Reviewer's report

Title: Boron neutron capture therapy induces apoptosis of glioma cells

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Reviewer: Shinji Kawabata

Reviewer's report:

There are some "Minor Essential Revisions" required in this manuscript as follows.

They tested three deferent glioma cell lines showed different boron concentration in the cells after exposure for BPA (Fig. 1). From the neutron irradiation cell survival assay, these cells showed same therapy efficacy by BNCT because of its higher RBE. They should discuss about it. In the Fig. 1, U251 and SHG44 are Not seems like “exponencially” increase in boron content.

It is necessary to rewrite it to a comprehensible a little more description about the irradiation (ex. dose calculation, differences among the groups) so that the readers other than the specialist of this field may also understand.

Overcome the Glioma stem cell is in-front topics in the Neuro-Oncology. And the authors discuss about the possibility of induce glioma stem cell death by same mechanism using BNCT, however, in this paper the authors should not discuss about it from their results because the recent clinical BNCT results using BPA is still insufficient.

There are some miss understanding of the References sited in this manuscript. In the meeting special issue of Appl Radiat Isot (Ref. #1), Dr. Barth picked up other group’s result (Kawabata et al 2009) in the meeting overview. So, Ref. #4 should be instead of Kawabata et al 2009 (also in Appl Radiat Isot).

Some characters does not recognized in this publisher's PDF, so careful check of the specific characters should be required. (ie. alpha, degree)

Citation of the references include some mis-labeling. ( ie. [11-13]#, [3][3])

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.