Source file Figure 1A

a: Input HEK Control
b: Input HEK p14ARF-EGFP
c: Input HEK p14ARF-EGFP + AdOx
d: IP α-GFP HEK Control
e: IP α-GFP HEK p14ARF-EGFP
f: IP α-GFP HEK p14ARF-EGFP + AdOx
Source file Figure 1B

a: GST-PRMT1
b: GST-PRMT1 + GST-GAR
c: GST-PRMT1 + GST-p14ARF
d: GST-PRMT1 + GST-p14ARF

(Of note: in lane c, lower GST-p14ARF protein amount employed in the MT-assay than in lane d)

e: GST-PRMT4
f: GST-PRMT4 + H3
g: GST-PRMT4 + GST-p14ARF

h: HA-PRMT5
i: HA-PRMT5 + bulk histones
j: HA-PRMT5
k: HA-PRMT5 + GST-p14ARF
Source file Figure 1C

**Autoradiography**

|   | a                                      | b                                      | c                                      | d                                      | e                                      | f                                      |
|---|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|
|   | Flag-PRMT1 + GST-p14<sup>AB</sup>      | Flag-PRMT1                              | Flag-PRMT1 + GST-p14<sup>AB</sup>      | Flag-PRMT4                              | Flag-PRMT5 + GST-p14<sup>AB</sup>      | Flag-PRMT5                              |

**Autoradiography**

|   | g                                      | h                                      | i                                      | j                                      | k                                      | l                                      |
|---|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|
|   | Flag-PRMT1                             | Flag-PRMT1 + H4                        | Flag-PRMT4                              | Flag-PRMT4 + H3                        | Flag-PRMT5                             | Flag-PRMT5 + bulk histones            |
Source Figure 1D

a: GST-p14arf 1-132
b: GST-p14arf 1-64
c: GST-p14arf 65-132
d: GST-p14arf 31-132
e: GST

 Autoradiography

α-GST
(of the Autoradiography blot)
Source file Figure 1F

a-d: GST-PRMT1 purifications from *E. coli*, eluted und dialyzed (prep “d” was used for the *in vitro*-MT-assay below)

M: Marker
e: 1 ug BSA
f: 2.5 ug BSA

g: GST
h: GST-p14<sup>ΔN</sup> wt
i: GST-p14<sup>ΔN</sup> RG

j: GST
k: GST-p14<sup>ΔN</sup> wt
l: GST-p14<sup>ΔN</sup> RG

 Autoradiography

(of the Autoradiography blot)
a: Input U2OS Control (e.v.)
b: Input U2OS Flag-p14ARF
c: Input U2OS Myc-PRMT1
d: Input U2OS Flag-p14ARF + Myc-PRMT1
e: IP α-Myc U2OS Control (e.v.)
f: IP α-Myc U2OS Flag-p14ARF
g: IP α-Myc U2OS Myc-PRMT1
h: IP α-Myc U2OS Flag-p14ARF + Myc-PRMT1
i: IP IgG U2OS Control (e.v.)
j: IP IgG U2OS Flag-p14ARF
k: IP IgG U2OS Myc-PRMT1
l: IP IgG U2OS Flag-p14ARF + Myc-PRMT1
Source file Figure 3D

a: Input HeLa Control (e.v.)
b: Input HeLa Myc-PRMT1
c: IP α-p14ARF HeLa Control (e.v.)
d: IP α-p14ARF HeLa Myc-PRMT1
e: IP IgG HeLa Control (e.v.)
f: IP IgG HeLa Myc-PRMT1
g: IP α-NPM HeLa Control (e.v.)
h: IP α-NPM HeLa Myc-PRMT1
i: IP IgG HeLa Control (e.v.)
j: IP IgG HeLa Myc-PRMT1
Source file Figure 3E

a: Input 3xFlag-NPM
b: Pulldown 3xFlag-NPM no peptide
c: Pulldown 3xFlag-NPM + unmodified peptide (aa 91-99)
d: Pulldown 3xFlag-NPM + R96me2a peptide (aa 91-99)
e: Pulldown 3xFlag-NPM + unmodified peptide (aa 92-103)
f: Pulldown 3xFlag-NPM + R96/R99me2a peptide (aa 92-103)
x: empty slot
Source file Figure 4A

a: U2OS p14ARF wt
b: U2OS p14ARF RG
c: U2OS p14ARF RF
d: U2OS p14ARF RK
e: HeLa p14ARF wt
f: HeLa p14ARF RG
g: HeLa p14ARF RF
h: HeLa p14ARF RK
i: HEK p14ARF wt
j: HEK p14ARF RG
k: HEK p14ARF RF
l: HEK p14ARF RK

