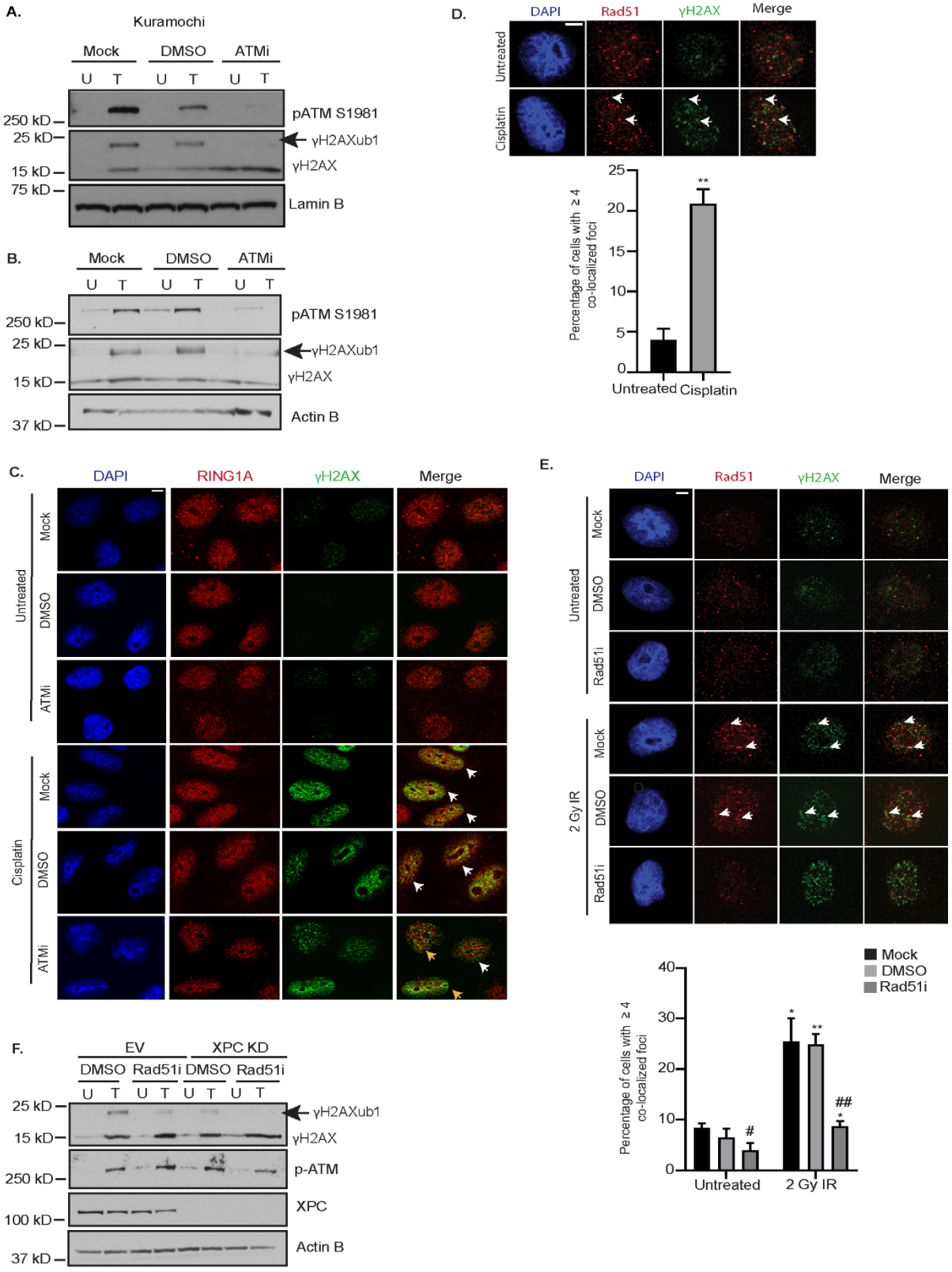
A.
Kuramochi
Mock
DMSO
ATMi
U T U T U T
250 kD
25 kD
15 kD
75 kD
pATM S1981
γH2AXub1
γH2AX
Lamin B
B.
Mock
DMSO
ATMi
U T U T U T
250 kD
25 kD
15 kD
37 kD
pATM S1981
γH2AXub1
γH2AX
Actin B
C.
DAPI
RING1A
γH2AX
Merge
Untreated
Cisplatin
Mock
DMSO
ATMi
D.
DAPI
Rad51
γH2AX
Merge
Untreated
Cisplatin
Percentage of cells with ≥ 4 co-localized foci
Untreated
Cisplatin
E.
DAPI
Rad51
γH2AX
Merge
Untreated
2 Gy IR
Mock
DMSO
Rad51i
Percentage of cells with ≥ 4 co-localized foci
Untreated
2 Gy IR
F.
EV
XPC KD
DMSO
Rad51i
U T U T U T U T
25 kD
15 kD
250 kD
100 kD
37 kD
γH2AXub1
γH2AX
p-ATM
XPC
Actin B

Supplementary Figure S4: Rad51 colocalizes with γH2AX in response to cisplatin treatment

(A) Kuramochi cells were not pretreated (mock) or pretreated with DMSO or 15 μM ATM inhibitor Ku-55933 for 1 hour and then untreated (U) or treatment with 15 μM cisplatin for 8 hours (T) (N=3). **(B)** OVCAR5 cells were pretreated with ATM inhibitor as in (A) and then untreated (U) or treated with 6.77 μM carboplatin for 24 hours. Lysates were analyzed by WB (N=2). **(C)** Representative images of OVCAR5 cells showing RING1A colocalization with γH2AX with and without ATMi followed by cisplatin treatment. White arrows indicate cells showing colocalization and yellow arrows indicate cells with less or no colocalization. **(D)** OVCAR5 cells were either untreated or treated with 12 μM cisplatin for 8 hours and then immunofluorescence was performed for γH2AX (green) and Rad51 (red). White arrows point to examples of γH2AX and Rad51 foci that co-localize. Graph shows mean percentage of cells with ≥ 4 Rad51 and γH2AX co-localized foci ± SEM. Scale bar = 5 μm. **(E)** OVCAR5 cells were not pretreated (mock) or pre-treated with DMSO or 50 μM Rad51 inhibitor B02 for 2 hours and then untreated (U) or treated with 2 Gy IR. After IR exposure, cells were allowed to recover for 15 minutes at 37^{o}C. Graph shows mean percentage of cells with ≥ 4 γH2AX and Rad51 co-localized foci ± SEM (N=3). White arrows show examples of γH2AX and Rad51 foci that co-localize. Scale bar = 5 μM. **(F)** EV or XPC KD OVCAR5 cells were either pretreated with DMSO or 50 μM Rad51 inhibitor (B02) for 2 hours and then (U) or treated (T) with cisplatin for 8 hours. Lysates were analyzed by WB (N=2).Statistical significance was

calculated using Student's t test. For untreated versus cisplatin or 2 Gy IR treated, P-values * < 0.05, ** <0.005, *** < 0.0005. For Mock or DMSO versus Rad51i P – values # < 0.05, ## < 0.005, ### < 0.0005.