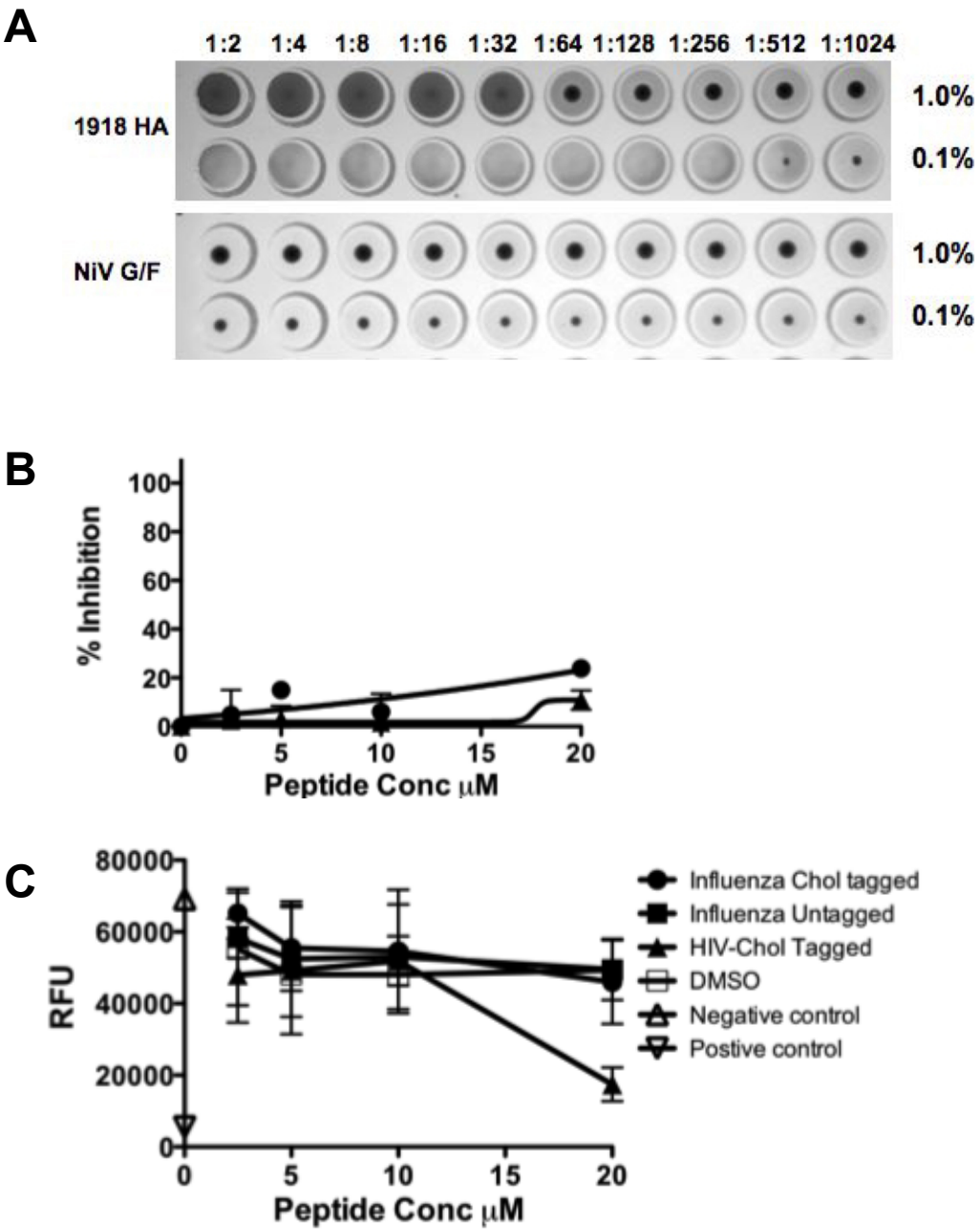
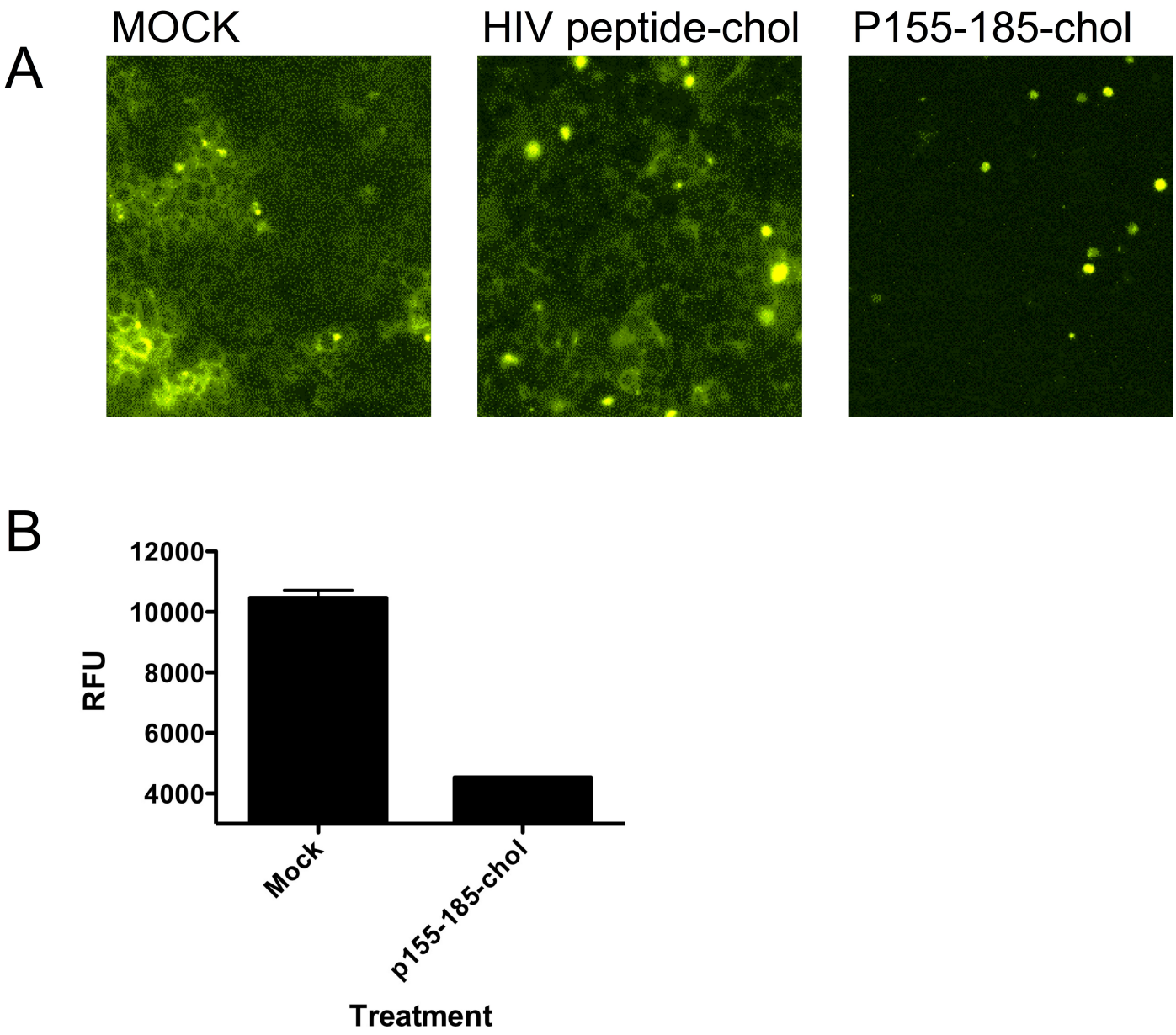
Supplemental Figure 1



Supplemental figure 1: (A) **HA Titer.** VSV pseudotyped with either 1918 HA (H1) or NiV G/F. Both pseudotyped viruses are infective (titer of 10^7 pfu/ml by FACS, data not shown) however only the HA pseudotyped virus shows hemagglutinating activity. The 1918 HA pseudotype has hemagglutinating activity (1% RBC) up to a dilution of 1:32 and with 0.1% RBC, up to 1:256. (B) **H3 HA derived cholesterol conjugated peptides do not inhibit Junin GP mediated infection.** Inhibition of viral entry by P155-185-chol (closed circle) and HIV-derived cholesterol tagged peptide (closed triangle) using Junin GP pseudotyped VSV-ΔG-RFP (vesicular stomatitis virus engineered to express red fluorescent protein and lacking its own G envelope protein, substituted by the Junin GP). (C) **H3 HA derived cholesterol conjugated peptides do not alter cell viability.** 293T cells were incubated with the indicated concentrations of peptide or vehicle (DMSO) for 48 hrs. Cytotoxicity was assessed using Alamar Blue assay. Fluorescence was measured after 4hours. The positive control indicates untreated cells and negative control represents cells treated with 1% tween20. No difference between DMSO and influenza derived cholesterol tagged peptide was observed.

Supplemental figure 2



Supplemental figure 2: Cholesterol conjugated peptide blocks HA mediated fusion.

(A) Lipid mixing of HA expressing cells with labeled RBC: Monolayers of HA expressing cells were overlaid with DiO labeled RBCs in presence or absence of the indicated peptides at 50μM concentration. Fusion was allowed to occur at room temperature by lowering the pH to 4.9. The cells were imaged with an inverted fluorescent microscope. Lipid mixing is observed between RBCs and HA expressing cells in the absence of peptide (left) or in the presence of the HIV derived chol-tagged peptide (middle). Addition of P155-185-chol (right) prevents lipid mixing.

(B) Cells expressing HA and a split subunit of beta-galactosidase (alpha peptide) were overlaid with cells expressing the complementary split subunit (omega peptide) in the presence or absence of p155-185-chol at a concentration of 50μM. The level of beta-galactosidase reconstitution correlates with the cell-to-cell fusion. Fusion is blocked in the presence of p155-185-chol.