Supplementary Material

Corrected on 08/18/2023

The simulations of the conductance-based CPG model were implemented in SNNAP, using the Euler integration method with a 50 μs step size. We adjusted some of the parameters given in Costa et al. (2020) to better match the empirical data presented here. Because the present comparisons were Yoke vs. Contingent, we adjusted Yoke parameter values to better simulate the levels of activity observed in the Yoke post-test data. The parameters affected are highlighted in Supplemental Figs. 1-6. In general, each neuron was modeled as a single compartment. However, neurons that express a plateau potential (i.e., B31, B51, and B64) were modeled as two compartments (axon and soma). The membrane potential for each compartment was determined by the following differential equation:

$$\frac{d\mathrm{V_i}}{\mathrm{dt}} = \frac{\mathrm{I_{Stim}} - \sum_{\mathrm{j=1}}^{\mathrm{m}} \mathrm{Ivd_{ij}} - \sum_{\mathrm{k=1}}^{\mathrm{n}} \mathrm{Ies_{ik}} - \sum_{\mathrm{k=1}}^{\mathrm{n}} \sum_{\mathrm{l=1}}^{\mathrm{o}} \mathrm{Ics_{ikl}}}{\mathrm{Cm_i}} \quad (1)$$

where Cm_i is the membrane capacitance, I_{Stim} is the extrinsic stimulus current, Ivd_{ij} denotes voltage dependent current, Ies_{ik} denotes electrical synapse current, Ics_{ikl} denotes chemical synapse current; and *i, j, k,* and *l* are indices of the postsynaptic neuron, voltage-dependent conductance, presynaptic neuron, and synapse, respectively. The Cm for each neuron compartment is provided in Supplementary Fig. 1. Each neuron compartment contained a combination of currents that include either leak, fast Na, K, A-type K (KA), persistent Na (Napp), hyperpolarization activated current (H), or slowly activating K (K_{slow}) depending on the particular neuron. To model spike rate attenuation, the B4 neuron included an additional set of channels that

includes a Ca current, a fast Ca – activated K^+ current (K_{Caf}), and a slow Ca – activated K^+ current (K_{Cas}) (see below). Each voltage dependent current was determined by the following equation:

$$\mathrm{Ivd_{ij}} = \left(\bar{\mathrm{g}}\mathrm{vd_{ij}} + \mathrm{R_{ij}}\right)\mathrm{A_{ij}^{p}B_{ij}}\left(\mathrm{V_i} - \mathrm{E_{ij}}\right)f(\mathrm{BR}) \tag{2}$$

where gvd_{ij} is the maximum conductance. R_{ij} is a random noise value sampled from a Gaussian with zero mean and a standard deviation of 15% of gvd_{ij}. The random value is updated at the same interval for the duration of the simulation. This interval was approximately 50 time-steps, but slightly different for each conductance to prevent all random values from updating simultaneously. A represents the voltage and time dependent activation, B the voltage and time dependent inactivation, V_i the membrane potential, and E_{ij} the equilibrium potential. gvd_{ij} and E_{ij} are provided in Supplementary Fig. 1. *f*(BR) is only present in neuron B4 and denotes regulation of Ca, K_{CAs} and K_{CAf} conductances by a Ca^{2+} ion pool. *f*(BR) for Ca conductance is determined by the following equation:

$$\mathrm{f(BR)} = \frac{1}{1 + 17(\mathrm{BR})} \tag{3}$$

$$\mathrm{BR} = \frac{[\mathrm{Ca^{2+}}]}{60 + [\mathrm{Ca^{2+}}]} \tag{4}$$

f(BR) for K_{CAs} and K_{CAf} is determined by the following equation:

$$\mathrm{f(BR)} = \frac{[\mathrm{Ca^{2+}}] - \mathrm{BR}}{\tau} \tag{5}$$

Where τ is the time constant and equals 0.01 s for regulation of K_{CAf} and 3 s for K_{CAs}. The concentration of Ca^{2+} is determined by the following equation.

