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: 10 July 2008

Reviewer: ivana magnani

Reviewer's report:

MAJOR COMPULSORY REVISIONS

- Consider to delete from “A few study(line 4)……… to malignant phenotype” (line 8).

- The authors didn’t investigate the “role” of ontogenetical characteristics(?), adhesion molecules and chromosomal instability. They studied the localization by immunocytochemical and Western blot analysis of specific antibodies. Thus the discussion is too much speculative about the role of markers such as GFAP, Vimentin and Integrins during in vitro progression of NG97ht cell line.

- Chromosomal abnormalities detected in NG97ht are not specified. How do the authors conclude that cytogenetic analysis shows structural and numerical abnormalities of grade III/IV astrocytoma?

- Given that NG97ht karyotype retained human rearranged chromosomes, they could ask if such chromosome markers were already present in the original culture before the xenotransplant. The acquisition of these data might improve the understanding of the karyotype evolution in vivo. To disclose cryptic derivative chromosomes FISH analysis could be employed.

- The authors should adequate the conclusion by the data.

MINOR ESSENTIAL REVISIONS

- Include the Country’s name in the affiliations

- Write correctly “NG97(ht)” in the text

Abstract:

- consider to start with “Our laboratory set up…”

- consider to cancel last sentence “This work…..”

Keywords: consider to delete “glioma” and “tumor progression” and include in “vitro progression” and “immunodetection”.

Introduction:

- The beginning is too long: the authors should start with the explanation that
established cell lines are useful tools to study the tumor progression, giving literature data on glioma.

- The sentence “Cells from the tumor mass (NG97ht) were then processed and cultivated in vitro as an adherent monolayer and had the same morphological characteristics of the original culture before the xenotransplant “ doesn’t constitute the background. It sounds the aim of the work and could be moved at the end of the background.

- Add references about “in vivo cell fusion in cancer”.

- Consider to cancel the sentence “In the endeavor… till “this cell”.

- As regards the last sentence: the results here reported didn’t “explain” the “tumor spontaneous progression of the astrocytoma”

M&M:

- Consider to delete: expression of GFAP and vimentin/ evaluation of integrins/ evaluation of integrins ligands

- Replace “Immunohistochemistry” with Immunocytochemistry

Results:

- complete Fig. 3 with a molecular weight marker

- include in: Results of GFAP and Vimentin expression the alphabet letters of Fig.4

**Level of interest:** An article of limited interest

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

'I declare that I have no competing interests' below.