Reviewer's report

Title: Characterization of antibodies in single-chain format against the E7 oncoprotein of the Human papillomavirus type 16 and their improvement by mutagenesis

Version: 1 Date: 7 November 2006

Reviewer: Lawrence Banks

Reviewer's report:

General
This is an interesting piece of work which attempts to improve the efficiency of action of a single-chain format antibody against the HPV16 E7 protein. For one of the mutations an apparently improved molecule has now been obtained, and this has great potential for further studies. There are a couple of points which, if addressed would greatly strengthen the manuscript.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1. The reactivity of the new M2 antibody against E7 should be shown in comparison to the wt antibody.
2. One assay should be included to indicate whether or not the improved antibody is actually better in vivo. This could be done either by determining its half life or by analysing its anti-proliferative effects in an E7 expressing cell.
3. The authors may also wish to comment on or do an assay using a combination of Fv43M2 with Fv51.
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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)
See point 3 above

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
I have no competing interests