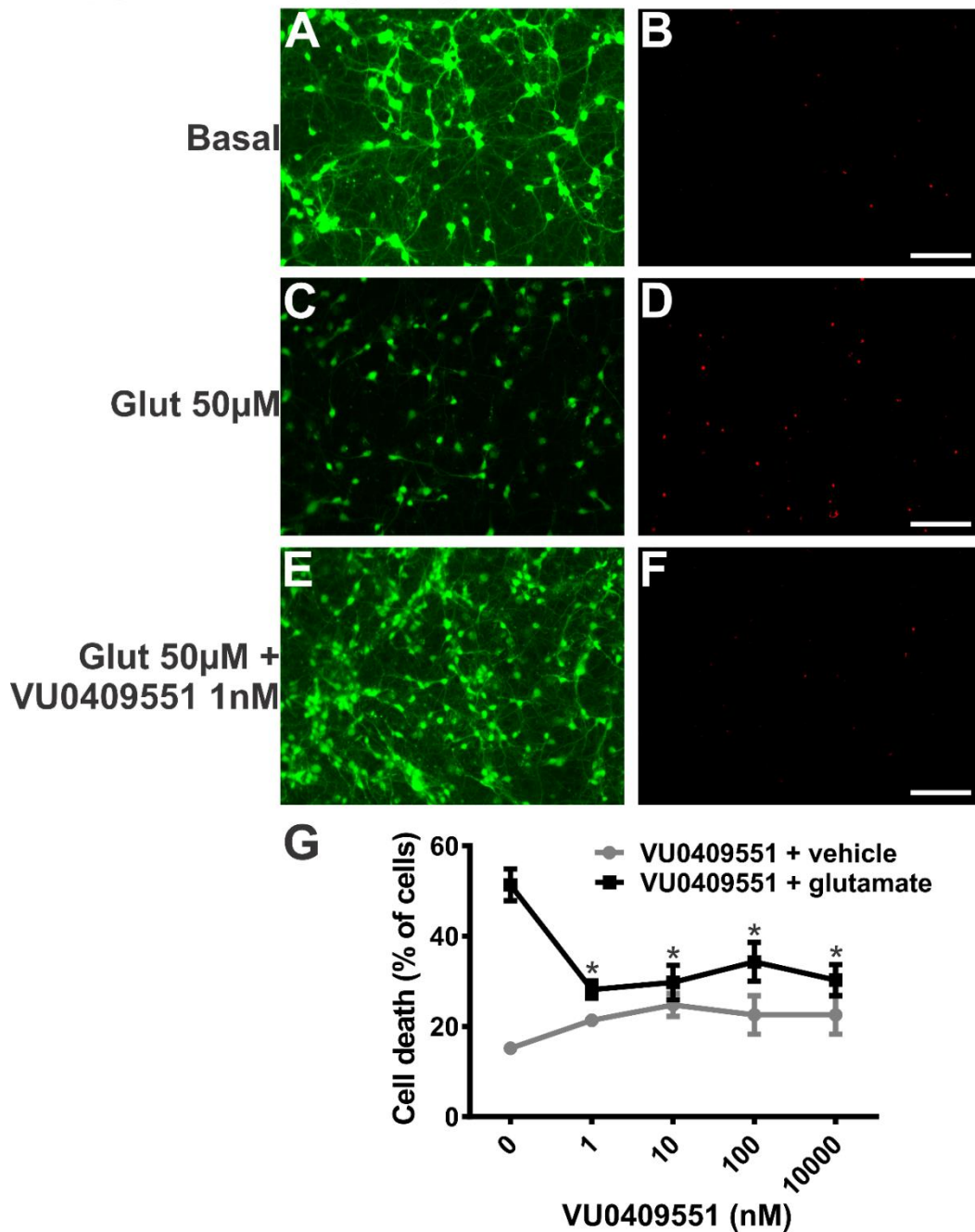


The mGluR5 positive allosteric modulator VU0409551 improves synaptic plasticity and memory of a mouse model of Huntington's disease

