Reviewer's report

Title: Human Papillomavirus (HPV) in breast tumors: prevalence in a group of Mexican patients.

Version: 2 Date: 28 May 2008

Reviewer: Andreas Widschwendter

Reviewer's report:

Reviewer's report
-----------------
- Major Compulsory Revisions

1. Results page 7: It is not valid to calculate an OR for the risk of developing breast cancer based on this study. The title of this manuscript shows the correct aim of the study.

2. Conclusion page 10: The fact that the authors of this study did not find HPV DNA in benign lesions (e.g. fibroadenoma) supports not the etiologic role of the HPV infection in the development of breast cancer because these benign lesions are not precursor lesions of breast cancer.

- Minor Essential Revisions

1. The 43 control cases (phyllloid tumors, fibroadenoma, fibrocystic disease) are described as non epithelial malignant breast lesions (Abstract page2, Methods page 4) and non-malignant epithelial breast lesions (Results page 7). The correct term should be used in the whole manuscript.

2. Background, page 4: The study is not designed to clarify the role of HPV in the development of breast cancer. It is a study to investigate the prevalence of HPV in breast cancer tissue.

3. Methods, page 4: What were the selection criteria for the investigated samples?

4. Methods page 4: Did the clinical information also include the history of any HPV associated diseases like anogenital intraepithelial neoplasia or invasive cancer?

5. DNA Isolation, page 5: Which control genes were used?

6. HPV PCR Systems, page 5: The distribution of the investigated samples according to the quality of the extracted DNA (fragent size) should be reported.

7. Is there an association between HPV DNA status in breast cancer tissue and outcome of the disease (overall survival, disease free survival)?

8. Discussion page10: It is unlikely that HPV DNA is lost in tumors >4cm.
9. Reports of HPV in breast cancer from unselected patients (without history of HPV associated anogenital lesions) are conflicting. Up to now five studies have been published showing no evidence for HPV in breast cancer. These conflicting results should be discussed.

- Discretionary Revisions

1. Background, page3: To which population does the percentage (11,3% and 0,4%) belong?

**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'