Reviewer’s report

**Title:** The prosurvival role of autophagy in Resveratrol-induced cytotoxicity in human U251 glioma cells

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**Reviewer:** ljubica Harhaji

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In this study Li Jun et al. demonstrate that natural food product resveratrol induces autophagy in human U251 glioma cells, what constrains drug induced apoptosis. The authors suggest that autophagy inhibitors can increase the cytotoxicity of resveratrol to tumor cells

1. It would be better to use terms: reduce, decrease or diminish viability instead of inhibit viability.

2. Considering that viability decrease is more than 50% (Fig. 1A) and that % of apoptotic cells after 48h of treatment with 150 #M resveratrol is only 11.82 (Fig. 1B), one can conclude that resveratrol probably inhibits tumor cell proliferation as well. Therefore it is better to use the term growth inhibition instead of cell death on Fig. 1A.

3. It is not clear what is UNT and what is difference between UNT and control (Fig. 1B, 5A and 5B).

4. All the results should be presented in logical order. It would be better to fuse Fig. 1 with Fig. 3A and describe them together, and thereafter to explain Fig. 2 and Fig 3B.

5. Fig. 2 can be contracted. Bar graphic is enough to present all the results from 6 separated FACS analyses (Fig. 2B). Otherwise, axes on FACS graphics should be marked more clearly. In addition standard deviations on Fig. 2B are susceptibly small to be calculated from 3 separated experiments. The similar situation is with almost all other standard deviations (Fig. 1A, 3B, 6A).

6. Fig. 4 and 5 could be fused.

7. The effect of bafilomycin on cell death is not presented on Fig. 6B, although that is stated in the results. All standard deviations are missing on Fig. 6B.

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**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: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.