Reviewer's report

Title: GLUT1 gene is a potential hypoxic and prognostic marker in colorectal cancer patients

Version: 5 Date: 13 April 2009

Reviewer: Cornelis Sier

Reviewer's report:

Although I still do not agree with quite a number of aspects of this paper, e.g. the relevance of the cell line model used, the use of words like ‘prognostic’ in relation with the number of patients in the study, and the general discussion of the data, this version of the manuscript contains some essential improvements. Because this is already the third version, I presume that the editors consider this paper fitting to the journal and I respect the policy of BMC Cancer. Personally I think the response to the well meant suggestions of the reviewers is rather inadequate. The most obvious example is the way the authors dealt with the remarks about Table 4. Following their own definition, overexpression for HK1 should be (6/10x100=)60%, PGK1 70%, and PGK1 90% in stead of 70, 80 and 80. Apparently, 2 times in a row the authors did not carefully look at their own data. Furthermore, when a reviewer asks 2 times for more discussion of their most interesting data, the authors respond with a completely inadequate sentence. Nevertheless I still think that these data, presented in a proper way, deserve publication.

Minor remarks:

- Abstract: The background section should indicate that this study is about colorectal cancer. The same goes for the cell lines used in the methods section.
- Check spelling of words like tumor(i)genesis.
- There are now 3 sentences in the introduction describing the aim of the study and they are not corresponding.
- Word ‘addition’ missing after CO2 (page 8, line 21)?
- Too many decimals for SE (page 10, line 7, 19, and 20, e.g. 51.5±13.4.
- The reference to Figure 6 at page 16 is incorrect.
- Figure 1 should be simplified by omitting the first 2 columns (control) because the actual controls in this experiment are the data for normoxia. Actually, if normoxia are put at 100%, than only the last 4 columns are necessary in this figure.
- Tables 5 and 6 should be one table.
- The significant P-value of GLUT1(0.004) in Table 5, which actually forms the center of the paper, is over-interpreted: When the same statistical procedure is used for UICC groups II and III the P-value is actually 0.94, indicating that the the
previous significance is completely dependin on the low number of patients in group I.

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

**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.