$$\frac{\mathrm{d}[\mathrm{Ca}^{2+}]}{\mathrm{dt}} = 10(-9(Ivd_{Ca}) - [\mathrm{Ca}^{2+}]) \quad (6)$$

The activation A_{ij} is determined by the following equations:

$$\frac{\mathrm{dA}}{\mathrm{dt}} = \frac{\mathrm{A}_{\infty} - \mathrm{A}}{\tau_{\mathrm{A}}} \quad (7)$$

$$\mathrm{A}_{\infty} = \frac{1}{\left(1 + \mathrm{e}^{\frac{(\mathrm{h}-\mathrm{V})}{\mathrm{s}}}\right)^{p}} \quad (8)$$

$$\tau_A = \frac{\tau_{max} - \tau_{min}}{\left(1 + e^{\frac{(V-h_1)}{s_1}}\right)^{p_1}\left(1 + e^{\frac{(V-h_2)}{s_2}}\right)^{p_2}} + \tau_{min} \quad (9)$$

where A is the level of activation, h and $h_{1,2}$ determine the voltage of the inflection points, V is the voltage, s and $s_{1,2}$ are slopes, p and $p_{1,2}$ are integers ranging from 1 to 4 depending on the specific current, τ_{max} is the maximum time constant, τ_{min} is the minimum time constant (Supplementary Figs. 2 and 4). The inactivation, B_{ij} (Eq. 2), was defined by the following equations:

$$\frac{\mathrm{dB}}{\mathrm{dt}} = \frac{\mathrm{B}_{\infty} - \mathrm{B}}{\tau_{\mathrm{A}}} \quad (10)$$

$$\mathrm{B}_{\infty} = \frac{1 - B_{min}}{\left(1 + \mathrm{e}^{\frac{(\mathrm{V}-\mathrm{h})}{\mathrm{s}}}\right)^{p}} + \mathrm{B}_{\mathrm{min}} \quad (11)$$

$$\tau_A = \frac{\tau_{max} - \tau_{min}}{\left(1 + e^{\frac{(V-h_1)}{s_1}}\right)^{p_1}\left(1 + e^{\frac{(V-h_2)}{s_2}}\right)^{p_2}} + \tau_{min} \quad (12)$$

The parameter values for Eq. 11-12 are provided in Supplementary Figs. 3-4. The electrical synaptic current was determined by the following equation:

$$\mathrm{Ies}_{ik} = (\overline{\mathrm{g}} + R)(V_i - V_k) \quad (13)$$

where *g* is the conductance (Supplementary Fig. 5) and *R* is a random variable (see above). The current for chemical synapses was determined by the following equations:

$$\mathrm{Ics}_{ikl} = \mathrm{Y_{ikl}}(\overline{\mathrm{g}}\mathrm{cs_{ikl}} + \mathrm{R_{ikl}})(V_i - E_{ikl}) \quad (14)$$

$$Y_{ikl} = A_{ikl,v}A_{ikl,t} \quad (15)$$

where $\mathrm{gcs_{ikl}}$ is the maximum conductance and *R* is the noise variable (see above), $\mathrm{A_{ikl,v}}$ is the voltage dependence of the synapse and is either 1 (no voltage dependence) or an activation function of the form Eq. 7-8 in which τ_A is a constant. $\mathrm{A_{ikl,t}}$ is a time dependent function with a predefined synaptic waveform determined by the following equation:

$$\frac{d^2A_{ikl}}{dt^2} = \frac{X_{ikl} - \left(\tau_{1,ikl} + \tau_{2,ikl}\right)\left({}^{dA_{ikl}}/_{dt}\right) - A_{ikl}}{\tau_{1,ikl}\tau_{2,ikl}} \quad (16)$$

Where $\tau_{1,ikl}$ and $\tau_{2,ikl}$ are time constants. The values for these parameters are provided in Supplementary Fig. 6. X_{ikl} designates whether the synapse exhibits homosynaptic plasticity by the following equations:

$$\begin{array}{ll} X_{ikl} = \mathrm{Tr}_{ikl}\mathrm{PSM}_{ikl} & \text{Presynaptic neuron spiking} \\ X_{ikl} = 0 & \text{Absence of presynaptic spike} \end{array} \quad (17)$$