α-Flag (p14ARF)

α-β-TUB
Source file Figure 4C

a: HeLa siControl_1
b: HeLa siControl_2
c: HeLa siControl_3
d: HeLa siControl_4
e: HeLa siControl_5
f: HeLa siPRMT1_1
g: HeLa siPRMT1_2
h: HeLa siPRMT1_3
i: HeLa siPRMT1_4
Source file Figure 4D

a: HeLa GFP/Control
b: HeLa Myc-PRMT1
Source file Figure 4E

a: HeLa shPRMT1 - Dox
b: HeLa shPRMT1 + Dox

Upper bands are the remaining α-β-TUB-signal.
Source file Figure 4F

a: HeLa shPRMT1 - Dox/ 0h CHX
b: HeLa shPRMT1 - Dox/ 0.5h CHX
c: HeLa shPRMT1 - Dox/ 1h CHX
d: HeLa shPRMT1 - Dox/ 2h CHX
e: HeLa shPRMT1 - Dox/ 3h CHX
f: HeLa shPRMT1 - Dox/ 4h CHX
g: HeLa shPRMT1 - Dox/ 6h CHX
h: HeLa shPRMT1 + Dox/ 0h CHX
i: HeLa shPRMT1 + Dox/ 0.5h CHX
j: HeLa shPRMT1 + Dox/ 1h CHX
k: HeLa shPRMT1 + Dox/ 2h CHX
l: HeLa shPRMT1 + Dox/ 3h CHX
m: HeLa shPRMT1 + Dox/ 4h CHX
n: HeLa shPRMT1 + Dox/ 6h CHX
Source file Figure 5C

a: HeLa siCon_4 / -UVC  
b: HeLa siCon_6 / - UVC  
c: HeLa siP1_1 / - UVC  
d: HeLa siP1_4 / - UVC  
e: HeLa siCon_4 / + UVC  
f: HeLa siCon_6 / + UVC  
g: HeLa siP1_1 / + UVC  
h: HeLa siP1_4 / + UVC
Source file Figure 5D

a: GST-p14ARF
b: GST-p14ARF + GST-PRMT1
Source file Figure 5E

a: U2OS p14<sub>ARF</sub> wt
b: U2OS p14<sub>ARF</sub> RK

α-me-p14<sub>ARF</sub>

α-p14<sub>ARF</sub>
Source file Figure 5F

a: HeLa 0h UVC
b: HeLa 8h UVC
c: HeLa 16h UVC
d: HeLa 24h UVC
Source file Figure 5G

- a: HeLa PRMT1 CTR / 0 h UVC
- b: HeLa PRMT1 CTR / 2 h UVC
- c: HeLa PRMT1 CTR / 4 h UVC
- d: HeLa PRMT1 KO_1 / 0 h UVC
- e: HeLa PRMT1 KO_1 / 2 h UVC
- f: HeLa PRMT1 KO_1 / 4 h UVC
Source file Figure 5H

a: Input HeLa 0h UVC  
b: Input HeLa 2h UVC  
c: Input HeLa 4h UVC  
d: Input HeLa 6h UVC  
e: IP p14\textsuperscript{ARF} HeLa 0h UVC  
f: IP p14\textsuperscript{ARF} HeLa 2h UVC  
g: IP p14\textsuperscript{ARF} HeLa 4h UVC  
h: IP p14\textsuperscript{ARF} HeLa 6h UVC  
i: IP IgG HeLa 0h UVC  
j: IP IgG HeLa 2h UVC  
k: IP IgG HeLa 4h UVC  
l: IP IgG HeLa 6h UVC  

\[ \alpha-\text{PRMT1} \quad \alpha-p14\textsuperscript{ARF} \text{ (short exposure)} \quad \alpha-p14\textsuperscript{ARF} \text{ (long exposure)} \quad \alpha-\text{me-p14\textsuperscript{ARF}} \quad \alpha-\text{PARP} \quad \alpha-\beta-\text{TUB} \]
Source file Figure 6C

