Reviewer's report

**Title:** Role of the H1 haplotype of microtubule-associated protein tau (MAPT) gene in Greek patients with Parkinson's disease

**Version:** 4  **Date:** 19 March 2009

**Reviewer:** Andrew Singleton

**Reviewer's report:**

This is a simple manuscript describing a candidate gene association study in Parkinson's disease (PD). The authors describe the assessment of the common H1/H2 defining ins/del polymorphism, rs242562 and rs2435207. The authors report association of the H1/H1 genotype with disease but no association of an H1 sub-haplotype.

Comments:

1- it would be useful to include p values for association in table 2

2- the issue of power is of genuine concern for the sub-haplotyping - this analysis is only performed in H1 carriers and thus the authors are performing a comparison between ~80 patients and ~60 controls; I suspect that the authors do not have power to exclude an effect of the magnitude one might suspect for the sub-haplotype; a power calculation would be informative in this context.

3- In the discussion the authors talk about interaction of MAPT with other genes on the extended MAPT haplotype (such as saitohin) - I don't follow the reasoning in this section, perhaps you could clarify.

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

**Quality of written English:** Needs some language corrections before being published

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

**Declaration of competing interests:**

I declare that I have no competing interests