

Parameter	<b>Canonical Fit</b>	Model ii Fit	Model iii Fit	Model iv Fit	Unit
$E_{Ca}$	23.95	22.13	29.01	27.02	mV
$E_K$	-80.87	-87.12	-84.49	-89.02	mV
$E_{Leak}$	-88.91	-84.63	-88.95	-87.81	mV
$E_{Na}$	24.22	25.56	22.12	21.06	mV
$G_{Ca}$	14.28	4.13	1.99	2.57	mS
$G_K$	59.27	50.16	39.90	33.16	mS
$G_{Leak}$	1.13	1.98	1.11	2.17	mS
$G_{Na}$	63.13	52.48	48.66	61.82	mS

Table S2: Ionic Parameters for model fits. Canonical Model maps to Figure 1A, Model B-D maps to Figure 1B-D