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Title: Inhibition of poly (ADP-Ribose) polymerase: a promising strategy targeting pancreatic cancer with BRCAiness phenotype

Reviewer’s code: 05913846

Position: Peer Reviewer

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Professional title: Doctor

Reviewer’s Country/Territory: China

Author’s Country/Territory: South Korea

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Reviewer chosen by: AI Technique

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Scientific quality:
- [ ] Grade A: Excellent
- [ ] Grade B: Very good
- [ ] Grade C: Good
- [ ] Grade D: Fair
- [ ] Grade E: Do not publish

Language quality:
- [ ] Grade A: Priority publishing
- [ ] Grade B: Minor language polishing
- [ ] Grade C: A great deal of language polishing
- [ ] Grade D: Rejection

Conclusion:
- [ ] Accept (High priority)
- [ ] Accept (General priority)
- [ ] Minor revision
- [ ] Major revision
- [ ] Rejection

Re-review:
- [ ] Yes
- [ ] No

Peer-reviewer statements:
- Peer-Review: [ ] Anonymous
- Onymous

Conflicts-of-Interest:
- [ ] Yes
- [ ] No
SPECIFIC COMMENTS TO AUTHORS
Within this manuscript authors reviewed the significance of PARP-1 inhibition in BRCAness pancreatic cancer. In recent years, PARP1 inhibitors have been demonstrated to provide a significant benefit among patients with breast/ovarian cancer and germline BRCA1/2 mutation. The successful results of clinical trials for PARP inhibitors among subtypes offer new ideas for the treatment of pancreatic cancer. The Pancreatic Cancer Olaparib Ongoing trial has demonstrated that the median progression-free survival was observably longer in the olaparib group than in the placebo group. Therefore, the use of PARP inhibitors in pancreatic cancer has broad prospects and may bring hope to this challenging disease. Both PARP1 and BRCA1s function in DNA damage repair, so inhibition of PARP1 led to synthetic lethality of BRCAness cancer cells. The molecular mechanisms and clinical applications of PARP inhibitors in cancers (including pancreatic cancer) have been discussed in many papers, e.g., Mol Cancer, 2020, 19(1): 49., Science, 2017, 355(6330): 1152-1158. I have no doubt about the topic of this manuscript.