

**Supplementary information**

**Disulfiram enhances the antitumor activity of cisplatin by inhibiting the Fanconi anemia repair pathway**

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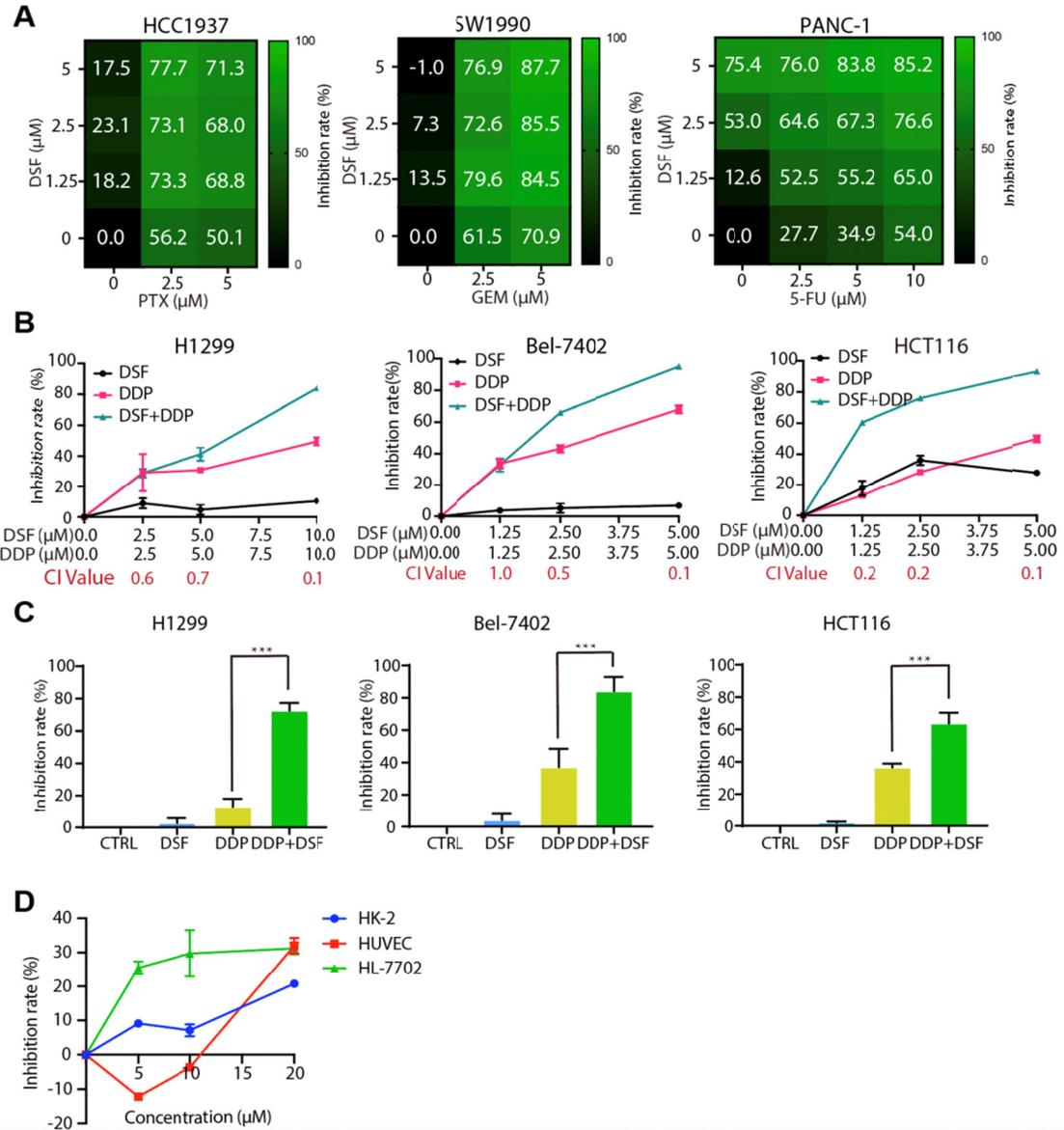
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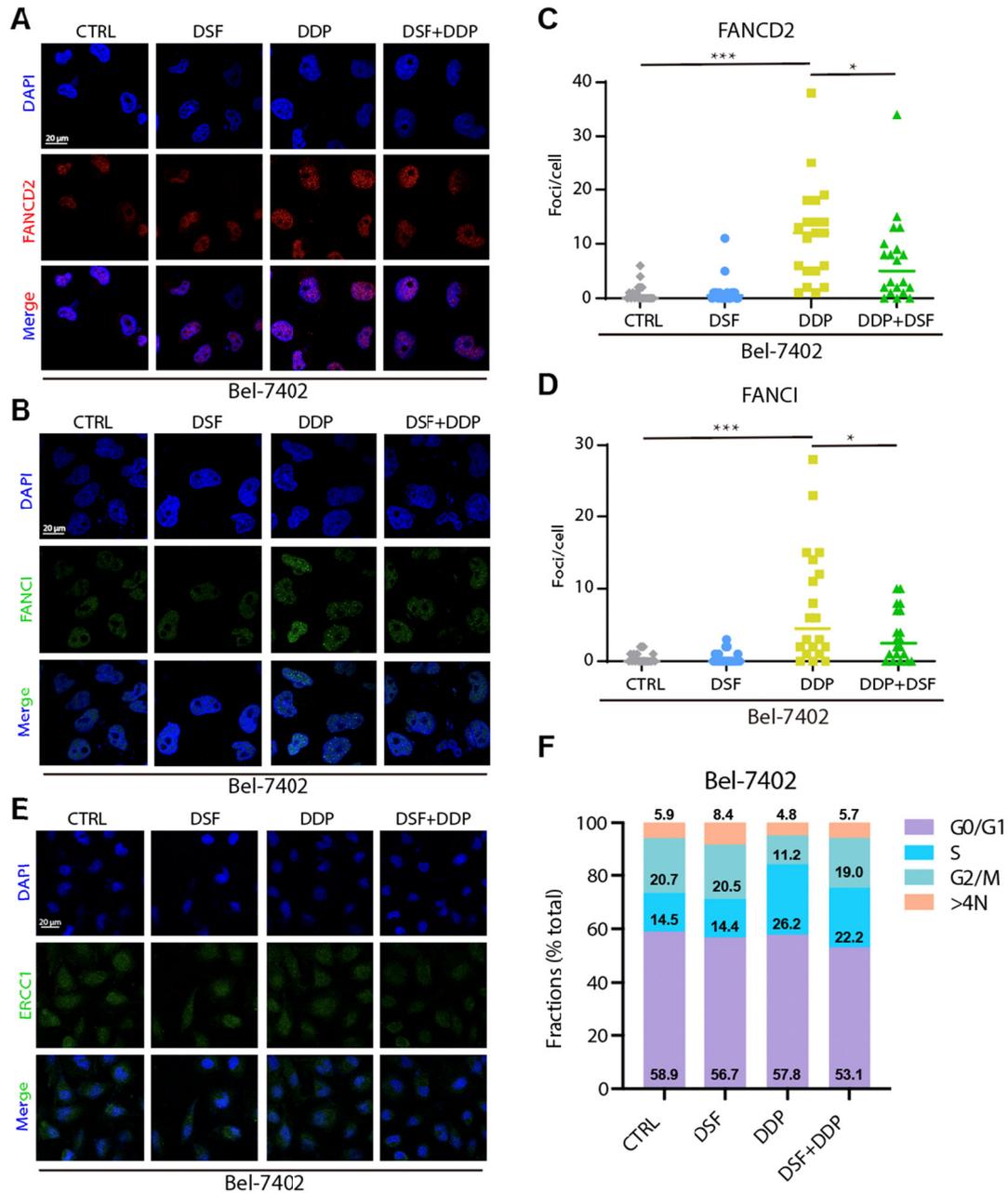
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**Fig. S1** (A) HCC1937 cells, SW1990 and PANC-1 cells were treated with DSF, paclitaxel or gemcitabine or 5-FU alone or simultaneously at different concentrations for 72 h and the proliferation inhibition rates were examined by SRB assay; (B) H1299, Bel-7402 and HCT116 cells were treated with DSF and DDP alone or simultaneously at different concentrations for 72 h and the proliferation inhibition rates were examined by SRB assay and CI values calculated. Data shown represent the mean±SD,  $n=3$ ; (C) H1299, Bel-7402 and HCT116 cells were treated with DSF and DDP alone or simultaneously at different concentrations for 48 h and the proliferation inhibition rates were examined by SRB assay and CI values calculated. Data shown represent the mean±SD,  $n=3$  ( $^{***}P<0.001$ , vs. DDP group). (D) HUVEC, HK-2 and HL-77-2 cells were treated. The proliferation inhibition effect of DSF for 48 h was assessed by the SRB assay in HUVEC, HK-2 and HL-7702 cells. Data shown represent the mean±SD,  $n=3$ .



**Fig. S2** (A, B) Representative pictures of FANCD2 and FANCI foci in Bel-7402 cells treated with four treatment conditions: vehicle 12 h+vehicle 12 h, 5  $\mu$ M DSF 12 h+vehicle 12 h, 5  $\mu$ M DDP 12 h+vehicle 12 h, and 5  $\mu$ M DDP 12 h+5  $\mu$ M DSF 12 h. Scale bars, 20  $\mu$ m; (C, D) Quantification of FANCD2 and FANCI foci shown in (A, B). Foci in different pictures were counted using ImageJ,  $n=20$  (\*\* $P<0.001$ ; \*  $P<0.05$ , vs. DDP group); (E) Representative pictures of ERCC1 foci in Bel-7402 cells treated with four treatment conditions: vehicle 12 h+vehicle 12 h, 5  $\mu$ M DSF 12 h+vehicle 12 h, 5  $\mu$ M DDP 12 h+vehicle 12 h, and 5  $\mu$ M DDP 12 h+5  $\mu$ M DSF 12 h. Scale bars, 20  $\mu$ m; (F) Bel-7402 cells were treated with 5  $\mu$ M DSF and 5  $\mu$ M DDP alone or simultaneously for 24 h, and the cell cycle was examined by PI staining.