Reviewer’s report

Title: Polymorphisms in the glucocerebrosidase gene and pseudogene urge caution in clinical analysis of Gaucher disease allele c.1448T>C (L444P)

Version: Date: 18 July 2006

Reviewer: Ellen sidransky

Reviewer’s report:

General
While the current version of the paper reads better, the authors still do not appear to have a good grasp of the complexity of this locus, and the current screening technique would not detect a recombinant allele and hence would not provide accurate diagnostics. Moreover, the authors do not seem to have examined both references that were suggested. It is true that nomenclature is confusing and difficult to compare. This is why we stressed that the standard nomenclature recommended by the journal Human Mutation be used and that the name of all reference sequences be listed. To our careful reading, most of the novel changes reported by the authors were previously published in the paper by Martinez-Arias et al in Hum Mutation 17:191-8, 2001. Specifically, the change that they call 7031 corresponds to 4291 in the pseudogene (see tables 1 and 3), 7159 corresponds to 4419, and 7354 to 4614. The alteration in 4291 was reported in many diverse populations and not just the Mayans. Furthermore, 7319, 7354 and 7368 are all part of a common complex Gaucher allele and the authors may actually be reporting a complex mutation introduced into the gene itself as opposed to a pseudogene polymorphism i.e. they may be amplifying a complex allele containing the 55 bp deletion.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

What next?: Reject because scientifically unsound

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
I have no competing interests