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: 18 May 2004

Reviewer: Larry Atwood

Reviewer's report:

General

This report attempts to replicate previous significant linkages of myopia to chromosomes 12 & 18. No evidence for replication is found.

The question addressed is well defined, the methods are appropriate and rigorously applied. The data are sound and the discussion is balanced and thorough. The discussion is particularly commendable for the acknowledgement that the study design is not similar to the previous studies that found linkage. The hypothesis and conclusions are consistent with this limitation.

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Major Compulsory Revisions

None

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Minor Essential Revisions

None

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Discretionary Revisions

My critical comment concerns the few families that do show some evidence for linkage as reported in Table 5. The authors seem to find this interesting but give no evidence of significance. Are the number of families and the family specific lodscores that show linkage significantly different than would be expected under the null hypothesis of no linkage? Given this group's obvious talent for simulation, I think a Monte Carlo test of this question would not be too difficult. It is possible the putative myopia alleles have such low frequency in the population that they would be expected to occur in only a few families. Such evidence would not invalidate the conclusion of this report, but would be interesting.

The figures are not useful. I did not refer to them once as I read the manuscript. The maximum multipoint lod scores could be incorporated into Tables 3 & 4 and the figures deleted.

What next?: Accept after discretionary revisions

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
None