$\mathrm{PSM_{ikl}}$ is homosynaptic depression and is defined below. $\mathrm{Tr_{ikl}}$ is activity-driven synaptic plasticity and was mediated via Na^+ influx via the fast Na channel during simulated spiking activity. A portion of this influx contributed to an Na^+ pool, which in turn, regulated the available of releasable transmitter. Such ion-mediated modulation underlies homosynaptic presynaptic facilitation. $\mathrm{Tr_{ikl}}$ is 1 for synapses without activity-

dependent synaptic plasticity. For synapses including activity-dependent plasticity, Tr_{ikl} is defined by the following equations:

$$\mathrm{Tr_{ikl}} = \mathrm{TT_{ikl}} \times \mathrm{f[Na^+]_{it}} \tag{18}$$

$$\mathrm{f}[Na^+]_{it} = 1 + \mathrm{B}R_{it} \tag{19}$$

$$\mathrm{BR}_{it} = \frac{\frac{\mathrm{d[Na^+]_i}}{\mathrm{dt}} - \mathrm{B}R_{it}}{\tau_f} \tag{20}$$

$$\frac{\mathrm{d[Na^+]}_i}{\mathrm{dt}} = k_{1,i}\left(-k_{2,i} Ivd_{Na} - [\mathrm{Na^+}]_i\right) \tag{21}$$

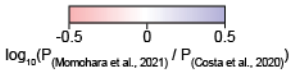
where s is the index for the pool of ions, TT_{ikl} is the total level of transmitter, $k_{1,i}$ and $k_{2,i}$ are rate constants, and Ivd_{Na} is the current from the fast Na channel that replenishes the Na^+ pool. τ_f is a time constant and its values are provided in Supplementary Fig. 6. Synapses not associated with Na^+ pool do not exhibit activity-driven synaptic plasticity. Neurons CBI2, B20, B30 B34 and B65 had $k_1 = 1$ and $k_2 = 0.2$, while neurons B31a and B63 had $k_1 = 14$ and $k_2 = 0.4$ in the current model and the previous CPG model (Costa et. al., 2020). The Na^+ pool was not included in the other neuron models. Ivd_{Na} was used as an indicator of previous neuronal activity in this and previous CPG models (Cataldo et al. 2006; Costa et. al., 2020) to supply the ion pool in order to fit presynaptic facilitation to empirical data for these neurons. PSM_{ikj} (Eq. 17) is defined by the following equations:

$$\begin{aligned} \frac{d\mathrm{PSM_{ikl}}}{dt} &= \frac{\mathrm{PSM_{ikl}}}{\tau_{1,d}} && \text{Presynaptic neuron spiking} \\ \frac{d\mathrm{PSM_{ikl}}}{dt} &= \frac{1 - \mathrm{PSM_{ikl}}}{\tau_{2,d}} && \text{Absence of presynaptic spike} \end{aligned} \tag{22}$$

where $\tau_{1,d}$ and $\tau_{2,d}$ are time constants of homosynaptic depression and recovery respectively and their values are provided in Supplementary Fig. 6.

