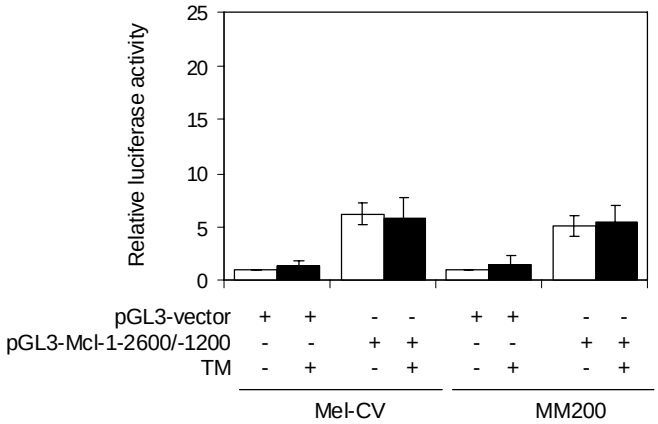
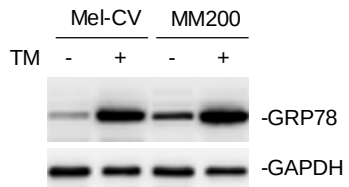
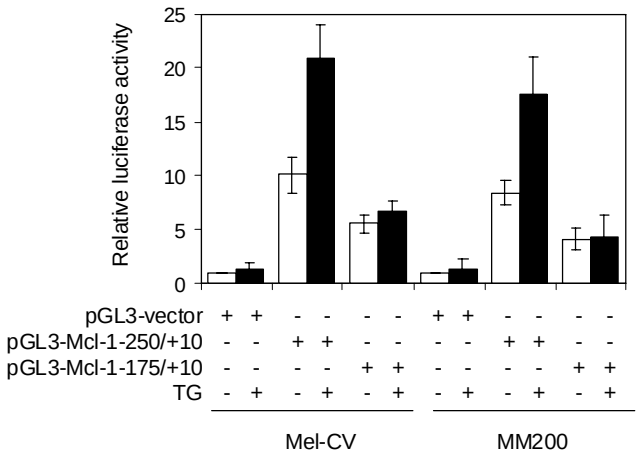


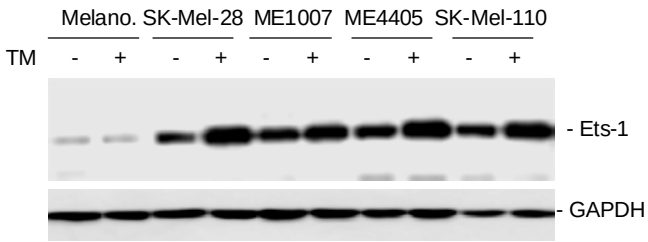
Supplementary Figure S1: The region -2600/-1200 of the Mcl-1 promoter is not transcriptionally responsive to ER stress. Mel-CV and MM200 cells were transiently transfected with the luciferase reporter pGL3-Mcl-1-2600/-1200. Twenty-four hours later, cells were treated with TM (3μM) for a further 16 hours. The luciferase activity was measured using a dual luciferase reporter assay system in a multi-detection microplate reader. The data shown are the mean +/- SE of three individual experiments.



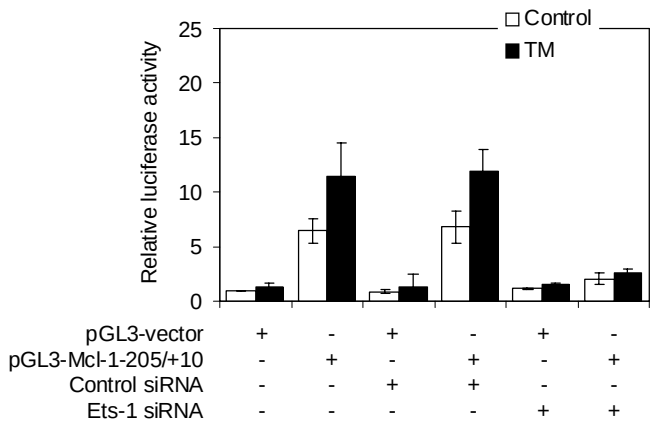
Supplementary Figure S2: Induction of ER stress by tunicamycin (TM). Whole cell lysates from Mel-CV and MM200 cells treated with TM (3μM) for 16 hours were subjected to Western blot analysis of GRP78 and GAPDH (as a loading control).



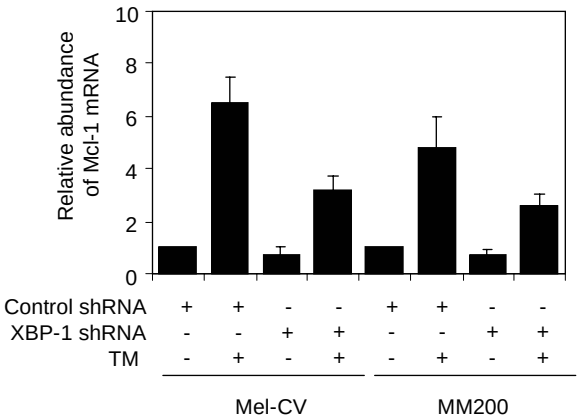
Supplementary Figure S3: The region -250/-175 is transcriptionally responsive to thapsigargin (TG). Mel-CV and MM200 cells were transiently transfected with luciferase reporter constructs, respectively, as indicated. Twenty-four hours later, cells were treated with TG (1μM) for a further 16 hours. The luciferase activity was measured using a dual luciferase reporter assay system in a multi-detection microplate reader. The data shown are the mean +/- SE of three individual experiments.



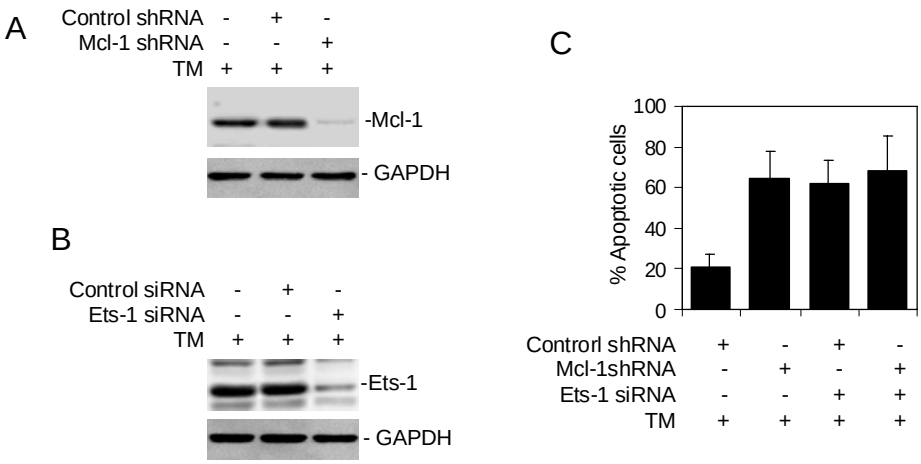
Supplementary Figure S4: ER stress up-regulates Ets-1 in melanoma cells but not in melanocytes (melano.) Melanocytes and cells from the indicated melanoma cell lines were treated with TM (3μM) for 16 hours. Whole cell lysates were subjected to Western blot analysis of Ets-1 and GAPDH (as a loading control). The data shown are representative of three individual Western blot analyses.



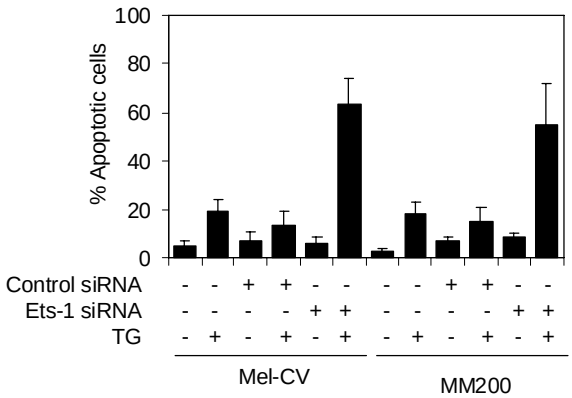
Supplementary Figure S5: Inhibition of Ets-1 blocks TM-induced transcriptional activity of the region -205/+10 of the Mcl-1 promoter in MM200 cells. Cells were co-transfected with the Ets-1 siRNA and the pGL3-basic based luciferase reporter constructs, pGL3-vector and pGL3-Mcl-1-205/+10 of the Mcl-1 promoter, respectively. Twenty-four hours later, cells were treated with TM (3μM) for a further 16 hours. The luciferase activity was measured using a dual luciferase reporter assay system in a multi-detection microplate reader.



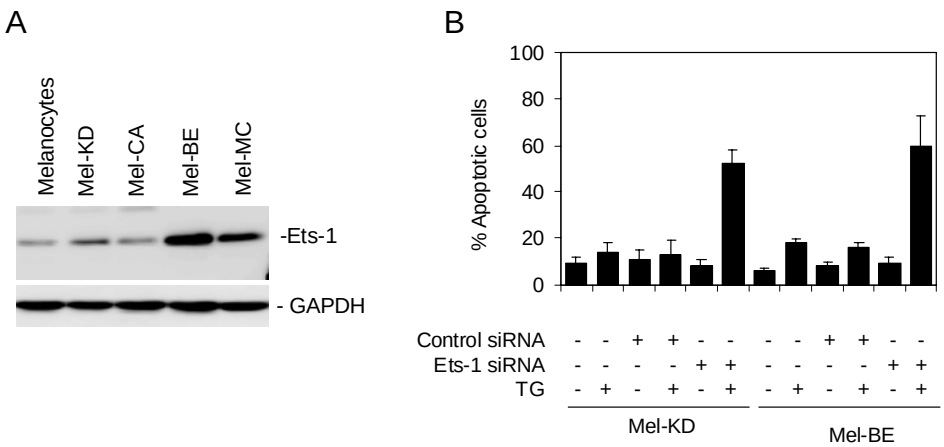
Supplementary Figure S6: Mel-CV and MM200 cells were transfected with the control and XBP-1 shRNA, respectively. Total RNA was subjected to qPCR analysis for Mcl-1 mRNA expression. The relative abundance of mRNA expression in cells carrying the control shRNA without treatment with TM was arbitrarily designated as 1.The efficiency of inhibition of XBP-1 is shown in Figure 5C in the main text.



Supplementary Figure S7: Sensitization of melanoma cells to ER stress-induced apoptosis by knockdown of Ets-1 can not be further enhanced by inhibition of Mcl-1. A, the expression of Mcl-1 in MM200 cells stably transfected with the control or Mcl-1 shRNA was measured in Western blot analysis. B, MM200 cells with Mcl-1 stably knocked down by shRNA were transfected with the control or Ets-1 siRNA. Twenty-four hours later, whole cell lysates were subjected to Wesern blot analysis of Ets-1 and GAPDH (as a loading control). C, MM200 cells with Mcl-1 stably knocked down by shRNA were transfected with the control or Ets-1 siRNA. Twenty-four hours later, cells were treated with TM (3μM) for a further 48 hours. Apoptosis was quantitated by the propidium iodide method. The data shown are either representative of three individual Western blot analyses (A & B), or the mean +/- SE of three individual experiments (C).



Supplementary Figure S8: Inhibition of Ets-1 sensitizes melanoma cells to thapsigargin (TG)-induced apoptosis. Mel-CV and MM200 cells were transfected with the control and Ets-1 siRNA, respectively, as shown in Figure 4A. Twenty-four hours later, cells were treated with TG (1μM) for a further 48 hours. Apoptosis was quantitated by the propidium iodide method. The data shown are the mean +/- SE of three individual apoptotic assays.



Supplementary Figure S9: A, fresh melanoma isolates express relatively high levels of Ets-1. Whole cell lysates from melanocytes and fresh melanoma isolates were subjected to Western blot analysis of Ets-1 and GAPDH (as a loading control). B, Inhibition of Ets-1 sensitizes melanoma cells to thapsigargin (TG)-induced apoptosis. Mel-KD and Mel-BE freshly isolated melanoma cells were transfected with the control and Ets-1 siRNA, respectively, as shown in Figure 6E. Twenty-four hours later, cells were treated with TG (1μM) for a further 48 hours. Apoptosis was quantitated by the propidium iodide method. The data shown are either three individual Western blot analyses, or the mean +/- SE of three individual apoptotic assays.