Reviewer's report

Title: Characterization of cells recovered from the xenotransplanted NG97 human-derived glioma cell line subcultured in a long-term in vitro

Version: 1 Date: 23 June 2008

Reviewer: Randy Jensen

Reviewer's report:

Discretionary Revisions

The introduction should describe that most patients with these tumors are dead by two years.

The introduction is too long and unfocused, some of it could be moved to the discussion section.

I am not sure what value figure 1 has when the essential information is contained in Table 1.

I can't tell what figure 2b is for, this should be described better in both the figure legend and the results section.

The discussion should be broken up into smaller subsections for reader use.

The discussion should contain a paragraph or two discussing the limitations of having this tumor grown originally in the mouse flank. It should also be discussed that vimentin and GFAP expression in GBM is highly variable from patient to patient.

Minor Essential Revisions

The calculation of the doubling time does not make any sense, this needs to be clarified.

What is being shown in figure 3? I don't see a change in either GFAP or vimentin expression over time. This is even less convincing with the 40kDa band in one lane and 57 kDa bands in the other, what is going on here?

Figure 4 should contain panels all at the same magnification. If they are trying to demonstrate decreasing expression of GFAP and increasing Vimentin over time, having the cells at different magnification does not allow for the reader to make this distinction.
Please make a distinction in the results section of what is different between figures 6 and 7.

Discussion of why the immunohistochemistry was only done on passages 19-83 should be made, why not include passages 5-19 or 84-100?

Why was flow only done on one passage, shouldn't it be done on a number of different passages to determine differences over time. Table 2 does not show any statistics. Were there multiple samples tested to give a sense of variability (Standard deviation) of the the expression of the different markers. This should be compared to the original cell line.

The same question applies to cytogenetics. The cytogenetics of the original cells taken from the mouse flank, and if available from the original human tumor.

Major Compulsory Revisions
None

**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:**

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