



Figure S10. Cell morphological changes in the CP upon depolarization are cell-autonomous. (A) Cell in the CP that expresses mCherry-ChR2 change bipolar morphology to a multipolar morphology upon light stimulation (30-40 sec; 473 nm). The example cell shown stops migration in the CP and initiate to extend process (white arrowheads). Left panel: cortical slice used for time-lapse at E18 (*in utero* electroporated at E15). Right panel: Time-lapse sequence of inset in left panel before and after light irradiation. (B) mCherry-ChR2-cells in the CP divide upon light irradiation. Two examples are shown: cells stop migration after light irradiation and divide (white arrows) in the CP. Left panel: cortical slice used for time-lapse at E18 (*in utero* electroporated at E15). Right panel: Time-lapse sequence of inset in left panel before and after light irradiation. (C) Control cells that express mCherry migrate normally in the CP upon light irradiation. Left panel: cortical slice used for time-lapse at E18 (*in utero* electroporated at E15). Right panel: Time-lapse sequence of inset in left panel before and after light irradiation. Scale bar: 100 μm (left panel) and 10 μm (time-lapse sequence).