Reviewer's report

Title: Role of intracellular and extracellular annexin A1 in migration and invasion of human pancreatic carcinoma cells

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Reviewer: Guanzhen Yu

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The study by Belvedere and colleagues investigates the potential role of ANXA1 in the progression of pancreatic carcinoma. They examined the expression and localization of ANXA1 in MIA PaCA-2, PANC-1, BxPC-3 and CAPAN-2 cells and then investigated the role of ANXA1 in PC cell migration and invasion. They found that a huge expression and a variable localization of ANXA1 in sub-cellular compartments of PC cells and that ANXA1 reduction inhibited MIA PaCa-2 and PANC-1 cell migration and invasiveness rate. These effects were associated with cytoskeleton remodeling and FPR activation. A cleaved form of ANXA1 (33kDa) was found in MIA PaCa-2 cells. ANXA1 can be detected in the supernatants of MIA PaCa-2 cells, which could increase the migration rate of PANC-1 cells. These findings will be of interest to researchers exploring the underlying mechanism of ANXA1 in cancer progression. This paper is well written, but there are many concerns below.

Minor comments

1. The pro-oncogenic role of ANXA1 be mediated by FPRs signaling have been widely discussed. However, ANXA1 cleavage and nuclear expression were not fully investigated. The author should discuss the possible mechanism(s) in the discussion section.

2. There are many minor errors in the paper. For example, Line 47: the expression ... should be “The expression...”; line 52: in all...should be “In all...”; figure 1A in line 329, 457 should be Figure 1....

3. In Figure 1 legend, what does “quantitative analysis of E-cadherin expression/vimentin expression” mean: mRNA or protein?

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.