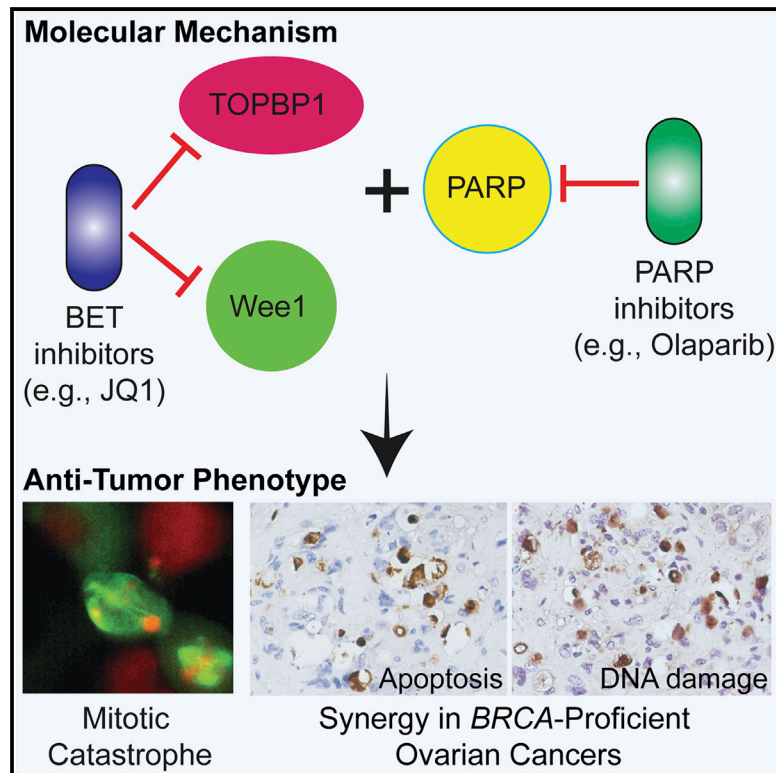


BET Bromodomain Inhibition Synergizes with PARP Inhibitor in Epithelial Ovarian Cancer

Graphical Abstract



Authors

Sergey Karakashev, Hengrui Zhu, Yuhki Yokoyama, ..., Dineo Khabele, Benjamin G. Bitler, Rugang Zhang

Correspondence

rzhang@wistar.org

In Brief

Karakashev et al. show synergy of BET bromodomain inhibition with PARP inhibition in *BRCA*-proficient ovarian cancers. This combination of inhibitors can synergistically increase DNA damage and cell-cycle checkpoint defects, which allows cells to enter mitosis despite the accumulation of DNA damage, ultimately causing mitotic catastrophe.

Highlights

- BET inhibitor suppresses TOPBP1 and WEE1 expression
- BET inhibitor and PARP inhibitor induce apoptosis in a synergistic manner
- Combined BET and PARP inhibition causes mitotic catastrophe
- BET and PARP inhibition synergize in suppressing *BRCA1/2* wild-type ovarian tumors



Karakashev et al., 2017, Cell Reports 21, 3398–3405
 December 19, 2017 © 2017 The Author(s).
<https://doi.org/10.1016/j.celrep.2017.11.095>