Reviewer's report

**Title:** Lack of association between PRNP 1368 polymorphism and Alzheimer's disease or vascular dementia

**Version:** 2 **Date:** 24 December 2008

**Reviewer:** Maurizio Pocchiari

**Reviewer's report:**

**Major Compulsory Revisions**

1. The Authors should avoid repeating in the “Discussion” what they have already described in the “Background”. For example, first paragraph of “Discussion” and first/second paragraphs of “Background”, second paragraph of “Discussion” and third paragraph of “Background”. It would be preferable to have a comprehensive description of the state of art of the problem in the “Background” and use the “Discussion” for an in depth analyses of the data and for constructive speculations.

2. The Authors should comment on their only positive results (see table 4) and on the absence of the HWE for VaD patients

**Minor essential revisions:**

1. Abstract. PRNP should be in italics.

2. Background, page 1, first paragraph: “…senile plaques commonly contain PrP deposit in AD…” . Which kind of PrP? PrPc or PrPres? Reference 2, for example refers only to PrPc.

3. Background, page 5. The polymorphic codon 219 of PRNP is a susceptible factor to sporadic CJD only in the Asiatic population (see Petraroli and Pocchiari, Am J Hum Genet 1996).

4. Methods, page 6. The Authors should clarify whether AD patients were sporadic or familial. The Authors should also provide statistical evidence that controls, AD, and VaD patients were matched for age and sex.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests