Biochemical Genetics (2022) 60:1402–1407
https://doi.org/10.1007/s10528-021-10161-9

CORRECTION

Correction to: *In-Silico* analyses of Nonsynonymous Variants in the BRCA1 Gene

Sidra Arshad[1] · Irfan Ishaque[1] · Sidra Mumtaz[1] · Muhammad Usman Rashid[2] · Naila Malkani[1]

Published online: 27 November 2021

Correction to: Biochemical Genetics (2021) 59:1506–1526
https://doi.org/10.1007/s10528-021-10074-7

In this article Table 1 and 2 did not use the mentioned (in materials and methods) nucleotide sequence of the human *BRCA1* gene (NM_007294.3) (ID P38398) for the analysis that's why some of the amino acids do not correspond to the residue in P38398 and NM_007294.3. But this discrepancy is removed in the below given Table 1 and 2 and can be replaced with the Table 1 and 2 of the article.

The original article can be found online at https://doi.org/10.1007/s10528-021-10074-7.

✉ Naila Malkani
nailamalkani@gcu.edu.pk

[1] Department of Zoology, GC University, Lahore, Pakistan

[2] Department of Basic Sciences Research, Shaukat Khanum Memorial Cancer Hospital and Research Centre (SKMCH&RC), Lahore, Pakistan

Table 1 SIFT analyses prediction of 122 BRCA1 nsSNPs

	rs Ids	Variant type	Codon change	Amino acid
1	rs41293455	M	CTG [C/G]GA AAT	R1443G
2	rs80357164	M	AAG [T/A]GT GAC	C39S
3	rs80357025	M	GGG C[C/G]C TTC	P1771R
4	rs28897672	M	CAG [T/G]GT CCT	C61G
5	rs28897672	M	CAG [T/C]GT CCT	C61R
6	rs55770810	M	GAA [C/T]GG ACA	R1699W
7	rs41293461	M	TTC T[G/C]G GTG	W1718S
8	rs41293463	M	AAC A[T/G]G CCC	M1775R
9	rs41293463	M	AAC A[T/A]G CCC	M1775K
10	rs45553935	M	GAA G[T/G]C AGA	V1736G
11	rs45553935	M	GAA G[T/C]C AGA	V1736A
12	rs55650082	M	CTC [G/A]AA TTA	E597K
13	rs55851803	M	TTA T[G/A]T AAG	C64Y
14	rs80356860	M	CTA G[G/C]A ATT	G1706A
15	rs80356862	M	ACT G[C/G]T GGG	A1623G
16	rs80356880	M	TCC A[C/G]A AAG	T37R
17	rs80356890	M	ACT [A/G]CT CAT	T1685A
18	rs80356907	M	GAA [G/C]AG ATA	E649Q
19	rs80356914	M	GAG TG[G/T] GTG	W1837C
20	rs80356915	M	AGT [G/C]AA AGA	E445Q
21	rs80356942	M	CGA [G/A]AG TGG	E1836K
22	rs80356945	M	ACT [C/A]AG GAA	Q780K
23	rs80356950	M	CTT [G/A]AA CTA	E624K
24	rs80356988	M	CTA [G/C]AG GGA	E1559Q
25	rs80356991	M	CCC [G/A]AA AAT	E143K
26	rs80357003	M	GTT T[C/T]A AAG	S864L
27	rs80357005	M	ACT [G/A]AA TTG	E638K
28	rs1064796143	M	GGA A[T/C]T GCG	I1707T
29	rs80357061	M	GTT A[T/G]G AAA	M1689R
30	rs80357061	M	GTT A[T/C]G AAA	M1689T
31	rs80357064	M	TTA [T/G]GT AAG	C64G
32	rs80357065	M	CTG [T/A]GT GGT	C1787S
33	rs80357069	M	TGT G[G/A]T GCT	G1788D
34	rs80357093	M	CAG T[G/A]T CCT	C61Y
35	rs80357104	M	CAG T[C/T]T ATT	S1722F
36	rs80357107	M	TGG G[T/A]G TTG	V1838E
37	rs80357111	M	A[T/C]G GAT	M1T
38	rs80357147	M	CTT [A/G]AA GAA	K719E
39	rs80357150	M	TTT T[G/T]C ATG	C47F
40	rs80357167	M	ACT [G/A]AG CCA	E489K
41	rs80357202	M	TTG [G/A]AA GAA	E1352K
42	rs142074233	M	AAT [C/G]AG GGA	Q534E

