Supplemental Data for Guertin et al's *Preclinical Evaluation of the WEE1 Inhibitor MK-1775 as Single Agent Anticancer Therapy*

Supplemental Table 1. Proliferation assay EC_{50} results for MK-1775 in diverse tumor cell lines. As described in Materials and Methods, cell lines were plated and incubated with a 9-point titration of MK-1775 for a 96 hour treatment period. Cell proliferation was then determined with CellTiter-Glo and proliferation relative to DMSO-treated control cells was plotted against MK-1775 concentration to allow EC_{50} calculation. Cells lines are grouped by tissue of origin.

Supplemental Figure S1. MK-1775 treatment inhibits proliferation in diverse tumor cell lines. Five hundred and twenty-two tumor cell lines were plated in triplicate and treated with a 9-point titration of MK-1775 (μM concentrations displayed on x-axis in log scale). After 96 hours proliferation was evaluated and cell line response data are represented on y-axis as fractional viability relative to DMSO-treated controls as a function of MK-1775 concentration. Cell lines are grouped by tumor type and each response curve denotes an individual line.

Supplemental Figure S2. DNA damage induction by MK-1775 treatment requires mitogen stimulation. ES-2 cells were serum starved for 36 hours at which point they were either left unstimulated or treated with 20% FBS. Cells cultured under both conditions received either DMSO or 500 nM MK-1775 for 24 hours before flow cytometry analysis of γH2AX and DNA content. Left panel contains histograms of cell cycle distribution. The right panels contain scatter plots with gates indicating the γH2AX population.

Supplemental Figure S3. The MK-1775 response of three sensitive cell lines. A2058, HT-29, and LoVo cells were treated with increasing concentrations of MK-1775 as indicated on x-axis. Proliferation is graphed as a percentage of DMSO-treated control cells at 72 hours following addition of drug. Dotted line indicates EC_{90} effect of MK-1775.