**Supplementary figure legends**

**Figure S1.** Examples of time-lapse sequences representing (A) Normal division (B) Apoptosis in mitosis (C) Mitotic slippage. (D) Top left hand panel - single cell fate profiles predict 53% of MCF-10A cells treated with 1 μM Taxol to have undergone death at 44 hours. Right hand panel - MCF-10A cells treated with 1 μM Taxol for 44 hours immunostained for active caspase 3 and DAPI. Bottom left hand panel - quantification of right hand panel indicates 47% of cells stain positive for active caspase 3. Scale bar = 30µm.

**Figure S2**.

A) Summary of cell fates for modified MCF-7 lines challenged with DMSO, taxol or taxol & ABT-737 at 50 hours. Data derived from Fig. 2C &2 D

B) Quantification of apoptosis in mitosis for modified MCF-7 cell treated with DMSO for 50 hours. Data derived from Fig. 2C. Data represents mean and SD of 3 independent repeats.

C) Duration of time modified MCF-7 cells remained in mitosis after treatment with DMSO, all fates included. Data derived from Fig. 2C. Data represents mean and SD of 90 cells over 3 independent repeats.

D) Quantification of apoptosis in mitosis for modified MCF-7 cell treated with 1μM taxol for 50 hours. Data derived from Fig. 2C. Data represents mean and SD of 3 independent repeats.

E) Duration of time modified MCF-7 cells remained in mitosis after treatment with taxol or taxol & ABT-737 for 50 hours, all fates included. Data derived from Fig. 2C & 2D. Data represents mean and SD of 90 cells over 3 independent repeats.

F) Cell cycle distribution quantified through DAPI staining and flow cytometry. Data represents mean and SD of 2 independent repeats.

For relevant panels statistical significance was calculated with ordinary one-way ANOVA, followed by Tukey’s multiple comparison test. Ns represents non-significant \* represents P<0.05, \*\* represents P<0.01, \*\*\* represents P<0.001.

**Figure S3.**

(A) MDA-MB-231 cells stably expressing shBid & mouse BidWT-GFP or variant (S66A or G94E) were enriched for mitosis with overnight 18 hour treatment in nocodazole followed by shake off.

(B) Single cell fate profiles of modified MDA-MB-231 lines treated with 1μM taxol over a 50 hour period. Data represents 90 cells tracked over 3 independent repeats.

(C) Summary of cell fates for the data in B after 50 hours.

(D) Quantification of apoptosis in mitosis for the data in B. Data represents mean and SD for 3 independent repeats.

(E) Duration of time modified MDA-MB-231 cells remained in mitosis after treatment with DMSO or taxol, all fates included. Data derived from (B), mean and SD plotted

(F) Left hand panel - single cell fate profiles of modified MDA-MB-231 lines treated with 5μM ABT-737 alone, or 5μM ABT-737 and 1μM taxol over a 50 hour period. Data represents 90 cells tracked over 3 independent repeats. Right hand panel - duration modified MDA-MB-231 cells remained in mitosis after treatment with taxol or a combination of taxol and ABT-737, all fates included. Data derived from left hand panel. Mean and SD plotted.

For relevant panels statistical significance was calculated with ordinary one-way ANOVA, followed by Tukey’s multiple comparison test. Ns represents non-significant

**Figure S4.**

(A) HeLa cells stably expressing BirA\* fusion proteins were transfected with dsRed fused to a mitochondrial matrix targeting sequence (dsRed-Mito). BirA\* fusion proteins were visualised by immunostained for myc. Scale bar = 10µm.

(B) HeLa cells stably expressing BirA\* fusion proteins were induced to label with an overnight biotin incubation. Cells were then fixed and immunostained for biotin and myc. Scale bar = 10µm.

(C) HeLa Bid-BirA\* treated with 200ng/ml nocodazole and cell fates tracked over 48 hours. Time cells spend in mitosis during the BirA\* labelling window increases from approximately 4% in DMSO to 44% in nocodazole.

**Figure S5**. Single cell fate analysis of D11 VDAC2 KO MCF-7 cell lines stably expressing VDAC2 V5, shBid alone or shBid in conjunction with the indicated mouse Bid-GFP variant (BidWT-GFP, BidS66A-GFP, BidG94E-GFP). Cells were untreated or treated with 1μM taxol and/or 5 μM ABT-737 over 48 hours. Data represents 90 cells tracked over 3 independent experiments.