Corrigendum

Corrigendum to “Modeling Inhibitory Effect on the Growth of Uninfected T Cells Caused by Infected T Cells: Stability and Hopf Bifurcation”

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In the article titled “Modeling Inhibitory Effect on the Growth of Uninfected T Cells Caused by Infected T Cells: Stability and Hopf Bifurcation” [1], there were several errors throughout the article which are as follows:

- (i) In the Abstract and the Introduction sections, “infection-free” should be corrected to “uninfected.”
- (ii) In the Local and Global Stability of the Equilibria section, there were the following errors:
 - (1) “We can denote the basic reproduction number of the HIV virus for the model (3) as $R_0 = (k\delta/pu)x_0$, $x_0 = (T/2r)(r - d + \sqrt{(r - d)^2 + 4sr/T})$ (see, for example, [3])” should be corrected to “We can denote the basic reproduction number of the HIV virus for the model (3) as $R_0 = (k\delta/pu)x_0$ (see, for example, [3]).”
 - (2) The sentence “Proof. We consider linear system of the model (3) in E_0 near;” should be corrected to “Proof. We consider linear system of the model (3) at E_0 .”
 - (3) The sentence “When $R_0 < 1$, $pu - k\delta x_0 \neq 0$. Therefore, $\lambda = 0$ is not root of (9). If (8) has pure imaginary root $\lambda = i\omega$ ($\omega > 0$) for some $\tau > 0$, substituting it into (8) and separating the real and imaginary parts,” should be corrected to “When $R_0 < 1$, $pu - k\delta x_0 \neq 0$. Therefore, $\lambda = 0$ is not root of (9). If (9) has pure imaginary root

$\lambda = i\omega$ ($\omega > 0$) for some $\tau > 0$, substituting it into (9) and separating the real and imaginary parts.”

- (4) The sentence “Then, we get the corresponding $\tau_k^{(n)} > 0$ such that (23) has pure imaginary $\lambda = i\omega_k$,” should be corrected to “Then, we get the corresponding $\tau_k^{(n)} > 0$ such that (19) has pure imaginary $\lambda = i\omega_k$.”
- (5) The sentence “From (19), we obtain $b_2\omega^2 + b_3^2 = (\omega^3 - a_2\omega)^2 + (a_1\omega^2 - a_3)^2$ ” should be corrected to “From (22), we obtain $b_2\omega^2 + b_3^2 = (\omega^3 - a_2\omega)^2 + (a_1\omega^2 - a_3)^2$.”
- (6) Equation (L) should be corrected as follows:

$$\left[\frac{d(\text{Res}(\lambda))}{d\tau} \right]^{-1}_{\lambda=i\omega_k} = \frac{3v_k^3 + 2c_1v_k^2 + c_2v_k}{\omega_k^2 [b_2^2\omega_k^2 + b_3^2]} \quad (\text{L})$$

$$= \frac{v_k h'(v_k)}{\omega_k^2 [b_2^2\omega_k^2 + b_3^2]}.$$

- (iii) In the Simulations and Conclusions section, the sentence “By direct calculations, we get that (19) has a positive root;” should be corrected to “By direct calculations, we get that (24) has a positive root.”
- (iv) The formats of references 2, 14, 25, 26, 27, and 29 were updated.

This has been corrected in place.

References

- [1] Y. Ji, W. Ma, and K. Song, “Modeling inhibitory effect on the growth of uninfected T cells caused by infected T cells: stability and hopf bifurcation,” *Computational and Mathematical Methods in Medicine*, vol. 2018, Article ID 3176893, 10 pages, 2018.