

## Peer Review File

Article information: <https://dx.doi.org/10.21037/tbcr-23-44>

### Reviewer Comments

**Comment 1:** In lines 95-112, original research articles should be cited to describe or summarize the studies about the connection between AR and ER or between AR and HER2, instead of using the statements from Review by You et al (reference #8).

**Reply 1:** All the original articles were cited (reference #8–#15)

**Comment 2:** The paragraph from lines 114 - 127 are statements from the review by Pampurwala et al. (reference #9). Original research articles should be cited and information should be up to date.

**Reply 2:** All the original articles were cited (reference #3, #16–#18)

**Comment 3:** The study by Palmieri et al (reference #14) is published as a meeting abstract. Citation is not correct and this study may not be peer-reviewed.

**Reply 3:** Citation was corrected (#24)

**Comment 4:** Fulvestrant is erroneously stated to be an aromatase inhibitor (line 160) which it is not. This important detail must be corrected.

**Reply 4:** “...progressed on a non-steroidal aromatase inhibitor, fulvestrant and CDK 4/6 inhibitors..” was meant that patients who were progressed on AI or fulvestrant. The sentence was modified with ‘endocrine therapy’ to avoid confusion in lines 180-181.

**Comment 5:** For all drugs mentioned in the article their mechanism of action should be stated (e.g., abemaciclib and pembrolizumab plus those introduced in Table 1).

**Reply 5:** ‘Immune checkpoint inhibitor’ was added for pembrolizumab in line 175. CDK4/6 inhibitor was added for abemaciclib in line 179. PI3K inhibitor was added for alpelisib in Table 1. Androgen inhibitors (bicalutamide and enzalutamide) were explained already in the main text. The MOA for commonly used chemotherapy agents were not added.

**Comment 6:** Two examples of pre-clinical studies on combination treatments are given in this mini-review (lines 164-173). Clinical trial targeting PI3K and AR is listed in Table 1. Is there a clinical trial targeting PD- L1 and AR? It will be clearer to indicate what targets are in the clinical trials with combination treatments listed in Table 1.

**Reply 6:** A clinical trial targeting PD-L1 and AR has been stated in the main text line 175-177.

**Comment 7:** In the section of Conclusion and Future Direction, half of the paragraph (lines 189 - 194) sounds like repetitive ideas from the first half of the same paragraph.

**Reply 7:** The redundandant sentence was deleted.