a: HeLa siCon_4 / - UVC
b: HeLa siCon_6 / - UVC
c: HeLa siP1_1 / - UVC
d: HeLa siP1_4 / - UVC
e: HeLa siCon_4 / + UVC
f: HeLa siCon_6 / + UVC
g: HeLa siP1_1 / + UVC
h: HeLa siP1_4 / + UVC
Source file Figure 6D

a: HeLa CTR_1 / 0 h UVC  
b: HeLa CTR_1 / 2 h UVC  
c: HeLa CTR_1 / 4 h UVC  
d: HeLa CTR_2 / 0 h UVC  
e: HeLa CTR_2 / 2 h UVC  
f: HeLa CTR_2 / 4 h UVC  
g: HeLa PRMT1 KO_1 / 0 h UVC  
h: HeLa PRMT1 KO_1 / 2 h UVC  
i: HeLa PRMT1 KO_1 / 4 h UVC  
j: HeLa PRMT1 KO_2 / 0 h UVC  
k: HeLa PRMT1 KO_2 / 2 h UVC  
l: HeLa PRMT1 KO_2 / 4 h UVC
Source file Figure 6G

a: Input 10% Flag-p32 (1 μl)
b: GST + Flag-p32 (10 μl)
c: GST-p14ARF wt + Flag-p32 (10 μl)
d: GST-p14ARF RF + Flag-p32 (10 μl)
Source file Figure 6H

E3 = HeLa CTR_1
2A7 = HeLa PRMT1 KO_1

CTR_1          PRMT1 KO_1

α-p32 (long exposure)

CTR_2          PRMT1 KO_2

α-p32 (long exposure)

E5 = HeLa CTR_2
2H6 = HeLa PRMT1 KO_2

α-p32 (short exposure)

α-p14*RF

α-p14*RF
Source file Figure 8A

a: S2-007
b: PaTu8988t
c: MiaPaCa-2
d: Panc1

Upper bands are the remaining α-PRMT1 signal.
Source file Figure 8B

a: PaTu8988t + 0 µM GEM
b: PaTu8988t + 1 µM GEM
c: PaTu8988t + 3 µM GEM
d: PaTu8988t + 10 µM GEM
Source file Figure 8C

- a: PaTu8988t + 0h GEM
- b: PaTu8988t + 6h GEM
- c: PaTu8988t + 12h GEM
- d: PaTu8988t + 24h GEM
- e: PaTu8988t + 48h GEM
Source file Figure 8E

a: PaTu8988t + 0 μM GEM / -MS023  
b: PaTu8988t + 1 μM GEM / - MS023  
c: PaTu8988t + 3 μM GEM / - MS023  
d: PaTu8988t + 0 μM GEM / +MS023  
e: PaTu8988t + 1 μM GEM / +MS023  
f: PaTu8988t + 3 μM GEM / +MS023
a: PaTu8988t siCon_2 - GEM
b: PaTu8988t siCon_2 + GEM
c: PaTu8988t siCon_3 - GEM
d: PaTu8988t siCon_3 + GEM
e: PaTu8988t siARF_1 - GEM
f: PaTu8988t siARF_1 + GEM
g: PaTu8988t siARF_2 - GEM
h: PaTu8988t siARF_2 + GEM
a: MiaPaCa-2 Control (e.v.) - GEM
b: MiaPaCa-2 Control (e.v.) + GEM
c: MiaPaCa-2 p14ARF wt - GEM
d: MiaPaCa-2 p14ARF wt + GEM
a: Input HEK Control (e.v.) - AdOx
b: Input HEK p14^{ARF}-EGFP - AdOx
c: Input HEK p14^{ARF}-EGFP +AdOx
a: Input HEK Control (e.v.) - AdOx
b: Input HEK p14ARF-EGFP - AdOx
c: Input HEK p14ARF-EGFP +AdOx
Source file Appendix Figure S3A

a: GST-p14ARF wt
b: GST-p14ARF RG
c: GST-p14ARF RF
d: GST-p14ARF RK
Source file Appendix Figure S4B

a: HeLa shPRMT1 - Dox / - Eto
b: HeLa shPRMT1 - Dox / + Eto
c: HeLa shPRMT1 + Dox / - Eto
d: HeLa shPRMT1 + Dox / + Eto
Source file Appendix Figure S5B

a: Input H1299 siControl_1  
b: Input H1299 siPRMT1_1  
c: IP α-p14ARF H1299 siControl_1  
d: IP α-p14ARF H1299 siPRMT1_1
Source file Appendix Figure S6

a: HeLa CTR_1  
b: HeLa CTR_2  
c: HeLa PRMT1 KO_1  
d: HeLa PRMT1 KO_2
Source file Appendix Figure S7

