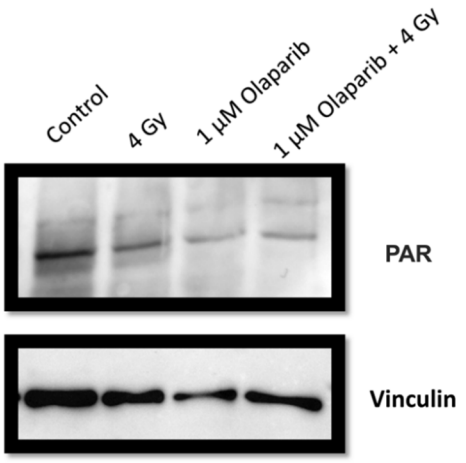
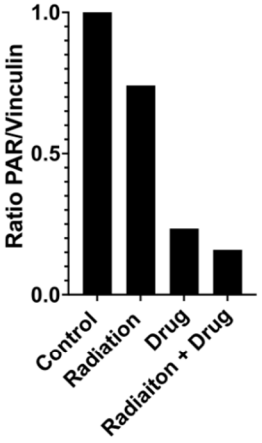
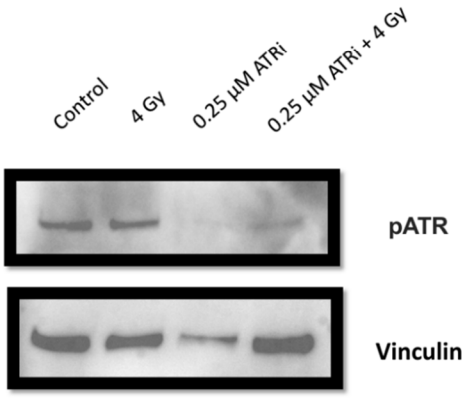
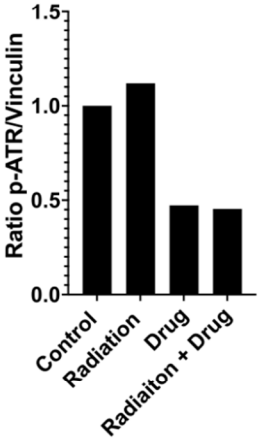
A


Control
4 Gy
1 μM Olaparib
1 μM Olaparib + 4 Gy
PAR
Vinculin

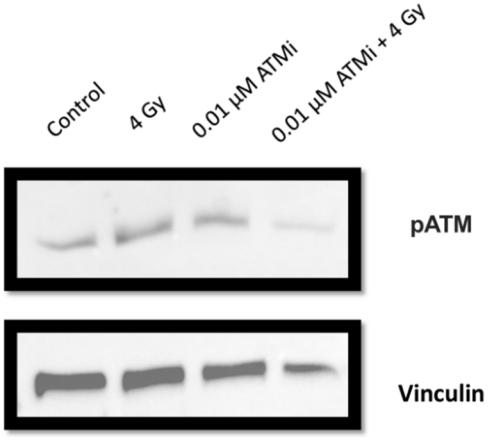

Ratio PAR/Vinculin
1.0
0.5
0.0
Control
Radiation
Drug
Radiaiton + Drug

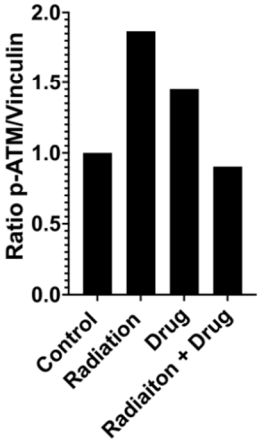
B


Control
4 Gy
0.25 μM ATRi
0.25 μM ATRi + 4 Gy
pATR
Vinculin


Ratio p-ATR/Vinculin
1.5
1.0
0.5
0.0
Control
Radiation
Drug
Radiaiton + Drug

C


Control
4 Gy
0.01 μM ATMi
0.01 μM ATMi + 4 Gy
pATM
Vinculin


Ratio p-ATM/Vinculin
2.0
1.5
1.0
0.5
0.0
Control
Radiation
Drug
Radiaiton + Drug

Supplementary Figure S1. Effect of AZD0156, AZD6738 and olaparib on target proteins of respective DNA repair pathways in MDA-MB-231 cells. (**A**) Olaparib directly affects the protein levels of PAR. (**B**) AZD6738, an ATR inhibitor, directly affects phosphorylation of ATR; while (**C**) AZD0156, an ATM inhibitor, directly affects phosphorylation of ATM. Phosphorylation or protein levels were evaluated for control cell populations only treated with DMSO, cells only treated with 4 Gy of radiation, cells only treated with DDR inhibitors, or cells treated with a combination of both. Levels of Vinculin were used as a loading control, and quantification was performed with ImageJ. Protein ratios were normalized to the untreated control cells.