Reviewer's report

Title: Nck2 promotes human melanoma cell proliferation, migration and invasion in vitro and primary melanoma-derived tumor growth in vivo

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Reviewer: Takeshi Senga

Reviewer's report:

In this manuscript, authors have examined whether Nck proteins were required for the regulation of cell migration and invasion of melanoma cells. The authors showed that Nck2, but not Nck1, was expressed in metastatic melanoma cells as well as invasive colon and breast cancer cells. They established Nck2-overexpressing cells and demonstrated that expression of Nck2 was related to the increased cell invasion and migration. Furthermore, they showed overexpression of Nck2 in primary melanoma cells induced tumor growth in mice. The experiments were well performed and the presented data are convincing. I think the findings in this manuscript are important to elucidate molecular mechanisms by which melanoma cells regulate migration and invasion. The manuscript is qualified enough for the publication in BMC Cancer. However, it would be better if the authors examine whether suppression of Nck2 inhibits migration or invasion of invasive melanoma cells.

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.