Reviewer's report

Title: Impact of Y181C and/or H221Y Mutation Patterns on HIV-1 Phenotypic Resistance to Available Non-Nucleoside and Nucleoside Inhibitors in China

Version: 4 Date: 20 February 2014

Reviewer: Stefano Alcaro

Reviewer's report:

In this manuscript Li and coworkers report a study on mutations registered onto the HIV-1 reverse transcriptase after the treatment of Chinese patients with NNRTI and NRTI inhibitors. The work in interesting especially as concerns induced mutations such as the H221Y and its relationships with others. The are some formal criticism to be satisfied before recommending its publication.

1. The topic is clearly related to “reverse transcriptase”, but the enzyme name is missing in the title as well as in the abstract. The only traceable place is in the keywords, so the first correction is to put it at least in the title to speed up its recognition in database queries.

2. In the introduction a better mention about the mechanism of mutations should be done. It would be appropriate to cite also a review manuscript entitled “Computational Analysis of Human Immunodeficiency Virus (HIV) Type-1 Reverse Transcriptase Crystallographic Models Based on Significant Conserved Residues Found in Highly Active Antiretroviral Therapy (HAART)-Treated Patients” Current Medicinal Chemistry, 2010, 17, 290-308.

Minor issues:

Page 12, 1st row, correct the commas after the mutations.

The EC50 should always be reported with the under script number.

The English language should be revised by a native-speaker.

Level of interest: An article of limited interest

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:

I declare that I have no competing interests