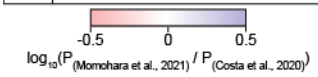
		leak		Na			K			KA			Napp			H			Kpp		
	cm	g	E	g	p	E	g	p	E	g	p	E	g	p	E	g	p	E	g	p	E
CBI2	0.01	0.1	-60	25	3	30	20	4	-70												
B4	0.007	0.1	-55	60	3	30	100	4	-80	5	3	-70									
B8	0.01	0.09	-59	25	3	30	21	4	-70												
B20	0.01	0.05	-60	28	3	30	34	4	-70	1.25	2	-60									
B30	0.01	0.1*	-55	25	3	30	16	4	-70												
B31s	0.01	0.05	-60																		
B31a	0.01	0.04	-57	25	3	30	12	4	-70												
B34	0.01	0.09	-59	25	3	30	19	4	-70	1.25	2	-60									
B35	0.0005	0.1	-60	7.5	3	50	25	4	-70				0.12	1	-28						
B40	0.01	0.1	-57	25	3	30	16	4	-70												
B51s	0.001	0.15*	-64	3	3	30	1.8	4	-80				0.11	1	30				0.35	1	-70
B51a	0.003	0.16	-77	25	3	30	24	4	-70												
B52	0.01	0.1	-62	25	3	30	18	4	-70							0.1	1	30			
B63	0.01	0.04*	-60	25	3	30	20	4	-70												
B64s	0.01	0.08	-60	2.5	3	30	1.6	4	-80				0.1	1	30				0.35	1	-70
B64a	0.01	0.1	-60	25	3	30	28	4	-70												
B65	0.01	0.08*	-55	25	3	30	19	4	-70				0.3	1	-40				0.01	1	-60

* modified by OC



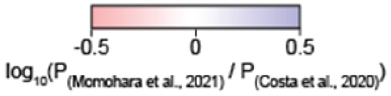
Supplementary Fig. 1, Parameter values for Eq. 2 defining the amplitude of the current of conductances. A table displaying the parameter values g (i.e., g_{max}), p, and E for Eq. 2 for all conductances within the model CPG. Neuronal compartments are labeled on the left. The units are μS for g, mV for E, and the values of p are unitless. Some neurons are represented by an axon compartment and are labeled ending in "a" and soma compartment with label ending in "s." Blank values indicate the absence of the channel within that compartment. The leak conductance is not voltage-dependent and does not have a p parameter. Each value is colored by comparison to the model used in Costa et. al., 2020. Neuron compartment B35 was not included in Costa et. al. 2020 but was included in earlier versions of the CPG (Cataldo et. al., 2006). Asterisks indicate parameters modified to match OC.

	Na								K								KA												Napp				H								K_{slow}			
	∞			tau					∞			tau					∞			tau									∞				∞		tau						∞			
	h	s	p	τ_{max}	τ_{min}	h_1	s_1	p_1	h	s	p	τ_{max}	τ_{min}	h_1	s_1	p_1	h	s	p	τ_{max}	τ_{min}	h_1	s_1	p_1	h_2	s_2	p_2	h	s	p	τ	h	s	p	τ_{max}	τ_{min}	h_1	s_1	p_1	h	s	p	τ
CBI2	-37	5	1	0.006	0.001	-43	4	1	-23	9	1	0.04	0.004	-8	10	1																											
B4	-28.5	8.6	1	0.0006	0.0001	-40.5	6	1	-30	9.8	1	0.025	0.0002	0	9	1	-55	15	1	0.017	0.001	-30	20	1	-120	-24	1															
B8	-37	5	1	0.006	0.001	-43	4	1	-23	9	1	0.04	0.004	-8	10	1																											
B20	-39	5	1	0.006	0.001	-45	4	1	-25	9	1	0.03	0.003	-10	10	1	-60	1	1	0.2	0.02	-56	1	2																		
B30	-37	5	1	0.006	0.001	-43	4	1	-23	9	1	0.04	0.004	-8	10	1																											
B31s																																										
B31a	-37	5	1	0.006	0.001	-43	4	1	-23	9	1	0.04	0.004	-8	10	1																											
B34	-39	5	1	0.006	0.001	-45	4	1	-25	9	1	0.04	0.004	-10	10	1	-60	1	1	0.2	0.02	-56	1	2																		
B35	-39	5	1	0.003	0.0009	-40	2	1	-23.5	9	1	0.034	0.003	-10	10	1															-48	2.5	1	0.2									
B40	-37	5	1	0.006	0.001	-43	4	1	-23	9	1	0.04	0.004	-8	10	1																											
B51s	-37	5	1	0.006	0.001	-43	4	1	-23	9	1	0.04	0.004	-8	10	1															-50	1	1	0.1								-54	1	1	10
B51a	-37	5	1	0.006	0.001	-43	4	1	-23	9	1	0.04	0.004	-8	10	1																											
B52	-37	5	1	0.006	0.001	-43	4	1	-23	9	1	0.04	0.004	-8	10	1																			-61	-1	3	15	5	-60	5	1			
B63	-37	5	1	0.006	0.001	-43	4	1	-23	9	1	0.04	0.004	-8	10	1																											
B64s	-37	5	1	0.006	0.001	-43	4	1	-23	9	1	0.04	0.004	-8	10	1															-50	1	1	0.1								-50	1	1	7
B64a	-37	5	1	0.006	0.001	-43	4	1	-23	9	1	0.04	0.004	-8	10	1																											
B65	-37	5	1	0.006	0.001	-43	4	1	-23	9	1	0.2	0.004	-8	10	1															-45	5	3	2								-40	-5	4	1



