Reviewer's report

Title: Incarvine C suppresses proliferation and vasculogenic mimicry of hepatocellular carcinoma cells via targeting ROCK inhibition

Version: 2
Date: 19 July 2015

Reviewer: Orit Itzhaki

Reviewer's report:

Peer review for the manuscript entitled: "Incarvine C suppresses proliferation and vasculogenic mimicry of hepatocellular carcinoma cells via targeting ROCK inhibition".

In this report Zhang et al describe possible mechanism of targeting VM in HCC, a poor prognosis malignancy, with the aim to find novel and effective treatment strategies.

The authors describe the anti-tumor effect of IVC, an ester alkaloid derivate of Chinese medical herbs and further suggested this agent as a novel anti-VM agent that acts through ROCK pathway inhibition. They further characterized this effect and studied the underlying molecular mechanisms of ROCK signaling inhibition by IVC. VM-targeting strategies may have profound implications in the development of future novel anti-cancer lines of therapy.

Minor Comments:

Abstract:
1. Please add the full name before abbreviations:
   Row 6: Cell Proliferation Cytotoxicity Assay Kit or Cell Counting kit-8 (CCK-8).
   Row 9: Rho-associated, coiled-coil-containing protein kinase (ROCK)
2. Row 13: consider rephrasing the first sentence.

Methods:
Matrigel Invasion assay: row 17: "the number of cell migrating through the Matrigel... was determined" How? Which method was used?

Results: Please indicate if the same effect (except proliferation) was observed in other HCC cell lines. In addition It would be elegant to provide data supporting that IVC is act in vivo as well (HCC mice model).

Discussion:
Please consider adding potential future plan.

Overall this is a good report, which highlights IVC as an anti-metastatic and anti-VM agent. The paper is succinct and clear. The presented experiments are well controlled and the conclusions are supported by the data.

Question/Answers
1. Is the question posed by the authors well defined?
Yes.

2. Are the methods appropriate and well described?
Yes.

3. Are the data sound?
Yes.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
Yes.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
Yes.

6. Are limitations of the work clearly stated?
Need to be discussed.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
Yes.

8. Do the title and abstract accurately convey what has been found?
Yes.

9. Is the writing acceptable?
English revising required.

**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'