Reviewer’s report

Title: MicroRNA-29 family expression and its relation to antiviral immune response and viro-immunological markers in untreated HIV-1-infected patients

Version: 2
Date: 22 August 2014
Reviewer: Maria Carla Re

Reviewer’s report:

This is an original manuscript which contains interesting data about the contribution of the miRNA-29 family on the clinical progression of HIV-1 infection (e.g. the negative influence of miRNA 29 levels on proviral load) and on the activation of antiviral immune response.

Results of the manuscript are well presented and methods well described. The manuscript can be considered for publication upon addressing only minor points mentioned below:

• Minor Essential Revisions:
  1) Method section: MiRNA should be corrected in mRNA (page 4);
  2) #-glucuronidase primers/probe sequence or relative reference, should be included in the context of RT/Real Time assay (page 5);
  3) mRNA should be removed from the text in the discussion section (page 9)

• Major Compulsory Revisions:
  1) Authors should discuss whether the expression of miRNA29 in different cell subtypes could influence the impact of miRNA29 on the integrated HIV-DNA levels;
  2) Since the study evaluated the impact of miRNA29 expression on IL-32/MxA pathway, it is advisable a discussion about the effect of miRNA29 levels on IL-32 and type I and III IFN subtypes as well as the possible effect of IL-32 or IFN on the expression of miRNA29 members;
  3) Several studies have associated a negative effect of IFN alpha/beta levels on the clinical outcome in patients with a chronic HIV infection. Thus, the Authors should clarify the importance of the presence of a negative correlation between miRNA29 levels and those of IL-32/MxA in the context of the high rate on innate immune activation observed during in vivo HIV-1 infection.

Level of interest: An article of importance in its field

Quality of written English: Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
No competing interests