Supplementary Fig. 2, Parameter values for Eq. 8-9 defining the activation of voltage-dependent conductances. Table of all the parameters defining A in Eq. 4-5. Blank values indicate the absence of the channel within that compartment. Some channels have a constant τ and therefore do not have a τ_{min}, τ_{max}, h, s, or p to determine τ at particular voltages. Units are mV for h, unitless for s and p, seconds for τ.

	Na								K								KA								Napp			
	∞			tau					∞				tau				∞			tau					∞			
	h	s	p	τ_{max}	τ_{min}	h_1	s_1	p_1	Bn	h	s	p	τ_{max}	τ_{min}	h_1	s_1	p_1	h	s	p	τ_{max}	τ_{min}	h_1	s_1	p_1	h	s	p	τ
CBI2	-43	5	1	0.02	0.005	-38	10	1																				
B4	-38	5	1	0.005	0.0002	-37	11.6	1										-65	5	1	0.224	0.0001	-54.4	30.8	1				
B8	-43	5	1	0.02	0.005	-38	10	1																				
B20	-45	5	1	0.02	0.005	-40	10	1										-55	1	2	0.5								
B30	-43	5	1	0.02	0.005	-38	10	1																				
B31s																												
B31a	-43	5	1	0.02	0.005	-38	10	1																				
B34	-45	5	1	0.02	0.005	-40	10	1										-55	1	2	0.5								
B35	-49	9	1	0.02	0.0048	-36	3.5	1	0.15	-14.4	1.5	2	0.4	0.04	-21	8	1									-48	0.5	1	9.5
B40	-43	5	1	0.02	0.005	-38	10	1																				
B51s	-43	5	1	0.02	0.005	-38	10	1																				
B51a	-43	5	1	0.02	0.005	-38	10	1																				
B52	-43	5	1	0.02	0.005	-38	10	1																				
B63	-43	5	1	0.02	0.005	-38	10	1																				
B64s	-43	5	1	0.02	0.005	-38	10	1																				
B64a	-43	5	1	0.02	0.005	-38	10	1																				
B65	-43	5	1	0.02	0.005	-38	10	1																				



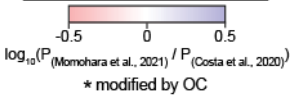
Supplementary Fig. 3, Parameter values for Eq. 11-12 defining the inactivation for voltage-dependent conductances. Table of all the parameters defining B in Eq. 7-8. Many conductances do not have a B component and so are not included in this table. Blank values indicate the absence of the channel within that compartment. Some channels have a constant τ and therefore do not have a τ_{min}, τ_{max}, h, s, or p to determine τ at particular voltages. Units are mV for h, unitless for s and p, seconds for τ. The values were misaligned and the p was missing, but are now corrected [posted on 08/18/2023].

