LETTER TO THE EDITOR

Redundant Designations of BRCA1 Intron 11 Splicing Mutation; c. 4216-2A>G; IVS11-2A>G; L78833, 37698, A>G

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Hartikainen et al. [2000] recently reported a splicing mutation in intron 11 of the BRCA1 gene. This mutation, designated as c.4216-2A>G is identical to a previously reported mutation, accession number 2411, IVS11-2A>G of the Breast Cancer Information Core (http://www.nhgri.nih.gov/Intramural _research/Lab_transfer/BIC/). The prior report appears to indicate that this variant is not confined to the Finnish population.

The experimental findings in this report are confirmed by information theory-based analysis of the mutation [Rogan et al., 1998]. The information content of the 8.8-bit natural acceptor is decreased to 0.6 bits, which is predicted to inactivate it. A 10.2-bit cryptic splice site is apparently activated by strengthening a 2.6-bit acceptor one nucleotide upstream from the natural site.

The recommended nomenclature for designating splicing mutations permits three distinct, equivalent designations for this mutation [Antonarakis et al., 1998]. The original report was presumably overlooked, possibly as a result of the redundant definitions. The accession number, the coordinate, and the nucleotide change in the genomic BRCA1 sequence [Smith et al., 1996] unambiguously designate the mutation as: L78833, 37698, A>G. This representation is valid [Antonarakis et al., 1998], and has the advantage of being easily parsed. We suggest that it be used for completely determined gene sequences.

REFERENCES

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