Reviewer's report

Title: RNA interference-mediated c-MYC inhibition prevents cell growth and decreases sensitivity to radio- and chemotherapy in childhood medulloblastoma cells

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Reviewer: Jia Liu

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In this reviewed manuscript, the biological role of c-Myc in medulloblastoma cells was investigated via RNAi approach. The results showed two-fold roles of this oncprotein in medulloblastoma cells in terms of growth promotion under normal culture condition and apoptotic reduction under combinational treatment of siRNA and chemotherapeutic reagent. This is a short straightforward study and is technically acceptable.

Comments:
1. c-Myc downregulation results in reduced chemosensitivity of MB cells. The authors should address the cellular and molecular reasons leading to this situation. Otherwise, the work looks more or less descriptive.
2. The correlation of c-Myc downregulation with chemosensitivity is one of the key points in this study. However, the methods used for addressing this issue are limited.
3. FACS was used to evaluate fractions of cell cycle phases. It could also reveal the percentage of apoptotic cells in the cell populations. However, the data were not shown. Alternatively, in the evaluation of apoptotic sensitivity, FACS analysis should be performed on c-Myc siRNA and control siRNA cell populations with and without drug treatments, because the apoptotic index obtained from this approach would be more informative and objective.

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

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests