Reviewer's report

Title: Candidate High Myopia Loci on Chromosomes 18p and 12q do Not Play a Major Role in Susceptibility to Common Myopia

Version: 2 Date: 17 May 2004

Reviewer: Patrick Edery

Reviewer's report:

General
This study by G. Ibay et al. describes a combined parametric and non-parametric linkage analysis using 12 markers on chromosome 12q and 18p in 38 Jewish Ashkenazi families and 40 Amish families with moderate/mild myopia. The authors show that both 12q and 18p loci, previously reported to show linkage to high myopia, do not play a major role in common myopia.

Three out of the 38 Jewish Ashkenazi families and 1 out of the 40 Amish families show two-point and multipoint lod scores above 1 on chromosome 12q while 3 other Amish families show lod scores above 1 on chromosome 18p. Although linkage to either 12q or 18p loci in these families cannot be fully ruled out at this stage, these results could have been obtained by chance.

Comment. It is a well written paper which describes a study consistent with that by Mutti et al., Am J Med Genet 2002, 112 : 355-60, although different in design with regard to the populations studied. The role of major genes, with respect to that of environmental factors, is probably lower in common myopia than in high myopia (and the frequency of phenocopies may be higher), thus making it more difficult to map genes for common myopia than those for high myopia.

Conclusion. In my opinion, provided this manuscript by G. Ibay et al. is reviewed by an expert statistician, it should be published in BMC Medical Genetics without any major revision.

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

None

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

The results of parametric linkage analyses obtained at locus D18S474 in Amish family 3049 are slightly different in table 5 (two-point and multipoint lod scores are respectively 1.38 and 1.27) than in the results section of the manuscript (lod score :1.30). These results should be stated more accurately.

Discretionary Revisions (which the author can choose to ignore)

None

What next?: Accept after minor essential revisions
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes

Declaration of competing interests:
None