- a: HeLa Control (e.v.) 0h UVC
- b: HeLa Control (e.v.) 2h UVC
- c: HeLa Control (e.v.) 4h UVC
- d: HeLa Flag-p14<sup>ARF</sup> wt 0h UVC
- e: HeLa Flag-p14<sup>ARF</sup> wt 2h UVC
- f: HeLa Flag-p14<sup>ARF</sup> wt 4h UVC

**α-PARP**

**α-β-TUB**

**α-Flag (p14<sup>ARF</sup>)**

**α-p14<sup>ARF</sup> (short exposure)**

**α-p14<sup>ARF</sup> (long exposure)**

**α-β-TUB**
Source file Appendix Figure S9B

a: U2OS
b: U2OS GFP
c: U2OS p14ARF wt
d: U2OS p14ARF RG
e: U2OS p14ARF RF
f: U2OS p14ARF RK
Source file Appendix Figure S9C

a: MCF7 Control (e.v.)
b: MCF7 p14ARF wt - EGFP
c: MCF7 p14ARF RG - EGFP
d: MCF7 p14ARF RF - EGFP
e: MCF7 p14ARF RK - EGFP

Lower bands derive from an α-CDK2 stain.
Source file Appendix Figure S9D

a: U2OS Control (e.v.) - UVC
b: U2OS Flag-p14^{ARF} wt - UVC
c: U2OS Flag-p14^{ARF} RG - UVC
d: U2OS Flag-p14^{ARF} RF - UVC
e: U2OS Flag-p14^{ARF} RK - UVC
f: U2OS Control (e.v.) + UVC
g: U2OS Flag-p14^{ARF} wt + UVC
h: U2OS Flag-p14^{ARF} RG + UVC
i: U2OS Flag-p14^{ARF} RF + UVC
j: U2OS Flag-p14^{ARF} RK + UVC

[Diagram]

- \( \alpha\)-p53
- \( \alpha\)-CDK2
- \( \alpha\)-p14^{ARF}
- \( \alpha\)-PARP
Source file Appendix Figure S9E

a: Input U2OS Myc-MDM2  
b: Input U2OS p14ARF wt-EGFP  
c: Input U2OS p14ARF RG-EGFP  
d: Input U2OS p14ARF wt-EGFP + Myc-MDM2  
e: Input U2OS p14ARF RG-EGFP + Myc-MDM2  
f: IP α-Myc U2OS Myc-MDM2  
g: IP α-Myc U2OS p14ARF wt-EGFP  
h: IP α-Myc U2OS p14ARF RG-EGFP  
i: IP α-Myc U2OS p14ARF wt-EGFP + Myc-MDM2  
j: IP α-Myc U2OS p14ARF RG-EGFP + Myc-MDM2  
k: IP IgG U2OS Myc-MDM2  
l: IP IgG U2OS p14ARF wt-EGFP  
m: IP IgG U2OS p14ARF RG-EGFP  
n: IP IgG U2OS p14ARF wt-EGFP + Myc-MDM2  
o: IP IgG U2OS p14ARF RG-EGFP + Myc-MDM2
Appendix Figure S11A

- a: Input H1299 HA-TIP60
- b: Input H1299 HA-TIP60 + Flag-p14ARF
- c: Input H1299 HA-TIP60 + Flag-p14ARF + Myc-PRMT1
- d: IP α-Flag H1299 HA-TIP60 +
- e: IP α-Flag H1299 HA-TIP60 + Flag-p14ARF
- f: IP α-Flag H1299 HA-TIP60 + Flag-p14ARF + Myc-PRMT1
- g: IP IgG H1299 HA-TIP60
- h: IP IgG H1299 HA-TIP60 + Flag-p14ARF
- i: IP IgG H1299 HA-TIP60 + Flag-p14ARF + Myc-PRMT1
Source file Appendix Figure S11B

a: Input H1299 HA-TIP60
b: Pulldown GST + H1299 HA-TIP60
c: Pulldown GST-p14AS wt + H1299 HA-TIP60
d: Pulldown GST-p14AS RF + H1299 HA-TIP60