There are several typographical errors in the equations in the article entitled "Cardiac Ca^2+ Dynamics: The Roles of Ryanodine Receptor Adaptation and Sarcoplasmic Reticulum Load". The corrected equations should read:

$$P_{K'} = \frac{\overline{P}_K}{1 + \frac{ICa_{max}}{I_{Ca_{half}}}}, \tag{1}$$

where

$$I_{Ca_{max}} = \overline{P}_{Ca} 4 \frac{VF^2}{RT} \frac{0.001 e^{2VF/RT} - 0.341[Ca]_o}{e^{2VF/RT} - 1}$$

is the maximal L-type Ca^2+ current

$$\frac{d[Ca^{2+}]_i}{dt} = B_i \left\{ J_{leak} + J_{xfer} - J_{up} - J_{trpn} - (I_{Ca,b} - 2I_{NaCa} + I_{p(Ca)}) \frac{A_{cap}}{2V_{myo}F} \right\}, \tag{13}$$

$$\frac{d[Ca^{2+}]_{ss}}{dt} = B_{ss} \left\{ J_{rel} \frac{V_{JSR}}{V_{ss}} - J_{xfer} \frac{V_{myo}}{V_{ss}} - (I_{Ca}) \frac{A_{cap}}{2V_{ss}F} \right\}. \tag{14}$$

$$\frac{d[Ca^{2+}]_{NSR}}{dt} = \left\{ J_{up} - J_{leak} \right\} \frac{V_{myo}}{V_{NSR}} - J_{tr} \frac{V_{JSR}}{V_{NSR}}. \tag{16}$$

$$\beta = 0.05 e^{-(V+12)/13} \tag{18}$$

$$I_{Ca} = \overline{P}_{Ca} y \{O + O_{Ca}\} 4 \frac{VF^2}{RT} \frac{0.001 e^{2VF/RT} - 0.341[Ca]_o}{e^{2VF/RT} - 1}, \tag{37}$$

$$I_{Ca,K} = P'_K y \{O + O_{Ca}\} \frac{VF^2}{RT} \frac{[K^+]_i e^{VF/RT} - [K^+]_o}{e^{VF/RT} - 1}. \tag{38}$$

$$\frac{dV}{dt} = \frac{-1}{C_m} (I_{Na} + I_{Ca} + I_K + I_{K_1} + I_{Kp} + I_{NaCa} + I_{NaK} + I_{ns(Ca)} \tag{39}$$

$$+ I_{p(Ca)} + I_{Ca,K} + I_{Ca,b} + I_{Na,b}) \tag{40}$$

$$\frac{d[K^+]_i}{dt} = -(I_K + I_{K_1} + I_{Kp} + I_{ns,K} - 2I_{NaK} + I_{Ca,K}) \frac{A_{cap}}{V_{myo}F} \tag{45}$$

$$
\begin{aligned}
\frac{dP_{C_1}}{dt} &= -k_a^+[Ca^{2+}]_{SS}^n P_{C_1} + k_a^- P_{O_1} && (89)\\
\frac{dP_{O_1}}{dt} &= k_a^+[Ca^{2+}]_{SS}^n P_{C_1} - k_a^- P_{O_1} - k_b^+[Ca^{2+}]_{SS}^m P_{O_1} && (90)\\
&\quad +k_b^- P_{O_2} - k_c^+ P_{O_1} + k_c^- P_{C_2} &&\\
\frac{dP_{O_2}}{dt} &= k_b^+[Ca^{2+}]_{SS}^m P_{O_1} - k_b^- P_{O_2} && (91)\\
\frac{dP_{C_2}}{dt} &= k_c^+ P_{O_1} - k_c^- P_{C_2} && (92)
\end{aligned}
$$

Table 3

v_1 should have units of ms^{-1} v_2 should have units of ms^{-1} v_3 should have units of $\mu M ms^{-1}$

Table 4

b_1 should be replaced by a
b_2 should be replaced by b
$\overline{P}_{Ca}$ equals 10×10^{-7} $cm\, s^{-1}$
$\overline{P}_{Ca}$ equals 33.75×10^{-4} $cm\, s^{-1}$

Table 5

k^+_{htrpn} equals 2.0×10^7 $M^{-1}s^{-1}$
k^+_{ltrpn} equals 4.0×10^7 $M^{-1}s^{-1}$
k^-_{ltrpn} equals 40 s^{-1}

Table 6

C_m is the unit membrane capacitance and equals 1.0 $\mu F\, cm^{-2}$
$\overline{I}_{NaK}$ equals 1.73 $\mu A\, \mu F^{-1}$
$\overline{G}_{Ca,b}$ equals 0.00201 $mS \mu F^{-1}$

Table 7

$[\mathrm{Ca}^{2+}]_i$ is myoplasmic Ca^{2+} concentration and equals 9.94893×10^{-05} mM
$[LTRPNCa]$ is the concentration of Ca^{2+} bound low-affinity troponin binding sites and equals 6.349973 μM
$[HTRPNCa]$ is the concentration of Ca^{2+} bound high-affinity troponin binding sites and equals 135.9813 μM

Also, in the last line of the methods section, the stimulating current should be $0.1 mA \mu F^{-1}$ ($100 \mu A \mu F^{-1}$). This list of errors are available from the authors at

http://www.bme.jhu.edu/~jafri/cardca-errors.ps

We apologize for any inconvenience.