

S4 Table. Characteristics of patients with variants of unknown significance in *TP53* (n=25)

Case	Sex	Age at first diagnosis of breast cancer	Site	Path	Subtype	Family history Kind (degree*n)	Second cancer	Nucleotide change	Amino acid change	effect	Zygoty	dbSNP	Other known mutation
P75	F	61	Lt	Medullary	ER+/HER2-	Cervix (1*1), CRC (1*2)	Thyroid, ovary, endometrium, rectum	c.31G>C	p.Glu11Gln	MS	Hetero	rs201382018	<i>MSH2</i>
P76	F	32	Lt	IDC	ER+/HER2-	Panc (2*2), stomach (2*1)	-	c.31G>C	p.Glu11Gln	MS	Hetero	rs201382018	-
P77	M	51	Rt	IDC	ER+/HER2-	-	-	c.31G>C	p.Glu11Gln	MS	Hetero	rs201382018	-
P78	F	41	Rt	IDC	TNBC	Breast (1*1)	-	c.31G>C	p.Glu11Gln	MS	Hetero	rs201382018	-
P79	F	44	Bil(Syn)	IDC	ER+/HER2-	Breast (1*1)	-	c.31G>C	p.Glu11Gln	MS	Hetero	rs201382018	-
P80	F	39	Lt	Adenoid cystic carcinoma	TNBC	Breast (2*1)	-	c.31G>C	p.Glu11Gln	MS	Hetero	rs201382018	-
P81	F	37	Lt	Papillary carcinoma with mucin production	ER+/HER2-	Breast (1*1)	-	c.31G>C	p.Glu11Gln	MS	Hetero	rs201382018	-
P82	F	76	Lt	IDC	ER+/HER2-	Breast (1*1)	-	c.532C>T	p.Arg178Ter	MS	Hetero	rs554738122	-
P83	F	78	Lt	IDC	TNBC	Cervix (1*1)	Stomach	c.566C>T	p.Ala189Val	MS	Hetero	rs121912665	-
P84	F	45	Lt	IDC	ER+/HER2-	Breast (2*1)	-	c.566C>T	p.Ala189Val	MS	Hetero	rs121912665	-
P85	F	53	Rt	IDC	ER-/HER2+	Breast (1*1,2*1), Thyroid (1*1)	-	c.728T>C	p.Met243Thr	MS	Hetero	rs730882006	-
P86 ^{a)}	F	48	Rt	IDC	ER+/HER2-	Breast (1*2), CRC (1*1)	Thyroid, thymoma	c.728T>C	p.Met243Thr	MS	Hetero	rs730882006	-
P87 ^{a)}	F	40	Uni	unknown	unknown	Breast (1*2), CRC (1*1)	-	c.728T>C	p.Met243Thr	MS	Hetero	rs730882006	-
P88	F	38	Rt	DCIS	unknown	Breast (2*1), CRC (1*1), Stomach (2*1), Pros (2*1)	-	c.800G>A	p.Arg267Gln	MS	Hetero	rs587780075	-
P89	F	28	Rt	DCIS	ER+/HER2-	Stomach (2*1), Pros (2*1), Liver (2*1)	-	c.91G>A	p.Val31Ile	MS	Hetero	rs201753350	<i>PALB2</i>
P90	F	54	Rt	IDC	ER+/HER2-	Breast (1*2), CRC (1*1), pros (1*1), stomach (1*1)	-	c.91G>A	p.Val31Ile	MS	Hetero	rs201753350	-

P91	F	51	Lt	IDC	ER+/HER2-	Breast (1*2), stomach (1*1)	-	c.91G>A	p.Val31Ile	MS	Hetero	rs201753350	-
P92	F	69	Rt	IDC	TNBC	Ovary (1*1), lung (1*1)	Urothelial	c.91G>A	p.Val31Ile	MS	Hetero	rs201753350	-
P93	F	54	Rt	IDC	ER+/HER2-	Breast (1*2)	-	c.91G>A	p.Val31Ile	MS	Hetero	rs201753350	-
P94	F	44	Lt	IDC	ER+/HER2-	Breast (1*1), uterus (2*1)	-	c.91G>A	p.Val31Ile	MS	Hetero	rs201753350	-
P95	F	41	Lt	IDC	ER+/HER2-	Breast (2*1)	-	c.91G>A	p.Val31Ile	MS	Hetero	rs201753350	-
P96	F	39	Lt	IDC	ER+/HER2-	Thyroid (1*1)	-	c.920-5C>T	-	DI	Hetero	rs34361146	-
P97	F	44	Lt	IDC	ER+/HER2-	Breast (1*1)	-	c.1015G>A	p.Glu339Lys	MS	Hetero	rs17882252	-
P98	F	51	Rt	LCIS	ER+/HER2-	Breast (1*1)	-	c.1015G>A	p.Glu339Lys	MS	Hetero	rs17882252	-
P99	F	39	Lt	Papillary	ER+/HER2-	Breast (3*1)	-	c.1079G>C	p.Gly360Ala	MS	Hetero	rs35993958	-

Bil(syn), bilateral breast cancer, synchronous; CRC, colorectal cancer; DCIS, ductal carcinoma in situ; DI, deep intronic splicing variant; ER, estrogen receptor; F, female; HER2, human epidermal growth factor receptor 2; IDC, invasive ductal carcinoma; LCIS, lobular carcinoma in situ; Lt, left; M, male; MS, missense; Pros, prostate; Rt, right; TNBC, triple negative breast cancer. ^{a)}P86 and P87 are the siblings.