Reviewer's report

Title: Effect of Peginterferon Beta-1a on MRI Measures and Freedom from Measured Disease Activity: Results from a Randomized Controlled Trial in Relapsing-Remitting Multiple Sclerosis

Version: 2 Date: 25 August 2014

Reviewer: hans-peter hartung

Reviewer's report:

This is paper number 2 emanating from the pegylated IFNγ1a sc(ADVANCE) phase 3 trial the main outcomes of which were recently published in Lanc Neurol. Here the authors provide additional data related to MR outcomes and freedom from measured disease activity.

Active study drug administered fortnightly increased the proportion of patients with absence of clinical / MR indices of disease activity in comparison to placebo or 4-weekly injections. The also report additional MR metrics of disease activity at week 24.

The data is robust, corroborate the initial observations and provide important relevant additional information.

The paper is well written.

The authors should mention in the figure legends that the depicted 48 week data on T2 lesions, T1 hypointensity lesions, new active lesions have already been published in the Lanc Neurol paper (table 2 and appendix).

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 have received fees for consulting and speaking from bayer, biogen idec, genzyme, geneuro, merckserono, novartis, opexa, roche, teva sanofi aventis with approval by the president of our university.

I do not hold stocks, patents and do not have any other financial or non-fincancial competing interests.