Reviewer's report

Title: Slug Down-Regulation by RNA Interference Inhibits Invasion Growth in Human Esophageal Squamous Cell Carcinoma

Version: 6 Date: 8 September 2010

Reviewer: Ian Beales

Reviewer's report:

Major Compulsory Revisions

1. The western blot in figure 1a is exactly the same blot as the authors have already published (Med Oncol doi: 10.1007/s12032-010-9652-7). This blot needs redoing at publishable quality and only including the squamous cell lines - the adeno and lung cancer cell lines are irrelvent to the current paper.

2. The text and results section imply that figure 3 is a 5-part figure (including 3 d and e) but the figure only contains 3 a - c and no d or e.

3. The use of chi-squared to assess the data in figure 3 is inappropriate, these are not frequency distributed variables - the methodology as outlined in the paper would be be appropriate.

4. Figure 4 remains problematical. The presentation of the data as raw od data is an impovement but it no appears that non of the cultures actually proliferate in culture? One would expect that the crude OD in a MTT assay would increase over 3 days in culture as cells proliferated. If the cells are not proliferating, the authors should comment and if the cells are proliferating the figure should reflect this.

5. The MTT assay is a surrogate for viable cell numbers and not specifically proliferative activity: figure 3 clearly shows that slug siRNA dramatically increases apaoptosis (25% of cells) and yet figure 4 suggests that slug siRNA does not alter cell numbers: these seem to be incongruent and the manuscript needs to contain a relevent comment.

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests