809 Supplementary Figure 1. Flow cytometry of large T antigen expression in cervical carcinoma 810 cell lines. Histograms depict flow cytometry analysis of large T antigen expression in HeLa-Sen2, CaSki, and SiHa cells. Cells were either mock-treated (top panels) or treated with GM1 811 812 overnight (bottom panels). Cells were then mock-infected (open histograms) or infected with 813 SV40 at an MOI of 10 (shaded histograms).

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Supplementary Figure 2. E2 mRNA expression in cervical carcinoma cell lines after treatment 815 816 with GM1. Cells were left untreated or treated with GM1 and infected with Pava at an MOI of 817 20. At 48 hrs post-infection, E2 mRNA expression was measured by qRT-PCR and normalized to GAPDH mRNA expression. E2 expression is reported as levels of E2 mRNA in cells infected in the 818 819 presence of GM1 relative to cells infected in the absence of GM1. The results of a typical experiment are shown and represent the average of triplicate samples. Similar results were 820 821 obtained in two independent experiments. 822 Supplementary Figure 3. Effect of E2 expression on p53 and active p105^{Rb} levels in cervical 823 carcinoma cell lines. Cells were left untreated (-) or treated (+) with GM1 and either mock-824 infected (-) or infected (+) with Pava at an MOI of 20. Protein was harvested at 48 hrs post-825 infection and analyzed by SDS-PAGE and immunoblotting for p105^{Rb}, p53, and actin (loading

control). P indicates hyperphosphorylated p105^{Rb}, and O indicates active, hypophosphorylated 827 p105^{Rb}. 828

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Supplementary Figure 4. Comparison of E2 expression levels among primary cells. Cells were treated with GM1 overnight and infected with Pava at an MOI of 10. At 22 hrs post-infection, E2 mRNA expression was measured by qRT-PCR and normalized to GAPDH mRNA levels. E2 expression is presented as E2 mRNA relative to infected HFKs. The passage numbers at which the cells were tested are indicated in parentheses. The results of a typical experiment are shown, and represent the average of triplicate samples. Similar results were obtained in two independent experiments.

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Supplementary Figure 5. Expression of wild-type and K339M E2 mRNA. Cells were treated 838 839 with GM1 overnight and infected with Pava encoding wild-type or K339M E2 at an MOI of 10. 840 At 22 hrs post-infection E2 mRNA expression was measured by qRT-PCR and normalized to GAPDH levels. E2 expression is presented as the level of K339M mRNA relative to wild-type E2 841 842 mRNA in these cells. The passage numbers at which the cells were tested are indicated in 843 parentheses. The results of a typical experiment are shown and represent the average of triplicate samples. Similar results were obtained in two independent experiments. 844 845 Supplementary Figure 6. Exogenous HPV 16E6 and 18E7 inhibit increased autofluorescence in 846 CVX-104 cells after infection with Pava. CVX-104 cells expressing vector only (LXSN/RVY) or 847 848 HPV16 E6 plus HPV18 E7 (16E6/18E7) were treated with GM1 and either mock-infected or infected with Pava at an MOI of 10, as indicated. Autofluorescence and cell granularity were 849 850 measured by flow cytometry at day four post-infection and are presented on a 2-D plot. The

851 bottom box was drawn to contain ~95% of mock-infected, control cells, and the top box was

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- drawn to contain senescent cells that display an increase in both autofluorescence and
- granularity. The numbers indicate the percent of cells in each box.

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Sup. Fig. 1.