				A											B									
				∞			tau								∞			tau						
	g	p	E	h	s	p	τ_{max}	τ_{min}	h_1	s_1	p_1	h_2	s_2	p_2	h	s	p	τ_{max}	τ_{min}	h_1	s_1	p_1	h_2	s_2	p_2
Ca	0.16	2	60	0.15	5	1	0.01	$5e^{-5}$	3	18.4	1	-4	-4.6	1	-15	11	1	0.62	0.0037	-18	18	1	-20	-15	1
Kcaf	0.02	1	-65	23.5	10.5	1	0.001																		
Kcas	0.8*		-66.2																						

* modified by OC

Supplementary Fig. 4, Parameter values for Eq. 2, 8, 9, 11 and 12 for conductances unique to B4. There are four conductances that were added to B4 to match the firing characteristics observed in Fig. 2. The parameter values of these channels were provided from Baxter et al. (1999). In the yoke control model the g was increased and E was slightly increased for Kcas to better match B4 firing characteristics. Units are μS for g, mV for E and h, unitless for s and p, seconds for τ. Asterisks indicate parameters modified to match OC.

Pre	Post	g1	g2
B31s	B4	0.0082	0.0086
B51a	B4	0.135	0.09
B64s	B4	0.035	0.014
B31s	B20	0.004	0.004
B63	B20	0.004	0.004
B65	B20	0.004	0.004
B31s	B30	0.009	0.009
B63	B30	0.006*	0.006*
B31a	B31s	0.012	0.012
B34	B31s	0.008	0.008
B31s	B35	0.0075	0.0075
B63	B31s	0.015	0.015
B65	B31s	0.004	0.004
B40	B34	0.008	0.008
B65	B34	0.008	0.008
B63	B40	0.004	0.004
B65	B40	0.008	0.008
B51a	B51s	0.2	0.2
B64a	B51a	0.02	0.02
B64s	B51s	0.12	0.038
B65	B63	0.006*	0.006*
B64a	B64s	0.25	0.25

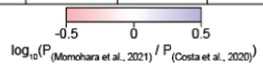


* modified by OC

Supplementary Fig. 5, Parameter values for Eq. 10 defining the electrical synaptic currents. Units are μS. Asterisks indicate parameters modified to match OC.

					fAt		PSM		A				Tr
Pre	Post	type	g	E	τ_1	τ_2	$\tau_{1,d}$	$\tau_{2,d}$	h	s	p	τ	τ_r
CBI2	B8	s exc	0.1	0	0.5	5							
CBI2	B20	s exc	0.2	0	0.5								
CBI2	B31s	f exc	0.05	0	0.01								0.5
CBI2	B31s	s exc	0.02	0	0.5	5							0.5
CBI2	B34	f exc	0.07	0	0.01								0.5
CBI2	B34	s exc	0.1	-50	1				-31	3	1	0.5	0.5
CBI2	B40	f exc	0.07	0	0.01								0.5
CBI2	B40	s exc	0.2	0	0.2	2							0.5
CBI2	B63	f exc	0.06	0	0.01								0.5
CBI2	B63	s exc	0.06	0	0.5	5							0.5
B4	B8	f inh	0.6	-80	0.015								
B4	B31s	f exc	0.1	0	0.015								
B4	B51s	f inh	0.85*	-100	0.005	0.2							
B4	B52	f inh	0.6	-80	0.015								
B4	B64s	f inh	0.2	-80	0.015								
B20	B4	f exc	0.1	0	0.02								
B20	B4	s exc	0.18	0	1.6	1.6							
B20	B8	f exc	0.6	0	0.004	0.0015							0.5
B20	B8	s exc	0.9	0	1				-31	3	1	0.5	0.5
B30	B8	s exc	1	0	3								
B30	B8	f inh	0.7	-70	0.2	0.001							
B30	B31s	f exc	0.5	0	0.005								0.5
B30	B63	f exc	0.25	0	0.01								0.5
B30	B64s	s exc	5	0	0.5	5			-30	15	1	0.5	
B30	B64s	f inh	0.2	-80	0.02								
B31a	B31s	s exc	3.8	0	0.2				-48	4	3	0.1	0.5
B31a	B64s	f inh	0.3	-80	0.1								
B34	B8	s exc	0	-65	1								
B34	B8	f inh	0.2	-80	0.01								
B34	B20	f exc	0.5	0	0.2								
B34	B31s	f exc	0.125	0	0.01								0.5
B34	B31s	s exc	0.05	0	1.5								0.5
B34	B63	f exc	0.4	0	0.025		0.5	1					
B34	B64s	f inh	0.6	-80	0.2								
B35	B4	f exc	1.8	-10	0.02		0.042	15					
B35	B4	s exc	1.3	20	1.3								
B35	B51a	f inh	0.56	-70	0.015								
B35	B52	f exc	0.15	0	0.002								
B35	B52	s exc	0.05	0	4								
B40	B8	s exc	-0.03	-64	5	0.001			-31	3	1		
B40	B8	f inh	0.3	-75	0.015								
B40	B31s	f inh	0.6	-55	0.015								
B40	B64s	f inh	0.6	-65	0.015								

