Reviewer's report

Title: A combination of p300 and Braf expression in the diagnosis and prognosis of melanoma

Version: 2 Date: 11 March 2014

Reviewer: VERA SADDI

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BMC Cancer

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We recommend the publication of the article with Minor Essential Revisions.

1. Is the question posed by the authors well defined?

The question posed by the authors is clear and well defined, consisting in the analysis of the possible association between p300 and Braf expression in melanoma patients with an objective of exploring a possible opportunity to combine histone acetylation and Braf inhibition.

2. Are the methods appropriate and well described?

Most of the methods were described in previous articles published by the authors and only the references are cited in the paper. Some important details are missing, including: the procedure for antigen retrieval; antibodies used in immunohistochemistry assays (clones, dilution, species, fabricators, etc); Fluorochrome and chromogenic labels.

The authors used a classification and regression tree (CRT) to analysis the patient expression data in order to differentiate nevi and melanoma; however, this was not mentioned in the statistical analysis. We suggest a better description of this method.

3. Are the data sound?

The data are well described, and the results are presented in a very logic way.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?

The results are very relevant, and a combination of Braf and p300 analysis by immunohistochemistry will certainly be very helpful for the clinical pathologist in order to distinguish melanoma from nevi.

5. Are the discussion and conclusions well balanced and adequately supported by the data?

The discussion and conclusions are well balanced; however, the basic relationship between MAPK pathway, Braf and p300 could be further discussed.
Could the authors hypothesize this relationship? How does the cross-talk between Braf and p300 happen? How could this relationship be experimentaly tested?

6. Are limitations of the work clearly stated?
Investigations on Braf mutational status are crucial to elucidate the relationship between Braf and p300, and this is probably the main limitation of the study. But, we agree that this subject can be investigated in future studies.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
Previous studies developed by the authors and by others are cited in the paper and some of them are crucial for the conclusions presented by the authors.

8. Do the title and abstract accurately convey what has been found?
The title and the abstract definitely describe what was found by the authors.

9. Is the writing acceptable?
The article is very well writing and easily comprehensible.

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 declare that I have no competing interests' below. If your reply is yes to any, please give details below.