Reviewer's report

Title: Expression of histone deacetylases 1,2 and 3 in urothelial bladder cancer

Version: 1 Date: 25 November 2013

Reviewer: Antoinette Perry

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Major compulsory revisions
1. The combination of HDAC1 and tumour grade did not outperform either ki-67 or tumour growth pattern as a pathological predictor of outcome (with a P value of <0.0001 compared with 0.04). Why were these variables not combined with HDAC1? Some explanation should be provided as to the advantage of using this paired combination over other significant pathologic factors.

Minor comments
1. Abstract, “High HDAC expression levels were seen in a relevant proportion of all investigated urothelial carcinomas” – the term “relevant proportion” is somewhat vague and uninformative, please rephrase. It is again used in the results section on page 7.
2. Methods section: some ambiguity as to whether minimum follow-up time was 30 months or 32 months. Please clarify and remove repetition.
3. Results page 7, “additionally HDAC-2 was associated with adjacent carcinoma in situ”. I don’t understand what is meant by this?
4. Figures are incorrectly labelled at 3, 4 and 5, whereas the main text and legend refers to them as 3A, 3B an 3C.
5. In the text, the combination of HDAC1 and grade has a p value of 0.044, whereas in figure 3A the p value is stated as 0.035.
6. In the discussion section, it is commented that higher HDAC expression is correlated with ki-67 activity. Why can this simple correlation not also be addressed in this study, when expression of both has been measured and the numbers appear to be larger in this study.

Figure 1, 2 ok – why is there no examples of HDAC3 expression shown?

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

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.