Reviewer's report

Title: Myofibrillogenesis Regulator 1 (MR-1) is a Novel Biomarker and Potential Therapeutic Target for Human ovarian cancer

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Reviewer: RONG-GUANG SHAO

Reviewer's report:

This manuscript entitled “Myofibrillogenesis regulator 1 (MR-1) is a novel biomarker and potential therapeutic target for human ovarian cancer” by Lu et al represent over-expression of MR-1 both in ovarian cancer tissues and cells. The data also show that MR-1 associated with cell adhesion and migration and that anti-cancer drug decreased expression of MR-1 in cancer cells. This is a novel and potentially important study, indicating that MR-1 is a novel biomarker and potential therapeutic target for ovarian cancer.

Minor points:

1. Title “… Human ovarian cancer” should be “…Human Ovarian Cancer”

2. Abstract “… 26 ovarian cancer tissue samples and 20 ovarian cyst samples was analyzed” should be “… samples were analyzed”.

3. p2, the sentence in Method, “After transfection of pMX-MR-1 plasmid in 293T cells, the MR-1 was overexpressed and the cells’ spread and migration were enhanced. Stable transfection of SKOV3 cells with short hairpin DNA (shDNA)-pGPU6/GFP/Neo plasmid against MR-1 expressing led to inhibitions of cell proliferation, migration and adhesion. These indicated that MR-1 was pivotal for ovarian cancer growth.” should be described in Results.

4. p2, last paragraph “… to develop the full therapeutic potential target of MR-1” may be better phrased “… be an actual therapeutic target”.

5. p3, paragraph 2 “… (9)(Ref)” should be “… (8)” and “… (8)” should be “… (9)”.

6. p9, the subtitle “MR-1 is differentially expressed in human malignant and benign ovarian tumors” may be “MR-1 is differently expressed …”?

7. p11, “MR-1 could be a potential therapeutic target” is not suitable for subtitle.

8. p11, “… both the mRNA and protein levels of MR-1 were increased exclusively in the cells treated with carboplatin at 160 mg/L(Fig 6B)” is not correct and please carefully check Fig 6B.

9. Fig 6A, the optical microscope is not good for analysis of apoptotic morphology, suggesting use apoptotic kit such as TUNEL assay.

10. MR-1 and GAPDH should be labeled in Fig 1A.

11. In Fig 6B and Fig 6C, what are ZI-0... and KA-0…? And indicated concentrations are not correct.
12. The figure legends should be simplified.

**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, but I do not feel adequately qualified to assess the statistics.