAS L19F	Panitumumab/Cetuximab	2	CRC
KRAS Q22K	Panitumumab/Cetuximab	5	CRC
KRAS Q61H	Panitumumab/Cetuximab	79	CRC
KRAS Q61K	Panitumumab/Cetuximab	2	CRC
KRAS Q61L	Panitumumab/Cetuximab	17	CRC
KRAS Q61R	Panitumumab/Cetuximab	3	CRC
KRAS V14I	Panitumumab/Cetuximab	3	CRC
NRAS G12A	Panitumumab/Cetuximab	1	CRC
NRAS G12C	Panitumumab/Cetuximab	5	CRC
NRAS G12D	Panitumumab/Cetuximab	13	CRC
NRAS G12S	Panitumumab/Cetuximab	4	CRC
NRAS G13C	Panitumumab/Cetuximab	1	CRC
NRAS G13D	Panitumumab/Cetuximab	7	CRC
NRAS G13R	Panitumumab/Cetuximab	3	CRC
NRAS G13V	Panitumumab/Cetuximab	1	CRC
NRAS Q22K	Panitumumab/Cetuximab	2	CRC
NRAS Q61H	Panitumumab/Cetuximab	5	CRC
NRAS Q61K	Panitumumab/Cetuximab	28	CRC
NRAS Q61L	Panitumumab/Cetuximab	16	CRC
NRAS Q61R	Panitumumab/Cetuximab	18	CRC
ERBB2 L755S	Lapatinib	40	Breast
ERBB2 T798I	Lapatinib	1	Breast
ESR1 D538G	Letrozole/Anastrozole/Exemestane	258	Breast
ESR1 L536H	Letrozole/Anastrozole/Exemestane	27	Breast
ESR1 L536P	Letrozole/Anastrozole/Exemestane	33	Breast
EQD1 5260	Letrozole/Anastrozole/Exemestane	2	Breast
FOLL FOOR			Breast
ESR1 L536Q FSR1 L536R	Letrozole/Anastrozole/Exemestane	20	
ESR1 L536R	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane	20 43	Breast
ESR1 L536R ESR1 Y537C	Letrozole/Anastrozole/Exemestane	43	Breast Breast
ESR1 L536R ESR1 Y537C ESR1 Y537N	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane	43 79	Breast
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane	43 79 184	Breast Breast
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone	43 79 184 62	Breast Breast Prostate
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide	43 79 184 62 51	Breast Breast Prostate Prostate
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide	43 79 184 62 51 103	Breast Breast Prostate Prostate Prostate
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide	43 79 184 62 51 103 3	Breast Breast Prostate Prostate Prostate Prostate
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide	43 79 184 62 51 103 3 23	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide	43 79 184 62 51 103 3 23 3	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide	43 79 184 62 51 103 3 23	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide	43 79 184 62 51 103 3 23 3	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide	43 79 184 62 51 103 3 23 3 6	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib Vemurafenib	43 79 184 62 51 103 3 23 3 6 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 13	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma Melanoma Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12C	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib Vemurafenib Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 13 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma Melanoma Melanoma Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12C KRAS G12D	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib Vemurafenib Vemurafenib Vemurafenib Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 13 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma Melanoma Melanoma Melanoma Melanoma Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12C KRAS G12D KRAS G12S	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib Vemurafenib Vemurafenib Vemurafenib Vemurafenib Vemurafenib Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 13 1 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma Melanoma Melanoma Melanoma Melanoma Melanoma Melanoma Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12C KRAS G12C KRAS G12D KRAS G12S KRAS G12V	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib Vemurafenib Vemurafenib Vemurafenib Vemurafenib Vemurafenib Vemurafenib Vemurafenib Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 13 1 1 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12C KRAS G12C KRAS G12C KRAS G12C KRAS G12V KRAS K117N	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 13 1 1 1 1 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12C KRAS G12C KRAS G12C KRAS G12D KRAS G12S KRAS G12V KRAS K117N KRAS L19F KRAS Q61H	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 13 1 1 1 1 3 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12C KRAS G12C KRAS G12C KRAS G12D KRAS G12F KRAS G12F KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 13 1 1 1 1 1 2	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12C KRAS G12C KRAS G12D KRAS G12D KRAS G12S KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS V14I	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 13 1 1 1 1 1 2 2	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS G12A KRAS G12C KRAS G12C KRAS G12D KRAS G12D KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS V14I NRAS A146T	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 13 1 1 1 1 2 2 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS G12C KRAS G12C KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61R KRAS Q61C KRAS G12C	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 13 1 1 1 1 2 2 1 3	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS G12A KRAS G12C KRAS G12V KRAS G12V KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61R KRAS Q12C NRAS G12C NRAS G12C NRAS G12C NRAS G12C	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 1 1 1 1 1 1 2 2 1 3 3	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS G12A KRAS G12C KRAS G12V KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61C NRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS G12C	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 13 1 1 1 1 2 2 1 3 3 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12C KRAS G12C KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61R KRAS G12C NRAS G12C NRAS G12C NRAS G12C	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 6 1 13 1 1 1 1 1 2 2 1 3 3 1 4	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS G12A KRAS G12C KRAS G12C KRAS G12V KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61C NRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS G12C	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 13 1 1 1 1 2 2 1 3 3 1 4 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12C KRAS G12C KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61R KRAS G12C NRAS G12C NRAS G12C NRAS G12C	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 6 1 13 1 1 1 1 1 2 2 1 3 3 1 4	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS G12A KRAS G12C KRAS G12C KRAS G12V KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61C NRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS G12C	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 13 1 1 1 1 2 2 1 3 3 1 4 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12C KRAS G12C KRAS G12C KRAS G12D KRAS G14C KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61C NRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS G13D NRAS G13D NRAS G13V NRAS G60E	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 13 1 1 1 1 2 2 1 3 3 1 1 1 1 1 1 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS G12A KRAS G12C KRAS G12D KRAS G12S KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61H KRAS Q61R KRAS Q12C NRAS G12C NRAS G12C NRAS G12C NRAS G12V KRAS G13D NRAS G13D NRAS G13T NRAS G13V NRAS G60E NRAS Q61E	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 6 1 13 1 1 1 1 1 2 2 1 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12C KRAS G12C KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61C NRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS Q61R KRAS Q61R KRAS Q61R KRAS Q61R KRAS Q61R KRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS G13D NRAS G13R NRAS G60E NRAS Q61E NRAS Q61H	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 13 1 1 1 1 2 2 1 3 3 1 1 1 1 5	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12D KRAS G12V KRAS G12V KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61R KRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS G13D NRAS G13D NRAS G13V NRAS G60E NRAS Q61H NRAS Q61E NRAS Q61H NRAS Q61E NRAS Q61H NRAS Q61E NRAS Q61H NRAS Q61H	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 1 1 1 1 1 2 2 1 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12C KRAS G12C KRAS G12V KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61R KRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS Q61H KRAS Q61H KRAS Q61H KRAS Q61R KRAS Q61C NRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS Q61H NRAS G13D NRAS G13D NRAS G13C NRAS G13C NRAS G13V NRAS G60E NRAS Q61E NRAS Q61H NRAS Q61H NRAS Q61K NRAS Q61L NRAS Q61L NRAS Q61R	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 1 1 1 1 1 1 2 2 1 3 3 1 1 1 1 1 5 18 1 1 1 1 1 1 1 1 1 1 1 1 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12D KRAS G12D KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61H KRAS Q61R KRAS Q61R KRAS G12D NRAS G12D NRAS G12D NRAS