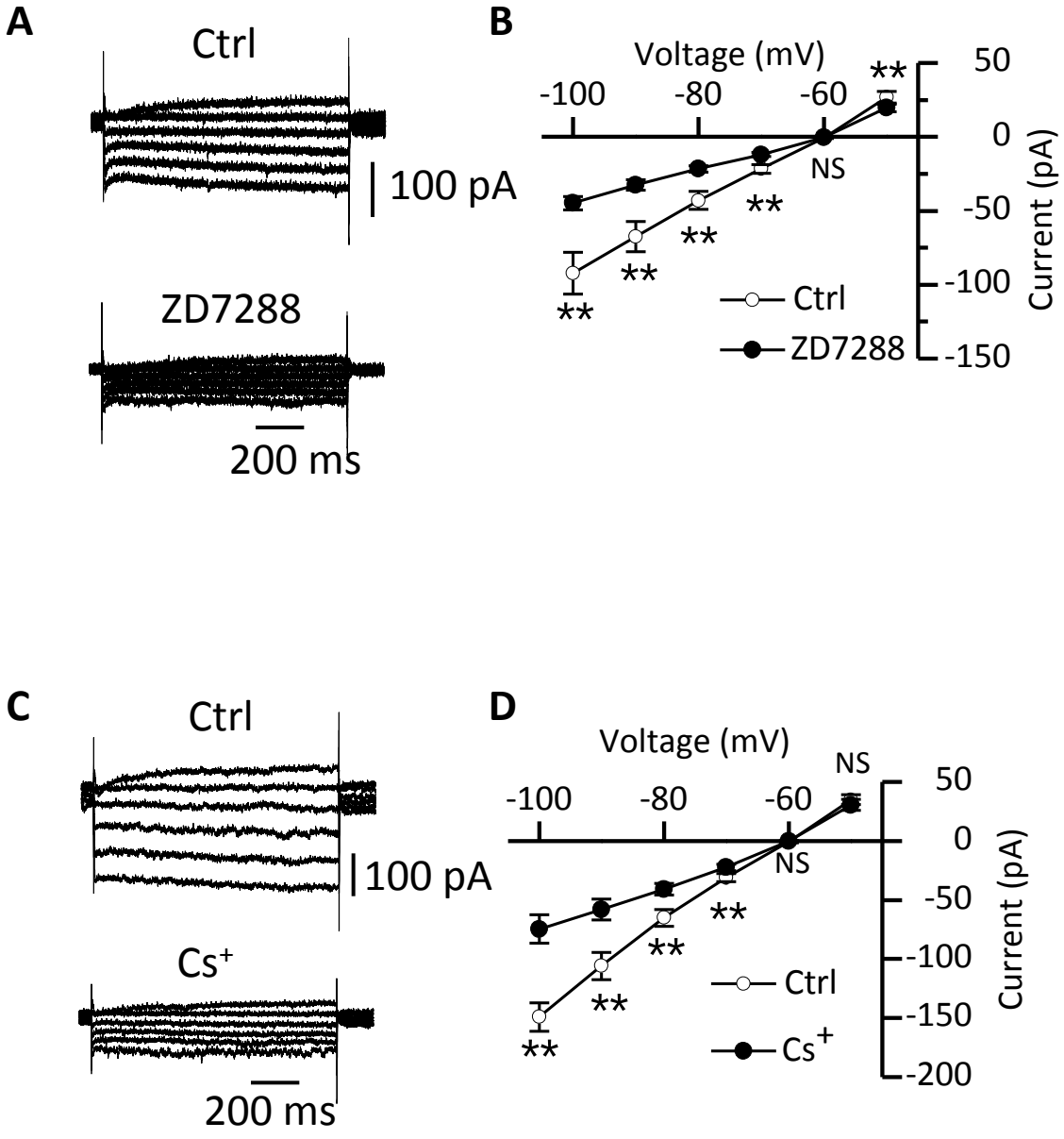
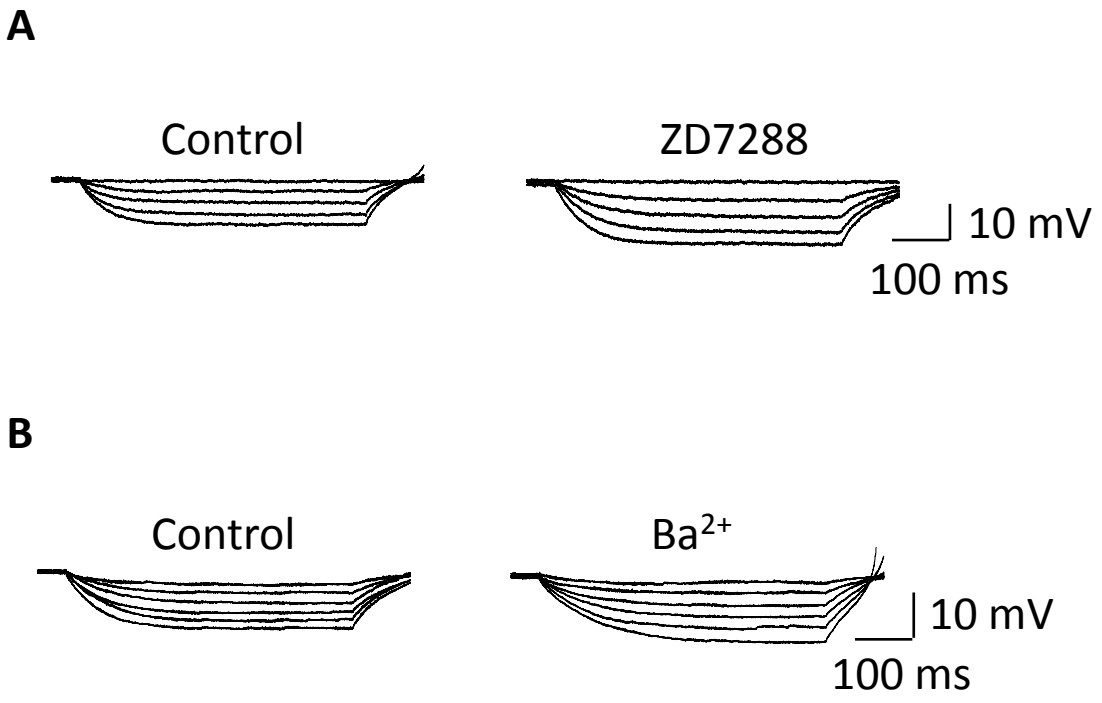
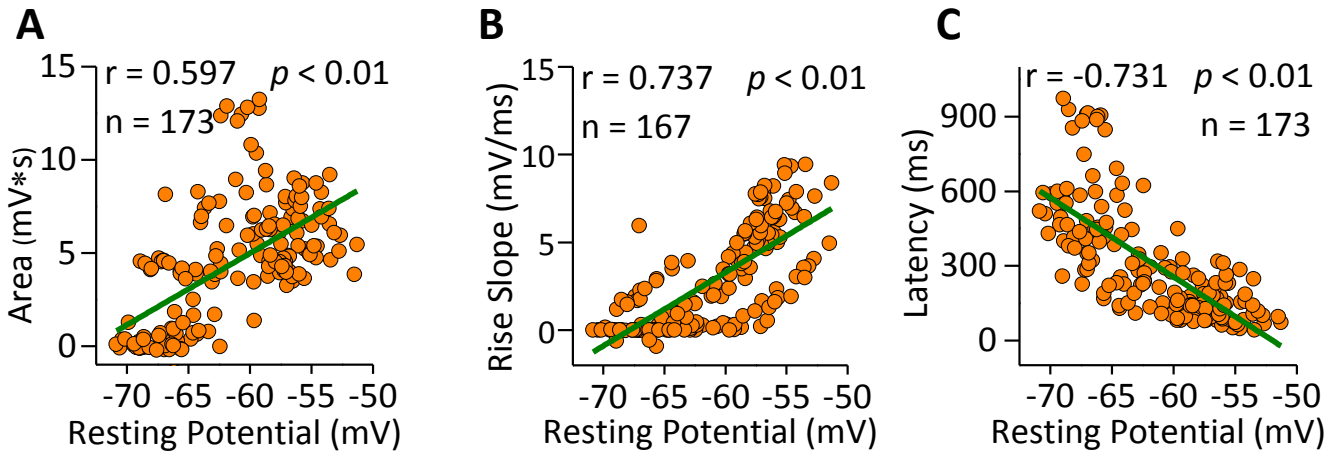


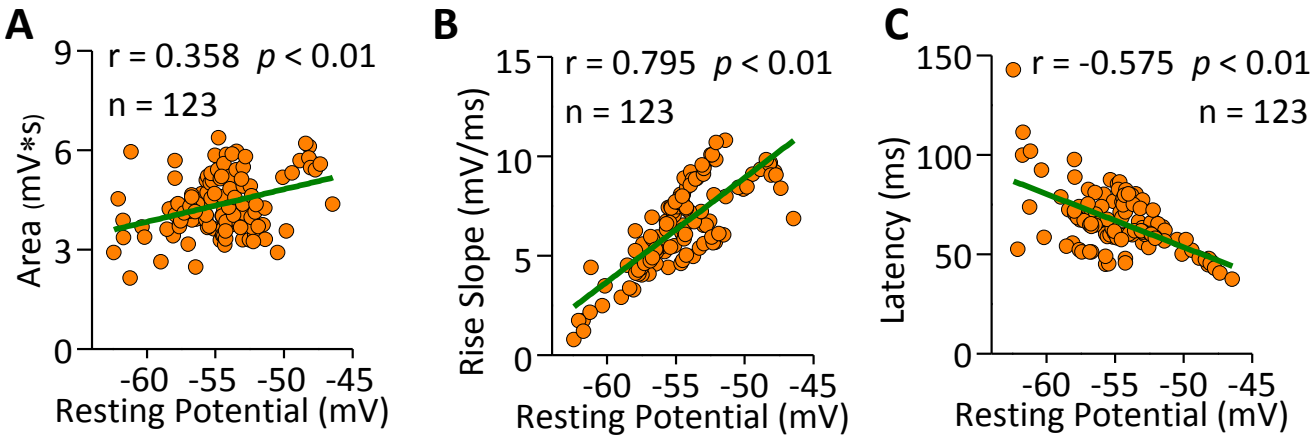
Supplementary Figure 1. Current traces recorded from an MGB neuron (A) and statistics for HCN currents recorded from 8 MGB neurons (B) before (Ctrl) and after 50 μM ZD7288. Current traces recorded from an MGB neuron (C) and statistics for HCN currents recorded from 8 MGB neurons (D) before (Ctrl) and after 400 μM Cs^+. HCN currents were induced by 1 s hyperpolarizing voltage steps from -50 to -100 mV, in- 10mV/step.



Supplementary Figure 2. Sample traces of voltage responses for deriving the input resistance. (A) Voltage responses to a series of 500 ms hyperpolarizing currents ranging from 0 pA to -40 pA (-10 pA/step) from an MGB neuron before and after application of ZD7288. (B) Voltage responses to a series of 500 ms hyperpolarizing currents ranging from -5 pA to -30 pA (-5 pA/step) from an MGB neuron before and after application of Ba^{2+}.



Supplementary Figure 3. Scatter plots of the area (A), rise slope (B) and latency (C) of the RD as a function of the resting membrane potentials in MGB neurons during application of ZD7288, a blocker of HCN channels. Correlation coefficients are calculated by using Pearson's correlation. Data were sampled from 15 MGB neurons. Number of data points indicated in panels.



Supplementary Figure 4. The area (A), rise slope (B) and latency (C) of the RD as a function of the resting membrane potential depolarized by Ba^{2+}, a blocker of Kir channels Correlation coefficients are calculated by using Pearson's correlation. Data were sampled from 10 MGB neurons. Number of data points indicated in panels.