



Figure S2. Response of the model neuron to noiseless current steps for modified θ_h values.

A. Parameters: $\theta_m = -24$ mV, $\theta_h = -54.3$ mV, $g_d = 0.39$ mS/cm². Left: voltage trace for $I_{app} = 2.38$ μ A/cm². Right: the steady-state f - I_{app} curve of the neuron. The average firing frequency goes to zero at firing threshold. B. Parameters: $\theta_m = -28$ mV, $\theta_h = -62.3$ mV, $g_d = 0.39$ mS/cm². Left: voltage trace for $I_{app} = 1.95$ μ A/cm². Right: the steady-state f - I_{app} curve is discontinuous at the current threshold. The minimal frequency is 23.3 Hz.