

Errata for “An introduction to beta cell electrophysiology and modeling, by L. S. Satin, M. Watts, and A. S. Sherman, in "Diabetes Systems Biology", A. Khadra, editor,

p. 2-4: the transmembrane potential should be $V_i - V_o$

p. 2-14, Eq. 2.26a should be:

$$m_{\infty}(V) = 0.5 \left(1 + \tanh \left[\frac{V - V_1}{V_2} \right] \right)$$

p. 2-15, Eq. 2.26b should be:

$$n_{\infty}(V) = 0.5 \left(1 + \tanh \left[\frac{V - V_3}{V_4} \right] \right)$$

p. 2-19, Eq. 2.29a should be:

$$C \frac{dV}{dt} = -\bar{g}_{Ca} m_{\infty}(V)(V - V_{Ca}) - \bar{g}_K n(V - V_K) - g_L(V - V_L) + I_{applied}$$

p. 2-20, Table 2.1: for Figure 2.8, $I_{app} = 0$, not 1000 fA; for Figure 2.9, $I_{app} = 1000$ fA.

p. 2-20: Note that notation for φ_n was simplified to φ to avoid confusion with subscripts denoting partial derivatives.

p. 2-23, Eq. 2.33: the sign in front of $\bar{g}_{K(Ca)}$ should be $-$

p. 2-24, Fig. 2.9 legend: in Panel D, the parameter values should be:

0.0332, 0.033, 0.0315, 0.028, 0.027, 0.026.

p. 2-27, Eq. 2.34: the signs in front of $\bar{g}_{K(Ca)}$ and $\bar{g}_{K(ATP)}$ should be $-$

p. 2-29, Eq. 2.35: the signs in front of $\bar{g}_{K(Ca)}$ and $\bar{g}_{K(ATP)}$ should be $-$

p. 2-31, Fig. 2.11 legend:

“ c_{ER} is held constant at an intermediate value, 85 μ M, for the time course in panel A.”

Incorrect, delete. c_{ER} is a dynamic variable in panels A and B.

