Reviewer's report

Title: Small non-coding RNA signature in Multiple Sclerosis patients after treatment with Interferon-beta

Version: 2 Date: 26 May 2013

Reviewer: Maurizio Taglialatela

Reviewer's report:

The authors have addressed some of the issues I raised previously, though I still believe that the paper needs some revision.

Major compulsory revision.

In particular:

1. Fig. 5. The individual data points seem different from those reported in previous versions of the manuscript. Please explain. It is not a matter of symbol size, but rather of rough data. Have the authors included more patients? If so, please explain and change the figure legend.

2. I still have concerns about the significance of the results for IFN-beta response. If the authors (as they claim in their reply to the referees) have data showing that non-responders do not show the increase in miR-26a-5p levels, these data should be included.

Minor essential revision

1. Please do not speculate about glutamate release (page 15). PSD95 is a postsynaptic protein, and it is not likely to be involved in glutamate release. Glutamate signalling is a much better generic term.

Level of interest: An article of importance in its field

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:

None