Reviewer’s report

Title: New therapeutic approach to Fragile X syndrome based on a randomized placebo-controlled double-blind phase II pilot trial to test the effectiveness and safety of a combination of Ascorbic acid and Alpha-tocopherol.

Version: 1 Date: 14 March 2014

Reviewer: Barbara Bardoni

Reviewer’s report:

Minor Essential revisions

The manuscript by de Diego Otero et al., is very interesting and represents a novel approach to treat the Fragile X syndrome.

I found the background too long and complex. I would suggest to the authors to simplify the message.

In the Discussion section the authors mention the treatment with arbaclofen. This therapy has currently been blocked. For more details, please check the paper « de Esch CE, Zeidler S, Willemsen R. Neurosci Biobehav Rev. 2013 Oct 30. pii: S0149-7634(13)00236-4. doi: 10.1016/j.neubiorev.2013.10.012. «

A table summarizing and comparing the different trials for FXS would be very useful for readers.

Level of interest: An article of outstanding merit and interest 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 do not have any conflict of interest