Reviewer's report

**Title:** Expression of delta-catenin is associated with progression of human astrocytoma

**Version:** 2  **Date:** 18 September 2011

**Reviewer:** Silvia Helena Rabenhorst

**Reviewer's report:**

The authors examined the relationship between the expression level of delta-catenin and the progression of astrocytoma. They found that delta-catenin overexpression was higher in grade III-IV compared to grade II astrocytoma and that promotes astrocytoma cell invasion through upregulation of Rac1 activity. The question posed by the authors is well defined and the methods adequately described.

Does the manuscript adhere to the relevant standards for reporting and data deposition?

Currently there are no studies evaluating the relationship between delta-catenin expression and clinicopathological features in astrocytic tumors. It is very interesting to examine the relationship between delta-catenin expression and the clinicopathological factors. The findings of this study show an increase of expression and the involvement of delta-catenin with proliferation, which leads to the possibility that there is a pathway of carcinogenesis in astrocytoma tumors progression involving delta-catenin. This open the possibility to different strategies to treat individual astrocytoma patients.

However, the manuscript under consideration needs - despite of an interesting topic - some major modifications:

**Major Coments**

1. Because authors have enough samples they should examine the difference between the expression pattern of delta-catenin according to tumor location. A statistical analysis is necessary to look for a significant association between expression and tumor location. This kind of analysis may can differentiate the tumors delta-catenin positive since 65% was not.

2. Table 1 is not referenced in the text. Please, authors should make the table description in the results section.

**Minor comments:**

1. ABSTRACT: In the background, the name CTNND2 should be in italics.

2. BACKGROUND: In the sentence "... It is the most common brain tumor and..." should be changed to "... It is the most common primary brain tumor and..." since the most common brain tumors are metastatic.
3. MATERIALS AND METHODS: In the item “Immunohistochemical" include 
"positive control” in the phrase "Normal bronchial epithelium present in the tumor 
slides was used as a control".

3. DISCUSSION: In the discussion, several placements were performed without 
inclusion of references. Such as: "... which is consistent with results from 
previous studies" and "...In addition, previous studies proved that...".

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**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'