Reviewer's report

Title: HECTD2, a candidate susceptibility gene for Alzheimer's disease on 10q

Version: 1 Date: 25 June 2009

Reviewer: Paul Hollingworth

Reviewer's report:

This manuscript describes a simple association study of a single SNP in HECTD2. HECTD2 is a good positional and functional candidate gene for AD. The tested SNP shows a pattern of effects (MAF 5.8% in cases compared to 3.9% in controls) which provide promise that HECTD2 could be implicated in AD susceptibility. However, the association is not statistically significant. The paper is well written and most of the study limitations are well addressed in the manuscript. The main issue with the paper surrounds power, as such the findings certainly warrant follow up in a larger, more powerful sample (perhaps including cognitively screened, elderly controls).

Major Compulsory Revisions

None

Minor Essential Revisions

Page 2. References not correctly formatted

Page 8. Use of chisquare test for genotypic effects might not be appropriate given the number of expected minor allele homozygotes in the population is very low. The authors might consider an alternative.

Discretionary Revisions

The authors should provide power calculations to detect genetic effects of various sizes.

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

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.