Reviewer's report

Title: Vav3 oncogene activates estrogen receptor and its overexpression may be involved in human breast cancer.

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Reviewer: Amancio Carnero

Reviewer's report:

Manuscript: "Vav3 oncogene activates estrogen receptor and its overexpression may be involved in human breast cancer" by Lee and co-workers. In the present work the authors report that vas3 protein was overexpressed in a high percentage of human mammary tumors. This finding correlates with the expression of ERa. Using cellular systems the authors show the relevance of vav3 for the growth of breast tumor cells and for the ERa activation. Finally, the authors fine tuning the dual mechanism of ERa activation: transcriptional induction through PI3K pathway and by protein binding.

The manuscript is well written and properly done. The experiments are well performed, well described and informative. The conclusions are solid and the manuscript deserves publication.

A few minor points should be corrected before publication:

- Page 10: MCF10 are non tumoral breast epithelial cells, but these cells can not be considered as normal. Change its definition to "non tumoral".

- page 11 lane 20 (and throughout the rest of the manuscript): please clarify well which are the controls used in each experiment.

- Fig 2B does not show a clear increase of proliferation of vav3 cells respect the control since the starting point (0 EGF) is also different. Normalization of the graph to equal starting point is essential to compare both curves.

What next?: Accept after minor essential revisions

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