Reviewer's report

Title: Human papillomavirus (HPV) types 16, 18, 31, 45 DNA loads and HPV-16 integration in persistent and transient infections in young women.

Version: 2 Date: 24 August 2010

Reviewer: Paul K Chan

Reviewer's report:

Comments:
The paper describes a study on characterizing the viral load and integration status of common HPV types in a prospective cohort of young girls. The study has been well conducted and has generated a comprehensive set of data that are lacking at present. Following suggestions may help improving the manuscript.

Minor essential revisions:
1. A table to present the background information of this cohort of university students would be useful, including no. of visits completed, no. of sexual partners, smoking status etc; with respect to their HPV status (e.g. overall any HPV infection).

2. A figure to show the cumulative % of HPV positive subjects over time.

3. Figure 1, can the author separate the incident infections from persisting infections in the graph, or at least incident from non-incident?

4. “HPV integration is rare and only detected in one sample”. This is a key finding and deserves more detail description. While using real-time PCR to measure the relative quantitation of E2 and E6 is a reasonable approach, one potential drawback is the difference in sensitivity between the E2 and E6 assays. Can the author supplement more information to reassure that the observation was not due to bias in assay sensitivity? Were any reference cell lines tested?

5. On page 9, presenting the mean HPV16 E6/E2 ratio is not informative. Please provide data on no. (%) of samples within different range of ratio, e.g. #1.0, 1-1.5, #2.0.

6. TS-PCR, though specific, is not sensitive enough to detected integration. In this study it provides no added value. Consider deleting this session.

Level of interest: An article of importance 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.