Reviewer's report

Title: Over-Representation of Specific Regions of Chromosome 22 in Cells from Human Glioma Correlate with Resistance to 1,3-bis(2-chloroethyl)-1-nitrosourea

Version: 1 Date: 20 September 2005

Reviewer: Peter Warnke

Reviewer's report:

General
This is a small study on chemoresistance to BCNU in glioblastoma. Using classical caryotyping and in situ hybridisation the authors can show that in "chemoresistant" tumor cells parts of chromosome 22 are overrepresented. To use both clinically recurrent tumors and cell cultures from both the original and the recurrent tumor seems to be an elegant way to look at genetic changes accrued in the resistant population.

The major problem of the paper is the small number of specimens (N=3) and the fact that all tumors also received radiotherapy (though partly overcome by the in vitro creation of resistant cell lines).

The clinical information is too sparse. It is important to know whether the tumors just recurred after radiotherapy and BCNU or were truely resistant to BCNU i.e. grew under chemotherapy or at least did not shrink. Furthermore the authors should touch on the fact that their patients were younger than the classical GBM-population and consequently showed very long survival. Most important is a critical comment on the significance of the major finding i.e. the over-representation of genetic material from chromosome 22q. As this over-representation is distributed over a wide range and heterogeneous amongst the three cell lines statistical measure of it's reliability would be helpful.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.