



**Fig2. Photostimulation of transcallosal projections suppress action potential of corticocortical but not corticocollicular neurons .** (A) Experimental paridgm for stimulating ChR2 + transcallosal projections while recording from identified cortico-cortical and corticocollicular neurons by anatomical retrograde labeling. (B) Bright-field (BF) (left) and epifluorescence (right) images of mouse auditory cortex slice showing expression of ChR2-td-tomato. (C) Top traces: response of a layer 5 corticocortical neuron in the whole-cell current-clamp configuration to current injection (375 pA, 10 msec; n=10) and bottom traces: to current injection with photostimulation of transcallosal projections (blue bar 50 msec). (D) Top traces: response of a layer 5 corticocollicular neuron in the whole-cell current-clamp configuration to current injection (495 pA, 10 msec; n=10) and bottom traces: to current injection with photostimulation of transcallosal projections (blue bar 50 msec).