

**Online Supplemental Material for “Rapid and transient recruitment of DNMT1 to DNA double strand breaks is mediated by its interaction with multiple components of the DNA damage response machinery”, Ha *et al.***

**Table S1:** Antibodies used in this study for western blotting, immunoprecipitation, and immunofluorescence staining.

<b>Antibody or beads</b>	<b>Dilution for western blot</b>	<b>Dilution for immunostaining</b>	<b>Company</b>
Anti- $\gamma$ H2AX	1:1000	1:250	Millipore
Anti-53BP1		1:250	Novus
Anti-DNMT1	1:1000	1:250	Abcam
Anti-KU80		1:250	Abcam
Anti-GFP		1:250	Sigma
Anti-PCNA	1:1000	1:250	Abcam
Anti-CHK1	1:1000		Santa Cruz
Anti-pS1981ATM	1:1000	1:250	Cell Signaling
Anti-pS428ATR	1:1000	1:250	Cell Signaling
Anti-RAD9	1:1000	1:200	Santa Cruz
Anti-phospho-T11 histone H3	1:500		Abcam
Anti-histone H3	1:1000		Cell Signaling
Anti-FLAG agarose			Sigma
Anti-HA agarose			Genetex
Anti-Xpress	1:1000		Invitrogen
Anti-GFP sepharose			Abcam

## Supplemental Figure Legends

**Supplemental Fig. S1:** Representative images of HCT116 cells transfected with the indicated shRNA plasmids (CHK1, PCNA, and RAD9), which also express RFP as a marker of transfected cells. A bright field (DIC) image is also shown to illustrate transfection efficiency. Magnification = 10X

**Supplemental Fig. S2:** Representative images of HCT116 cells co-transfected with GFP-DNMT1 and plasmids co-expressing RFP and the indicated shRNA targeting (A) CHK1, (B) PCNA, or (C) RAD9. A negative control non-targeting shRNA is shown in each panel. The laser irradiated region is denoted with the white box and times after irradiation (in seconds) are indicated in the lower right corner of the overlay images. Green – GFP-DNMT1, Red – shRNA plasmid, Merge – overlay of the red and green channels. Bar = 10 microns.

**Supplemental Fig. S3:** Schematic model for how interactions between DNMT1 and CHK1, PCNA, and 9-1-1 may mediate recruitment of DNMT1 to sites of DNA damage. The star represents phosphorylation. Interaction with (and possibly phosphorylation by) CHK1 may license DNMT1 to interact with PCNA or 9-1-1 directly or via another bridging protein (gray shape with '?'). Note that phosphorylation is only a hypothetical licensing mechanism as it has not been shown that DNMT1 is phosphorylated in a DNA damage-specific manner. Not shown is the DNA encircled by PCNA and 9-1-1.









