Corrigendum

Corrigendum to “Global Stability of Malaria Transmission Dynamics Model with Logistic Growth”

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In the article titled “Global Stability of Malaria Transmission Dynamics Model with Logistic Growth” [1], there was a sign error on the global stability analysis of the endemic equilibrium point where a preceding sign should be minus (-) instead of plus (+) in equation (34) and inequality (35). The corrected equation and inequality are shown as follows:

$$\begin{aligned} \frac{dV}{dt} &= n_h (1 - n_h) \left(2 - \frac{n_{h*}}{n_h} - \frac{s_{h*}}{s_h} \right) \\ &+ \alpha s_{h*} \left(2 - \frac{n_h}{n_{h*}} - \frac{s_h}{s_{h*}} \right) \\ &+ \beta s_{h*} i_{v*} \left(3 - \frac{i_h}{i_{h*}} - \frac{n_h i_{v*}}{n_{h*} i_v} - \frac{s_h i_{h*} i_v}{s_{h*} i_h i_{v*}} \right) \\ &+ \beta s_{h*} i_{v*} \left(1 - \frac{i_{v*}}{i_v} \right) \left(\frac{i_v}{i_{v*}} - \frac{n_h}{n_{h*}} \right) \\ &+ \rho i_{h*} \left(\frac{n_{h*}}{n_h} - 1 \right) \left(\frac{n_h}{n_{h*}} + \frac{i_h}{i_{h*}} \right) \\ &+ n_{v*} i_{v*} \left(\frac{n_v i_h}{n_{v*} i_{h*}} - \frac{i_v}{i_{v*}} \right) \left(1 - \frac{i_{v*}}{i_v} \right) \\ &- \frac{1}{\varepsilon} (n_v - n_{v*})^2 - i_{h*} i_{v*} \left(1 - \frac{i_h}{i_{h*}} \right) \left(1 - \frac{i_v}{i_{v*}} \right). \end{aligned} \quad (34)$$

$$\begin{aligned} \left(2 - \frac{n_{h*}}{n_h} - \frac{s_{h*}}{s_h} \right) &\leq 0, \\ \left(2 - \frac{n_h}{n_{h*}} - \frac{s_h}{s_{h*}} \right) &\leq 0, \\ \left(3 - \frac{i_h}{i_{h*}} - \frac{n_h i_{v*}}{n_{h*} i_v} - \frac{s_h i_{h*} i_v}{s_{h*} i_h i_{v*}} \right) &\leq 0. \end{aligned} \quad (35)$$

References

- [1] A. A. Gebremeskel, “Global stability of malaria transmission dynamics model with logistic growth,” *Discrete Dynamics in Nature and Society*, vol. 2018, Article ID 5759834, 12 pages, 2018.