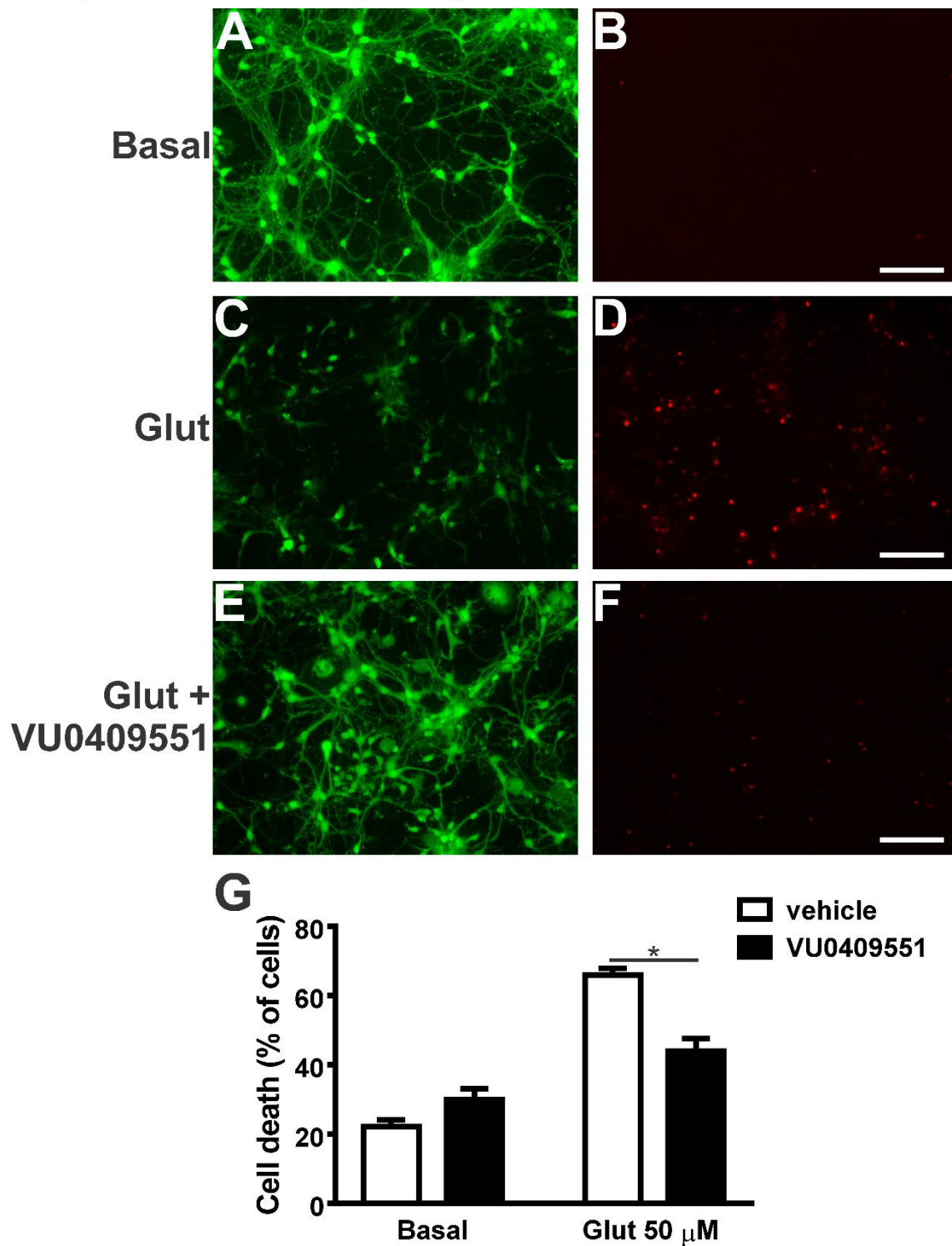
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Supplementary Figure 1



Supplementary figure 1. VU040951 protected against glutamate-induced cell death of striatal neurons. Shown is a representative image for primary cultured striatal neurons labeled with calcein AM (**A**, green, live cells) and ethidium homodimer-1 (**B**, red, dead cells) exhibiting basal neuronal death. Also shown is a representative image for primary cultured striatal neurons treated with 50 μ M glutamate for 20 h in the absence (calcein AM (**C**) and ethidium homodimer-1 (**D**)) or presence of 1 nM VU0409551 (calcein AM (**E**) and ethidium homodimer-1 (**F**)). (**G**) Graph shows the effect of VU0409551 at the concentrations of 1, 10, 100, and 10,000 nM on the percentage of neuronal cell death in primary cultured striatal neurons that were either untreated or treated with 50 μ M glutamate for 20 h. Data represent the mean \pm SEM, n=5. * indicate significant differences as compared to neurons treated with glutamate in the absence of VU0409551 (p<0.05).

Supplementary Figure 2



Supplementary figure 2. VU040951 protected against glutamate-induced cell death of hippocampal neurons. Shown is a representative image for primary cultured hippocampal neurons labeled with calcein AM (A, green, live cells) and ethidium

homodimer-1 (**B**, red, dead cells) exhibiting basal neuronal death. Also shown is a representative image for primary cultured hippocampal neurons treated with 50 μ M glutamate for 20 h in the absence (calcein AM (**C**) and ethidium homodimer-1 (**D**)) or presence of 10 nM VU0409551 (calcein AM (**E**) and ethidium homodimer-1 (**F**)). (**G**) Graph shows the effect of 10 nM VU0409551 on the percentage of neuronal cell death in primary cultured hippocampal neurons that were either untreated or treated with 50 μ M glutamate for 20 h. Data represent the mean \pm SEM, n=4. * indicates significant difference (p<0.05).