Reviewer's report

Title: Stable cognitive performance in relapsing remitting multiple sclerosis patients during 2 years treatment with intramuscular interferon-beta-1a: an observational study in daily practice

Version: 2 Date: 24 December 2010

Reviewer: Jacques De Keyser

Reviewer's report:

1. Is the question posed by the authors well defined? YES
2. Are the methods appropriate and well described? YES
3. Are the data sound? YES
4. Does the manuscript adhere to the relevant standards for reporting and data deposition? YES
5. Are the discussion and conclusions well balanced and adequately supported by the data? YES
6. Are limitations of the work clearly stated? YES
7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? YES
8. Do the title and abstract accurately convey what has been found? YES
9. Is the writing acceptable? YES

Minor Essential Revisions

1. Abstract - Background: "we investigated the effectiveness...in postponing cognitive decline" is not entirely correct because there was no control group. The authors can only write "we investigated cognitive function during a 2 year treatment with ....."

   Same for text in the Background on page 4 line 19.

2. In the discussion the authors should mention something on the natural history of cognitive decline in RRMS over a 2 year period. What decline do we expect on these psychomteric tests over a 2 year period?

   In addition, it would be appropriate to discuss the underlying mechanism of cognitive decline in MS and the mechanism by which INF beta might stabilize cognitive functions.

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.

**Declaration of competing interests:**
I declare that I have no competing interests