

Additional File 2: Table 2: OSU Total Cancer Care Participants

Individual ID	Race	Age	Estrogen receptor	Progesterone receptor	HER2	Exon/ Intron	Codon number	c. description	Effect	Protein
P112375695	Asian	35	negative	negative	negative	Exon 5	132	Unspecified	frameshift	p.K132fs
P112375344	AA	71	negative	negative	ND	Intron 2	NA	c.96+1G>A	splicing	p.?
P112389946	AA	33	positive	positive	negative	Exon 2	ND	Unspecified	large delins	p.(large indel)
P112364406	AA	56	negative	negative	negative	Exon 5	155	Unspecified	missense	p.T155N
P112362493	AA	44	positive	negative	positive	Exon 5	161	Unspecified	frameshift	p.A161fs
P112365693	AA	63	positive	positive	negative	Exon 5	163	Unspecified	missense	p.Y163C
P112373356	AA	36	positive	negative	negative	Exon 5	163	Unspecified	missense	p.Y163H
P112373530	AA	54	positive	positive	positive	Exon 6	220	Unspecified	missense	p.Y220S
P112379754	AA	52	negative	negative	negative	Exon 7	248	Unspecified	missense	p.R248Q
P112362716	AA	76	negative	negative	negative	Exon 8	273	Unspecified	missense	p.R273H
P112358549	AA	45	negative	negative	negative	Exon 8	278	Unspecified	missense	p.P278S
P112382679	AA	56	positive	positive	negative	Exon 8	285	Unspecified	missense	p.E285K
P112417362	AA	54	negative	negative	negative	Exon 8	306	c.916C>T	nonsense	p.R306X
P112375897	AA	59	positive	positive	ND	Exon 10	337	Unspecified	missense	p.R337C
P112422036	AA	49	negative	negative	negative	Exon 8	279	Unspecified	missense	p.G279E
P112421736	AA	46	negative	negative	negative	Intron 6	NA	c.672+1G>C	splicing	p.?
P112404130	AA	53	positive	positive	negative	Exon 4	81	Unspecified	frameshift	p.T81fs
P112362388	AA	53	ND	ND	ND	Exon 9	213	Unspecified	nonsense	p.R213X
P112403402	NHW	60	negative	negative	negative	Exon 8	276	Unspecified	missense	p.A276G
P112373167	NHW	71	positive	negative	positive	Exon 8	273	Unspecified	missense	p.R273H
P112362656	NHW	61	positive	negative	positive	Exon 9	331	Unspecified	nonsense	p.Q331X
P112373536	NHW	47	positive	negative	negative	Exon 5	179	Unspecified	missense	p.H179R
P112373885	NHW	56	negative	negative	positive	Exon 5	126	Unspecified	missense	p.Y126C
P112397415	NHW	44	ND	ND	ND	Exon 4	54	Unspecified	frameshift	p.F54fs
P112364547	NHW	54	negative	negative	negative	Exon 4	90	Unspecified	frameshift	p.S90fs
P112378711	NHW	64	negative	negative	negative	Exon 4	91	Unspecified	nonsense	p.W91X
P112358176	NHW	53	negative	negative	negative	Exon 4	110	Unspecified	frameshift	p.R110fs
P112394697	NHW	42	negative	negative	positive	Exon 4	118	Unspecified	frameshift	p.T118fs
P112359060	NHW	71	negative	negative	positive	Exon 4	124	Unspecified	nonsense	p.C124X
P112361831	NHW	57	negative	negative	positive	Exon 5	126	Unspecified	missense	p.Y126D

P112411939	NHW	40	negative	negative	positive	Exon 5	127	c.380C>T	missense	p.S127F
P112378075	NHW	61	negative	negative	negative	Exon 5	136	Unspecified	nonsense	p.Q136X
P112388779	NHW	41	positive	positive	positive	Exon 5	144	Unspecified	nonsense	p.Q144X
P112372589	NHW	41	positive	positive	negative	Exon 5	149	Unspecified	frameshift	p.S149fs
P112372932	NHW	64	negative	negative	negative	Exon 5	149	Unspecified	frameshift	p.S149fs
P112373164	NHW	67	positive	positive	negative	Exon 5	152	Unspecified	frameshift	p.P152fs
P112395086	NHW	49	positive	positive	negative	Exon 5	162	Unspecified	missense	p.I162N
P112400424	NHW	36	negative	negative	negative	Exon 5	163	Unspecified	missense	p.Y163C
P112361583	NHW	63	negative	negative	positive	Exon 5	163	Unspecified	missense	p.Y163C
P112359003	NHW	52	negative	negative	negative	Exon 5	165	Unspecified	nonsense	p.Q165X
P112358645	NHW	46	negative	negative	negative	Exon 5	168	Unspecified	missense	p.H168R
P112388862	NHW	33	negative	negative	negative	Exon 5	173	Unspecified	missense	p.V173M
P112361860	NHW	54	positive	negative	negative	Exon 5	174	Unspecified	inframe del	p.R174_E180>R
P112363741	NHW	46	positive	positive	negative	Exon 5	175	Unspecified	missense	p.R175G
P112375838	NHW	62	negative	negative	negative	Exon 5	175	Unspecified	missense	p.R175H
P112380195	NHW	66	negative	negative	negative	Exon 5	176	Unspecified	missense	p.C176S
P112362584	NHW	64	negative	negative	negative	Exon 5	178	Unspecified	frameshift	p.H178fs
P112359286	NHW	63	positive	positive	negative	Exon 5	179	Unspecified	missense	p.H179Y
P112373711	NHW	47	positive	positive	negative	Exon 5	180	Unspecified	nonsense	p.E180X
P112374905	NHW	69	negative	negative	negative	Exon 5	181	Unspecified	frameshift	p.R181fs
P112358837	NHW	51	negative	negative	negative	Exon 6	190	Unspecified	frameshift	p.P190fs
P112375135	NHW	48	positive	positive	negative	Exon 6	195	Unspecified	missense	p.I195T
P112384771	NHW	36	positive	positive	negative	Exon 6	196	Unspecified	nonsense	p.R196X
P112363947	NHW	41	positive	positive	negative	Exon 6	196	Unspecified	nonsense	p.R196X
P112404608	NHW	70	negative	negative	negative	Exon 6	196	Unspecified	nonsense	p.R196X
P112378741	NHW	48	negative	negative	negative	Exon 6	199	Unspecified	missense	p.G199V
P112376131	NHW	41	positive	positive	positive	Exon 6	213	Unspecified	nonsense	p.R213X
P112363351	NHW	51	negative	negative	negative	Exon 6	213	Unspecified	nonsense	p.R213X
P112358380	NHW	60	negative	negative	negative	Exon 6	213	Unspecified	nonsense	p.R213X
P112380644	NHW	65	positive	positive	negative	Exon 6	213	Unspecified	nonsense	p.R213X
P112377744	NHW	65	negative	negative	ND	Exon 6	213	Unspecified	nonsense	p.R213X
P112363563	NHW	64	positive	positive	negative	Exon 6	214	Unspecified	missense	p.H214R
P112363507	NHW	61	positive	positive	negative	Exon 6	220	Unspecified	missense	p.Y220C

