Reviewer's report

Title: The p300/CBP-associated factor modulates androgen receptor-regulated transcriptional activity and cellular growth in cultured prostate cancer cells

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Reviewer: Hayley Whitaker

Reviewer's report:

The article describes a study of PCAF in prostate cells and it’s the effects of testosterone, miR-17-5p and PEITC on PCAF expression and AR signalling. The article is generally very well written with good use of English.

Minor compulsory revisions:
1. The title is inadequate and gives no indication of what the paper is actually about.
2. The manuscript is generally very poorly referenced. This is a very busy field, indeed much of this work has already been published elsewhere, and this study really needs to be placed into the context of the numerous studies and not just individual selected publications.
3. The studies are generally performed to a good standard although the materials and methods lack sufficient detail in key areas; what was the vehicle for DHT, what concentrations were used for the antibodies, clarify what CCS is and where purchased, how much DNA was added for the PCAF 3’UTR assay, how long were cells grown prior to the MTS assay, how was statistical significance calculated?

Major compulsory revisions:
1. There was no information at all on how the immunofluorescence and IHC were performed.
2. There are no controls for the fluorescence or IHC, particularly for antibody specificity and it not sufficient to say PCAF is up-regulated in prostate cancer tissue without scoring the entire TMA and presenting the data.
3. How did the authors controls for the effects of endogenous miR-17-5 and PCAF and their effect on their constructs. It is far from clear that PCAF is regulated by miR17-5 and not that PCAF is required for miR17-5 function?
4. It is not clear why cells were treated with PEITC and what this has to do with the story being told here. Most of these effects are already published and the only novel effect is on the microRNA and the authors could focus on this instead of all of the previously published data.

On reading this manuscript appears to be a series of well conducted but random experiments that are only connected by PCAF. There is no logical progression from miR-17-5p to PEITC – what is the link? Why look at PEITC at all? The initial
studies on PCAF and AR in LNCaP cells have all been completed before in larger and more in depth studies which are not mentioned in this manuscript. The miR-17-5 data is conducted well and is more novel and I suggest the authors might be better to focus on this data.

**Level of interest:** An article of limited interest

**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