



Figure S9: **A wide range of HCN kinetics are sufficient for AHP enhancement** (A) Example  $I_h$  currents recorded following a voltage-clamp simulation of the action potential waveform (as in Figure 8) for a range of HCN channel kinetics. (B) Corresponding plots of  $I_{obs} - I_{ss}$  for the currents in A (again see Figure 8 in the main text for analysis details). (C) Total excess charge delivered from  $I_{obs} - I_{ss}$  is plotted for a range of HCN channels kinetics. The activation time constant at -70 mV is used to reflect channel kinetics. For comparison experimental values obtained at room temperature and estimates of corresponding values with assuming different Q10 values are indicated on the plot. Red line (“Simulated”) indicates the value used in the WT model throughout the paper.