Reviewer's report

Title: The role of a new CD44 variant in increasing invasion capability to human breast cancer cell line MCF-7

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Reviewer: Steven Wang

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The authors describe a new CD44 variant obtained from a drug-resistant MCF-7 human breast cancer cell line (MCF-7/Adr). The novel CD44v18 variant derived from MCF-7/Adr cells was subsequently cloned into drug-sensitive MCF-7 cells. The transfected MCF-7/CD44v18 cells were compared to the non-expressing parental MCF-7 cells with regard to CD44- and hyaluronan-dependent MMP-2 and MMP-9 expression and invasiveness. Finally, the role of Ras-MAPK signaling pathway inhibitors on these HA-mediated events was examined. The authors conclude that CD44v18 plays a critical role in HA-dependent activation of MMP-2 and MMP-9 secretion and invasiveness of MCF-7 cells.

This is an interesting study that describes a novel CD44 variant and demonstrates nicely the role of the new CD44v18 variant on MCF-7 tumor cell invasiveness.

I have only Minor Essential Revisions.

1. The last sentence of the first paragraph of RESULTS and the 2nd paragraph are references to other work in the scientific literature, and should be incorporated into the DISCUSSION rather than in the RESULTS.

Level of interest: An article of importance 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.