Peer Review File

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Review Comments

Reviewer A

Comment 1: It was a real pleasure to read these extremely deep commentaries on Yap et al (10.1001/jamaoncol.2022.5228); without any doubt they may be useful for the audience interested in the field. Just one sentence needs some editing:"DDR for double-stranded DNA breaks involves homologous recombination (HR), which PARPi remains a promising targeted therapy. "

Reply 1: We thank the reviewer for their comment. The appropriate changes have been made as below.

Changes in the text: "DDR for double-stranded DNA breaks involves homologous recombination (HR)." (See page 2; lines 51-52).

Reviewer B

Comment 2: The authors analyzed the combination of PARP inhibitors and immunotherapy in solid cancers. I think that in this work should be highlighted better the state of the art of immunotherapy. I suggest this article to get deeper in the topic PMID: 32518015. Furthermore, I suggest to analyze also the newest insights about new possible therapies and molecules which could complete the work. I suggest this article to analyze this topic PMID: 36458890. Lastly, I suggest to check English language with a native English speaker. Because of these reasons, the article should be revised and completed. Considered all these points, I think it could be of interest for the readers and, in my opinion, it deserves the priority to be published after minor revisions.

Reply 2: We thank the reviewer for their comment. The appropriate changes have been made as below. A native English speaker also extensively revised flow and word choice throughout.

Changes in the text:

"Immunotherapy is an ever-expanding class of therapeutics that leverage and amplify antitumor host-response as a treatment modality across several cancers. After promising initial studies in melanoma, the selective targeting of immune checkpoint proteins, such

as CTLA4 and programmed death-ligand 1 (PD-L1), represents a key subclass of immunotherapies. Referred to as immune checkpoint inhibitors (ICI), CTLA4 inhibitors (e.g., ipilimumab) and PD-L1 inhibitors (e.g., nivolumab and pembrolizumab) have been shown to have favorable responses in an ever-growing variety of solid tumors, including melanoma, lung cancers, gastroenterological cancers, and platinum-resistant ovarian cancers" (See page 2; lines 58-64).

"Here, in particular, next-generation targeted therapies may have a pivotal role in delaying the onset of resistance while complementarily exerting directed effects on key cellular pathways. Agents such as tyrosine kinase inhibitors (TKIs, e.g. sorafenib, pazopanib) and more selective anti-angiogenesis approaches have already demonstrated promise in several solid tumors, including ovarian, endometrial, and bladder cancers (24). Overall, small molecule therapy is promising but more, larger-scale, studies are warranted to evaluate the pros and cons of this treatment and the prospect of combinatory therapy with other emerging therapies" (See page 4; lines 154-160).