Reviewer's report

Title: Analysis of mutations in the E6 oncogene of Human Papillomavirus 16 in cervical cancer isolates from Moroccan women

Version: 3 Date: 8 July 2013

Reviewer: Alyssa Cornall

Reviewer's report:

Major compulsory revisions
Page 7, first paragraph: 'In accordance with established guidelines, a nucleotide sequence was assigned to an HPV type if it corresponded with a known HPV genotype by >95%.' The authors have referenced Wu, et al which is incorrect, and there is some doubt as to where this guideline actually originated - if the origin of this guideline cannot be accurately established, the interpretation of these results is also on doubt. Please clarify with the correct reference.

Minor essential revisions
It is good that the authors have used only single 16 positive samples for E6 variant analysis, please indicate this in the methods.

Page 8, Results, Subtype distribution, second paragraph, the following sentence is unclear as to meaning: 'Sequence analysis of the HPV amplimers allowed the identification of 5 carcinogenic HPV genotypes: 16, 18, 31, 33 and 35.' Do the authors mean that the primers they used only amplified these types, or only these five types we're observed; where there sequences which could not be identified because satisfactory matches could not be found in the database?

There are some inconsistencies in the references section, please review carefully and correct.

Minor grammatical and spelling corrections are required.

Discretionary revisions
Could the relationship between variant and disease stage be influenced by the age of the patient, rather than the aggressiveness of the virus? It appears that the later stage cancers are seen most often in the older patients, which mostly seem to have been infected with non-European subtypes.

Page 14: the relationships between particular E6 subtypes and the cellular signalling pathways mentioned are interesting but could be expanded on slightly so that the non-expert does not need to find another reference to realise the significance of these interactions.

Discussion on pages 13 and 14 could be arranged better so that the delineation between each discussion point is more clear; at the moment, several topics seem
to have been thrown together with little distinction between them.

**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.