Reviewer's report

Title: E-cadherin gene re-expression in chronic lymphocytic leukemia cells by HDAC inhibitors.

Version: 2 Date: 31 October 2012

Reviewer: Ruta Navakauskiene

Reviewer's report:

In this manuscript the authors investigate E-cadherin gene expression changes in CLL cells obtained from patients and after treatment with HDACI. The authors point their attention on E-cadherin expression in different CLL specimens after treatment with HDACI MS-275, histones H3 and H4 acetylation in both E-cadherin promoter and exon 11 regions and E-cadherin association with #-catenin. Although epigenetic changes in CLL are of great interest, there are some major points to be addressed.

Major comments:
1. There is no evaluation of cell growth inhibition and apoptosis after cells treatment with HDACI, cell cycle analysis after CLL cell treatments should be performed as well as.
2. The ChIP data are not convincing (Figure 3A). No-antibody and Input samples have to be shown for any of the treatment conditions.
3. In RT-PCR analysis a positive control, e.g. GAPDH should be included.
4. Statistical methods should be used for the indication of significant differences from untreated/control CLL cell samples.
5. In Figure 3B is presented HDAC 1-9 gene expression analysis performed by RT-PCR. However, there is no description of results neither in the “Results” nor in the “Discussion” sections.
6. The manuscript needs organize better. In the Materials and Methods section should be described all methods that were used, i.e. PBMC isolation, chromatin immunoprecipitation, cell transfection, etc. In the Results sections all Figure should be described.

Level of interest: An article whose findings are important to those with closely related research interests

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