Reviewer's report

Title: Cisplatin sensitivity is enhanced in non-small cell lung cancer cells by regulating epithelial-mesenchymal transition through inhibition of eukaryotic translation initiation factor 5A2

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Reviewer: Michele Caraglia

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In the present manuscript the authors describe that low concentrations of the hypusine synthesis inhibitor GC7 have little effect on NSCLC viability, but enhance cisplatin cytotoxicity in NSCLC cells. Moreover, GC7 also reverses mesenchymal phenotype in NCI-H1299 and prevents A549 cells undergoing EMT after exposure to TGF-β1. eIF5A-2 knockdown resulted also in EMT inhibition. The manuscript is potentially interesting but the following changes are required prior to proceed with the acceptance.

Major Changes

1) The authors should appropriately discuss the different sensitivity of A549 to the potentiation induced by both GC7 and eIF-2A knock down to the antiproliferative activity of cisplatin. It should be useful to assess the ratio between eIF5A 1 and 2 in the cell lines that they have used in their experiments.

2) The authors should evaluate the possible synergism between GC7 and cisplatin on the growth inhibition of NSCLC using an opportune software for the calculation of the synergism expressed as combination index. For methods please see and cite the following manuscript: Bruzzese F et al. Clin Cancer Res. 2006 Jan 15;12(2):617-25.

3) The authors should assess the effects of GC7 and cisplatin on the expression of the two isoforms of eIF-5A in the NSCLC cell lines.

4) The expression of eIF5A1 in the siRNA transfected cells should be also evaluated in order to be sure of the specific effect of downmodulation.

5) Figure 5D and E and Figure 6 C and D. The authors should show a quantitization of the results as columns in an additional figure.


8) Finally, a revision of the English language style is required.

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Needs some language corrections before being published

**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