Supplemental Figure 1. Chemical structure of Verticillin A

Supplemental Figure 2. Effects of Verticillin A on normal human colon epithelial cells. A. Normal human colon epithelial cell line CCD-841 was cultured in the presence of various concentrations of Verticillin A for 3 days and analyzed for growth rate by MTT assay. Growth of untreated cells was set as 100%. % Growth of treated cells was calculated as % cell growth rate relative to the untreated cells. **B**. CCD-841 cells were cultured in the presence of TRAIL or Verticillin A (10 nM) and TRAIL at the indicated concentrations for 24 h and analyzed for growth rate by MTT assay as in A. **C**. Sensitivity of activated human T cells to Verticillin A. White blood cells were isolated from 2 normal donors and cultured in anti-CD3 and anti-CD28-coated plates for 2 days to activate T cells. Verticillin A was then added at the indicated concentrations and cultured for another 24 h. T cell growth rate was measured by MTT assay. % growth was calculated as in A. **D**. White blood cells from a normal donor was cultured in anti-CD3 and anti-CD28-coated plates for 2 days to activate T cells. TRAIL or Verticillina (10 nM) and TRAIL at the indicated concentrations were then added and cultured for another 24 h. T cell growth rate was measured by MTT assay as in C.

Supplemental Figure 3. Verticillin A sensitizes metastatic human colon carcinoma cells to FasL-induced apoptosis. **A**. SW620 cells were incubated with Verticillin A (10 nM) overnight, followed by incubation with various concentrations of FasL for approximately 24 h. The tumor cells were then stained using PI and analyzed for cell death by flow cytometry. **B**. SW620 cells were cultured in the presence of FasL (50 ng/ml), Verticillin A (10 nM), or both Verticillin A and FasL for 3 days and analyzed by the MTT assay. *Column*: mean; *Bar*: SD. ** $p<0.01$ as compared

to the untreated cells.

Supplemental Figure 4. Verticillin A overcomes resistance of metastatic human colon carcinoma cells to etoposide and cisplatin. SW620 cells were cultured in the presence of various concentrations of etoposide (A, top panel), or cisplatin (B, top panel) for 3 days and analyzed by MTT assays. The growth rate of untreated cells was set as 100%. % Growth of treated cells was calculated as % cell growth rate relative to the untreated cells. Bottom left panels: SW620 cells were either untreated, treated with Verticillin A (20 nM), etoposide (1 μg/ml), or both Verticillin A (20 nM) and etoposide (1 μg/ml) for 3days and measured for cell growth by MTT assay as described above. Bottom right panel: SW620 cells were either untreated, treated with Verticillin A (20 nM), cisplatin (1 μg/ml), or both Verticillin A (20 nM) and cisplatin (1 μg/ml) for 3days and measured cell growth by MTT assay as described above. *Column*: mean; *Bar*: SD. ** $p<0.01$.

Supplemental Figure 5. Effects of Verticillin A on the expression level of cell surface TRAIL receptors and Fas. For TRAIL receptor analysis, SW620 cells were treated with 10 nM Verticillin A for 24 h and stained with the receptor-specific antibodies as indicated. For Fas level, SW620 cells were treated with various concentrations of Verticillin A as indicated for 24 h and stained with Fas-specific mAb. The stained cells were then analyzed with flow cytometry. Isotype-matched IgG control staining is depicted as gray areas, and DR4-, DR5-, T-R3-, T-R4-, and Fas-specific staining is depicted as solid lines. The mean fluorescent intensity (MFI) of DR4, DR5 and Fas are quantified (B & D). *Column*: mean, *bar*: SD.

Supplemental Figure 6. Effects of Verticillin A on hepatoma cell sensitivity to TRAIL-

induced apoptosis. HepG2 cells were cultured in the presence of TRAIL alone at the indicated concentrations for 3 days, or pre-treated with Verticillin A (10nM) overnight, followed by incubation with various concentrations of TRAIL for 2 more days and analyzed for growth rate by MTT assays.