Reviewer's report

Title: Activation of MEK1 or MEK2 isoform is sufficient to fully transform intestinal epithelial cells and induce the formation of metastatic tumors

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Reviewer: Danny N Dhanasekaran

Reviewer's report:

Defining the differences and significances of MEK1 versus MEK2 has been the focus of many studies. However, the precise role of these kinases in specific signaling, especially related to cancer progression, has remained as a challenge. In this regard, the focus of this manuscript is very timely and relevant.

While this is a strength, the problem is that the manuscript falls short of establishing anything novel in this regard. Although the manuscript presents a wealth of information, the concern is that the data presented are mostly descriptive. Perhaps, more succinct and clearly focused discussion highlighting the significance of the findings, can alleviate this problem.

Figure 1B should include mean, SEM, and n values so that a clear assessment whether there is any differences between MEK1 and MEK2 in their activities. The data looks as though MEK1 is more active than MEK2. However, the text states that there is no difference in their activities. This is in contrast to other data in which MEK1 appears to be weaker than MEK2. The authors should address this concern.

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