P112377758	NHW	63	positive	positive	negative	Exon 6	220	Unspecified	missense	p.Y220H
P112359096	NHW	48	positive	negative	negative	Exon 6	220	Unspecified	missense	p.Y220N
P112376363	NHW	50	positive	negative	positive	Exon 7	237	Unspecified	missense	p.M237I
P112389985	NHW	74	positive	positive	negative	Exon 7	238	Unspecified	missense	p.C238F
P112358702	NHW	53	positive	positive	negative	Exon 7	246	Unspecified	missense	p.M246I
P112377008	NHW	36	positive	positive	negative	Exon 7	248	Unspecified	missense	p.R248W
P112385190	NHW	67	negative	negative	positive	Exon 7	248	Unspecified	missense	p.R248W
P112364776	NHW	59	positive	positive	positive	Exon 7	250	Unspecified	missense	p.P250L
P112388081	NHW	57	positive	positive	NA	Exon 7	251	Unspecified	missense	p.I251N
P112361344	NHW	59	negative	negative	positive	Exon 8	266	Unspecified	missense	p.G266E
P112359036	NHW	51	negative	negative	negative	Exon 8	266	Unspecified	missense	p.G266R
P112376610	NHW	36	negative	negative	negative	Exon 8	273	Unspecified	missense	p.R273C
P112361627	NHW	36	positive	negative	negative	Exon 8	273	Unspecified	missense	p.R273C
P112396303	NHW	53	negative	negative	negative	Exon 8	273	Unspecified	missense	p.R273C
P112362214	NHW	69	negative	negative	negative	Exon 8	273	Unspecified	missense	p.R273C
P112375426	NHW	66	positive	negative	negative	Exon 8	273	Unspecified	missense	p.R273H
P112379447	NHW	66	positive	positive	negative	Exon 8	273	Unspecified	missense	p.R273H
P112405247	NHW	52	negative	negative	negative	Exon 8	273	c.818G>A	missense	p.R273H
P112361088	NHW	72	positive	positive	positive	Exon 8	273	Unspecified	missense	p.R273L
P112360892	NHW	57	negative	negative	negative	Exon 8	275	Unspecified	missense	p.C275F
P112384363	NHW	43	positive	positive	negative	Exon 8	275	Unspecified	missense	p.C275Y
P112394696	NHW	65	positive	positive	negative	Exon 8	280	Unspecified	missense	p.R280S
P112377359	NHW	74	negative	negative	negative	Exon 8	281	Unspecified	missense	p.D281G
P112359365	NHW	26	positive	positive	negative	Exon 8	282	Unspecified	missense	p.R282W
P112384375	NHW	56	positive	positive	negative	Exon 8	282	Unspecified	missense	p.R282W
P112363152	NHW	48	positive	negative	negative	Exon 8	284	Unspecified	frameshift	p.T284fs
P112364445	NHW	49	negative	negative	negative	Exon 8	285	Unspecified	nonsense	p.E285X
P112372834	NHW	43	negative	negative	negative	Exon 8	298	Unspecified	nonsense	p.E298X
P112402362	NHW	37	ND	ND	ND	Exon 8	306	Unspecified	nonsense	p.R306X
P112372588	NHW	46	positive	positive	positive	Exon 9	320	Unspecified	nonsense	p.K320X
P112386341	NHW	79	positive	positive	negative	Exon 10	337	Unspecified	missense	p.R337C
P112375821	NHW	37	negative	negative	negative	Exon 10	339	Unspecified	nonsense	p.E339X
P112381341	NHW	51	positive	positive	negative	Exon 10	342	Unspecified	nonsense	p.R342X