G13D NRAS G13D NRAS G13D NRAS G13V NRAS G60E NRAS Q61H NRAS Q61H NRAS Q61H NRAS Q61E NRAS Q61H NRAS Q61R	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 1 1 1 1 1 1 2 2 1 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS A146T KRAS G12A KRAS G12C KRAS G12D KRAS G12S KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61C NRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS Q61H KRAS Q61H KRAS Q61H KRAS Q61H NRAS G13D NRAS G13D NRAS G13D NRAS G13V NRAS G60E NRAS Q61E NRAS Q61H NRAS Q61R NRAS Q61L NRAS Q61R	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 1 1 1 1 1 1 2 2 1 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12C KRAS G12D KRAS G12D KRAS G12S KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61C NRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS Q61R KRAS Q61R KRAS Q61R KRAS Q61R KRAS Q61R KRAS G12C NRAS G12C NRAS G13D NRAS G13D NRAS G13D NRAS G13D NRAS G13C NRAS G13	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib	43 79 184 62 51 103 3 23 3 6 1 13 1 1 1 1 2 2 1 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12C KRAS G12D KRAS G12D KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61H KRAS Q61R KRAS Q61C NRAS G12C NRAS G12C NRAS G12C NRAS G12C KRAS Q61H KRAS Q61H KRAS Q61H KRAS Q61R KRAS W14I NRAS A146T NRAS G12C NRAS G12D NRAS G13D NRAS G13D NRAS G13D NRAS G13C NRAS G1	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib Imatinib Imatinib Imatinib	43 79 184 62 51 103 3 23 3 6 1 13 1 1 1 1 2 2 1 3 3 1 1 1 1 1 2 2 1 3 3 1 1 1 2 2 1 3 1 1 1 2 2 1 3 1 1 1 1 2 2 1 3 3 3 4 4 5 6 7 8 8 8 8 8 8 8 8 8 8 8 8 8	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12C KRAS G12D KRAS G12S KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61R NRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61R KRAS W14I NRAS A146T NRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS G12C NRAS Q61R KRAS V14I NRAS Q61R KRAS V14I NRAS Q61R KRAS W14I NRAS Q61R NRAS G13D NRAS G13D NRAS G13D NRAS G13C NRAS G12C NRAS G1	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib Imatinib Imatinib Imatinib	43 79 184 62 51 103 3 23 3 6 1 13 1 1 1 1 2 2 1 3 3 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12D KRAS G12D KRAS G12D KRAS G12S KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q12C NRAS G12C NRAS G12C NRAS G12C NRAS G12C KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61R KRAS V14I NRAS G13D NRAS G13D NRAS G13D NRAS G13D NRAS G13C NRAS G13C NRAS G13V NRAS G60E NRAS Q61E NRAS Q61E NRAS Q61E NRAS Q61E NRAS Q61E NRAS Q61C	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib Imatinib Imatinib Imatinib Imatinib	43 79 184 62 51 103 3 3 6 1 13 1 1 1 1 1 1 2 2 1 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS A146T KRAS G12A KRAS G12C KRAS G12D KRAS G12C KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61C NRAS G12C NRAS G12C NRAS G12C NRAS G12C KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61R KRAS W14I NRAS A146T NRAS G13D NRAS G13D NRAS G13D NRAS G13C NRAS G12C NRAS	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib Imatinib Imatinib Imatinib Imatinib Imatinib Imatinib	43 79 184 62 51 103 3 23 3 6 1 1 1 1 1 1 1 1 2 2 1 3 3 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma
ESR1 L536R ESR1 Y537C ESR1 Y537N ESR1 Y537S AR T878A AR H875Y AR L702H AR S889G AR W742C AR D891H AR F877L KRAS A146T KRAS AMP KRAS G12A KRAS G12D KRAS G12D KRAS G12D KRAS G12S KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q12C NRAS G12C NRAS G12C NRAS G12C NRAS G12C KRAS G12V KRAS K117N KRAS L19F KRAS Q61H KRAS Q61R KRAS Q61R KRAS Q61R KRAS V14I NRAS G13D NRAS G13D NRAS G13D NRAS G13D NRAS G13C NRAS G13C NRAS G13V NRAS G60E NRAS Q61E NRAS Q61E NRAS Q61E NRAS Q61E NRAS Q61E NRAS Q61C	Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Letrozole/Anastrozole/Exemestane Abiraterone Abiraterone/Enzalutamide Abiraterone/Enzalutamide Bicalutamide Bicalutamide Enzalutamide Enzalutamide Vemurafenib Imatinib Imatinib Imatinib Imatinib	43 79 184 62 51 103 3 3 6 1 13 1 1 1 1 1 1 2 2 1 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1	Breast Breast Prostate Prostate Prostate Prostate Prostate Prostate Prostate Prostate Melanoma

KIT N655T

KIT N822K

KIT V654A

KIT Y823D

1

4 2

2

Imatinib

Imatinib

Imatinib

GIST

GIST

GIST

GIST

Samples Indication

2

2

7

NSCLC

NSCLC

NSCLC

Therapy

Crizotinib

Crizotinib

Crizotinib

Variant

ALK C1156Y

ALK D1203N

ALK G1202R