Reviewer's report

Title: STAMP alters the growth of transformed and ovarian cancer cells

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Reviewer: Tomoshige Kino

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Major comment:

He et al. examined the effect of STAMP on the growth of several cell-lines as well as correlation of its mRNA expression with staging of various cancers including ovarian neoplasias. STAMP is the molecule, which alters the transcriptional activity of steroid hormone receptors by communicating with p160 nuclear receptor coactivators, while several steroid hormones have strong effects on cell growth of hormone-responsive cancers, thus the authors performed the experiments. They also included some results explaining the effect of STAMP on glucocorticoid-mediated transcriptional activity. Used molecular techniques and methods evaluating their results are highly sophisticated, while most of the results are rather negative. Further, STAMP-mediated regulation of cell growth was hormone independent, indicating that the observed changes are not based on the known STAMP activity of modulating steroid receptor-mediated transcriptional activity. New data explaining the mechanism(s) underlining differential effects (positive and negative) of STAMP on cell growth are necessary for further processing this manuscript in the Journal. I have several minor comments on the manuscript as below.

Minor comments:

(1) Results shown in Figure 1 are well organized and demonstrated. However, difference in cell growth rates between VA and S13 cells might have come from non-specific alteration in cell characteristics during multiple rounds of cell duplication for establishment of these cell lines. Thus, the authors should include results using transient knockdown/overexpression of STAMP in the same cell line by using, for example, STAMP siRNA or tetracycline-induced STAMP expression in stable cell lines.

(2) Figure 2: Please add brief explanation to staging of each cancer. Does different staging indicate virulence of cancers or difference in growth rates? I believe most of the cancer stagings are based on the degree of cancer spread inside/over organs. Thus, staging does not always correlate with malignant features of cancers or their growth rates.

(3) Figure 4 A: How did you estimate that right-shift of the titration curves was statistically meaningful?