P112361266	NHW	60	negative	negative	positive	Exon 5	168	Unspecified	missense	p.H168P
P112361541	NHW	41	positive	positive	positive	Exon 6	220	Unspecified	missense	p.Y220S
P112373818	NHW	37	negative	negative	negative	Exon 7	248	Unspecified	missense	p.R248Q
P112358718	NHW	36	positive	positive	negative	Exon 9	330	Unspecified	missense	p.L330R
P112363177	NHW	32	positive	negative	positive	Exon 5	177	Unspecified	missense	p.P177H
P112361964	NHW	58	negative	negative	negative	Exon 4	93	Unspecified	frameshift	p.L93fs
P112409781	NHW	56	positive	positive	ND	Exon 5	135	c.405C>G	missense	p.C135W
P112361480	NHW	48	positive	positive	positive	Exon 5	179	Unspecified	missense	p.H179R
P112377139	NHW	56	positive	positive	positive	Exon 6	209	Unspecified	frameshift	p.R209fs
P112362002	NHW	39	positive	negative	negative	Exon 7	243	Unspecified	missense	p.M243I
P112376178	NHW	44	positive	positive	negative	Exon 5	175	Unspecified	missense	p.R175H
P112382662	NHW	52	positive	negative	negative	Exon 6	211	Unspecified	frameshift	p.T211fs
P112396584	NHW	40	positive	positive	ND	Exon 7	248	Unspecified	missense	p.R248Q
P112398530	NHW	40	ND	ND	ND	Exon 7	248	Unspecified	missense	p.R248Q
P112361284	NHW	50	negative	negative	positive	Exon 7	248	Unspecified	missense	p.R248Q
P112389947	NHW	42	positive	negative	positive	Exon 8	278	Unspecified	missense	p.P278R
P112374693	NHW	48	negative	negative	negative	Exon 7	258	Unspecified	nonsense	p.E258X
P112359308	NHW	53	positive	negative	negative	Exon 5	176	Unspecified	missense	p.C176Y
P112362918	NHW	74	negative	negative	negative	Exon 7	238	Unspecified	missense	p.C238Y
P112373281	NHW	52	negative	negative	negative	Exon 7	248	Unspecified	missense	p.R248W
P112374212	NHW	61	positive	positive	negative	Exon 5	151	Unspecified	missense	p.P151S
P112359253	NHW	55	positive	positive	negative	Exon 4	51	Unspecified	nonsense	p.E51X
P112364080	NHW	40	ND	ND	ND	Exon 5	181	Unspecified	missense	p.R181H
P112362249	NHW	54	positive	positive	negative	Exon 7	239	Unspecified	frameshift	p.N239fs
P112418742	NHW	76	positive	positive	negative	Exon 8	285	Unspecified	missense	p.E285K
P112362402	NHW	60	negative	negative	negative	Exon 6	220	Unspecified	missense	p.Y220C
P112362322	NHW	38	negative	negative	negative	Exon 6	220	Unspecified	nonsense	p.Y220X
P112362420	NHW	36	positive	negative	negative	Exon 8	287	Unspecified	frameshift	p.E287fs
P112363765	NHW	NA	NA	NA	NA	Exon 7	248	Unspecified	missense	p.R248W
P112413954	NHW	55	positive	positive	negative	Exon 8	266	Unspecified	missense	p.G266E
P112417658	NHW	36	negative	positive	negative	Exon 4	35	Unspecified	frameshift	p.L35fs
P112397641	NHW	53	positive	positive	negative	Exon 4	73	Unspecified	frameshift	p.V73fs
P112407321	NHW	62	negative	negative	negative	Exon 6	210	Unspecified	frameshift	p.N210fs

P112425520	NHW	58	negative	negative	negative	Exon 4	33	Unspecified	nonsense	p.E33X
P112421820	NHW	43	positive	positive	negative	Exon 7	251	c.751A>C	missense	p.I251L
P112414684	NHW	57	negative	negative	negative	Exon 6	193	Unspecified	missense	p.H193P
P112380033	NHW	44	negative	negative	negative	Exon 8	282	Unspecified	missense	p.R282W
P112421601	NHW	51	negative	negative	negative	Exon 8	290	Unspecified	frameshift	p.R290fs
P112402433	NHW	38	positive	positive	negative	Exon 7	241	Unspecified	missense	p.S241F
P112416068	NHW	57	negative	negative	negative	Exon 4	0	c.375G>A	splicing	p.?
P112405793	NHW	47	negative	negative	negative	Exon 6	0	c.672G>A	splicing	p.?
P112419554	NHW	58	negative	negative	negative	Exon 5	173	Unspecified	missense	p.V173M
P112359169	NHW	38	negative	negative	negative	Exon 4	107	Unspecified	nonsense	p.Y107X
P112378192	NHW	41	positive	negative	negative	Exon 7	236	Unspecified	nonsense	p.Y236X
P112414979	NHW	35	positive	positive	ND	Exon 5	133	Unspecified	frameshift	p.M133fs
P112373712	NHW	43	positive	positive	positive	Exon 8	300	Unspecified	frameshift	p.P300fs
P112421543	NHW	26	positive	negative	negative	Exon 7	342	Unspecified	frameshift	p.R342fs

DNE, dominant negative activity; LOF, loss-of-function mutation, GOF, gain-of-function mutation; ND, no data, NA, not applicable; indel, insertion/deletion mutation