The addition of rucaparib does not impact the activity of PD-1 and PD-L1 inhibition in wild-type BRCA1 synergistic models. Rucaparib demonstrates potent in vitro and in vivo activity in the BrKras BRCA1 null synergistic ovarian cancer model. The combination of rucaparib and PD-1/PD-L1 inhibition provides greater survival benefit in the BrKras model as compared to monotherapy treatments. Rucaparib monotherapy treatment generated immunological memory in the BrKras model. CD1 T-cells potentially contribute to rucaparib efficacy in the BrKras model.

Rucaparib demonstrated potential activity in a BRCA1 null ovarian cancer syngeneic cell line

The impact of CD4 and CD8 depletion on rucaparib activity was evaluated in the BrKras BRCA1 null model. Rucaparib activity was augmented with CD4 depletion and to a lesser extent with CD8 depletion, while both CD4 and CD8 depletion decreased anti-PD-1 activity.

Rucaparib and anti-PD-1/PD-L1 combinations had greater efficacy in BRCA1 null syngeneic model

Rucaparib increases the infiltration of CD8 T-cells and PD-1 in the BrKras tumors

Survival analysis

Re-challenge

BRCA1 tumors were collected from mice treated with vehicle or rucaparib at 150 mg/kg BID, and spleens and tumors were collected at days 3, 6, and 9. For the five tumor volume curves, tumors were disconnected using a mouse dissection aid (Milenco Designs) and a sterilescissors and mouse dissection aid (Milenco Designs), and placed in 10% neutral buffered formalin. For tumor volume analysis, tumors were fixed in 10% neutral buffered formalin, and analyzed using a NanoSlicer for histology imaging (in vivo system).