Table 1 (continued)

	rs Ids	Variant type	Codon change	Amino acid
43	rs273897656	M	GCT T[T/C]A ATA	L440S
44	rs397507206	M	AAG T[C/T]A TTT	S988L
45	rs397507239	M	ATG [A/C]AA ACA	K1690Q
46	rs80357212	M	CAT [G/A]CA ATT	A1823T
47	rs80357222	M	GTT [A/T]GC TAT	S1715C
48	rs80357239	M	TTC TG[G/T] GTG	W1718C
49	rs80357251	M	GCA [G/A]AA GAG	E879K
50	rs80357253	M	GCC [A/G]AA GTA	K408E
51	rs80357276	M	GAC C[A/G]C ATA	H41R
52	rs80357281	M	GGG C[T/C]A GAA	L1764P
53	rs80357269	M	TTA T[C/T]A TTG	S1262L
54	rs80357287	M	[A/G]TG GAT	M1V
55	rs80357309	M	TTA [G/C]AA CAG	E1419Q
56	rs80357327	M	TTT [T/A]GC AAA	C44S
57	rs80357370	M	TTT [T/G]GC ATG	C47G
58	rs80357382	M	AAA [A/G]GG AGC	R71G
59	rs80357389	M	GAA A[G/T]G TCA	R1495M
60	rs80357389	M	GAA A[G/A]G TCA	R1495K
62	rs80357438	M	ATC T[T/C]A GAG	L22S
63	rs80357446	M	TTT T[G/T]C AAA	C44F
64	rs80357446	M	TTT T[G/A]C AAA	C44Y
65	rs80357450	M	AGA G[G/A]A GAT	G1738E
66	rs80357463	M	GAA A[T/G]C TGT	I1766S
67	rs80357475	M	AT[G/T] GAT	M1I
68	rs397508902	M	CTC [G/A]AA AAA	E575K
69	rs80357498	M	AAG T[G/A]T GAC	C39Y
70	rs80356898	N	ATT [C/T]AG AAT	Q563[a]
71	rs28897686	N	ACC [G/T]AG TGT	E1250[a]
72	rs41286296	N	GGA [G/T]AA AGG	E755[a]
73	rs41293455	N	CTG [C/T]GA AAT	R1443[a]
74	rs41293461	N	TTC T[G/A]G GTG	W1718[a]
75	rs55650082	N	CTC [G/T]AA TTA	E597[a]
76	rs80357429	N	TCT T[C/T]A ACC	S1596L
76	rs56329598	N	GTT [A/T]AA GTG	K739[a]
77	rs62625306	N	ACA [G/T]AA CCA	E797[a]
78	rs80356864	N	AAC [C/T]AG AAG	Q54[a]
79	rs80356866	N	TCT [C/T]AG GAA	Q1281[a]
80	rs80356868	N	ACA [G/T]AG GAC	E1817[a]
81	rs80356873	N	TAC [C/T]AG TGC	Q1846[a]
82	rs80356875	N	AAA [G/T]AA TTT	E720[a]
83	rs80356914	N	GAG TG[G/A] GTG	W1837[a]
84	rs80356915	N	AGT [G/T]AA AGA	E445[a]

Table 1 (continued)

	rs Ids	Variant type	Codon change	Amino acid
85	rs80356923	N	GAA [G/T]AG AAC	E1214[a]
86	rs80356928	N	ACG [A/T]AA GCT	K583[a]
87	rs80356935	N	GAA TG[G/A] AAT	W353[a]
88	rs80356942	N	CGA [G/T]AG TGG	E1836[a]
89	rs80356945	N	ACT [C/T]AG GAA	Q780[a]
90	rs80356950	N	CTT [G/T]AA CTA	E624[a]
91	rs80356982	N	AGT [C/T]AG TGT	Q804[a]
92	rs80356991	N	CCC [G/T]AA AAT	E143[a]
93	rs80357011	N	CAG [C/T]AG AGG	Q1396[a]
94	rs80357035	N	TGT [G/T]AA CAA	E904*
95	rs80357067	N	GAA [C/T]AA AGC	Q1447[a]
96	rs80357068	N	GAC T[C/G]A CAT	S398[a]
97	rs80357083	N	AAT [G/T]AG GTA	E418[a]
98	rs80357136	N	GAA [C/T]AG CCT	Q1135[a]
99	rs80357148	N	GTG [G/T]AA AGG	E1494[a]
100	rs80357204	N	TAC [A/T]AG TTT	K1667[a]
101	rs80357220	N	CCT [A/T]AA AAG	K607[a]
102	rs80357239	N	TTC TG[G/A] GTG	W1718[a]
103	rs80357254	N	ACA [A/T]AA TGT	K1290[a]
104	rs80357269	N	TTA T[C/A]A TTG	S1262[a]
105	rs80357282	N	AGG [A/T]AG TCT	K614[a]
106	rs80357303	N	TTG [A/T]AA GTT	K1601[a]
107	rs80357304	N	ATA [G/T]GA GCA	G484[a]
108	rs80357305	N	GAA [C/T]AG CAT	Q1420[a]
109	rs80357343	N	TCC [A/T]AA CAA	K1322[a]
110	rs80357355	N	AAA [A/T]AG TAC	K654[a]
111	rs80357381	N	AAA TG[T/A] GTG	C801[a]
112	rs80357401	N	GAA [G/T]AA TTT	E1661[a]
113	rs80357424	N	AAT [G/T]AA ATA	E1060[a]
114	rs80357432	N	AGA [G/T]AA TCC	E1754[a]
115	rs80357440	N	TCT T[C/A]A CAG	S1298[a]
116	rs80357456	N	GAG [C/T]AA AGC	Q1359[a]
117	rs80357461	N	AGT [G/T]AA TTG	E1302[a]
118	rs80357485	N	AAA [C/T]AA AGT	Q1096[a]
119	rs138608489	N	AAA [G/T]AA CCA	E1490[a]
120	rs397508833	N	TGC T[C/G]A GAG	S361[a]
121	rs397508903	N	AAA [G/T]AA TCT	E577[a]
122	rs80356857	S	ACT CA[G/A] CAG	Q1395Q

