Reviewer's report

**Title:** Moderate effect of c-MYC expression on response to radio- and chemotherapy in childhood medulloblastoma

**Version:** 2  **Date:** 27 October 2010

**Reviewer:** Stephanie Hehlgans

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General evaluation:
Von Bueren et al. investigated the role of c-MYC overexpression in two medulloblastoma (MB) cell lines in the cellular response to irradiation or chemotherapeutic drugs. C-MYC overexpression sensitized mainly DAOY cells to irradiation and treatment with etoposide, cisplatin, carboplatin and doxorubicin as shown by MTS assay, while UW228 cells are less susceptible to c-MYC enhanced radio- and chemosensitivity. In the following experiments the authors concentrated on c-MYC related changes of clonogenic survival, cell-cycle progression and apoptosis upon irradiation and treatment with chemotherapeutics of DAOY cells. Additionally, c-MYC mRNA expression was analysed in 62 residual MB tumors but revealed no differences between responders to postoperative radio- or chemotherapy compared to non-responders.

In summary, the manuscript is well written, the experiments are well described and the findings might be of significant interest concerning the function of c-MYC in anti-cancer treatments. Therefore, this manuscript should be considered for publication after addressing the following questions.

**Major Compulsory Revisions:**

1. Fig. 1-5: Statistics are missing; which differences are statistically significant? Statistical differences must be calculated from independent experiments, not from sixplicates or triplicates from one representative experiment.
2. Fig. 4: How many independent experiments were performed? Standard deviations and statistics are missing.
3. Fig. 6: How many independent experiments were performed? What means IR dose/Cisplatin/Etoposide in hours, time after IR/ cisplatin/etoposide treatment (h)?

**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