					fAt		PSM		A				Tr
Pre	Post	type	g	E	τ_1	τ_2	$\tau_{1,d}$	$\tau_{2,d}$	h	s	p	τ	τ_r
B51a	B8	f exc	0.8	0	0.015								
B51a	B52	f inh	4	-85	0.005								
B51a	B64s	f exc	0.8	0	0.015								
B52	B8	f inh	1.2	-80	0.015								
B52	B51s	f inh	2	-80	0.005								
B52	B51s	s inh	1	-80	0.2								
B52	B64s	f inh	3	-80	0.05								
B63	B8	f inh	0.4	-80	0.03								
B63	B20	f exc	0.4	0	0.01								0.5
B63	B20	s exc	0.04	0	0.5								0.5
B63	B31s	f exc	0.6	0	0.01								0.5
B63	B31a	f exc	0	0	0.01								0.5
B63	B31s	s exc	3.8	0	0.2				-48	4	3	0.1	0.5
B63	B34	f exc	0.9	0	0.015								0.5
B63	B64s	s exc	0.3	0	0.1								0.5
B63	B64s	f inh	0.05	-80	0.15								0.5
B63	B65	s exc	0.5	0	0.1								
B64a	CBI2	f inh	4.5	-80	0.05								
B64a	B4	f exc	0.9	0	0.01								
B64a	B8	f exc	0	0	0.01								
B64a	B20	f inh	2	-80	0.01								
B64a	B30	f inh	2	-80	0.01								
B64a	B31s	f inh	5	-80	0.01								
B64a	B31a	f inh	2	-80	0.01								
B64a	B34	f inh	2	-80	0.1								
B64a	B35	f inh	5	-70	0.02								
B64a	B40	f inh	2	-80	0.01								
B64a	B52	f inh	3	-80	0.01								
B64a	B63	f inh	2	-80	0.01								
B64a	B65	f inh	2	-80	0.01								
B65	B4	f exc	2.8	0	0.03	0.08	0.06	7					
B65	B8	f exc	0	0	0.004	0.0015							
B65	B8	s exc	0.25	0	1								
B65	B20	f exc	0.5	0	0.05								
B65	B20	s exc	-0.01	-60	0.5								
B65	B30	f exc	0.8	0	0.01		0.01	2.5					
B65	B31s	f exc	0.1	0	0.004	0.0015							0.5
B65	B40	s inh	4	-60	1.5								
B65	B63	f exc	0.07	0	0.004	0.0015							0.5
B65	B64s	f exc	0.6	0	0.004	0.0015							
B65	B64s	s inh	0.8	-80	0.5								



* modified by OC

Supplementary Fig. 6, Parameter values for Eq. 14, 16, and 20 defining the chemical synaptic currents and Eq. 8-9 for voltage gating of synaptic currents. Many of the synaptic connections do not include homosynaptic depression, presynaptic facilitation, or voltage dependence, and so are left blank in the table. The units are μS for g, mV for E and h, seconds for τ_1, τ_2, $\tau_{1,d}$, $\tau_{2,d}$, τ, and u, and the values for s and p are unitless. Synaptic connections to and from B35 were not included in Costa et. al. 2020 but were included in an earlier version of the CPG (Cataldo et. al., 2006). Asterisks indicate parameters modified to match OC. The g for B64a-to-B31a has been corrected from its original value of 5 nS to reflect its actual value in the CPG model in the manuscript [posted on 08/18/2023].

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