N nonsense, *M* missense, *S* synonymous

[a]No amino acid variation

Table 2 SIFT and PROVEAN analyses prediction of 61 *BRCA1* nsSNPs

	Codon change	Amino acid	SIFT	PROVEAN	Mutation Taster
1	ACT A[C/T]T CAT	R1699W	D	N	Del
2	AAG [T/A]GT GAC	C39S	D	N	Del
3	GGG C[C/G]C TTC	P1771R	D	N	Del
4	CAG [T/G]GT CCT	C61G	D	N	Del
5	CAG [T/C]GT CCT	C61R	D	N	Del
6	TTC T[G/C]G GTG	W1718S	D	N	Del
7	AAC A[T/G]G CCC	M1775R	D	N	Del
8	AAC A[T/A]G CCC	M1775K	D	N	Del
9	GAA G[T/G]C AGA	V1736G	D	N	Del
10	GAA G[T/C]C AGA	V1736A	D	N	Del
11	CTC [G/A]AA TTA	E597K	T	Del	Del
12	TTA T[G/A]T AAG	C64Y	D	N	Del
13	CTA G[G/C]A ATT	G1706A	D	N	Del
14	TCC A[C/G]A AAG	T37R	D	N	Del
15	ACT [A/G]CT CAT	T1686A	D	N	Del
16	GAA [G/C]AG ATA	E649Q	D	Del	Del
17	GAG TG[G/T] GTG	W1837C	D	N	Del
18	AGT [G/C]AA AGA	E445Q	D	N	N
19	CGA [G/A]AG TGG	E1836K	D	N	Del
20	ACT [C/A]AG GAA	Q780K	D	Del	Del
21	CTT [G/A]AA CTA	E 624K	D	Del	N
22	CTA [G/C]AG GGA	E1559Q	D	N	N
23	GTT T[C/T]A AAG	S864L	D	Del	Del
24	ACT [G/A]AA TTG	E638K	D	Del	Del
25	GGA A[T/C]T GCG	I1707T	D	N	Del
26	GTT A[T/G]G AAA	M1689R	D	N	Del
27	GTT A[T/C]G AAA	M1689T	D	N	Del
28	TTA [T/G]GT AAG	C64G	D	N	Del
29	CTG [T/A]GT GGT	C1787S	D	N	Del
30	TGT G[G/A]T GCT	G1788D	D	N	Del
31	CAG T[G/A]T CCT	C61Y	D	N	Del
32	CAG T[C/T]T ATT	S1722F	D	N	Del
33	TGG G[T/A]G TTG	V1838E	D	N	Del
34	A[T/C]G GAT	M1T	D	N	Del
35	TTT T[G/T]C ATG	C47F	D	N	Del
36	ACT [G/A]AG CCA	K1489E	T	Del	N
37	TTG [G/A]AA GAA	E1352K	D	N	Del
38	GTT [A/T]GC TAT	S1715C	D	N	Del
39	TTC TG[G/T] GTG	W1718C	D	N	Del
40	GCA [G/A]AA GAG	E879K	D	Del	Del
41	GAC C[A/G]C ATA	H41R	D	N	Del
42	GGG C[T/C]A GAA	L1764P	D	N	Del

Table 2 (continued)

	Codon change	Amino acid	SIFT	PROVEAN	Mutation Taster
43	[A/G]TG GAT	M1V	D	N	ND
44	TTA [G/C]AA CAG	E1419Q	D	N	ND
45	TTT [T/A]GC AAA	C44S	D	N	ND
46	TTT [T/G]GC ATG	C47G	D	N	Del
47	AAA [A/G]GG AGC	R71G	D	N	Del
48	GAA A[G/T]G TCA	R1495M	D	N	Del
49	GAA A[G/A]G TCA	R1495K	D	N	Del
50	TCT T[C/T]A ACC	S1596L	D	N	Del
51	ATC T[T/C]A GAG	L22S	D	N	Del
52	TTT T[G/T]C AAA	C44F	D	N	ND
53	TTT T[G/A]C AAA	C44Y	D	N	ND
54	AGA G[G/A]A GAT	G1738E	D	N	ND
55	GAA A[T/G]C TGT	I1766S	D	N	ND
56	AT[G/T] GAT	M1I	D	N	ND
57	AAG T[G/A]T GAC	C39Y	D	N	Del
58	GCT T[T/C]A ATA	L440S	D	Del	Del
59	AAG T[C/T]A TTT	S988L	D	Del	N
60	ATG [A/C]AA ACA	K1690Q	D	N	ND
61	CTC [G/A]AA AAA	E575K	D	Del	Del

B benign, *D* damaging, *Del* deleterious, *N* neutral, *ND* no data, *P* pathogenic, *T* tolerated